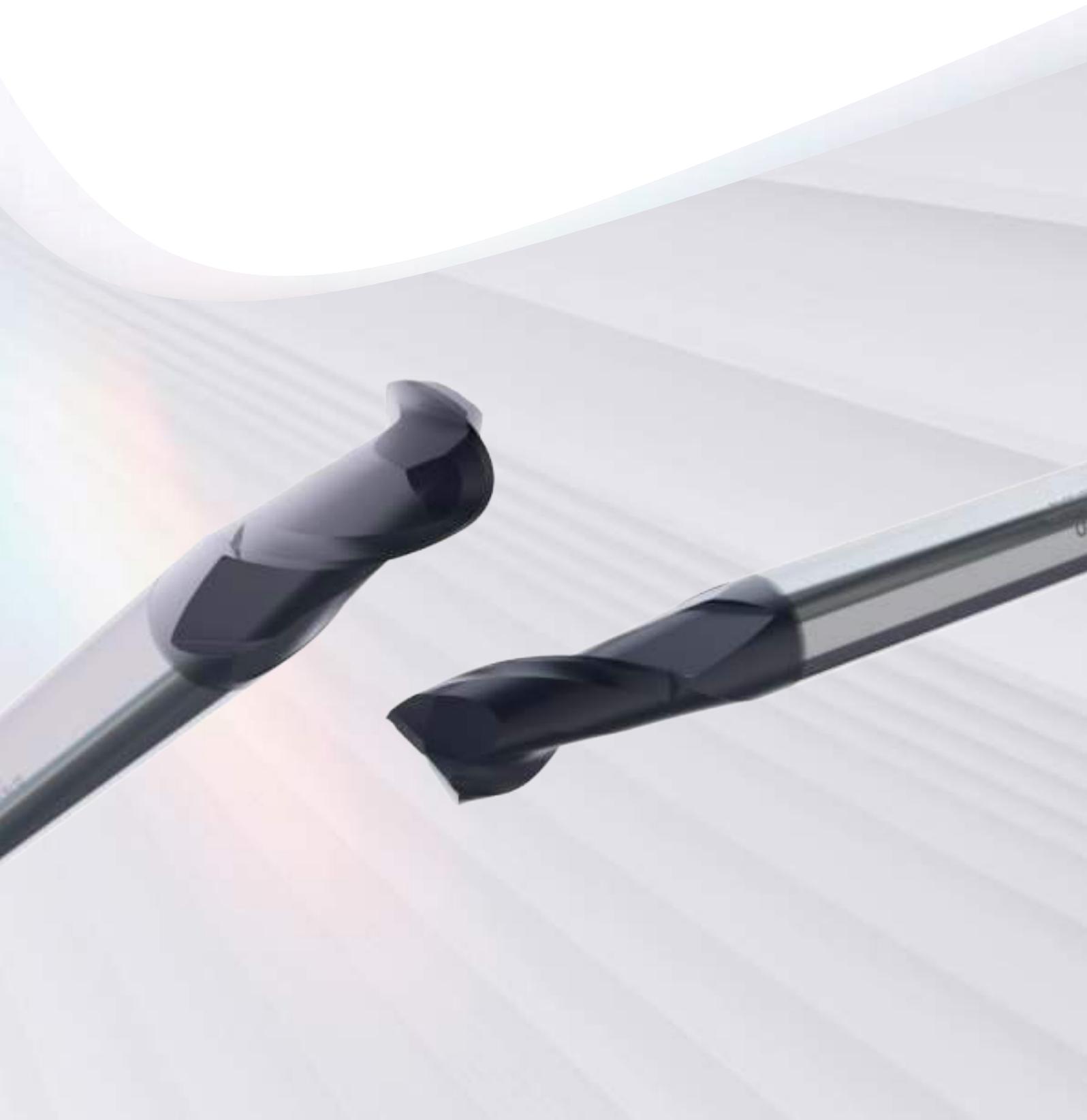




Catalog & technical guide

# Solid End Mills 2025.1





At Seco, we make tools, tech, and solutions for the most advanced manufacturing challenges on Earth. From our founding in Fagersta Sweden, to today's global company, our business has always been made to measure, and built on trust.

Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

We're proud to make for makers, invent for inventors, and partner with pioneers. Driving the future forward with our focus on innovation. In short - if the right tool for the job exists, we'll deliver it. If it doesn't, we'll create it.

We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

## Welcome to Seco Solid milling



JABRO was founded in 1976 in Lottum, Netherlands.

JABRO is Seco's competence centre for solid milling solutions, and has the global responsibility for Research & Development, Manufacturing and Application Engineering.

Seco solid milling products provide the world market with a wide range of standard tools and custom tool solutions, including reconditioning, mainly for General Engineering, Aerospace, Energy, Medical and Mould & Die customers.

Advanced manufacturing technology and an environmental focus, ensures Seco's sustainable development and production of products that successfully respond to market demands in milling operations for both ferrous and non-ferrous materials.

- General Engineering
- Mould & Die
- Aerospace
- Medical
- Power energy
- 3C segment (Computer Customer Electronics and Communications)

Universal	<p><b>General</b></p> <p>Index ..... 3-4</p> <p>Product introduction and technical information..... 5-29</p>
Steel and cast iron	<p><b>Universal</b></p> <p>Product information and cutting data ..... 30-271</p> <p><b>Steel and cast iron</b></p> <p>Product information and cutting data ..... 272-320</p>
Stainless steel and S-materials	<p><b>Stainless steel and S-materials (HRSA and Titanium alloys)</b></p> <p>Product information and cutting data ..... 321-438</p>
Non ferrous	<p><b>Non-ferrous</b></p> <p>Product information and cutting data ..... 339-493</p>
Non ferrous	<p><b>Hardened steels</b></p> <p>Product information and cutting data ..... 494-530</p>
Hardened steels	<p><b>Plastic and CFRPs</b></p> <p>Product information and cutting data ..... 531-583</p>
Hardened steels	<p><b>Graphite</b></p> <p>Product information and cutting data ..... 584-600</p>
Plastic and cfrp	<p><b>X-Heads</b></p> <p>Product information and cutting data ..... 601-685</p>
Graphite	<p><b>Technical information</b></p> <p>Recalculation..... 686-695</p> <p>Cutting calculations and definitions..... 696-697</p>
X-Heads	<p><b>Minimaster</b></p> <p>Product information and cutting data ..... 698-787</p>
Minimaster	<p><b>SMG</b></p> <p>Workpiece Materials - SMG (Seco material group) ..... 789-801</p>
SMG	

### C

C5021	209
C5041	211
C5121	37-44
C5131	49-50
C5141	55-67
C5231	72
C5241	72
C5321	180-185
C5341	188-192

### H

HK/HKM	239-249
--------	---------

### J

J28	582
J29	233
J36	236
J93	580
JC845	535
JC850	537
JC860	539
JC870	541-544
JC871	547-550
JC875	553-554
JC876	557-558
JC877	561-562
JC880	565
JC885	567
JC898	569
JC899	571-572
JCG790	399
JD620	587
JD630	589
JD640	591
JD660	593
JH112	313-314,512-513
JH120	503
JH130	505
JH142	302-303,509-510
JH150	317,516
JH160	319,518
JH40	470-471
JH410	477
JH421	473-475
JH440	479
JH450	484
JH460	486
JH710	417
JH721	429
JH722	431
JH724	401
JH726	403
JH730	421
JH734	405
JH736	407
JH740	415
JH744	409
JH746	411
JH770	413
JH780	425
JH790	419
JH910	221-222
JH930	225,507
JHB720	427
JHB970	227,311
JHF181	500
JHF980	229-230

JHP170	497-498
JHP490	466-468
JHP751	378-379
JHP760	381-383
JHP770	385-390
JHP780	392-395
JHP794	397
JHP951	298-299
JHP993	292-293
JHP994	423
JM403	490
JM404	490
JM406	490
JM413	492
JM416	492
JMB112	527-529
JMB542	263
JMB562	266-267
JMB563	270
JMB642	599
JMB662	599
JME142	520-523
JME144	525
JME542	253
JME562	256-257
JME564	260
JME642	597
JPD850	574
JPD880	576
JPD890	578
JS412	443-444
JS413	446
JS506	213-214
JS509	217-218
JS520	173-174
JS522	177
JS532	197-198
JS533	201-202
JS534	205-206
JS553	94-105
JS554	114-126
JS564	165-166
JS565	169-170
JS720	354-371
JS730	374-376
JS754	326-340
JS755	343-352
JSB512	195
JSE512	74-75
JSE513	78-81
JSE514	84-89

### S

S4321	481-482
S4521	449-452
S4531	454-461
S4651	463-464
SHF712	433
SMB413/414/416	488
SMB614/616	595
SMB713/714/716	437
SME714/716	435
ST5341	305-308
ST5541	275-287
ST5551	139-156

### V

V31	250
-----	-----



## Alphanumeric index – Exchangeable heads

<b>M</b>		XHT740 .....	647
MM06 .....	704-709	XSB540 .....	629
MM08 .....	719-724	XSB720 .....	637-638
MM10 .....	736-742	XSE450 .....	643-644
MM12 .....	754-761	XSE550 .....	612-613,618-620,625-626
MM16 .....	773-778	XSE720 .....	631-632
<b>X</b>		XVB510 .....	676-677
XE-DM .....	610	XVC506 .....	680
XE-E .....	608-609	XVC509 .....	680
XE-S .....	604-607	XVC512 .....	680
XHF580 .....	649-650	XVE510 .....	673
XHF780 .....	655-656	XVE540 .....	661-662,667-668
		XVK310 .....	684

## Product family overview

### C-series

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This range of Seco solid carbide end mills covers basic end mills for basic machining operations. It includes universal coated and uncoated endmills. The wide range of products for universal machining. The Seco C-series are available in a wide range of chamfer, square end and ballnose geometries for roughing and finishing when side milling, face milling or slotting.

### SOLID<sup>2</sup>

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Seco Solid<sup>2</sup> is a range of solid carbide end mills for applications in general machining, offering flexibility, speed and cost efficiency. Seco Solid<sup>2</sup> is available in a diameter range of  $\varnothing 1$ - $\varnothing 32$  mm and in *inch*  $\varnothing 1/32$  -  $1 1/4$ . Seco Solid<sup>2</sup> also includes a group of dedicated advanced roughing tools (JS564 and JS565). The 564 and 565 offer excellent performance when applied in well defined tool paths with constant arc of contact with high cutting speed and high cutting depth applications (advanced roughing). For the complete range of JS500 series tools all chamfer ( $c^*45^\circ$ ) have the following tolerances:  $c = DC \pm 0,01$ ,  $3 < DC \leq 6 \pm 0,02$ ,  $6 < DC \leq 10 \pm 0,03$ ,  $10 < DC \leq 14 \pm 0,04$ ,  $14 < DC \leq 18 \pm 0,05$ ,  $18 < DC \leq 24 \pm 0,06$ . Please see page 10 for a grouped overview of Seco Solid<sup>2</sup> products.

### Stabilizer

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Seco Stabilizer series end mills use unique flute geometries for extremely aggressive metal removal rates in high-performance machining. The Seco stabilizer are available in a wide range of square end and ballnose geometries for roughing operations when side milling, slot milling and advanced roughing.

### HSM/TORNADO

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These tools are characterized by high precision tolerances, short cutting lengths, reduced necks and significant core diameters, maximizing rigidity. These tools have been developed to excel in peripheral milling and copy milling machining methods. Please see page 10 for a grouped overview of HSM/TORNADO (high speed machining) products.

## Product family overview

### HPM

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Optimized endmills are dedicated for original equipment manufacturers and first-tier suppliers where large batches of a single component have to be machined and where processes need to be fully optimized to reduce cycle times, reducing costs per part.

Please see page 11 for a grouped overview of HPM (high performance machining) products.

### HFM

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High feed machining is the first choice for applications with deep and shallow workpiece features, 3D profiling for mold & die applications and machining in unstable conditions. High feed tools excel in plunge milling machine methods.

Please see page 11 for a grouped overview of HFM (high feed machining) products.

## Product family overview

### MINI

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Seco's range of micro solid carbide end mills consists of square end mills and ballnose cutters with small cutting diameters. Universal tools are applicable for common workpiece materials and specific tools are dedicated for graphite and hardened-steel applications. All tools have a thin layered coating for optimal performance in small-sized applications.

Please see page 11 for a grouped overview of MINI (micro machining) products.

### DIAMOND

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Available in a variety of geometries and an extensive diameter range, these tools feature the best possible substrate to ensure the perfect adhesion of the diamond coating across a range of cutting parameters. Overall, these end mills significantly increase productivity and lower tooling costs by requiring fewer tool changes and being able to produce precision parts at high feed rates.

Please see page 11 for a grouped overview of DIAMOND (diamond coated) products.

### COMPOSITE

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It consists of diamond-coated and uncoated solid carbide and PCD end mills incorporating different geometries as well as with PCD-brazed cutting edges. This is a product range offering optimized tools for difficult cutting conditions on challenging workpiece materials.

Please see page 11 for a grouped overview of COMPOSITE (JC) products.

### VHM

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Includes universal coated and uncoated endmills, a range of products dedicated for machining plastics and aluminum, chamfer end mills and conical tools. These products consist of high-quality grades and coatings for predictable and premium tool life.

Please see page 12 for a grouped overview of VHM (general engineering) products.

## Product family overview

### CERAMIC

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To cut the world's toughest heat-resistant superalloys (HRSA) quickly, you need a tool just as strong and advanced as the materials themselves. Streamline your processes and cut your HRSA parts considerably faster with these high-performance ceramic solid end mills. Please see page 12 for a grouped overview of CERAMIC products.

### HSS-CO

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High speed steel cobalt is a premium grade that offers higher performance compared to traditional high speed steels. Due to increased hardness, these end mills last longer in today's abrasive, heat resistant and exotic materials. The high-quality, low-cost production advantages of these end mills are a direct result of engineered flute designs, wear resistant coatings and optimized features like internal coolant channels for these challenging materials. Please see page 12 for a grouped overview of HSS-CO products.

### X-Heads

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With the Seco exchangeable head milling system, quickly and easily change between various solid carbide milling head profiles and types to optimize all your milling operations while you reduce manufacturing costs and tooling inventories. X-Heads end mills mount to a variety of available shank lengths for even greater versatility, with long-reach capability. End mill changes only require a simple turn of a wrench, and the shank could remain in the machine. Eliminate the need to reset tool lengths thanks to a secure and reliable connection that provides exchange accuracies within 50 microns. Please see page 602 for a grouped overview of X-heads (exchangeable heads) products.

## Product family overview

Product family	Technology	Product	1xx	4xx	5xx	6xx	7xx	8xx	9xx
C-series	General machining	C			■				
Solid <sup>2</sup>	General machining	JS		■	■		■		
Stabilizer	High performance machining	ST			■				
HPM	High performance machining	JHP	■	■			■		■
HFM	High feed machining	JHF	■						■
Mini	Micro machining	JM	■	■	■	■			■
HSM/Tornado	High speed machining	JH	■	■			■		■
Ceramic	High performance machining	JCG					■		
Diamond	Graphite machining	JD				■			
Composite	Composite machining	JC, JPD						■	
VHM	General machining	J		■					■
HSS-E	General machining	JCO					■		
X-Heads - Solid <sup>2</sup>	High performance machining	XS		■	■		■		
X-Heads - HFM	High feed machining	XHF			■		■		
X-Heads - HSM/Tornado	High speed machining	XH			■		■		
X-Heads - VHM	General machining	XV			■		■		
<b>SMG</b>									
P1-8					■				■
P11-12					■				■
M1-3					■		■		
M4-5					■		■		
K1-7					■				■
S1-3					■		■		
S11-13					■		■		
H			■		■				
N1				■	■				
N2-3				■	■				
N11				■	■				
TS				■				■	
TP				■				■	
GR						■			
For further explanation on SMG (Seco material group) please see page 790									

Summary

	Page	Family name	Name	P1-8	P11-12	M1-3	M4-5	K1-7	N1	N2-3	N11	S1-3	S11-13	H3-31	TS1	TS2-3	TS4	TP1	TP2-3	TP4	Honeycomb	GR	
	209	C-Series	C5021	●	○	●	○	●	○	○	○	○	○	○	○				○			○	
	211		C5041	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	37		C5121	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	49		C5131	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	55		C5141	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	72		C5231	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	72		C5241	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	180		C5321	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
188	C5341	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○		
	74	SOLID <sup>2</sup>	JSE512	●	○	●	○	●	○	○	○	○	○	○	○				○			○	
	78		JSE513	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	84		JSE514	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	195		JSB512	●	○	●	○	●	○	○	○	○	○	○	○	○				○			○
	94		JS553	●	○	●	○	●	○	○	○	○	○	○	○	○	●						○
	114		JS554	●	○	●	○	●	○	○	○	○	○	○	○	○	●						○
	443		JS412	●	○	●	○	●	○	○	○	○	○	○	○	○	●						○
	446		JS413	●	○	●	○	●	○	○	○	○	○	○	○	○	●						○
	481		S4321	●	○	●	○	●	○	○	○	○	○	○	○	○	●						○
	449		S4521	●	○	●	○	●	○	○	○	○	○	○	○	○	●						○
	454		S4531	●	○	●	○	●	○	○	○	○	○	○	○	○	●						○
	463		S4651	●	○	●	○	●	○	○	○	○	○	○	○	○	●						○
	173		JS520	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	177		JS522	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	197		JS532	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	201		JS533	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	205		JS534	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	213		JS506	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	217		JS509	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	165		JS564	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	169		JS565	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
	354		JS720	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○
374	JS730	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○		
326	JS754	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○		
343	JS755	●	○	○	○	○	○	○	○	○	○	○	○	○	○				○		○		
	470	HSM/TORNADO	JH40	●	○	○	○	○	○	○	○	○	○	○	○								
	313, 513		JH112	●	○	○	○	○	○	○	○	○	○	○	○	○							
	503		JH120	●	○	○	○	○	○	○	○	○	○	○	○	○							
	505		JH130	●	○	○	○	○	○	○	○	○	○	○	○	○							
	302, 510		JH142	●	○	○	○	○	○	○	○	○	○	○	○	○							
	516		JH150	●	○	○	○	○	○	○	○	○	○	○	○	○							
	518		JH160	●	○	○	○	○	○	○	○	○	○	○	○	○							
	477		JH410	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	473		JH421	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	479		JH440	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	484		JH450	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	486		JH460	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	417		JH710	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	427		JHB720	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	429		JH721	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	431		JH722	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	431		JH724	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	431		JH726	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	421		JH730	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	405		JH734	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
	407		JH736	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
	415		JH740	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	409		JH744	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
	411		JH746	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
	413		JH770	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	425		JH780	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
	419		JH790	●	○	○	○	○	○	○	○	○	○	○	○	○	○						
221	JH910	●	○	○	○	○	○	○	○	○	○	○	○	○	○								
225, 507	JH930	●	○	○	○	○	○	○	○	○	○	○	○	○	○								
227, 311	JHB970	●	○	○	○	○	○	○	○	○	○	○	○	○	○								

● Preferred choice, ○ Alternative choice

Summary

	Page	Family name	Name	P1-8	P11-12	M1-3	M4-5	K1-7	N1	N2-3	N11	S1-3	S11-13	H3-31	TS1	TS2-3	TP1	TP2-3	TS2/TP2+N1	TS2/TP2+S12	Honeycomb	GR		
	305	Stabilizer	ST5341	•	•			•																
	275		ST5541	•	•			•																
	139		ST5551	•	•	•	•	•	•	•	•	•	•	•	•	•		•					•	
	497	HPM	JHP170												•									
	378		JHP751										•	•										
	381		JHP760			•	•						•	•										
	385		JHP770										•	•										
	392		JHP780										•	•										
	381		JHP794			•	•																	
	466		JHP490							•	•													
	298		JHP951	•	•					•														
	292		JHP993	•	•					•														
	423		JHP994										•	•										
	500	HFM	JHF181	•	•			•				•	•	•										
	500		SHF712																					
	229		JHF980	•	•	•	•	•					•	•	•									
	527	MINI	JMB112												•									
	520		JME142													•								
	525		JME144													•								
	490		JM403/404/406							•	•													
	492		JM413/416							•	•	•					•		•					
	492		SMB413/414/416							•	•						•		•					
	263		JMB542	•	•	•	•			•	•	•	•	•	•	•							•	
	266		JMB562	•	•	•	•			•	•	•	•	•	•	•								•
	270		JMB563	•	•	•	•			•	•	•	•	•	•	•								•
	253		JME542	•	•	•	•			•	•	•	•	•	•	•								•
	256		JME562	•	•	•	•			•	•	•	•	•	•	•								•
	260		JME564	•	•	•	•			•	•	•	•	•	•	•								•
	260		SMB713/714/416																					
	260		JME714/716										•	•										
	599		JMB642/JMB662																					•
	599		JMB662																					•
	597		JME642																					•
597	SMB614/616																					•		
	587	DIAMOND	JD620																				•	
	589		JD630																					•
	591		JD640																					•
	593		JD660																					•
	535	COMPOSITE	JC845																					
	537		JC850																					
	539		JC860																					
	541		JC870																					•
	547		JC871																					•
	553		JC875																					•
	557		JC876																					•
	561		JC877																					•
	565		JC880																					•
	567		JC885																					•
	569		JC898																					•
	571		JC899																					•
	574		JPD850																					•
576	PCD	JPD880																					•	
		JPD890																					•	

Summary

	Page	Family name	Name	P1-8	P11-12	M1-3	M4-5	K1-7	N1	N2-3	N11	S1-3	S11-13	H3-31	TS1	TS2-3	TS4	TP1	TP2-3	TP4	Honeycomb	GR		
	582	VHM	J28												●									
	236		J36	○	●	○	○	○	○	○	○	○	○	○	○	○			○					
	239		HK/HKM	●	●	●	●	●	●	○	○	○	○	○	○	○	○		●					
	250		V31	●	○	●	○	●	●	●	●	●	●	●	●	●	●			●				●
	233		J29	●	●	●	●	●	●	●	●	●	●	●	●	○	●			●				●
	580		J93F														●			●				
	399	Ceramic	JCG790									●												
	612-620	X-HEADS SOLID <sup>2</sup>	XSE550	●	●	●	●	●	●	●	●	●	●	●	●								○	
	629		XSB540	●	○	●	●	●	●	●	●	○	○	○	○	○			●					○
	643-644		XSE450							●	●	●				●			●					
	631-632		XSE720	○	●	●	●	●	●	●	●	●	●	●	●	●								
	637		XSB720	○	●	●	●	●	●	●	●	●	●	●	●	●								
	409	X-HEADS HSM/TORNADO	XHT740	○	●	●	●	●	●	●	●	○	●											
	650	X-HEADS HFM	XHF580	●	●	●	●	●	●	●	●	○	○	○										
	655		XHF780	○	○	●	●	●	●	●	●	●	●	●	○									
	668	X-HEADS VHM	XVE540	●	●	●	●	●	●	●	●	○	○	○	○	●			●				○	
	673		XVE510	●	●	●	●	●	○	○	○	○	○	○	○	●			●				○	
	676-677		XVB510	●	●	●	●	●	○	○	○	○	○	○	○	●			●				○	
	680		XVC506/509/512	●	●	●	●	●	○	○	○	○	○	○	○	○	●			●				○
	684		XVK310	●	●	●	●	●	●	●	●	●	○	○	○	○	●			●				○

● Preferred choice, ○ Alternative choice

## Code keys

### Solid end mills (new)

R	S	4321	-	100	D	2	R050	.0	Z3	C	, AXT
1	2	3		5	6	7	8	9	10	11	12

### Solid end mills

R	JS	720	100	D	2	R050	.0	Z6	C	, HXT
1	2	3	5	6	7	8	9	10	11	12

### X-Heads – Heads

R	XSE	550	E10	100	D	2	R050	Z4	A	, SIRA
1	2	3	4	5	6	7	8	10	11	12

#### 1. Type of product

BLANK = Standard (catalogue) product  
R = Reconditioned product (complete)  
RK = Reconditioned product (frontal)

#### 2. Product range

J = VHM  
JC = Composites  
JD = Diamond  
JH = HSM/Tornado  
JHF = HFM  
JHP = HPM  
JM = Mini  
JS = SOLID<sup>2</sup>

JPD = PCD  
JCO = HSS-Co  
JCG = Ceramic  
C = C-serie  
ST = Stabilizer  
XS\* = X-Head SOLID<sup>2</sup>  
XH\* = X-Head HSM/Tornado  
XV\* = X-Head VHM  
XHF = X-Head HFM

#### 3. Geometry

A three-digit combination specifying the cutting geometry. Example: 111, 950, 553, 514, etc.

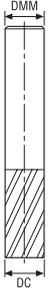
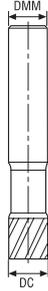
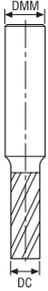
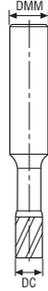
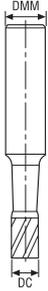
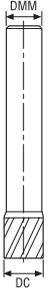
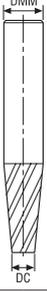
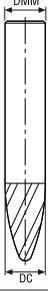
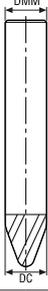
#### 4. Connection size

This figure indicates the threading connection size between the head and adaptor  
E10 = 10 mm  
E12 = 12 mm  
E16 = 16 mm  
E20 = 20 mm  
E25 = 25 mm

#### 5. Cutting diameter

Metric = 3 digit code (in case of 4 digit code – xx,xx mm)  
Imperial = a dot followed by a 3 digit code  
Example: (050 = metric, 5 mm) / (.500 = imperial, ½ inch)

6. Tool shape

(DC = DMM)		(DC < DMM)			(DC > DMM)
					
<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>J</b>	<b>P</b>
Form shape					
					
<b>N</b>		<b>X</b>		<b>T</b>	

7. Length of shape

A single digit that gives an indication of the length of the cutter compared to other products with the same cutting geometry.

9. Type of shank

- .0 = Cylindrical
- .3 = Weldon
- .5 = Whistle Notch
- .9 = Safe-Lock

10. Number of flutes

This figure indicates the number of flutes in the cutter.  
Example: PCEDC2= 2 flutes, PCEDC6 = 6 flutes

11. Extension

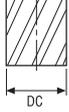
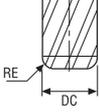
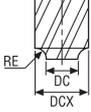
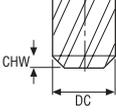
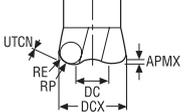
- BLANK = Standard
- A = Internal coolant channel(s)
- C = Chip splitters
- D = Double end
- NC = Numerical Control tolerance

12. Grades

4 character code specifying the coating on the cutter.

MEGA =	MEGA	DURA =	DURA
MT =	MEGA-T	NXT =	NXT
M64 =	MEGA-64	HXT =	HXT
M64 T=	MEGA-64-T	STAX =	STAX
SIRA =	SIRON-A	TAN =	TAN
HEMI =	HEMI	M9 =	M9
DIA =	DIAMOND	AXT =	AXT

### 8. Tip shape

Sharp	Ball-nose	Corner radius	Concave radius	Chamfer	High feed
					
<b>S</b>	<b>B</b>	<b>R...</b>	<b>K...</b>	<b>C</b>	<b>H</b>

#### Size of radius for convex and concave radius tipped products

000 = For metric products the tip shape is shown by a three-digit figure.  
By dividing this figure by 100 you will get the actual corner radius size in millimetres.

.000 = For imperial products the tip shape is shown by a dot, followed by a three-digit figure.  
This figure actually shows the size of the corner radius in *inch* (e.g. R.100 would indicate a radius of 0.100 *inch*).

## Code keys

### X-Heads – Shanks

<b>X</b>	<b>E10</b>	<b>100</b>	<b>E</b>	<b>2</b>	<b>- 055 -</b>	<b>00</b>	<b>.0</b>	<b>S</b>
1	2	3	4	5	6	7	8	9

#### 1. Product range

X = X-Head Cylindrical shank

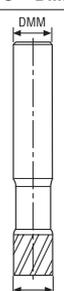
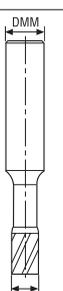
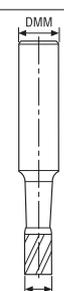
#### 2. Connection size

This figure indicates the threading connection size between the head and adaptor  
 E10 = 10 mm  
 E12 = 12 mm  
 E16 = 16 mm  
 E20 = 20 mm  
 E25 = 25 mm

#### 3. Shank diameter

Metric = 3 digit code  
 Imperial = a dot followed by a 3 digit code  
 Example: (050 = metric, 5 mm) / (.500 = imperial, 1/2 inch)

#### 4. Tool shape

(DC = DMM)	(DC < DMM)	
 <b>E</b>	 <b>G</b>	 <b>J</b>

#### 5. Length of shape

A single digit that gives an indication of the length of the cutter compared to other products with the same cutting geometry.

#### 6. Overall length

Metric = 3 digit code  
 Imperial = 3 digit code with a dot after the first digit  
 Example: (055 = metric, 55 mm) / (2.50 = imperial, 2 1/2 inch)

#### 7. Taper angle

Indicates the body half taper angle.  
 Example: (00 = 0°; 05 = 5°; 10 = 10°)

#### 8. Type of shank

.0 = Cylindrical  
 .3 = Weldon  
 .5 = Whistle Notch  
 .9 = Safe-Lock

#### 9. Type of material

Indicates the different shank materials that are available.  
 S = Steel  
 DM = Densimet  
 E = Solid Carbide

## How our solutions can benefit you

### The individual solution - Custom and modified tools



If the requirements are very special, we have the right solution with our individual and customized tools - solutions that have been tailored specifically to your individual requirements. This will enable you to take your machining productivity to a whole new level. In addition to the standard solutions, our offer includes:

#### Custom tools

They are modified geometries or form shaped tools for customer specific demands as we can fully cooperate with the customer and design a specific tool which answers the needs. Examples can be:

- Modified tools within a standard geometry
- MEP (Mechanised edge Profiling)
- Firtree,
- Dovetail
- Tapered ballnose
- Condyle cutter
- Form shaped tools
- Barrel

#### Modified tools

Seco offers a quick delivery solution for standard tools requiring modification to meet specific dimensional requirements as this can be:

- (full) Radius/Facet/Chamfer/Concave
- OD reduction (neck reduction), including increased length
- Coating (application for uncoated tools)
- Reduced cutting diameter
- Chip breakers
- Adding Weldon / Safelock
- External coolant channels

### Reconditioning cuts cost and tools inventory

Seco's modern carbide tools offer remarkable performance by utilizing the best combinations of carbide substrates with highly wear resistant coatings, optimized cutting geometry and controlled edge preparation.

However good a tool is, as part of its function, it will eventually show signs of wear on the cutting edge. Controlling this wear and the timely replacement of the tool will allow the used tool to be reconditioned, thus reducing tool investment costs. And we use the same advanced technology to recondition your solid carbide tools as we use to manufacture new products.

#### Your benefits from reconditioning

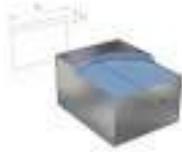
- Manufactured to Seco's high standards with the original Seco geometry, edge preparation and coating processes.
- Savings on tooling costs by repeated use of the same solid carbide tool.
- Our easy to use and free 'reconditioning box' includes a pre-prepared delivery note.
- Free, reliable collection on the following day when you call your Seco contact for pick up.
- An easy process due to the package service, reconditioning box and prepared delivery note.
- Delivery via the normal Seco channels.
- Safe transportation and storage of the reconditioned tools by packaging them in similar packaging as new tools.
- A new packaging label is included.
- Work towards greener and cleaner environment. -Seco's processes are globally certified with ISO14001.
- Guaranteed quality, as all processes are ISO9001 certified.

Basic operations:

**Face milling:**

Operation where the tool is in engagement with less than 180° arc of contact.

Tool engagement:  
Small  $a_p$  and large  $a_e$ .



**Slot milling:**

Operation where the full diameter is in engagement,  $a_e$  is equal to DC and  $a_p$  up to 2 times DC depending on the machining strategy in use.



**Side milling:**

Operation where the side of the tool is in engagement,  $a_p$  is large and  $a_e$  is small.



**Copy milling:**

Operation where the radius is in engagement.  $a_p$  and  $a_e$  are both small.



## Advanced machining methods:

### Ramping:

Opening up a pocket by making a Z axis at an angle.



### Helical interpolation ramping:

Opening a pocket by making a circular movement with the tool while ramping in Z axis.



### Trochoidal:

Opening a slot by using side milling, making a partial circular movement in X- or Y-axis. (changing slot milling into side milling).



### Push-pull:

Machining a 3D form by making a down and up copying movement following the profile of the form.



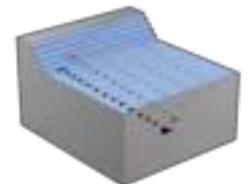
### Plunge milling:

Opening up a deep slot by using drilling (Z) axis.



### Z-leveling:

Machining a surface by making a small drilling or ramping in Z axis then opening the pocket with X and Y movements.



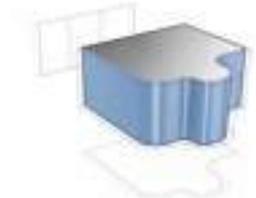
### Drilling:

Making a hole with movement in Z axis.



### Advanced roughing/ Optirough

Well defined tool paths with constant arc of contact for reliable roughing of simple & complex shapes. The large axial depths ( $a_p$ ) & small radial depths ( $a_e$ ) of cut combined with high feeds per tooth ( $f_z$ ) and cutting speeds ( $V_c$ ) results in high productivity.



### Definitions, machining strategies:

#### General machining:

A machining strategy for general use.  $a_e - a_p$  ratio can vary depending on the operation.  
 Tool characteristics: Tools have relatively long cutting lengths and thin core diameters. There are no high requirements on the tolerances.  
 Machine requirements: There are no special machine requirements needed.  
 With basic CNC technology, difficult advanced machining methods are not possible.  
 Average results will be reached on metal removal rate  $Q$  ( $\text{cm}^3/\text{min}$ ).  
 The application area usually includes small batch sizes and a wide range of materials.

#### High Performance Machining:

Is a machining strategy where very high metal removal rates can be achieved. Typical for this strategy is that  $a_e$  is 1 times DC and  $a_p$  is 1 to 1½ times DC depending the workpiece material.  
 With HPM (High Performance Machining) you achieve an extremely high metal removal rate by using a much higher chip load than in general machining.  
 Tool characteristics: Specially developed chip formers in the flute of the tool, tip protection with a small 45° face or corner radius, special smooth formed chip space and coating, with or without Weldon shank.  
 Machine requirements: High stability, high power requirements, CNC control, rigid clamping system.  
 The application areas are: Operations in a mass production environment where production time/lead time is of great importance or on single products where a high metal removal rate  $Q$  ( $\text{cm}^3/\text{min}$ ) is required.

#### High Feed Machining:

Is a machining strategy where high feed rates can be reached with large radial engagements ( $a_e$ ) in combination with a small  $a_p$ .  
 With HFM (High Feed Machining) you achieve high metal removal rates and/or surface finish by using a much higher table feed compared to general machining.  
 Tool characteristics: Specially developed front teeth, very short cutting length and coating.  
 Machine requirements: Good stability, CNC, possibility for high table feed ( $v_f$ ).  
 The big advantage of this technology is that it is very user friendly, easy, safe and quick to program in CAM. By using the so called Z-leveling strategy it is relatively easy to program complex forms without the necessity of having extensive experience in programming.  
 The application area is: From soft to hardened steel, titanium and stainless steel and it is very good as a pre operation before HSM is used.  
 It can also be applied in deep pocket machining.

#### Micro machining:

Is a machining strategy where extremely small tool diameters are used.  
 Tool characteristics: Diameter range  $\varnothing 0,1$  to 2,0 mm, small cutting lengths, a wide range of OD reductions, high accuracy, coating.  
 Machine requirements: High spindle accuracy, high RPM, CNC, thermal stability against spindle growth.  
 Application area is: Production of cavities like slots, pockets, holes or engravings in many types of material.

#### High speed machining:

Is a machining strategy where a combination of a small radial depth of cut and high cutting speed and table feeds are used.  
 Depending on the method a high metal removal and a low  $R_a$  value can be reached.  
 Typical for this strategy are the low cutting forces, less heat build up in tool and workpiece, less burr formation and high dimensional accuracy on the workpiece.

With HSM (High Speed Machining) you achieve high metal removal rate and/or surface finish by using a much higher cutting speed compared to general machining.  
 Tool characteristics: Stable, (thick core diameter and a short cutting length) clear and well formed chip space for good chip evacuation, coating.

Machine requirements: Quick CNC control, high RPM, quick transmission to the axis.  
 The applications area is: Mould & Die industry on pre-finishing and finishing operations in hardened steel (48-62 HRC) in a short lead time.  
 This technique can also be applied in most other materials when using the right tool and advanced machining method.

#### Advanced roughing / Optirough:

Well defined tool paths with constant arc of contact for reliable roughing of simple & complex shapes. The large axial depths ( $a_p$ ) & small radial depths ( $a_e$ ) of cut combined with high feeds per tooth ( $f_z$ ) and cutting speeds ( $V_c$ ) results in high productivity.

These CAM-based rough-machining, or dynamic milling, strategies are ones that centre on a cutting tool's arc of contact and its average chip load.

When reducing the arc of contact, the amount of heat generated during roughing operations is reduced. As the radial depth of cut decreases, so does a cutter's arc of contact. A smaller amount of contact results in less friction and, therefore, less heat between the tool's cutting edges and the workpiece it is machining. These lower machining temperatures, in turn, allow for increased cutting speeds shorter cycle times.

## Explanation of Advanced Roughing

### Advanced Roughing, what does it mean?

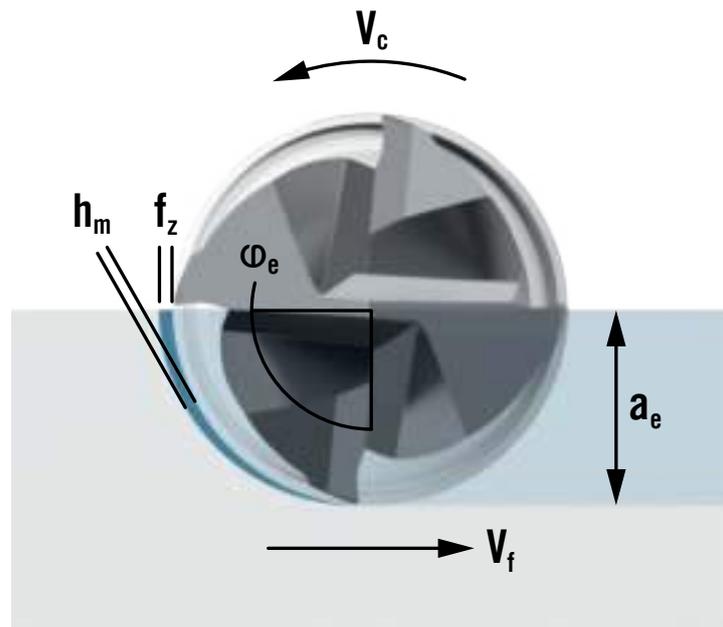
Today's CAM packages offer toolpath strategies specifically for inside/outside radii shapes where changing arcs of contact are common when using conventional toolpaths. These software packages automatically apply different feeds to control arc of contact and keep chip loads consistent.

These CAM-based rough-machining, or advanced roughing, focus on a cutting tool's arc of contact and its average chip load. When reducing the arc of contact, the amount of heat generated during roughing operations is reduced. As the radial depth of cut decreases, so does a cutter's arc of contact. A smaller amount of contact results in less friction and, therefore, less heat between the tool's cutting edges and the workpiece it is machining. These lower machining temperatures, in turn, allow for increased cutting speeds shorter cycle times. Also, the resulting cutting force is lower, allowing high APMXS, or cutting depth to be programmed.

In advanced roughing, to maintain arc of contact, CAM packages need to employ trochoidal machining-like techniques when entering a radius.

When using an optimized roughing toolpath and maintaining consistent arc of contact, the cutter's radius can match that of the inside radius being cut without risk of cutter overload. This capability allows our Advanced Roughing tools (JS554-3C, JS564, JS565, JS754, JS755, JSS720 and S4651) to remove more stock in the roughing pass, thus reducing the amount of stock the finish pass has to cut – all of which translates to faster machining cycle times and longer tool life. Also, while the remaining stock is constant the finishing tool can generate a better final surface quality and at the same time will have longer tool life.

### Impact of arc of contact on cutting speed and feed per tooth



## How our products can benefit you

### Achieve Revolutionary speeds in superalloys with Seco Ceramic end mills

SiAlON ceramics, high-strength geometries and reinforced frontal teeth are some of the main features of these highly optimized tools and allow full utilization of high speed, high-performance machine tools. The tools can operate at cutting speeds of up to 1200M/min and can offer a significant productivity increase when compared to standard solid carbide solutions.

Since high temperatures are needed, also a significant amount of RPM is needed in order to achieve the high vc. The high temperatures are required in order to reach a level where the HRSA softens (850c +). With these tools, multiple strategies can be applied as long as a constant cut and constant contact with the workpiece is maximized.

The tool is designed for side milling, slot milling, high-feed milling and advanced roughing! All these are possible. To maintain the high cutting temperature in the cutting zone, coolant is compressed air. Because the tool operates at high speeds, also run out is of high importance.

You can find Seco ceramic tools on page 399.



### Simplify aerospace hybrid materials holemaking with two-in-one-geometry

The JC899 has a patented two-in-one double geometry solution, designed for machining hybrid stacked material combinations such as CFRP-Ti and CFRP-Alu. Due to its left-hand helix, right-hand cut design, this tool is preventing delamination, fiber pull-out and chip marks from damaging the workpiece surface (this as chips will be pushed downwards out of the hole). As a result, the JC899 left-hand helix, right-hand cut STAX finisher gives a perfect surface finish and prevents chip pollution between the 2 stack layers.

This means post-machining, unstacking, cleaning and deburring, and re-stacking is not needed anymore which can boost process efficiency by as much as 200 to 300 percent and provide tool life three to six times longer than that of conventional reamers.

At the same time the drilling process is replaced by applying the JC898 high feed rougher. This tool helical interpolates and allows the JC899 to operate in continuous stock conditions, maximizing quality output while minimizing corellation in hole size and tolerance.

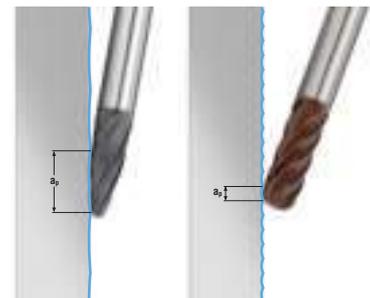
You can find Seco JC898/JC899 on pages 569 - 571.



### Take bigger stepovers for faster finishing productivity

For the fastest, most reliable finishing operations, new barrel-shaped tools use an innovative "taper" or "drop" geometry to enable large increases in stepover. This is possible through the use of advanced CAD/CAM systems or new plugins built for the uses of these tools. Using 5-axis machine movement, the tool's cutting profile can remain engaged with the surface of the part at the proper angle at all times.

In addition to our standard barrel-style shapes, Seco can also offer all styles of barrel geometry's as custom products, such as lens shapes, ensuring you always have access to the ideal tools for your part-production needs.



**Take the risk out of micro milling operations**

Achieve accuracy, precision and high surface finish quality from the very start when machining small, micro-sized surfaces with our range of solid-carbide Seco end mills. SECO's new Mini ranges deliver longer tool life, stability and peace of mind for machining operations where it is typically impossible to actually see the workpiece and cutting tool as it works.

Precisely produced geometries, virtually zero runout, advanced coatings and true line-form radius tolerances give these mini ranges its incredibly long tool life and reliability. Key is to apply these tools in suitable conditions, in which the benefits can be maximized. Minimize run-out of the tool plus the tool holder is essential.

Also the CAM program can be optimized with the Seco feed optimizer which calculates the ideal RPM and feed speed (vf) for every application. As a result, the tool and set-up help to eliminate any unforeseen problems during rough, pre-finish and final finish micro milling operations.

You can find an overview of Seco Mini tools on page 11.

**JS522 long flute finisher**

The JS522 long-flute finishing tool is capable of meeting the aerospace industry's stringent criteria for perpendicularity, fine surface finish, high metal removal rates and more effective machining.

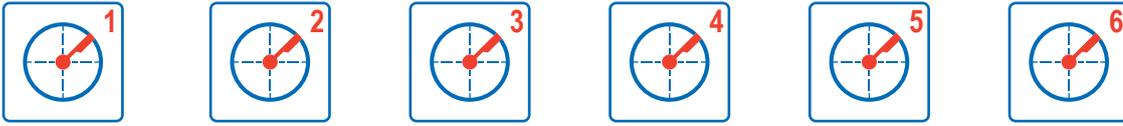
With a cutting length of  $5 \cdot D_c$ , an increased core diameter and a slightly negative taper to compensate deflection, the JS522 is specially designed to machine high shoulders in single-pass finishing operations. This single pass saves time (up to 80%) but most important, also delivers instant quality. This tool is often used in mass production areas.

Once in place and optimized, this has proven to be the number one cost saver in multiple applications!

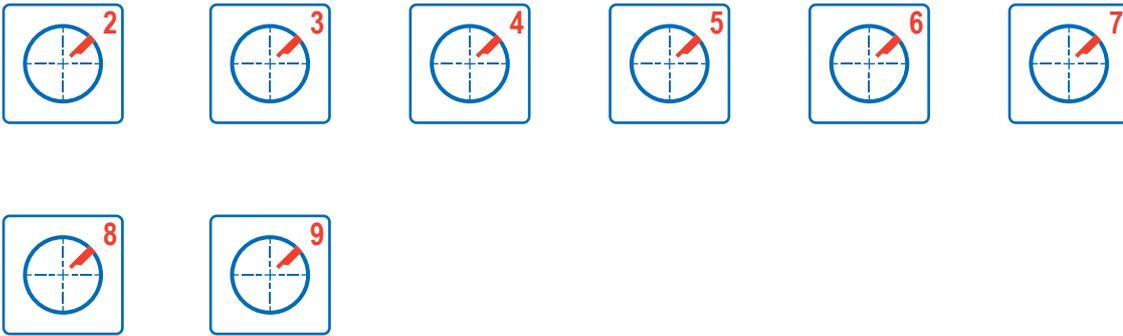
You can find Seco JS522 on page 177.



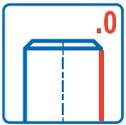
#### Center cut PCEDC



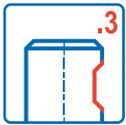
#### No center cut PCEDC



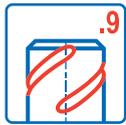
#### Cylindrical shank



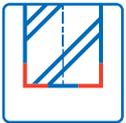
#### Weldon shank



#### Safelock shank



#### Sharp



#### Chamfer



#### Corner radius



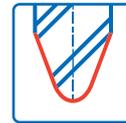
#### Ball nose



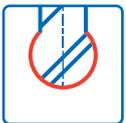
#### Tapered sharp



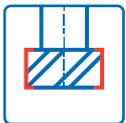
#### Tapered ball nose



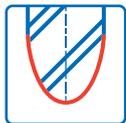
#### Cutter 250°



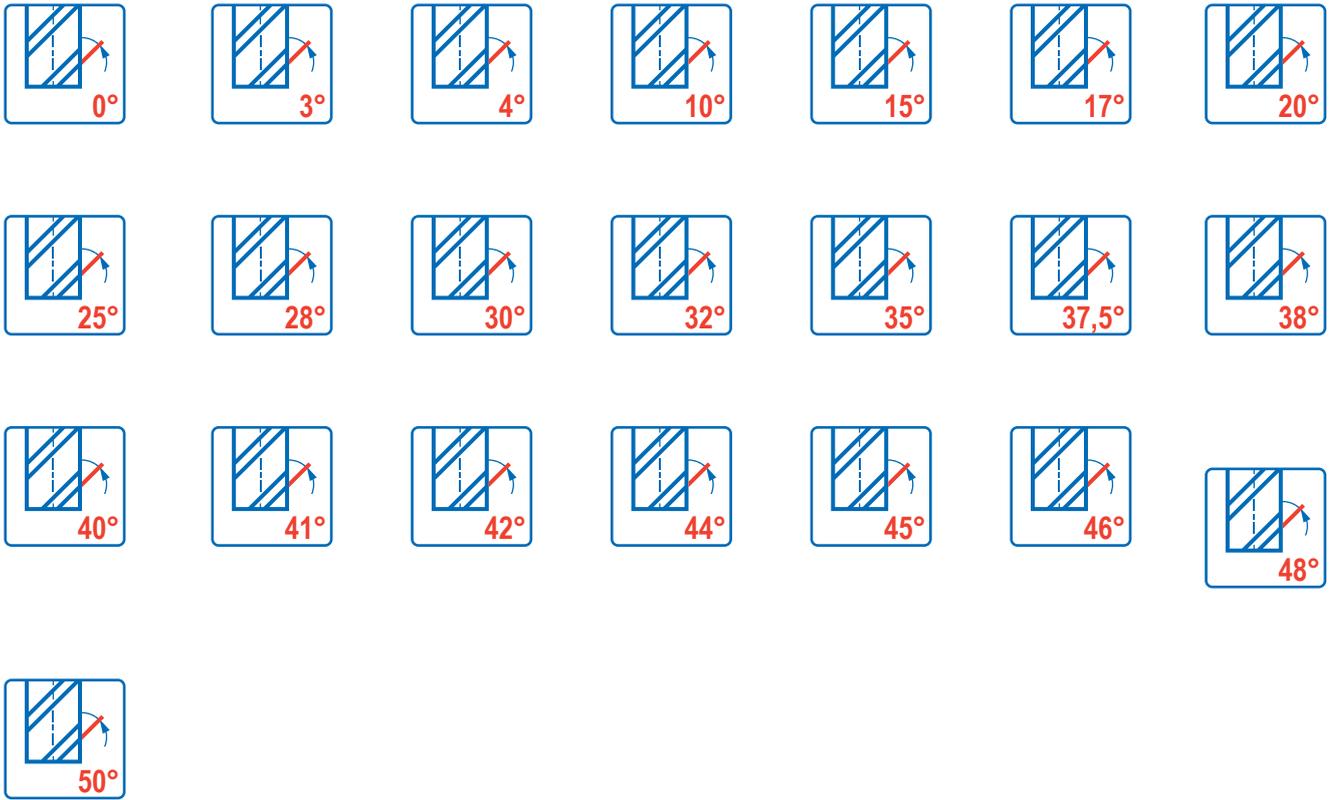
#### T-shape



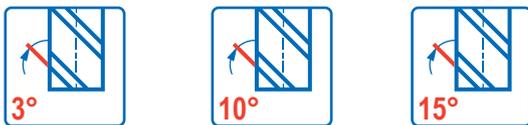
#### Barrel



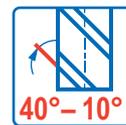
#### Helix angle



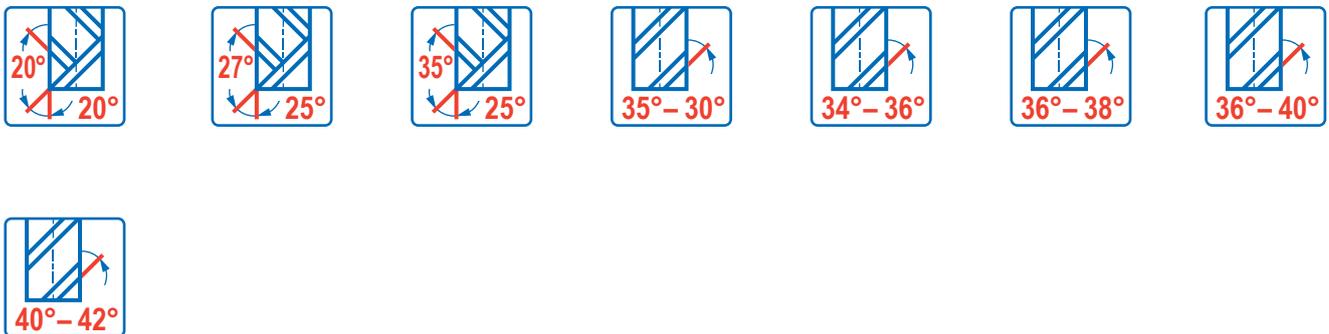
#### Helix angle Left



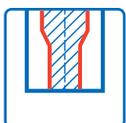
#### Double left hand helix



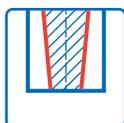
#### Double helix



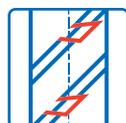
#### Double core



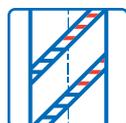
#### Tapered Core



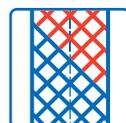
#### Chip splitters



#### Roughing profile



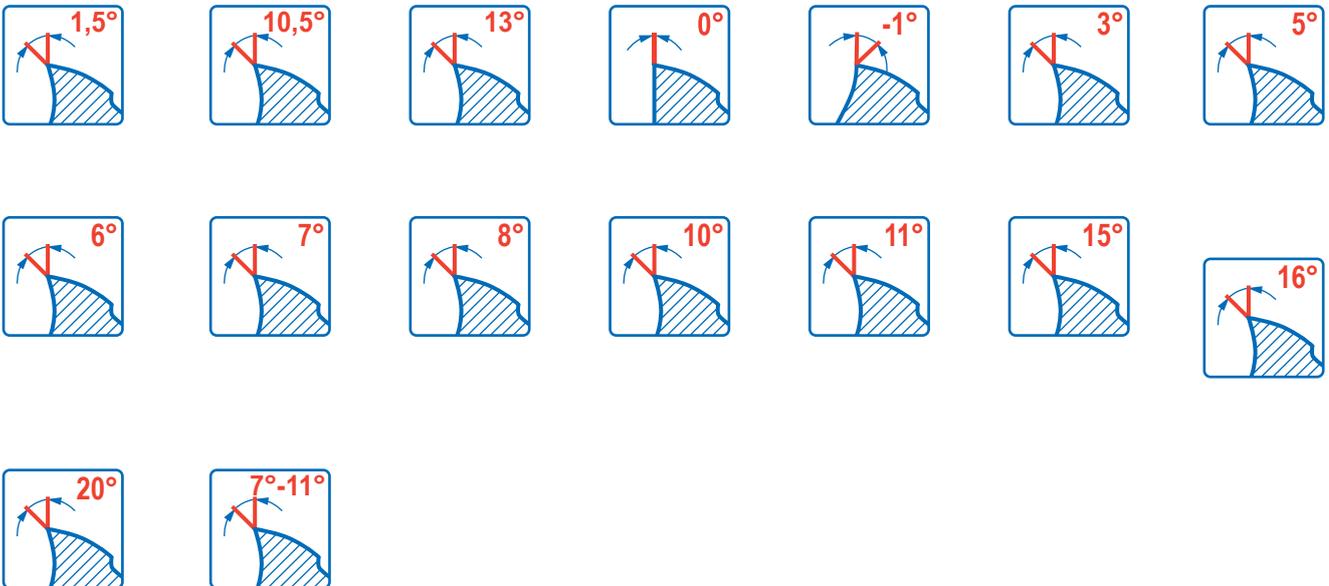
#### Router profile



Cutting rake Angular relief



Cutting rake Radial relief



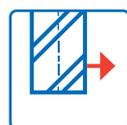
ICC straight



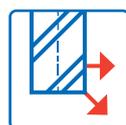
ICC and Y



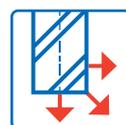
Radial



Radial/Ramping



Radial/Ramping/



Key symbols

DIAMOND



DURA



HEMI



HSCO



HXT



MEGA



MEGA-T



MEGA-64



MEGA-64-T



NXT



STAX



SIRA



TAN



AXT



Ceramic



PCD



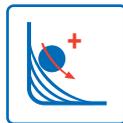
M9



Regrind possible



Advanced roughing



## Attributes Solid Milling and X-Heads

Attribute	Explanation
AP1	depth of cut split
APMXS	depth of cut maximum in feed direction side
BHTA	body half taper angle
CA	collision angle
CHW	corner chamfer width
CSP	coolant supply property
CZCMS	connection size code machine side
CZCWS	connection size code workpiece side
DC	cutting diameter
DCSFMS	contact surface diameter machine side
DCSFWS	contact surface diameter workpiece side
DCX	cutting diameter maximum
DMM	shank diameter
DN	neck diameter
FCEDC	face cutting edge count
CSP	coolant supply property
L	cutting edge length
L2	cutting edge length 2
LF	functional length
LN	neck length
LN2	neck length 2
LSCN	clamping length minimum
NA	neck angle
OAL	overall length
PCEDC	peripheral cutting edge count
PRFA/2	profile angle divided by two
PRFRAD1	profile radius 1
PRFRAD2	profile radius 2
PRFRAD3	profile radius 3
PSIR	tool lead angle
RE	corner radius
RE2	corner radius 2
RP	programming radius
SA	sphere angle
SIG	point angle
SW	wrench size
TQ	torque
TQN	torque minimum
TQX	torque maximum
UTCN	uncut thickness

## Attributes Minimaster

Attribute	Explanation
APMXE	depth of cut maximum in feed direction end
APMXS	depth of cut maximum in feed direction side
AZ	plunge depth maximum
BEC	back end chamfer angle
BHTA	body half taper angle
CCER	curved cutting edge radius
Cmax	helical interpolation hole diameter maximum
Cmin	helical interpolation hole diameter minimum
DC	cutting diameter
DCSFMS	contact surface diameter machine side
DCSFWS	contact surface diameter work piece side
DCX	cutting diameter maximum
DMM	shank diameter
DN	neck diameter
FCEDC	face cutting edge count
FHA	flute helix angle
KAPRS	tool cutting edge angle in feed direction side
LE	cutting edge effective length
LF	functional length
LPR	protruding length
OAL	overall length
RA	relief angle
RE	corner radius
RMPX	ramping angle maximum
RP	programming radius
RPMX	rotational speed maximum
SA	sphere angle
SIG	point angle
UTCN	uncut thickness
ZEFP	peripheral effective cutting edge count

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster



## UNIVERSAL

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity and extended tool life. This range covers universal products and optimized end mills for specific workpiece materials.

Universal products offer full machining flexibility at an excellent price/performance ratio.

- C5121, C5131, C5141, C5231, C5241 and ST5551 for sharp corner type.
- JSE512, JSE513, JSE514, JS553, JS554, ST5551, JS564, JS565 and JS520 with 45° chamfer type.
- C5121, C5141, JS522, JS553, JS554, ST5551, JH910, JH930, JHF980, J36, V31, JME542, JME562 and JME564 for radius type.
- C5021, C5041, JS506, JS509, HK, HKM and J29 for conical type.
- C5321, C5341, JSB512, JS532, JS533, JS534, JHB970, JMB542, JMB562 and JMB563 for ball-nose type.

Tool Selection Universal

									
Name		C5121	C5131	C5141	C5231	C5241	JSE512	JSE513	JSE514
Page(s)		37	49	55	72	72	74	78	84
Family name		C-Series	C-Series	C-Series	C-Series	C-Series	SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>
Type of mill									
Shank	Cylindrical	■	■	■	■	■	■	■	■
	Weldon	■		■			■	■	■
Number of Flutes		2	3	4	3	4	2	2	4
CSP									
Diameter range	Metric	1-12	1-12	1-20			2-12	2-20	2-25
	Inch	1/32-1	1/32-1	1/64-1 1/4	1/-5/8	3/4			1/8-3/4
Length availability		1,2,3,4,5,6,7,8	1,2,3,4	1,2,3,4,5,6,7,8,9	2,3	3	2	2,3	2,3
Operation									
									
									
SMG									
P1-8		●	●	●	●	●	●	●	●
P11-12		○	○	○	○	○	○	○	○
M1-3		●	●	●	●	●	●	●	●
M4-5		○	○	○	○	○	○	○	○
K1-7		●	●	●	●	●	●	●	●
S1-3		○	○	○	○	○	○	○	○
S11-13		○	○	○	○	○	○	○	○
H3 H5 H8 H11 H12 H21 H31		○	○	○	○	○	○	○	○
N1		○	○	○	○	○	○	○	○
N2-3		○	○	○	○	○	○	○	○
N11		○	○	○	○	○	○	○	○
TS1		○	○	○	○	○	○	○	○
TP1		○	○	○	○	○	○	○	○
GR		○	○	○	○	○	○	○	○

■ Stock standard □ Weldon available, delivery time is 3 days.  
 ● Preferred choice ○ Alternative choice  
 \*JS554 3C also available. Can be applied in advanced roughing.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Tool Selection Universal

										
Name		JS553	JS554	ST5551	JS564	JS565	JS520	JS522	C5321	C5341
Page(s)		94	114	139	165	169	173	177	180	188
Family name		SOLID <sup>2</sup>	SOLID <sup>2</sup>	Stabilizer	SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	C-Series	C-Series
Type of mill										
Shank	Cylindrical	■	■	■	■	■	■	■	■	■
	Weldon	■	■	□	■	■	□			
Number of Flutes		3	4	5	4	5	5,6,8	2	2	4
CSP										
Diameter range	Metric	2-25	3-25	6-25	3-20	4-20	4-25	6-32	1-12	1-20
	Inch	1/8 - 1/2	1/4-1	1/4-1					1/64-1	1/64-1
Length availability		1,2,3	1,2,3	1,2,3,4,5,6,8	2,3,4	2,3,4	2,3	4	1,2,3,4,5,6,7	1,2,3,4,5,6,7,8
Operation										
SMG										
P1-8		●	●	●	●	●	●	●	●	●
P11-12		●	●	●	○	○	○	●	○	○
M1-3		●	●	●	●	●	○	●	●	●
M4-5		●	●	●	●	●	○	●	○	○
K1-7		●	●	●	●	●	●	●	●	●
S1-3		●	●	●	●	●	○	○	○	○
S11-13		●	●	●	●	●	●	●	○	○
H3 H5 H8 H11 H12 H21 H31		●	●	●	●	●	○		○	○
N1		●	●	●	●	●	●	●	○	○
N2-3		●	●	●	●	●	●	●	○	○
N11		●	●	●	●	●	●	●	○	○
TS1		●	●	●			●	●	○	○
TP1		●	●	●			●	●	○	○
GR		○	○	○			○	○	○	○

■ Stock standard □ Weldon available, delivery time is 3 days.

● Preferred choice ○ Alternative choice

Tool Selection Universal

									
Name		JSB512	JS532	JS533	JS534	C5021	C5041	JS506	JS509
Page(s)		195	197	201	205	209	211	213	217
Family name		SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	C-Series	C-Series	SOLID <sup>2</sup>	SOLID <sup>2</sup>
Type of mill									
Shank	Cylindrical	■	■	■	■	■	■	■	■
	Weldon		□	■	■			■	■
Number of Flutes		2	2	3	4	2	4	3-4	3-4
CSP									
Diameter range	Metric	2-12	1-20	1-20	2-20			3-12	3-12
	Inch					1/4-1/2	1/4-3/4		
Length availability		2	1,2,3	1,2	1,2,3	1	1	2	2
Operation									
									
SMG									
P1-8		●	●	●	●	●	●	●	●
P11-12		○	○	○	○	○	○	○	○
M1-3		●	●	●	●	●	●	●	●
M4-5		○	●	●	●	○	○	●	●
K1-7		●	●	●	●	●	●	●	●
S1-3		○	○	○	○	○	○	○	○
S11-13		○	●	●	●	○	○	●	●
H3 H5 H8 H11 H12 H21 H31		○				○	○	●	●
N1		○	●	●	●	○	○	●	●
N2-3		○	●	●	●	○	○	●	●
N11		○	●	●	●	○	○	●	●
TS1		○	●	●	●	○	○	●	●
TP1		○	●	●	●	○	○	●	●
GR		○	○	○	○	○	○	○	○

■ Stock standard □ Weldon available, delivery time is 3 days.  
 ● Preferred choice ○ Alternative choice

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Tool Selection Universal

					
Name		JH910	JH930	JHB970	JHF980
Page(s)		221	225, 507	227, 311	229
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HFM
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon				
Number of Flutes		3	5-6, 8	2	2,3,4,5
CSP					
Diameter range	Metric	2-20	6-20	2-16	1-12
	Inch				
Length availability		2,3,4	2	1,2,3	1,2,3,4
Operation					
					
					
SMG					
P1-8		●	●	●	●
P11-12		○	○	○	○
M1-3		●	●	●	●
M4-5		●	●	●	●
K1-7		●	●	●	●
S1-3		●	●	●	●
S11-13		●	●	●	●
H3 H5 H8 H11 H12 H21 H31			●		○
N1					
N2-3					
N11					
TS1					
TP1		●			
GR		●			

■ Stock standard □ Weldon available, delivery time is 3 days.

● Preferred choice ○ Alternative choice

## Tool Selection Universal

					
Name		J29	J36	HK/HKM	V31
Page(s)		233	236	239	250
Family name		VHM	VHM	VHM	VHM
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon				
Number of Flutes		1	3	2,3,4	4
CSP					
Diameter range	Metric	0,2-6	2-20	1-10	6-28
	Inch				
Length availability		2	2	2	2
Operation					
SMG					
P1-8		●	○	●	●
P11-12		●	●	●	○
M1-3		●	○	●	●
M4-5		●	○	●	○
K1-7		●	○	●	●
S1-3		●	○	●	●
S11-13		●	○	●	●
H3 H5 H8 H11 H12 H21 H31		○		●	●
N1		●	○	●	●
N2-3		●	●	○	●
N11		●	●	●	●
TS1		●	○	●	●
TP1		●	○	●	●
GR		●			●

■ Stock standard   □ Weldon available, delivery time is 3 days.  
 ● Preferred choice   ○ Alternative choice

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Tool Selection Universal

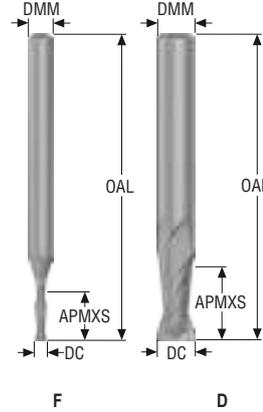
							
Name		JME542	JME562	JME564	JMB542	JMB562	JMB563
Page(s)		253	256	260	263	266	270
Family name		MINI	MINI	MINI	MINI	MINI	MINI
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon						
Number of Flutes		2	2	4	2	2	3
CSP							
Diameter range	Metric	2-20	0,5-3,0	0,5-3,0	0,2-3,0	0,5-3,0	1,0-3,0
	Inch						
Length availability		1,3,4,5,6	2,4,5,6,7	2,4	1,3,4,5,6	1,2,3,4,5,6	2,4
Operation							
							
							
							
							
							
SMG							
P1-8		●	●	●	●	●	●
P11-12		●	●	●	●	●	●
M1-3		●	●	●	●	●	●
M4-5		●	●	●	●	●	●
K1-7							
S1-3							
S11-13		●	●	●	●	●	●
H3 H5 H8 H11 H12 H21 H31							
N1		○	○	○	○	○	○
N2-3		○	○	○	○	○	○
N11		○	○	○	○	○	○
TS1							
TP1							
GR		○	○	○	○	○	○

■ Stock standard □ Weldon available, delivery time is 3 days.

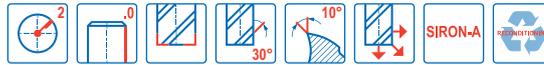
● Preferred choice ○ Alternative choice

C5121

General purpose – Universal – Square – 2 Flutes – Cylindrical – Sharp



- Tolerances:
- DMM=h5
- DC= h10
- Regrind possible if DC is  $\geq \varnothing 10$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm			
C5121-060D1S.0Z2	SIRA	10269100	1	D	6,0	6,0	9,0	57,0	–	–	2	Cylindrical	■
C5121-020F2S.0Z2	SIRA	10269091	2	F	2,0	3,0	4,0	38,0	7,683	2,127	2	Cylindrical	■
C5121-030D2S.0Z2	SIRA	10269093	2	D	3,0	3,0	6,0	38,0	–	–	2	Cylindrical	■
C5121-040D2S.0Z2	SIRA	10269096	2	D	4,0	4,0	8,0	50,0	–	–	2	Cylindrical	■
C5121-050F2S.0Z2	SIRA	10269098	2	D	5,0	6,0	10,0	57,0	–	–	2	Cylindrical	■
C5121-060D2S.0Z2	SIRA	10269101	2	D	6,0	6,0	12,0	57,0	–	–	2	Cylindrical	■
C5121-080D2S.0Z2	SIRA	10269103	2	D	8,0	8,0	16,0	63,0	–	–	2	Cylindrical	■
C5121-090F2S.0Z2	SIRA	10269105	2	F	9,0	10,0	22,0	72,0	18,35	9,127	2	Cylindrical	■
C5121-100D2S.0Z2	SIRA	10269106	2	D	10,0	10,0	22,0	72,0	–	–	2	Cylindrical	■
C5121-120D2S.0Z2	SIRA	10269108	2	D	12,0	12,0	25,0	83,0	–	–	2	Cylindrical	■
C5121-015F3S.0Z2	SIRA	10269090	3	F	1,5	3,0	4,5	38,0	8,183	1,627	2	Cylindrical	■
C5121-020F3S.0Z2	SIRA	10269092	3	F	2,0	3,0	6,3	38,0	9,983	2,127	2	Cylindrical	■
C5121-035F3S.0Z2	SIRA	10269095	3	F	3,5	4,0	12,0	50,0	15,683	3,627	2	Cylindrical	■
C5121-050F3S.0Z2	SIRA	10269099	3	D	5,0	6,0	16,0	57,0	–	–	2	Cylindrical	■
C5121-060D3S.0Z2	SIRA	10269102	3	D	6,0	6,0	19,0	63,0	–	–	2	Cylindrical	■
C5121-080D3S.0Z2	SIRA	10269104	3	D	8,0	8,0	20,0	63,0	–	–	2	Cylindrical	■
C5121-010F4S.0Z2	SIRA	10269089	4	F	1,0	3,0	4,0	38,0	7,683	1,127	2	Cylindrical	■
C5121-030D4S.0Z2	SIRA	10269094	4	D	3,0	3,0	12,0	38,0	–	–	2	Cylindrical	■
C5121-040D4S.0Z2	SIRA	10269097	4	D	4,0	4,0	14,0	50,0	–	–	2	Cylindrical	■
C5121-100D4S.0Z2	SIRA	10269107	4	D	10,0	10,0	35,0	89,0	–	–	2	Cylindrical	■
C5121-120D4S.0Z2	SIRA	10269109	4	D	12,0	12,0	50,0	100,0	–	–	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

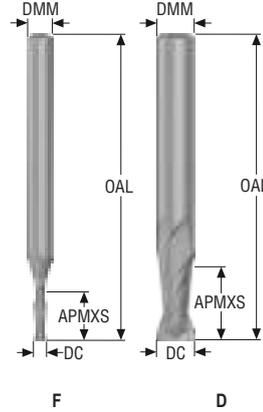
Graphite

X-Heads

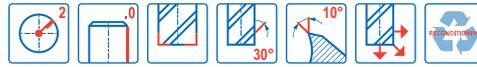
Minimaster

C5121

General purpose – Universal – Square – 2 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +0.0007/-0.002"$
- Regrind possible if DC is  $\geq \varnothing .375$

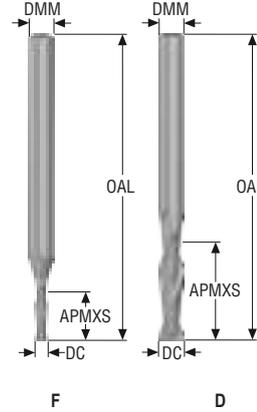


	Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
Non ferrous	C5121-.375D1S.0Z2	10268850	1	D	0.375	0.375	0.625	2.000	—	—	2	Cylindrical	■
	C5121-.500D1S.0Z2	10268858	1	D	0.500	0.500	0.625	2.500	—	—	2	Cylindrical	■
	C5121-.750D1S.0Z2	10268868	1	D	0.750	0.750	1.000	3.000	—	—	2	Cylindrical	■
Hard	C5121-.047F2S.0Z2	10268818	2	F	0.047	0.125	0.109	1.500	0.109	0.052	2	Cylindrical	■
	C5121-.063F2S.0Z2	10268820	2	F	0.063	0.125	0.125	1.500	0.125	0.068	2	Cylindrical	■
	C5121-.094F2S.0Z2	10268824	2	F	0.094	0.125	0.188	1.500	0.188	0.099	2	Cylindrical	■
	C5121-.125D2S.0Z2	10268828	2	D	0.125	0.125	0.250	1.500	—	—	2	Cylindrical	■
	C5121-.156F2S.0Z2	10268833	2	F	0.156	0.188	0.313	2.000	0.313	0.161	2	Cylindrical	■
	C5121-.188D2S.0Z2	10268835	2	D	0.188	0.188	0.375	2.000	—	—	2	Cylindrical	■
Plastic and CFRP	C5121-.250D2S.0Z2	10268841	2	D	0.250	0.250	0.500	2.000	—	—	2	Cylindrical	■
	C5121-.313D2S.0Z2	10268846	2	D	0.313	0.313	0.500	2.000	—	—	2	Cylindrical	■
	C5121-.375D2S.0Z2	10268851	2	D	0.375	0.375	1.000	2.500	—	—	2	Cylindrical	■
	C5121-.438D2S.0Z2	10268856	2	D	0.438	0.438	1.000	2.750	—	—	2	Cylindrical	■
	C5121-.500D2S.0Z2	10268859	2	D	0.500	0.500	1.000	3.000	—	—	2	Cylindrical	■
	C5121-.563D2S.0Z2	10268864	2	D	0.563	0.563	1.125	3.500	—	—	2	Cylindrical	■
Graphite	C5121-.625D2S.0Z2	10268865	2	D	0.625	0.625	1.250	3.500	—	—	2	Cylindrical	■
	C5121-.750D2S.0Z2	10268869	2	D	0.750	0.750	1.500	4.000	—	—	2	Cylindrical	■
	C5121-.875D2S.0Z2	10268872	2	D	0.875	0.875	1.500	4.000	—	—	2	Cylindrical	■
	C5121-1.000D2S.0Z2	10268873	2	D	1.000	1.000	1.500	4.000	—	—	2	Cylindrical	■
	C5121-.031F3S.0Z2	10268690	3	F	0.031	0.125	0.078	1.500	0.078	0.036	2	Cylindrical	■
	C5121-.047F3S.0Z2	10268819	3	F	0.047	0.125	0.125	1.500	0.125	0.052	2	Cylindrical	■
X-Heads	C5121-.063F3S.0Z2	10268821	3	F	0.063	0.125	0.188	1.500	0.188	0.068	2	Cylindrical	■
	C5121-.078F3S.0Z2	10268823	3	F	0.078	0.125	0.250	1.500	0.250	0.083	2	Cylindrical	■
	C5121-.094F3S.0Z2	10268825	3	F	0.094	0.125	0.281	1.500	0.281	0.099	2	Cylindrical	■
	C5121-.109F3S.0Z2	10268827	3	F	0.109	0.125	0.375	1.500	0.375	0.114	2	Cylindrical	■
	C5121-.156F3S.0Z2	10268834	3	F	0.156	0.188	0.500	2.000	0.500	0.161	2	Cylindrical	■
	C5121-.188D3S.0Z2	10268836	3	D	0.188	0.188	0.625	2.000	—	—	2	Cylindrical	■
Minimaster	C5121-.203F3S.0Z2	10268839	3	F	0.203	0.250	0.625	2.500	0.625	0.208	2	Cylindrical	■
	C5121-.219F3S.0Z2	10268840	3	F	0.219	0.250	0.625	2.500	0.625	0.224	2	Cylindrical	■
	C5121-.250D3S.0Z2	10268842	3	D	0.250	0.250	0.750	2.500	—	—	2	Cylindrical	■
	C5121-.281F3S.0Z2	10268845	3	F	0.281	0.313	0.750	2.500	0.750	0.286	2	Cylindrical	■
	C5121-.313D3S.0Z2	10268847	3	D	0.313	0.313	0.813	2.500	—	—	2	Cylindrical	■
	C5121-.344F3S.0Z2	10268849	3	F	0.344	0.375	1.000	2.500	1.000	0.349	2	Cylindrical	■
	C5121-.375D3S.0Z2	10268852	3	D	0.375	0.375	1.000	3.000	—	—	2	Cylindrical	■
	C5121-.500D3S.0Z2	10268860	3	D	0.500	0.500	1.000	4.000	—	—	2	Cylindrical	■

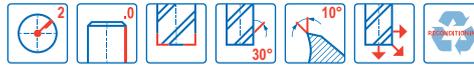
■ Stocked standard.

C5121

General purpose – Universal – Square – 2 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- Regrind possible if DC is ≥Ø.375



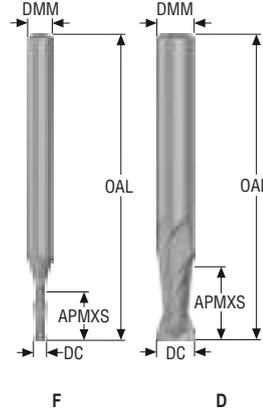
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				inch	inch	inch	inch	inch	inch			
C5121-.031F4S.0Z2	10268817	4	F	0.031	0.125	0.094	1.500	0.094	0.036	2	Cylindrical	■
C5121-.063F4S.0Z2	10268822	4	F	0.063	0.125	0.250	1.500	0.250	0.068	2	Cylindrical	■
C5121-.094F4S.0Z2	10268826	4	F	0.094	0.125	0.375	1.500	0.375	0.099	2	Cylindrical	■
C5121-.125D4S.0Z2	10268829	4	D	0.125	0.125	0.500	1.500	–	–	2	Cylindrical	■
C5121-.188D4S.0Z2	10268837	4	D	0.188	0.188	0.750	2.500	–	–	2	Cylindrical	■
C5121-.250D4S.0Z2	10268843	4	D	0.250	0.250	1.000	3.000	–	–	2	Cylindrical	■
C5121-.313D4S.0Z2	10268848	4	D	0.313	0.313	1.000	3.000	–	–	2	Cylindrical	■
C5121-.375D4S.0Z2	10268853	4	D	0.375	0.375	1.000	4.000	–	–	2	Cylindrical	■
C5121-.500D4S.0Z2	10268861	4	D	0.500	0.500	1.500	6.000	–	–	2	Cylindrical	■
C5121-.625D4S.0Z2	10268866	4	D	0.625	0.625	2.250	5.000	–	–	2	Cylindrical	■
C5121-.750D4S.0Z2	10268870	4	D	0.750	0.750	2.250	5.000	–	–	2	Cylindrical	■
C5121-.125D5S.0Z2	10268830	5	D	0.125	0.125	0.625	2.000	–	–	2	Cylindrical	■
C5121-.375D5S.0Z2	10268854	5	D	0.375	0.375	1.125	3.000	–	–	2	Cylindrical	■
C5121-.438D5S.0Z2	10268857	5	D	0.438	0.438	2.000	4.000	–	–	2	Cylindrical	■
C5121-.500D5S.0Z2	10268862	5	D	0.500	0.500	2.000	4.000	–	–	2	Cylindrical	■
C5121-.625D5S.0Z2	10268867	5	D	0.625	0.625	3.000	6.000	–	–	2	Cylindrical	■
C5121-.750D5S.0Z2	10268871	5	D	0.750	0.750	3.000	6.000	–	–	2	Cylindrical	■
C5121-.125D6S.0Z2	10268831	6	D	0.125	0.125	0.750	3.000	–	–	2	Cylindrical	■
C5121-.188D6S.0Z2	10268838	6	D	0.188	0.188	1.000	4.000	–	–	2	Cylindrical	■
C5121-.375D6S.0Z2	10268855	6	D	0.375	0.375	1.500	6.000	–	–	2	Cylindrical	■
C5121-.250D7S.0Z2	10268844	7	D	0.250	0.250	1.500	4.000	–	–	2	Cylindrical	■
C5121-.500D7S.0Z2	10268863	7	D	0.500	0.500	3.000	6.000	–	–	2	Cylindrical	■
C5121-.125D8S.0Z2	10268832	8	D	0.125	0.125	1.000	3.000	–	–	2	Cylindrical	■

■ Stocked standard.

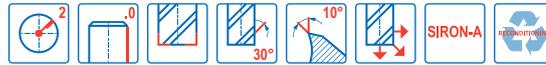
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

C5121

General purpose – Universal – Square – 2 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +0.0007/-0.002"$
- Regrind possible if DC is  $\geq \varnothing .375$

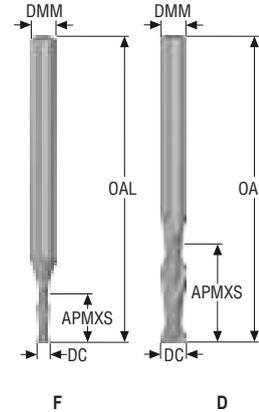


	Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
						inch	inch	inch	inch	inch	inch			
Non ferrous	C5121-.375D1S.022	SIRA	10268726	1	D	0.375	0.375	0.625	2.000	—	—	2	Cylindrical	■
	C5121-.500D1S.022	SIRA	10268734	1	D	0.500	0.500	0.625	2.500	—	—	2	Cylindrical	■
	C5121-.750D1S.022	SIRA	10268744	1	D	0.750	0.750	1.000	3.000	—	—	2	Cylindrical	■
Hard	C5121-.047F2S.022	SIRA	10268693	2	F	0.047	0.125	0.109	1.500	0.109	0.052	2	Cylindrical	■
	C5121-.063F2S.022	SIRA	10268695	2	F	0.063	0.125	0.125	1.500	0.125	0.068	2	Cylindrical	■
	C5121-.094F2S.022	SIRA	10268699	2	F	0.094	0.125	0.188	1.500	0.188	0.099	2	Cylindrical	■
	C5121-.125D2S.022	SIRA	10268703	2	D	0.125	0.125	0.250	1.500	—	—	2	Cylindrical	■
	C5121-.156F2S.022	SIRA	10268708	2	F	0.156	0.188	0.313	2.000	0.313	0.161	2	Cylindrical	■
	C5121-.188D2S.022	SIRA	10268710	2	D	0.188	0.188	0.375	2.000	—	—	2	Cylindrical	■
	C5121-.250D2S.022	SIRA	10268716	2	D	0.250	0.250	0.500	2.000	—	—	2	Cylindrical	■
Plastic and CFRP	C5121-.313D2S.022	SIRA	10268722	2	D	0.313	0.313	0.500	2.000	—	—	2	Cylindrical	■
	C5121-.375D2S.022	SIRA	10268727	2	D	0.375	0.375	1.000	2.500	—	—	2	Cylindrical	■
	C5121-.438D2S.022	SIRA	10268732	2	D	0.438	0.438	1.000	2.750	—	—	2	Cylindrical	■
	C5121-.500D2S.022	SIRA	10268735	2	D	0.500	0.500	1.000	3.000	—	—	2	Cylindrical	■
	C5121-.563D2S.022	SIRA	10268740	2	D	0.563	0.563	1.125	3.500	—	—	2	Cylindrical	■
	C5121-.625D2S.022	SIRA	10268741	2	D	0.625	0.625	1.250	3.500	—	—	2	Cylindrical	■
	C5121-.750D2S.022	SIRA	10268745	2	D	0.750	0.750	1.500	4.000	—	—	2	Cylindrical	■
Graphite	C5121-.875D2S.022	SIRA	10268748	2	D	0.875	0.875	1.500	4.000	—	—	2	Cylindrical	■
	C5121-1.000D2S.022	SIRA	10268749	2	D	1.000	1.000	1.500	4.000	—	—	2	Cylindrical	■
	C5121-.031F3S.022	SIRA	10268691	3	F	0.031	0.125	0.078	1.500	0.078	0.036	2	Cylindrical	■
	C5121-.047F3S.022	SIRA	10268694	3	F	0.047	0.125	0.125	1.500	0.125	0.052	2	Cylindrical	■
	C5121-.063F3S.022	SIRA	10268696	3	F	0.063	0.125	0.188	1.500	0.188	0.068	2	Cylindrical	■
	C5121-.078F3S.022	SIRA	10268698	3	F	0.078	0.125	0.250	1.500	0.250	0.083	2	Cylindrical	■
	C5121-.094F3S.022	SIRA	10268700	3	F	0.094	0.125	0.281	1.500	0.281	0.099	2	Cylindrical	■
X-Heads	C5121-.109F3S.022	SIRA	10268702	3	F	0.109	0.125	0.375	1.500	0.375	0.114	2	Cylindrical	■
	C5121-.156F3S.022	SIRA	10268709	3	F	0.156	0.188	0.500	2.000	0.500	0.161	2	Cylindrical	■
	C5121-.188D3S.022	SIRA	10268711	3	D	0.188	0.188	0.625	2.000	—	—	2	Cylindrical	■
	C5121-.203F3S.022	SIRA	10268714	3	F	0.203	0.250	0.625	2.500	0.625	0.208	2	Cylindrical	■
	C5121-.219F3S.022	SIRA	10268715	3	F	0.219	0.250	0.625	2.500	0.625	0.224	2	Cylindrical	■
	C5121-.250D3S.022	SIRA	10268717	3	D	0.250	0.250	0.750	2.500	—	—	2	Cylindrical	■
	C5121-.281F3S.022	SIRA	10268721	3	F	0.281	0.313	0.750	2.500	0.750	0.286	2	Cylindrical	■
Minimaster	C5121-.313D3S.022	SIRA	10268723	3	D	0.313	0.313	0.813	2.500	—	—	2	Cylindrical	■
	C5121-.344F3S.022	SIRA	10268725	3	F	0.344	0.375	1.000	2.500	1.000	0.349	2	Cylindrical	■
	C5121-.375D3S.022	SIRA	10268728	3	D	0.375	0.375	1.000	3.000	—	—	2	Cylindrical	■
	C5121-.500D3S.022	SIRA	10268736	3	D	0.500	0.500	1.000	4.000	—	—	2	Cylindrical	■

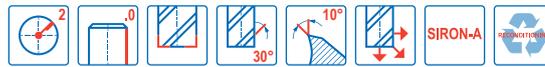
■ Stocked standard.

C5121

General purpose – Universal – Square – 2 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-.0004"$
- DC  $\leq \varnothing 7/64" = \pm .0005"$
- DC  $> \varnothing 7/64" = +.000"/-.002"$
- Regrind possible if DC is  $\geq \varnothing .375$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5121-.031F4S.0Z2	SIRA	10268692	4	F	0.031	0.125	0.094	1.500	0.094	0.036	2	Cylindrical	■
C5121-.063F4S.0Z2	SIRA	10268697	4	F	0.063	0.125	0.250	1.500	0.250	0.068	2	Cylindrical	■
C5121-.094F4S.0Z2	SIRA	10268701	4	F	0.094	0.125	0.375	1.500	0.375	0.099	2	Cylindrical	■
C5121-.125D4S.0Z2	SIRA	10268704	4	D	0.125	0.125	0.500	1.500	–	–	2	Cylindrical	■
C5121-.188D4S.0Z2	SIRA	10268712	4	D	0.188	0.188	0.750	2.500	–	–	2	Cylindrical	■
C5121-.250D4S.0Z2	SIRA	10268718	4	D	0.250	0.250	1.000	3.000	–	–	2	Cylindrical	■
C5121-.313D4S.0Z2	SIRA	10268724	4	D	0.313	0.313	1.000	3.000	–	–	2	Cylindrical	■
C5121-.375D4S.0Z2	SIRA	10268729	4	D	0.375	0.375	1.000	4.000	–	–	2	Cylindrical	■
C5121-.500D4S.0Z2	SIRA	10268737	4	D	0.500	0.500	1.500	6.000	–	–	2	Cylindrical	■
C5121-.625D4S.0Z2	SIRA	10268742	4	D	0.625	0.625	2.250	5.000	–	–	2	Cylindrical	■
C5121-.750D4S.0Z2	SIRA	10268746	4	D	0.750	0.750	2.250	5.000	–	–	2	Cylindrical	■
C5121-.125D5S.0Z2	SIRA	10268705	5	D	0.125	0.125	0.625	2.000	–	–	2	Cylindrical	■
C5121-.375D5S.0Z2	SIRA	10268730	5	D	0.375	0.375	1.125	3.000	–	–	2	Cylindrical	■
C5121-.438D5S.0Z2	SIRA	10268733	5	D	0.438	0.438	2.000	4.000	–	–	2	Cylindrical	■
C5121-.500D5S.0Z2	SIRA	10268738	5	D	0.500	0.500	2.000	4.000	–	–	2	Cylindrical	■
C5121-.625D5S.0Z2	SIRA	10268743	5	D	0.625	0.625	3.000	6.000	–	–	2	Cylindrical	■
C5121-.750D5S.0Z2	SIRA	10268747	5	D	0.750	0.750	3.000	6.000	–	–	2	Cylindrical	■
C5121-.125D6S.0Z2	SIRA	10268706	6	D	0.125	0.125	0.750	3.000	–	–	2	Cylindrical	■
C5121-.188D6S.0Z2	SIRA	10268713	6	D	0.188	0.188	1.000	4.000	–	–	2	Cylindrical	■
C5121-.375D6S.0Z2	SIRA	10268731	6	D	0.375	0.375	1.500	6.000	–	–	2	Cylindrical	■
C5121-.250D7S.0Z2	SIRA	10268719	7	D	0.250	0.250	1.500	4.000	–	–	2	Cylindrical	■
C5121-.500D7S.0Z2	SIRA	10268739	7	D	0.500	0.500	3.000	6.000	–	–	2	Cylindrical	■
C5121-.125D8S.0Z2	SIRA	10268707	8	D	0.125	0.125	1.000	3.000	–	–	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

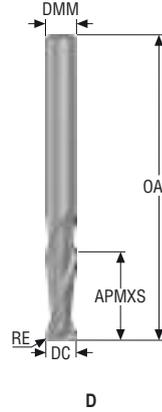
Graphite

X-Heads

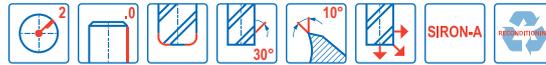
Minimaster

C5121

General purpose – Universal – Square – 2 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:  
 —DMM =  $-.0001"/-0.0004"$   
 —DC  $\leq \varnothing 7/64" = \pm 0.0005"$   
 —DC  $> \varnothing 7/64" = +.000"/-.002"$   
 —RE =  $\pm 0.01"$   
 —Regrind possible if DC is  $\geq \varnothing .375$

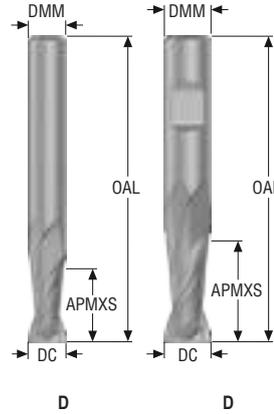


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch			
C5121-500D2R015.0Z2	SIRA	10268755	2	D	0.500	0.500	1.000	3.000	0.015	2	Cylindrical	■
C5121-500D2R030.0Z2	SIRA	10268756	2	D	0.500	0.500	1.000	3.000	0.030	2	Cylindrical	■
C5121-500D2R060.0Z2	SIRA	10268757	2	D	0.500	0.500	1.000	3.000	0.060	2	Cylindrical	■
C5121-500D2R125.0Z2	SIRA	10268758	2	D	0.500	0.500	1.000	3.000	0.125	2	Cylindrical	■
C5121-625D2R015.0Z2	SIRA	10268759	2	D	0.625	0.625	1.250	3.500	0.015	2	Cylindrical	■
C5121-625D2R030.0Z2	SIRA	10268760	2	D	0.625	0.625	1.250	3.500	0.030	2	Cylindrical	■
C5121-625D2R060.0Z2	SIRA	10268761	2	D	0.625	0.625	1.250	3.500	0.060	2	Cylindrical	■
C5121-625D2R125.0Z2	SIRA	10268762	2	D	0.625	0.625	1.250	3.500	0.125	2	Cylindrical	■
C5121-750D2R015.0Z2	SIRA	10268763	2	D	0.750	0.750	1.500	4.000	0.015	2	Cylindrical	■
C5121-750D2R030.0Z2	SIRA	10268764	2	D	0.750	0.750	1.500	4.000	0.030	2	Cylindrical	■
C5121-750D2R060.0Z2	SIRA	10268765	2	D	0.750	0.750	1.500	4.000	0.060	2	Cylindrical	■
C5121-750D2R125.0Z2	SIRA	10268766	2	D	0.750	0.750	1.500	4.000	0.125	2	Cylindrical	■
C5121-750D2R190.0Z2	SIRA	10268767	2	D	0.750	0.750	1.500	4.000	0.190	2	Cylindrical	■
C5121-250D3R015.0Z2	SIRA	10268750	3	D	0.250	0.250	0.750	2.500	0.015	2	Cylindrical	■
C5121-250D3R030.0Z2	SIRA	10268751	3	D	0.250	0.250	0.750	2.500	0.030	2	Cylindrical	■
C5121-375D3R015.0Z2	SIRA	10268752	3	D	0.375	0.375	1.000	2.500	0.015	2	Cylindrical	■
C5121-375D3R030.0Z2	SIRA	10268753	3	D	0.375	0.375	1.000	2.500	0.030	2	Cylindrical	■

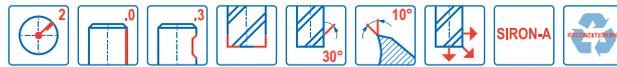
■ Stocked standard.

C5121

General purpose – Universal – Square – 2 Flutes – Cylindrical/Weldon – Sharp – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.001"/-.000"
- NC tolerance
- Regrind possible if DC is ≥Ø.375



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
					inch	inch	inch	inch			
C5121-.375D2S.3Z2NC	SIRA	10269074	2	D	0.375	0.375	0.875	2.500	2	Weldon	■
C5121-.500D2S.3Z2NC	SIRA	10269075	2	D	0.500	0.500	1.000	3.000	2	Weldon	■
C5121-.625D2S.3Z2NC	SIRA	10269076	2	D	0.625	0.625	1.250	3.500	2	Weldon	■
C5121-.750D2S.3Z2NC	SIRA	10269077	2	D	0.750	0.750	1.500	4.000	2	Weldon	■
C5121-.250D3S.0Z2NC	SIRA	10269072	3	D	0.250	0.250	0.750	2.500	2	Cylindrical	■
C5121-.313D3S.0Z2NC	SIRA	10269073	3	D	0.313	0.313	0.813	2.500	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

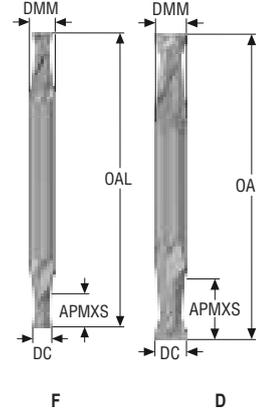
Graphite

X-Heads

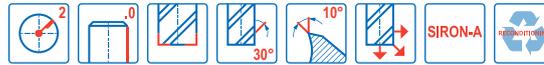
Minimaster

C5121

General purpose – Universal – Square – 2 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +0.000"/-0.002"$
- Double end
- Regrind possible if DC is  $\geq \varnothing .375$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5121-.500D1S.0Z2D	SIRA	10269088	1	D	0.500	0.500	0.625	3.000	—	—	2	Cylindrical	■
C5121-.031F2S.0Z2D	SIRA	10269078	2	F	0.031	0.125	0.063	1.500	0.063	0.036	2	Cylindrical	■
C5121-.047F2S.0Z2D	SIRA	10269079	2	F	0.047	0.125	0.094	1.500	0.094	0.052	2	Cylindrical	■
C5121-.063F2S.0Z2D	SIRA	10269080	2	F	0.063	0.125	0.125	1.500	0.125	0.068	2	Cylindrical	■
C5121-.078F2S.0Z2D	SIRA	10269081	2	F	0.078	0.125	0.125	1.500	0.125	0.083	2	Cylindrical	■
C5121-.094F2S.0Z2D	SIRA	10269082	2	F	0.094	0.125	0.188	1.500	0.188	0.099	2	Cylindrical	■
C5121-.125D2S.0Z2D	SIRA	10269083	2	D	0.125	0.125	0.250	1.500	—	—	2	Cylindrical	■
C5121-.188D2S.0Z2D	SIRA	10269084	2	D	0.188	0.188	0.375	2.000	—	—	2	Cylindrical	■
C5121-.250D2S.0Z2D	SIRA	10269085	2	D	0.250	0.250	0.500	2.500	—	—	2	Cylindrical	■
C5121-.313D2S.0Z2D	SIRA	10269086	2	D	0.313	0.313	0.500	2.500	—	—	2	Cylindrical	■
C5121-.375D2S.0Z2D	SIRA	10269087	2	D	0.375	0.375	0.563	2.500	—	—	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – C5121 Side milling

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>		Material
				1	1,5	2	3	3,5	4	5	6	8	9	10	12	150 (135 – 165)	490 (440 – 540)	
P1	E	0,1 0.10	2 2.0	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	150 (135 – 165) 490 (440 – 540)	Universal	
P2	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	58 (45 – 70) 190 (147 – 230)	Steel and cast iron	
P3	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	85 (70 – 95) 279 (246 – 312)	Steel and cast iron	
P4	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	100 (90 – 110) 330 (295 – 360)	Steel and cast iron	
P5	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	68 (50 – 75) 223 (165 – 245)	Steel and cast iron	
P6	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	87 (77 – 100) 285 (250 – 330)	Steel and cast iron	
P7	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	65 (55 – 75) 213 (180 – 245)	Stainless steel and S-materials	
P8	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	65 (55 – 75) 213 (165 – 245)	Stainless steel and S-materials	
P11	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	85 (70 – 95) 280 (230 – 310)	Stainless steel and S-materials	
P12	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0048 0.00019	0,0065 0.00026	0,0095 0.00038	0,011 0.00044	0,013 0.00050	0,016 0.00065	0,019 0.00075	0,026 0.0010	0,028 0.0011	0,032 0.0013	0,038 0.0015	55 (45 – 65) 180 (147 – 213)	Stainless steel and S-materials	
M1	E	0,1 0.10	2 2.0	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	93 (83 – 100) 305 (270 – 360)	Non ferrous	
M2	E	0,1 0.10	2 2.0	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	60 (50 – 70) 200 (165 – 230)	Non ferrous	
M3	E	0,1 0.10	2 2.0	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	55 (45 – 65) 180 (147 – 213)	Non ferrous	
M4	E	0,1 0.10	2 2.0	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	45 (35 – 55) 147 (115 – 180)	Non ferrous	
M5	E	0,1 0.10	2 2.0	0,0044 0.00017	0,0065 0.00026	0,0085 0.00034	0,013 0.00050	0,015 0.00060	0,017 0.00065	0,022 0.00085	0,026 0.0010	0,034 0.0013	0,038 0.0015	0,042 0.0017	0,05 0.0020	35 (20 – 45) 114 (65 – 147)	Hard	
K1	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	80 (70 – 90) 260 (230 – 290)	Hard	
K2	E	0,1 0.10	2 2.0	0,0055 0.00022	0,0085 0.00034	0,011 0.00044	0,017 0.00065	0,02 0.00080	0,022 0.00085	0,028 0.0011	0,034 0.0013	0,044 0.0017	0,05 0.0020	0,055 0.0022	0,065 0.0026	87 (75 – 100) 285 (245 – 330)	Hard	
K3	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	65 (55 – 75) 213 (180 – 245)	Plastic and CFRP	
K4	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	165 (115 – 213) 50 (35 – 65)	Plastic and CFRP	
K5	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	45 (30 – 55) 147 (100 – 180)	Plastic and CFRP	
K6	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	77 (65 – 85) 250 (210 – 280)	Plastic and CFRP	
K7	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	77 (60 – 90) 250 (200 – 290)	Plastic and CFRP	
S1	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	50 (35 – 60) 165 (115 – 200)	Graphite	
S2	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0048 0.00019	0,0065 0.00026	0,0095 0.00038	0,011 0.00044	0,013 0.00050	0,016 0.00065	0,019 0.00075	0,026 0.0010	0,028 0.0011	0,032 0.0013	0,038 0.0015	25 (15 – 35) 82 (50 – 115)	Graphite	
S3	E	0,1 0.10	2 2.0	0,002 0.00080	0,0032 0.00013	0,0042 0.00017	0,0065 0.00026	0,0075 0.00030	0,0085 0.00034	0,01 0.00040	0,013 0.00050	0,017 0.00065	0,019 0.00075	0,02 0.00080	0,025 0.0010	11 (7,5 – 16) 35 (25 – 52)	Graphite	
S11	E	0,1 0.10	2 2.0	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	110 (95 – 120) 360 (311 – 390)	Graphite	
S12	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0048 0.00019	0,0065 0.00026	0,0095 0.00038	0,011 0.00044	0,013 0.00050	0,016 0.00065	0,019 0.00075	0,026 0.0010	0,028 0.0011	0,032 0.0013	0,038 0.0015	77 (60 – 90) 250 (190 – 290)	X-Heads	
S13	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0048 0.00019	0,0065 0.00026	0,0095 0.00038	0,011 0.00044	0,013 0.00050	0,016 0.00065	0,019 0.00075	0,026 0.0010	0,028 0.0011	0,032 0.0013	0,038 0.0015	30 (20 – 40) 100 (65 – 130)	X-Heads	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – C5121 Side milling – Inch

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
				1/32	1/16	1/8	1/6	1/5	2/9	1/4	1/3	3/8	1/2	5/8	3/4	1	
P1	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	150 (135 – 165) 490 (440 – 540)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	58 (45 – 70) 190 (147 – 230)
P3	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	85 (70 – 95) 279 (246 – 312)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	100 (90 – 110) 330 (295 – 360)
P5	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	68 (50 – 75) 223 (165 – 245)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	87 (77 – 100) 285 (250 – 330)
P7	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	65 (55 – 75) 213 (180 – 245)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	65 (50 – 75) 213 (165 – 245)
P11	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	85 (70 – 95) 280 (230 – 310)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	280 (230 – 310) 180 (147 – 213)
M1	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	93 (83 – 100) 305 (270 – 360)
	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	60 (50 – 70) 200 (165 – 230)
M3	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	55 (45 – 65) 180 (147 – 213)
	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	45 (35 – 55) 147 (115 – 180)
M5	E	0,1 0.10	2 2.0	0,0034 0.00013	0,007 0.00028	0,014 0.00055	0,017 0.00065	0,02 0.00080	0,024 0.00095	0,028 0.0011	0,034 0.0013	0,04 0.0016	0,055 0.0022	0,07 0.0028	0,08 0.0032	0,11 0.0044	35 (20 – 45) 114 (65 – 147)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	80 (70 – 90) 260 (230 – 290)
K2	E	0,1 0.10	2 2.0	0,0044 0.00017	0,009 0.00036	0,018 0.00070	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,036 0.0014	0,044 0.0017	0,055 0.0022	0,07 0.0028	0,09 0.0036	0,11 0.0044	0,14 0.0055	87 (75 – 100) 285 (245 – 330)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	65 (55 – 75) 213 (180 – 245)
K4	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	50 (35 – 65) 165 (115 – 213)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	45 (30 – 55) 147 (100 – 180)
K6	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	77 (65 – 85) 250 (210 – 280)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	77 (60 – 90) 250 (200 – 290)
S1	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	50 (35 – 60) 165 (115 – 200)
	E	0,1 0.10	2 2.0	0,0025 0.00010	0,005 0.00020	0,01 0.00040	0,013 0.00050	0,015 0.00060	0,018 0.00070	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,05 0.0020	0,06 0.0024	0,08 0.0032	25 (15 – 35) 82 (50 – 115)
S3	E	0,1 0.10	2 2.0	0,0017 0.000065	0,0034 0.00013	0,0065 0.00026	0,0085 0.00034	0,01 0.00040	0,012 0.00048	0,013 0.00050	0,017 0.00065	0,02 0.00080	0,026 0.0010	0,034 0.0013	0,04 0.0016	0,055 0.0022	11 (7,5 – 16) 35 (25 – 52)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	110 (95 – 120) 360 (311 – 390)
S12	E	0,1 0.10	2 2.0	0,0025 0.00010	0,005 0.00020	0,01 0.00040	0,013 0.00050	0,015 0.00060	0,018 0.00070	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,05 0.0020	0,06 0.0024	0,08 0.0032	77 (60 – 90) 250 (190 – 290)
	E	0,1 0.10	2 2.0	0,0025 0.00010	0,005 0.00020	0,01 0.00040	0,013 0.00050	0,015 0.00060	0,018 0.00070	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,05 0.0020	0,06 0.0024	0,08 0.0032	30 (20 – 40) 100 (65 – 130)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – C5121 Slot milling

SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
			1	1,5	2	3	3,5	4	5	6	8	9	10	12	
P1	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	75 (50 — 85)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	245 (170 — 270)
P2	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (20 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	100 (66 — 130)
P3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	45 (30 — 60)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	147 (98 — 196)
P4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	55 (40 — 65)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	180 (130 — 210)
P5	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (20 — 45)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	115 (65 — 145)
P6	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	45 (30 — 60)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	145 (100 — 195)
P7	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (20 — 50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	115 (65 — 165)
P8	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	25 (15 — 35)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	80 (50 — 110)
P11	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (20 — 42)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	105 (65 — 138)
P12	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	30 (20 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	100 (65 — 130)
M1	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	42 (21 — 52)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	138 (69 — 170)
M2	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (20 — 42)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	105 (65 — 138)
M3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	30 (15 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	100 (50 — 130)
M4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	22 (10 — 35)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	72 (33 — 115)
M5	E	1	0,0013	0,002	0,0026	0,004	0,0046	0,005	0,0065	0,008	0,01	0,012	0,013	0,016	19 (16 — 30)
		1.0	0.000050	0.000080	0.00010	0.00016	0.00018	0.00020	0.00026	0.00032	0.00040	0.00048	0.00050	0.00065	62 (52 — 100)
K1	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	30 (20 — 45)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	100 (65 — 147)
K2	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	40 (30 — 50)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	130 (100 — 165)
K3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (26 — 45)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	105 (85 — 148)
K4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	22 (18 — 30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	72 (60 — 100)
K5	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	20 (15 — 30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	65 (50 — 100)
K6	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (20 — 50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	115 (65 — 165)
K7	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (20 — 50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	115 (65 — 165)
S1	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	25 (18 — 30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	80 (60 — 100)
S2	E	1	0,001	0,0015	0,002	0,003	0,0036	0,004	0,005	0,006	0,008	0,009	0,01	0,012	13 (9 — 18)
		1.0	0.000040	0.000060	0.000080	0.00012	0.00014	0.00016	0.00020	0.00024	0.00032	0.00036	0.00040	0.00048	62 (30 — 60)
S3	E	1	0,001	0,0015	0,002	0,003	0,0036	0,004	0,005	0,006	0,008	0,009	0,01	0,012	7,0 (5 — 12)
		1.0	0.000040	0.000060	0.000080	0.00012	0.00014	0.00016	0.00020	0.00024	0.00032	0.00036	0.00040	0.00048	23 (15 — 39)
S11	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (25 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	114 (82 — 130)
S12	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (22 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	105 (72 — 130)
S13	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	10 (8 — 15)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	33 (26 — 50)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – C5121 Slot milling – Inch

SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
			1/32	1/16	1/8	1/6	1/5	2/9	1/4	1/3	3/8	1/2	5/8	3/4	1	
P1	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	75 (50—85)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	245 (170—270)
P2	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (20—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	100 (66—130)
P3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	45 (30—60)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	147 (98—196)
P4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	55 (40—65)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	180 (130—210)
P5	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (20—45)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	115 (65—145)
P6	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	45 (30—60)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	145 (100—195)
P7	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (20—50)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	115 (65—165)
P8	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	25 (15—35)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	80 (50—110)
P11	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (20—42)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	105 (65—138)
P12	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	30 (20—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	100 (65—130)
M1	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	42 (21—52)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	138 (69—170)
M2	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (20—42)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	105 (65—138)
M3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	30 (15—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	100 (50—130)
M4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	22 (10—35)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	72 (33—115)
M5	E	1	0,001	0,002	0,004	0,005	0,006	0,007	0,0085	0,01	0,012	0,017	0,02	0,025	0,034	19 (16—30)
		1.0	0.000040	0.000080	0.00017	0.00020	0.00024	0.00028	0.00034	0.00040	0.00048	0.00065	0.00080	0.0010	0.0013	62 (52—100)
K1	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	30 (20—45)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	100 (65—147)
K2	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	40 (30—50)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	130 (100—165)
K3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (26—45)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	105 (85—148)
K4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	22 (18—30)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	72 (60—100)
K5	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	20 (15—30)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	65 (50—100)
K6	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (20—50)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	115 (65—165)
K7	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (20—50)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	115 (65—165)
S1	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	25 (18—30)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	80 (60—100)
S2	E	1	0,0008	0,0016	0,0032	0,004	0,0048	0,0055	0,0065	0,008	0,0095	0,013	0,016	0,019	0,025	13 (9—18)
		1.0	0.000032	0.000065	0.00013	0.00016	0.00019	0.00022	0.00026	0.00032	0.00038	0.00050	0.00065	0.00075	0.0010	62 (30—60)
S3	E	1	0,0008	0,0016	0,0032	0,004	0,0048	0,0055	0,0065	0,008	0,0095	0,013	0,016	0,019	0,025	7,0 (5—12)
		1.0	0.000032	0.000065	0.00013	0.00016	0.00019	0.00022	0.00026	0.00032	0.00038	0.00050	0.00065	0.00075	0.0010	23 (15—39)
S11	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (25—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	114 (82—130)
S12	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (22—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	105 (72—130)
S13	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	10 (8—15)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	33 (26—50)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

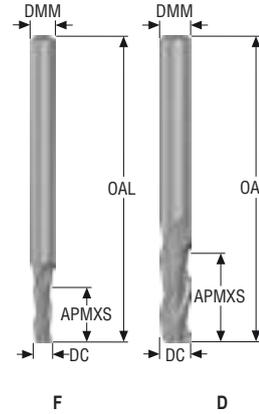
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

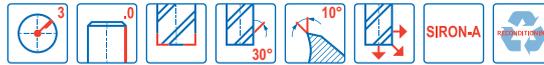
All cutting data are target values

C5131

General purpose – Universal – Square – 3 Flutes – Cylindrical – Sharp



- Tolerances:
- DMM=h5
- DC= h10
- Regrind possible if DC is  $\geq \varnothing 10$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm			
C5131-060D1S.OZ3	SIRA	10268801	1	D	6,0	6,0	9,0	57,0	–	–	3	Cylindrical	■
C5131-020F2S.OZ3	SIRA	10268792	2	F	2,0	3,0	4,0	38,0	7,683	2,127	3	Cylindrical	■
C5131-030D2S.OZ3	SIRA	10268794	2	D	3,0	3,0	6,0	38,0	–	–	3	Cylindrical	■
C5131-040D2S.OZ3	SIRA	10268797	2	D	4,0	4,0	8,0	50,0	–	–	3	Cylindrical	■
C5131-050F2S.OZ3	SIRA	10268799	2	D	5,0	6,0	10,0	57,0	–	–	3	Cylindrical	■
C5131-060D2S.OZ3	SIRA	10268802	2	D	6,0	6,0	12,0	57,0	–	–	3	Cylindrical	■
C5131-080D2S.OZ3	SIRA	10268804	2	D	8,0	8,0	16,0	63,0	–	–	3	Cylindrical	■
C5131-090F2S.OZ3	SIRA	10268806	2	F	9,0	10,0	22,0	72,0	18,35	9,127	3	Cylindrical	■
C5131-100D2S.OZ3	SIRA	10268807	2	D	10,0	10,0	22,0	72,0	–	–	3	Cylindrical	■
C5131-120D2S.OZ3	SIRA	10268809	2	D	12,0	12,0	25,0	83,0	–	–	3	Cylindrical	■
C5131-015F3S.OZ3	SIRA	10268791	3	F	1,5	3,0	4,5	38,0	8,183	1,627	3	Cylindrical	■
C5131-020F3S.OZ3	SIRA	10268793	3	F	2,0	3,0	6,3	38,0	9,983	2,127	3	Cylindrical	■
C5131-035F3S.OZ3	SIRA	10268796	3	F	3,5	4,0	12,0	50,0	15,683	3,627	3	Cylindrical	■
C5131-050F3S.OZ3	SIRA	10268800	3	D	5,0	6,0	16,0	57,0	–	–	3	Cylindrical	■
C5131-060D3S.OZ3	SIRA	10268803	3	D	6,0	6,0	19,0	63,0	–	–	3	Cylindrical	■
C5131-080D3S.OZ3	SIRA	10268805	3	D	8,0	8,0	20,0	63,0	–	–	3	Cylindrical	■
C5131-010F4S.OZ3	SIRA	10268790	4	F	1,0	3,0	4,0	38,0	7,683	1,127	3	Cylindrical	■
C5131-030D4S.OZ3	SIRA	10268795	4	D	3,0	3,0	12,0	38,0	–	–	3	Cylindrical	■
C5131-040D4S.OZ3	SIRA	10268798	4	D	4,0	4,0	14,0	50,0	–	–	3	Cylindrical	■
C5131-100D4S.OZ3	SIRA	10268808	4	D	10,0	10,0	35,0	89,0	–	–	3	Cylindrical	■
C5131-120D4S.OZ3	SIRA	10268810	4	D	12,0	12,0	50,0	100,0	–	–	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

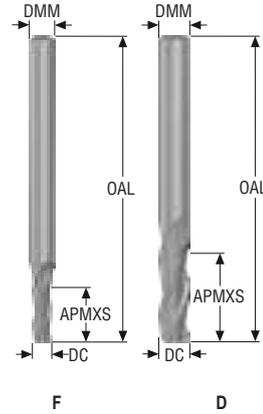
Graphite

X-Heads

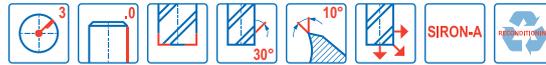
Minimaster

C5131

General purpose – Universal – Square – 3 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- Regrind possible if DC is ≥Ø.375



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5131-.047F2S.0Z3	SIRA	10268772	2	F	0.047	0.125	0.109	1.500	0.109	0.052	3	Cylindrical	■
C5131-.078F2S.0Z3	SIRA	10268774	2	F	0.078	0.125	0.188	1.500	0.188	0.083	3	Cylindrical	■
C5131-.438D2S.0Z3	SIRA	10268784	2	D	0.438	0.438	1.000	2.750	–	–	3	Cylindrical	■
C5131-.500D2S.0Z3	SIRA	10268785	2	D	0.500	0.500	1.000	3.000	–	–	3	Cylindrical	■
C5131-.563D2S.0Z3	SIRA	10268786	2	D	0.563	0.563	1.125	3.500	–	–	3	Cylindrical	■
C5131-.625D2S.0Z3	SIRA	10268787	2	D	0.625	0.625	1.250	3.500	–	–	3	Cylindrical	■
C5131-.750D2S.0Z3	SIRA	10268788	2	D	0.750	0.750	1.500	4.000	–	–	3	Cylindrical	■
C5131-1.000D2S.0Z3	SIRA	10268789	2	D	1.000	1.000	1.500	4.000	–	–	3	Cylindrical	■
C5131-.031F3S.0Z3	SIRA	10268771	3	F	0.031	0.125	0.078	1.500	0.078	0.036	3	Cylindrical	■
C5131-.063F3S.0Z3	SIRA	10268773	3	F	0.063	0.125	0.188	1.500	0.188	0.068	3	Cylindrical	■
C5131-.094F3S.0Z3	SIRA	10268775	3	F	0.094	0.125	0.281	1.500	0.281	0.099	3	Cylindrical	■
C5131-.109F3S.0Z3	SIRA	10268776	3	F	0.109	0.125	0.375	1.500	0.375	0.114	3	Cylindrical	■
C5131-.156F3S.0Z3	SIRA	10268778	3	F	0.156	0.188	0.500	2.000	0.500	0.161	3	Cylindrical	■
C5131-.188D3S.0Z3	SIRA	10268779	3	D	0.188	0.188	0.625	2.000	–	–	3	Cylindrical	■
C5131-.219F3S.0Z3	SIRA	10268780	3	F	0.219	0.250	0.625	2.500	0.625	0.224	3	Cylindrical	■
C5131-.250D3S.0Z3	SIRA	10268781	3	D	0.250	0.250	0.750	2.500	–	–	3	Cylindrical	■
C5131-.313D3S.0Z3	SIRA	10268782	3	D	0.313	0.313	0.813	2.500	–	–	3	Cylindrical	■
C5131-.375D3S.0Z3	SIRA	10268783	3	D	0.375	0.375	1.000	2.500	–	–	3	Cylindrical	■
C5131-.125D4S.0Z3	SIRA	10268777	4	D	0.125	0.125	0.500	1.500	–	–	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – C5131 Side milling

SMG	A	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				1	1,5	2	3	3,5	4	5	6	8	9	10	12	
P1	E	0,1 0.10	1,9 1.9	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	150 (135 – 165) 490 (440 – 540)
P2	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	58 (45 – 70) 190 (147 – 230)
P3	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	85 (70 – 95) 279 (246 – 312)
P4	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	100 (90 – 110) 330 (295 – 360)
P5	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	68 (50 – 75) 223 (165 – 245)
P6	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	87 (77 – 100) 285 (250 – 330)
P7	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	65 (55 – 75) 213 (180 – 245)
P8	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	65 (45 – 75) 213 (165 – 245)
P11	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	85 (70 – 95) 280 (230 – 310)
P12	E	0,1 0.10	1,9 1.9	0,0032 0.00013	0,0048 0.00019	0,0065 0.00026	0,0095 0.00038	0,011 0.00044	0,013 0.00050	0,016 0.00065	0,019 0.00075	0,026 0.0010	0,028 0.0011	0,032 0.0013	0,038 0.0015	55 (45 – 65) 180 (147 – 213)
M1	E	0,1 0.10	1,9 1.9	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	93 (83 – 100) 305 (270 – 360)
M2	E	0,1 0.10	1,9 1.9	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	60 (50 – 70) 200 (165 – 230)
M3	E	0,1 0.10	1,9 1.9	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	55 (45 – 65) 180 (147 – 213)
M4	E	0,1 0.10	1,9 1.9	0,0048 0.00019	0,0075 0.00030	0,01 0.00040	0,015 0.00060	0,017 0.00065	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,044 0.0017	0,048 0.0019	0,06 0.0024	45 (35 – 55) 147 (115 – 180)
M5	E	0,1 0.10	1,9 1.9	0,0044 0.00017	0,0065 0.00026	0,0085 0.00034	0,013 0.00050	0,015 0.00060	0,017 0.00065	0,022 0.00085	0,026 0.0010	0,034 0.0013	0,038 0.0015	0,042 0.0017	0,05 0.0020	35 (20 – 45) 114 (65 – 147)
K1	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	80 (70 – 90) 260 (230 – 290)
K2	E	0,1 0.10	1,9 1.9	0,0055 0.00022	0,0085 0.00034	0,011 0.00044	0,017 0.00065	0,02 0.00080	0,022 0.00085	0,028 0.0011	0,034 0.0013	0,044 0.0017	0,05 0.0020	0,055 0.0022	0,065 0.0026	87 (75 – 100) 285 (245 – 330)
K3	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	65 (55 – 75) 213 (180 – 245)
K4	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	165 (115 – 213)
K5	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	45 (30 – 55) 147 (100 – 180)
K6	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	77 (65 – 85) 250 (210 – 280)
K7	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	77 (60 – 90) 250 (200 – 290)
S1	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	50 (35 – 60) 165 (115 – 200)
S2	E	0,1 0.10	1,9 1.9	0,0032 0.00013	0,0048 0.00019	0,0065 0.00026	0,0095 0.00038	0,011 0.00044	0,013 0.00050	0,016 0.00065	0,019 0.00075	0,026 0.0010	0,028 0.0011	0,032 0.0013	0,038 0.0015	25 (15 – 35) 82 (50 – 115)
S3	E	0,1 0.10	1,9 1.9	0,002 0.00080	0,0032 0.00013	0,0042 0.00017	0,0065 0.00026	0,0075 0.00030	0,0085 0.00034	0,01 0.00040	0,013 0.00050	0,017 0.00065	0,019 0.00075	0,02 0.00080	0,025 0.0010	11 (7,5 – 16) 35 (25 – 52)
S11	E	0,1 0.10	1,9 1.9	0,004 0.00016	0,006 0.00024	0,008 0.00032	0,012 0.00048	0,014 0.00055	0,016 0.00065	0,02 0.00080	0,025 0.0010	0,032 0.0013	0,036 0.0014	0,04 0.0016	0,05 0.0020	110 (95 – 120) 360 (311 – 390)
S12	E	0,1 0.10	1,9 1.9	0,0032 0.00013	0,0048 0.00019	0,0065 0.00026	0,0095 0.00038	0,011 0.00044	0,013 0.00050	0,016 0.00065	0,019 0.00075	0,026 0.0010	0,028 0.0011	0,032 0.0013	0,038 0.0015	77 (60 – 90) 250 (190 – 290)
S13	E	0,1 0.10	1,9 1.9	0,0032 0.00013	0,0048 0.00019	0,0065 0.00026	0,0095 0.00038	0,011 0.00044	0,013 0.00050	0,016 0.00065	0,019 0.00075	0,026 0.0010	0,028 0.0011	0,032 0.0013	0,038 0.0015	30 (20 – 40) 100 (65 – 130)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – C5131 Side milling – Inch

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
				1/32	1/16	1/8	1/6	1/5	2/9	1/4	1/3	3/8	1/2	5/8	3/4	1	
P1	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	150 (135 – 165) 490 (440 – 540)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	58 (45 – 70) 190 (147 – 230)
P3	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	85 (70 – 95) 279 (246 – 312)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	100 (90 – 110) 330 (295 – 360)
P5	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	68 (50 – 75) 223 (165 – 245)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	87 (77 – 100) 285 (250 – 330)
P7	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	65 (55 – 75) 213 (180 – 245)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	65 (50 – 75) 213 (165 – 245)
P11	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	85 (70 – 95) 280 (230 – 310)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	280 (230 – 310) 180 (147 – 213)
M1	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	93 (83 – 100) 305 (270 – 360)
	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	60 (50 – 70) 200 (165 – 230)
M3	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	55 (45 – 65) 180 (147 – 213)
	E	0,1 0.10	2 2.0	0,0038 0.00015	0,008 0.00032	0,016 0.00065	0,019 0.00075	0,024 0.00095	0,028 0.0011	0,032 0.0013	0,038 0.0015	0,046 0.0018	0,06 0.0024	0,08 0.0032	0,095 0.0038	0,12 0.0048	45 (35 – 55) 147 (115 – 180)
M5	E	0,1 0.10	2 2.0	0,0034 0.00013	0,007 0.00028	0,014 0.00055	0,017 0.00065	0,02 0.00080	0,024 0.00095	0,028 0.0011	0,034 0.0013	0,04 0.0016	0,055 0.0022	0,07 0.0028	0,08 0.0032	0,11 0.0044	35 (20 – 45) 114 (65 – 147)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	80 (70 – 90) 260 (230 – 290)
K2	E	0,1 0.10	2 2.0	0,0044 0.00017	0,009 0.00036	0,018 0.00070	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,036 0.0014	0,044 0.0017	0,055 0.0022	0,07 0.0028	0,09 0.0036	0,11 0.0044	0,14 0.0055	87 (75 – 100) 285 (245 – 330)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	65 (55 – 75) 213 (180 – 245)
K4	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	50 (35 – 65) 165 (115 – 213)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	45 (30 – 55) 147 (100 – 180)
K6	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	77 (65 – 85) 250 (210 – 280)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	77 (60 – 90) 250 (200 – 290)
S1	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	50 (35 – 60) 165 (115 – 200)
	E	0,1 0.10	2 2.0	0,0025 0.00010	0,005 0.00020	0,01 0.00040	0,013 0.00050	0,015 0.00060	0,018 0.00070	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,05 0.0020	0,06 0.0024	0,08 0.0032	25 (15 – 35) 82 (50 – 115)
S3	E	0,1 0.10	2 2.0	0,0017 0.000065	0,0034 0.00013	0,0065 0.00026	0,0085 0.00034	0,01 0.00040	0,012 0.00048	0,013 0.00050	0,017 0.00065	0,02 0.00080	0,026 0.0010	0,034 0.0013	0,04 0.0016	0,055 0.0022	11 (7,5 – 16) 35 (25 – 52)
	E	0,1 0.10	2 2.0	0,0032 0.00013	0,0065 0.00026	0,013 0.00050	0,016 0.00065	0,02 0.00080	0,022 0.00085	0,026 0.0010	0,032 0.0013	0,04 0.0016	0,05 0.0020	0,065 0.0026	0,08 0.0032	0,1 0.0040	110 (95 – 120) 360 (311 – 390)
S12	E	0,1 0.10	2 2.0	0,0025 0.00010	0,005 0.00020	0,01 0.00040	0,013 0.00050	0,015 0.00060	0,018 0.00070	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,05 0.0020	0,06 0.0024	0,08 0.0032	77 (60 – 90) 250 (190 – 290)
	E	0,1 0.10	2 2.0	0,0025 0.00010	0,005 0.00020	0,01 0.00040	0,013 0.00050	0,015 0.00060	0,018 0.00070	0,02 0.00080	0,025 0.0010	0,03 0.0012	0,04 0.0016	0,05 0.0020	0,06 0.0024	0,08 0.0032	30 (20 – 40) 100 (65 – 130)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – C5131 Slot milling

SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
			1	1,5	2	3	3,5	4	5	6	8	9	10	12	
P1	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	75 (50 — 85)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	245 (170 — 270)
P2	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (20 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	100 (66 — 130)
P3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	45 (30 — 60)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	147 (98 — 196)
P4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	55 (40 — 65)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	180 (130 — 210)
P5	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (20 — 45)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	115 (65 — 145)
P6	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	45 (30 — 60)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	145 (100 — 195)
P7	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (20 — 50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	115 (65 — 165)
P8	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	25 (15 — 35)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	80 (50 — 110)
P11	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (20 — 42)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	105 (65 — 138)
P12	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	30 (20 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	100 (65 — 130)
M1	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	42 (21 — 52)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	138 (69 — 170)
M2	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (20 — 42)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	105 (65 — 138)
M3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	30 (15 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	100 (50 — 130)
M4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	22 (10 — 35)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	72 (33 — 115)
M5	E	1	0,0013	0,002	0,0026	0,004	0,0046	0,005	0,0065	0,008	0,01	0,012	0,013	0,016	19 (16 — 30)
		1.0	0.000050	0.000080	0.00010	0.00016	0.00018	0.00020	0.00026	0.00032	0.00040	0.00048	0.00050	0.00065	62 (52 — 100)
K1	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	30 (20 — 45)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	100 (65 — 147)
K2	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	40 (30 — 50)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	130 (100 — 165)
K3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (26 — 45)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	105 (85 — 148)
K4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	22 (18 — 30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	72 (60 — 100)
K5	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	20 (15 — 30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	65 (50 — 100)
K6	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (20 — 50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	115 (65 — 165)
K7	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (20 — 50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	115 (65 — 165)
S1	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	25 (18 — 30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	80 (60 — 100)
S2	E	1	0,001	0,0015	0,002	0,003	0,0036	0,004	0,005	0,006	0,008	0,009	0,01	0,012	13 (9 — 18)
		1.0	0.000040	0.000060	0.000080	0.00012	0.00014	0.00016	0.00020	0.00024	0.00032	0.00036	0.00040	0.00048	62 (30 — 60)
S3	E	1	0,001	0,0015	0,002	0,003	0,0036	0,004	0,005	0,006	0,008	0,009	0,01	0,012	7,0 (5 — 12)
		1.0	0.000040	0.000060	0.000080	0.00012	0.00014	0.00016	0.00020	0.00024	0.00032	0.00036	0.00040	0.00048	23 (15 — 39)
S11	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	35 (25 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	114 (82 — 130)
S12	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	32 (22 — 40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	105 (72 — 130)
S13	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	10 (8 — 15)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	33 (26 — 50)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – C5131 Slot milling – Inch

SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
			1/32	1/16	1/8	1/6	1/5	2/9	1/4	1/3	3/8	1/2	5/8	3/4	1	
P1	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	75 (50—85)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	245 (170—270)
P2	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (20—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	100 (66—130)
P3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	45 (30—60)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	147 (98—196)
P4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	55 (40—65)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	180 (130—210)
P5	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (20—45)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	115 (65—145)
P6	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	45 (30—60)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	145 (100—195)
P7	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (20—50)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	115 (65—165)
P8	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	25 (15—35)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	80 (50—110)
P11	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (20—42)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	105 (65—138)
P12	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	30 (20—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	100 (65—130)
M1	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	42 (21—52)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	138 (69—170)
M2	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (20—42)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	105 (65—138)
M3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	30 (15—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	100 (50—130)
M4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	22 (10—35)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	72 (33—115)
M5	E	1	0,001	0,002	0,004	0,005	0,006	0,007	0,0085	0,01	0,012	0,017	0,02	0,025	0,034	19 (16—30)
		1.0	0.000040	0.000080	0.00017	0.00020	0.00024	0.00028	0.00034	0.00040	0.00048	0.00065	0.00080	0.0010	0.0013	62 (52—100)
K1	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	30 (20—45)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	100 (65—147)
K2	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	40 (30—50)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	130 (100—165)
K3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (26—45)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	105 (85—148)
K4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	22 (18—30)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	72 (60—100)
K5	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	20 (15—30)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	65 (50—100)
K6	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (20—50)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	115 (65—165)
K7	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (20—50)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	115 (65—165)
S1	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	25 (18—30)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	80 (60—100)
S2	E	1	0,0008	0,0016	0,0032	0,004	0,0048	0,0055	0,0065	0,008	0,0095	0,013	0,016	0,019	0,025	13 (9—18)
		1.0	0.000032	0.000065	0.00013	0.00016	0.00019	0.00022	0.00026	0.00032	0.00038	0.00050	0.00065	0.00075	0.0010	62 (30—60)
S3	E	1	0,0008	0,0016	0,0032	0,004	0,0048	0,0055	0,0065	0,008	0,0095	0,013	0,016	0,019	0,025	7,0 (5—12)
		1.0	0.000032	0.000065	0.00013	0.00016	0.00019	0.00022	0.00026	0.00032	0.00038	0.00050	0.00065	0.00075	0.0010	23 (15—39)
S11	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	35 (25—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	114 (82—130)
S12	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	32 (22—40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	105 (72—130)
S13	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	10 (8—15)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	33 (26—50)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

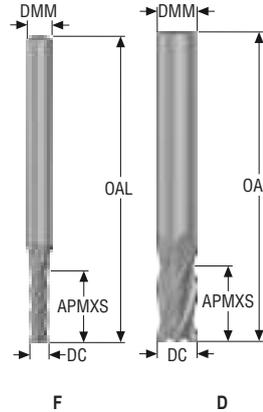
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

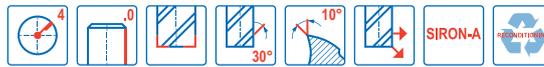
All cutting data are target values

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp



- Tolerances:
- DMM=h5
- DC= h10
- Regrind possible if DC is  $\geq \varnothing 10$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm			
C5141-060D1S.OZ4	SIRA	10268459	1	D	6,0	6,0	9,0	57,0	–	–	4	Cylindrical	■
C5141-020F2S.OZ4	SIRA	10268450	2	F	2,0	3,0	4,0	39,0	7,683	2,127	4	Cylindrical	■
C5141-030D2S.OZ4	SIRA	10268452	2	D	3,0	3,0	6,0	38,0	–	–	4	Cylindrical	■
C5141-040D2S.OZ4	SIRA	10268455	2	D	4,0	4,0	8,0	50,0	–	–	4	Cylindrical	■
C5141-050F2S.OZ4	SIRA	10268457	2	F	5,0	5,0	10,0	57,0	–	–	4	Cylindrical	■
C5141-060D2S.OZ4	SIRA	10268460	2	D	6,0	6,0	12,0	57,0	–	–	4	Cylindrical	■
C5141-080D2S.OZ4	SIRA	10268462	2	D	8,0	8,0	16,0	63,0	–	–	4	Cylindrical	■
C5141-080D3S.OZ4	SIRA	10268463	2	D	8,0	8,0	20,0	64,0	–	–	4	Cylindrical	■
C5141-090F2S.OZ4	SIRA	10268464	2	F	9,0	10,0	22,0	73,0	18,35	9,127	4	Cylindrical	■
C5141-100D2S.OZ4	SIRA	10268465	2	D	10,0	10,0	22,0	73,0	–	–	4	Cylindrical	■
C5141-120D2S.OZ4	SIRA	10268467	2	D	12,0	12,0	25,0	74,0	–	–	4	Cylindrical	■
C5141-160D2S.OZ4	SIRA	10268469	2	D	16,0	16,0	32,0	92,0	–	–	4	Cylindrical	■
C5141-200D2S.OZ4	SIRA	10268471	2	D	20,0	20,0	35,0	104,0	–	–	4	Cylindrical	■
C5141-015F3S.OZ4	SIRA	10268449	3	F	1,5	3,0	4,5	39,0	8,183	1,627	4	Cylindrical	■
C5141-020F3S.OZ4	SIRA	10268451	3	F	2,0	3,0	6,3	39,0	9,983	2,127	4	Cylindrical	■
C5141-035F3S.OZ4	SIRA	10268454	3	F	3,5	4,0	12,0	51,0	15,683	3,627	4	Cylindrical	■
C5141-050F3S.OZ4	SIRA	10268458	3	F	5,0	6,0	16,0	51,0	–	–	4	Cylindrical	■
C5141-060D3S.OZ4	SIRA	10268461	3	D	6,0	6,0	19,0	51,0	–	–	4	Cylindrical	■
C5141-160D3S.OZ4	SIRA	10268470	3	D	16,0	16,0	50,0	115,0	–	–	4	Cylindrical	■
C5141-200D3S.OZ4	SIRA	10268472	3	D	20,0	20,0	60,0	125,0	–	–	4	Cylindrical	■
C5141-010F4S.OZ4	SIRA	10268448	4	F	1,0	3,0	4,0	39,0	7,683	1,127	4	Cylindrical	■
C5141-030D4S.OZ4	SIRA	10268453	4	D	3,0	3,0	12,0	39,0	–	–	4	Cylindrical	■
C5141-040D4S.OZ4	SIRA	10268456	4	D	4,0	4,0	14,0	51,0	–	–	4	Cylindrical	■
C5141-100D4S.OZ4	SIRA	10268466	4	D	10,0	10,0	35,0	89,0	–	–	4	Cylindrical	■
C5141-120D4S.OZ4	SIRA	10268468	4	D	12,0	12,0	50,0	100,0	–	–	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

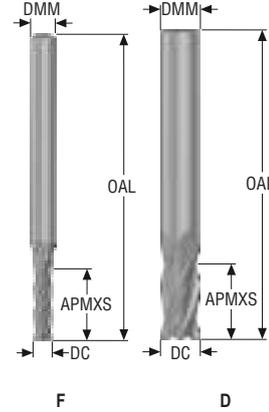
Graphite

X-Heads

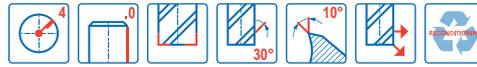
Minimaster

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +.0007"/-.002"$
- Regrind possible if DC is  $\geq \varnothing .375$

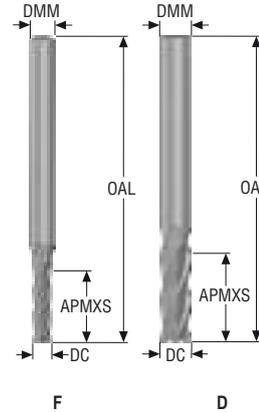


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				inch	inch							
C5141-.375D1S.0Z4	10268208	1	D	0.375	0.375	0.625	2.000	—	—	4	Cylindrical	■
C5141-.438D1S.0Z4	10268220	1	D	0.438	0.438	0.625	2.500	—	—	4	Cylindrical	■
C5141-.500D1S.0Z4	10268228	1	D	0.500	0.500	0.625	2.500	—	—	4	Cylindrical	■
C5141-.625D1S.0Z4	10268236	1	D	0.625	0.625	0.750	3.000	—	—	4	Cylindrical	■
C5141-.750D1S.0Z4	10268242	1	D	0.750	0.750	1.000	3.000	—	—	4	Cylindrical	■
C5141-1.000D1S.0Z4	10268249	1	D	1.000	1.000	1.000	3.000	—	—	4	Cylindrical	■
C5141-.016F2S.0Z4	10268152	2	F	0.016	0.125	0.031	1.500	0.031	0.021	4	Cylindrical	■
C5141-.047F2S.0Z4	10268155	2	F	0.047	0.125	0.109	1.500	0.109	0.052	4	Cylindrical	■
C5141-.063F2S.0Z4	10268157	2	F	0.063	0.125	0.125	1.500	0.125	0.068	4	Cylindrical	■
C5141-.078F2S.0Z4	10268161	2	F	0.078	0.125	0.188	1.500	0.188	0.083	4	Cylindrical	■
C5141-.094F2S.0Z4	10268163	2	F	0.094	0.125	0.188	1.500	0.188	0.099	4	Cylindrical	■
C5141-.125D2S.0Z4	10268168	2	D	0.125	0.125	0.250	1.500	—	—	4	Cylindrical	■
C5141-.156F2S.0Z4	10268175	2	F	0.156	0.188	0.313	2.000	0.313	0.161	4	Cylindrical	■
C5141-.188D2S.0Z4	10268178	2	D	0.188	0.188	0.375	2.000	—	—	4	Cylindrical	■
C5141-.219F2S.0Z4	10268185	2	F	0.219	0.250	0.438	2.000	0.438	0.224	4	Cylindrical	■
C5141-.250D2S.0Z4	10268188	2	D	0.250	0.250	0.500	2.000	—	—	4	Cylindrical	■
C5141-.313D2S.0Z4	10268198	2	D	0.313	0.313	0.500	2.000	—	—	4	Cylindrical	■
C5141-.375D2S.0Z4	10268209	2	D	0.375	0.375	1.000	2.500	—	—	4	Cylindrical	■
C5141-.406F2S.0Z4	10268218	2	F	0.406	0.438	1.000	2.750	1.000	0.411	4	Cylindrical	■
C5141-.422F2S.0Z4	10268219	2	F	0.422	0.438	1.000	2.750	1.000	0.427	4	Cylindrical	■
C5141-.438D2S.0Z4	10268221	2	D	0.438	0.438	1.000	2.750	—	—	4	Cylindrical	■
C5141-.469F2S.0Z4	10268227	2	F	0.469	0.500	1.000	3.000	1.000	0.474	4	Cylindrical	■
C5141-.500D2S.0Z4	10268229	2	D	0.500	0.500	1.000	3.000	—	—	4	Cylindrical	■
C5141-.563D2S.0Z4	10268235	2	D	0.563	0.563	1.125	3.500	—	—	4	Cylindrical	■
C5141-.625D2S.0Z4	10268237	2	D	0.625	0.625	1.250	3.500	—	—	4	Cylindrical	■
C5141-.688F2S.0Z4	10268241	2	F	0.688	0.750	1.375	4.000	1.375	0.693	4	Cylindrical	■
C5141-.750D2S.0Z4	10268243	2	D	0.750	0.750	1.500	4.000	—	—	4	Cylindrical	■
C5141-.875D2S.0Z4	10268248	2	D	0.875	0.875	1.500	4.000	—	—	4	Cylindrical	■
C5141-1.000D2S.0Z4	10268250	2	D	1.000	1.000	1.500	4.000	—	—	4	Cylindrical	■
C5141-1.250D2S.0Z4	10268255	2	D	1.250	1.250	2.000	4.500	—	—	4	Cylindrical	■
C5141-.031F3S.0Z4	10268153	3	F	0.031	0.125	0.078	1.500	0.078	0.036	4	Cylindrical	■
C5141-.047F3S.0Z4	10268156	3	F	0.047	0.125	0.125	1.500	0.125	0.052	4	Cylindrical	■
C5141-.063F3S.0Z4	10268158	3	F	0.063	0.125	0.188	1.500	0.188	0.068	4	Cylindrical	■
C5141-.078F3S.0Z4	10268162	3	F	0.078	0.125	0.250	1.500	0.250	0.083	4	Cylindrical	■
C5141-.094F3S.0Z4	10268164	3	F	0.094	0.125	0.281	1.500	0.281	0.099	4	Cylindrical	■
C5141-.109F3S.0Z4	10268167	3	F	0.109	0.125	0.375	1.500	0.375	0.114	4	Cylindrical	■

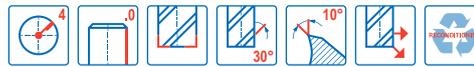
■ Stocked standard.

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-.0004"$
- DC  $\leq \varnothing 7/64" = \pm .0005"$
- DC  $> \varnothing 7/64" = +.000"/-.002"$
- Regrind possible if DC is  $\geq \varnothing .375$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				inch	inch	inch	inch	inch	inch			
C5141-.156F3S.0Z4	10268176	3	F	0.156	0.188	0.500	2.000	0.500	0.161	4	Cylindrical	■
C5141-.188D3S.0Z4	10268179	3	D	0.188	0.188	0.625	2.000	–	–	4	Cylindrical	■
C5141-.203F3S.0Z4	10268184	3	F	0.203	0.250	0.625	2.500	0.625	0.208	4	Cylindrical	■
C5141-.219F3S.0Z4	10268186	3	F	0.219	0.250	0.625	2.500	0.625	0.224	4	Cylindrical	■
C5141-.234F3S.0Z4	10268187	3	F	0.234	0.250	0.750	2.500	0.750	0.239	4	Cylindrical	■
C5141-.250D3S.0Z4	10268189	3	D	0.250	0.250	0.750	2.500	–	–	4	Cylindrical	■
C5141-.266F3S.0Z4	10268195	3	F	0.266	0.313	0.750	2.500	0.750	0.271	4	Cylindrical	■
C5141-.281F3S.0Z4	10268196	3	F	0.281	0.313	0.750	2.500	0.750	0.286	4	Cylindrical	■
C5141-.297F3S.0Z4	10268197	3	F	0.297	0.313	0.813	2.500	0.813	0.302	4	Cylindrical	■
C5141-.313D3S.0Z4	10268199	3	D	0.313	0.313	0.813	2.500	–	–	4	Cylindrical	■
C5141-.328F3S.0Z4	10268205	3	F	0.328	0.375	1.000	2.500	1.000	0.333	4	Cylindrical	■
C5141-.344F3S.0Z4	10268206	3	F	0.344	0.375	1.000	2.500	1.000	0.349	4	Cylindrical	■
C5141-.359F3S.0Z4	10268207	3	F	0.359	0.375	1.000	2.500	1.000	0.364	4	Cylindrical	■
C5141-.375D3S.0Z4	10268210	3	D	0.375	0.375	1.000	3.000	–	–	4	Cylindrical	■
C5141-.391F3S.0Z4	10268217	3	F	0.391	0.438	1.000	2.750	1.000	0.396	4	Cylindrical	■
C5141-.438D3S.0Z4	10268222	3	D	0.438	0.438	1.000	4.000	–	–	4	Cylindrical	■
C5141-.500D3S.0Z4	10268230	3	D	0.500	0.500	1.000	4.000	–	–	4	Cylindrical	■
C5141-.625D3S.0Z4	10268238	3	D	0.625	0.625	2.000	6.000	–	–	4	Cylindrical	■
C5141-.750D3S.0Z4	10268244	3	D	0.750	0.750	2.000	6.000	–	–	4	Cylindrical	■
C5141-1.000D3S.0Z4	10268251	3	D	1.000	1.000	2.000	6.000	–	–	4	Cylindrical	■
C5141-.031F4S.0Z4	10268154	4	F	0.031	0.125	0.094	1.500	0.094	0.036	4	Cylindrical	■
C5141-.063F4S.0Z4	10268159	4	F	0.063	0.125	0.250	1.500	0.250	0.068	4	Cylindrical	■
C5141-.094F4S.0Z4	10268165	4	F	0.094	0.125	0.375	1.500	0.375	0.099	4	Cylindrical	■
C5141-.125D4S.0Z4	10268169	4	D	0.125	0.125	0.500	1.500	–	–	4	Cylindrical	■
C5141-.141F4S.0Z4	10268174	4	F	0.141	0.188	0.500	2.000	0.500	0.146	4	Cylindrical	■
C5141-.172F4S.0Z4	10268177	4	F	0.172	0.188	0.625	2.000	0.625	0.177	4	Cylindrical	■
C5141-.188D4S.0Z4	10268180	4	D	0.188	0.188	0.750	2.500	–	–	4	Cylindrical	■
C5141-.250D4S.0Z4	10268190	4	D	0.250	0.250	1.000	3.000	–	–	4	Cylindrical	■
C5141-.313D4S.0Z4	10268200	4	D	0.313	0.313	1.000	3.000	–	–	4	Cylindrical	■
C5141-.375D4S.0Z4	10268211	4	D	0.375	0.375	1.000	4.000	–	–	4	Cylindrical	■
C5141-.438D4S.0Z4	10268223	4	D	0.438	0.438	1.500	6.000	–	–	4	Cylindrical	■
C5141-.500D4S.0Z4	10268231	4	D	0.500	0.500	1.500	6.000	–	–	4	Cylindrical	■
C5141-.625D4S.0Z4	10268239	4	D	0.625	0.625	2.250	5.000	–	–	4	Cylindrical	■
C5141-.750D4S.0Z4	10268245	4	D	0.750	0.750	2.250	5.000	–	–	4	Cylindrical	■
C5141-1.000D4S.0Z4	10268252	4	D	1.000	1.000	2.250	5.000	–	–	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

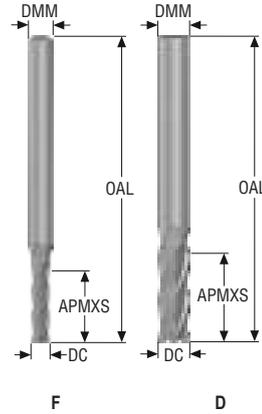
Graphite

X-Heads

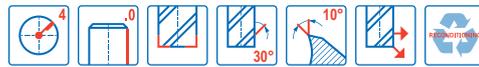
Minimaster

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +.000"/-.002"$
- Regrind possible if DC is  $\geq \varnothing .375$

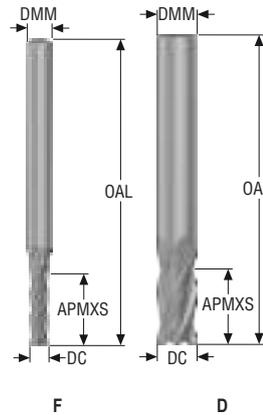


	Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
Non ferrous	C5141-.125D5S.0Z4	10268170	5	D	0.125	0.125	0.625	2.000	—	—	4	Cylindrical	■
	C5141-.188D5S.0Z4	10268181	5	D	0.188	0.188	1.000	3.000	—	—	4	Cylindrical	■
	C5141-.250D5S.0Z4	10268191	5	D	0.250	0.250	1.000	4.000	—	—	4	Cylindrical	■
	C5141-.313D5S.0Z4	10268201	5	D	0.313	0.313	1.000	4.000	—	—	4	Cylindrical	■
	C5141-.375D5S.0Z4	10268212	5	D	0.375	0.375	1.125	3.000	—	—	4	Cylindrical	■
Hard	C5141-.438D5S.0Z4	10268224	5	D	0.438	0.438	2.000	4.000	—	—	4	Cylindrical	■
	C5141-.500D5S.0Z4	10268232	5	D	0.500	0.500	2.000	4.000	—	—	4	Cylindrical	■
	C5141-.625D5S.0Z4	10268240	5	D	0.625	0.625	3.000	6.000	—	—	4	Cylindrical	■
	C5141-.750D5S.0Z4	10268246	5	D	0.750	0.750	3.000	6.000	—	—	4	Cylindrical	■
	C5141-1.000D5S.0Z4	10268253	5	D	1.000	1.000	3.000	6.000	—	—	4	Cylindrical	■
Plastic and CFRP	C5141-.125D6S.0Z4	10268171	6	D	0.125	0.125	0.750	3.000	—	—	4	Cylindrical	■
	C5141-.188D6S.0Z4	10268182	6	D	0.188	0.188	1.000	4.000	—	—	4	Cylindrical	■
	C5141-.250D6S.0Z4	10268192	6	D	0.250	0.250	1.125	3.000	—	—	4	Cylindrical	■
	C5141-.313D6S.0Z4	10268202	6	D	0.313	0.313	1.125	3.000	—	—	4	Cylindrical	■
	C5141-.375D6S.0Z4	10268213	6	D	0.375	0.375	1.500	6.000	—	—	4	Cylindrical	■
Graphite	C5141-.438D6S.0Z4	10268225	6	D	0.438	0.438	2.000	4.500	—	—	4	Cylindrical	■
	C5141-.500D6S.0Z4	10268233	6	D	0.500	0.500	2.000	4.500	—	—	4	Cylindrical	■
	C5141-.750D6S.0Z4	10268247	6	D	0.750	0.750	4.000	6.000	—	—	4	Cylindrical	■
	C5141-1.000D6S.0Z4	10268254	6	D	1.000	1.000	4.000	7.000	—	—	4	Cylindrical	■
	C5141-.188D7S.0Z4	10268183	7	D	0.188	0.188	1.125	3.000	—	—	4	Cylindrical	■
X-Heads	C5141-.250D7S.0Z4	10268193	7	D	0.250	0.250	1.500	4.000	—	—	4	Cylindrical	■
	C5141-.313D7S.0Z4	10268203	7	D	0.313	0.313	1.500	6.000	—	—	4	Cylindrical	■
	C5141-.375D7S.0Z4	10268214	7	D	0.375	0.375	1.750	4.000	—	—	4	Cylindrical	■
	C5141-.438D7S.0Z4	10268226	7	D	0.438	0.438	3.000	6.000	—	—	4	Cylindrical	■
	C5141-.500D7S.0Z4	10268234	7	D	0.500	0.500	3.000	6.000	—	—	4	Cylindrical	■
Minimaster	C5141-.063F8S.0Z4	10268160	8	F	0.063	0.125	1.000	3.000	1.000	0.068	4	Cylindrical	■
	C5141-.094F8S.0Z4	10268166	8	F	0.094	0.125	1.000	3.000	1.000	0.099	4	Cylindrical	■
	C5141-.125D8S.0Z4	10268172	8	D	0.125	0.125	1.000	3.000	—	—	4	Cylindrical	■
	C5141-.250D8S.0Z4	10268194	8	D	0.250	0.250	1.500	6.000	—	—	4	Cylindrical	■
	C5141-.313D8S.0Z4	10268204	8	D	0.313	0.313	1.625	4.000	—	—	4	Cylindrical	■
	C5141-.375D8S.0Z4	10268215	8	D	0.375	0.375	2.000	4.000	—	—	4	Cylindrical	■
	C5141-.125D9S.0Z4	10268173	9	D	0.125	0.125	1.000	4.000	—	—	4	Cylindrical	■
	C5141-.375D9S.0Z4	10268216	9	D	0.375	0.375	3.000	6.000	—	—	4	Cylindrical	■

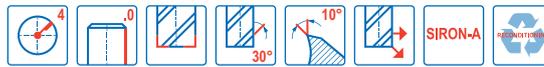
■ Stocked standard.

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- Regrind possible if DC is ≥Ø.375



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5141-.375D1S.0Z4	SIRA	10268312	1	D	0.375	0.375	0.625	2.000	–	–	4	Cylindrical	■
C5141-.438D1S.0Z4	SIRA	10268324	1	D	0.438	0.438	0.625	2.500	–	–	4	Cylindrical	■
C5141-.500D1S.0Z4	SIRA	10268332	1	D	0.500	0.500	0.625	2.500	–	–	4	Cylindrical	■
C5141-.625D1S.0Z4	SIRA	10268340	1	D	0.625	0.625	0.750	3.000	–	–	4	Cylindrical	■
C5141-.750D1S.0Z4	SIRA	10268346	1	D	0.750	0.750	1.000	3.000	–	–	4	Cylindrical	■
C5141-1.000D1S.0Z4	SIRA	10268353	1	D	1.000	1.000	1.000	3.000	–	–	4	Cylindrical	■
C5141-.016F2S.0Z4	SIRA	10268256	2	F	0.016	0.125	0.031	1.500	0.031	0.021	4	Cylindrical	■
C5141-.047F2S.0Z4	SIRA	10268259	2	F	0.047	0.125	0.109	1.500	0.109	0.052	4	Cylindrical	■
C5141-.063F2S.0Z4	SIRA	10268261	2	F	0.063	0.125	0.125	1.500	0.125	0.068	4	Cylindrical	■
C5141-.078F2S.0Z4	SIRA	10268265	2	F	0.078	0.125	0.188	1.500	0.188	0.083	4	Cylindrical	■
C5141-.094F2S.0Z4	SIRA	10268267	2	F	0.094	0.125	0.188	1.500	0.188	0.099	4	Cylindrical	■
C5141-.125D2S.0Z4	SIRA	10268272	2	D	0.125	0.125	0.250	1.500	–	–	4	Cylindrical	■
C5141-.156F2S.0Z4	SIRA	10268279	2	F	0.156	0.188	0.313	2.000	0.313	0.161	4	Cylindrical	■
C5141-.188D2S.0Z4	SIRA	10268282	2	D	0.188	0.188	0.375	2.000	–	–	4	Cylindrical	■
C5141-.219F2S.0Z4	SIRA	10268289	2	F	0.219	0.250	0.438	2.000	0.438	0.224	4	Cylindrical	■
C5141-.250D2S.0Z4	SIRA	10268292	2	D	0.250	0.250	0.500	2.000	–	–	4	Cylindrical	■
C5141-.313D2S.0Z4	SIRA	10268302	2	D	0.313	0.313	0.500	2.000	–	–	4	Cylindrical	■
C5141-.375D2S.0Z4	SIRA	10268313	2	D	0.375	0.375	1.000	2.500	–	–	4	Cylindrical	■
C5141-.406F2S.0Z4	SIRA	10268322	2	F	0.406	0.438	1.000	2.750	1.000	0.411	4	Cylindrical	■
C5141-.422F2S.0Z4	SIRA	10268323	2	F	0.422	0.438	1.000	2.750	1.000	0.427	4	Cylindrical	■
C5141-.438D2S.0Z4	SIRA	10268325	2	D	0.438	0.438	1.000	2.750	–	–	4	Cylindrical	■
C5141-.469F2S.0Z4	SIRA	10268331	2	F	0.469	0.500	1.000	3.000	1.000	0.474	4	Cylindrical	■
C5141-.500D2S.0Z4	SIRA	10268333	2	D	0.500	0.500	1.000	3.000	–	–	4	Cylindrical	■
C5141-.563D2S.0Z4	SIRA	10268339	2	D	0.563	0.563	1.125	3.500	–	–	4	Cylindrical	■
C5141-.625D2S.0Z4	SIRA	10268341	2	D	0.625	0.625	1.250	3.500	–	–	4	Cylindrical	■
C5141-.688F2S.0Z4	SIRA	10268345	2	F	0.688	0.750	1.375	4.000	1.375	0.693	4	Cylindrical	■
C5141-.750D2S.0Z4	SIRA	10268347	2	D	0.750	0.750	1.500	4.000	–	–	4	Cylindrical	■
C5141-.875D2S.0Z4	SIRA	10268352	2	D	0.875	0.875	1.500	4.000	–	–	4	Cylindrical	■
C5141-1.000D2S.0Z4	SIRA	10268354	2	D	1.000	1.000	1.500	4.000	–	–	4	Cylindrical	■
C5141-1.250D2S.0Z4	SIRA	10268359	2	D	1.250	1.250	2.000	4.500	–	–	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

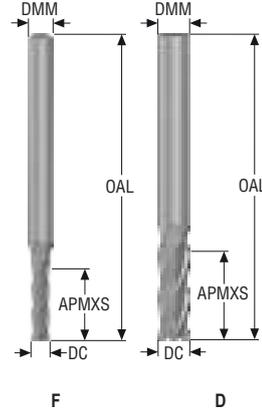
Graphite

X-Heads

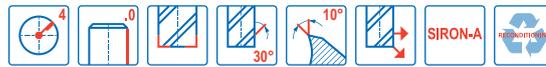
Minimaster

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +0.000"/-0.002"$
- Regrind possible if DC is  $\geq \varnothing 0.375$



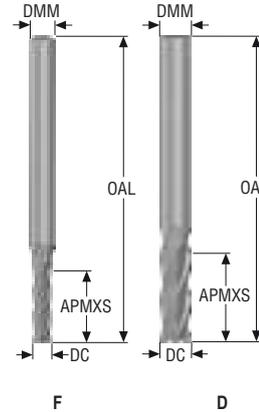
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5141-.031F3S.0Z4	SIRA	10268257	3	F	0.031	0.125	0.078	1.500	0.078	0.036	4	Cylindrical	■
C5141-.047F3S.0Z4	SIRA	10268260	3	F	0.047	0.125	0.125	1.500	0.125	0.052	4	Cylindrical	■
C5141-.063F3S.0Z4	SIRA	10268262	3	F	0.063	0.125	0.188	1.500	0.188	0.068	4	Cylindrical	■
C5141-.078F3S.0Z4	SIRA	10268266	3	F	0.078	0.125	0.250	1.500	0.250	0.083	4	Cylindrical	■
C5141-.094F3S.0Z4	SIRA	10268268	3	F	0.094	0.125	0.281	1.500	0.281	0.099	4	Cylindrical	■
C5141-.109F3S.0Z4	SIRA	10268271	3	F	0.109	0.125	0.375	1.500	0.375	0.114	4	Cylindrical	■
C5141-.156F3S.0Z4	SIRA	10268280	3	F	0.156	0.188	0.500	2.000	0.500	0.161	4	Cylindrical	■
C5141-.188D3S.0Z4	SIRA	10268283	3	D	0.188	0.188	0.625	2.000	—	—	4	Cylindrical	■
C5141-.203F3S.0Z4	SIRA	10268288	3	F	0.203	0.250	0.625	2.500	0.625	0.208	4	Cylindrical	■
C5141-.219F3S.0Z4	SIRA	10268290	3	F	0.219	0.250	0.625	2.500	0.625	0.224	4	Cylindrical	■
C5141-.234F3S.0Z4	SIRA	10268291	3	F	0.234	0.250	0.750	2.500	0.750	0.239	4	Cylindrical	■
C5141-.250D3S.0Z4	SIRA	10268293	3	D	0.250	0.250	0.750	2.500	—	—	4	Cylindrical	■
C5141-.266F3S.0Z4	SIRA	10268299	3	F	0.266	0.313	0.750	2.500	0.750	0.271	4	Cylindrical	■
C5141-.281F3S.0Z4	SIRA	10268300	3	F	0.281	0.313	0.750	2.500	0.750	0.286	4	Cylindrical	■
C5141-.297F3S.0Z4	SIRA	10268301	3	F	0.297	0.313	0.813	2.500	0.813	0.302	4	Cylindrical	■
C5141-.313D3S.0Z4	SIRA	10268303	3	D	0.313	0.313	0.813	2.500	—	—	4	Cylindrical	■
C5141-.328F3S.0Z4	SIRA	10268309	3	F	0.328	0.375	1.000	2.500	1.000	0.333	4	Cylindrical	■
C5141-.344F3S.0Z4	SIRA	10268310	3	F	0.344	0.375	1.000	2.500	1.000	0.349	4	Cylindrical	■
C5141-.359F3S.0Z4	SIRA	10268311	3	F	0.359	0.375	1.000	2.500	1.000	0.364	4	Cylindrical	■
C5141-.375D3S.0Z4	SIRA	10268314	3	D	0.375	0.375	1.000	3.000	—	—	4	Cylindrical	■
C5141-.391F3S.0Z4	SIRA	10268321	3	F	0.391	0.438	1.000	2.750	1.000	0.396	4	Cylindrical	■
C5141-.438D3S.0Z4	SIRA	10268326	3	D	0.438	0.438	1.000	4.000	—	—	4	Cylindrical	■
C5141-.500D3S.0Z4	SIRA	10268334	3	D	0.500	0.500	1.000	4.000	—	—	4	Cylindrical	■
C5141-.625D3S.0Z4	SIRA	10268342	3	D	0.625	0.625	2.000	6.000	—	—	4	Cylindrical	■
C5141-.750D3S.0Z4	SIRA	10268348	3	D	0.750	0.750	2.000	6.000	—	—	4	Cylindrical	■
C5141-1.000D3S.0Z4	SIRA	10268355	3	D	1.000	1.000	2.000	6.000	—	—	4	Cylindrical	■

■ Stocked standard.

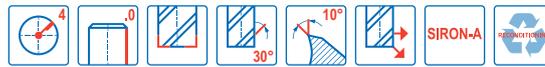
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-.0004"$
- DC  $\leq \varnothing 7/64" = \pm .0005"$
- DC  $> \varnothing 7/64" = +.000"/-.002"$
- Regrind possible if DC is  $\geq \varnothing .375$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5141-.031F4S.0Z4	SIRA	10268258	4	F	0.031	0.125	0.094	1.500	0.094	0.036	4	Cylindrical	■
C5141-.063F4S.0Z4	SIRA	10268263	4	F	0.063	0.125	0.250	1.500	0.250	0.068	4	Cylindrical	■
C5141-.094F4S.0Z4	SIRA	10268269	4	F	0.094	0.125	0.375	1.500	0.375	0.099	4	Cylindrical	■
C5141-.125D4S.0Z4	SIRA	10268273	4	D	0.125	0.125	0.500	1.500	–	–	4	Cylindrical	■
C5141-.141F4S.0Z4	SIRA	10268278	4	F	0.141	0.188	0.500	2.000	0.500	0.146	4	Cylindrical	■
C5141-.172F4S.0Z4	SIRA	10268281	4	F	0.172	0.188	0.625	2.000	0.625	0.177	4	Cylindrical	■
C5141-.188D4S.0Z4	SIRA	10268284	4	D	0.188	0.188	0.750	2.500	–	–	4	Cylindrical	■
C5141-.250D4S.0Z4	SIRA	10268294	4	D	0.250	0.250	1.000	3.000	–	–	4	Cylindrical	■
C5141-.313D4S.0Z4	SIRA	10268304	4	D	0.313	0.313	1.000	3.000	–	–	4	Cylindrical	■
C5141-.375D4S.0Z4	SIRA	10268315	4	D	0.375	0.375	1.000	4.000	–	–	4	Cylindrical	■
C5141-.438D4S.0Z4	SIRA	10268327	4	D	0.438	0.438	1.500	6.000	–	–	4	Cylindrical	■
C5141-.500D4S.0Z4	SIRA	10268335	4	D	0.500	0.500	1.500	6.000	–	–	4	Cylindrical	■
C5141-.625D4S.0Z4	SIRA	10268343	4	D	0.625	0.625	2.250	5.000	–	–	4	Cylindrical	■
C5141-.750D4S.0Z4	SIRA	10268349	4	D	0.750	0.750	2.250	5.000	–	–	4	Cylindrical	■
C5141-1.000D4S.0Z4	SIRA	10268356	4	D	1.000	1.000	2.250	5.000	–	–	4	Cylindrical	■
C5141-.125D5S.0Z4	SIRA	10268274	5	D	0.125	0.125	0.625	2.000	–	–	4	Cylindrical	■
C5141-.188D5S.0Z4	SIRA	10268285	5	D	0.188	0.188	1.000	3.000	–	–	4	Cylindrical	■
C5141-.250D5S.0Z4	SIRA	10268295	5	D	0.250	0.250	1.000	4.000	–	–	4	Cylindrical	■
C5141-.313D5S.0Z4	SIRA	10268305	5	D	0.313	0.313	1.000	4.000	–	–	4	Cylindrical	■
C5141-.375D5S.0Z4	SIRA	10268316	5	D	0.375	0.375	1.125	3.000	–	–	4	Cylindrical	■
C5141-.438D5S.0Z4	SIRA	10268328	5	D	0.438	0.438	2.000	4.000	–	–	4	Cylindrical	■
C5141-.500D5S.0Z4	SIRA	10268336	5	D	0.500	0.500	2.000	4.000	–	–	4	Cylindrical	■
C5141-.625D5S.0Z4	SIRA	10268344	5	D	0.625	0.625	3.000	6.000	–	–	4	Cylindrical	■
C5141-.750D5S.0Z4	SIRA	10268350	5	D	0.750	0.750	3.000	6.000	–	–	4	Cylindrical	■
C5141-1.000D5S.0Z4	SIRA	10268357	5	D	1.000	1.000	3.000	6.000	–	–	4	Cylindrical	■
C5141-1.000D6S.0Z4	SIRA	10268358	6	D	1.000	1.000	4.000	7.000	–	–	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

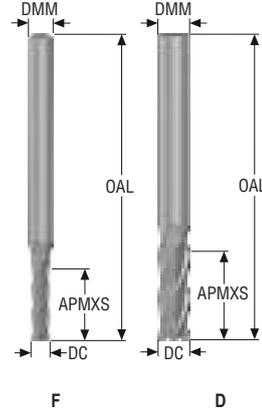
Graphite

X-Heads

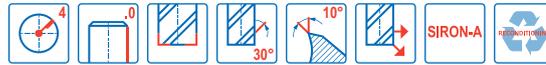
Minimaster

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +0.000"/-0.002"$
- Regrind possible if DC is  $\geq \varnothing .375$

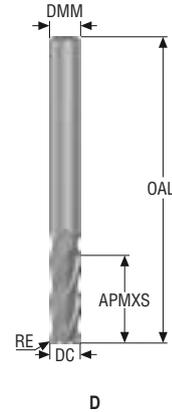


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5141-125D6S.0Z4	SIRA	10268275	6	D	0.125	0.125	0.750	3.000	—	—	4	Cylindrical	■
C5141-188D6S.0Z4	SIRA	10268286	6	D	0.188	0.188	1.000	4.000	—	—	4	Cylindrical	■
C5141-250D6S.0Z4	SIRA	10268296	6	D	0.250	0.250	1.125	3.000	—	—	4	Cylindrical	■
C5141-313D6S.0Z4	SIRA	10268306	6	D	0.313	0.313	1.125	3.000	—	—	4	Cylindrical	■
C5141-375D6S.0Z4	SIRA	10268317	6	D	0.375	0.375	1.500	6.000	—	—	4	Cylindrical	■
C5141-438D6S.0Z4	SIRA	10268329	6	D	0.438	0.438	2.000	4.500	—	—	4	Cylindrical	■
C5141-500D6S.0Z4	SIRA	10268337	6	D	0.500	0.500	2.000	4.500	—	—	4	Cylindrical	■
C5141-750D6S.0Z4	SIRA	10268351	6	D	0.750	0.750	4.000	6.000	—	—	4	Cylindrical	■
C5141-188D7S.0Z4	SIRA	10268287	7	D	0.188	0.188	1.125	3.000	—	—	4	Cylindrical	■
C5141-250D7S.0Z4	SIRA	10268297	7	D	0.250	0.250	1.500	4.000	—	—	4	Cylindrical	■
C5141-313D7S.0Z4	SIRA	10268307	7	D	0.313	0.313	1.500	6.000	—	—	4	Cylindrical	■
C5141-375D7S.0Z4	SIRA	10268318	7	D	0.375	0.375	1.750	4.000	—	—	4	Cylindrical	■
C5141-438D7S.0Z4	SIRA	10268330	7	D	0.438	0.438	3.000	6.000	—	—	4	Cylindrical	■
C5141-500D7S.0Z4	SIRA	10268338	7	D	0.500	0.500	3.000	6.000	—	—	4	Cylindrical	■
C5141-063F8S.0Z4	SIRA	10268264	8	F	0.063	0.125	1.000	3.000	1.000	0.068	4	Cylindrical	■
C5141-094F8S.0Z4	SIRA	10268270	8	F	0.094	0.125	1.000	3.000	1.000	0.099	4	Cylindrical	■
C5141-125D8S.0Z4	SIRA	10268276	8	D	0.125	0.125	1.000	3.000	—	—	4	Cylindrical	■
C5141-250D8S.0Z4	SIRA	10268298	8	D	0.250	0.250	1.500	6.000	—	—	4	Cylindrical	■
C5141-313D8S.0Z4	SIRA	10268308	8	D	0.313	0.313	1.625	4.000	—	—	4	Cylindrical	■
C5141-375D8S.0Z4	SIRA	10268319	8	D	0.375	0.375	2.000	4.000	—	—	4	Cylindrical	■
C5141-125D9S.0Z4	SIRA	10268277	9	D	0.125	0.125	1.000	4.000	—	—	4	Cylindrical	■
C5141-375D9S.0Z4	SIRA	10268320	9	D	0.375	0.375	3.000	6.000	—	—	4	Cylindrical	■

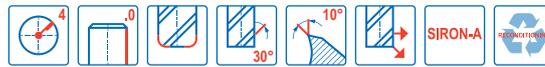
■ Stocked standard.

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- RE= ±.001"
- Regrind possible if DC is ≥Ø.375



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch			
C5141-.438D2R015.0Z4	SIRA	10268379	2	D	0.438	0.438	1.000	2.750	0.015	4	Cylindrical	■
C5141-.438D2R030.0Z4	SIRA	10268380	2	D	0.438	0.438	1.000	2.750	0.030	4	Cylindrical	■
C5141-.438D2R060.0Z4	SIRA	10268381	2	D	0.438	0.438	1.000	2.750	0.060	4	Cylindrical	■
C5141-.438D2R125.0Z4	SIRA	10268382	2	D	0.438	0.438	1.000	2.750	0.125	4	Cylindrical	■
C5141-.500D2R015.0Z4	SIRA	10268383	2	D	0.500	0.500	1.000	3.000	0.015	4	Cylindrical	■
C5141-.500D2R020.0Z4	SIRA	10268384	2	D	0.500	0.500	1.000	3.000	0.020	4	Cylindrical	■
C5141-.500D2R030.0Z4	SIRA	10268385	2	D	0.500	0.500	1.000	3.000	0.030	4	Cylindrical	■
C5141-.500D2R045.0Z4	SIRA	10268386	2	D	0.500	0.500	1.000	3.000	0.045	4	Cylindrical	■
C5141-.500D2R060.0Z4	SIRA	10268387	2	D	0.500	0.500	1.000	3.000	0.060	4	Cylindrical	■
C5141-.500D2R090.0Z4	SIRA	10268388	2	D	0.500	0.500	1.000	3.000	0.090	4	Cylindrical	■
C5141-.500D2R125.0Z4	SIRA	10268389	2	D	0.500	0.500	1.000	3.000	0.125	4	Cylindrical	■
C5141-.625D2R015.0Z4	SIRA	10268390	2	D	0.625	0.625	1.250	3.500	0.015	4	Cylindrical	■
C5141-.625D2R030.0Z4	SIRA	10268391	2	D	0.625	0.625	1.250	3.500	0.030	4	Cylindrical	■
C5141-.625D2R060.0Z4	SIRA	10268392	2	D	0.625	0.625	1.250	3.500	0.060	4	Cylindrical	■
C5141-.625D2R125.0Z4	SIRA	10268393	2	D	0.625	0.625	1.250	3.500	0.125	4	Cylindrical	■
C5141-.750D2R015.0Z4	SIRA	10268394	2	D	0.750	0.750	1.500	4.000	0.015	4	Cylindrical	■
C5141-.750D2R020.0Z4	SIRA	10268395	2	D	0.750	0.750	1.500	4.000	0.020	4	Cylindrical	■
C5141-.750D2R030.0Z4	SIRA	10268396	2	D	0.750	0.750	1.500	4.000	0.030	4	Cylindrical	■
C5141-.750D2R045.0Z4	SIRA	10268397	2	D	0.750	0.750	1.500	4.000	0.045	4	Cylindrical	■
C5141-.750D2R060.0Z4	SIRA	10268398	2	D	0.750	0.750	1.500	4.000	0.060	4	Cylindrical	■
C5141-.750D2R090.0Z4	SIRA	10268399	2	D	0.750	0.750	1.500	4.000	0.090	4	Cylindrical	■
C5141-.750D2R125.0Z4	SIRA	10268400	2	D	0.750	0.750	1.500	4.000	0.125	4	Cylindrical	■
C5141-.750D2R190.0Z4	SIRA	10268402	2	D	0.750	0.750	1.500	4.000	0.190	4	Cylindrical	■
C5141-1.000D2R015.0Z4	SIRA	10268403	2	D	1.000	1.000	1.500	4.000	0.015	4	Cylindrical	■
C5141-1.000D2R020.0Z4	SIRA	10268404	2	D	1.000	1.000	1.500	4.000	0.020	4	Cylindrical	■
C5141-1.000D2R030.0Z4	SIRA	10268405	2	D	1.000	1.000	1.500	4.000	0.030	4	Cylindrical	■
C5141-1.000D2R060.0Z4	SIRA	10268406	2	D	1.000	1.000	1.500	4.000	0.060	4	Cylindrical	■
C5141-1.000D2R090.0Z4	SIRA	10268407	2	D	1.000	1.000	1.500	4.000	0.090	4	Cylindrical	■
C5141-1.000D2R125.0Z4	SIRA	10268408	2	D	1.000	1.000	1.500	4.000	0.125	4	Cylindrical	■
C5141-1.000D2R190.0Z4	SIRA	10268409	2	D	1.000	1.000	1.500	4.000	0.190	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

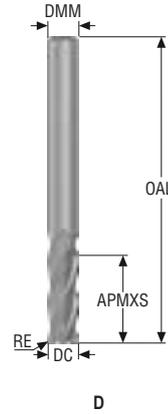
Graphite

X-Heads

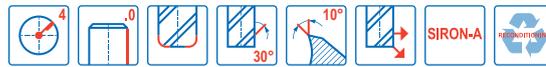
Minimaster

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:  
 —DMM= -.0001"/-.0004"  
 —DC ≤ Ø7/64" = ±.0005"  
 —DC > Ø7/64" = +.000"/-.002"  
 —RE= ±.001"  
 —Regrind possible if DC is ≥Ø.375



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch			
C5141-188D3R015.0Z4	SIRA	10268363	3	D	0.188	0.188	0.625	2.000	0.015	4	Cylindrical	■
C5141-188D3R020.0Z4	SIRA	10268364	3	D	0.188	0.188	0.625	2.000	0.020	4	Cylindrical	■
C5141-188D3R030.0Z4	SIRA	10268365	3	D	0.188	0.188	0.625	2.000	0.030	4	Cylindrical	■
C5141-250D3R015.0Z4	SIRA	10268366	3	D	0.250	0.250	0.750	2.500	0.015	4	Cylindrical	■
C5141-250D3R020.0Z4	SIRA	10268367	3	D	0.250	0.250	0.750	2.500	0.020	4	Cylindrical	■
C5141-250D3R030.0Z4	SIRA	10268368	3	D	0.250	0.250	0.750	2.500	0.030	4	Cylindrical	■
C5141-250D3R045.0Z4	SIRA	10268369	3	D	0.250	0.250	0.750	2.500	0.045	4	Cylindrical	■
C5141-313D3R015.0Z4	SIRA	10268370	3	D	0.313	0.313	0.813	2.500	0.015	4	Cylindrical	■
C5141-313D3R020.0Z4	SIRA	10268371	3	D	0.313	0.313	0.813	2.500	0.020	4	Cylindrical	■
C5141-313D3R030.0Z4	SIRA	10268372	3	D	0.313	0.313	0.813	2.500	0.030	4	Cylindrical	■
C5141-313D3R045.0Z4	SIRA	10268373	3	D	0.313	0.313	0.813	2.500	0.045	4	Cylindrical	■
C5141-375D3R015.0Z4	SIRA	10268374	3	D	0.375	0.375	1.000	2.500	0.015	4	Cylindrical	■
C5141-375D3R020.0Z4	SIRA	10268375	3	D	0.375	0.375	1.000	2.500	0.020	4	Cylindrical	■
C5141-375D3R030.0Z4	SIRA	10268376	3	D	0.375	0.375	1.000	2.500	0.030	4	Cylindrical	■
C5141-375D3R045.0Z4	SIRA	10268377	3	D	0.375	0.375	1.000	2.500	0.045	4	Cylindrical	■
C5141-125D4R015.0Z4	SIRA	10268360	4	D	0.125	0.125	0.500	1.500	0.015	4	Cylindrical	■
C5141-125D4R020.0Z4	SIRA	10268361	4	D	0.125	0.125	0.500	1.500	0.020	4	Cylindrical	■
C5141-125D4R030.0Z4	SIRA	10268362	4	D	0.125	0.125	0.500	1.500	0.030	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

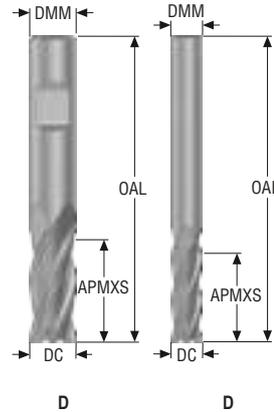
Graphite

X-Heads

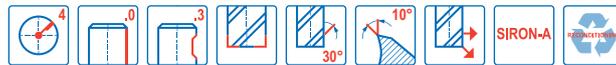
Minimaster

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical/Weldon – Sharp – Inch



- Tolerances:
- DMM=  $-.0001"/-.0004"$
- DC  $\leq \varnothing 7/64" = \pm .0005"$
- DC  $> \varnothing 7/64" = +.001"/-.000"$
- NC tolerance
- Regrind possible if DC is  $\geq \varnothing .375$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
					inch	inch	inch	inch			
C5141-.375D2S.3Z4NC	SIRA	10268423	2	D	0.375	0.375	0.875	2.500	4	Weldon	■
C5141-.500D2S.3Z4NC	SIRA	10268424	2	D	0.500	0.500	1.000	3.000	4	Weldon	■
C5141-.625D2S.3Z4NC	SIRA	10268425	2	D	0.625	0.625	1.250	3.500	4	Weldon	■
C5141-.750D2S.3Z4NC	SIRA	10268426	2	D	0.750	0.750	1.500	4.000	4	Weldon	■
C5141-1.000D2S.3Z4NC	SIRA	10268427	2	D	1.000	1.000	1.500	4.000	4	Weldon	■
C5141-.250D3S.0Z4NC	SIRA	10268421	3	D	0.250	0.250	0.750	2.500	4	Cylindrical	■
C5141-.313D3S.0Z4NC	SIRA	10268422	3	D	0.313	0.313	0.813	2.500	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

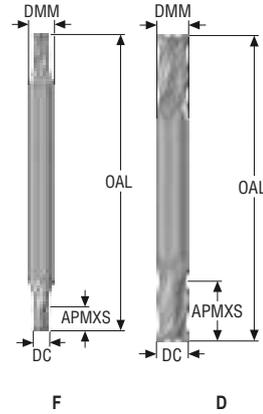
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X-Heads

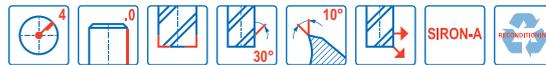
Minimaster

C5141

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +0.0007/-0.002"$
- Double end
- Regrind possible if DC is  $\geq \varnothing .375$

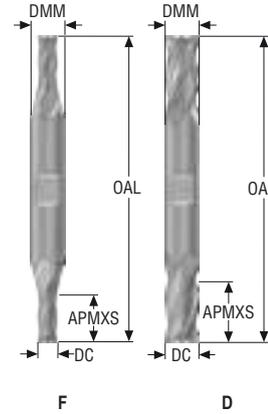


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5141-438D1S.0Z4D	SIRA	10268446	1	D	0.438	0.438	0.563	2.750	—	—	4	Cylindrical	■
C5141-500D1S.0Z4D	SIRA	10268447	1	D	0.500	0.500	0.625	3.000	—	—	4	Cylindrical	■
C5141-031F2S.0Z4D	SIRA	10268428	2	F	0.031	0.125	0.063	1.500	0.063	0.036	4	Cylindrical	■
C5141-047F2S.0Z4D	SIRA	10268429	2	F	0.047	0.125	0.094	1.500	0.094	0.052	4	Cylindrical	■
C5141-063F2S.0Z4D	SIRA	10268430	2	F	0.063	0.125	0.125	1.500	0.125	0.068	4	Cylindrical	■
C5141-078F2S.0Z4D	SIRA	10268431	2	F	0.078	0.125	0.125	1.500	0.125	0.083	4	Cylindrical	■
C5141-094F2S.0Z4D	SIRA	10268432	2	F	0.094	0.125	0.188	1.500	0.188	0.099	4	Cylindrical	■
C5141-109F2S.0Z4D	SIRA	10268433	2	F	0.109	0.125	0.188	1.500	0.188	0.114	4	Cylindrical	■
C5141-125D2S.0Z4D	SIRA	10268434	2	D	0.125	0.125	0.250	1.500	—	—	4	Cylindrical	■
C5141-141F2S.0Z4D	SIRA	10268435	2	F	0.141	0.188	0.313	2.000	0.313	0.146	4	Cylindrical	■
C5141-156F2S.0Z4D	SIRA	10268436	2	F	0.156	0.188	0.313	2.000	0.313	0.161	4	Cylindrical	■
C5141-172F2S.0Z4D	SIRA	10268437	2	F	0.172	0.188	0.313	2.000	0.313	0.177	4	Cylindrical	■
C5141-188D2S.0Z4D	SIRA	10268438	2	D	0.188	0.188	0.375	2.000	—	—	4	Cylindrical	■
C5141-203F2S.0Z4D	SIRA	10268439	2	F	0.203	0.250	0.500	2.500	0.500	0.208	4	Cylindrical	■
C5141-219F2S.0Z4D	SIRA	10268440	2	F	0.219	0.250	0.500	2.500	0.500	0.224	4	Cylindrical	■
C5141-234F2S.0Z4D	SIRA	10268441	2	F	0.234	0.250	0.500	2.500	0.500	0.239	4	Cylindrical	■
C5141-250D2S.0Z4D	SIRA	10268442	2	D	0.250	0.250	0.500	2.500	—	—	4	Cylindrical	■
C5141-281F2S.0Z4D	SIRA	10268443	2	F	0.281	0.313	0.500	2.500	0.500	0.286	4	Cylindrical	■
C5141-313D2S.0Z4D	SIRA	10268444	2	D	0.313	0.313	0.500	2.500	—	—	4	Cylindrical	■
C5141-375D2S.0Z4D	SIRA	10268445	2	D	0.375	0.375	0.563	2.500	—	—	4	Cylindrical	■

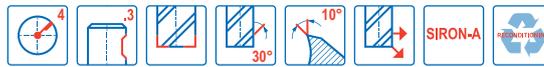
■ Stocked standard.

C5141

General purpose – Universal – Square – 4 Flutes – Weldon – Sharp – Inch



- Tolerances:
- DMM =  $-.0001"/-.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +.000"/-.002"$
- Double end
- Regrind possible if DC is  $\geq \varnothing .375$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
C5141-281F2S.3Z4D	SIRA	10268415	2	F	0.281	0.375	0.688	3.500	0.688	0.286	4	Weldon	■
C5141-313F2S.3Z4D	SIRA	10268416	2	F	0.313	0.375	0.750	3.500	0.750	0.318	4	Weldon	■
C5141-344F2S.3Z4D	SIRA	10268417	2	F	0.344	0.375	0.750	3.500	0.750	0.349	4	Weldon	■
C5141-375D2S.3Z4D	SIRA	10268418	2	D	0.375	0.375	0.750	3.500	–	–	4	Weldon	■
C5141-438F2S.3Z4D	SIRA	10268419	2	F	0.438	0.500	0.875	4.000	0.875	0.443	4	Weldon	■
C5141-500D2S.3Z4D	SIRA	10268420	2	D	0.500	0.500	1.000	4.000	–	–	4	Weldon	■
C5141-125F3S.3Z4D	SIRA	10268410	3	F	0.125	0.375	0.375	3.063	0.375	0.130	4	Weldon	■
C5141-156F3S.3Z4D	SIRA	10268411	3	F	0.156	0.375	0.438	3.125	0.438	0.161	4	Weldon	■
C5141-188F3S.3Z4D	SIRA	10268412	3	F	0.188	0.375	0.500	3.250	0.500	0.193	4	Weldon	■
C5141-219F3S.3Z4D	SIRA	10268413	3	F	0.219	0.375	0.563	3.375	0.563	0.224	4	Weldon	■
C5141-250F3S.3Z4D	SIRA	10268414	3	F	0.250	0.375	0.625	3.375	0.625	0.255	4	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster



Cutting data – C5141 Side milling – Inch

SMG	A D E M	a <sub>p</sub> /DC	f <sub>z</sub>														v <sub>c</sub>
			1/32	1/16	1/8	1/6	1/5	2/9	1/4	1/3	3/8	1/2	5/8	3/4	1	1 1/4	
P1	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	0,075	150 (135 – 165)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	0.0030	490 (440 – 540)
P2	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	58 (45 – 70)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	190 (147 – 230)
P3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	85 (70 – 95)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	279 (246 – 312)
P4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	100 (90 – 110)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	330 (295 – 360)
P5	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	68 (50 – 75)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	223 (165 – 245)
P6	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	87 (77 – 100)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	285 (250 – 330)
P7	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	65 (55 – 75)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	213 (180 – 245)
P8	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	65 (55 – 75)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	213 (165 – 245)
P11	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	85 (70 – 95)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	280 (230 – 310)
P12	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	55 (45 – 65)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	180 (147 – 213)
M1	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	93 (83 – 100)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	305 (270 – 360)
M2	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	60 (50 – 70)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	200 (165 – 230)
M3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	55 (45 – 65)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	180 (147 – 213)
M4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	45 (35 – 55)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	147 (115 – 180)
M5	E	1	0,001	0,002	0,004	0,005	0,006	0,007	0,0085	0,01	0,012	0,017	0,02	0,025	0,034	0,042	35 (20 – 45)
		1.0	0.000040	0.000080	0.00017	0.00020	0.00024	0.00028	0.00034	0.00040	0.00048	0.00065	0.00080	0.0010	0.0013	0.0017	114 (65 – 147)
K1	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	0,075	80 (70 – 90)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	0.0030	260 (230 – 290)
K2	E	1	0,0018	0,0036	0,0075	0,009	0,011	0,013	0,015	0,018	0,022	0,03	0,036	0,044	0,06	0,075	87 (75 – 100)
		1.0	0.000070	0.00014	0.00030	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0012	0.0014	0.0017	0.0024	0.0030	285 (245 – 330)
K3	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	65 (55 – 75)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	213 (180 – 245)
K4	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	50 (35 – 65)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	165 (115 – 213)
K5	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	45 (30 – 55)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	147 (100 – 180)
K6	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	77 (65 – 85)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	250 (210 – 280)
K7	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	77 (60 – 90)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	250 (200 – 290)
S1	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	50 (35 – 60)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	165 (115 – 200)
S2	E	1	0,0008	0,0016	0,0032	0,004	0,0048	0,0055	0,0065	0,008	0,0095	0,013	0,016	0,019	0,025	0,032	25 (15 – 35)
		1.0	0.000032	0.000065	0.00013	0.00016	0.00019	0.00022	0.00026	0.00032	0.00038	0.00050	0.00065	0.00075	0.0010	0.0013	82 (50 – 115)
S3	E	1	0,0008	0,0016	0,0032	0,004	0,0048	0,0055	0,0065	0,008	0,0095	0,013	0,016	0,019	0,025	0,032	11 (7,5 – 16)
		1.0	0.000032	0.000065	0.00013	0.00016	0.00019	0.00022	0.00026	0.00032	0.00038	0.00050	0.00065	0.00075	0.0010	0.0013	35 (25 – 52)
S11	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	110 (95 – 120)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	360 (311 – 390)
S12	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	77 (60 – 90)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	250 (190 – 290)
S13	E	1	0,0013	0,0028	0,0055	0,0065	0,008	0,0095	0,011	0,014	0,016	0,022	0,026	0,032	0,044	0,055	30 (20 – 40)
		1.0	0.000050	0.00011	0.00022	0.00026	0.00032	0.00038	0.00044	0.00055	0.00065	0.00085	0.0010	0.0013	0.0017	0.0022	100 (65 – 130)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## Cutting data – C5141 Slot milling

SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>														v <sub>c</sub>
			1	1,5	2	3	3,5	4	5	6	8	9	10	12	16	20	
P1	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	0,036	0,046	75 (50—85)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	0.0014	0.0018	245 (170—270)
P2	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	32 (20—40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	100 (66—130)
P3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	45 (30—60)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	147 (98—196)
P4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	55 (40—65)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	180 (130—210)
P5	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	35 (20—45)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	115 (65—145)
P6	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	45 (30—60)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	145 (100—195)
P7	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	35 (20—50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	115 (65—165)
P8	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	25 (15—35)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	80 (50—110)
P11	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	32 (20—42)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	105 (65—138)
P12	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	30 (20—40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	100 (65—130)
M1	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	42 (21—52)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	138 (69—170)
M2	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	32 (20—42)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	105 (65—138)
M3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	30 (15—40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	100 (50—130)
M4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	22 (10—35)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	72 (33—115)
M5	E	1	0,0013	0,002	0,0026	0,004	0,0046	0,005	0,0065	0,008	0,01	0,012	0,013	0,016	0,02	0,026	19 (16—30)
		1.0	0.000050	0.000080	0.00010	0.00016	0.00018	0.00020	0.00026	0.00032	0.00040	0.00048	0.00050	0.00065	0.00080	0.0010	62 (52—100)
K1	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	0,036	0,046	30 (20—45)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	0.0014	0.0018	100 (65—147)
K2	E	1	0,0024	0,0034	0,0046	0,007	0,008	0,009	0,012	0,014	0,018	0,02	0,024	0,028	0,036	0,046	40 (30—50)
		1.0	0.000095	0.00013	0.00018	0.00028	0.00032	0.00036	0.00048	0.00055	0.00070	0.00080	0.00095	0.0011	0.0014	0.0018	130 (100—165)
K3	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	32 (26—45)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	105 (85—148)
K4	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	22 (18—30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	72 (60—100)
K5	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	20 (15—30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	65 (50—100)
K6	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	35 (20—50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	115 (65—165)
K7	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	35 (20—50)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	115 (65—165)
S1	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	25 (18—30)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	80 (60—100)
S2	E	1	0,001	0,0015	0,002	0,003	0,0036	0,004	0,005	0,006	0,008	0,009	0,01	0,012	0,016	0,02	13 (9—18)
		1.0	0.000040	0.000060	0.000080	0.00012	0.00014	0.00016	0.00020	0.00024	0.00032	0.00036	0.00040	0.00048	0.00065	0.00080	62 (30—60)
S3	E	1	0,001	0,0015	0,002	0,003	0,0036	0,004	0,005	0,006	0,008	0,009	0,01	0,012	0,016	0,02	7,0 (5—12)
		1.0	0.000040	0.000060	0.000080	0.00012	0.00014	0.00016	0.00020	0.00024	0.00032	0.00036	0.00040	0.00048	0.00065	0.00080	23 (15—39)
S11	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	35 (25—40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	114 (82—130)
S12	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	32 (22—40)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	105 (72—130)
S13	E	1	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,028	0,034	10 (8—15)
		1.0	0.000065	0.00010	0.00013	0.00020	0.00024	0.00028	0.00034	0.00040	0.00055	0.00060	0.00065	0.00080	0.0011	0.0013	33 (26—50)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub>

Cutting data – C5141 Slot milling – Inch

SMG	A	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>														v <sub>c</sub>
				1/32	1/16	1/8	1/6	1/5	2/9	1/4	1/3	3/8	1/2	5/8	3/4	1	1 1/4	
P1	E	0,1	2	0,0038	0,008	0,016	0,019	0,024	0,028	0,032	0,038	0,046	0,06	0,08	0,095	0,12	0,16	75 (50 — 85)
		0.10	2.0	0.00015	0.00032	0.00065	0.00075	0.00095	0.0011	0.0013	0.0015	0.0018	0.0024	0.0032	0.0038	0.0048	0.0065	245 (170 — 270)
P2	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	32 (20 — 40)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	100 (66 — 130)
P3	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	45 (30 — 60)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	147 (98 — 196)
P4	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	55 (40 — 65)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	180 (130 — 210)
P5	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	35 (20 — 45)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	115 (65 — 145)
P6	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	45 (30 — 60)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	145 (100 — 195)
P7	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	35 (20 — 50)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	115 (65 — 165)
P8	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	25 (15 — 35)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	80 (50 — 110)
P11	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	32 (20 — 42)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	105 (65 — 138)
P12	E	0,1	2	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,025	0,03	0,04	0,05	0,06	0,08	0,1	30 (20 — 40)
		0.10	2.0	0.00010	0.00020	0.00040	0.00050	0.00060	0.00070	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0032	0.0040	100 (65 — 130)
M1	E	0,1	2	0,0038	0,008	0,016	0,019	0,024	0,028	0,032	0,038	0,046	0,06	0,08	0,095	0,12	0,16	42 (21 — 52)
		0.10	2.0	0.00015	0.00032	0.00065	0.00075	0.00095	0.0011	0.0013	0.0015	0.0018	0.0024	0.0032	0.0038	0.0048	0.0065	138 (69 — 170)
M2	E	0,1	2	0,0038	0,008	0,016	0,019	0,024	0,028	0,032	0,038	0,046	0,06	0,08	0,095	0,12	0,16	32 (20 — 42)
		0.10	2.0	0.00015	0.00032	0.00065	0.00075	0.00095	0.0011	0.0013	0.0015	0.0018	0.0024	0.0032	0.0038	0.0048	0.0065	105 (65 — 138)
M3	E	0,1	2	0,0038	0,008	0,016	0,019	0,024	0,028	0,032	0,038	0,046	0,06	0,08	0,095	0,12	0,13	30 (15 — 40)
		0.10	2.0	0.00015	0.00032	0.00065	0.00075	0.00095	0.0011	0.0013	0.0015	0.0018	0.0024	0.0032	0.0038	0.0048	0.0050	100 (50 — 130)
M4	E	0,1	2	0,0038	0,008	0,016	0,019	0,024	0,028	0,032	0,038	0,046	0,06	0,08	0,09	0,1	0,11	22 (10 — 35)
		0.10	2.0	0.00015	0.00032	0.00065	0.00075	0.00095	0.0011	0.0013	0.0015	0.0018	0.0024	0.0032	0.0036	0.0040	0.0044	72 (33 — 115)
M5	E	0,1	2	0,0034	0,007	0,014	0,017	0,02	0,024	0,028	0,034	0,04	0,055	0,07	0,08	0,11	0,14	19 (16 — 30)
		0.10	2.0	0.00013	0.00028	0.00055	0.00065	0.00080	0.00095	0.0011	0.0013	0.0016	0.0022	0.0028	0.0032	0.0044	0.0055	62 (52 — 100)
K1	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	30 (20 — 45)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	100 (65 — 147)
K2	E	0,1	2	0,0044	0,009	0,018	0,022	0,026	0,032	0,036	0,044	0,055	0,07	0,09	0,11	0,14	0,18	40 (30 — 50)
		0.10	2.0	0.00017	0.00036	0.00070	0.00085	0.0010	0.0013	0.0014	0.0017	0.0022	0.0028	0.0036	0.0044	0.0055	0.0070	130 (100 — 165)
K3	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	32 (26 — 45)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	105 (85 — 148)
K4	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	22 (18 — 30)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	72 (60 — 100)
K5	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	20 (15 — 30)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	65 (50 — 100)
K6	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	35 (20 — 50)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	115 (65 — 165)
K7	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	35 (20 — 50)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	115 (65 — 165)
S1	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	25 (18 — 30)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	80 (60 — 100)
S2	E	0,1	2	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,025	0,03	0,04	0,05	0,06	0,08	0,1	13 (9 — 18)
		0.10	2.0	0.00010	0.00020	0.00040	0.00050	0.00060	0.00070	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0032	0.0040	62 (30 — 60)
S3	E	0,1	2	0,0017	0,0034	0,0065	0,0085	0,01	0,012	0,013	0,017	0,02	0,026	0,034	0,04	0,055	0,065	7,0 (5 — 12)
		0.10	2.0	0.000065	0.00013	0.00026	0.00034	0.00040	0.00048	0.00050	0.00065	0.00080	0.0010	0.0013	0.0016	0.0022	0.0026	23 (15 — 39)
S11	E	0,1	2	0,0032	0,0065	0,013	0,016	0,02	0,022	0,026	0,032	0,04	0,05	0,065	0,08	0,1	0,13	35 (25 — 40)
		0.10	2.0	0.00013	0.00026	0.00050	0.00065	0.00080	0.00085	0.0010	0.0013	0.0016	0.0020	0.0026	0.0032	0.0040	0.0050	114 (82 — 130)
S12	E	0,1	2	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,025	0,03	0,04	0,05	0,06	0,08	0,1	32 (22 — 40)
		0.10	2.0	0.00010	0.00020	0.00040	0.00050	0.00060	0.00070	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0032	0.0040	105 (72 — 130)
S13	E	0,1	2	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,025	0,03	0,04	0,05	0,06	0,08	0,1	10 (8 — 15)
		0.10	2.0	0.00010	0.00020	0.00040	0.00050	0.00060	0.00070	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0032	0.0040	33 (26 — 50)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

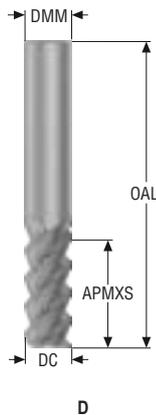
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

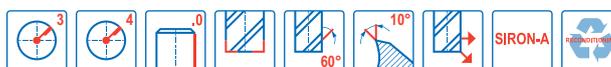
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

C5231/C5241

General purpose – Universal – Chamfer – 3-4 Flutes – Cylindrical



- Tolerances:  
 —DMM =  $-.0001"/-0.0004"$   
 —DC  $\leq \varnothing 7/64" = \pm 0.0005"$   
 —DC  $> \varnothing 7/64" = +.0007"/-.002"$   
 —Regrind possible if DC is  $\geq \varnothing .375$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
					inch	inch	inch	inch			
C5231-.375D2S.OZ3	SIRA	10268591	2	D	0.375	0.375	0.875	2.500	3	Cylindrical	■
C5231-.500D2S.OZ3	SIRA	10268592	2	D	0.500	0.500	1.000	3.000	3	Cylindrical	■
C5231-.625D2S.OZ3	SIRA	10268593	2	D	0.625	0.625	1.250	3.500	3	Cylindrical	■
C5231-.250D3S.OZ3	SIRA	10268590	3	D	0.250	0.250	0.750	2.500	3	Cylindrical	■
C5241-.750D3S.OZ4	SIRA	10268594	3	D	0.750	0.750	1.500	4.000	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – C5231-C5241 Side milling – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				1/4	3/8	1/2	5/8	3/4	1	
P1	E	0,1 0.10	2 2.0	0,04 0.0016	0,058 0.0023	0,075 0.003	0,1 0.004	0,12 0.0048	0,15 0.006	150 (135 – 165) 490 (440 – 540)
P2	E	0,1 0.10	2 2.0	0,033 0.0013	0,05 0.002	0,063 0.0025	0,081 0.0033	0,1 0.004	0,13 0.005	58 (45 – 70) 190 (147 – 230)
P3	E	0,1 0.10	2 2.0	0,033 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	85 (70 – 95) 279 (246 – 312)
P4	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	100 (90 – 110) 330 (295 – 360)
P5	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	68 (50 – 75) 223 (165 – 245)
P6	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	87 (77 – 100) 285 (250 – 330)
P7	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	65 (55 – 75) 213 (180 – 245)
P8	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	55 (50 – 75) 213 (165 – 245)
P11	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	85 (70 – 95) 280 (230 – 310)
P12	E	0,1 0.10	2 2.0	0,025 0.001	0,038 0.0015	0,05 0.002	0,063 0.0025	0,075 0.003	0,1 0.004	55 (45 – 65) 180 (147 – 213)
M1	E	0,1 0.10	2 2.0	0,04 0.0016	0,0575 0.0023	0,075 0.003	0,1 0.004	0,12 0.0048	0,15 0.006	93 (83 – 100) 305 (270 – 360)
M2	E	0,1 0.10	2 2.0	0,04 0.0016	0,0023 0.0023	0,075 0.003	0,1 0.004	0,12 0.0048	0,15 0.006	60 (50 – 70) 200 (165 – 230)
M3	E	0,1 0.10	2 2.0	0,0016 0.0016	0,0023 0.0023	0,075 0.003	0,1 0.004	0,12 0.0048	0,15 0.006	55 (45 – 65) 180 (147 – 213)
M4	E	0,1 0.10	2 2.0	0,0016 0.0016	0,058 0.0023	0,075 0.003	0,1 0.004	0,12 0.0045	0,13 0.005	45 (35 – 55) 147 (115 – 180)
M5	E	0,1 0.10	2 2.0	0,035 0.0014	0,05 0.002	0,069 0.0028	0,088 0.0035	0,1 0.004	0,14 0.0055	35 (20 – 45) 114 (65 – 147)
K1	E	0,1 0.10	2 2.0	0,033 0.0013	0,05 0.002	0,063 0.0025	0,081 0.0033	0,1 0.004	0,13 0.005	80 (70 – 90) 260 (230 – 290)
K2	E	0,1 0.10	2 2.0	0,045 0.0018	0,069 0.0028	0,063 0.0035	0,11 0.0045	0,14 0.0055	0,18 0.0069	87 (75 – 100) 285 (245 – 330)
K3	E	0,1 0.10	2 2.0	0,033 0.0013	0,05 0.002	0,063 0.0025	0,081 0.0033	0,1 0.004	0,13 0.005	65 (55 – 75) 213 (180 – 245)
K4	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,081 0.0033	0,1 0.004	0,13 0.005	50 (35 – 65) 165 (115 – 213)
K5	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	45 (30 – 55) 147 (100 – 180)
K6	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	77 (65 – 85) 250 (210 – 280)
K7	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	77 (60 – 90) 250 (200 – 290)
S1	E	0,1 0.10	2 2.0	0,0013 0.0013	0,05 0.002	0,063 0.0025	0,033 0.0033	0,1 0.004	0,13 0.005	50 (35 – 60) 165 (115 – 200)
S2	E	0,1 0.10	2 2.0	0,025 0.001	0,038 0.0015	0,05 0.002	0,063 0.0025	0,075 0.003	0,1 0.004	25 (15 – 35) 82 (50 – 115)
S3	E	0,1 0.10	2 2.0	0,016 0.00063	0,025 0.001	0,033 0.0013	0,043 0.0016	0,05 0.002	0,069 0.0028	11 (7,5 – 16) 35 (25 – 52)
S11	E	0,1 0.10	2 2.0	0,033 0.0013	0,05 0.002	0,063 0.0025	0,081 0.0033	0,1 0.004	0,13 0.005	110 (95 – 120) 360 (311 – 390)
S12	E	0,1 0.10	2 2.0	0,025 0.001	0,038 0.0015	0,05 0.002	0,063 0.0025	0,075 0.003	0,1 0.004	77 (60 – 90) 250 (190 – 290)
S13	E	0,1 0.10	2 2.0	0,025 0.001	0,038 0.0015	0,05 0.002	0,063 0.0025	0,075 0.003	0,1 0.004	30 (20 – 40) 100 (65 – 130)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

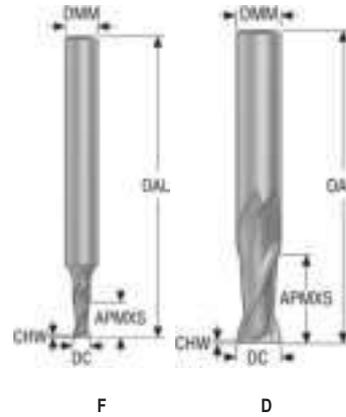
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

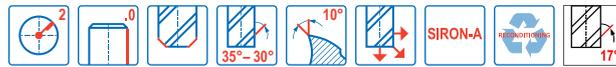
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JSE512

General purpose – Universal – Square – 2 Flutes – Cylindrical – chamfer



- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is  $\geq \varnothing 10$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	
JSE512021F2C.0Z2	SIRA	10052986	2	F	2,0	3,0	4,0	50,0	8,0	2,05	0,02	2	Cylindrical	■
JSE512020F2C.0Z2	SIRA	10052990	2	F	2,0	6,0	4,0	57,0	8,0	2,05	0,02	2	Cylindrical	■
JSE512030D2C.0Z2	SIRA	10052987	2	D	3,0	3,0	6,0	50,0	–	–	0,03	2	Cylindrical	■
JSE512030F2C.0Z2	SIRA	10052991	2	F	3,0	6,0	6,0	57,0	10,0	3,05	0,03	2	Cylindrical	■
JSE512040D2C.0Z2	SIRA	10052988	2	D	4,0	4,0	8,0	50,0	–	–	0,04	2	Cylindrical	■
JSE512040F2C.0Z2	SIRA	10052992	2	F	4,0	6,0	8,0	57,0	12,0	4,05	0,04	2	Cylindrical	■
JSE512050D2C.0Z2	SIRA	10052989	2	D	5,0	5,0	10,0	50,0	–	–	0,05	2	Cylindrical	■
JSE512060D2C.0Z2	SIRA	10052993	2	D	6,0	6,0	12,0	57,0	–	–	0,06	2	Cylindrical	■
JSE512080D2C.0Z2	SIRA	10052994	2	D	8,0	8,0	16,0	63,0	–	–	0,08	2	Cylindrical	■
JSE512100D2C.0Z2	SIRA	10052995	2	D	10,0	10,0	20,0	72,0	–	–	0,1	2	Cylindrical	■
JSE512120D2C.0Z2	SIRA	10052996	2	D	12,0	12,0	24,0	83,0	–	–	0,12	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

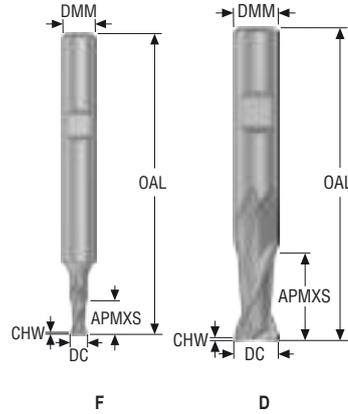
Graphite

X-Heads

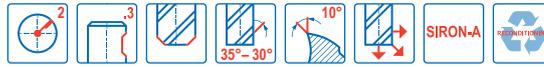
Minimaster

JSE512

General purpose – Universal – Square – 2 Flutes – Weldon – chamfer



- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is  $\geq \varnothing 10$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JSE512020F2C.3Z2	SIRA	10053113	2	F	2,0	6,0	4,0	57,0	8,0	2,05	0,02	2	Weldon	■
JSE512030F2C.3Z2	SIRA	10053114	2	F	3,0	6,0	6,0	57,0	10,0	3,05	0,03	2	Weldon	■
JSE512040F2C.3Z2	SIRA	10053115	2	F	4,0	6,0	8,0	57,0	12,0	4,05	0,04	2	Weldon	■
JSE512060D2C.3Z2	SIRA	10053116	2	D	6,0	6,0	12,0	57,0	–	–	0,06	2	Weldon	■
JSE512080D2C.3Z2	SIRA	10053117	2	D	8,0	8,0	16,0	63,0	–	–	0,08	2	Weldon	■
JSE512100D2C.3Z2	SIRA	10053118	2	D	10,0	10,0	20,0	72,0	–	–	0,1	2	Weldon	■
JSE512120D2C.3Z2	SIRA	10053119	2	D	12,0	12,0	24,0	83,0	–	–	0,12	2	Weldon	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – JSE512 Side milling

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				2	3	4	5	6	8	10	12	
P1	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
P2	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
P3	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
P4	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
P5	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
P6	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
P7	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
P8	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
P11	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
P12	M/A/D/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
M1	E/M/A	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
M2	E/M/A	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
M3	E/M/A	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
M4	E/M/A	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
M5	E/M/A	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
K1	A/D/M/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
K2	A/D/M/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
K3	A/D/M/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
K4	A/D/M/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
K5	A/D/M/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
K6	A/D/M/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
K7	A/D/M/E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	145 (61 – 180)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	475 (210 – 590)
N1	E/M/A	0.200	1.5	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	500 (380 – 630)
		0,200	1,5	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	1650 (1300 – 2000)
N11	E/M/A	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	365 (250 – 480)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	1200 (830 – 1500)
S11	E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
S12	E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)
S13	E	0.250	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	85 (61 – 120)
		0,250	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	280 (210 – 390)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## Cutting data – JSE512 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>	
			2	3	4	5	6	8	10	12		
P1	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (51 — 150)	Universal
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 490)	
P2	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Steel and cast iron
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
P3	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (51 — 150)	Steel and cast iron
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 490)	
P4	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Steel and cast iron
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
P5	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Steel and cast iron
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
P6	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Steel and cast iron
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
P7	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (51 — 150)	Stainless steel and S-materials
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 490)	
P8	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Stainless steel and S-materials
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
P11	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (51 — 100)	Stainless steel and S-materials
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
P12	M/A/D/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	Stainless steel and S-materials
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
M1	E/M/A	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	Non ferrous
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
M2	E/M/A	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	Non ferrous
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
M3	E/M/A	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	Non ferrous
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
M4	E/M/A	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	Non ferrous
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
M5	E/M/A	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	Non ferrous
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
K1	A/D/M/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Hard
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
K2	A/D/M/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Hard
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
K3	A/D/M/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Hard
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
K4	A/D/M/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Hard
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
K5	A/D/M/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Hard
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
K6	A/D/M/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Hard
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
K7	A/D/M/E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	120 (50 — 140)	Hard
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	395 (170 — 450)	
N1	E/M/A	0.40	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	400 (300 — 500)	Graphite
		0.40	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	1300 (990 — 1600)	
N11	E/M/A	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	300 (200 — 390)	Graphite
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	980 (660 — 1200)	
S11	E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	X-Heads
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
S12	E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	X-Heads
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	
S13	E	0.60	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	70 (50 — 99)	X-Heads
		0.60	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	230 (170 — 320)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

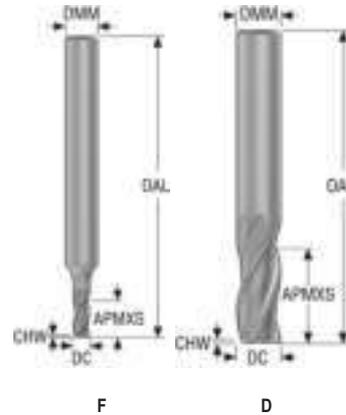
 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

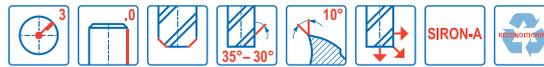
All cutting data are target values

**JSE513**

General purpose – Universal – Square – 3 Flutes – Cylindrical – chamfer



- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is ≥Ø10

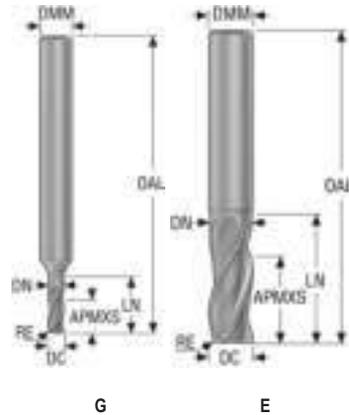


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
JSE513020F2C.0Z3	SIRA	10053000	2	F	2,0	6,0	4,0	57,0	8,0	2,05	0,02	3	Cylindrical	■
JSE513025F2C.0Z3	SIRA	10053001	2	F	2,5	6,0	5,0	57,0	9,0	2,55	0,025	3	Cylindrical	■
JSE513030D2C.0Z3	SIRA	10052998	2	D	3,0	3,0	6,0	50,0	–	–	0,03	3	Cylindrical	■
JSE513030F2C.0Z3	SIRA	10053002	2	F	3,0	6,0	6,0	57,0	10,0	3,05	0,03	3	Cylindrical	■
JSE513040D2C.0Z3	SIRA	10052999	2	D	4,0	4,0	8,0	50,0	–	–	0,04	3	Cylindrical	■
JSE513040F2C.0Z3	SIRA	10053003	2	F	4,0	6,0	8,0	57,0	12,0	4,05	0,04	3	Cylindrical	■
JSE513050F2C.0Z3	SIRA	10053004	2	F	5,0	6,0	10,0	57,0	14,0	5,05	0,05	3	Cylindrical	■
JSE513060D2C.0Z3	SIRA	10053005	2	D	6,0	6,0	12,0	57,0	–	–	0,06	3	Cylindrical	■
JSE513070F2C.0Z3	SIRA	10053006	2	F	7,0	8,0	14,0	63,0	18,0	7,05	0,07	3	Cylindrical	■
JSE513080D2C.0Z3	SIRA	10053007	2	D	8,0	8,0	16,0	63,0	–	–	0,08	3	Cylindrical	■
JSE513090F2C.0Z3	SIRA	10053008	2	F	9,0	10,0	18,0	72,0	22,0	9,05	0,09	3	Cylindrical	■
JSE513100D2C.0Z3	SIRA	10053009	2	D	10,0	10,0	20,0	72,0	–	–	0,1	3	Cylindrical	■
JSE513110F2C.0Z3	SIRA	10053010	2	F	11,0	12,0	22,0	83,0	26,0	11,05	0,11	3	Cylindrical	■
JSE513120D2C.0Z3	SIRA	10053011	2	D	12,0	12,0	24,0	83,0	–	–	0,12	3	Cylindrical	■
JSE513140D2C.0Z3	SIRA	10053012	2	D	14,0	14,0	28,0	80,0	–	–	0,14	3	Cylindrical	■
JSE513160D2C.0Z3	SIRA	10053013	2	D	16,0	16,0	32,0	92,0	–	–	0,16	3	Cylindrical	■
JSE513180D2C.0Z3	SIRA	10053014	2	D	18,0	18,0	35,0	100,0	–	–	0,18	3	Cylindrical	■
JSE513200D2C.0Z3	SIRA	10053015	2	D	20,0	20,0	35,0	104,0	–	–	0,2	3	Cylindrical	■
JSE513030F3C.0Z3	SIRA	10053038	3	F	3,0	6,0	10,0	57,0	14,0	3,05	0,03	3	Cylindrical	■
JSE513040F3C.0Z3	SIRA	10053039	3	F	4,0	6,0	14,0	57,0	18,0	4,05	0,04	3	Cylindrical	■
JSE513050F3C.0Z3	SIRA	10053040	3	F	5,0	6,0	18,0	57,0	22,0	5,05	0,05	3	Cylindrical	■
JSE513060D3C.0Z3	SIRA	10053046	3	D	6,0	6,0	20,0	63,0	–	–	0,06	3	Cylindrical	■
JSE513080D3C.0Z3	SIRA	10053047	3	D	8,0	8,0	28,0	80,0	–	–	0,08	3	Cylindrical	■
JSE513100D3C.0Z3	SIRA	10053048	3	D	10,0	10,0	35,0	89,0	–	–	0,1	3	Cylindrical	■
JSE513120D3C.0Z3	SIRA	10053049	3	D	12,0	12,0	42,0	100,0	–	–	0,12	3	Cylindrical	■
JSE513160D3C.0Z3	SIRA	10053050	3	D	16,0	16,0	50,0	115,0	–	–	0,16	3	Cylindrical	■
JSE513200D3C.0Z3	SIRA	10053052	3	D	20,0	20,0	60,0	125,0	–	–	0,2	3	Cylindrical	■
JSE513030F4C.0Z3	SIRA	10201454	4	F	3,0	6,0	15,0	57,0	19,0	3,05	0,03	3	Cylindrical	■
JSE513040F4C.0Z3	SIRA	10201455	4	F	4,0	6,0	20,0	63,0	24,0	4,05	0,04	3	Cylindrical	■
JSE513050F4C.0Z3	SIRA	10201456	4	F	5,0	6,0	25,0	75,0	29,0	5,05	0,05	3	Cylindrical	■
JSE513060D4C.0Z3	SIRA	10201457	4	D	6,0	6,0	30,0	75,0	–	–	0,06	3	Cylindrical	■
JSE513080D4C.0Z3	SIRA	10201458	4	D	8,0	8,0	40,0	87,0	–	–	0,08	3	Cylindrical	■
JSE513100D4C.0Z3	SIRA	10201459	4	D	10,0	10,0	50,0	104,0	–	–	0,1	3	Cylindrical	■
JSE513120D4C.0Z3	SIRA	10201460	4	D	12,0	12,0	60,0	125,0	–	–	0,12	3	Cylindrical	■
JSE513160D4C.0Z3	SIRA	10201461	4	D	16,0	16,0	80,0	150,0	–	–	0,16	3	Cylindrical	■
JSE513200D4C.0Z3	SIRA	10201462	4	D	20,0	20,0	100,0	170,0	–	–	0,2	3	Cylindrical	■

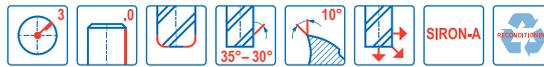
■ Stocked standard.

JSE513

General purpose – Universal – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø10



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JSE513030G2R050.0Z3	SIRA	10053023	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,5	3	Cylindrical	■
JSE513040G2R050.0Z3	SIRA	10053024	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,5	3	Cylindrical	■
JSE513050G2R050.0Z3	SIRA	10053025	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,5	3	Cylindrical	■
JSE513060E2R050.0Z3	SIRA	10053026	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	3	Cylindrical	■
JSE513060E2R100.0Z3	SIRA	10053032	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	3	Cylindrical	■
JSE513080E2R050.0Z3	SIRA	10053027	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	3	Cylindrical	■
JSE513080E2R100.0Z3	SIRA	10053033	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	3	Cylindrical	■
JSE513100E2R050.0Z3	SIRA	10053028	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	3	Cylindrical	■
JSE513100E2R100.0Z3	SIRA	10053034	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	3	Cylindrical	■
JSE513120E2R050.0Z3	SIRA	10053029	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	3	Cylindrical	■
JSE513120E2R100.0Z3	SIRA	10053035	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	3	Cylindrical	■
JSE513160E2R050.0Z3	SIRA	10053030	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	3	Cylindrical	■
JSE513160E2R100.0Z3	SIRA	10053036	2	E	16,0	16,0	28,0	92,0	42,0	15,2	1,0	3	Cylindrical	■
JSE513200E2R050.0Z3	SIRA	10053031	2	E	20,0	20,0	35,0	104,0	51,0	19,0	0,5	3	Cylindrical	■
JSE513200E2R100.0Z3	SIRA	10053037	2	E	20,0	20,0	35,0	104,0	51,0	19,0	1,0	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

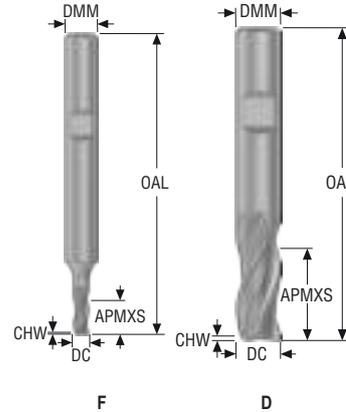
Graphite

X-Heads

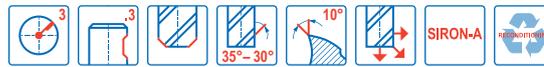
Minimaster

JSE513

General purpose – Universal – Square – 3 Flutes – Weldon – chamfer



- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is  $\geq \varnothing 10$

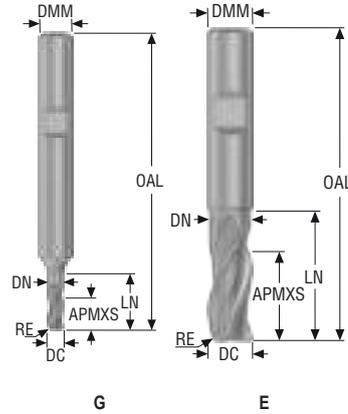


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JSE513020F2C.3Z3	SIRA	10053120	2	F	2,0	6,0	4,0	57,0	8,0	2,05	0,02	3	Weldon	■
JSE513025F2C.3Z3	SIRA	10053121	2	F	2,5	6,0	5,0	57,0	9,0	2,55	0,025	3	Weldon	■
JSE513030F2C.3Z3	SIRA	10053122	2	F	3,0	6,0	6,0	57,0	10,0	3,05	0,03	3	Weldon	■
JSE513040F2C.3Z3	SIRA	10053123	2	F	4,0	6,0	8,0	57,0	12,0	4,05	0,04	3	Weldon	■
JSE513050F2C.3Z3	SIRA	10053124	2	F	5,0	6,0	10,0	57,0	14,0	5,05	0,05	3	Weldon	■
JSE513060D2C.3Z3	SIRA	10053125	2	D	6,0	6,0	12,0	57,0	–	–	0,06	3	Weldon	■
JSE513070F2C.3Z3	SIRA	10053126	2	F	7,0	8,0	14,0	63,0	18,0	7,05	0,07	3	Weldon	■
JSE513080D2C.3Z3	SIRA	10053127	2	D	8,0	8,0	16,0	63,0	–	–	0,08	3	Weldon	■
JSE513090F2C.3Z3	SIRA	10053128	2	F	9,0	10,0	18,0	72,0	22,0	9,05	0,09	3	Weldon	■
JSE513100D2C.3Z3	SIRA	10053129	2	D	10,0	10,0	20,0	72,0	–	–	0,1	3	Weldon	■
JSE513110F2C.3Z3	SIRA	10053130	2	F	11,0	12,0	22,0	83,0	26,0	11,05	0,11	3	Weldon	■
JSE513120D2C.3Z3	SIRA	10053131	2	D	12,0	12,0	24,0	83,0	–	–	0,12	3	Weldon	■
JSE513140D2C.3Z3	SIRA	10053132	2	D	14,0	14,0	28,0	80,0	–	–	0,14	3	Weldon	■
JSE513160D2C.3Z3	SIRA	10053133	2	D	16,0	16,0	32,0	92,0	–	–	0,16	3	Weldon	■
JSE513180D2C.3Z3	SIRA	10053258	2	D	18,0	18,0	35,0	100,0	–	–	0,18	3	Weldon	■
JSE513200D2C.3Z3	SIRA	10053259	2	D	20,0	20,0	35,0	104,0	–	–	0,2	3	Weldon	■
JSE513030F3C.3Z3	SIRA	10053275	3	F	3,0	6,0	10,0	57,0	14,0	3,05	0,03	3	Weldon	■
JSE513040F3C.3Z3	SIRA	10053276	3	F	4,0	6,0	14,0	57,0	18,0	4,05	0,04	3	Weldon	■
JSE513050F3C.3Z3	SIRA	10053277	3	F	5,0	6,0	18,0	57,0	22,0	5,05	0,05	3	Weldon	■
JSE513060D3C.3Z3	SIRA	10053283	3	D	6,0	6,0	20,0	63,0	–	–	0,06	3	Weldon	■
JSE513080D3C.3Z3	SIRA	10053284	3	D	8,0	8,0	28,0	80,0	–	–	0,08	3	Weldon	■
JSE513100D3C.3Z3	SIRA	10053285	3	D	10,0	10,0	35,0	89,0	–	–	0,1	3	Weldon	■
JSE513120D3C.3Z3	SIRA	10053286	3	D	12,0	12,0	42,0	100,0	–	–	0,12	3	Weldon	■
JSE513160D3C.3Z3	SIRA	10053287	3	D	16,0	16,0	50,0	115,0	–	–	0,16	3	Weldon	■
JSE513200D3C.3Z3	SIRA	10053288	3	D	20,0	20,0	60,0	125,0	–	–	0,2	3	Weldon	■
JSE513030F4C.3Z3	SIRA	10201463	4	F	3,0	6,0	15,0	57,0	19,0	3,05	0,03	3	Weldon	□
JSE513040F4C.3Z3	SIRA	10201464	4	F	4,0	6,0	20,0	63,0	24,0	4,05	0,04	3	Weldon	□
JSE513050F4C.3Z3	SIRA	10201465	4	F	5,0	6,0	25,0	75,0	29,0	5,05	0,05	3	Weldon	□
JSE513060D4C.3Z3	SIRA	10201466	4	D	6,0	6,0	30,0	75,0	–	–	0,06	3	Weldon	□
JSE513080D4C.3Z3	SIRA	10201467	4	D	8,0	8,0	40,0	87,0	–	–	0,08	3	Weldon	□
JSE513100D4C.3Z3	SIRA	10201468	4	D	10,0	10,0	50,0	104,0	–	–	0,1	3	Weldon	□
JSE513120D4C.3Z3	SIRA	10201469	4	D	12,0	12,0	60,0	125,0	–	–	0,12	3	Weldon	□
JSE513160D4C.3Z3	SIRA	10201470	4	D	16,0	16,0	80,0	150,0	–	–	0,16	3	Weldon	□
JSE513200D4C.3Z3	SIRA	10201471	4	D	20,0	20,0	100,0	170,0	–	–	0,2	3	Weldon	□

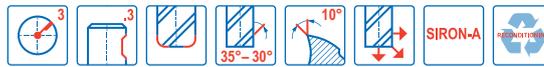
■ Stocked standard.

JSE513

General purpose – Universal – Square – 3 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø10



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JSE513030G2R050.3Z3	SIRA	10053260	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,5	3	Weldon	■
JSE513040G2R050.3Z3	SIRA	10053261	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,5	3	Weldon	■
JSE513050G2R050.3Z3	SIRA	10053262	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,5	3	Weldon	■
JSE513060E2R050.3Z3	SIRA	10053263	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	3	Weldon	■
JSE513060E2R100.3Z3	SIRA	10053269	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	3	Weldon	■
JSE513080E2R050.3Z3	SIRA	10053264	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	3	Weldon	■
JSE513080E2R100.3Z3	SIRA	10053270	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	3	Weldon	■
JSE513100E2R050.3Z3	SIRA	10053265	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	3	Weldon	■
JSE513100E2R100.3Z3	SIRA	10053271	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	3	Weldon	■
JSE513120E2R050.3Z3	SIRA	10053266	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	3	Weldon	■
JSE513120E2R100.3Z3	SIRA	10053272	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	3	Weldon	■
JSE513160E2R050.3Z3	SIRA	10053267	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	3	Weldon	■
JSE513160E2R100.3Z3	SIRA	10053273	2	E	16,0	16,0	28,0	92,0	42,0	15,2	1,0	3	Weldon	■
JSE513200E2R050.3Z3	SIRA	10053268	2	E	20,0	20,0	35,0	104,0	51,0	19,0	0,5	3	Weldon	■
JSE513200E2R100.3Z3	SIRA	10053274	2	E	20,0	20,0	35,0	104,0	51,0	19,0	1,0	3	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

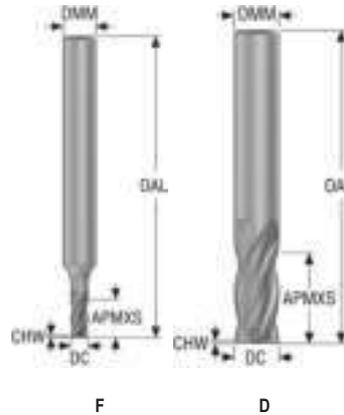
Minimaster



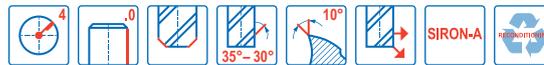


**JSE514**

General purpose – Universal – Square – 4 Flutes – Cylindrical – chamfer



–Tolerances:  
 –DMM=h5  
 –DC=e8  
 –Regrind possible if DC is  $\geq \phi 10$

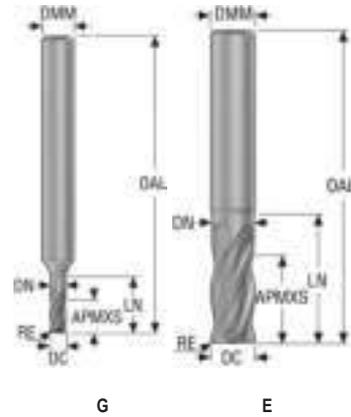


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
JSE514021F2C.0Z4	SIRA	10053053	2	F	2,0	3,0	4,0	50,0	8,0	2,05	0,02	4	Cylindrical	■
JSE514020F2C.0Z4	SIRA	10053057	2	F	2,0	6,0	4,0	57,0	8,0	2,05	0,02	4	Cylindrical	■
JSE514030D2C.0Z4	SIRA	10053054	2	D	3,0	3,0	6,0	50,0	–	–	0,03	4	Cylindrical	■
JSE514030F2C.0Z4	SIRA	10053058	2	F	3,0	6,0	6,0	57,0	10,0	3,05	0,03	4	Cylindrical	■
JSE514040D2C.0Z4	SIRA	10053055	2	D	4,0	4,0	8,0	50,0	–	–	0,04	4	Cylindrical	■
JSE514040F2C.0Z4	SIRA	10053059	2	F	4,0	6,0	8,0	57,0	12,0	4,05	0,04	4	Cylindrical	■
JSE514050D2C.0Z4	SIRA	10053056	2	D	5,0	5,0	10,0	50,0	–	–	0,05	4	Cylindrical	■
JSE514050F2C.0Z4	SIRA	10053060	2	F	5,0	6,0	10,0	57,0	14,0	5,05	0,05	4	Cylindrical	■
JSE514060D2C.0Z4	SIRA	10053061	2	D	6,0	6,0	12,0	57,0	–	–	0,06	4	Cylindrical	■
JSE514080D2C.0Z4	SIRA	10053062	2	D	8,0	8,0	16,0	63,0	–	–	0,08	4	Cylindrical	■
JSE514100D2C.0Z4	SIRA	10053063	2	D	10,0	10,0	20,0	72,0	–	–	0,1	4	Cylindrical	■
JSE514120D2C.0Z4	SIRA	10053064	2	D	12,0	12,0	24,0	83,0	–	–	0,12	4	Cylindrical	■
JSE514160D2C.0Z4	SIRA	10053067	2	D	16,0	16,0	32,0	92,0	–	–	0,16	4	Cylindrical	■
JSE514180D2C.0Z4	SIRA	10053068	2	D	18,0	18,0	35,0	100,0	–	–	0,18	4	Cylindrical	■
JSE514200D2C.0Z4	SIRA	10053069	2	D	20,0	20,0	35,0	104,0	–	–	0,2	4	Cylindrical	■
JSE514250D2C.0Z4	SIRA	10053070	2	D	25,0	25,0	40,0	125,0	–	–	0,25	4	Cylindrical	■
JSE514030F3C.0Z4	SIRA	10053090	3	F	3,0	6,0	10,0	57,0	14,0	3,05	0,03	4	Cylindrical	■
JSE514040F3C.0Z4	SIRA	10053091	3	F	4,0	6,0	14,0	57,0	18,0	4,05	0,04	4	Cylindrical	■
JSE514050F3C.0Z4	SIRA	10053092	3	F	5,0	6,0	18,0	57,0	22,0	5,05	0,05	4	Cylindrical	■
JSE514060D3C.0Z4	SIRA	10053093	3	D	6,0	6,0	20,0	63,0	–	–	0,06	4	Cylindrical	■
JSE514080D3C.0Z4	SIRA	10053094	3	D	8,0	8,0	28,0	80,0	–	–	0,08	4	Cylindrical	■
JSE514100D3C.0Z4	SIRA	10053095	3	D	10,0	10,0	35,0	89,0	–	–	0,1	4	Cylindrical	■
JSE514120D3C.0Z4	SIRA	10053096	3	D	12,0	12,0	42,0	100,0	–	–	0,12	4	Cylindrical	■
JSE514160D3C.0Z4	SIRA	10053097	3	D	16,0	16,0	50,0	115,0	–	–	0,16	4	Cylindrical	■
JSE514200D3C.0Z4	SIRA	10053098	3	D	20,0	20,0	60,0	125,0	–	–	0,2	4	Cylindrical	■
JSE514030F4C.0Z4	SIRA	10201472	4	F	3,0	6,0	15,0	57,0	19,0	3,05	0,03	4	Cylindrical	■
JSE514040F4C.0Z4	SIRA	10201473	4	F	4,0	6,0	20,0	63,0	24,0	4,05	0,04	4	Cylindrical	■
JSE514050F4C.0Z4	SIRA	10201474	4	F	5,0	6,0	25,0	75,0	29,0	5,05	0,05	4	Cylindrical	■
JSE514060D4C.0Z4	SIRA	10201475	4	D	6,0	6,0	30,0	75,0	–	–	0,06	4	Cylindrical	■
JSE514080D4C.0Z4	SIRA	10201476	4	D	8,0	8,0	40,0	87,0	–	–	0,08	4	Cylindrical	■
JSE514100D4C.0Z4	SIRA	10201477	4	D	10,0	10,0	50,0	104,0	–	–	0,1	4	Cylindrical	■
JSE514120D4C.0Z4	SIRA	10201478	4	D	12,0	12,0	60,0	125,0	–	–	0,12	4	Cylindrical	■
JSE514160D4C.0Z4	SIRA	10201479	4	D	16,0	16,0	80,0	150,0	–	–	0,16	4	Cylindrical	■
JSE514200D4C.0Z4	SIRA	10201480	4	D	20,0	20,0	100,0	170,0	–	–	0,2	4	Cylindrical	■

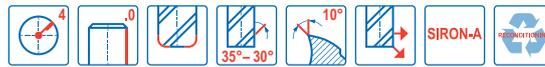
■ Stocked standard.

**JSE514**

General purpose – Universal – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø10



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JSE514030G2R050.0Z4	SIRA	10053071	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,5	4	Cylindrical	■
JSE514040G2R050.0Z4	SIRA	10053072	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,5	4	Cylindrical	■
JSE514050G2R050.0Z4	SIRA	10053073	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,5	4	Cylindrical	■
JSE514060E2R050.0Z4	SIRA	10053074	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	4	Cylindrical	■
JSE514060E2R100.0Z4	SIRA	10053081	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	4	Cylindrical	■
JSE514080E2R050.0Z4	SIRA	10053075	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	4	Cylindrical	■
JSE514080E2R100.0Z4	SIRA	10053082	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	4	Cylindrical	■
JSE514100E2R050.0Z4	SIRA	10053076	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	4	Cylindrical	■
JSE514100E2R100.0Z4	SIRA	10053083	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	4	Cylindrical	■
JSE514120E2R050.0Z4	SIRA	10053077	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	4	Cylindrical	■
JSE514120E2R100.0Z4	SIRA	10053084	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	4	Cylindrical	■
JSE514160E2R050.0Z4	SIRA	10053078	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	4	Cylindrical	■
JSE514160E2R100.0Z4	SIRA	10053087	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	4	Cylindrical	■
JSE514200E2R050.0Z4	SIRA	10053079	2	E	20,0	20,0	35,0	104,0	51,0	19,0	0,5	4	Cylindrical	■
JSE514200E2R100.0Z4	SIRA	10053088	2	E	20,0	20,0	35,0	104,0	51,0	19,0	1,0	4	Cylindrical	■
JSE514250E2R050.0Z4	SIRA	10053080	2	E	25,0	25,0	40,0	125,0	66,0	23,8	0,5	4	Cylindrical	■
JSE514250E2R100.0Z4	SIRA	10053089	2	E	25,0	25,0	40,0	125,0	66,0	23,8	1,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

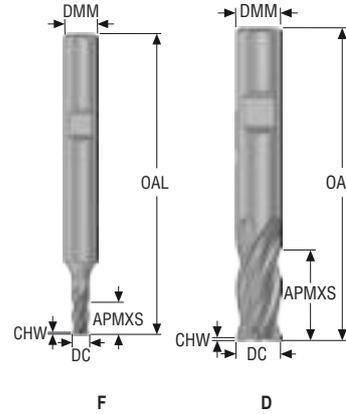
Graphite

X-Heads

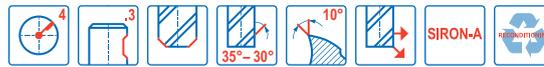
Minimaster

**JSE514**

General purpose – Universal – Square – 4 Flutes – Weldon – chamfer



- Tolerances:
- DMM=h5
- DC=e8
- Regrind possible if DC is  $\geq \varnothing 10$

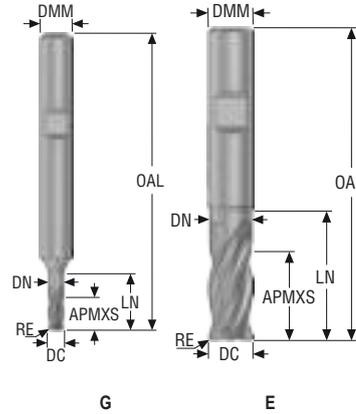


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	
JSE514020F2C.3Z4	SIRA	10053289	2	F	2,0	6,0	4,0	57,0	8,0	2,05	0,02	4	Weldon	■
JSE514030F2C.3Z4	SIRA	10053290	2	F	3,0	6,0	6,0	57,0	10,0	3,05	0,03	4	Weldon	■
JSE514040F2C.3Z4	SIRA	10053291	2	F	4,0	6,0	8,0	57,0	12,0	4,05	0,04	4	Weldon	■
JSE514050F2C.3Z4	SIRA	10053292	2	F	5,0	6,0	10,0	57,0	14,0	5,05	0,05	4	Weldon	■
JSE514060D2C.3Z4	SIRA	10053293	2	D	6,0	6,0	12,0	57,0	–	–	0,06	4	Weldon	■
JSE514080D2C.3Z4	SIRA	10053294	2	D	8,0	8,0	16,0	63,0	–	–	0,08	4	Weldon	■
JSE514100D2C.3Z4	SIRA	10053295	2	D	10,0	10,0	20,0	72,0	–	–	0,1	4	Weldon	■
JSE514120D2C.3Z4	SIRA	10053296	2	D	12,0	12,0	24,0	83,0	–	–	0,12	4	Weldon	■
JSE514160D2C.3Z4	SIRA	10053297	2	D	16,0	16,0	32,0	92,0	–	–	0,16	4	Weldon	■
JSE514180D2C.3Z4	SIRA	10053298	2	D	18,0	18,0	35,0	100,0	–	–	0,18	4	Weldon	■
JSE514200D2C.3Z4	SIRA	10053299	2	D	20,0	20,0	35,0	104,0	–	–	0,2	4	Weldon	■
JSE514250D2C.3Z4	SIRA	10053300	2	D	25,0	25,0	40,0	125,0	–	–	0,25	4	Weldon	■
JSE514030F3C.3Z4	SIRA	10053321	3	F	3,0	6,0	10,0	57,0	14,0	3,05	0,03	4	Weldon	■
JSE514040F3C.3Z4	SIRA	10053322	3	F	4,0	6,0	14,0	57,0	18,0	4,05	0,04	4	Weldon	■
JSE514050F3C.3Z4	SIRA	10053323	3	F	5,0	6,0	18,0	57,0	22,0	5,05	0,05	4	Weldon	■
JSE514060D3C.3Z4	SIRA	10053324	3	D	6,0	6,0	20,0	63,0	–	–	0,06	4	Weldon	■
JSE514080D3C.3Z4	SIRA	10053325	3	D	8,0	8,0	28,0	80,0	–	–	0,08	4	Weldon	■
JSE514100D3C.3Z4	SIRA	10053326	3	D	10,0	10,0	35,0	89,0	–	–	0,1	4	Weldon	■
JSE514120D3C.3Z4	SIRA	10053327	3	D	12,0	12,0	42,0	100,0	–	–	0,12	4	Weldon	■
JSE514160D3C.3Z4	SIRA	10053328	3	D	16,0	16,0	50,0	115,0	–	–	0,16	4	Weldon	■
JSE514200D3C.3Z4	SIRA	10053329	3	D	20,0	20,0	60,0	125,0	–	–	0,2	4	Weldon	■
JSE514030F4C.3Z4	SIRA	10201481	4	F	3,0	6,0	15,0	57,0	19,0	3,05	0,03	4	Weldon	□
JSE514040F4C.3Z4	SIRA	10201482	4	F	4,0	6,0	20,0	63,0	24,0	4,05	0,04	4	Weldon	□
JSE514050F4C.3Z4	SIRA	10201483	4	F	5,0	6,0	25,0	75,0	29,0	5,05	0,05	4	Weldon	□
JSE514060D4C.3Z4	SIRA	10201484	4	D	6,0	6,0	30,0	75,0	–	–	0,06	4	Weldon	□
JSE514080D4C.3Z4	SIRA	10201485	4	D	8,0	8,0	40,0	87,0	–	–	0,08	4	Weldon	□
JSE514100D4C.3Z4	SIRA	10201486	4	D	10,0	10,0	50,0	104,0	–	–	0,1	4	Weldon	□
JSE514120D4C.3Z4	SIRA	10201487	4	D	12,0	12,0	60,0	125,0	–	–	0,12	4	Weldon	□
JSE514160D4C.3Z4	SIRA	10201488	4	D	16,0	16,0	80,0	150,0	–	–	0,16	4	Weldon	□
JSE514200D4C.3Z4	SIRA	10201489	4	D	20,0	20,0	100,0	170,0	–	–	0,2	4	Weldon	□

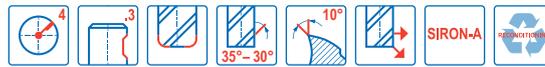
■ Stocked standard.

JSE514

General purpose – Universal – Square – 4 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø10



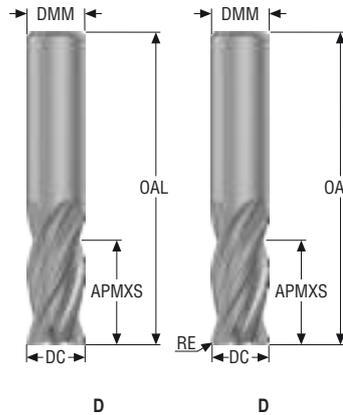
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JSE514030G2R050.3Z4	SIRA	10053301	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,5	4	Weldon	■
JSE514040G2R050.3Z4	SIRA	10053302	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,5	4	Weldon	■
JSE514050G2R050.3Z4	SIRA	10053306	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,5	4	Weldon	■
JSE514060E2R050.3Z4	SIRA	10053307	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	4	Weldon	■
JSE514060E2R100.3Z4	SIRA	10053314	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	4	Weldon	■
JSE514080E2R050.3Z4	SIRA	10053308	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	4	Weldon	■
JSE514080E2R100.3Z4	SIRA	10053315	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	4	Weldon	■
JSE514100E2R050.3Z4	SIRA	10053309	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	4	Weldon	■
JSE514100E2R100.3Z4	SIRA	10053316	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	4	Weldon	■
JSE514120E2R050.3Z4	SIRA	10053310	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	4	Weldon	■
JSE514120E2R100.3Z4	SIRA	10053317	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	4	Weldon	■
JSE514160E2R050.3Z4	SIRA	10053311	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	4	Weldon	■
JSE514160E2R100.3Z4	SIRA	10053318	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	4	Weldon	■
JSE514200E2R050.3Z4	SIRA	10053312	2	E	20,0	20,0	35,0	104,0	51,0	19,0	0,5	4	Weldon	■
JSE514200E2R100.3Z4	SIRA	10053319	2	E	20,0	20,0	35,0	104,0	51,0	19,0	1,0	4	Weldon	■
JSE514250E2R050.3Z4	SIRA	10053313	2	E	25,0	25,0	40,0	125,0	66,0	23,8	0,5	4	Weldon	■
JSE514250E2R100.3Z4	SIRA	10053320	2	E	25,0	25,0	40,0	125,0	66,0	23,8	1,0	4	Weldon	■

■ Stocked standard.

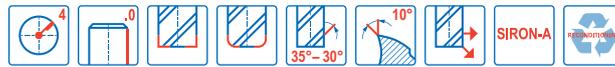
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

JSE514

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp or corner radius – Inch



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±.002 Inch
- Regrind possible if DC is ≥Ø.375



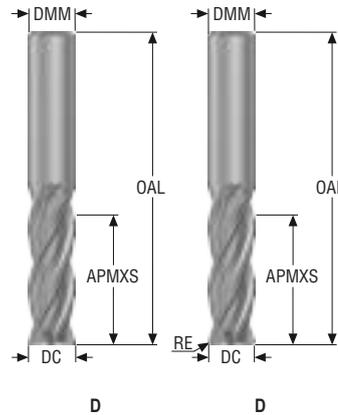
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch			
JSE514.250D1S.0Z4	SIRA	10201805	1	D	0.250	0.250	0.375	2.000	—	4	Cylindrical	■
JSE514.250D1R030.0Z4	SIRA	10201812	1	D	0.250	0.250	0.375	2.000	0.030	4	Cylindrical	■
JSE514.375D1S.0Z4	SIRA	10201806	1	D	0.375	0.375	0.500	2.000	—	4	Cylindrical	■
JSE514.375D1R030.0Z4	SIRA	10201813	1	D	0.375	0.375	0.500	2.000	0.030	4	Cylindrical	■
JSE514.500D1S.0Z4	SIRA	10201807	1	D	0.500	0.500	0.625	2.500	—	4	Cylindrical	■
JSE514.500D1R030.0Z4	SIRA	10201814	1	D	0.500	0.500	0.625	2.500	0.030	4	Cylindrical	■
JSE514.500D1R060.0Z4	SIRA	10201815	1	D	0.500	0.500	0.625	2.500	0.060	4	Cylindrical	■
JSE514.625D1S.0Z4	SIRA	10201808	1	D	0.625	0.625	0.750	3.000	—	4	Cylindrical	■
JSE514.625D1R030.0Z4	SIRA	10201816	1	D	0.625	0.625	0.750	3.000	0.030	4	Cylindrical	■
JSE514.625D1R060.0Z4	SIRA	10201817	1	D	0.625	0.625	0.750	3.000	0.060	4	Cylindrical	■
JSE514.750D1S.0Z4	SIRA	10201809	1	D	0.750	0.750	0.875	3.000	—	4	Cylindrical	■
JSE514.750D1R030.0Z4	SIRA	10201818	1	D	0.750	0.750	0.875	3.000	0.030	4	Cylindrical	■
JSE514.750D1R060.0Z4	SIRA	10201819	1	D	0.750	0.750	0.875	3.000	0.060	4	Cylindrical	■
JSE514.125D2S.0Z4	SIRA	10201803	2	D	0.125	0.125	0.250	1.500	—	4	Cylindrical	■
JSE514.125D2R015.0Z4	SIRA	10201810	2	D	0.125	0.125	0.250	1.500	0.015	4	Cylindrical	■
JSE514.188D2S.0Z4	SIRA	10201804	2	D	0.188	0.188	0.375	2.000	—	4	Cylindrical	■
JSE514.188D2R020.0Z4	SIRA	10201811	2	D	0.188	0.188	0.375	2.000	0.020	4	Cylindrical	■
JSE514.250D2S.0Z4	SIRA	10201822	2	D	0.250	0.250	0.500	2.000	—	4	Cylindrical	■
JSE514.250D2R030.0Z4	SIRA	10201829	2	D	0.250	0.250	0.500	2.000	0.030	4	Cylindrical	■
JSE514.375D2S.0Z4	SIRA	10201823	2	D	0.375	0.375	0.625	2.000	—	4	Cylindrical	■
JSE514.375D2R030.0Z4	SIRA	10201830	2	D	0.375	0.375	0.625	2.000	0.030	4	Cylindrical	■
JSE514.500D2S.0Z4	SIRA	10201824	2	D	0.500	0.500	1.000	3.000	—	4	Cylindrical	■
JSE514.500D2R030.0Z4	SIRA	10201831	2	D	0.500	0.500	1.000	3.000	0.030	4	Cylindrical	■
JSE514.500D2R060.0Z4	SIRA	10201832	2	D	0.500	0.500	1.000	3.000	0.060	4	Cylindrical	■
JSE514.625D2S.0Z4	SIRA	10201825	2	D	0.625	0.625	1.250	3.500	—	4	Cylindrical	■
JSE514.625D2R030.0Z4	SIRA	10201833	2	D	0.625	0.625	1.250	3.500	0.030	4	Cylindrical	■
JSE514.625D2R060.0Z4	SIRA	10201834	2	D	0.625	0.625	1.250	3.500	0.060	4	Cylindrical	■
JSE514.750D2S.0Z4	SIRA	10201826	2	D	0.750	0.750	1.500	4.000	—	4	Cylindrical	■
JSE514.750D2R030.0Z4	SIRA	10201835	2	D	0.750	0.750	1.500	4.000	0.030	4	Cylindrical	■
JSE514.750D2R060.0Z4	SIRA	10201836	2	D	0.750	0.750	1.500	4.000	0.060	4	Cylindrical	■

■ Stocked standard.

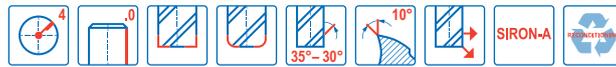
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JSE514

General purpose – Universal – Square – 4 Flutes – Cylindrical – Sharp or corner radius – Inch



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0.002 Inch
- Regrind possible if DC is ≥Ø.375



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch			
JSE514.125D3S.0Z4	SIRA	10201820	3	D	0.125	0.125	0.500	1.500	–	4	Cylindrical	■
JSE514.125D3R015.0Z4	SIRA	10201827	3	D	0.125	0.125	0.500	1.500	0.015	4	Cylindrical	■
JSE514.188D3S.0Z4	SIRA	10201821	3	D	0.188	0.188	0.625	2.000	–	4	Cylindrical	■
JSE514.188D3R020.0Z4	SIRA	10201828	3	D	0.188	0.188	0.625	2.000	0.020	4	Cylindrical	■
JSE514.250D3S.0Z4	SIRA	10201837	3	D	0.250	0.250	0.750	2.500	–	4	Cylindrical	■
JSE514.250D3R030.0Z4	SIRA	10201842	3	D	0.250	0.250	0.750	2.500	0.030	4	Cylindrical	■
JSE514.375D3S.0Z4	SIRA	10201838	3	D	0.375	0.375	1.000	2.500	–	4	Cylindrical	■
JSE514.375D3R030.0Z4	SIRA	10201843	3	D	0.375	0.375	1.000	2.500	0.030	4	Cylindrical	■
JSE514.500D3S.0Z4	SIRA	10201839	3	D	0.500	0.500	2.000	4.000	–	4	Cylindrical	■
JSE514.500D3R030.0Z4	SIRA	10201844	3	D	0.500	0.500	2.000	4.000	0.030	4	Cylindrical	■
JSE514.500D3R060.0Z4	SIRA	10201845	3	D	0.500	0.500	2.000	4.000	0.060	4	Cylindrical	■
JSE514.625D3S.0Z4	SIRA	10201840	3	D	0.625	0.625	2.250	5.000	–	4	Cylindrical	■
JSE514.625D3R030.0Z4	SIRA	10201846	3	D	0.625	0.625	2.250	5.000	0.030	4	Cylindrical	■
JSE514.625D3R060.0Z4	SIRA	10201847	3	D	0.625	0.625	2.250	5.000	0.060	4	Cylindrical	■
JSE514.750D3S.0Z4	SIRA	10201841	3	D	0.750	0.750	2.250	5.000	–	4	Cylindrical	■
JSE514.750D3R030.0Z4	SIRA	10201848	3	D	0.750	0.750	2.250	5.000	0.030	4	Cylindrical	■
JSE514.750D3R060.0Z4	SIRA	10201849	3	D	0.750	0.750	2.250	5.000	0.060	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JSE514 Side milling

SMG	A	a <sub>p</sub> /DC	a <sub>e</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	18	20	25	
P1	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
P2	M/A/D/E	0.150	1.5	0.014	0.020	0.028	0.034	0.040	0.055	0.070	0.080	0.10	0.11	0.11	0.13	160 (67 — 190)
		0,150	1,5	0,00055	0,00080	0,0011	0,0013	0,0016	0,0022	0,0028	0,0032	0,0040	0,0044	0,0044	0,0050	520 (220 — 620)
P3	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
P4	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
P5	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
P6	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
P7	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
P8	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
P11	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
P12	M/A/D/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
M1	E/M/A	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
M2	E/M/A	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
M3	E/M/A	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
M4	E/M/A	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
M5	E/M/A	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
K1	A/D/M/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
K2	A/D/M/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
K3	A/D/M/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
K4	A/D/M/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
K5	A/D/M/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
K6	A/D/M/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
K7	A/D/M/E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	165 (69 — 200)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	540 (230 — 650)
N1	E/M/A	0.150	1.5	0.015	0.024	0.030	0.038	0.046	0.060	0.075	0.090	0.11	0.12	0.13	0.15	520 (400 — 650)
		0,150	1,5	0,00060	0,00095	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0044	0,0048	0,0050	0,0060	1700 (1400 — 2100)
N11	E/M/A	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	410 (280 — 540)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	1350 (920 — 1700)
S11	E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
S12	E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)
S13	E	0.150	1.5	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.095	0.10	0.12	95 (69 — 130)
		0,150	1,5	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0038	0,0040	0,0048	310 (230 — 420)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – JSE514 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>	
			2	3	4	5	6	8	10	12	16	18	20	25		
P1	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)	Universal
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
P2	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)	Steel and cast iron
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
P3	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)	Steel and cast iron
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
P4	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 140)	Steel and cast iron
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 450)	
P5	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)	Steel and cast iron
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
P6	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 140)	Steel and cast iron
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 450)	
P7	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)	Stainless steel and S-materials
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
P8	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (51 — 150)	Stainless steel and S-materials
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
P11	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (51 — 100)	Stainless steel and S-materials
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
P12	M/A/D/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	Stainless steel and S-materials
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
M1	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	Non ferrous
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
M2	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	Non ferrous
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
M3	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	Non ferrous
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
M4	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	Non ferrous
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
M5	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	Non ferrous
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
K1	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)	Hard
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
K2	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)	Hard
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
K3	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)	Hard
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
K4	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)	Hard
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
K5	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)	Hard
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
K6	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)	Hard
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
K7	A/D/M/E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	120 (50 — 150)	Hard
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	395 (170 — 490)	
N1	E/M/A	0.30	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	400 (300 — 500)	Graphite
		0.30	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	1300 (990 — 1600)	
N11	E/M/A	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	300 (200 — 390)	Graphite
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	980 (660 — 1200)	
S11	E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	X-Heads
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
S12	E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	X-Heads
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	
S13	E	0.40	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.055	0.060	0.075	70 (50 — 99)	X-Heads
		0.40	0.00024	0.00036	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0019	0.0022	0.0024	0.0030	230 (170 — 320)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

## Cutting data – JS514 Side milling – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				1/8	3/16	1.4	3/8	1/2	5/8	3/4	
P1	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (69 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
P2	M/A/D/E	0,15	1,2	0,022	0,032	0,042	0,065	0,085	0,10	0,11	160 (67 — 200)
		0.15	1.2	0.00085	0.0013	0.0017	0.0026	0.0034	0.0040	0.0044	520 (230 — 650)
P3	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
P4	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
P5	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
P6	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
P7	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
P8	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
P11	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
P12	M/A/D/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
M1	E/M/A	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
M2	E/M/A	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
M3	E/M/A	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
M4	E/M/A	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
M5	E/M/A	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
K1	A/D/M/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
K2	A/D/M/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
K3	A/D/M/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
K4	A/D/M/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
K5	A/D/M/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
K6	A/D/M/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
K7	A/D/M/E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	165 (68 — 200)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	540 (230 — 650)
N1	E/M/A	0,15	1,2	0,025	0,036	0,050	0,075	0,095	0,11	0,13	520 (400 — 650)
		0.15	1.2	0.0010	0.0014	0.0020	0.0030	0.0038	0.0044	0.0050	1700 (1400 — 2100)
N11	E/M/A	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	410 (280 — 540)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	1350 (920 — 1700)
S11	E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
S12	E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)
S13	E	0,15	1,2	0,019	0,028	0,038	0,060	0,075	0,090	0,10	95 (68 — 130)
		0.15	1.2	0.00075	0.0011	0.0015	0.0024	0.0030	0.0036	0.0040	310 (230 — 420)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – JS514 Slot milling – Inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
			1/8	3/16	1/4	3/8	1/2	5/8	3/4	
P1	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
P2	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
P3	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
P4	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
P5	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
P6	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
P7	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
P8	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
P11	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
P12	M/A/D/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
M1	E/M/A	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
M2	E/M/A	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
M3	E/M/A	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
M4	E/M/A	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
M5	E/M/A	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
K1	A/D/M/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
K2	A/D/M/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
K3	A/D/M/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
K4	A/D/M/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
K5	A/D/M/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
K6	A/D/M/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
K7	A/D/M/E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	120 (51 — 150)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	395 (170 — 490)
N1	E/M/A	0,30	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	400 (310 — 500)
		0,30	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	1300 (1100 — 1600)
N11	E/M/A	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	300 (210 — 400)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	980 (690 — 1300)
S11	E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
S12	E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)
S13	E	0,40	0,0095	0,014	0,019	0,028	0,038	0,048	0,055	70 (51 — 100)
		0,40	0,00038	0,00055	0,00075	0,0011	0,0015	0,0019	0,0022	230 (170 — 320)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

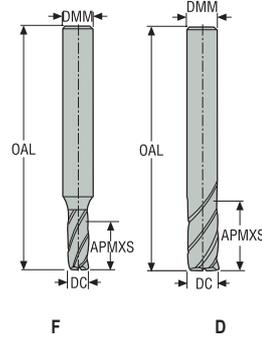
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

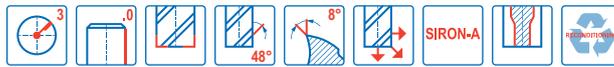
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cf rp  
Graphite  
X-Heads  
Minimaster

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Sharp



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥Ø6



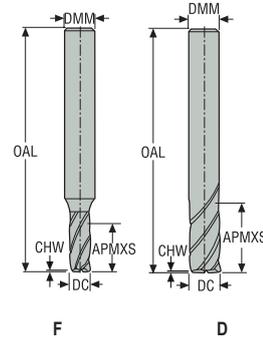
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm			
553020SZ3.0-SIRON-A	02733903	2	F	2,0	6,0	5,0	50,0	6,0	2,0	3	Cylindrical	■
553030SZ3.0-SIRON-A	02733906	2	F	3,0	6,0	7,0	50,0	8,5	3,0	3	Cylindrical	■
553040SZ3.0-SIRON-A	02733910	2	F	4,0	6,0	10,0	55,0	11,7	4,0	3	Cylindrical	■
553050SZ3.0-SIRON-A	02733912	2	F	5,0	6,0	12,0	55,0	14,7	5,0	3	Cylindrical	■
553060SZ3.0-SIRON-A	02733914	2	D	6,0	6,0	14,0	55,0	–	–	3	Cylindrical	■
553080SZ3.0-SIRON-A	02733918	2	D	8,0	8,0	18,0	60,0	–	–	3	Cylindrical	■
553100SZ3.0-SIRON-A	02733922	2	D	10,0	10,0	22,0	70,0	–	–	3	Cylindrical	■

■ Stocked standard.

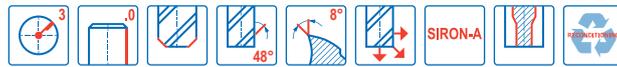
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS553020F1C.0Z3-SIRA	10041466	1	F	2,0	6,0	3,0	40,0	5,0	2,05	0,025	3	Cylindrical	■
JS553030F1C.0Z3-SIRA	10041467	1	F	3,0	6,0	4,0	40,0	6,0	3,05	0,035	3	Cylindrical	■
JS553040F1C.0Z3-SIRA	10041468	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,045	3	Cylindrical	■
JS553045F1C.0Z3-SIRA	10041469	1	F	4,5	6,0	6,0	40,0	9,0	4,55	0,045	3	Cylindrical	■
JS553050F1C.0Z3-SIRA	10041470	1	F	5,0	6,0	7,0	40,0	10,0	5,05	0,055	3	Cylindrical	■
JS553055F1C.0Z3-SIRA	10041472	1	F	5,5	6,0	8,0	40,0	11,0	5,55	0,055	3	Cylindrical	■
JS553060D1C.0Z3-SIRA	10041473	1	D	6,0	6,0	8,0	40,0	–	–	0,075	3	Cylindrical	■
JS553080D1C.0Z3-SIRA	10041474	1	D	8,0	8,0	11,0	50,0	–	–	0,1	3	Cylindrical	■
JS553100D1C.0Z3-SIRA	10041475	1	D	10,0	10,0	13,0	57,0	–	–	0,125	3	Cylindrical	■
JS553120D1C.0Z3-SIRA	10041476	1	D	12,0	12,0	15,0	65,0	–	–	0,15	3	Cylindrical	■
553020Z3.0-SIRON-A	02679241	2	F	2,0	6,0	5,0	50,0	6,0	2,0	0,025	3	Cylindrical	■
553025Z3.0-SIRON-A	02679352	2	F	2,5	6,0	7,0	50,0	8,0	2,5	0,025	3	Cylindrical	■
553030Z3.0-SIRON-A	02679353	2	F	3,0	6,0	7,0	50,0	8,5	3,0	0,035	3	Cylindrical	■
553035Z3.0-SIRON-A	02679359	2	F	3,5	6,0	9,0	55,0	10,5	3,5	0,035	3	Cylindrical	■
553040Z3.0-SIRON-A	02679360	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,045	3	Cylindrical	■
553045Z3.0-SIRON-A	02679361	2	F	4,5	6,0	12,0	55,0	14,0	4,5	0,045	3	Cylindrical	■
553050Z3.0-SIRON-A	02679364	2	F	5,0	6,0	12,0	55,0	14,7	5,0	0,055	3	Cylindrical	■
553055Z3.0-SIRON-A	02679365	2	F	5,5	6,0	14,0	55,0	17,0	5,5	0,055	3	Cylindrical	■
553060Z3.0-SIRON-A	02679368	2	D	6,0	6,0	14,0	55,0	–	–	0,075	3	Cylindrical	■
553075Z3.0-SIRON-A	02733916	2	F	7,5	8,0	18,0	60,0	22,2	7,5	0,1	3	Cylindrical	■
553080Z3.0-SIRON-A	02679371	2	D	8,0	8,0	18,0	60,0	–	–	0,1	3	Cylindrical	■
553095Z3.0-SIRON-A	02733920	2	F	9,5	10,0	22,0	70,0	26,2	9,5	0,125	3	Cylindrical	■
553100Z3.0-SIRON-A	02679374	2	D	10,0	10,0	22,0	70,0	–	–	0,125	3	Cylindrical	■
553115Z3.0-SIRON-A	02733925	2	F	11,5	12,0	26,0	80,0	32,2	11,5	0,15	3	Cylindrical	■
553120Z3.0-SIRON-A	02679380	2	D	12,0	12,0	26,0	80,0	–	–	0,15	3	Cylindrical	■
553140Z3.0-SIRON-A	02733932	2	D	14,0	14,0	30,0	85,0	–	–	0,175	3	Cylindrical	■
553160Z3.0-SIRON-A	02679384	2	D	16,0	16,0	34,0	90,0	–	–	0,2	3	Cylindrical	■
553200Z3.0-SIRON-A	02679389	2	D	20,0	20,0	42,0	110,0	–	–	0,25	3	Cylindrical	■
553250Z3.0-SIRON-A	02679393	2	D	25,0	25,0	52,0	125,0	–	–	0,3	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

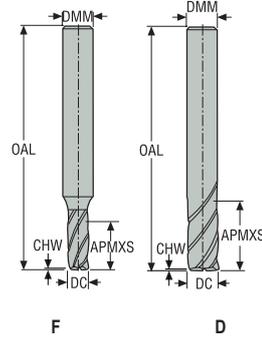
Graphite

X-Heads

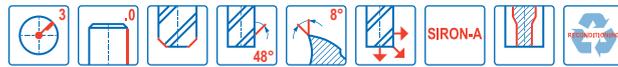
Minimaster

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Chamfer



—Tolerances:  
—DMM= h5  
—DC= e7  
—Regrind possible if DC is  $\geq \varnothing 6$

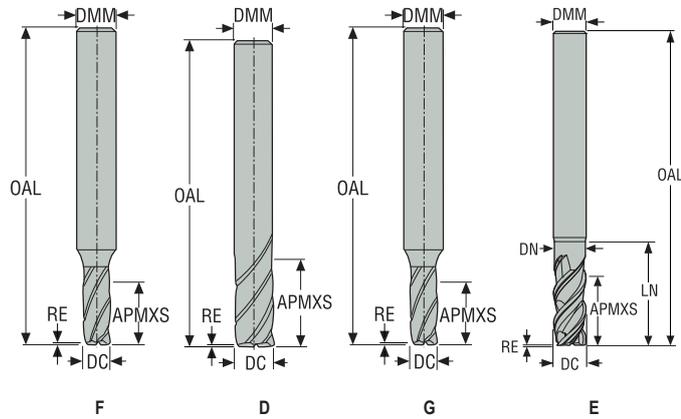


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
553L020Z3.0-SIRON-A	02733962	3	F	2,0	6,0	7,0	50,0	8,2	2,0	0,025	3	Cylindrical	■
553L030Z3.0-SIRON-A	02733971	3	F	3,0	6,0	10,0	55,0	11,7	3,0	0,035	3	Cylindrical	■
553L040Z3.0-SIRON-A	02733972	3	F	4,0	6,0	14,0	60,0	15,7	4,0	0,045	3	Cylindrical	■
553L050Z3.0-SIRON-A	02733974	3	F	5,0	6,0	18,0	60,0	20,7	5,0	0,055	3	Cylindrical	■
553L060Z3.0-SIRON-A	02733982	3	D	6,0	6,0	20,0	65,0	—	—	0,075	3	Cylindrical	■
553L080Z3.0-SIRON-A	02733986	3	D	8,0	8,0	28,0	70,0	—	—	0,1	3	Cylindrical	■
553L100Z3.0-SIRON-A	02733992	3	D	10,0	10,0	35,0	85,0	—	—	0,125	3	Cylindrical	■
553L120Z3.0-SIRON-A	02733994	3	D	12,0	12,0	40,0	95,0	—	—	0,15	3	Cylindrical	■
553L160Z3.0-SIRON-A	02733996	3	D	16,0	16,0	50,0	110,0	—	—	0,2	3	Cylindrical	■
553L200Z3.0-SIRON-A	02733998	3	D	20,0	20,0	60,0	125,0	—	—	0,25	3	Cylindrical	■
553L250Z3.0-SIRON-A	02734000	3	D	25,0	25,0	75,0	150,0	—	—	0,3	3	Cylindrical	■

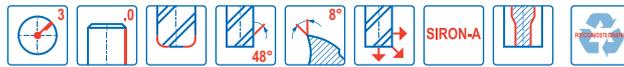
■ Stocked standard.

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS553020F1R020.0Z3-SIRA	10194458	1	F	2,0	6,0	3,0	40,0	5,0	2,05	0,2	3	Cylindrical	■
JS553030F1R020.0Z3-SIRA	10194459	1	F	3,0	6,0	4,0	40,0	6,0	3,05	0,2	3	Cylindrical	■
JS553040F1R020.0Z3-SIRA	10194460	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,2	3	Cylindrical	■
JS553050F1R020.0Z3-SIRA	10194461	1	F	5,0	6,0	7,0	40,0	10,0	5,05	0,2	3	Cylindrical	■
JS553060D1R020.0Z3-SIRA	10194462	1	D	6,0	6,0	8,0	40,0	–	–	0,2	3	Cylindrical	■
JS553060D1R050.0Z3-SIRA	10194463	1	D	6,0	6,0	8,0	40,0	–	–	0,5	3	Cylindrical	■
JS553080D1R050.0Z3-SIRA	10194464	1	D	8,0	8,0	11,0	50,0	–	–	0,5	3	Cylindrical	■
JS553100D1R050.0Z3-SIRA	10194465	1	D	10,0	10,0	13,0	57,0	–	–	0,5	3	Cylindrical	■
JS553100D1R100.0Z3-SIRA	10194466	1	D	10,0	10,0	13,0	57,0	–	–	1,0	3	Cylindrical	■
JS553120D1R050.0Z3-SIRA	10194467	1	D	12,0	12,0	15,0	65,0	–	–	0,5	3	Cylindrical	■
JS553120D1R100.0Z3-SIRA	10194468	1	D	12,0	12,0	15,0	65,0	–	–	1,0	3	Cylindrical	■
JS553020G2R050.0Z3-SIRA	02881683	2	G	2,0	6,0	5,0	57,0	8,0	1,9	0,5	3	Cylindrical	■
553030R015Z3.0-SIRON-A	02733908	2	F	3,0	6,0	7,0	50,0	8,5	3,0	0,15	3	Cylindrical	■
JS553030G2R050.0Z3-SIRA	02881684	2	G	3,0	6,0	7,0	57,0	11,0	2,85	0,5	3	Cylindrical	■
553040R020Z3.0-SIRON-A	02733911	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,2	3	Cylindrical	■
JS553040G2R050.0Z3-SIRA	02881685	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,5	3	Cylindrical	■
553050R020Z3.0-SIRON-A	02687282	2	F	5,0	6,0	12,0	55,0	14,7	5,0	0,2	3	Cylindrical	■
JS553050G2R050.0Z3-SIRA	02881686	2	G	5,0	6,0	10,0	57,0	15,0	4,75	0,5	3	Cylindrical	■
553060R020Z3.0-SIRON-A	02679369	2	D	6,0	6,0	14,0	55,0	–	–	0,2	3	Cylindrical	■
JS553060E2R050.0Z3-SIRA	02881687	2	E	6,0	6,0	14,0	57,0	19,0	5,7	0,5	3	Cylindrical	■
JS553060E2R100.0Z3-SIRA	02881688	2	E	6,0	6,0	14,0	57,0	19,0	5,7	1,0	3	Cylindrical	■
553080R050Z3.0-SIRON-A	02679372	2	D	8,0	8,0	18,0	60,0	–	–	0,5	3	Cylindrical	■
553100R050Z3.0-SIRON-A	02679375	2	D	10,0	10,0	22,0	70,0	–	–	0,5	3	Cylindrical	■
553100R100Z3.0-SIRON-A	02679376	2	D	10,0	10,0	22,0	70,0	–	–	1,0	3	Cylindrical	■
553100R200Z3.0-SIRON-A	02810364	2	D	10,0	10,0	22,0	70,0	–	–	2,0	3	Cylindrical	■
553100R250Z3.0-SIRON-A	02810365	2	D	10,0	10,0	22,0	70,0	–	–	2,5	3	Cylindrical	■
553100R310Z3.0-SIRON-A	02810366	2	D	10,0	10,0	22,0	70,0	–	–	3,1	3	Cylindrical	■
553120R050Z3.0-SIRON-A	02679381	2	D	12,0	12,0	26,0	80,0	–	–	0,5	3	Cylindrical	■
553120R100Z3.0-SIRON-A	02679382	2	D	12,0	12,0	26,0	80,0	–	–	1,0	3	Cylindrical	■
553120R200Z3.0-SIRON-A	02810367	2	D	12,0	12,0	26,0	80,0	–	–	2,0	3	Cylindrical	■
553120R250Z3.0-SIRON-A	02810368	2	D	12,0	12,0	26,0	80,0	–	–	2,5	3	Cylindrical	■
553120R310Z3.0-SIRON-A	02810369	2	D	12,0	12,0	26,0	80,0	–	–	3,1	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfcp

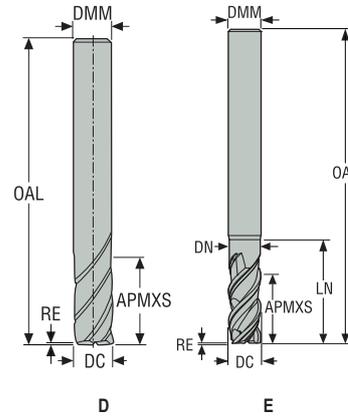
Graphite

X-Heads

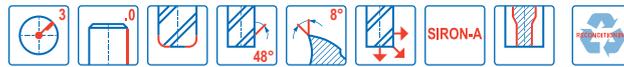
Minimaster

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



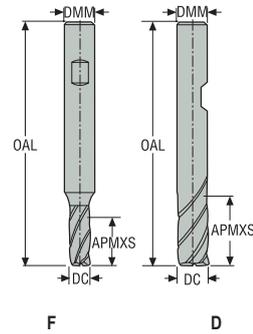
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
553160R050Z3.0-SIRON-A	02679385	2	D	16,0	16,0	34,0	90,0	–	–	0,5	3	Cylindrical	■
553160R100Z3.0-SIRON-A	02679386	2	D	16,0	16,0	34,0	90,0	–	–	1,0	3	Cylindrical	■
553160R200Z3.0-SIRON-A	02810370	2	D	16,0	16,0	34,0	90,0	–	–	2,0	3	Cylindrical	■
553160R250Z3.0-SIRON-A	02810371	2	D	16,0	16,0	34,0	90,0	–	–	2,5	3	Cylindrical	■
553160R310Z3.0-SIRON-A	02810372	2	D	16,0	16,0	34,0	90,0	–	–	3,1	3	Cylindrical	■
553160R400Z3.0-SIRON-A	02810373	2	D	16,0	16,0	34,0	90,0	–	–	4,0	3	Cylindrical	■
553200R050Z3.0-SIRON-A	02679390	2	D	20,0	20,0	42,0	110,0	–	–	0,5	3	Cylindrical	■
553200R100Z3.0-SIRON-A	02679391	2	D	20,0	20,0	42,0	110,0	–	–	1,0	3	Cylindrical	■
JS553200E2R200.0Z3-SIRA	02881689	2	E	20,0	20,0	42,0	110,0	54,0	19,0	2,0	3	Cylindrical	■
553250R050Z3.0-SIRON-A	02679395	2	D	25,0	25,0	52,0	125,0	–	–	0,5	3	Cylindrical	■
553250R100Z3.0-SIRON-A	02679396	2	D	25,0	25,0	52,0	125,0	–	–	1,0	3	Cylindrical	■

■ Stocked standard.

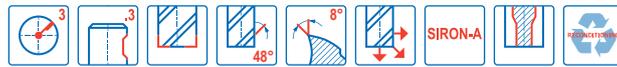
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JS553

High performance – Universal – Square – 3 Flutes – Weldon – Sharp



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm			
553020SZ3.0-SIRON-AW	02733936	2	F	2,0	6,0	5,0	50,0	6,0	2,0	3	Weldon	■
553030SZ3.0-SIRON-AW	02733939	2	F	3,0	6,0	7,0	50,0	8,5	3,0	3	Weldon	■
553040SZ3.0-SIRON-AW	02733943	2	F	4,0	6,0	10,0	55,0	11,7	4,0	3	Weldon	■
553050SZ3.0-SIRON-AW	02733945	2	F	5,0	6,0	12,0	55,0	14,7	5,0	3	Weldon	■
553060SZ3.0-SIRON-AW	02733946	2	D	6,0	6,0	14,0	55,0	–	–	3	Weldon	■
553080SZ3.0-SIRON-AW	02733950	2	D	8,0	8,0	18,0	60,0	–	–	3	Weldon	■
553100SZ3.0-SIRON-AW	02733952	2	D	10,0	10,0	22,0	70,0	–	–	3	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

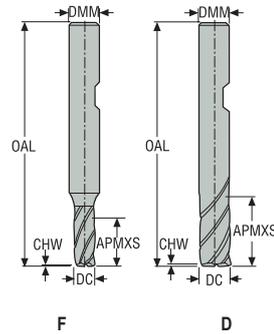
Graphite

X-Heads

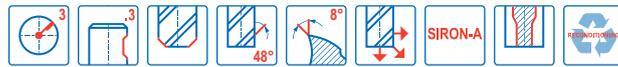
Minimaster

JS553

High performance – Universal – Square – 3 Flutes – Weldon – Chamfer



—Tolerances:  
—DMM= h5  
—DC= e7  
—Regrind possible if DC is ≥ø6

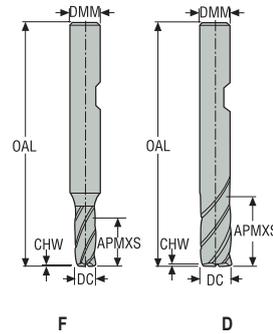


Designation	Item number	Length index	Tool shape											Stock standard
				DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank		
				mm	mm	mm	mm	mm	mm	mm	mm			
JS553020F1C.3Z3-SIRA	10041477	1	F	2,0	6,0	3,0	40,0	5,0	2,05	0,025	3	Weldon	■	
JS553030F1C.3Z3-SIRA	10041478	1	F	3,0	6,0	4,0	40,0	6,0	3,05	0,035	3	Weldon	■	
JS553040F1C.3Z3-SIRA	10041479	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,045	3	Weldon	■	
JS553045F1C.3Z3-SIRA	10041480	1	F	4,5	6,0	6,0	40,0	9,0	4,55	0,045	3	Weldon	■	
JS553050F1C.3Z3-SIRA	10041481	1	F	5,0	6,0	7,0	40,0	10,0	5,05	0,055	3	Weldon	■	
JS553055F1C.3Z3-SIRA	10041482	1	F	5,5	6,0	8,0	40,0	11,0	5,55	0,055	3	Weldon	■	
JS553060D1C.3Z3-SIRA	10041483	1	D	6,0	6,0	8,0	40,0	–	–	0,075	3	Weldon	■	
JS553080D1C.3Z3-SIRA	10041484	1	D	8,0	8,0	11,0	50,0	–	–	0,1	3	Weldon	□	
JS553100D1C.3Z3-SIRA	10041485	1	D	10,0	10,0	13,0	57,0	–	–	0,125	3	Weldon	□	
JS553120D1C.3Z3-SIRA	10041486	1	D	12,0	12,0	15,0	65,0	–	–	0,15	3	Weldon	□	
553020Z3.0-SIRON-AW	02697423	2	F	2,0	6,0	5,0	50,0	6,0	2,0	0,025	3	Weldon	□	
553025Z3.0-SIRON-AW	02700354	2	F	2,5	6,0	7,0	50,0	8,0	2,5	0,025	3	Weldon	■	
553030Z3.0-SIRON-AW	02700355	2	F	3,0	6,0	7,0	50,0	8,5	3,0	0,035	3	Weldon	■	
553035Z3.0-SIRON-AW	02700357	2	F	3,5	6,0	9,0	55,0	10,5	3,5	0,035	3	Weldon	■	
553040Z3.0-SIRON-AW	02700358	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,045	3	Weldon	■	
553045Z3.0-SIRON-AW	02700359	2	F	4,5	6,0	12,0	55,0	14,0	4,5	0,045	3	Weldon	□	
553050Z3.0-SIRON-AW	02700360	2	F	5,0	6,0	12,0	55,0	14,7	5,0	0,055	3	Weldon	■	
553055Z3.0-SIRON-AW	02700361	2	F	5,5	6,0	14,0	55,0	17,0	5,5	0,055	3	Weldon	□	
553060Z3.3-SIRON-A	02679367	2	D	6,0	6,0	14,0	55,0	–	–	0,075	3	Weldon	■	
553075Z3.3-SIRON-A	02733915	2	F	7,5	8,0	18,0	60,0	22,2	7,5	0,1	3	Weldon	■	
553080Z3.3-SIRON-A	02679370	2	D	8,0	8,0	18,0	60,0	–	–	0,1	3	Weldon	■	
553095Z3.3-SIRON-A	02733919	2	F	9,5	10,0	22,0	70,0	26,2	9,5	0,125	3	Weldon	■	
553100Z3.3-SIRON-A	02679373	2	D	10,0	10,0	22,0	70,0	–	–	0,125	3	Weldon	■	
553115Z3.3-SIRON-A	02733923	2	F	11,5	12,0	26,0	80,0	32,2	11,5	0,15	3	Weldon	■	
553120Z3.3-SIRON-A	02679379	2	D	12,0	12,0	26,0	80,0	–	–	0,15	3	Weldon	■	
553140Z3.3-SIRON-A	02733929	2	D	14,0	14,0	30,0	85,0	–	–	0,175	3	Weldon	■	
553160Z3.3-SIRON-A	02679383	2	D	16,0	16,0	34,0	90,0	–	–	0,2	3	Weldon	■	
553200Z3.3-SIRON-A	02679388	2	D	20,0	20,0	42,0	110,0	–	–	0,25	3	Weldon	■	
553250Z3.3-SIRON-A	02679392	2	D	25,0	25,0	52,0	125,0	–	–	0,3	3	Weldon	■	

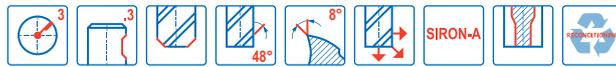
■ Stocked standard. □ Weldon available. Delivery time is 3 days.

JS553

High performance – Universal – Square – 3 Flutes – Weldon – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
553L020Z3.0-SIRON-AW	02734001	3	F	2,0	6,0	7,0	50,0	8,2	2,0	0,025	3	Weldon	■
553L030Z3.0-SIRON-AW	02734006	3	F	3,0	6,0	10,0	55,0	11,7	3,0	0,035	3	Weldon	■
553L040Z3.0-SIRON-AW	02734007	3	F	4,0	6,0	14,0	60,0	15,7	4,0	0,045	3	Weldon	■
553L050Z3.0-SIRON-AW	02734008	3	F	5,0	6,0	18,0	60,0	20,7	5,0	0,055	3	Weldon	□
553L060Z3.3-SIRON-A	02733980	3	D	6,0	6,0	20,0	65,0	–	–	0,075	3	Weldon	■
553L080Z3.3-SIRON-A	02733984	3	D	8,0	8,0	28,0	70,0	–	–	0,1	3	Weldon	■
553L100Z3.3-SIRON-A	02733988	3	D	10,0	10,0	35,0	85,0	–	–	0,125	3	Weldon	■
553L120Z3.3-SIRON-A	02733993	3	D	12,0	12,0	40,0	95,0	–	–	0,15	3	Weldon	■
553L160Z3.3-SIRON-A	02733995	3	D	16,0	16,0	50,0	110,0	–	–	0,2	3	Weldon	■
553L200Z3.3-SIRON-A	02733997	3	D	20,0	20,0	60,0	125,0	–	–	0,25	3	Weldon	■
553L250Z3.3-SIRON-A	02733999	3	D	25,0	25,0	75,0	150,0	–	–	0,3	3	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

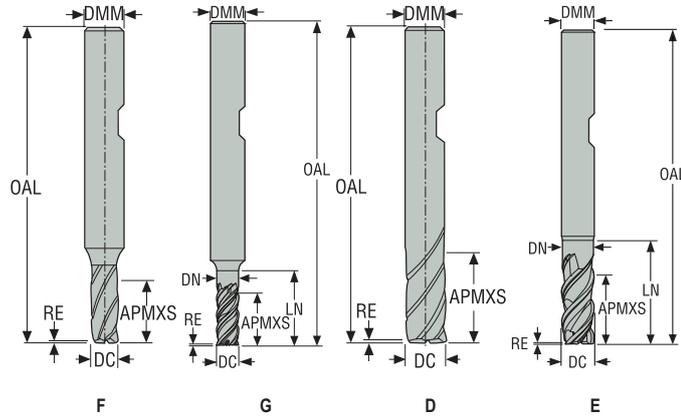
Graphite

X-Heads

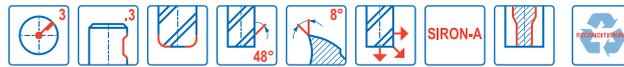
Minimaster

**JS553**

High performance – Universal – Square – 3 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

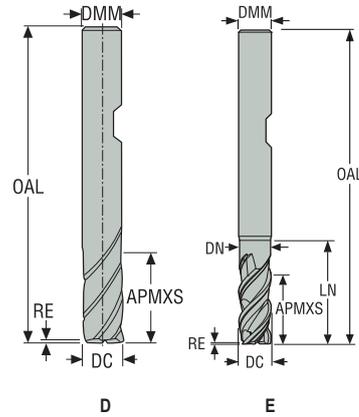


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
JS553080D1R050.3Z3-SIRA	10194469	1	D	8,0	8,0	11,0	50,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
JS553100D1R050.3Z3-SIRA	10194470	1	D	10,0	10,0	13,0	57,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
JS553100D1R100.3Z3-SIRA	10194471	1	D	10,0	10,0	13,0	57,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
JS553120D1R050.3Z3-SIRA	10194472	1	D	12,0	12,0	15,0	65,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
JS553120D1R100.3Z3-SIRA	10194474	1	D	12,0	12,0	15,0	65,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
JS553020G2R050.3Z3-SIRA	02881690	2	G	2,0	6,0	5,0	57,0	8,0	1,9	0,5	3	Weldon	<input type="checkbox"/>
553030R015Z3.0-SIRON-AW	02733941	2	F	3,0	6,0	7,0	50,0	8,5	3,0	0,15	3	Weldon	<input type="checkbox"/>
JS553030G2R050.3Z3-SIRA	02881691	2	G	3,0	6,0	7,0	57,0	11,0	2,85	0,5	3	Weldon	<input checked="" type="checkbox"/>
553040R020Z3.0-SIRON-AW	02733944	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,2	3	Weldon	<input type="checkbox"/>
JS553040G2R050.3Z3-SIRA	02881692	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,5	3	Weldon	<input type="checkbox"/>
553050R020Z3.0-SIRON-AW	02703763	2	F	5,0	6,0	12,0	55,0	14,7	5,0	0,2	3	Weldon	<input type="checkbox"/>
JS553050G2R050.3Z3-SIRA	02881693	2	G	5,0	6,0	10,0	57,0	15,0	4,75	0,5	3	Weldon	<input type="checkbox"/>
553060R020Z3.0-SIRON-AW	02700364	2	D	6,0	6,0	14,0	55,0	–	–	0,2	3	Weldon	<input checked="" type="checkbox"/>
JS553060E2R050.3Z3-SIRA	02881694	2	E	6,0	6,0	14,0	57,0	19,0	5,7	0,5	3	Weldon	<input type="checkbox"/>
JS553060E2R100.3Z3-SIRA	02881695	2	E	6,0	6,0	14,0	57,0	19,0	5,7	1,0	3	Weldon	<input checked="" type="checkbox"/>
553080R050Z3.0-SIRON-AW	02700366	2	D	8,0	8,0	18,0	60,0	–	–	0,5	3	Weldon	<input checked="" type="checkbox"/>
553100R050Z3.0-SIRON-AW	02700369	2	D	10,0	10,0	22,0	70,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
553100R100Z3.0-SIRON-AW	02700371	2	D	10,0	10,0	22,0	70,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
553100R200Z3.3-SIRON-A	02810422	2	D	10,0	10,0	22,0	70,0	–	–	2,0	3	Weldon	<input type="checkbox"/>
553100R250Z3.3-SIRON-A	02810423	2	D	10,0	10,0	22,0	70,0	–	–	2,5	3	Weldon	<input type="checkbox"/>
553100R310Z3.3-SIRON-A	02810424	2	D	10,0	10,0	22,0	70,0	–	–	3,1	3	Weldon	<input type="checkbox"/>
553120R050Z3.0-SIRON-AW	02700373	2	D	12,0	12,0	26,0	80,0	–	–	0,5	3	Weldon	<input checked="" type="checkbox"/>
553120R100Z3.0-SIRON-AW	02700374	2	D	12,0	12,0	26,0	80,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
553120R200Z3.3-SIRON-A	02810425	2	D	12,0	12,0	26,0	80,0	–	–	2,0	3	Weldon	<input type="checkbox"/>
553120R250Z3.3-SIRON-A	02810426	2	D	12,0	12,0	26,0	80,0	–	–	2,5	3	Weldon	<input type="checkbox"/>
553120R310Z3.3-SIRON-A	02810427	2	D	12,0	12,0	26,0	80,0	–	–	3,1	3	Weldon	<input type="checkbox"/>

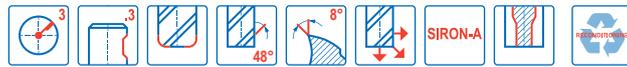
■ Stocked standard. □ Weldon available. Delivery time is 3 days.

JS553

High performance – Universal – Square – 3 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
553160R050Z3.0-SIRON-AW	02700378	2	D	16,0	16,0	34,0	90,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
553160R100Z3.0-SIRON-AW	02700381	2	D	16,0	16,0	34,0	90,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
553160R200Z3.3-SIRON-A	02810428	2	D	16,0	16,0	34,0	90,0	–	–	2,0	3	Weldon	<input type="checkbox"/>
553160R250Z3.3-SIRON-A	02810429	2	D	16,0	16,0	34,0	90,0	–	–	2,5	3	Weldon	<input type="checkbox"/>
553160R310Z3.3-SIRON-A	02810430	2	D	16,0	16,0	34,0	90,0	–	–	3,1	3	Weldon	<input type="checkbox"/>
553160R400Z3.3-SIRON-A	02810431	2	D	16,0	16,0	34,0	90,0	–	–	4,0	3	Weldon	<input type="checkbox"/>
553200R050Z3.0-SIRON-AW	02700383	2	D	20,0	20,0	42,0	110,0	–	–	0,5	3	Weldon	<input checked="" type="checkbox"/>
553200R100Z3.0-SIRON-AW	02700384	2	D	20,0	20,0	42,0	110,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
JS553200E2R200.3Z3-SIRA	02881696	2	E	20,0	20,0	42,0	110,0	54,0	19,0	2,0	3	Weldon	<input type="checkbox"/>
553250R050Z3.0-SIRON-AW	02700386	2	D	25,0	25,0	52,0	125,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
553250R100Z3.0-SIRON-AW	02700385	2	D	25,0	25,0	52,0	125,0	–	–	1,0	3	Weldon	<input type="checkbox"/>

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

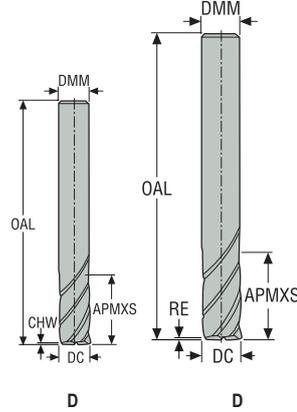
Graphite

X-Heads

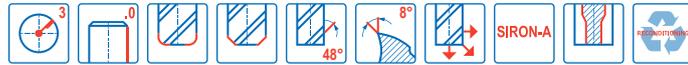
Minimaster

JS553

High performance – Universal – Square – 3 Flutes – Cylindrical – Corner radius or chamfer – Inch



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is  $\geq \varnothing.375$



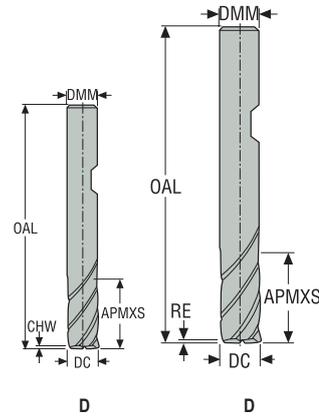
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	RE	PCEDC	Shank	Stock standard
				inch	inch	inch	inch	inch	inch			
5530125Z3.0-SIRON-A	02712684	2	D	0.125	0.125	0.250	2.000	0.001	–	3	Cylindrical	■
5530187Z3.0-SIRON-A	02712687	2	D	0.188	0.188	0.375	2.000	0.001	–	3	Cylindrical	■
5530250Z3.0-SIRON-A	02712688	2	D	0.250	0.250	0.500	2.500	0.003	–	3	Cylindrical	■
5530250R015Z3.0-SIRON-A	02712689	2	D	0.250	0.250	0.500	2.500	–	0.015	3	Cylindrical	■
5530312Z3.0-SIRON-A	02712690	2	D	0.313	0.313	0.625	2.500	0.004	–	3	Cylindrical	■
5530312R015Z3.0-SIRON-A	02712693	2	D	0.313	0.313	0.625	2.500	–	0.015	3	Cylindrical	■
5530375Z3.0-SIRON-A	02712694	2	D	0.375	0.375	0.750	3.000	0.005	–	3	Cylindrical	■
5530375R015Z3.0-SIRON-A	02712695	2	D	0.375	0.375	0.750	3.000	–	0.015	3	Cylindrical	■
5530375R030Z3.0-SIRON-A	02712696	2	D	0.375	0.375	0.750	3.000	–	0.030	3	Cylindrical	■
5530500Z3.0-SIRON-A	02712699	2	D	0.500	0.500	1.000	3.500	0.006	–	3	Cylindrical	■
5530500R015Z3.0-SIRON-A	02712701	2	D	0.500	0.500	1.000	3.500	–	0.015	3	Cylindrical	■
5530500R030Z3.0-SIRON-A	02712703	2	D	0.500	0.500	1.000	3.500	–	0.030	3	Cylindrical	■

■ Stocked standard.

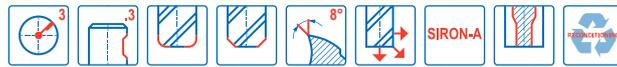
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JS553

High performance – Universal – Square – 3 Flutes – Weldon – Corner radius or chamfer – Inch



—Tolerances:  
—DMM=h5  
—DC=e7



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	RE	PCEDC	Shank	Stock standard
				inch	inch	inch	inch	inch	inch			
5530500Z3.3-SIRON-A	02712697	2	D	0.500	0.500	1.000	3.500	0.006	–	3	Weldon	■
5530500R015Z3.3-SIRON-A	02712700	2	D	0.500	0.500	1.000	3.500	–	0.015	3	Weldon	■
5530500R030Z3.3-SIRON-A	02712702	2	D	0.500	0.500	1.000	3.500	–	0.030	3	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JS553 Side milling

SMG	A	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				2	3	4	5	6	8	10	12	14	16	20	25	
P1	M/A/D/E	0.400	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	225 (200 – 250)
		0.400	1.0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	740 (660 – 820)
P2	M/A/D/E	0.400	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	220 (190 – 240)
		0.400	1.0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	720 (630 – 780)
P3	M/A/D/E	0.400	1.0	0.019	0.028	0.038	0.048	0.055	0.075	0.095	0.11	0.13	0.14	0.16	0.18	190 (170 – 210)
		0.400	1.0	0,00075	0,0011	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0050	0,0055	0,0065	0,0070	620 (560 – 680)
P4	M/A/D/E	0.400	1.0	0.019	0.028	0.038	0.046	0.055	0.075	0.095	0.11	0.13	0.14	0.16	0.18	165 (150 – 190)
		0.400	1.0	0,00075	0,0011	0,0015	0,0018	0,0022	0,0030	0,0038	0,0044	0,0050	0,0055	0,0065	0,0070	540 (500 – 620)
P5	M/A/D/E	0.400	1.0	0.018	0.028	0.036	0.046	0.055	0.075	0.090	0.11	0.12	0.13	0.16	0.18	160 (140 – 180)
		0.400	1.0	0,00070	0,0011	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0048	0,0050	0,0065	0,0070	520 (460 – 590)
P6	M/A/D/E	0.400	1.0	0.018	0.028	0.036	0.046	0.055	0.075	0.090	0.11	0.12	0.13	0.15	0.17	180 (160 – 200)
		0.400	1.0	0,00070	0,0011	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0048	0,0050	0,0060	0,0065	590 (530 – 650)
P7	M/A/D/E	0.400	1.0	0.018	0.028	0.036	0.046	0.055	0.075	0.090	0.11	0.12	0.13	0.15	0.17	170 (150 – 190)
		0.400	1.0	0,00070	0,0011	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0048	0,0050	0,0060	0,0065	560 (500 – 620)
P8	M/A/D/E	0.400	1.0	0.019	0.028	0.038	0.048	0.055	0.075	0.095	0.11	0.13	0.14	0.16	0.18	160 (140 – 180)
		0.400	1.0	0,00075	0,0011	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0050	0,0055	0,0065	0,0070	520 (460 – 590)
P11	M/A/D/E	0.400	1.0	0.018	0.026	0.036	0.044	0.055	0.070	0.090	0.11	0.12	0.13	0.15	0.17	145 (130 – 160)
		0.400	1.0	0,00070	0,0010	0,0014	0,0017	0,0022	0,0028	0,0036	0,0044	0,0048	0,0050	0,0060	0,0065	475 (430 – 520)
P12	M/A/D/E	0.400	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.12	95 (82 – 100)
		0.400	1.0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0048	310 (270 – 320)
M1	E	0.400	1.0	0.013	0.020	0.026	0.034	0.040	0.055	0.065	0.080	0.090	0.10	0.11	0.13	115 (100 – 120)
		0.400	1.0	0,00050	0,00080	0,0010	0,0013	0,0016	0,0022	0,0026	0,0032	0,0036	0,0040	0,0044	0,0050	375 (330 – 390)
M2	E	0.400	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.12	95 (82 – 100)
		0.400	1.0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0048	310 (270 – 320)
M3	E	0.400	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.075	0.085	0.10	60 (47 – 69)
		0.400	1.0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0030	0,0034	0,0040	195 (160 – 220)
M4	E	0.400	1.0	0.0090	0.013	0.018	0.022	0.026	0.036	0.044	0.055	0.060	0.065	0.075	0.085	45 (36 – 53)
		0.400	1.0	0,00036	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0022	0,0024	0,0026	0,0030	0,0034	150 (120 – 170)
M5	E	0.400	1.0	0.0090	0.013	0.018	0.022	0.026	0.036	0.044	0.055	0.060	0.065	0.075	0.085	37 (30 – 44)
		0.400	1.0	0,00036	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0022	0,0024	0,0026	0,0030	0,0034	120 (99 – 140)
K1	E	0.400	1.2	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.16	165 (160 – 190)
		0.400	1.2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0065	540 (530 – 620)
K2	E	0.400	1.2	0.015	0.022	0.030	0.038	0.044	0.060	0.075	0.090	0.10	0.11	0.13	0.14	145 (140 – 170)
		0.400	1.2	0,00060	0,00085	0,0012	0,0015	0,0017	0,0024	0,0030	0,0036	0,0040	0,0044	0,0050	0,0055	475 (460 – 550)
K3	E	0.400	1.2	0.015	0.022	0.030	0.038	0.044	0.060	0.075	0.090	0.10	0.11	0.13	0.14	125 (120 – 140)
		0.400	1.2	0,00060	0,00085	0,0012	0,0015	0,0017	0,0024	0,0030	0,0036	0,0040	0,0044	0,0050	0,0055	410 (400 – 450)
K4	E	0.400	1.2	0.015	0.022	0.030	0.038	0.044	0.060	0.075	0.090	0.10	0.11	0.13	0.14	120 (110 – 140)
		0.400	1.2	0,00060	0,00085	0,0012	0,0015	0,0017	0,0024	0,0030	0,0036	0,0040	0,0044	0,0050	0,0055	395 (370 – 450)
K5	E	0.400	1.1	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.16	155 (140 – 170)
		0.400	1.1	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0065	510 (460 – 550)
K6	E	0.400	1.1	0.018	0.028	0.036	0.046	0.055	0.070	0.090	0.11	0.12	0.13	0.15	0.17	220 (190 – 250)
		0.400	1.1	0,00070	0,0011	0,0014	0,0018	0,0022	0,0028	0,0036	0,0044	0,0048	0,0050	0,0060	0,0065	720 (630 – 820)
K7	E	0.400	1.1	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.16	195 (170 – 220)
		0.400	1.1	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0065	640 (560 – 720)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – JS553 Side milling

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				2	3	4	5	6	8	10	12	14	16	20	25	
N1	E	0.500	1.0	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	620 (520 — 720)
		0,500	1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	2025 (1800 — 2300)
N2	E	0.500	1.0	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	400 (340 — 460)
		0,500	1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	1300 (1200 — 1500)
N3	E	0.500	1.0	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	265 (230 — 300)
		0,500	1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	870 (760 — 980)
N11	E	0.500	1.1	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.13	0.15	310 (260 — 350)
		0,500	1,1	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0050	0,0060	1025 (860 — 1100)
S1	E	0.150	0.50	0.017	0.026	0.034	0.044	0.050	0.070	0.085	0.10	0.12	0.13	0.15	0.17	43 (26 — 60)
		0,150	0,50	0,00065	0,0010	0,0013	0,0017	0,0020	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	0,0065	140 (86 — 190)
S2	E	0.150	0.50	0.017	0.026	0.034	0.044	0.050	0.070	0.085	0.10	0.12	0.13	0.15	0.17	35 (21 — 48)
		0,150	0,50	0,00065	0,0010	0,0013	0,0017	0,0020	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	0,0065	115 (69 — 150)
S3	E	0.150	0.50	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	30 (19 — 42)
		0,150	0,50	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	100 (63 — 130)
S11	E	0.400	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.12	110 (78 — 130)
		0,400	1,0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0048	360 (260 — 420)
S12	E	0.400	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.12	85 (60 — 100)
		0,400	1,0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0048	280 (200 — 320)
S13	E	0.400	1.0	0.011	0.016	0.022	0.026	0.032	0.042	0.055	0.065	0.070	0.080	0.090	0.10	65 (48 — 84)
		0,400	1,0	0,00044	0,00065	0,00085	0,0010	0,0013	0,0017	0,0022	0,0026	0,0028	0,0032	0,0036	0,0040	215 (160 — 270)
H5	M/A/D	0.200	0.90	0.013	0.020	0.026	0.032	0.040	0.050	0.065	0.075	0.085	0.095	0.11	0.12	75 (62 — 91)
		0,200	0,90	0,00050	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0030	0,0034	0,0038	0,0044	0,0048	245 (210 — 290)
H8	M/A/D	0.200	0.90	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	80 (65 — 96)
		0,200	0,90	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0026	0,0030	0,0034	0,0038	260 (220 — 310)
H21	M/A/D	0.200	0.90	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	80 (65 — 96)
		0,200	0,90	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0026	0,0030	0,0034	0,0038	260 (220 — 310)
H31	M/A/D	0.200	0.90	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	60 (49 — 72)
		0,200	0,90	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0026	0,0030	0,0034	0,0038	195 (170 — 230)
TS1	A	0.500	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	290 (180 — 400)
		0,500	1,2	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	950 (600 — 1300)
TP1	A	0.500	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	300 (180 — 410)
		0,500	1,2	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	980 (600 — 1300)
GR1	A	0.500	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	580 (470 — 690)
		0,500	1,2	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	1900 (1600 — 2200)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS553 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
			2	3	4	5	6	8	10	12	14	16	20	25	
P1	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	195 (170 – 220)
		1,0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0065	640 (560 – 720)
P2	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	190 (170 – 210)
		1,0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0065	620 (560 – 680)
P3	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	165 (140 – 180)
		1,0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0065	540 (460 – 590)
P4	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	145 (130 – 160)
		1,0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0065	475 (430 – 520)
P5	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	135 (120 – 150)
		1,0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0065	445 (400 – 490)
P6	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	155 (140 – 170)
		1,0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0065	510 (460 – 550)
P7	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	145 (130 – 160)
		1,0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0065	475 (430 – 520)
P8	M/A/D/E	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.17	135 (120 – 150)
		1,0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0065	445 (400 – 490)
P11	M/A/D/E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	130 (120 – 140)
		0,80	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	425 (400 – 450)
P12	M/A/D/E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.11	80 (69 – 87)
		0,80	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0044	260 (230 – 280)
M1	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	95 (85 – 100)
		0,80	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	310 (280 – 320)
M2	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.11	80 (69 – 87)
		0,80	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0044	260 (230 – 280)
M3	E	0.70	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.055	0.065	0.080	0.095	48 (39 – 58)
		0,70	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0022	0,0026	0,0032	0,0038	155 (130 – 190)
M4	E	0.70	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.055	0.065	0.075	0.085	36 (30 – 43)
		0,70	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0022	0,0026	0,0030	0,0034	120 (99 – 140)
M5	E	0.70	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.055	0.065	0.075	0.085	30 (25 – 36)
		0,70	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0022	0,0026	0,0030	0,0034	100 (83 – 110)
K1	E	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	145 (140 – 170)
		1,0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	475 (460 – 550)
K2	E	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	125 (120 – 150)
		1,0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	410 (400 – 490)
K3	E	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	110 (110 – 120)
		1,0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	360 (370 – 390)
K4	E	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	105 (96 – 120)
		1,0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	345 (320 – 390)
K5	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	135 (120 – 150)
		0,80	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	445 (400 – 490)
K6	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	200 (180 – 230)
		0,80	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	660 (600 – 750)
K7	E	0.80	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	175 (150 – 190)
		0,80	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	570 (500 – 620)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## Cutting data – JS553 Slot milling

SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
			2	3	4	5	6	8	10	12	14	16	20	25	
N1	E	0.70	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	580 (490 – 670)
		0.70	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	1900 (1700 – 2100)
N2	E	0.70	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	375 (320 – 430)
		0.70	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	1225 (1100 – 1400)
N3	E	0.70	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	250 (210 – 290)
		0.70	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	820 (690 – 950)
N11	E	0.60	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	290 (250 – 330)
		0.60	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	950 (830 – 1000)
S1	E	0.30	0.0065	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.044	0.050	0.065	0.080	34 (21 – 47)
		0.30	0,00026	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0032	110 (69 – 150)
S2	E	0.30	0.0065	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.044	0.050	0.065	0.080	27 (17 – 38)
		0.30	0,00026	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0032	90 (56 – 120)
S3	E	0.30	0.0065	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.044	0.050	0.065	0.080	23 (15 – 32)
		0.30	0,00026	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0032	75 (50 – 100)
S11	E	0.50	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.11	85 (63 – 110)
		0.50	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	280 (210 – 360)
S12	E	0.50	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.11	65 (48 – 86)
		0.50	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	215 (160 – 280)
S13	E	0.50	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	0.070	0.075	0.090	0.10	55 (39 – 69)
		0.50	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	0,0028	0,0030	0,0036	0,0040	180 (130 – 220)
H5	M/A/D	0.50	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	65 (52 – 77)
		0.50	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0011	0,0013	0,0016	0,0020	215 (180 – 250)
H8	M/A/D	0.50	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	65 (52 – 77)
		0.50	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0011	0,0013	0,0016	0,0020	215 (180 – 250)
H11	M/A/D	0.50	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	80 (66 – 98)
		0.50	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0011	0,0013	0,0016	0,0020	260 (220 – 320)
H12	M/A/D	1.0	0.0095	0.014	0.019	0.024	0.028	0.038	0.046	0.055	0.060	0.070	0.080	0.090	65 (52 – 77)
		1,0	0,00038	0,00055	0,00075	0,00095	0,0011	0,0015	0,0018	0,0022	0,0024	0,0028	0,0032	0,0036	215 (180 – 250)
H21	M/A/D	0.50	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	65 (52 – 77)
		0.50	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0011	0,0013	0,0016	0,0020	215 (180 – 250)
TS1	A	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	245 (150 – 340)
		1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	800 (500 – 1100)
TP1	A	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	250 (160 – 350)
		1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	820 (530 – 1100)
GR1	A	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	490 (400 – 580)
		1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	1600 (1400 – 1900)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm/tooth (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaster

## Cutting data – JS553 Side milling – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				1/8	3/16	1/4	5/16	3/8	1/2	
P1	M/A/D/E	0.400	1.0	0.032	0.048	0.065	0.080	0.095	0.12	225 (200 – 250)
		0,400	1,0	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	740 (660 – 820)
P2	M/A/D/E	0.400	1.0	0.032	0.048	0.065	0.080	0.095	0.13	220 (190 – 240)
		0,400	1,0	0,0013	0,0019	0,0026	0,0032	0,0038	0,0050	720 (630 – 780)
P3	M/A/D/E	0.400	1.0	0.030	0.046	0.060	0.075	0.090	0.12	190 (170 – 210)
		0,400	1,0	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	620 (560 – 680)
P4	M/A/D/E	0.400	1.0	0.030	0.044	0.060	0.075	0.090	0.12	165 (150 – 190)
		0,400	1,0	0,0012	0,0017	0,0024	0,0030	0,0036	0,0048	540 (500 – 620)
P5	M/A/D/E	0.400	1.0	0.030	0.044	0.060	0.075	0.085	0.11	160 (140 – 180)
		0,400	1,0	0,0012	0,0017	0,0024	0,0030	0,0034	0,0044	520 (460 – 590)
P6	M/A/D/E	0.400	1.0	0.028	0.044	0.060	0.070	0.085	0.11	180 (160 – 200)
		0,400	1,0	0,0011	0,0017	0,0024	0,0028	0,0034	0,0044	590 (530 – 650)
P7	M/A/D/E	0.400	1.0	0.028	0.044	0.060	0.070	0.085	0.11	170 (150 – 190)
		0,400	1,0	0,0011	0,0017	0,0024	0,0028	0,0034	0,0044	560 (500 – 620)
P8	M/A/D/E	0.400	1.0	0.030	0.046	0.060	0.075	0.090	0.12	160 (140 – 180)
		0,400	1,0	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	520 (460 – 590)
P11	M/A/D/E	0.400	1.0	0.028	0.042	0.055	0.070	0.085	0.11	145 (130 – 160)
		0,400	1,0	0,0011	0,0017	0,0022	0,0028	0,0034	0,0044	475 (430 – 520)
P12	M/A/D/E	0.400	1.0	0.019	0.030	0.038	0.048	0.060	0.075	95 (82 – 100)
		0,400	1,0	0,00075	0,0012	0,0015	0,0019	0,0024	0,0030	310 (270 – 320)
M1	E	0.400	1.0	0.022	0.032	0.042	0.055	0.065	0.085	115 (100 – 120)
		0,400	1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0034	375 (330 – 390)
M2	E	0.400	1.0	0.019	0.030	0.038	0.048	0.060	0.075	95 (82 – 100)
		0,400	1,0	0,00075	0,0012	0,0015	0,0019	0,0024	0,0030	310 (270 – 320)
M3	E	0.400	1.0	0.016	0.024	0.032	0.040	0.048	0.065	60 (47 – 69)
		0,400	1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	195 (160 – 220)
M4	E	0.400	1.0	0.014	0.022	0.028	0.036	0.042	0.055	45 (36 – 53)
		0,400	1,0	0,00055	0,00085	0,0011	0,0014	0,0017	0,0022	150 (120 – 170)
M5	E	0.400	1.0	0.014	0.022	0.028	0.036	0.042	0.055	37 (30 – 44)
		0,400	1,0	0,00055	0,00085	0,0011	0,0014	0,0017	0,0022	120 (99 – 140)
K1	E	0.400	1.2	0.026	0.038	0.050	0.065	0.080	0.10	165 (160 – 190)
		0,400	1,2	0,0010	0,0015	0,0020	0,0026	0,0032	0,0040	540 (530 – 620)
K2	E	0.400	1.2	0.024	0.036	0.048	0.060	0.070	0.090	145 (140 – 170)
		0,400	1,2	0,00095	0,0014	0,0019	0,0024	0,0028	0,0036	475 (460 – 550)
K3	E	0.400	1.2	0.024	0.036	0.048	0.060	0.070	0.090	125 (120 – 140)
		0,400	1,2	0,00095	0,0014	0,0019	0,0024	0,0028	0,0036	410 (400 – 450)
K4	E	0.400	1.2	0.024	0.036	0.048	0.060	0.070	0.090	120 (110 – 140)
		0,400	1,2	0,00095	0,0014	0,0019	0,0024	0,0028	0,0036	395 (370 – 450)
K5	E	0.400	1.1	0.026	0.038	0.050	0.065	0.080	0.10	155 (140 – 170)
		0,400	1,1	0,0010	0,0015	0,0020	0,0026	0,0032	0,0040	510 (460 – 550)
K6	E	0.400	1.1	0.028	0.044	0.060	0.070	0.085	0.11	220 (190 – 250)
		0,400	1,1	0,0011	0,0017	0,0024	0,0028	0,0034	0,0044	720 (630 – 820)
K7	E	0.400	1.1	0.026	0.038	0.050	0.065	0.080	0.10	195 (170 – 220)
		0,400	1,1	0,0010	0,0015	0,0020	0,0026	0,0032	0,0040	640 (560 – 720)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – JS553 Side milling – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				1/8	3/16	1/4	5/16	3/8	1/2	
N1	E	0.500	1.0	0.025	0.038	0.050	0.065	0.075	0.10	620 (520 – 720)
		0,500	1,0	0,0010	0,0015	0,0020	0,0026	0,0030	0,0040	2025 (1800 – 2300)
N2	E	0.500	1.0	0.025	0.038	0.050	0.065	0.075	0.10	400 (340 – 460)
		0,500	1,0	0,0010	0,0015	0,0020	0,0026	0,0030	0,0040	1300 (1200 – 1500)
N3	E	0.500	1.0	0.025	0.038	0.050	0.065	0.075	0.10	265 (230 – 300)
		0,500	1,0	0,0010	0,0015	0,0020	0,0026	0,0030	0,0040	870 (760 – 980)
N11	E	0.500	1.1	0.025	0.038	0.050	0.065	0.075	0.10	310 (260 – 350)
		0,500	1,1	0,0010	0,0015	0,0020	0,0026	0,0030	0,0040	1025 (860 – 1100)
S1	E	0.150	0.50	0.028	0.042	0.055	0.070	0.085	0.11	43 (26 – 60)
		0,150	0,50	0,0011	0,0017	0,0022	0,0028	0,0034	0,0044	140 (86 – 190)
S2	E	0.150	0.50	0.028	0.042	0.055	0.070	0.085	0.11	35 (21 – 48)
		0,150	0,50	0,0011	0,0017	0,0022	0,0028	0,0034	0,0044	115 (69 – 150)
S3	E	0.150	0.50	0.026	0.038	0.050	0.065	0.075	0.10	30 (19 – 42)
		0,150	0,50	0,0010	0,0015	0,0020	0,0026	0,0030	0,0040	100 (63 – 130)
S11	E	0.400	1.0	0.019	0.030	0.038	0.048	0.060	0.075	110 (78 – 130)
		0,400	1,0	0,00075	0,0012	0,0015	0,0019	0,0024	0,0030	360 (260 – 420)
S12	E	0.400	1.0	0.019	0.030	0.038	0.048	0.060	0.075	85 (60 – 100)
		0,400	1,0	0,00075	0,0012	0,0015	0,0019	0,0024	0,0030	280 (200 – 320)
S13	E	0.400	1.0	0.017	0.025	0.034	0.042	0.050	0.065	65 (48 – 84)
		0,400	1,0	0,00065	0,0010	0,0013	0,0017	0,0020	0,0026	215 (160 – 270)
H5	M/A/D	0.200	0.90	0.020	0.032	0.042	0.050	0.060	0.080	75 (62 – 91)
		0,200	0,90	0,00080	0,0013	0,0017	0,0020	0,0024	0,0032	245 (210 – 290)
H8	M/A/D	0.200	0.90	0.016	0.024	0.032	0.040	0.048	0.060	80 (65 – 96)
		0,200	0,90	0,00065	0,00095	0,0013	0,0016	0,0019	0,0024	260 (220 – 310)
H21	M/A/D	0.200	0.90	0.016	0.024	0.032	0.040	0.048	0.060	80 (65 – 96)
		0,200	0,90	0,00065	0,00095	0,0013	0,0016	0,0019	0,0024	260 (220 – 310)
H31	M/A/D	0.200	0.90	0.016	0.024	0.032	0.040	0.048	0.060	60 (49 – 72)
		0,200	0,90	0,00065	0,00095	0,0013	0,0016	0,0019	0,0024	195 (170 – 230)
TS1	A	0.500	1.2	0.032	0.048	0.065	0.080	0.095	0.12	290 (180 – 400)
		0,500	1,2	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	950 (600 – 1300)
TP1	A	0.500	1.2	0.032	0.048	0.065	0.080	0.095	0.12	300 (180 – 410)
		0,500	1,2	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	980 (600 – 1300)
GR1	A	0.500	1.2	0.032	0.048	0.065	0.080	0.095	0.12	580 (470 – 690)
		0,500	1,2	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	1900 (1600 – 2200)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm/tooth (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS553 Slot milling – Inch

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
			1/8	3/16	1/4	5/16	3/8	1/2	
P1	M/A/D/E	1.0	0.022	0.034	0.044	0.055	0.065	0.090	195 (170 – 220)
		1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	640 (560 – 720)
P2	M/A/D/E	1.0	0.022	0.034	0.044	0.055	0.065	0.090	190 (170 – 210)
		1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	620 (560 – 680)
P3	M/A/D/E	1.0	0.022	0.034	0.044	0.055	0.065	0.090	165 (140 – 180)
		1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	540 (460 – 590)
P4	M/A/D/E	1.0	0.022	0.034	0.044	0.055	0.065	0.090	145 (130 – 160)
		1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	475 (430 – 520)
P5	M/A/D/E	1.0	0.022	0.034	0.044	0.055	0.065	0.090	135 (120 – 150)
		1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	445 (400 – 490)
P6	M/A/D/E	1.0	0.022	0.034	0.044	0.055	0.065	0.090	155 (140 – 170)
		1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	510 (460 – 550)
P7	M/A/D/E	1.0	0.022	0.034	0.044	0.055	0.065	0.090	145 (130 – 160)
		1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	475 (430 – 520)
P8	M/A/D/E	1.0	0.022	0.034	0.044	0.055	0.065	0.090	135 (120 – 150)
		1,0	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	445 (400 – 490)
P11	M/A/D/E	0.80	0.016	0.024	0.032	0.040	0.048	0.065	130 (120 – 140)
		0,80	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	425 (400 – 450)
P12	M/A/D/E	0.80	0.016	0.024	0.032	0.040	0.048	0.065	80 (69 – 87)
		0,80	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	260 (230 – 280)
M1	E	0.80	0.016	0.024	0.032	0.040	0.048	0.065	95 (85 – 100)
		0,80	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	310 (280 – 320)
M2	E	0.80	0.016	0.024	0.032	0.040	0.048	0.065	80 (69 – 87)
		0,80	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	260 (230 – 280)
M3	E	0.70	0.013	0.019	0.026	0.032	0.038	0.050	48 (39 – 58)
		0,70	0,00050	0,00075	0,0010	0,0013	0,0015	0,0020	155 (130 – 190)
M4	E	0.70	0.013	0.019	0.026	0.032	0.038	0.050	36 (30 – 43)
		0,70	0,00050	0,00075	0,0010	0,0013	0,0015	0,0020	120 (99 – 140)
M5	E	0.70	0.013	0.019	0.026	0.032	0.038	0.050	30 (25 – 36)
		0,70	0,00050	0,00075	0,0010	0,0013	0,0015	0,0020	100 (83 – 110)
K1	E	1.0	0.016	0.024	0.032	0.040	0.048	0.065	145 (140 – 170)
		1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	475 (460 – 550)
K2	E	1.0	0.016	0.024	0.032	0.040	0.048	0.065	125 (120 – 150)
		1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	410 (400 – 490)
K3	E	1.0	0.016	0.024	0.032	0.040	0.048	0.065	110 (110 – 120)
		1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	360 (370 – 390)
K4	E	1.0	0.016	0.024	0.032	0.040	0.048	0.065	105 (96 – 120)
		1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	345 (320 – 390)
K5	E	0.80	0.016	0.024	0.032	0.040	0.048	0.065	135 (120 – 150)
		0,80	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	445 (400 – 490)
K6	E	0.80	0.016	0.024	0.032	0.040	0.048	0.065	200 (180 – 230)
		0,80	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	660 (600 – 750)
K7	E	0.80	0.016	0.024	0.032	0.040	0.048	0.065	175 (150 – 190)
		0,80	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	570 (500 – 620)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – JS553 Slot milling – Inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
			1/8	3/16	1/4	5/16	3/8	1/2	
N1	E	0.70	0.016	0.024	0.032	0.040	0.048	0.065	580 (490 – 670)
		0.70	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	1900 (1700 – 2100)
N2	E	0.70	0.016	0.024	0.032	0.040	0.048	0.065	375 (320 – 430)
		0.70	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	1225 (1100 – 1400)
N3	E	0.70	0.016	0.024	0.032	0.040	0.048	0.065	250 (210 – 290)
		0.70	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	820 (690 – 950)
N11	E	0.60	0.016	0.024	0.032	0.040	0.048	0.065	290 (250 – 330)
		0.60	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	950 (830 – 1000)
S1	E	0.30	0.010	0.015	0.020	0.025	0.030	0.040	34 (21 – 47)
		0.30	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	110 (69 – 150)
S2	E	0.30	0.010	0.015	0.020	0.025	0.030	0.040	27 (17 – 38)
		0.30	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	90 (56 – 120)
S3	E	0.30	0.010	0.015	0.020	0.025	0.030	0.040	23 (15 – 32)
		0.30	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	75 (50 – 100)
S11	E	0.50	0.019	0.028	0.038	0.048	0.055	0.075	85 (63 – 110)
		0.50	0,00075	0,0011	0,0015	0,0019	0,0022	0,0030	280 (210 – 360)
S12	E	0.50	0.019	0.028	0.038	0.048	0.055	0.075	65 (48 – 86)
		0.50	0,00075	0,0011	0,0015	0,0019	0,0022	0,0030	215 (160 – 280)
S13	E	0.50	0.017	0.025	0.034	0.042	0.050	0.065	55 (39 – 69)
		0.50	0,00065	0,0010	0,0013	0,0017	0,0020	0,0026	180 (130 – 220)
H5	M/A/D	0.50	0.0065	0.0095	0.013	0.016	0.019	0.026	65 (52 – 77)
		0.50	0,00026	0,00038	0,00050	0,00065	0,00075	0,0010	215 (180 – 250)
H8	M/A/D	0.50	0.0065	0.0095	0.013	0.016	0.019	0.026	65 (52 – 77)
		0.50	0,00026	0,00038	0,00050	0,00065	0,00075	0,0010	215 (180 – 250)
H21	M/A/D	0.50	0.0065	0.0095	0.013	0.016	0.019	0.026	65 (52 – 77)
		0.50	0,00026	0,00038	0,00050	0,00065	0,00075	0,0010	215 (180 – 250)
H31	M/A/D	0.50	0.0065	0.0095	0.013	0.016	0.019	0.026	49 (39 – 58)
		0.50	0,00026	0,00038	0,00050	0,00065	0,00075	0,0010	160 (130 – 190)
TS1	A	1.0	0.032	0.048	0.065	0.080	0.095	0.12	245 (150 – 340)
		1.0	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	800 (500 – 1100)
TP1	A	1.0	0.032	0.048	0.065	0.080	0.095	0.12	250 (160 – 350)
		1.0	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	820 (530 – 1100)
GR1	A	1.0	0.032	0.048	0.065	0.080	0.095	0.12	490 (400 – 580)
		1.0	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	1600 (1400 – 1900)

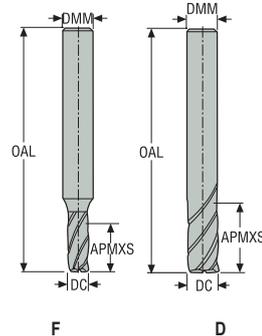
For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Sharp



—Tolerances:  
 —DMM=h5  
 —DC=h10  
 —Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm			
554030SZ4.0-SIRON-A	02733453	2	F	3,0	6,0	7,0	50,0	8,7	3,0	4	Cylindrical	■
554040SZ4.0-SIRON-A	02733458	2	F	4,0	6,0	10,0	55,0	11,7	4,0	4	Cylindrical	■
554050SZ4.0-SIRON-A	02733812	2	F	5,0	6,0	12,0	55,0	13,7	5,0	4	Cylindrical	■
554060SZ4.0-SIRON-A	02733814	2	D	6,0	6,0	14,0	55,0	–	–	4	Cylindrical	■
554080SZ4.0-SIRON-A	02733815	2	D	8,0	8,0	18,0	60,0	–	–	4	Cylindrical	■
554100SZ4.0-SIRON-A	02733816	2	D	10,0	10,0	22,0	70,0	–	–	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

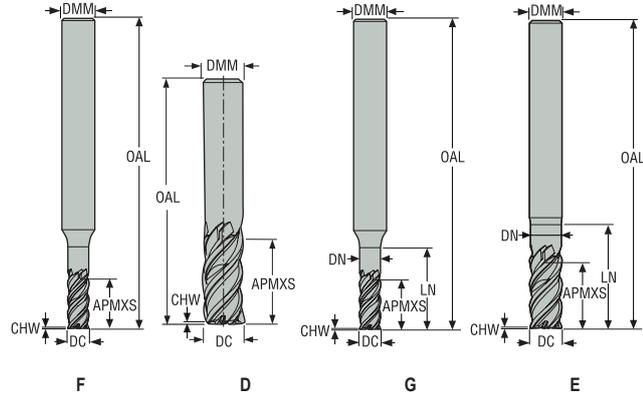
Graphite

X-Heads

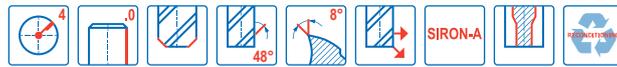
Minimaxter

JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is  $\geq \varnothing 6$



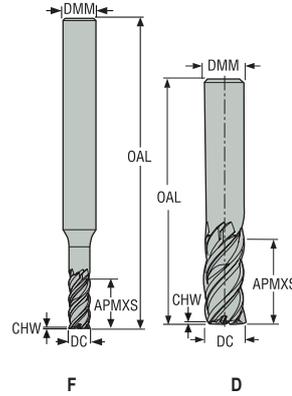
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS554030F1C.0Z4-SIRA	10194615	1	F	3,0	6,0	4,0	40,0	6,0	3,05	0,035	4	Cylindrical	■
JS554040F1C.0Z4-SIRA	10041454	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,045	4	Cylindrical	■
JS554050F1C.0Z4-SIRA	10194616	1	F	5,0	6,0	7,0	40,0	10,0	5,05	0,055	4	Cylindrical	■
JS554060D1C.0Z4-SIRA	10041455	1	D	6,0	6,0	8,0	40,0	–	–	0,075	4	Cylindrical	■
JS554080D1C.0Z4-SIRA	10041456	1	D	8,0	8,0	11,0	50,0	–	–	0,1	4	Cylindrical	■
JS554100D1C.0Z4-SIRA	10041457	1	D	10,0	10,0	13,0	57,0	–	–	0,125	4	Cylindrical	■
JS554120D1C.0Z4-SIRA	10041458	1	D	12,0	12,0	15,0	65,0	–	–	0,15	4	Cylindrical	■
JS554160D1C.0Z4-SIRA	10041459	1	D	16,0	16,0	19,0	75,0	–	–	0,2	4	Cylindrical	■
554030Z4.0-SIRON-A	02733455	2	F	3,0	6,0	7,0	50,0	8,7	3,0	0,035	4	Cylindrical	■
JS554030G2C.0Z4-SIRA	03029956	2	G	3,0	6,0	8,0	57,0	10,0	2,85	0,035	4	Cylindrical	■
554040Z4.0-SIRON-A	02733459	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,045	4	Cylindrical	■
JS554040G2C.0Z4-SIRA	03029957	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,045	4	Cylindrical	■
554050Z4.0-SIRON-A	02733813	2	F	5,0	6,0	12,0	55,0	13,7	5,0	0,055	4	Cylindrical	■
JS554050G2C.0Z4-SIRA	03029958	2	G	5,0	6,0	12,0	57,0	16,0	4,75	0,055	4	Cylindrical	■
554060Z4.0-SIRON-A	02679503	2	D	6,0	6,0	14,0	55,0	–	–	0,075	4	Cylindrical	■
JS554060E2C.0Z4-SIRA	03029959	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,075	4	Cylindrical	■
554080Z4.0-SIRON-A	02679512	2	D	8,0	8,0	18,0	60,0	–	–	0,1	4	Cylindrical	■
JS554080E2C.0Z4-SIRA	03029961	2	E	8,0	8,0	18,0	63,0	25,0	7,6	0,1	4	Cylindrical	■
554100Z4.0-SIRON-A	02679537	2	D	10,0	10,0	22,0	70,0	–	–	0,125	4	Cylindrical	■
JS554100E2C.0Z4-SIRA	03029963	2	E	10,0	10,0	22,0	72,0	29,0	9,5	0,125	4	Cylindrical	■
554120Z4.0-SIRON-A	02679548	2	D	12,0	12,0	26,0	80,0	–	–	0,15	4	Cylindrical	■
JS554120E2C.0Z4-SIRA	03029966	2	E	12,0	12,0	26,0	83,0	35,0	11,4	0,15	4	Cylindrical	■
554160Z4.0-SIRON-A	02679560	2	D	16,0	16,0	34,0	90,0	–	–	0,2	4	Cylindrical	■
JS554160E2C.0Z4-SIRA	03029970	2	E	16,0	16,0	34,0	92,0	42,0	15,2	0,2	4	Cylindrical	■
554200Z4.0-SIRON-A	02679566	2	D	20,0	20,0	42,0	100,0	–	–	0,25	4	Cylindrical	■
JS554200E2C.0Z4-SIRA	03029972	2	E	20,0	20,0	42,0	109,0	54,0	19,0	0,25	4	Cylindrical	■
554250Z4.0-SIRON-A	02679573	2	D	25,0	25,0	52,0	125,0	–	–	0,3	4	Cylindrical	■

■ Stocked standard.

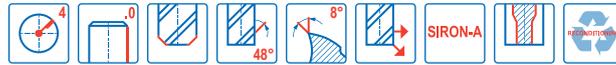
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is  $\geq \varnothing 6$



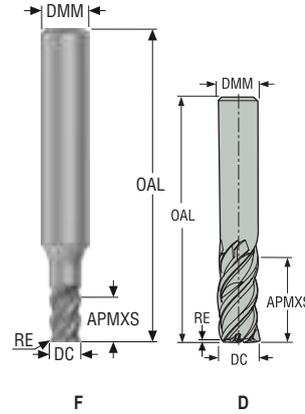
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm	
554L030Z4.0-SIRON-A	02733818	3	F	3,0	6,0	12,0	55,0	13,7	3,0	0,035	4	Cylindrical	■
554L040Z4.0-SIRON-A	02733823	3	F	4,0	6,0	16,0	60,0	17,7	4,0	0,045	4	Cylindrical	■
554L050Z4.0-SIRON-A	02733825	3	F	5,0	6,0	20,0	65,0	21,7	5,0	0,055	4	Cylindrical	■
554L060Z4.0-SIRON-A	02733828	3	D	6,0	6,0	23,0	65,0	—	—	0,075	4	Cylindrical	■
554L080Z4.0-SIRON-A	02733830	3	D	8,0	8,0	32,0	75,0	—	—	0,1	4	Cylindrical	■
554L100Z4.0-SIRON-A	02733832	3	D	10,0	10,0	40,0	85,0	—	—	0,125	4	Cylindrical	■
554L120Z4.0-SIRON-A	02733834	3	D	12,0	12,0	45,0	100,0	—	—	0,15	4	Cylindrical	■
554L160Z4.0-SIRON-A	02733836	3	D	16,0	16,0	55,0	115,0	—	—	0,2	4	Cylindrical	■
554L200Z4.0-SIRON-A	02733838	3	D	20,0	20,0	65,0	125,0	—	—	0,25	4	Cylindrical	■
554L250Z4.0-SIRON-A	02733841	3	D	25,0	25,0	85,0	150,0	—	—	0,3	4	Cylindrical	■

■ Stocked standard.

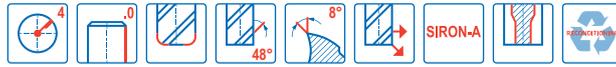
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS554030F1R020.0Z4-SIRA	10194617	1	F	3,0	6,0	4,0	40,0	6,0	3,05	0,2	4	Cylindrical	■
JS554040F1R020.0Z4-SIRA	10194618	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,2	4	Cylindrical	■
JS554050F1R020.0Z4-SIRA	10194619	1	F	5,0	6,0	7,0	40,0	10,0	5,05	0,2	4	Cylindrical	■
JS554060D1R020.0Z4-SIRA	10194620	1	D	6,0	6,0	8,0	40,0	-	-	0,2	4	Cylindrical	■
JS554060D1R050.0Z4-SIRA	10194621	1	D	6,0	6,0	8,0	40,0	-	-	0,5	4	Cylindrical	■
JS554080D1R050.0Z4-SIRA	10194622	1	D	8,0	8,0	11,0	50,0	-	-	0,5	4	Cylindrical	■
JS554100D1R050.0Z4-SIRA	10194623	1	D	10,0	10,0	13,0	57,0	-	-	0,5	4	Cylindrical	■
JS554100D1R100.0Z4-SIRA	10194624	1	D	10,0	10,0	13,0	57,0	-	-	1,0	4	Cylindrical	■
JS554120D1R050.0Z4-SIRA	10194625	1	D	12,0	12,0	15,0	65,0	-	-	0,5	4	Cylindrical	■
JS554120D1R100.0Z4-SIRA	10194626	1	D	12,0	12,0	15,0	65,0	-	-	1,0	4	Cylindrical	■
JS554160D1R050.0Z4-SIRA	10194627	1	D	16,0	16,0	19,0	75,0	-	-	0,5	4	Cylindrical	■
JS554160D1R100.0Z4-SIRA	10194628	1	D	16,0	16,0	19,0	75,0	-	-	1,0	4	Cylindrical	■
554060R020Z4.0-SIRON-A	02679507	2	D	6,0	6,0	14,0	55,0	-	-	0,2	4	Cylindrical	■
554080R050Z4.0-SIRON-A	02679514	2	D	8,0	8,0	18,0	60,0	-	-	0,5	4	Cylindrical	■
554100R050Z4.0-SIRON-A	02679540	2	D	10,0	10,0	22,0	70,0	-	-	0,5	4	Cylindrical	■
554100R100Z4.0-SIRON-A	02679544	2	D	10,0	10,0	22,0	70,0	-	-	1,0	4	Cylindrical	■
554120R050Z4.0-SIRON-A	02679552	2	D	12,0	12,0	26,0	80,0	-	-	0,5	4	Cylindrical	■
554120R100Z4.0-SIRON-A	02679557	2	D	12,0	12,0	26,0	80,0	-	-	1,0	4	Cylindrical	■
554160R050Z4.0-SIRON-A	02679562	2	D	16,0	16,0	34,0	90,0	-	-	0,5	4	Cylindrical	■
554160R100Z4.0-SIRON-A	02679564	2	D	16,0	16,0	34,0	90,0	-	-	1,0	4	Cylindrical	■
554160R200Z4.0-SIRON-A	02810437	2	D	16,0	16,0	34,0	90,0	-	-	2,0	4	Cylindrical	■
554160R310Z4.0-SIRON-A	02810439	2	D	16,0	16,0	34,0	90,0	-	-	3,1	4	Cylindrical	■
554160R400Z4.0-SIRON-A	02810441	2	D	16,0	16,0	34,0	90,0	-	-	4,0	4	Cylindrical	■
554200R050Z4.0-SIRON-A	02679568	2	D	20,0	20,0	42,0	100,0	-	-	0,5	4	Cylindrical	■
554200R100Z4.0-SIRON-A	02679571	2	D	20,0	20,0	42,0	100,0	-	-	1,0	4	Cylindrical	■
554200R250Z4.0-SIRON-A	02810443	2	D	20,0	20,0	42,0	100,0	-	-	2,5	4	Cylindrical	■
554200R310Z4.0-SIRON-A	02810445	2	D	20,0	20,0	42,0	100,0	-	-	3,1	4	Cylindrical	■
554200R400Z4.0-SIRON-A	02810447	2	D	20,0	20,0	42,0	100,0	-	-	4,0	4	Cylindrical	■
554250R050Z4.0-SIRON-A	02679575	2	D	25,0	25,0	52,0	125,0	-	-	0,5	4	Cylindrical	■
554250R100Z4.0-SIRON-A	02679577	2	D	25,0	25,0	52,0	125,0	-	-	1,0	4	Cylindrical	■
554250R310Z4.0-SIRON-A	02810449	2	D	25,0	25,0	52,0	125,0	-	-	3,1	4	Cylindrical	■
554250R400Z4.0-SIRON-A	02810452	2	D	25,0	25,0	52,0	125,0	-	-	4,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

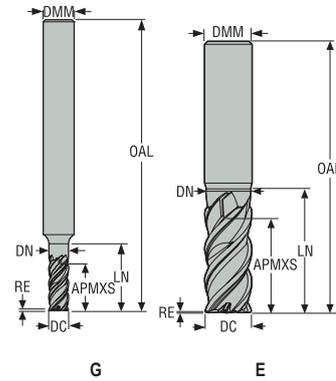
Graphite

X-Heads

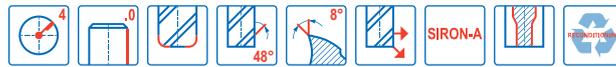
Minimaster

JS554

High performance- Universal – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Grind possible if DC is ≥Ø6

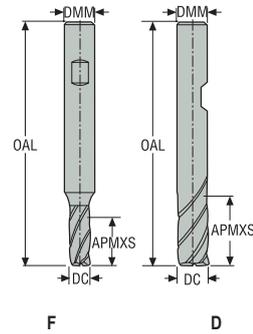


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS554030G2R015.0Z4-SIRA	02881697	2	G	3,0	6,0	7,0	57,0	10,0	2,85	0,15	4	Cylindrical	■
JS554040G2R020.0Z4-SIRA	02881698	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,2	4	Cylindrical	■
JS554050G2R020.0Z4-SIRA	02881699	2	G	5,0	6,0	12,0	57,0	16,0	4,75	0,2	4	Cylindrical	■
JS554060E2R020.0Z4-SIRA	03029960	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,2	4	Cylindrical	■
JS554060E2R050.0Z4-SIRA	02881700	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,5	4	Cylindrical	■
JS554060E2R100.0Z4-SIRA	03029948	2	E	6,0	6,0	14,0	57,0	18,0	5,7	1,0	4	Cylindrical	■
JS554080E2R050.0Z4-SIRA	03029962	2	E	8,0	8,0	18,0	63,0	25,0	7,6	0,5	4	Cylindrical	■
JS554080E2R100.0Z4-SIRA	02881701	2	E	8,0	8,0	18,0	63,0	25,0	7,6	1,0	4	Cylindrical	■
JS554100E2R050.0Z4-SIRA	03029964	2	E	10,0	10,0	22,0	72,0	29,0	9,5	0,5	4	Cylindrical	■
JS554100E2R100.0Z4-SIRA	03029965	2	E	10,0	10,0	22,0	72,0	29,0	9,5	1,0	4	Cylindrical	■
JS554100E2R200.0Z4-SIRA	02881702	2	E	10,0	10,0	22,0	72,0	29,0	9,5	2,0	4	Cylindrical	■
JS554100E2R250.0Z4-SIRA	03029949	2	E	10,0	10,0	22,0	72,0	29,0	9,5	2,5	4	Cylindrical	■
JS554120E2R050.0Z4-SIRA	03029968	2	E	12,0	12,0	26,0	83,0	35,0	11,4	0,5	4	Cylindrical	■
JS554120E2R100.0Z4-SIRA	03029969	2	E	12,0	12,0	26,0	83,0	35,0	11,4	1,0	4	Cylindrical	■
JS554120E2R200.0Z4-SIRA	02881703	2	E	12,0	12,0	26,0	83,0	35,0	11,4	2,0	4	Cylindrical	■
JS554120E2R250.0Z4-SIRA	02881704	2	E	12,0	12,0	26,0	83,0	35,0	11,4	2,5	4	Cylindrical	■
JS554120E2R300.0Z4-SIRA	03029950	2	E	12,0	12,0	26,0	83,0	35,0	11,4	3,0	4	Cylindrical	■
JS554160E2R050.0Z4-SIRA	03029971	2	E	16,0	16,0	34,0	92,0	42,0	15,2	0,5	4	Cylindrical	■
JS554160E2R600.0Z4-SIRA	03093685	2	E	16,0	16,0	34,0	92,0	42,0	15,2	6,0	4	Cylindrical	■
JS554200E2R200.0Z4-SIRA	02881705	2	E	20,0	20,0	42,0	110,0	54,0	19,0	2,0	4	Cylindrical	■
JS554200E2R600.0Z4-SIRA	03029951	2	E	20,0	20,0	42,0	109,0	54,0	19,0	6,0	4	Cylindrical	■
JS554250E2R600.0Z4-SIRA	03093686	2	E	25,0	25,0	52,0	125,0	65,0	23,8	6,0	4	Cylindrical	■

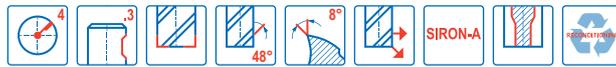
■ Stocked standard.

JS554

High performance – Universal – Square – 4 Flutes – Weldon – Sharp



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm			
554030SZ4.0-SIRON-AW	02733844	2	F	3,0	6,0	7,0	50,0	8,7	3,0	4	Weldon	<input type="checkbox"/>
554040SZ4.0-SIRON-AW	02733846	2	F	4,0	6,0	10,0	55,0	11,7	4,0	4	Weldon	<input type="checkbox"/>
554050SZ4.0-SIRON-AW	02733847	2	F	5,0	6,0	12,0	55,0	13,7	5,0	4	Weldon	<input type="checkbox"/>
554060SZ4.0-SIRON-AW	02733848	2	D	6,0	6,0	14,0	55,0	–	–	4	Weldon	<input type="checkbox"/>
554080SZ4.0-SIRON-AW	02733849	2	D	8,0	8,0	18,0	60,0	–	–	4	Weldon	<input type="checkbox"/>
554100SZ4.0-SIRON-AW	02733850	2	D	10,0	10,0	22,0	70,0	–	–	4	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

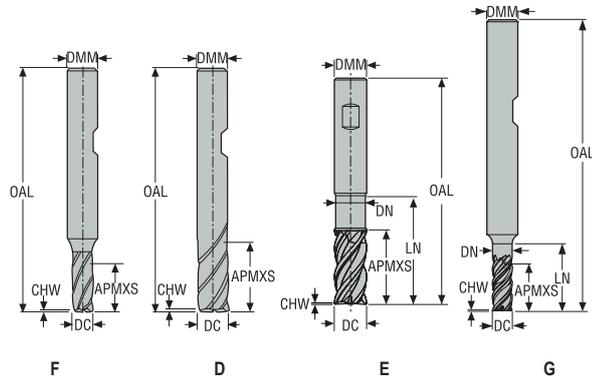
Graphite

X-Heads

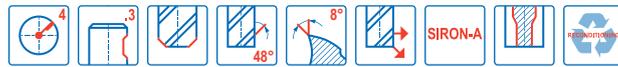
Minimaster

## JS554

## High performance – Universal – Square – 4 Flutes – Weldon – Chamfer



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is ≥06

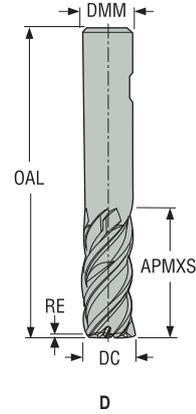


	Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm		
Non ferrous	JS554040F1C.3Z4-SIRA	10041460	1	F	4,0	6,0	6,0	40,0	9,0	4,05	0,045	4	Weldon	■
	JS554060D1C.3Z4-SIRA	10041461	1	D	6,0	6,0	8,0	40,0	–	–	0,075	4	Weldon	■
	JS554080D1C.3Z4-SIRA	10041462	1	D	8,0	8,0	11,0	50,0	–	–	0,1	4	Weldon	□
Hard	JS554100D1C.3Z4-SIRA	10041463	1	D	10,0	10,0	13,0	57,0	–	–	0,125	4	Weldon	□
	JS554120D1C.3Z4-SIRA	10041464	1	D	12,0	12,0	15,0	65,0	–	–	0,15	4	Weldon	□
	JS554160D1C.3Z4-SIRA	10041465	1	D	16,0	16,0	19,0	75,0	–	–	0,2	4	Weldon	□
Plastic and cfrp	554030Z4.3-SIRON-A	02733450	2	F	3,0	6,0	7,0	50,0	8,7	3,0	0,035	4	Weldon	■
	JS554030G2C.3Z4-SIRA	03029973	2	G	3,0	6,0	8,0	57,0	10,0	2,85	0,035	4	Weldon	□
	554040Z4.3-SIRON-A	02733456	2	F	4,0	6,0	10,0	55,0	11,7	4,0	0,045	4	Weldon	■
	JS554040G2C.3Z4-SIRA	03029974	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,045	4	Weldon	■
	554050Z4.3-SIRON-A	02733461	2	F	5,0	6,0	12,0	55,0	13,7	5,0	0,055	4	Weldon	■
	JS554050G2C.3Z4-SIRA	03029975	2	G	5,0	6,0	12,0	57,0	16,0	4,75	0,055	4	Weldon	□
Graphite	554060Z4.3-SIRON-A	02679502	2	D	6,0	6,0	14,0	55,0	–	–	0,075	4	Weldon	■
	JS554060E2C.3Z4-SIRA	03029976	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,075	4	Weldon	■
	554080Z4.3-SIRON-A	02679511	2	D	8,0	8,0	18,0	60,0	–	–	0,1	4	Weldon	■
	JS554080E2C.3Z4-SIRA	03029978	2	E	8,0	8,0	18,0	63,0	25,0	7,6	0,1	4	Weldon	■
	JS554100E2C.3Z4-SIRA	03029980	2	E	10,0	10,0	22,0	72,0	29,0	9,5	0,125	4	Weldon	■
	554100Z4.3-SIRON-A	02679535	2	D	10,0	10,0	22,0	70,0	–	–	0,125	4	Weldon	■
X-Heads	JS554120E2C.3Z4-SIRA	03029983	2	E	12,0	12,0	26,0	83,0	35,0	11,4	0,15	4	Weldon	■
	554120Z4.3-SIRON-A	02679547	2	D	12,0	12,0	26,0	80,0	–	–	0,15	4	Weldon	■
	JS554160E2C.3Z4-SIRA	03029986	2	E	16,0	16,0	34,0	92,0	42,0	15,2	0,2	4	Weldon	■
	554160Z4.3-SIRON-A	02679559	2	D	16,0	16,0	34,0	90,0	–	–	0,2	4	Weldon	■
	JS554200E2C.3Z4-SIRA	03029988	2	E	20,0	20,0	42,0	109,0	54,0	19,0	0,25	4	Weldon	■
	554200Z4.3-SIRON-A	02679565	2	D	20,0	20,0	42,0	100,0	–	–	0,25	4	Weldon	■
Minimaster	554250Z4.3-SIRON-A	02679572	2	D	25,0	25,0	52,0	125,0	–	–	0,3	4	Weldon	■
	554L030Z4.3-SIRON-A	02733817	3	F	3,0	6,0	12,0	55,0	13,7	3,0	0,035	4	Weldon	■
	554L040Z4.3-SIRON-A	02733820	3	F	4,0	6,0	16,0	60,0	17,7	4,0	0,045	4	Weldon	■
	554L050Z4.3-SIRON-A	02733824	3	F	5,0	6,0	20,0	65,0	21,7	5,0	0,055	4	Weldon	■
	554L060Z4.3-SIRON-A	02733827	3	D	6,0	6,0	23,0	65,0	–	–	0,075	4	Weldon	■
	554L080Z4.3-SIRON-A	02733829	3	D	8,0	8,0	32,0	75,0	–	–	0,1	4	Weldon	■
Minimaster	554L100Z4.3-SIRON-A	02733831	3	D	10,0	10,0	40,0	85,0	–	–	0,125	4	Weldon	■
	554L120Z4.3-SIRON-A	02733833	3	D	12,0	12,0	45,0	100,0	–	–	0,15	4	Weldon	■
	554L160Z4.3-SIRON-A	02733835	3	D	16,0	16,0	55,0	115,0	–	–	0,2	4	Weldon	■
	554L200Z4.3-SIRON-A	02733837	3	D	20,0	20,0	65,0	125,0	–	–	0,25	4	Weldon	■
	554L250Z4.3-SIRON-A	02733839	3	D	25,0	25,0	85,0	150,0	–	–	0,3	4	Weldon	■

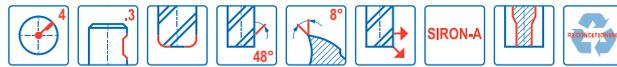
■ Stocked standard. □ Weldon available. Delivery time is 3 days.

JS554

High performance – Universal – Square – 4 Flutes – Weldon – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS55408D1R050.3Z4-SIRA	10194629	1	D	8,0	8,0	11,0	50,0	0,5	4	Weldon	□
JS554100D1R050.3Z4-SIRA	10194630	1	D	10,0	10,0	13,0	57,0	0,5	4	Weldon	□
JS554100D1R100.3Z4-SIRA	10194631	1	D	10,0	10,0	13,0	57,0	1,0	4	Weldon	□
JS554120D1R050.3Z4-SIRA	10194632	1	D	12,0	12,0	15,0	65,0	0,5	4	Weldon	□
JS554120D1R100.3Z4-SIRA	10194633	1	D	12,0	12,0	15,0	65,0	1,0	4	Weldon	□
JS554160D1R050.3Z4-SIRA	10194634	1	D	16,0	16,0	19,0	75,0	0,5	4	Weldon	□
JS554160D1R100.3Z4-SIRA	10194635	1	D	16,0	16,0	19,0	75,0	1,0	4	Weldon	□
554060R020Z4.3-SIRON-A	02679506	2	D	6,0	6,0	14,0	55,0	0,2	4	Weldon	■
554080R050Z4.3-SIRON-A	02679513	2	D	8,0	8,0	18,0	60,0	0,5	4	Weldon	■
554100R050Z4.3-SIRON-A	02679539	2	D	10,0	10,0	22,0	70,0	0,5	4	Weldon	■
554100R100Z4.3-SIRON-A	02679542	2	D	10,0	10,0	22,0	70,0	1,0	4	Weldon	■
554120R050Z4.3-SIRON-A	02679549	2	D	12,0	12,0	26,0	80,0	0,5	4	Weldon	■
554120R100Z4.3-SIRON-A	02679554	2	D	12,0	12,0	26,0	80,0	1,0	4	Weldon	■
554160R050Z4.3-SIRON-A	02679561	2	D	16,0	16,0	34,0	90,0	0,5	4	Weldon	■
554160R100Z4.3-SIRON-A	02679563	2	D	16,0	16,0	34,0	90,0	1,0	4	Weldon	■
554160R200Z4.3-SIRON-A	02810436	2	D	16,0	16,0	34,0	90,0	2,0	4	Weldon	■
554160R310Z4.3-SIRON-A	02810438	2	D	16,0	16,0	34,0	90,0	3,1	4	Weldon	■
554160R400Z4.3-SIRON-A	02810440	2	D	16,0	16,0	34,0	90,0	4,0	4	Weldon	■
554200R050Z4.3-SIRON-A	02679567	2	D	20,0	20,0	42,0	100,0	0,5	4	Weldon	■
554200R100Z4.3-SIRON-A	02679570	2	D	20,0	20,0	42,0	100,0	1,0	4	Weldon	■
554200R250Z4.3-SIRON-A	02810442	2	D	20,0	20,0	42,0	100,0	2,5	4	Weldon	■
554200R310Z4.3-SIRON-A	02810444	2	D	20,0	20,0	42,0	100,0	3,1	4	Weldon	■
554200R400Z4.3-SIRON-A	02810446	2	D	20,0	20,0	42,0	100,0	4,0	4	Weldon	■
554250R050Z4.3-SIRON-A	02679574	2	D	25,0	25,0	52,0	125,0	0,5	4	Weldon	■
554250R100Z4.3-SIRON-A	02679576	2	D	25,0	25,0	52,0	125,0	1,0	4	Weldon	■
554250R310Z4.3-SIRON-A	02810448	2	D	25,0	25,0	52,0	125,0	3,1	4	Weldon	■
554250R400Z4.3-SIRON-A	02810451	2	D	25,0	25,0	52,0	125,0	4,0	4	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

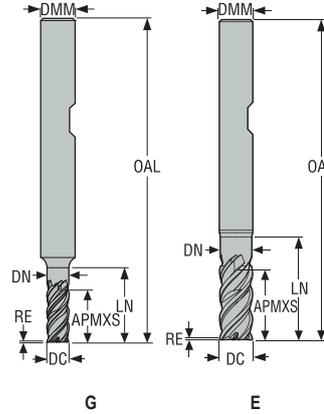
Graphite

X-Heads

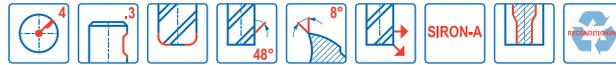
Minimaster

**JS554**

High performance – Universal – Square – 4 Flutes – Weldon – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

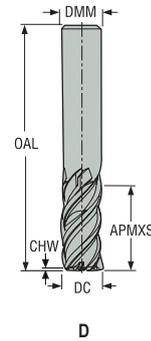


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS554030G2R015.3Z4-SIRA	02881706	2	G	3,0	6,0	7,0	57,0	10,0	2,85	0,15	4	Weldon	<input type="checkbox"/>
JS554040G2R020.3Z4-SIRA	02881946	2	G	4,0	6,0	10,0	57,0	13,0	3,8	0,2	4	Weldon	<input checked="" type="checkbox"/>
JS554050G2R020.3Z4-SIRA	02881708	2	G	5,0	6,0	12,0	57,0	16,0	4,75	0,2	4	Weldon	<input type="checkbox"/>
JS554060E2R020.3Z4-SIRA	03029977	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,2	4	Weldon	<input checked="" type="checkbox"/>
JS554060E2R050.3Z4-SIRA	02881709	2	E	6,0	6,0	14,0	57,0	18,0	5,7	0,5	4	Weldon	<input type="checkbox"/>
JS554060E2R100.3Z4-SIRA	03029952	2	E	6,0	6,0	14,0	57,0	18,0	5,7	1,0	4	Weldon	<input type="checkbox"/>
JS554080E2R050.3Z4-SIRA	03029979	2	E	8,0	8,0	18,0	63,0	25,0	7,6	0,5	4	Weldon	<input type="checkbox"/>
JS554080E2R100.3Z4-SIRA	02881710	2	E	8,0	8,0	18,0	63,0	25,0	7,6	1,0	4	Weldon	<input type="checkbox"/>
JS554100E2R050.3Z4-SIRA	03029981	2	E	10,0	10,0	22,0	72,0	29,0	9,5	0,5	4	Weldon	<input checked="" type="checkbox"/>
JS554100E2R100.3Z4-SIRA	03029982	2	E	10,0	10,0	22,0	72,0	29,0	9,5	1,0	4	Weldon	<input type="checkbox"/>
JS554100E2R200.3Z4-SIRA	02881711	2	E	10,0	10,0	22,0	72,0	29,0	9,5	2,0	4	Weldon	<input checked="" type="checkbox"/>
JS554100E2R250.3Z4-SIRA	03029953	2	E	10,0	10,0	22,0	72,0	29,0	9,5	2,5	4	Weldon	<input type="checkbox"/>
JS554120E2R050.3Z4-SIRA	03029984	2	E	12,0	12,0	26,0	83,0	35,0	11,4	0,5	4	Weldon	<input checked="" type="checkbox"/>
JS554120E2R100.3Z4-SIRA	03029985	2	E	12,0	12,0	26,0	83,0	35,0	11,4	1,0	4	Weldon	<input type="checkbox"/>
JS554120E2R200.3Z4-SIRA	02881712	2	E	12,0	12,0	26,0	83,0	35,0	11,4	2,0	4	Weldon	<input type="checkbox"/>
JS554120E2R250.3Z4-SIRA	02881713	2	E	12,0	12,0	26,0	83,0	35,0	11,4	2,5	4	Weldon	<input type="checkbox"/>
JS554120E2R300.3Z4-SIRA	03029954	2	E	12,0	12,0	26,0	83,0	35,0	11,4	3,0	4	Weldon	<input type="checkbox"/>
JS554160E2R050.3Z4-SIRA	03029987	2	E	16,0	16,0	34,0	92,0	42,0	15,2	0,5	4	Weldon	<input checked="" type="checkbox"/>
JS554160E2R600.3Z4-SIRA	03093687	2	E	16,0	16,0	34,0	92,0	42,0	15,2	6,0	4	Weldon	<input type="checkbox"/>
JS554200E2R200.3Z4-SIRA	02881714	2	E	20,0	20,0	42,0	110,0	54,0	19,0	2,0	4	Weldon	<input type="checkbox"/>
JS554200E2R600.3Z4-SIRA	03029955	2	E	20,0	20,0	42,0	109,0	54,0	19,0	6,0	4	Weldon	<input type="checkbox"/>
JS554250E2R600.3Z4-SIRA	03093688	2	E	25,0	25,0	52,0	125,0	65,0	23,8	6,0	4	Weldon	<input type="checkbox"/>

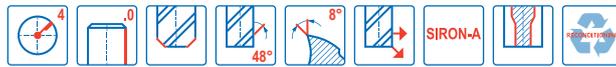
Stocked standard.  Weldon available. Delivery time is 3 days.

JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Chamfer – Inch



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is  $\geq \varnothing.375$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
				inch	inch	inch	inch	inch			
5540250Z4.0-SIRON-A	02711329	2	D	0.250	0.250	0.500	2.500	0.003	4	Cylindrical	■
5540312Z4.0-SIRON-A	02711340	2	D	0.313	0.313	0.625	2.500	0.004	4	Cylindrical	■
5540375Z4.0-SIRON-A	02711344	2	D	0.375	0.375	0.750	3.000	0.005	4	Cylindrical	■
5540500Z4.0-SIRON-A	02711611	2	D	0.500	0.500	1.000	3.500	0.006	4	Cylindrical	■
5540625Z4.0-SIRON-A	02711626	2	D	0.625	0.625	1.250	3.750	0.008	4	Cylindrical	■
5540750Z4.0-SIRON-A	02711643	2	D	0.750	0.750	1.500	4.000	0.010	4	Cylindrical	■
5541000Z4.0-SIRON-A	02711660	2	D	1.000	1.000	2.000	5.000	0.012	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

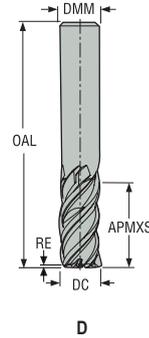
Graphite

X-Heads

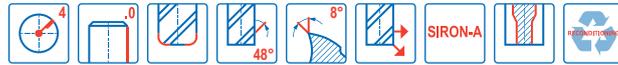
Minimaster

JS554

High performance – Universal – Square – 4 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:
- DMM=h5
- DC=e7
- RE= ± 0.008 inch
- Regrind possible if DC is ≥Ø.375



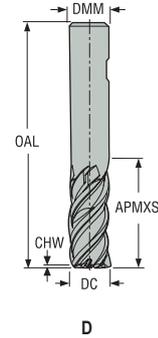
Designation	Item number	Length index	Tool shape	DC		DMM		APMXS		OAL		RE		PCEDC	Shank	Stock standard
				inch												
5540250R015Z4.0-SIRON-A	02711335	2	D	0.250	0.250	0.250	0.250	0.500	0.500	2.500	2.500	0.015	0.015	4	Cylindrical	■
5540312R015Z4.0-SIRON-A	02711341	2	D	0.313	0.313	0.313	0.313	0.625	0.625	2.500	2.500	0.015	0.015	4	Cylindrical	■
5540375R015Z4.0-SIRON-A	02711588	2	D	0.375	0.375	0.375	0.375	0.750	0.750	3.000	3.000	0.015	0.015	4	Cylindrical	■
5540375R030Z4.0-SIRON-A	02711589	2	D	0.375	0.375	0.375	0.375	0.750	0.750	3.000	3.000	0.030	0.030	4	Cylindrical	■
5540500R015Z4.0-SIRON-A	02711614	2	D	0.500	0.500	0.500	0.500	1.000	1.000	3.500	3.500	0.015	0.015	4	Cylindrical	■
5540500R030Z4.0-SIRON-A	02711616	2	D	0.500	0.500	0.500	0.500	1.000	1.000	3.500	3.500	0.030	0.030	4	Cylindrical	■
5540500R125Z4.0-SIRON-A	02842370	2	D	0.500	0.500	0.500	0.500	1.000	1.000	3.500	3.500	0.125	0.125	4	Cylindrical	■
5540625R015Z4.0-SIRON-A	02711629	2	D	0.625	0.625	0.625	0.625	1.250	1.250	3.750	3.750	0.015	0.015	4	Cylindrical	■
5540625R030Z4.0-SIRON-A	02711631	2	D	0.625	0.625	0.625	0.625	1.250	1.250	3.750	3.750	0.030	0.030	4	Cylindrical	■
5540625R125Z4.0-SIRON-A	02842371	2	D	0.625	0.625	0.625	0.625	1.250	1.250	3.750	3.750	0.125	0.125	4	Cylindrical	■
5540750R030Z4.0-SIRON-A	02711647	2	D	0.750	0.750	0.750	0.750	1.500	1.500	4.000	4.000	0.030	0.030	4	Cylindrical	■
5540750R060Z4.0-SIRON-A	02711655	2	D	0.750	0.750	0.750	0.750	1.500	1.500	4.000	4.000	0.060	0.060	4	Cylindrical	■

■ Stocked standard.

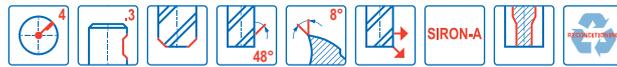
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JS554

High performance – Universal – Square – 4 Flutes – Weldon – Chamfer – inch



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
				inch	inch	inch	inch	inch			
5540500Z4.3-SIRON-A	02711608	2	D	0.500	0.500	1.000	3.500	0.006	4	Weldon	■
5540750Z4.3-SIRON-A	02711632	2	D	0.750	0.750	1.500	4.000	0.010	4	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

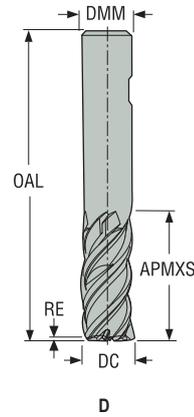
Graphite

X-Heads

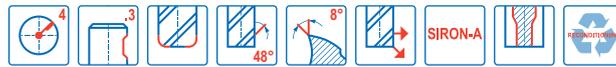
Minimaster

JS554

High performance – Universal – Square – 4 Flutes – Weldon – Corner radius – Inch



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±.0008 inch
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				inch	inch	inch	inch	inch			
5540500R015Z4.3-SIRON-A	02711613	2	D	0.500	0.500	1.000	3.500	0.015	4	Weldon	■
5540500R030Z4.3-SIRON-A	02711615	2	D	0.500	0.500	1.000	3.500	0.030	4	Weldon	■
5540500R125Z4.3-SIRON-A	02856456	2	D	0.500	0.500	1.000	3.500	0.125	4	Weldon	□
5540625R125Z4.3-SIRON-A	02856457	2	D	0.625	0.625	1.250	3.750	0.125	4	Weldon	□
5541000R060Z4.3-SIRON-A	02711663	2	D	1.000	1.000	2.000	5.000	0.060	4	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and cfrp
- Graphite
- X-Heads
- Minimaster

Cutting data – JS554 Side milling roughing

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				3	4	5	6	8	10	12	16	20	25	
P1	M/A/D/E	0.400	1.0	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	0.19	215 (190 – 240)
		0,400	1,0	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	710 (630 – 780)
P2	M/A/D/E	0.400	1.0	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	0.19	210 (190 – 240)
		0,400	1,0	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	690 (630 – 780)
P3	M/A/D/E	0.400	1.0	0.028	0.038	0.048	0.055	0.075	0.095	0.11	0.14	0.16	0.18	185 (160 – 200)
		0,400	1,0	0,0011	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0055	0,0065	0,0070	610 (530 – 650)
P4	M/A/D/E	0.400	1.0	0.028	0.038	0.046	0.055	0.075	0.095	0.11	0.14	0.16	0.18	160 (140 – 180)
		0,400	1,0	0,0011	0,0015	0,0018	0,0022	0,0030	0,0038	0,0044	0,0055	0,0065	0,0070	520 (460 – 590)
P5	M/A/D/E	0.400	1.0	0.028	0.036	0.046	0.055	0.075	0.090	0.11	0.13	0.16	0.18	155 (140 – 170)
		0,400	1,0	0,0011	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0050	0,0065	0,0070	510 (460 – 550)
P6	M/A/D/E	0.400	1.0	0.028	0.036	0.046	0.055	0.075	0.090	0.11	0.13	0.15	0.17	175 (160 – 200)
		0,400	1,0	0,0011	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0050	0,0060	0,0065	570 (530 – 650)
P7	M/A/D/E	0.400	1.0	0.028	0.036	0.046	0.055	0.075	0.090	0.11	0.13	0.15	0.17	165 (150 – 180)
		0,400	1,0	0,0011	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0050	0,0060	0,0065	540 (500 – 590)
P8	M/A/D/E	0.400	1.0	0.028	0.038	0.048	0.055	0.075	0.095	0.11	0.14	0.16	0.18	155 (140 – 170)
		0,400	1,0	0,0011	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0055	0,0065	0,0070	510 (460 – 550)
P11	M/A/D/E	0.400	1.0	0.026	0.036	0.044	0.055	0.070	0.090	0.11	0.13	0.15	0.17	140 (130 – 150)
		0,400	1,0	0,0010	0,0014	0,0017	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	0,0065	460 (430 – 490)
P12	M/A/D/E	0.400	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	0.12	90 (79 – 100)
		0,400	1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	295 (260 – 320)
M1	E	0.400	1.0	0.020	0.026	0.034	0.040	0.055	0.065	0.080	0.10	0.11	0.13	110 (96 – 120)
		0,400	1,0	0,00080	0,0010	0,0013	0,0016	0,0022	0,0026	0,0032	0,0040	0,0044	0,0050	360 (320 – 390)
M2	E	0.400	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	0.12	90 (79 – 100)
		0,400	1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	295 (260 – 320)
M3	E	0.400	0.90	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	0.095	55 (45 – 66)
		0,400	0,90	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	180 (150 – 210)
M4	E	0.400	0.90	0.013	0.018	0.022	0.026	0.036	0.044	0.055	0.065	0.075	0.085	43 (35 – 51)
		0,400	0,90	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0022	0,0026	0,0030	0,0034	140 (120 – 160)
M5	E	0.400	0.90	0.013	0.018	0.022	0.026	0.036	0.044	0.055	0.065	0.075	0.085	36 (29 – 42)
		0,400	0,90	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0022	0,0026	0,0030	0,0034	120 (96 – 130)
K1	E	0.400	1.2	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.12	0.14	0.16	175 (160 – 190)
		0,400	1,2	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	570 (530 – 620)
K2	E	0.400	1.2	0.022	0.030	0.038	0.044	0.060	0.075	0.090	0.11	0.13	0.14	155 (140 – 170)
		0,400	1,2	0,00085	0,0012	0,0015	0,0017	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	510 (460 – 550)
K3	E	0.400	1.2	0.022	0.030	0.038	0.044	0.060	0.075	0.090	0.11	0.13	0.14	130 (120 – 140)
		0,400	1,2	0,00085	0,0012	0,0015	0,0017	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	425 (400 – 450)
K4	E	0.400	1.2	0.022	0.030	0.038	0.044	0.060	0.075	0.090	0.11	0.13	0.14	125 (110 – 140)
		0,400	1,2	0,00085	0,0012	0,0015	0,0017	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	410 (370 – 450)
K5	E	0.400	1.0	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.12	0.14	0.16	155 (140 – 170)
		0,400	1,0	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	510 (460 – 550)
K6	E	0.400	1.0	0.028	0.036	0.046	0.055	0.070	0.090	0.11	0.13	0.15	0.17	220 (190 – 250)
		0,400	1,0	0,0011	0,0014	0,0018	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	0,0065	720 (630 – 820)
K7	E	0.400	1.0	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.12	0.14	0.16	195 (170 – 220)
		0,400	1,0	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	640 (560 – 720)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cf/ep  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS554 Side milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				3	4	5	6	8	10	12	16	20	25	
N1	E	0.500	0.90	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.12	0.13	0.15	610 (510 – 710)
		0,500	0,90	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0048	0,0050	0,0060	2000 (1700 – 2300)
N2	E	0.500	0.90	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.12	0.13	0.15	390 (330 – 450)
		0,500	0,90	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0048	0,0050	0,0060	1275 (1100 – 1400)
N11	E	0.500	1.1	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.12	0.13	0.15	320 (270 – 370)
		0,500	1,1	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0048	0,0050	0,0060	1050 (890 – 1200)
S11	E	0.400	0.70	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	0.12	100 (72 – 120)
		0,400	0,70	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	330 (240 – 390)
S12	E	0.400	0.70	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	0.12	75 (56 – 99)
		0,400	0,70	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	245 (190 – 320)
S13	E	0.400	0.70	0.016	0.022	0.026	0.032	0.042	0.055	0.065	0.080	0.090	0.10	60 (44 – 78)
		0,400	0,70	0,00065	0,00085	0,0010	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	0,0040	195 (150 – 250)
H5	M/A/D	0.200	0.90	0.022	0.030	0.038	0.046	0.060	0.075	0.090	0.11	0.13	0.14	75 (59 – 88)
		0,200	0,90	0,00085	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	245 (200 – 280)
H8	M/A/D	0.200	0.90	0.017	0.022	0.028	0.034	0.046	0.055	0.070	0.085	0.095	0.11	80 (63 – 93)
		0,200	0,90	0,00065	0,00085	0,0011	0,0013	0,0018	0,0022	0,0028	0,0034	0,0038	0,0044	260 (210 – 300)
H11	M/A/D	0.200	0.90	0.022	0.030	0.038	0.046	0.060	0.075	0.090	0.11	0.13	0.14	95 (75 – 110)
		0,200	0,90	0,00085	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	310 (250 – 360)
H12	M/A/D	0.200	0.90	0.017	0.022	0.028	0.034	0.046	0.055	0.070	0.085	0.095	0.11	90 (73 – 100)
		0,200	0,90	0,00065	0,00085	0,0011	0,0013	0,0018	0,0022	0,0028	0,0034	0,0038	0,0044	295 (240 – 320)
H21	M/A/D	0.200	0.90	0.017	0.022	0.028	0.034	0.046	0.055	0.070	0.085	0.095	0.11	155 (110 – 190)
		0,200	0,90	0,00065	0,00085	0,0011	0,0013	0,0018	0,0022	0,0028	0,0034	0,0038	0,0044	510 (370 – 620)
TS1	A	0.500	1.0	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	0.19	285 (180 – 400)
		0,500	1,0	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	940 (600 – 1300)
TP1	A	0.500	1.0	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	0.19	295 (180 – 410)
		0,500	1,0	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	970 (600 – 1300)
GR1	A	0.500	1.1	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	0.19	580 (470 – 690)
		0,500	1,1	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	1900 (1600 – 2200)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – JS554 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>	
			3	4	5	6	8	10	12	16	20	25		
P1	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	195 (170 — 220)	Universal
		1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	640 (560 — 720)	
P2	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	190 (170 — 210)	Steel and cast iron
		1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	620 (560 — 680)	
P3	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	165 (140 — 180)	Steel and cast iron
		1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	540 (460 — 590)	
P4	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	145 (130 — 160)	Steel and cast iron
		1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	475 (430 — 520)	
P5	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	135 (120 — 150)	Steel and cast iron
		1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	445 (400 — 490)	
P6	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	155 (140 — 170)	Stainless steel and S-materials
		1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	510 (460 — 550)	
P7	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	145 (130 — 160)	Stainless steel and S-materials
		1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	475 (430 — 520)	
P8	M/A/D/E	1.0	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	135 (120 — 150)	Stainless steel and S-materials
		1,0	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	445 (400 — 490)	
P11	M/A/D/E	0.80	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	130 (120 — 140)	Stainless steel and S-materials
		0,80	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0040	425 (400 — 450)	
P12	M/A/D/E	0.80	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	80 (69 — 87)	Stainless steel and S-materials
		0,80	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0040	260 (230 — 280)	
M1	E	0.80	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	95 (85 — 100)	Non ferrous
		0,80	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0040	310 (280 — 320)	
M2	E	0.80	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	80 (69 — 87)	Non ferrous
		0,80	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0040	260 (230 — 280)	
M3	E	0.60	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	48 (39 — 57)	Non ferrous
		0,60	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	155 (130 — 180)	
M4	E	0.60	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	36 (29 — 43)	Non ferrous
		0,60	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	120 (96 — 140)	
M5	E	0.60	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	30 (25 — 36)	Non ferrous
		0,60	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	100 (83 — 110)	
K1	E	1.0	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	155 (140 — 170)	Hard
		1,0	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	510 (460 — 550)	
K2	E	1.0	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	135 (120 — 150)	Hard
		1,0	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	445 (400 — 490)	
K3	E	1.0	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	115 (110 — 120)	Hard
		1,0	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	375 (370 — 390)	
K4	E	1.0	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	110 (96 — 120)	Hard
		1,0	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	360 (320 — 390)	
K5	E	0.70	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	135 (120 — 150)	Plastic and CFRP
		0,70	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	445 (400 — 490)	
K6	E	0.70	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	200 (180 — 220)	Plastic and CFRP
		0,70	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	660 (600 — 720)	
K7	E	0.70	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	175 (150 — 190)	Plastic and CFRP
		0,70	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	570 (500 — 620)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS554 Slot milling

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			3	4	5	6	8	10	12	16	20	25	
N1	E	0.50	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	570 (480 – 670)
		0.50	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	1875 (1600 – 2100)
N2	E	0.50	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	370 (310 – 430)
		0.50	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	1225 (1100 – 1400)
N3	E	0.50	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	0.13	245 (210 – 280)
		0.50	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0050	800 (690 – 910)
N11	E	0.60	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	0.15	290 (250 – 330)
		0.60	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0060	950 (830 – 1000)
S1	E	0.30	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	30 (25 – 34)
		0.30	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	100 (83 – 110)
S2	E	0.30	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	27 (17 – 38)
		0.30	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	90 (56 – 120)
S3	E	0.30	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	0.050	0.065	0.080	23 (15 – 32)
		0.30	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	75 (50 – 100)
S11	E	0.50	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.065	0.080	0.10	85 (63 – 110)
		0.50	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	280 (210 – 360)
S12	E	0.50	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.065	0.080	0.10	65 (48 – 86)
		0.50	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	215 (160 – 280)
S13	E	0.50	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.065	0.080	0.10	50 (38 – 66)
		0.50	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	165 (130 – 210)
H5	M/A/D	0.40	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.032	0.040	0.050	65 (52 – 76)
		0.40	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	215 (180 – 240)
H8	M/A/D	0.40	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.032	0.040	0.050	65 (52 – 76)
		0.40	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	215 (180 – 240)
H11	M/A/D	0.40	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.032	0.040	0.050	80 (66 – 97)
		0.40	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	260 (220 – 310)
H12	M/A/D	0.40	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.032	0.040	0.050	75 (60 – 89)
		0.40	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	245 (200 – 290)
H21	M/A/D	0.40	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	0.032	0.040	0.050	125 (90 – 160)
		0.40	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	410 (300 – 520)
TS1	A	0.70	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	0.19	240 (150 – 330)
		0.70	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	790 (500 – 1000)
TP1	A	0.70	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	0.19	250 (150 – 340)
		0.70	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	820 (500 – 1100)
GR1	A	0.80	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	0.19	485 (390 – 580)
		0.80	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	1600 (1300 – 1900)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm/tooth (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

## Cutting data – JS554 Side milling roughing – Inch

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				1/4	5/16	3/8	1/2	5/8	3/4	1	
P1	M/A/D/E	0.400	1.0	0.065	0.080	0.095	0.12	0.14	0.16	0.19	215 (190 – 240)
		0,400	1,0	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	710 (630 – 780)
P2	M/A/D/E	0.400	1.0	0.065	0.080	0.095	0.13	0.15	0.17	0.20	210 (190 – 240)
		0,400	1,0	0,0026	0,0032	0,0038	0,0050	0,0060	0,0065	0,0080	690 (630 – 780)
P3	M/A/D/E	0.400	1.0	0.060	0.075	0.090	0.12	0.14	0.16	0.18	185 (160 – 200)
		0,400	1,0	0,0024	0,0030	0,0036	0,0048	0,0055	0,0065	0,0070	610 (530 – 650)
P4	M/A/D/E	0.400	1.0	0.060	0.075	0.090	0.12	0.14	0.15	0.18	160 (140 – 180)
		0,400	1,0	0,0024	0,0030	0,0036	0,0048	0,0055	0,0060	0,0070	520 (460 – 590)
P5	M/A/D/E	0.400	1.0	0.060	0.075	0.085	0.11	0.13	0.15	0.18	155 (140 – 170)
		0,400	1,0	0,0024	0,0030	0,0034	0,0044	0,0050	0,0060	0,0070	510 (460 – 550)
P6	M/A/D/E	0.400	1.0	0.060	0.070	0.085	0.11	0.13	0.15	0.18	175 (160 – 200)
		0,400	1,0	0,0024	0,0028	0,0034	0,0044	0,0050	0,0060	0,0070	570 (530 – 650)
P7	M/A/D/E	0.400	1.0	0.060	0.070	0.085	0.11	0.13	0.15	0.18	165 (150 – 180)
		0,400	1,0	0,0024	0,0028	0,0034	0,0044	0,0050	0,0060	0,0070	540 (500 – 590)
P8	M/A/D/E	0.400	1.0	0.060	0.075	0.090	0.12	0.14	0.16	0.18	155 (140 – 170)
		0,400	1,0	0,0024	0,0030	0,0036	0,0048	0,0055	0,0065	0,0070	510 (460 – 550)
P11	M/A/D/E	0.400	1.0	0.055	0.070	0.085	0.11	0.13	0.15	0.17	140 (130 – 150)
		0,400	1,0	0,0022	0,0028	0,0034	0,0044	0,0050	0,0060	0,0065	460 (430 – 490)
P12	M/A/D/E	0.400	1.0	0.038	0.048	0.060	0.075	0.090	0.10	0.12	90 (79 – 100)
		0,400	1,0	0,0015	0,0019	0,0024	0,0030	0,0036	0,0040	0,0048	295 (260 – 320)
M1	E	0.400	1.0	0.042	0.055	0.065	0.085	0.10	0.11	0.13	110 (96 – 120)
		0,400	1,0	0,0017	0,0022	0,0026	0,0034	0,0040	0,0044	0,0050	360 (320 – 390)
M2	E	0.400	1.0	0.038	0.048	0.060	0.075	0.090	0.10	0.12	90 (79 – 100)
		0,400	1,0	0,0015	0,0019	0,0024	0,0030	0,0036	0,0040	0,0048	295 (260 – 320)
M3	E	0.400	0.90	0.032	0.040	0.048	0.065	0.075	0.085	0.10	55 (45 – 66)
		0,400	0,90	0,0013	0,0016	0,0019	0,0026	0,0030	0,0034	0,0040	180 (150 – 210)
M4	E	0.400	0.90	0.028	0.036	0.042	0.055	0.065	0.075	0.085	43 (35 – 51)
		0,400	0,90	0,0011	0,0014	0,0017	0,0022	0,0026	0,0030	0,0034	140 (120 – 160)
M5	E	0.400	0.90	0.028	0.036	0.042	0.055	0.065	0.075	0.085	36 (29 – 42)
		0,400	0,90	0,0011	0,0014	0,0017	0,0022	0,0026	0,0030	0,0034	120 (96 – 130)
K1	E	0.400	1.2	0.050	0.065	0.080	0.10	0.12	0.13	0.16	175 (160 – 190)
		0,400	1,2	0,0020	0,0026	0,0032	0,0040	0,0048	0,0050	0,0065	570 (530 – 620)
K2	E	0.400	1.2	0.048	0.060	0.070	0.090	0.11	0.12	0.14	155 (140 – 170)
		0,400	1,2	0,0019	0,0024	0,0028	0,0036	0,0044	0,0048	0,0055	510 (460 – 550)
K3	E	0.400	1.2	0.048	0.060	0.070	0.090	0.11	0.12	0.14	130 (120 – 140)
		0,400	1,2	0,0019	0,0024	0,0028	0,0036	0,0044	0,0048	0,0055	425 (400 – 450)
K4	E	0.400	1.2	0.048	0.060	0.070	0.090	0.11	0.12	0.14	125 (110 – 140)
		0,400	1,2	0,0019	0,0024	0,0028	0,0036	0,0044	0,0048	0,0055	410 (370 – 450)
K5	E	0.400	1.0	0.050	0.065	0.080	0.10	0.12	0.13	0.16	155 (140 – 170)
		0,400	1,0	0,0020	0,0026	0,0032	0,0040	0,0048	0,0050	0,0065	510 (460 – 550)
K6	E	0.400	1.0	0.055	0.070	0.085	0.11	0.13	0.15	0.17	220 (190 – 250)
		0,400	1,0	0,0022	0,0028	0,0034	0,0044	0,0050	0,0060	0,0065	720 (630 – 820)
K7	E	0.400	1.0	0.050	0.065	0.080	0.10	0.12	0.13	0.16	195 (170 – 220)
		0,400	1,0	0,0020	0,0026	0,0032	0,0040	0,0048	0,0050	0,0065	640 (560 – 720)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cf/tp  
 Graphite  
 X-Heads  
 Minimaxter

## Cutting data – JS554 Side milling roughing – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				1/4	5/16	3/8	1/2	5/8	3/4	1	
N1	E	0.500	0.90	0.050	0.065	0.075	0.10	0.12	0.13	0.15	610 (510 — 710)
		0,500	0,90	0,0020	0,0026	0,0030	0,0040	0,0048	0,0050	0,0060	2000 (1700 — 2300)
N2	E	0.500	0.90	0.050	0.065	0.075	0.10	0.12	0.13	0.15	390 (330 — 450)
		0,500	0,90	0,0020	0,0026	0,0030	0,0040	0,0048	0,0050	0,0060	1275 (1100 — 1400)
N3	E	0.500	0.90	0.050	0.065	0.075	0.10	0.12	0.13	0.15	260 (220 — 300)
		0,500	0,90	0,0020	0,0026	0,0030	0,0040	0,0048	0,0050	0,0060	850 (730 — 980)
N11	E	0.500	1.1	0.050	0.065	0.075	0.10	0.12	0.13	0.15	320 (270 — 370)
		0,500	1,1	0,0020	0,0026	0,0030	0,0040	0,0048	0,0050	0,0060	1050 (890 — 1200)
S1	E	0.150	0.50	0.055	0.070	0.085	0.11	0.13	0.14	0.17	38 (32 — 44)
		0,150	0,50	0,0022	0,0028	0,0034	0,0044	0,0050	0,0055	0,0065	125 (110 — 140)
S2	E	0.150	0.50	0.055	0.070	0.085	0.11	0.13	0.14	0.17	35 (21 — 48)
		0,150	0,50	0,0022	0,0028	0,0034	0,0044	0,0050	0,0055	0,0065	115 (69 — 150)
S3	E	0.150	0.50	0.050	0.065	0.075	0.10	0.12	0.13	0.16	30 (19 — 42)
		0,150	0,50	0,0020	0,0026	0,0030	0,0040	0,0048	0,0050	0,0065	100 (63 — 130)
S11	E	0.400	0.70	0.038	0.048	0.060	0.075	0.090	0.10	0.12	100 (72 — 120)
		0,400	0,70	0,0015	0,0019	0,0024	0,0030	0,0036	0,0040	0,0048	330 (240 — 390)
S12	E	0.400	0.70	0.038	0.048	0.060	0.075	0.090	0.10	0.12	75 (56 — 99)
		0,400	0,70	0,0015	0,0019	0,0024	0,0030	0,0036	0,0040	0,0048	245 (190 — 320)
S13	E	0.400	0.70	0.034	0.042	0.050	0.065	0.080	0.090	0.10	60 (44 — 78)
		0,400	0,70	0,0013	0,0017	0,0020	0,0026	0,0032	0,0036	0,0040	195 (150 — 250)
H5	M/A/D	0.200	0.90	0.048	0.060	0.070	0.095	0.11	0.12	0.15	75 (59 — 88)
		0,200	0,90	0,0019	0,0024	0,0028	0,0038	0,0044	0,0048	0,0060	245 (200 — 280)
H8	M/A/D	0.200	0.90	0.036	0.046	0.055	0.070	0.085	0.095	0.11	80 (63 — 93)
		0,200	0,90	0,0014	0,0018	0,0022	0,0028	0,0034	0,0038	0,0044	260 (210 — 300)
H21	M/A/D	0.200	0.90	0.036	0.046	0.055	0.070	0.085	0.095	0.11	155 (110 — 190)
		0,200	0,90	0,0014	0,0018	0,0022	0,0028	0,0034	0,0038	0,0044	510 (370 — 620)
H31	M/A/D	0.200	0.90	0.032	0.040	0.048	0.060	0.075	0.080	0.095	60 (48 — 71)
		0,200	0,90	0,0013	0,0016	0,0019	0,0024	0,0030	0,0032	0,0038	195 (160 — 230)
TS1	A	0.500	1.0	0.065	0.080	0.095	0.12	0.15	0.16	0.19	285 (180 — 400)
		0,500	1,0	0,0026	0,0032	0,0038	0,0048	0,0060	0,0065	0,0075	940 (600 — 1300)
TP1	A	0.500	1.0	0.065	0.080	0.095	0.12	0.15	0.16	0.19	295 (180 — 410)
		0,500	1,0	0,0026	0,0032	0,0038	0,0048	0,0060	0,0065	0,0075	970 (600 — 1300)
GR1	A	0.500	1.1	0.065	0.080	0.095	0.12	0.15	0.16	0.19	580 (470 — 690)
		0,500	1,1	0,0026	0,0032	0,0038	0,0048	0,0060	0,0065	0,0075	1900 (1600 — 2200)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## Cutting data – JS554 Slot milling – Inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
			1/4	5/16	3/8	1/2	5/8	3/4	1	
P1	M/A/D/E	1.0	0.038	0.048	0.055	0.075	0.095	0.11	0.15	195 (170 – 220)
		1,0	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	640 (560 – 720)
P2	M/A/D/E	1.0	0.038	0.048	0.055	0.075	0.095	0.11	0.15	190 (170 – 210)
		1,0	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	620 (560 – 680)
P3	M/A/D/E	1.0	0.038	0.048	0.055	0.075	0.095	0.11	0.15	165 (140 – 180)
		1,0	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	540 (460 – 590)
P4	M/A/D/E	1.0	0.038	0.048	0.055	0.075	0.095	0.11	0.15	145 (130 – 160)
		1,0	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	475 (430 – 520)
P5	M/A/D/E	1.0	0.038	0.048	0.055	0.075	0.095	0.11	0.15	135 (120 – 150)
		1,0	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	445 (400 – 490)
P6	M/A/D/E	1.0	0.038	0.048	0.055	0.075	0.095	0.11	0.15	155 (140 – 170)
		1,0	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	510 (460 – 550)
P7	M/A/D/E	1.0	0.038	0.048	0.055	0.075	0.095	0.11	0.15	145 (130 – 160)
		1,0	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	475 (430 – 520)
P8	M/A/D/E	1.0	0.038	0.048	0.055	0.075	0.095	0.11	0.15	135 (120 – 150)
		1,0	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	445 (400 – 490)
P11	M/A/D/E	0.80	0.025	0.032	0.038	0.050	0.065	0.075	0.10	130 (120 – 140)
		0,80	0,0010	0,0013	0,0015	0,0020	0,0026	0,0030	0,0040	425 (400 – 450)
P12	M/A/D/E	0.80	0.025	0.032	0.038	0.050	0.065	0.075	0.10	80 (69 – 87)
		0,80	0,0010	0,0013	0,0015	0,0020	0,0026	0,0030	0,0040	260 (230 – 280)
M1	E	0.80	0.025	0.032	0.038	0.050	0.065	0.075	0.10	95 (85 – 100)
		0,80	0,0010	0,0013	0,0015	0,0020	0,0026	0,0030	0,0040	310 (280 – 320)
M2	E	0.80	0.025	0.032	0.038	0.050	0.065	0.075	0.10	80 (69 – 87)
		0,80	0,0010	0,0013	0,0015	0,0020	0,0026	0,0030	0,0040	260 (230 – 280)
M3	E	0.60	0.020	0.025	0.030	0.040	0.050	0.060	0.080	48 (39 – 57)
		0,60	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	155 (130 – 180)
M4	E	0.60	0.020	0.025	0.030	0.040	0.050	0.060	0.080	36 (29 – 43)
		0,60	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	120 (96 – 140)
M5	E	0.60	0.020	0.025	0.030	0.040	0.050	0.060	0.080	30 (25 – 36)
		0,60	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	100 (83 – 110)
K1	E	1.0	0.032	0.040	0.048	0.065	0.080	0.095	0.13	155 (140 – 170)
		1,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	510 (460 – 550)
K2	E	1.0	0.032	0.040	0.048	0.065	0.080	0.095	0.13	135 (120 – 150)
		1,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	445 (400 – 490)
K3	E	1.0	0.032	0.040	0.048	0.065	0.080	0.095	0.13	115 (110 – 120)
		1,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	375 (370 – 390)
K4	E	1.0	0.032	0.040	0.048	0.065	0.080	0.095	0.13	110 (96 – 120)
		1,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	360 (320 – 390)
K5	E	0.70	0.032	0.040	0.048	0.065	0.080	0.095	0.13	135 (120 – 150)
		0,70	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	445 (400 – 490)
K6	E	0.70	0.032	0.040	0.048	0.065	0.080	0.095	0.13	200 (180 – 220)
		0,70	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	660 (600 – 720)
K7	E	0.70	0.032	0.040	0.048	0.065	0.080	0.095	0.13	175 (150 – 190)
		0,70	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	570 (500 – 620)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrrp  
 Graphite  
 X-Heads  
 Minimaster

## Cutting data – JS554 Slot milling – Inch

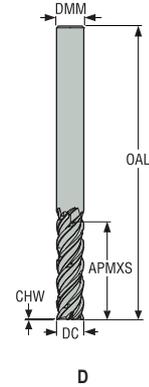
SMG		a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
			1/4	5/16	3/8	1/2	5/8	3/4	1	
N1	E	0.50	0.032	0.040	0.048	0.065	0.080	0.095	0.13	570 (480 – 670)
		0,50	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	1875 (1600 – 2100)
N2	E	0.50	0.032	0.040	0.048	0.065	0.080	0.095	0.13	370 (310 – 430)
		0,50	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	1225 (1100 – 1400)
N3	E	0.50	0.032	0.040	0.048	0.065	0.080	0.095	0.13	245 (210 – 280)
		0,50	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	800 (690 – 910)
N11	E	0.60	0.038	0.048	0.055	0.075	0.095	0.11	0.15	290 (250 – 330)
		0,60	0,0015	0,0019	0,0022	0,0030	0,0038	0,0044	0,0060	950 (830 – 1000)
S1	E	0.30	0.020	0.025	0.030	0.040	0.050	0.060	0.080	30 (25 – 34)
		0,30	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	100 (83 – 110)
S2	E	0.30	0.020	0.025	0.030	0.040	0.050	0.060	0.080	27 (17 – 38)
		0,30	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	90 (56 – 120)
S3	E	0.30	0.020	0.025	0.030	0.040	0.050	0.060	0.080	23 (15 – 32)
		0,30	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	75 (50 – 100)
S11	E	0.50	0.026	0.032	0.038	0.050	0.065	0.080	0.10	85 (63 – 110)
		0,50	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	0,0040	280 (210 – 360)
S12	E	0.50	0.026	0.032	0.038	0.050	0.065	0.080	0.10	65 (48 – 86)
		0,50	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	0,0040	215 (160 – 280)
S13	E	0.50	0.026	0.032	0.038	0.050	0.065	0.080	0.10	50 (38 – 66)
		0,50	0,0010	0,0013	0,0015	0,0020	0,0026	0,0032	0,0040	165 (130 – 210)
H5	M/A/D	0.40	0.013	0.016	0.019	0.026	0.032	0.038	0.050	65 (52 – 76)
		0,40	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	215 (180 – 240)
H8	M/A/D	0.40	0.013	0.016	0.019	0.026	0.032	0.038	0.050	65 (52 – 76)
		0,40	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	215 (180 – 240)
H21	M/A/D	0.40	0.013	0.016	0.019	0.026	0.032	0.038	0.050	125 (90 – 160)
		0,40	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	410 (300 – 520)
H31	M/A/D	0.40	0.013	0.016	0.019	0.026	0.032	0.038	0.050	48 (39 – 57)
		0,40	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0020	155 (130 – 180)
TS1	A	0.70	0.065	0.080	0.095	0.12	0.15	0.16	0.19	240 (150 – 330)
		0,70	0,0026	0,0032	0,0038	0,0048	0,0060	0,0065	0,0075	790 (500 – 1000)
TP1	A	0.70	0.065	0.080	0.095	0.12	0.15	0.16	0.19	250 (150 – 340)
		0,70	0,0026	0,0032	0,0038	0,0048	0,0060	0,0065	0,0075	820 (500 – 1100)
GR1	A	0.80	0.065	0.080	0.095	0.12	0.15	0.16	0.19	485 (390 – 580)
		0,80	0,0026	0,0032	0,0038	0,0048	0,0060	0,0065	0,0075	1600 (1300 – 1900)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JS554-3C

Advanced roughing – Universal – Square – 4 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS554060D3C.0Z4C-SIRA	02810475	3	D	■	6,0	6,0	23,0	65,0	0,075	4	Cylindrical	■
JS554080D3C.0Z4C-SIRA	02810477	3	D	■	8,0	8,0	32,0	75,0	0,1	4	Cylindrical	■
JS554100D3C.0Z4C-SIRA	02810479	3	D	■	10,0	10,0	40,0	85,0	0,125	4	Cylindrical	■
JS554120D3C.0Z4C-SIRA	02810481	3	D	■	12,0	12,0	45,0	100,0	0,15	4	Cylindrical	■
JS554160D3C.0Z4C-SIRA	02810483	3	D	■	16,0	16,0	55,0	115,0	0,2	4	Cylindrical	■
JS554200D3C.0Z4C-SIRA	02810485	3	D	■	20,0	20,0	65,0	125,0	0,25	4	Cylindrical	■
JS554250D3C.0Z4C-SIRA	02810486	3	D	■	25,0	25,0	85,0	150,0	0,3	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

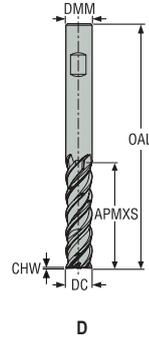
Graphite

X-Heads

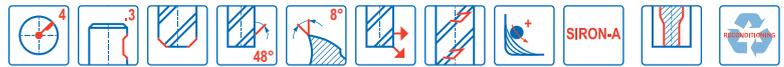
Minimaster

JS554-3C

Advanced roughing – Universal – Square – 4 Flutes – Weldon – Chamfer



—Tolerances:  
—DMM= h5  
—DC= e7  
—Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS554060D3C.3Z4C-SIRA	02810474	3	D	■	6,0	6,0	23,0	65,0	0,075	4	Weldon	■
JS554080D3C.3Z4C-SIRA	02810476	3	D	■	8,0	8,0	32,0	75,0	0,1	4	Weldon	■
JS554100D3C.3Z4C-SIRA	02810478	3	D	■	10,0	10,0	40,0	85,0	0,125	4	Weldon	■
JS554120D3C.3Z4C-SIRA	02810480	3	D	■	12,0	12,0	45,0	100,0	0,15	4	Weldon	■
JS554160D3C.3Z4C-SIRA	02810482	3	D	■	16,0	16,0	55,0	115,0	0,2	4	Weldon	■
JS554200D3C.3Z4C-SIRA	02810484	3	D	■	20,0	20,0	65,0	125,0	0,25	4	Weldon	■
JS554250D3C.3Z4C-SIRA	02810487	3	D	■	25,0	25,0	85,0	150,0	0,3	4	Weldon	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS554-3C Advanced roughing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				6	8	10	12	16	20	25	
P1	M/A/D/E	0.100 0,100	3.6 3,6	0.065 0,0026	0.085 0,0034	0.11 0,0044	0.13 0,0050	0.16 0,0065	0.18 0,0070	0.20 0,0080	350 (320 – 380) 1150 (1100 – 1200)
P2	M/A/D/E	0.100 0,100	3.6 3,6	0.065 0,0026	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.16 0,0065	0.19 0,0075	0.22 0,0085	340 (310 – 370) 1125 (1100 – 1200)
P3	M/A/D/E	0.100 0,100	3.6 3,6	0.060 0,0024	0.085 0,0034	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.18 0,0070	0.20 0,0080	295 (270 – 320) 970 (890 – 1000)
P4	M/A/D/E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	260 (240 – 280) 850 (790 – 910)
P5	M/A/D/E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	250 (230 – 270) 820 (760 – 880)
P6	M/A/D/E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	280 (260 – 300) 920 (860 – 980)
P7	M/A/D/E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	265 (240 – 290) 870 (790 – 950)
P8	M/A/D/E	0.100 0,100	3.6 3,6	0.060 0,0024	0.085 0,0034	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.18 0,0070	0.20 0,0080	250 (230 – 270) 820 (760 – 880)
P11	M/A/D/E	0.100 0,100	3.6 3,6	0.070 0,0028	0.095 0,0038	0.12 0,0048	0.14 0,0055	0.19 0,0075	0.24 0,0095	0.28 0,011	245 (230 – 270) 800 (760 – 880)
P12	M/A/D/E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	150 (140 – 160) 490 (460 – 520)
M1	E	0.100 0,100	3.6 3,6	0.065 0,0026	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.16 0,0065	0.19 0,0075	0.22 0,0085	180 (160 – 210) 590 (530 – 680)
M2	E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	150 (130 – 170) 490 (430 – 550)
M3	E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	100 (90 – 100) 330 (300 – 320)
M4	E	0.100 0,100	3.6 3,6	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.13 0,0050	0.15 0,0060	0.17 0,0065	75 (70 – 85) 245 (230 – 270)
M5	E	0.100 0,100	3.6 3,6	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.13 0,0050	0.15 0,0060	0.17 0,0065	65 (59 – 71) 215 (200 – 230)
K1	E	0.100 0,100	3.6 3,6	0.065 0,0026	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.16 0,0065	0.19 0,0075	0.22 0,0085	340 (310 – 370) 1125 (1100 – 1200)
K2	E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	185 (160 – 210) 610 (530 – 680)
K3	E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	255 (240 – 280) 840 (790 – 910)
K4	E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	245 (220 – 260) 800 (730 – 850)
K5	E	0.100 0,100	3.6 3,6	0.055 0,0022	0.070 0,0028	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.15 0,0060	0.17 0,0065	150 (140 – 160) 490 (460 – 520)
K6	E	0.100 0,100	3.6 3,6	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	0.19 0,0075	215 (200 – 230) 710 (660 – 750)
K7	E	0.100 0,100	3.6 3,6	0.055 0,0022	0.070 0,0028	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.15 0,0060	0.17 0,0065	190 (180 – 200) 620 (600 – 650)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cf/tp  
 Graphite  
 X-Heads  
 Minimaxter

Cutting data – JS554-3C Advanced roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				6	8	10	12	16	20	25	
N1	E	0.100	3.6	0.060	0.080	0.10	0.12	0.15	0.17	0.19	750 (650 — 840)
		0,100	3,6	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	2450 (2200 — 2700)
N2	E	0.100	3.6	0.060	0.080	0.10	0.12	0.15	0.17	0.19	480 (420 — 540)
		0,100	3,6	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	1575 (1400 — 1700)
N3	E	0.100	3.6	0.060	0.080	0.10	0.12	0.15	0.17	0.19	320 (280 — 360)
		0,100	3,6	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	1050 (920 — 1100)
N11	E	0.100	3.6	0.060	0.080	0.10	0.12	0.15	0.17	0.19	375 (330 — 420)
		0,100	3,6	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0075	1225 (1100 — 1300)
S1	E	0.0500	3.6	0.048	0.065	0.080	0.095	0.12	0.14	0.15	50 (40 — 60)
		0,0500	3,6	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0060	165 (140 — 190)
S2	E	0.0500	3.6	0.048	0.065	0.080	0.095	0.12	0.14	0.15	40 (33 — 48)
		0,0500	3,6	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0060	130 (110 — 150)
S3	E	0.0500	3.6	0.048	0.065	0.080	0.095	0.12	0.14	0.15	25 (20 — 29)
		0,0500	3,6	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0060	80 (66 — 95)
S11	E	0.100	3.6	0.048	0.065	0.080	0.095	0.12	0.14	0.15	195 (130 — 220)
		0,100	3,6	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0060	640 (430 — 720)
S12	E	0.100	3.6	0.048	0.065	0.080	0.095	0.12	0.14	0.15	150 (100 — 160)
		0,100	3,6	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0060	490 (330 — 520)
S13	E	0.100	3.6	0.042	0.055	0.070	0.085	0.10	0.12	0.13	120 (80 — 130)
		0,100	3,6	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	395 (270 — 420)
H5	M/A/D	0.0500	3.6	0.030	0.040	0.050	0.060	0.075	0.085	0.095	200 (190 — 220)
		0,0500	3,6	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	660 (630 — 720)
H8	M/A/D	0.0500	3.6	0.022	0.030	0.038	0.046	0.055	0.065	0.075	210 (190 — 220)
		0,0500	3,6	0,00085	0,0012	0,0015	0,0018	0,0022	0,0026	0,0030	690 (630 — 720)
H11	M/A/D	0.0500	3.6	0.030	0.040	0.050	0.060	0.075	0.085	0.095	255 (240 — 280)
		0,0500	3,6	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	840 (790 — 910)
H12	M/A/D	0.100	3.6	0.032	0.042	0.050	0.060	0.075	0.090	0.10	205 (190 — 220)
		0,100	3,6	0,0013	0,0017	0,0020	0,0024	0,0030	0,0036	0,0040	670 (630 — 720)
H21	M/A/D	0.0500	3.6	0.022	0.030	0.038	0.046	0.055	0.065	0.075	210 (190 — 220)
		0,0500	3,6	0,00085	0,0012	0,0015	0,0018	0,0022	0,0026	0,0030	690 (630 — 720)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

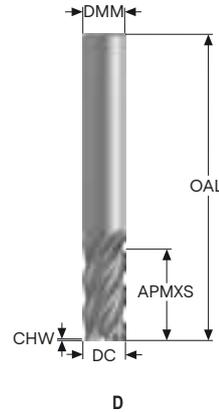
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

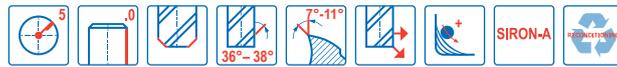
All cutting data are target values

ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
ST5551-060D2C.0Z5	SIRA	10303332	2	D	6,0	6,0	14,0	58,0	0,075	5	Cylindrical	■
ST5551-080D2C.0Z5	SIRA	10303333	2	D	8,0	8,0	18,0	64,0	0,1	5	Cylindrical	■
ST5551-100D2C.0Z5	SIRA	10303334	2	D	10,0	10,0	22,0	73,0	0,125	5	Cylindrical	■
ST5551-120D2C.0Z5	SIRA	10303335	2	D	12,0	12,0	26,0	84,0	0,15	5	Cylindrical	■
ST5551-160D2C.0Z5	SIRA	10303336	2	D	16,0	16,0	34,0	95,0	0,2	5	Cylindrical	■
ST5551-200D2C.0Z5	SIRA	10303337	2	D	20,0	20,0	42,0	109,0	0,25	5	Cylindrical	■
ST5551-250D2C.0Z5	SIRA	10303338	2	D	25,0	25,0	52,0	125,0	0,3	5	Cylindrical	■
ST5551-060D3C.0Z5	SIRA	10303339	3	D	6,0	6,0	23,0	64,0	0,075	5	Cylindrical	■
ST5551-080D3C.0Z5	SIRA	10303340	3	D	8,0	8,0	32,0	73,0	0,1	5	Cylindrical	■
ST5551-100D3C.0Z5	SIRA	10303341	3	D	10,0	10,0	40,0	85,0	0,125	5	Cylindrical	■
ST5551-120D3C.0Z5	SIRA	10303342	3	D	12,0	12,0	45,0	100,0	0,15	5	Cylindrical	■
ST5551-160D3C.0Z5	SIRA	10303343	3	D	16,0	16,0	55,0	115,0	0,2	5	Cylindrical	■
ST5551-200D3C.0Z5	SIRA	10303344	3	D	20,0	20,0	65,0	125,0	0,25	5	Cylindrical	■
ST5551-250D3C.0Z5	SIRA	10303345	3	D	25,0	25,0	85,0	155,0	0,3	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

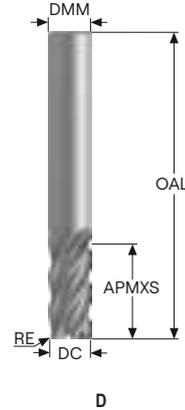
Graphite

X-Heads

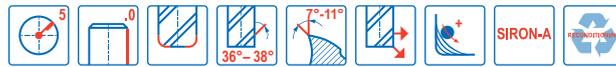
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Corner radius



—Tolerances:  
—DMM=h5  
—DC=e7  
—RE= ±0,02 mm  
—Regrind possible

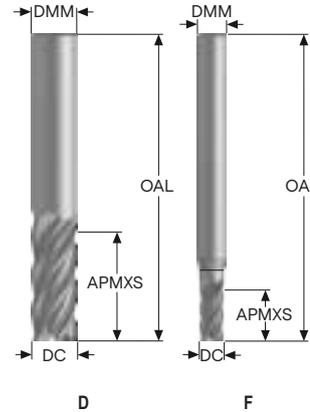


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
ST5551-060D2R050.0Z5	SIRA	10303346	2	D	6,0	6,0	14,0	58,0	0,5	5	Cylindrical	■
ST5551-080D2R050.0Z5	SIRA	10303347	2	D	8,0	8,0	18,0	64,0	0,5	5	Cylindrical	■
ST5551-100D2R050.0Z5	SIRA	10303348	2	D	10,0	10,0	22,0	73,0	0,5	5	Cylindrical	■
ST5551-120D2R050.0Z5	SIRA	10303349	2	D	12,0	12,0	26,0	84,0	0,5	5	Cylindrical	■
ST5551-120D2R100.0Z5	SIRA	10303350	2	D	12,0	12,0	26,0	84,0	1,0	5	Cylindrical	■
ST5551-160D2R050.0Z5	SIRA	10303351	2	D	16,0	16,0	34,0	95,0	0,5	5	Cylindrical	■
ST5551-160D2R100.0Z5	SIRA	10303352	2	D	16,0	16,0	34,0	95,0	1,0	5	Cylindrical	■
ST5551-200D2R050.0Z5	SIRA	10303353	2	D	20,0	20,0	42,0	109,0	0,5	5	Cylindrical	■
ST5551-200D2R100.0Z5	SIRA	10303354	2	D	20,0	20,0	42,0	109,0	1,0	5	Cylindrical	■
ST5551-250D2R050.0Z5	SIRA	10303355	2	D	25,0	25,0	52,0	125,0	0,5	5	Cylindrical	■
ST5551-250D2R100.0Z5	SIRA	10303356	2	D	25,0	25,0	52,0	125,0	1,0	5	Cylindrical	■
ST5551-060D3R050.0Z5	SIRA	10303357	3	D	6,0	6,0	23,0	64,0	0,5	5	Cylindrical	■
ST5551-080D3R050.0Z5	SIRA	10303358	3	D	8,0	8,0	32,0	73,0	0,5	5	Cylindrical	■
ST5551-100D3R050.0Z5	SIRA	10303359	3	D	10,0	10,0	40,0	85,0	0,5	5	Cylindrical	■
ST5551-120D3R050.0Z5	SIRA	10303360	3	D	12,0	12,0	45,0	100,0	0,5	5	Cylindrical	■
ST5551-120D3R100.0Z5	SIRA	10303361	3	D	12,0	12,0	45,0	100,0	1,0	5	Cylindrical	■
ST5551-160D3R050.0Z5	SIRA	10303362	3	D	16,0	16,0	55,0	115,0	0,5	5	Cylindrical	■
ST5551-160D3R100.0Z5	SIRA	10303363	3	D	16,0	16,0	55,0	115,0	1,0	5	Cylindrical	■
ST5551-200D3R050.0Z5	SIRA	10303364	3	D	20,0	20,0	65,0	125,0	0,5	5	Cylindrical	■
ST5551-200D3R100.0Z5	SIRA	10303365	3	D	20,0	20,0	65,0	125,0	1,0	5	Cylindrical	■
ST5551-250D3R050.0Z5	SIRA	10303366	3	D	25,0	25,0	85,0	155,0	0,5	5	Cylindrical	■
ST5551-250D3R100.0Z5	SIRA	10303367	3	D	25,0	25,0	85,0	155,0	1,0	5	Cylindrical	■

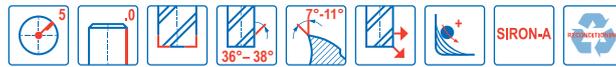
■ Stocked standard.

ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM=  $-.0001'' / -.0004''$
- DC=  $+.000'' / -.002''$
- Regrind possible if DC is  $\geq \varnothing.250$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
ST5551-.250D1S.0Z5	SIRA	10303040	1	D	0.250	0.250	0.375	2.000	–	–	5	Cylindrical	■
ST5551-.375D1S.0Z5	SIRA	10303041	1	D	0.375	0.375	0.500	2.500	–	–	5	Cylindrical	■
ST5551-.500D1S.0Z5	SIRA	10303042	1	D	0.500	0.500	0.625	3.000	–	–	5	Cylindrical	■
ST5551-.625D1S.0Z5	SIRA	10303043	1	D	0.625	0.625	0.750	3.000	–	–	5	Cylindrical	■
ST5551-.750D1S.0Z5	SIRA	10303044	1	D	0.750	0.750	0.875	3.000	–	–	5	Cylindrical	■
ST5551-.125D2S.0Z5	SIRA	10303045	2	D	0.125	0.125	0.250	1.500	–	–	5	Cylindrical	■
ST5551-.156F2S.0Z5	SIRA	10303046	2	F	0.156	0.188	0.313	2.000	0.313	0.161	5	Cylindrical	■
ST5551-.188D2S.0Z5	SIRA	10303047	2	D	0.188	0.188	0.313	2.000	–	–	5	Cylindrical	■
ST5551-.219F2S.0Z5	SIRA	10303048	2	F	0.219	0.250	0.375	2.000	0.375	0.224	5	Cylindrical	■
ST5551-.313D2S.0Z5	SIRA	10303049	2	D	0.313	0.313	0.750	2.500	–	–	5	Cylindrical	■
ST5551-.375D2S.0Z5	SIRA	10303050	2	D	0.375	0.375	0.875	2.500	–	–	5	Cylindrical	■
ST5551-.500D2S.0Z5	SIRA	10303051	2	D	0.500	0.500	1.000	3.000	–	–	5	Cylindrical	■
ST5551-.625D2S.0Z5	SIRA	10303052	2	D	0.625	0.625	1.250	3.500	–	–	5	Cylindrical	■
ST5551-.750D2S.0Z5	SIRA	10303053	2	D	0.750	0.750	1.500	4.000	–	–	5	Cylindrical	■
ST5551-.188D3S.0Z5	SIRA	10303054	3	D	0.188	0.188	0.563	2.000	–	–	5	Cylindrical	■
ST5551-.219F3S.0Z5	SIRA	10303055	3	F	0.219	0.250	0.750	2.500	0.750	0.224	5	Cylindrical	■
ST5551-.250D3S.0Z5	SIRA	10303056	3	D	0.250	0.250	0.750	2.500	–	–	5	Cylindrical	■
ST5551-.500D3S.0Z5	SIRA	10303057	3	D	0.500	0.500	1.250	3.000	–	–	5	Cylindrical	■
ST5551-.125D4S.0Z5	SIRA	10303059	4	D	0.125	0.125	0.500	1.500	–	–	5	Cylindrical	■
ST5551-.156F4S.0Z5	SIRA	10303060	4	F	0.156	0.188	0.563	2.000	0.563	0.161	5	Cylindrical	■
ST5551-.625D4S.0Z5	SIRA	10303065	4	D	0.625	0.625	1.625	3.500	–	–	5	Cylindrical	■
ST5551-.625D5S.0Z5	SIRA	10303070	5	D	0.625	0.625	2.125	4.000	–	–	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

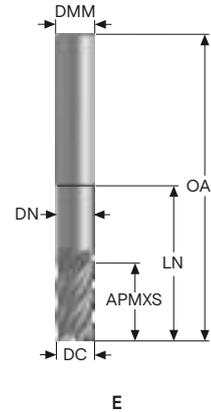
Graphite

X-Heads

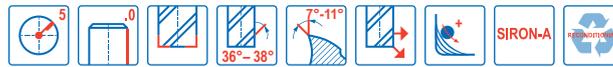
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Sharp – Inch



—Tolerances:  
—DMM= -.0001"/-.0004"  
—DC= +.000" / -.002"  
—Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
ST5551-.750E3S.0Z5	SIRA	10303058	3	E	0.750	0.750	1.125	5.000	2.500	0.720	5	Cylindrical	■
ST5551-.250E4S.0Z5	SIRA	10303061	4	E	0.250	0.250	0.500	3.000	1.000	0.240	5	Cylindrical	■
ST5551-.375E4S.0Z5	SIRA	10303062	4	E	0.375	0.375	0.750	3.000	1.500	0.360	5	Cylindrical	■
ST5551-.500E4S.0Z5	SIRA	10303063	4	E	0.500	0.500	1.000	4.000	2.000	0.480	5	Cylindrical	■
ST5551-.625E4S.0Z5	SIRA	10303064	4	E	0.625	0.625	1.250	5.000	2.500	0.600	5	Cylindrical	■
ST5551-.750E4S.0Z5	SIRA	10303066	4	E	0.750	0.750	1.500	5.000	3.000	0.720	5	Cylindrical	■
ST5551-.250E5S.0Z5	SIRA	10303067	5	E	0.250	0.250	0.500	4.000	1.250	0.240	5	Cylindrical	■
ST5551-.375E5S.0Z5	SIRA	10303068	5	E	0.375	0.375	0.500	4.000	2.125	0.360	5	Cylindrical	■
ST5551-.625E5S.0Z5	SIRA	10303069	5	E	0.625	0.625	0.750	6.000	3.375	0.600	5	Cylindrical	■
ST5551-.750E5S.0Z5	SIRA	10303071	5	E	0.750	0.750	1.125	6.000	4.125	0.720	5	Cylindrical	■
ST5551-.500E6S.0Z5	SIRA	10303072	6	E	0.500	0.500	0.625	5.000	3.125	0.480	5	Cylindrical	■
ST5551-.250E8S.0Z5	SIRA	10303073	8	E	0.250	0.250	0.500	4.000	2.125	0.240	5	Cylindrical	■
ST5551-.375E8S.0Z5	SIRA	10303074	8	E	0.375	0.375	0.500	6.000	3.125	0.360	5	Cylindrical	■
ST5551-.500E8S.0Z5	SIRA	10303075	8	E	0.500	0.500	0.625	6.000	4.125	0.480	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

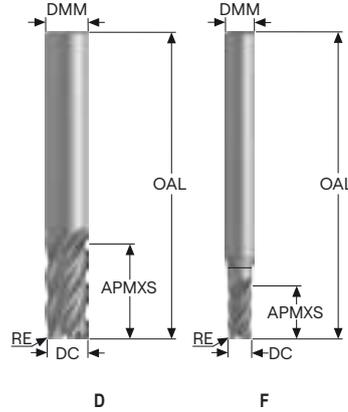
Graphite

X-Heads

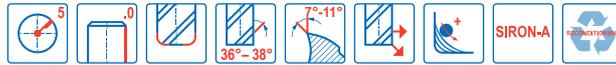
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000"/-.002"
- RE= ±.0008"
- Regrind possible if DC is ≥Ø.250



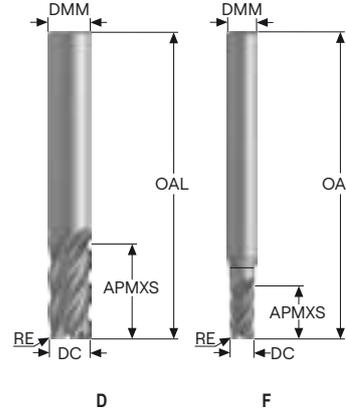
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5551-.250D1R015.0Z5	SIRA	10303076	1	D	0.250	0.250	0.375	2.000	–	–	0.015	5	Cylindrical	■
ST5551-.250D1R030.0Z5	SIRA	10303077	1	D	0.250	0.250	0.375	2.000	–	–	0.030	5	Cylindrical	■
ST5551-.250D1R045.0Z5	SIRA	10303078	1	D	0.250	0.250	0.375	2.000	–	–	0.045	5	Cylindrical	■
ST5551-.375D1R015.0Z5	SIRA	10303079	1	D	0.375	0.375	0.500	2.500	–	–	0.015	5	Cylindrical	■
ST5551-.375D1R030.0Z5	SIRA	10303080	1	D	0.375	0.375	0.500	2.500	–	–	0.030	5	Cylindrical	■
ST5551-.375D1R045.0Z5	SIRA	10303081	1	D	0.375	0.375	0.500	2.500	–	–	0.045	5	Cylindrical	■
ST5551-.500D1R015.0Z5	SIRA	10303082	1	D	0.500	0.500	0.625	3.000	–	–	0.015	5	Cylindrical	■
ST5551-.500D1R030.0Z5	SIRA	10303083	1	D	0.500	0.500	0.625	3.000	–	–	0.030	5	Cylindrical	■
ST5551-.500D1R045.0Z5	SIRA	10303084	1	D	0.500	0.500	0.625	3.000	–	–	0.045	5	Cylindrical	■
ST5551-.500D1R060.0Z5	SIRA	10303085	1	D	0.500	0.500	0.625	3.000	–	–	0.060	5	Cylindrical	■
ST5551-.500D1R120.0Z5	SIRA	10303086	1	D	0.500	0.500	0.625	3.000	–	–	0.120	5	Cylindrical	■
ST5551-.625D1R015.0Z5	SIRA	10303087	1	D	0.625	0.625	0.750	3.000	–	–	0.015	5	Cylindrical	■
ST5551-.625D1R030.0Z5	SIRA	10303088	1	D	0.625	0.625	0.750	3.000	–	–	0.030	5	Cylindrical	■
ST5551-.625D1R060.0Z5	SIRA	10303089	1	D	0.625	0.625	0.750	3.000	–	–	0.060	5	Cylindrical	■
ST5551-.625D1R120.0Z5	SIRA	10303090	1	D	0.625	0.625	0.750	3.000	–	–	0.120	5	Cylindrical	■
ST5551-.750D1R030.0Z5	SIRA	10303091	1	D	0.750	0.750	0.875	3.000	–	–	0.030	5	Cylindrical	■
ST5551-.750D1R060.0Z5	SIRA	10303092	1	D	0.750	0.750	0.875	3.000	–	–	0.060	5	Cylindrical	■
ST5551-.750D1R120.0Z5	SIRA	10303093	1	D	0.750	0.750	0.875	3.000	–	–	0.120	5	Cylindrical	■
ST5551-.125D2R010.0Z5	SIRA	10303094	2	D	0.125	0.125	0.250	1.500	–	–	0.010	5	Cylindrical	■
ST5551-.156F2R010.0Z5	SIRA	10303095	2	F	0.156	0.188	0.313	2.000	0.313	0.161	0.010	5	Cylindrical	■
ST5551-.188D2R010.0Z5	SIRA	10303096	2	D	0.188	0.188	0.313	2.000	–	–	0.010	5	Cylindrical	■
ST5551-.219F2R010.0Z5	SIRA	10303097	2	F	0.219	0.250	0.375	2.000	0.375	0.224	0.010	5	Cylindrical	■
ST5551-.313D2R015.0Z5	SIRA	10303098	2	D	0.313	0.313	0.750	2.500	–	–	0.015	5	Cylindrical	■
ST5551-.375D2R015.0Z5	SIRA	10303099	2	D	0.375	0.375	0.875	2.500	–	–	0.015	5	Cylindrical	■
ST5551-.375D2R030.0Z5	SIRA	10303100	2	D	0.375	0.375	0.875	2.500	–	–	0.030	5	Cylindrical	■
ST5551-.375D2R045.0Z5	SIRA	10303101	2	D	0.375	0.375	0.875	2.500	–	–	0.045	5	Cylindrical	■
ST5551-.375D2R060.0Z5	SIRA	10303102	2	D	0.375	0.375	0.875	2.500	–	–	0.060	5	Cylindrical	■
ST5551-.500D2R015.0Z5	SIRA	10303103	2	D	0.500	0.500	1.000	3.000	–	–	0.015	5	Cylindrical	■
ST5551-.500D2R030.0Z5	SIRA	10303104	2	D	0.500	0.500	1.000	3.000	–	–	0.030	5	Cylindrical	■
ST5551-.500D2R060.0Z5	SIRA	10303105	2	D	0.500	0.500	1.000	3.000	–	–	0.060	5	Cylindrical	■
ST5551-.625D2R015.0Z5	SIRA	10303106	2	D	0.625	0.625	1.250	3.500	–	–	0.015	5	Cylindrical	■
ST5551-.625D2R030.0Z5	SIRA	10303107	2	D	0.625	0.625	1.250	3.500	–	–	0.030	5	Cylindrical	■
ST5551-.625D2R045.0Z5	SIRA	10303108	2	D	0.625	0.625	1.250	3.500	–	–	0.045	5	Cylindrical	■
ST5551-.625D2R060.0Z5	SIRA	10303109	2	D	0.625	0.625	1.250	3.500	–	–	0.060	5	Cylindrical	■
ST5551-.625D2R090.0Z5	SIRA	10303110	2	D	0.625	0.625	1.250	3.500	–	–	0.090	5	Cylindrical	■
ST5551-.625D2R125.0Z5	SIRA	10303111	2	D	0.625	0.625	1.250	3.500	–	–	0.125	5	Cylindrical	■

■ Stocked standard.

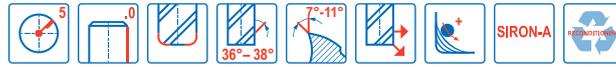
Universal  
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Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Corner radius – Inch



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- DC= +.000"/-.002"
- RE= ±.0008"
- Regrind possible if DC is ≥Ø.250



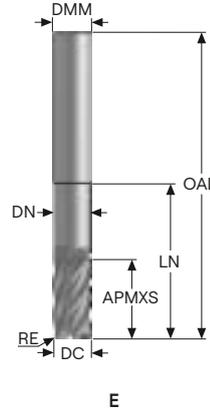
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5551-.750D2R030.0Z5	SIRA	10303112	2	D	0.750	0.750	1.500	4.000	–	–	0.030	5	Cylindrical	■
ST5551-.750D2R060.0Z5	SIRA	10303113	2	D	0.750	0.750	1.500	4.000	–	–	0.060	5	Cylindrical	■
ST5551-.750D2R090.0Z5	SIRA	10303114	2	D	0.750	0.750	1.500	4.000	–	–	0.090	5	Cylindrical	■
ST5551-.750D2R125.0Z5	SIRA	10303115	2	D	0.750	0.750	1.500	4.000	–	–	0.125	5	Cylindrical	■
ST5551-1.00D2R015.0Z5	SIRA	10303116	2	D	1.000	1.000	1.750	4.000	–	–	0.015	5	Cylindrical	■
ST5551-1.00D2R030.0Z5	SIRA	10303117	2	D	1.000	1.000	1.750	4.000	–	–	0.030	5	Cylindrical	■
ST5551-1.00D2R060.0Z5	SIRA	10303118	2	D	1.000	1.000	1.750	4.000	–	–	0.060	5	Cylindrical	■
ST5551-1.88D3R010.0Z5	SIRA	10303119	3	D	0.188	0.188	0.563	2.000	–	–	0.010	5	Cylindrical	■
ST5551-2.19F3R010.0Z5	SIRA	10303120	3	F	0.219	0.250	0.750	2.500	0.750	0.224	0.010	5	Cylindrical	■
ST5551-2.50D3R015.0Z5	SIRA	10303121	3	D	0.250	0.250	0.750	2.500	–	–	0.015	5	Cylindrical	■
ST5551-2.50D3R030.0Z5	SIRA	10303122	3	D	0.250	0.250	0.750	2.500	–	–	0.030	5	Cylindrical	■
ST5551-2.50D3R045.0Z5	SIRA	10303123	3	D	0.250	0.250	0.750	2.500	–	–	0.045	5	Cylindrical	■
ST5551-3.75D3R030.0Z5	SIRA	10303124	3	D	0.375	0.375	1.250	3.000	–	–	0.030	5	Cylindrical	■
ST5551-5.00D3R015.0Z5	SIRA	10303125	3	D	0.500	0.500	1.250	3.000	–	–	0.015	5	Cylindrical	■
ST5551-5.00D3R030.0Z5	SIRA	10303126	3	D	0.500	0.500	1.250	3.000	–	–	0.030	5	Cylindrical	■
ST5551-5.00D3R045.0Z5	SIRA	10303127	3	D	0.500	0.500	1.250	3.000	–	–	0.045	5	Cylindrical	■
ST5551-5.00D3R060.0Z5	SIRA	10303128	3	D	0.500	0.500	1.250	3.000	–	–	0.060	5	Cylindrical	■
ST5551-5.00D3R090.0Z5	SIRA	10303129	3	D	0.500	0.500	1.250	3.000	–	–	0.090	5	Cylindrical	■
ST5551-5.00D3R125.0Z5	SIRA	10303130	3	D	0.500	0.500	1.250	3.000	–	–	0.125	5	Cylindrical	■
ST5551-.750D3R030.0Z5	SIRA	10303134	3	D	0.750	0.750	1.625	4.000	–	–	0.030	5	Cylindrical	■
ST5551-1.25D4R010.0Z5	SIRA	10303138	4	D	0.125	0.125	0.500	1.500	–	–	0.010	5	Cylindrical	■
ST5551-1.56F4R010.0Z5	SIRA	10303139	4	F	0.156	0.188	0.563	2.000	0.563	0.161	0.010	5	Cylindrical	■
ST5551-2.50D4R015.0Z5	SIRA	10303142	4	D	0.250	0.250	1.000	3.000	–	–	0.015	5	Cylindrical	■
ST5551-3.75D4R030.0Z5	SIRA	10303147	4	D	0.375	0.375	1.500	4.000	–	–	0.030	5	Cylindrical	■
ST5551-5.00D4R030.0Z5	SIRA	10303152	4	D	0.500	0.500	1.625	4.000	–	–	0.030	5	Cylindrical	■
ST5551-7.50D4R030.0Z5	SIRA	10303158	4	D	0.750	0.750	2.250	5.000	–	–	0.030	5	Cylindrical	■
ST5551-5.00D5R030.0Z5	SIRA	10303165	5	D	0.500	0.500	2.000	4.000	–	–	0.030	5	Cylindrical	■
ST5551-7.50D5R030.0Z5	SIRA	10303171	5	D	0.750	0.750	2.750	5.000	–	–	0.030	5	Cylindrical	■

■ Stocked standard.

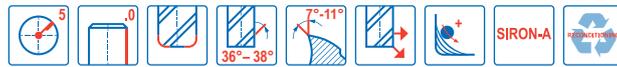
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
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Graphite  
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Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000" / -.002"
- RE= ±.0008"
- Regrind possible



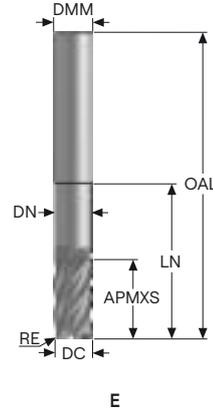
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch				
ST5551-.250E4R015.0Z5	SIRA	10303140	4	E	0.250	0.250	0.500	3.000	1.000	0.240	0.015	5	Cylindrical	■
ST5551-.250E4R030.0Z5	SIRA	10303141	4	E	0.250	0.250	0.500	3.000	1.000	0.240	0.030	5	Cylindrical	■
ST5551-.375E4R015.0Z5	SIRA	10303143	4	E	0.375	0.375	0.750	3.000	1.500	0.360	0.015	5	Cylindrical	■
ST5551-.375E4R030.0Z5	SIRA	10303144	4	E	0.375	0.375	0.750	3.000	1.500	0.360	0.030	5	Cylindrical	■
ST5551-.375E4R045.0Z5	SIRA	10303145	4	E	0.375	0.375	0.750	3.000	1.500	0.360	0.045	5	Cylindrical	■
ST5551-.375E4R060.0Z5	SIRA	10303146	4	E	0.375	0.375	0.750	3.000	1.500	0.360	0.060	5	Cylindrical	■
ST5551-.500E4R015.0Z5	SIRA	10303148	4	E	0.500	0.500	1.000	4.000	2.000	0.480	0.015	5	Cylindrical	■
ST5551-.500E4R030.0Z5	SIRA	10303149	4	E	0.500	0.500	1.000	4.000	2.000	0.480	0.030	5	Cylindrical	■
ST5551-.500E4R060.0Z5	SIRA	10303150	4	E	0.500	0.500	1.000	4.000	2.000	0.480	0.060	5	Cylindrical	■
ST5551-.500E4R120.0Z5	SIRA	10303151	4	E	0.500	0.500	1.000	4.000	2.000	0.480	0.120	5	Cylindrical	■
ST5551-.625E4R030.0Z5	SIRA	10303153	4	E	0.625	0.625	1.250	5.000	2.500	0.600	0.030	5	Cylindrical	■
ST5551-.625E4R060.0Z5	SIRA	10303154	4	E	0.625	0.625	1.250	5.000	2.500	0.600	0.060	5	Cylindrical	■
ST5551-.250E5R015.0Z5	SIRA	10303159	5	E	0.250	0.250	0.500	4.000	1.250	0.240	0.015	5	Cylindrical	■
ST5551-.250E5R030.0Z5	SIRA	10303160	5	E	0.250	0.250	0.500	4.000	1.250	0.240	0.030	5	Cylindrical	■
ST5551-.375E5R015.0Z5	SIRA	10303161	5	E	0.375	0.375	0.500	4.000	2.125	0.360	0.015	5	Cylindrical	■
ST5551-.375E5R030.0Z5	SIRA	10303162	5	E	0.375	0.375	0.500	4.000	2.125	0.360	0.030	5	Cylindrical	■
ST5551-.375E5R045.0Z5	SIRA	10303163	5	E	0.375	0.375	0.500	4.000	2.125	0.360	0.045	5	Cylindrical	■
ST5551-.375E5R060.0Z5	SIRA	10303164	5	E	0.375	0.375	0.500	4.000	2.125	0.360	0.060	5	Cylindrical	■
ST5551-.625E5R030.0Z5	SIRA	10303166	5	E	0.625	0.625	0.750	6.000	3.375	0.600	0.030	5	Cylindrical	■
ST5551-.625E5R060.0Z5	SIRA	10303167	5	E	0.625	0.625	0.750	6.000	3.375	0.600	0.060	5	Cylindrical	■
ST5551-.500E6R015.0Z5	SIRA	10303172	6	E	0.500	0.500	0.625	5.000	3.125	0.480	0.015	5	Cylindrical	■
ST5551-.500E6R030.0Z5	SIRA	10303173	6	E	0.500	0.500	0.625	5.000	3.125	0.480	0.030	5	Cylindrical	■
ST5551-.500E6R060.0Z5	SIRA	10303174	6	E	0.500	0.500	0.625	5.000	3.125	0.480	0.060	5	Cylindrical	■
ST5551-.500E6R120.0Z5	SIRA	10303175	6	E	0.500	0.500	0.625	5.000	3.125	0.480	0.120	5	Cylindrical	■
ST5551-.250E8R015.0Z5	SIRA	10303176	8	E	0.250	0.250	0.500	4.000	2.125	0.240	0.015	5	Cylindrical	■
ST5551-.250E8R030.0Z5	SIRA	10303177	8	E	0.250	0.250	0.500	4.000	2.125	0.240	0.030	5	Cylindrical	■
ST5551-.375E8R015.0Z5	SIRA	10303178	8	E	0.375	0.375	0.500	6.000	3.125	0.360	0.015	5	Cylindrical	■
ST5551-.375E8R030.0Z5	SIRA	10303179	8	E	0.375	0.375	0.500	6.000	3.125	0.360	0.030	5	Cylindrical	■
ST5551-.375E8R045.0Z5	SIRA	10303180	8	E	0.375	0.375	0.500	6.000	3.125	0.360	0.045	5	Cylindrical	■
ST5551-.375E8R060.0Z5	SIRA	10303181	8	E	0.375	0.375	0.500	6.000	3.125	0.360	0.060	5	Cylindrical	■
ST5551-.500E8R015.0Z5	SIRA	10303182	8	E	0.500	0.500	0.625	6.000	4.125	0.480	0.015	5	Cylindrical	■
ST5551-.500E8R030.0Z5	SIRA	10303183	8	E	0.500	0.500	0.625	6.000	4.125	0.480	0.030	5	Cylindrical	■
ST5551-.500E8R060.0Z5	SIRA	10303184	8	E	0.500	0.500	0.625	6.000	4.125	0.480	0.060	5	Cylindrical	■
ST5551-.500E8R120.0Z5	SIRA	10303185	8	E	0.500	0.500	0.625	6.000	4.125	0.480	0.120	5	Cylindrical	■

■ Stocked standard.

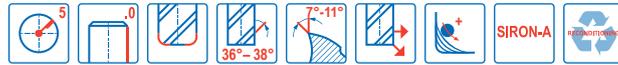
Universal  
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ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Corner radius – Inch



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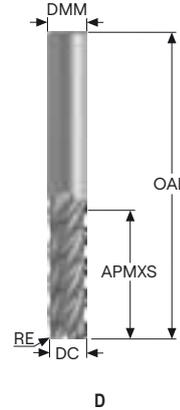
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch				
ST5551-.750E3R030.0Z5	SIRA	10303131	3	E	0.750	0.750	1.125	5.000	2.500	0.720	0.030	5	Cylindrical	■
ST5551-.750E3R060.0Z5	SIRA	10303132	3	E	0.750	0.750	1.125	5.000	2.500	0.720	0.060	5	Cylindrical	■
ST5551-.750E3R120.0Z5	SIRA	10303133	3	E	0.750	0.750	1.125	5.000	2.500	0.720	0.120	5	Cylindrical	■
ST5551-1.00E3R030.0Z5	SIRA	10303135	3	E	1.000	1.000	1.250	6.000	3.500	0.960	0.030	5	Cylindrical	■
ST5551-1.00E3R060.0Z5	SIRA	10303136	3	E	1.000	1.000	1.250	6.000	3.500	0.960	0.060	5	Cylindrical	■
ST5551-1.00E3R120.0Z5	SIRA	10303137	3	E	1.000	1.000	1.250	6.000	3.500	0.960	0.120	5	Cylindrical	■
ST5551-.750E4R030.0Z5	SIRA	10303155	4	E	0.750	0.750	1.500	5.000	3.000	0.720	0.030	5	Cylindrical	■
ST5551-.750E4R060.0Z5	SIRA	10303156	4	E	0.750	0.750	1.500	5.000	3.000	0.720	0.060	5	Cylindrical	■
ST5551-.750E4R120.0Z5	SIRA	10303157	4	E	0.750	0.750	1.500	5.000	3.000	0.720	0.120	5	Cylindrical	■
ST5551-.750E5R030.0Z5	SIRA	10303168	5	E	0.750	0.750	1.125	6.000	4.125	0.720	0.030	5	Cylindrical	■
ST5551-.750E5R060.0Z5	SIRA	10303169	5	E	0.750	0.750	1.125	6.000	4.125	0.720	0.060	5	Cylindrical	■
ST5551-.750E5R120.0Z5	SIRA	10303170	5	E	0.750	0.750	1.132	6.000	4.125	0.720	0.120	5	Cylindrical	■

■ Stocked standard.

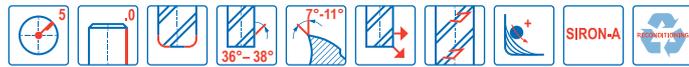
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000" / -.002"
- RE= ±.0008"
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
						inch	inch	inch	inch	inch			
ST5551-.250D3R015.0Z5C	SIRA	10303186	3	D	■	0.250	0.250	0.750	2.500	0.015	5	Cylindrical	■
ST5551-.375D3R030.0Z5C	SIRA	10303187	3	D	■	0.375	0.375	1.250	3.000	0.030	5	Cylindrical	■
ST5551-.500D3R030.0Z5C	SIRA	10303188	3	D	■	0.500	0.500	1.250	3.000	0.030	5	Cylindrical	■
ST5551-.625D3R030.0Z5C	SIRA	10303189	3	D	■	0.625	0.625	1.375	3.500	0.030	5	Cylindrical	■
ST5551-.750D3R030.0Z5C	SIRA	10303190	3	D	■	0.750	0.750	1.625	4.000	0.030	5	Cylindrical	■
ST5551-.500D4R030.0Z5C	SIRA	10303191	4	D	■	0.500	0.500	1.625	4.000	0.030	5	Cylindrical	■
ST5551-.750D4R030.0Z5C	SIRA	10303192	4	D	■	0.750	0.750	2.250	5.000	0.030	5	Cylindrical	■
ST5551-.625D5R030.0Z5C	SIRA	10303193	5	D	■	0.625	0.625	2.125	4.000	0.030	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

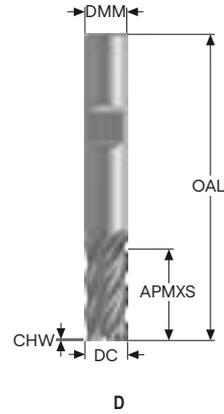
Graphite

X-Heads

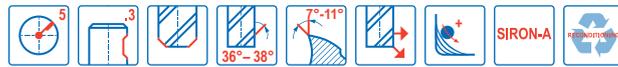
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Chamfer



—Tolerances:  
—DMM=h5  
—DC=e7  
—Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
ST5551-060D2C.3Z5	SIRA	10303368	2	D	6,0	6,0	14,0	58,0	0,075	5	Weldon	<input type="checkbox"/>
ST5551-080D2C.3Z5	SIRA	10303369	2	D	8,0	8,0	18,0	64,0	0,1	5	Weldon	<input type="checkbox"/>
ST5551-100D2C.3Z5	SIRA	10303370	2	D	10,0	10,0	22,0	73,0	0,125	5	Weldon	<input type="checkbox"/>
ST5551-120D2C.3Z5	SIRA	10303371	2	D	12,0	12,0	26,0	84,0	0,15	5	Weldon	<input type="checkbox"/>
ST5551-160D2C.3Z5	SIRA	10303372	2	D	16,0	16,0	34,0	95,0	0,2	5	Weldon	<input type="checkbox"/>
ST5551-200D2C.3Z5	SIRA	10303373	2	D	20,0	20,0	42,0	109,0	0,25	5	Weldon	<input type="checkbox"/>
ST5551-250D2C.3Z5	SIRA	10303374	2	D	25,0	25,0	52,0	125,0	0,3	5	Weldon	<input type="checkbox"/>
ST5551-060D3C.3Z5	SIRA	10303375	3	D	6,0	6,0	23,0	64,0	0,075	5	Weldon	<input type="checkbox"/>
ST5551-080D3C.3Z5	SIRA	10303376	3	D	8,0	8,0	32,0	73,0	0,1	5	Weldon	<input type="checkbox"/>
ST5551-100D3C.3Z5	SIRA	10303377	3	D	10,0	10,0	40,0	85,0	0,125	5	Weldon	<input type="checkbox"/>
ST5551-120D3C.3Z5	SIRA	10303378	3	D	12,0	12,0	45,0	100,0	0,15	5	Weldon	<input type="checkbox"/>
ST5551-160D3C.3Z5	SIRA	10303379	3	D	16,0	16,0	55,0	115,0	0,2	5	Weldon	<input type="checkbox"/>
ST5551-200D3C.3Z5	SIRA	10303380	3	D	20,0	20,0	65,0	125,0	0,25	5	Weldon	<input type="checkbox"/>
ST5551-250D3C.3Z5	SIRA	10303381	3	D	25,0	25,0	85,0	155,0	0,3	5	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

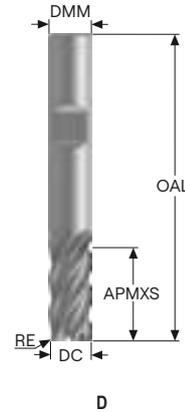
Graphite

X-Heads

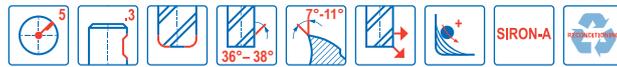
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
ST5551-060D2R050.3Z5	SIRA	10303382	2	D	6,0	6,0	14,0	58,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-080D2R050.3Z5	SIRA	10303383	2	D	8,0	8,0	18,0	64,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-100D2R050.3Z5	SIRA	10303384	2	D	10,0	10,0	22,0	73,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-120D2R050.3Z5	SIRA	10303385	2	D	12,0	12,0	26,0	84,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-120D2R100.3Z5	SIRA	10303386	2	D	12,0	12,0	26,0	84,0	1,0	5	Weldon	<input type="checkbox"/>
ST5551-160D2R050.3Z5	SIRA	10303387	2	D	16,0	16,0	34,0	95,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-160D2R100.3Z5	SIRA	10303388	2	D	16,0	16,0	34,0	95,0	1,0	5	Weldon	<input type="checkbox"/>
ST5551-200D2R050.3Z5	SIRA	10303389	2	D	20,0	20,0	42,0	109,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-200D2R100.3Z5	SIRA	10303390	2	D	20,0	20,0	42,0	109,0	1,0	5	Weldon	<input type="checkbox"/>
ST5551-250D2R050.3Z5	SIRA	10303391	2	D	25,0	25,0	52,0	125,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-250D2R100.3Z5	SIRA	10303392	2	D	25,0	25,0	52,0	125,0	1,0	5	Weldon	<input type="checkbox"/>
ST5551-060D3R050.3Z5	SIRA	10303393	3	D	6,0	6,0	23,0	64,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-080D3R050.3Z5	SIRA	10303394	3	D	8,0	8,0	32,0	73,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-100D3R050.3Z5	SIRA	10303395	3	D	10,0	10,0	40,0	85,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-120D3R050.3Z5	SIRA	10303396	3	D	12,0	12,0	45,0	100,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-120D3R100.3Z5	SIRA	10303397	3	D	12,0	12,0	45,0	100,0	1,0	5	Weldon	<input type="checkbox"/>
ST5551-160D3R050.3Z5	SIRA	10303398	3	D	16,0	16,0	55,0	115,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-160D3R100.3Z5	SIRA	10303399	3	D	16,0	16,0	55,0	115,0	1,0	5	Weldon	<input type="checkbox"/>
ST5551-200D3R050.3Z5	SIRA	10303400	3	D	20,0	20,0	65,0	125,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-200D3R100.3Z5	SIRA	10303401	3	D	20,0	20,0	65,0	125,0	1,0	5	Weldon	<input type="checkbox"/>
ST5551-250D3R050.3Z5	SIRA	10303402	3	D	25,0	25,0	85,0	155,0	0,5	5	Weldon	<input type="checkbox"/>
ST5551-250D3R100.3Z5	SIRA	10303403	3	D	25,0	25,0	85,0	155,0	1,0	5	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

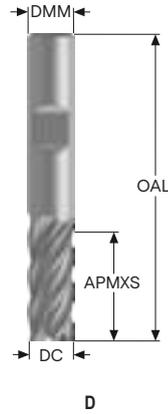
Graphite

X-Heads

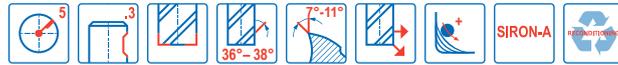
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Sharp – Inch



—Tolerances:  
—DMM= -.0001"/-.0004"  
—DC= +.000"/-.002"  
—Regrind possible



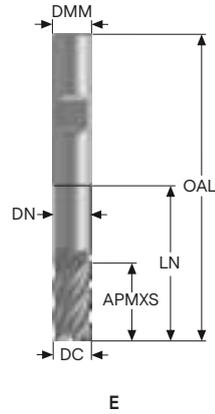
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
					inch	inch	inch	inch			
ST5551-.250D1S.3Z5	SIRA	10303194	1	D	0.250	0.250	0.375	2.000	5	Weldon	<input type="checkbox"/>
ST5551-.375D1S.3Z5	SIRA	10303195	1	D	0.375	0.375	0.500	2.500	5	Weldon	<input type="checkbox"/>
ST5551-.500D1S.3Z5	SIRA	10303196	1	D	0.500	0.500	0.625	3.000	5	Weldon	<input type="checkbox"/>
ST5551-.625D1S.3Z5	SIRA	10303197	1	D	0.625	0.625	0.750	3.000	5	Weldon	<input type="checkbox"/>
ST5551-.750D1S.3Z5	SIRA	10303198	1	D	0.750	0.750	0.875	3.000	5	Weldon	<input type="checkbox"/>
ST5551-.313D2S.3Z5	SIRA	10303199	2	D	0.313	0.313	0.750	2.500	5	Weldon	<input type="checkbox"/>
ST5551-.375D2S.3Z5	SIRA	10303200	2	D	0.375	0.375	0.875	2.500	5	Weldon	<input type="checkbox"/>
ST5551-.500D2S.3Z5	SIRA	10303201	2	D	0.500	0.500	1.000	3.000	5	Weldon	<input type="checkbox"/>
ST5551-.625D2S.3Z5	SIRA	10303202	2	D	0.625	0.625	1.250	3.500	5	Weldon	<input type="checkbox"/>
ST5551-.750D2S.3Z5	SIRA	10303203	2	D	0.750	0.750	1.500	4.000	5	Weldon	<input type="checkbox"/>
ST5551-.250D3S.3Z5	SIRA	10303204	3	D	0.250	0.250	0.750	2.500	5	Weldon	<input type="checkbox"/>
ST5551-.500D3S.3Z5	SIRA	10303205	3	D	0.500	0.500	1.250	3.000	5	Weldon	<input type="checkbox"/>
ST5551-.625D4S.3Z5	SIRA	10303211	4	D	0.625	0.625	1.625	3.500	5	Weldon	<input type="checkbox"/>
ST5551-.625D5S.3Z5	SIRA	10303216	5	D	0.625	0.625	2.125	4.000	5	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

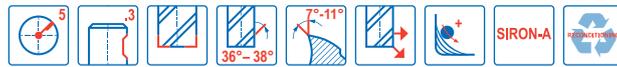
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Sharp – Inch



- Tolerances:
- DMM=  $-.0001'' / -.0004''$
- DC=  $+.000'' / -.002''$
- Regrind possible



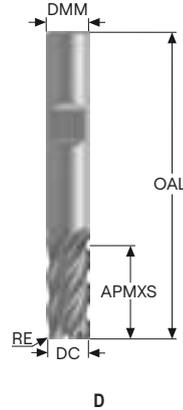
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
ST5551-.750E3S.3Z5	SIRA	10303206	3	E	0.750	0.750	1.125	5.000	2.500	0.720	5	Weldon	<input type="checkbox"/>
ST5551-.250E4S.3Z5	SIRA	10303207	4	E	0.250	0.250	0.500	3.000	1.000	0.240	5	Weldon	<input type="checkbox"/>
ST5551-.375E4S.3Z5	SIRA	10303208	4	E	0.375	0.375	0.750	3.000	1.500	0.360	5	Weldon	<input type="checkbox"/>
ST5551-.500E4S.3Z5	SIRA	10303209	4	E	0.500	0.500	1.000	4.000	2.000	0.480	5	Weldon	<input type="checkbox"/>
ST5551-.625E4S.3Z5	SIRA	10303210	4	E	0.625	0.625	1.250	5.000	2.500	0.600	5	Weldon	<input type="checkbox"/>
ST5551-.750E4S.3Z5	SIRA	10303212	4	E	0.750	0.750	1.500	5.000	3.000	0.720	5	Weldon	<input type="checkbox"/>
ST5551-.250E5S.3Z5	SIRA	10303213	5	E	0.250	0.250	0.500	4.000	1.250	0.240	5	Weldon	<input type="checkbox"/>
ST5551-.375E5S.3Z5	SIRA	10303214	5	E	0.375	0.375	0.500	4.000	2.125	0.360	5	Weldon	<input type="checkbox"/>
ST5551-.625E5S.3Z5	SIRA	10303215	5	E	0.625	0.625	0.750	6.000	3.375	0.600	5	Weldon	<input type="checkbox"/>
ST5551-.750E5S.3Z5	SIRA	10303217	5	E	0.750	0.750	1.125	6.000	4.125	0.720	5	Weldon	<input type="checkbox"/>
ST5551-.500E6S.3Z5	SIRA	10303218	6	E	0.500	0.500	0.625	5.000	3.125	0.480	5	Weldon	<input type="checkbox"/>
ST5551-.250E8S.3Z5	SIRA	10303219	8	E	0.250	0.250	0.500	4.000	2.125	0.240	5	Weldon	<input type="checkbox"/>
ST5551-.375E8S.3Z5	SIRA	10303220	8	E	0.375	0.375	0.500	6.000	3.125	0.360	5	Weldon	<input type="checkbox"/>
ST5551-.500E8S.3Z5	SIRA	10303221	8	E	0.500	0.500	0.625	6.000	4.109	0.480	5	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

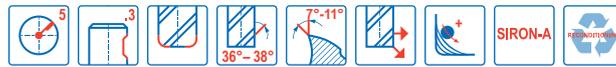
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfprp  
 Graphite  
 X-Heads  
 Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Corner radius – Inch



—Tolerances:  
—DMM= -.0001"/-.0004"  
—DC= +.000"/-.002"  
—RE= ±.0008"  
—Regrind possible

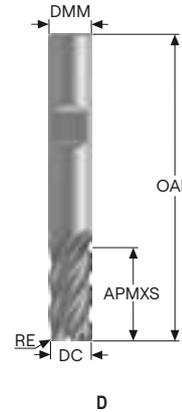


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch			
ST5551-.250D1R015.3Z5	SIRA	10303222	1	D	0.250	0.250	0.375	2.000	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.250D1R030.3Z5	SIRA	10303223	1	D	0.250	0.250	0.375	2.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.250D1R045.3Z5	SIRA	10303224	1	D	0.250	0.250	0.375	2.000	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.375D1R015.3Z5	SIRA	10303225	1	D	0.375	0.375	0.500	2.500	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.375D1R030.3Z5	SIRA	10303226	1	D	0.375	0.375	0.500	2.500	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.375D1R045.3Z5	SIRA	10303227	1	D	0.375	0.375	0.500	2.500	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.500D1R015.3Z5	SIRA	10303228	1	D	0.500	0.500	0.625	3.000	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.500D1R030.3Z5	SIRA	10303231	1	D	0.500	0.500	0.625	3.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500D1R045.3Z5	SIRA	10303229	1	D	0.500	0.500	0.625	3.000	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.500D1R060.3Z5	SIRA	10303232	1	D	0.500	0.500	0.625	3.000	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.500D1R120.3Z5	SIRA	10303230	1	D	0.500	0.500	0.625	3.000	0.120	5	Weldon	<input type="checkbox"/>
ST5551-.625D1R015.3Z5	SIRA	10303233	1	D	0.625	0.625	0.750	3.000	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.625D1R030.3Z5	SIRA	10303235	1	D	0.625	0.625	0.750	3.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.625D1R060.3Z5	SIRA	10303236	1	D	0.625	0.625	0.750	3.000	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.625D1R120.3Z5	SIRA	10303234	1	D	0.625	0.625	0.750	3.000	0.120	5	Weldon	<input type="checkbox"/>
ST5551-.750D1R030.3Z5	SIRA	10303237	1	D	0.750	0.750	0.875	3.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750D1R060.3Z5	SIRA	10303238	1	D	0.750	0.750	0.875	3.000	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.750D1R120.3Z5	SIRA	10303239	1	D	0.750	0.750	0.875	3.000	0.120	5	Weldon	<input type="checkbox"/>
ST5551-.313D2R015.3Z5	SIRA	10303240	2	D	0.313	0.313	0.750	2.500	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.375D2R015.3Z5	SIRA	10303241	2	D	0.375	0.375	0.875	2.500	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.375D2R030.3Z5	SIRA	10303242	2	D	0.375	0.375	0.875	2.500	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.375D2R045.3Z5	SIRA	10303243	2	D	0.375	0.375	0.875	2.500	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.375D2R060.3Z5	SIRA	10303244	2	D	0.375	0.375	0.875	2.500	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.500D2R015.3Z5	SIRA	10303245	2	D	0.500	0.500	1.000	3.000	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.500D2R030.3Z5	SIRA	10303246	2	D	0.500	0.500	1.000	3.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500D2R060.3Z5	SIRA	10303247	2	D	0.500	0.500	1.000	3.000	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.625D2R015.3Z5	SIRA	10303248	2	D	0.625	0.625	1.250	3.500	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.625D2R030.3Z5	SIRA	10303249	2	D	0.625	0.625	1.250	3.500	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.625D2R045.3Z5	SIRA	10303250	2	D	0.625	0.625	1.250	3.500	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.625D2R060.3Z5	SIRA	10303251	2	D	0.625	0.625	1.250	3.500	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.625D2R090.3Z5	SIRA	10303252	2	D	0.625	0.625	1.250	3.500	0.090	5	Weldon	<input type="checkbox"/>
ST5551-.625D2R125.3Z5	SIRA	10303253	2	D	0.625	0.625	1.250	3.500	0.125	5	Weldon	<input type="checkbox"/>
ST5551-.750D2R030.3Z5	SIRA	10303254	2	D	0.750	0.750	1.500	4.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750D2R060.3Z5	SIRA	10303255	2	D	0.750	0.750	1.500	4.000	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.750D2R090.3Z5	SIRA	10303256	2	D	0.750	0.750	1.500	4.000	0.090	5	Weldon	<input type="checkbox"/>
ST5551-.750D2R125.3Z5	SIRA	10303257	2	D	0.750	0.750	1.500	4.000	0.125	5	Weldon	<input type="checkbox"/>

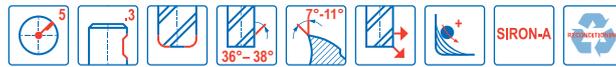
Weldon available. Delivery time is 3 days.

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000"/-.002"
- RE= ±.0008"
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch			
ST5551-1.00D2R015.3Z5	SIRA	10303258	2	D	1.000	1.000	1.750	4.000	0.015	5	Weldon	<input type="checkbox"/>
ST5551-1.00D2R030.3Z5	SIRA	10303259	2	D	1.000	1.000	1.750	4.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-1.00D2R060.3Z5	SIRA	10303260	2	D	1.000	1.000	1.750	4.000	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.250D3R015.3Z5	SIRA	10303261	3	D	0.250	0.250	0.750	2.500	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.250D3R030.3Z5	SIRA	10303262	3	D	0.250	0.250	0.750	2.500	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.250D3R045.3Z5	SIRA	10303263	3	D	0.250	0.250	0.750	2.500	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.375D3R030.3Z5	SIRA	10303264	3	D	0.375	0.375	1.250	3.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500D3R015.3Z5	SIRA	10303265	3	D	0.500	0.500	1.250	3.000	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.500D3R030.3Z5	SIRA	10303266	3	D	0.500	0.500	1.250	3.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500D3R045.3Z5	SIRA	10303267	3	D	0.500	0.500	1.250	3.000	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.500D3R060.3Z5	SIRA	10303268	3	D	0.500	0.500	1.250	3.000	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.500D3R090.3Z5	SIRA	10303269	3	D	0.500	0.500	1.250	3.000	0.090	5	Weldon	<input type="checkbox"/>
ST5551-.500D3R125.3Z5	SIRA	10303270	3	D	0.500	0.500	1.250	3.000	0.125	5	Weldon	<input type="checkbox"/>
ST5551-.750D3R030.3Z5	SIRA	10303274	3	D	0.750	0.750	1.625	4.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.250D4R015.3Z5	SIRA	10303280	4	D	0.250	0.250	1.000	3.000	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.375D4R030.3Z5	SIRA	10303285	4	D	0.375	0.375	1.500	4.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500D4R030.3Z5	SIRA	10303290	4	D	0.500	0.500	1.625	4.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750D4R030.3Z5	SIRA	10303296	4	D	0.750	0.750	2.250	5.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500D5R030.3Z5	SIRA	10303303	5	D	0.500	0.500	2.000	4.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750D5R030.3Z5	SIRA	10303309	5	D	0.750	0.750	2.750	5.000	0.030	5	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

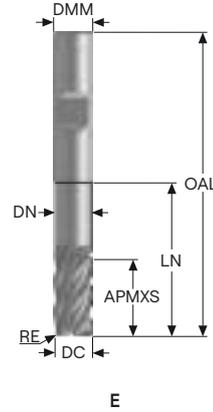
Graphite

X-Heads

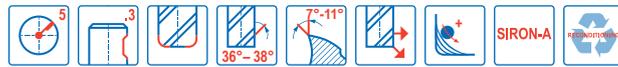
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Corner radius – Inch



—Tolerances:  
—DMM= -.0001"/-.0004"  
—DC= +.000"/-.002"  
—RE= ±.0008"  
—Regrind possible

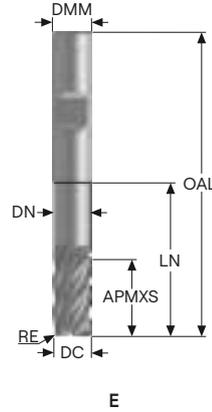


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch				
ST5551-.750E3R030.3Z5	SIRA	10303271	3	E	0.750	0.750	1.125	5.000	2.500	0.720	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750E3R060.3Z5	SIRA	10303272	3	E	0.750	0.750	1.125	5.000	2.500	0.720	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.750E3R120.3Z5	SIRA	10303273	3	E	0.750	0.750	1.125	5.000	2.500	0.720	0.120	5	Weldon	<input type="checkbox"/>
ST5551-1.00E3R030.3Z5	SIRA	10303275	3	E	1.000	1.000	1.250	6.000	3.500	0.960	0.030	5	Weldon	<input type="checkbox"/>
ST5551-1.00E3R060.3Z5	SIRA	10303276	3	E	1.000	1.000	1.250	6.000	3.500	0.960	0.060	5	Weldon	<input type="checkbox"/>
ST5551-1.00E3R120.3Z5	SIRA	10303277	3	E	1.000	1.000	1.250	6.000	3.500	0.960	0.120	5	Weldon	<input type="checkbox"/>
ST5551-.250E4R015.3Z5	SIRA	10303278	4	E	0.250	0.250	0.500	3.000	1.000	0.240	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.250E4R030.3Z5	SIRA	10303279	4	E	0.250	0.250	0.500	3.000	1.000	0.240	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.375E4R015.3Z5	SIRA	10303281	4	E	0.375	0.375	0.750	3.000	1.500	0.360	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.375E4R030.3Z5	SIRA	10303282	4	E	0.375	0.375	0.750	3.000	1.500	0.360	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.375E4R045.3Z5	SIRA	10303283	4	E	0.375	0.375	0.750	3.000	1.500	0.360	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.375E4R060.3Z5	SIRA	10303284	4	E	0.375	0.375	0.750	3.000	1.500	0.360	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.500E4R015.3Z5	SIRA	10303286	4	E	0.500	0.500	1.000	4.000	2.000	0.480	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.500E4R030.3Z5	SIRA	10303287	4	E	0.500	0.500	1.000	4.000	2.000	0.480	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500E4R060.3Z5	SIRA	10303288	4	E	0.500	0.500	1.000	4.000	2.000	0.480	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.500E4R120.3Z5	SIRA	10303289	4	E	0.500	0.500	1.000	4.000	2.000	0.480	0.120	5	Weldon	<input type="checkbox"/>
ST5551-.625E4R030.3Z5	SIRA	10303291	4	E	0.625	0.625	1.250	5.000	2.500	0.600	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.625E4R060.3Z5	SIRA	10303292	4	E	0.625	0.625	1.250	5.000	2.500	0.600	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.750E4R030.3Z5	SIRA	10303293	4	E	0.750	0.750	1.500	5.000	3.000	0.720	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750E4R060.3Z5	SIRA	10303294	4	E	0.750	0.750	1.500	5.000	3.000	0.720	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.750E4R120.3Z5	SIRA	10303295	4	E	0.750	0.750	1.500	5.000	3.000	0.720	0.120	5	Weldon	<input type="checkbox"/>

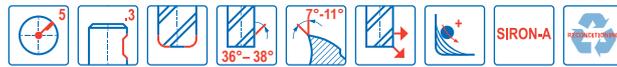
Weldon available. Delivery time is 3 days.

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000"/-.002"
- RE= ±.0008"
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch				
ST5551-.250E5R015.3Z5	SIRA	10303297	5	E	0.250	0.250	0.500	4.000	1.250	0.240	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.250E5R030.3Z5	SIRA	10303298	5	E	0.250	0.250	0.500	4.000	1.250	0.240	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.375E5R015.3Z5	SIRA	10303299	5	E	0.375	0.375	0.500	4.000	2.125	0.360	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.375E5R030.3Z5	SIRA	10303300	5	E	0.375	0.375	0.500	4.000	2.125	0.360	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.375E5R045.3Z5	SIRA	10303301	5	E	0.375	0.375	0.500	4.000	2.125	0.360	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.375E5R060.3Z5	SIRA	10303302	5	E	0.375	0.375	0.500	4.000	2.125	0.360	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.625E5R030.3Z5	SIRA	10303304	5	E	0.625	0.625	0.750	6.000	3.375	0.600	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.625E5R060.3Z5	SIRA	10303305	5	E	0.625	0.625	0.750	6.000	3.375	0.600	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.750E5R030.3Z5	SIRA	10303306	5	E	0.750	0.750	1.125	6.000	4.125	0.720	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750E5R060.3Z5	SIRA	10303307	5	E	0.750	0.750	1.125	6.000	4.125	0.720	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.750E5R120.3Z5	SIRA	10303308	5	E	0.750	0.750	1.125	6.000	4.125	0.720	0.120	5	Weldon	<input type="checkbox"/>
ST5551-.500E6R015.3Z5	SIRA	10303310	6	E	0.500	0.500	0.625	5.000	3.125	0.480	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.500E6R030.3Z5	SIRA	10303311	6	E	0.500	0.500	0.625	5.000	3.125	0.480	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500E6R060.3Z5	SIRA	10303312	6	E	0.500	0.500	0.625	5.000	3.125	0.480	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.500E6R120.3Z5	SIRA	10303313	6	E	0.500	0.500	0.625	5.000	3.125	0.480	0.120	5	Weldon	<input type="checkbox"/>
ST5551-.250E8R015.3Z5	SIRA	10303314	8	E	0.250	0.250	0.500	4.000	2.125	0.240	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.250E8R030.3Z5	SIRA	10303315	8	E	0.250	0.250	0.500	4.000	2.125	0.240	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.375E8R015.3Z5	SIRA	10303316	8	E	0.375	0.375	0.500	6.000	3.125	0.360	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.375E8R030.3Z5	SIRA	10303317	8	E	0.375	0.375	0.500	6.000	3.125	0.360	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.375E8R045.3Z5	SIRA	10303318	8	E	0.375	0.375	0.500	6.000	3.125	0.360	0.045	5	Weldon	<input type="checkbox"/>
ST5551-.375E8R060.3Z5	SIRA	10303319	8	E	0.375	0.375	0.500	6.000	3.125	0.360	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.500E8R015.3Z5	SIRA	10303320	8	E	0.500	0.500	0.625	6.000	4.125	0.480	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.500E8R030.3Z5	SIRA	10303321	8	E	0.500	0.500	0.625	6.000	4.125	0.480	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500E8R060.3Z5	SIRA	10303322	8	E	0.500	0.500	0.625	6.000	4.125	0.480	0.060	5	Weldon	<input type="checkbox"/>
ST5551-.500E8R120.3Z5	SIRA	10303323	8	E	0.500	0.500	0.625	6.000	4.125	0.480	0.120	5	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

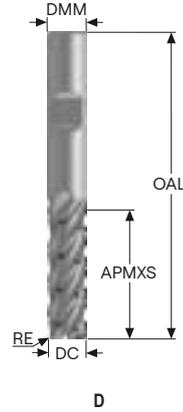
Graphite

X-Heads

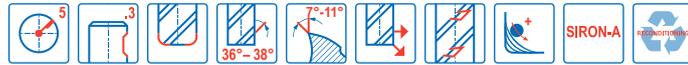
Minimaster

ST5551

High performance – Universal – Square – 5 Flutes – Weldon – Corner radius – Inch



—Tolerances:  
—DMM= -.0001"/-.0004"  
—DC= +.000"/-.002"  
—RE= ±.0008"  
—Regrind possible



Designation	Grade	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
						inch	inch	inch	inch	inch			
ST5551-.250D3R015.3Z5C	SIRA	10303324	3	D	■	0.250	0.250	0.750	2.500	0.015	5	Weldon	<input type="checkbox"/>
ST5551-.375D3R030.3Z5C	SIRA	10303325	3	D	■	0.375	0.375	1.250	3.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500D3R030.3Z5C	SIRA	10303326	3	D	■	0.500	0.500	1.250	3.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.625D3R030.3Z5C	SIRA	10303327	3	D	■	0.625	0.625	1.375	3.500	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750D3R030.3Z5C	SIRA	10303328	3	D	■	0.750	0.750	1.625	4.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.500D4R030.3Z5C	SIRA	10303329	4	D	■	0.500	0.500	1.625	4.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.750D4R030.3Z5C	SIRA	10303330	4	D	■	0.750	0.750	2.250	5.000	0.030	5	Weldon	<input type="checkbox"/>
ST5551-.625D5R030.3Z5C	SIRA	10303331	5	D	■	0.625	0.625	2.125	4.000	0.030	5	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and cfrp
- Graphite
- X-Heads
- Minimaster

Cutting data – ST5551 Side milling

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				6	8	10	12	16	20	25	
P1	M/A/D/E	0,30	2,0	0,038	0,050	0,065	0,075	0,095	0,11	0,12	175 (140 — 210)
		0,30	2,0	0,0015	0,0020	0,0026	0,0030	0,0038	0,0044	0,0048	570 (460 — 680)
P2	M/A/D/E	0,30	2,0	0,040	0,055	0,065	0,080	0,095	0,11	0,13	170 (140 — 210)
		0,30	2,0	0,0016	0,0022	0,0026	0,0032	0,0038	0,0044	0,0050	560 (460 — 680)
P3	M/A/D/E	0,30	2,0	0,038	0,050	0,060	0,075	0,090	0,11	0,12	150 (120 — 180)
		0,30	2,0	0,0015	0,0020	0,0024	0,0030	0,0036	0,0044	0,0048	490 (400 — 590)
P4	M/A/D/E	0,30	2,0	0,036	0,050	0,060	0,070	0,090	0,10	0,12	130 (110 — 160)
		0,30	2,0	0,0014	0,0020	0,0024	0,0028	0,0036	0,0040	0,0048	425 (370 — 520)
P5	M/A/D/E	0,30	2,0	0,036	0,048	0,060	0,070	0,090	0,10	0,12	125 (97 — 150)
		0,30	2,0	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	410 (320 — 490)
P6	M/A/D/E	0,30	2,0	0,036	0,048	0,060	0,070	0,085	0,10	0,11	140 (110 — 170)
		0,30	2,0	0,0014	0,0019	0,0024	0,0028	0,0034	0,0040	0,0044	460 (370 — 550)
P7	M/A/D/E	0,30	2,0	0,036	0,048	0,060	0,070	0,085	0,10	0,11	135 (110 — 160)
		0,30	2,0	0,0014	0,0019	0,0024	0,0028	0,0034	0,0040	0,0044	445 (370 — 520)
P8	M/A/D/E	0,30	2,0	0,038	0,050	0,060	0,075	0,090	0,11	0,12	125 (97 — 150)
		0,30	2,0	0,0015	0,0020	0,0024	0,0030	0,0036	0,0044	0,0048	410 (320 — 490)
P11	M/A/D/E	0,30	2,0	0,030	0,040	0,050	0,060	0,075	0,085	0,095	120 (110 — 140)
		0,30	2,0	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	395 (370 — 450)
P12	M/A/D/E	0,30	2,0	0,020	0,028	0,034	0,040	0,050	0,060	0,065	75 (66 — 88)
		0,30	2,0	0,00080	0,0011	0,0013	0,0016	0,0020	0,0024	0,0026	245 (220 — 280)
M1	E	0,30	2,0	0,034	0,044	0,055	0,065	0,080	0,095	0,11	140 (120 — 160)
		0,30	2,0	0,0013	0,0017	0,0022	0,0026	0,0032	0,0038	0,0044	460 (400 — 520)
M2	E	0,30	2,0	0,030	0,040	0,050	0,060	0,075	0,085	0,095	115 (99 — 130)
		0,30	2,0	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	375 (330 — 420)
M3	E	0,30	2,0	0,024	0,032	0,040	0,048	0,060	0,070	0,075	90 (79 — 100)
		0,30	2,0	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	0,0030	295 (260 — 320)
M4	E	0,30	2,0	0,022	0,028	0,036	0,042	0,050	0,060	0,065	70 (60 — 80)
		0,30	2,0	0,00085	0,0011	0,0014	0,0017	0,0020	0,0024	0,0026	230 (200 — 260)
M5	E	0,30	2,0	0,022	0,028	0,036	0,042	0,050	0,060	0,065	60 (50 — 67)
		0,30	2,0	0,00085	0,0011	0,0014	0,0017	0,0020	0,0024	0,0026	195 (170 — 210)
K1	E	0,30	2,0	0,036	0,048	0,060	0,070	0,090	0,10	0,12	150 (120 — 180)
		0,30	2,0	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	490 (400 — 590)
K2	E	0,30	2,0	0,034	0,044	0,055	0,065	0,080	0,095	0,11	130 (110 — 160)
		0,30	2,0	0,0013	0,0017	0,0022	0,0026	0,0032	0,0038	0,0044	425 (370 — 520)
K3	E	0,30	2,0	0,034	0,044	0,055	0,065	0,080	0,095	0,11	110 (85 — 140)
		0,30	2,0	0,0013	0,0017	0,0022	0,0026	0,0032	0,0038	0,0044	360 (280 — 450)
K4	E	0,30	2,0	0,034	0,044	0,055	0,065	0,080	0,095	0,11	105 (81 — 130)
		0,30	2,0	0,0013	0,0017	0,0022	0,0026	0,0032	0,0038	0,0044	345 (270 — 420)
K5	E	0,30	2,0	0,030	0,040	0,050	0,060	0,075	0,085	0,095	65 (50 — 81)
		0,30	2,0	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	215 (170 — 260)
K6	E	0,30	2,0	0,034	0,044	0,055	0,065	0,080	0,095	0,11	110 (85 — 130)
		0,30	2,0	0,0013	0,0017	0,0022	0,0026	0,0032	0,0038	0,0044	360 (280 — 420)
K7	E	0,30	2,0	0,030	0,040	0,050	0,060	0,075	0,085	0,095	95 (75 — 120)
		0,30	2,0	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	310 (250 — 390)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrrp  
Graphite  
X-Heads  
Minimaster

Cutting data – ST5551 Side milling

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				6	8	10	12	16	20	25	
N1	E	0,30	2,0	0,048	0,065	0,080	0,095	0,12	0,14	0,16	385 (300 – 470)
		0,30	2,0	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	1275 (990 – 1500)
N2	E	0,30	2,0	0,048	0,065	0,080	0,095	0,12	0,14	0,16	250 (190 – 300)
		0,30	2,0	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	820 (630 – 980)
N3	E	0,30	2,0	0,048	0,065	0,080	0,095	0,12	0,14	0,16	165 (130 – 200)
		0,30	2,0	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	540 (430 – 650)
N11	E	0,30	2,0	0,048	0,065	0,080	0,095	0,12	0,14	0,16	220 (170 – 270)
		0,30	2,0	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	720 (560 – 880)
S1	E	0,24	2,0	0,024	0,032	0,040	0,048	0,060	0,070	0,075	47 (36 – 76)
		0,24	2,0	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	0,0030	155 (120 – 240)
S2	E	0,24	2,0	0,024	0,032	0,040	0,048	0,060	0,070	0,075	38 (29 – 61)
		0,24	2,0	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	0,0030	125 (96 – 200)
S3	E	0,24	2,0	0,022	0,030	0,038	0,044	0,055	0,065	0,070	33 (25 – 53)
		0,24	2,0	0,00085	0,0012	0,0015	0,0017	0,0022	0,0026	0,0028	110 (83 – 170)
S11	E	0,24	2,0	0,028	0,036	0,046	0,055	0,065	0,075	0,090	65 (50 – 100)
		0,24	2,0	0,0011	0,0014	0,0018	0,0022	0,0026	0,0030	0,0036	215 (170 – 320)
S12	E	0,24	2,0	0,028	0,036	0,046	0,055	0,065	0,075	0,090	50 (39 – 82)
		0,24	2,0	0,0011	0,0014	0,0018	0,0022	0,0026	0,0030	0,0036	165 (130 – 260)
S13	E	0,24	2,0	0,024	0,032	0,040	0,048	0,060	0,070	0,075	40 (31 – 65)
		0,24	2,0	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	0,0030	130 (110 – 210)
H5	M/A/D	0,15	2,0	0,022	0,028	0,036	0,042	0,050	0,060	0,065	115 (86 – 140)
		0,15	2,0	0,00085	0,0011	0,0014	0,0017	0,0020	0,0024	0,0026	375 (290 – 450)
H8	M/A/D	0,15	2,0	0,016	0,022	0,026	0,032	0,038	0,044	0,050	120 (89 – 140)
		0,15	2,0	0,00065	0,00085	0,0010	0,0013	0,0015	0,0017	0,0020	395 (300 – 450)
H11	M/A/D	0,15	2,0	0,022	0,028	0,036	0,042	0,050	0,060	0,065	145 (110 – 180)
		0,15	2,0	0,00085	0,0011	0,0014	0,0017	0,0020	0,0024	0,0026	475 (370 – 590)
H12	M/A/D	0,15	2,0	0,016	0,022	0,026	0,032	0,038	0,044	0,050	140 (110 – 170)
		0,15	2,0	0,00065	0,00085	0,0010	0,0013	0,0015	0,0017	0,0020	460 (370 – 550)
H21	M/A/D	0,15	2,0	0,016	0,022	0,026	0,032	0,038	0,044	0,050	120 (89 – 140)
		0,15	2,0	0,00065	0,00085	0,0010	0,0013	0,0015	0,0017	0,0020	395 (300 – 450)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – ST5551 Side milling advanced roughing  $a_e/DC = 0,10$

SMG		$a_p/DC$	$f_z$							$v_c$	
			6	8	10	12	16	20	25		
P1	M/A/D/E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,19	215 (170 – 260)	Universal
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0075	710 (560 – 850)	
P2	M/A/D/E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,19	210 (170 – 260)	Steel and cast iron
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0075	690 (560 – 850)	
P3	M/A/D/E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,18	180 (140 – 220)	Steel and cast iron
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0070	590 (460 – 720)	
P4	M/A/D/E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,18	160 (130 – 190)	Steel and cast iron
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0070	520 (430 – 620)	
P5	M/A/D/E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,18	155 (120 – 180)	Steel and cast iron
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0070	510 (400 – 590)	
P6	M/A/D/E	2,0	0,048	0,065	0,080	0,095	0,13	0,15	0,18	170 (140 – 210)	Stainless steel and S-materials
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0060	0,0070	560 (460 – 680)	
P7	M/A/D/E	2,0	0,048	0,065	0,080	0,095	0,13	0,15	0,18	160 (130 – 200)	Stainless steel and S-materials
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0060	0,0070	520 (430 – 650)	
P8	M/A/D/E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,18	155 (120 – 180)	Stainless steel and S-materials
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0070	510 (400 – 590)	
P11	M/A/D/E	2,0	0,042	0,055	0,070	0,085	0,11	0,13	0,15	145 (130 – 160)	Stainless steel and S-materials
		2,0	0,0017	0,0022	0,0028	0,0034	0,0044	0,0050	0,0060	475 (430 – 520)	
P12	M/A/D/E	2,0	0,032	0,042	0,050	0,060	0,075	0,090	0,10	90 (78 – 100)	Non ferrous
		2,0	0,0013	0,0017	0,0020	0,0024	0,0030	0,0036	0,0040	295 (260 – 320)	
M1	E	2,0	0,042	0,055	0,070	0,085	0,11	0,14	0,16	170 (150 – 190)	Non ferrous
		2,0	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	560 (500 – 620)	
M2	E	2,0	0,042	0,055	0,070	0,085	0,11	0,13	0,15	140 (120 – 150)	Non ferrous
		2,0	0,0017	0,0022	0,0028	0,0034	0,0044	0,0050	0,0060	460 (400 – 490)	
M3	E	2,0	0,038	0,050	0,060	0,075	0,090	0,10	0,12	110 (93 – 120)	Non ferrous
		2,0	0,0015	0,0020	0,0024	0,0030	0,0036	0,0040	0,0048	360 (310 – 390)	
M4	E	2,0	0,032	0,044	0,055	0,065	0,080	0,090	0,10	80 (71 – 94)	Hard
		2,0	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	0,0040	260 (240 – 300)	
M5	E	2,0	0,032	0,044	0,055	0,065	0,080	0,090	0,10	70 (59 – 79)	Hard
		2,0	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	0,0040	230 (200 – 250)	
K1	E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,18	180 (140 – 220)	Hard
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0070	590 (460 – 720)	
K2	E	2,0	0,048	0,065	0,080	0,095	0,13	0,14	0,16	155 (120 – 190)	Hard
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0055	0,0065	510 (400 – 620)	
K3	E	2,0	0,048	0,065	0,080	0,095	0,13	0,14	0,16	135 (110 – 160)	Plastic and CFRP
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0055	0,0065	445 (370 – 520)	
K4	E	2,0	0,048	0,065	0,080	0,095	0,13	0,14	0,16	125 (97 – 160)	Plastic and CFRP
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0055	0,0065	410 (320 – 520)	
K5	E	2,0	0,046	0,060	0,075	0,090	0,11	0,13	0,15	75 (58 – 96)	Plastic and CFRP
		2,0	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0060	245 (200 – 310)	
K6	E	2,0	0,048	0,065	0,080	0,095	0,13	0,14	0,16	130 (110 – 160)	Plastic and CFRP
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0055	0,0065	425 (370 – 520)	
K7	E	2,0	0,046	0,060	0,075	0,090	0,11	0,13	0,15	115 (88 – 140)	Plastic and CFRP
		2,0	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0060	375 (290 – 450)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

$v_c$  = m/min (sf/min)

$f_z$  = mm (in/tooth)

$a_p$  = mm/DC (in/DC) = factor

$a_e$  = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – ST5551 Side milling advanced roughing  $a_e/DC = 0,10$

SMG	Coolant	$a_p/DC$	$f_z$							$v_c$
			6	8	10	12	16	20	25	
N1	E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,20	495 (380 – 610)
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0080	1625 (1300 – 2000)
N2	E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,20	320 (250 – 390)
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0080	1050 (830 – 1200)
N3	E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,20	215 (170 – 260)
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0080	710 (560 – 850)
N11	E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	0,20	285 (220 – 350)
		2,0	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0080	940 (730 – 1100)
S1	E	2,0	0,032	0,044	0,055	0,065	0,085	0,095	0,11	55 (41 – 86)
		2,0	0,0013	0,0017	0,0022	0,0026	0,0034	0,0038	0,0044	180 (140 – 260)
S2	E	2,0	0,032	0,044	0,055	0,065	0,085	0,095	0,11	43 (33 – 70)
		2,0	0,0013	0,0017	0,0022	0,0026	0,0034	0,0038	0,0044	140 (110 – 220)
S3	E	2,0	0,032	0,042	0,055	0,065	0,080	0,090	0,10	37 (28 – 60)
		2,0	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	0,0040	120 (92 – 190)
S11	E	2,0	0,032	0,044	0,055	0,065	0,090	0,11	0,13	75 (58 – 120)
		2,0	0,0013	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	245 (200 – 390)
S12	E	2,0	0,032	0,044	0,055	0,065	0,090	0,11	0,13	60 (45 – 96)
		2,0	0,0013	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	195 (150 – 310)
S13	E	2,0	0,032	0,044	0,055	0,065	0,085	0,095	0,11	46 (35 – 74)
		2,0	0,0013	0,0017	0,0022	0,0026	0,0034	0,0038	0,0044	150 (120 – 240)
H5	M/A/D	2,0	0,025	0,034	0,042	0,050	0,060	0,070	0,080	120 (91 – 150)
		2,0	0,0010	0,0013	0,0017	0,0020	0,0024	0,0028	0,0032	395 (300 – 490)
H8	M/A/D	2,0	0,019	0,026	0,032	0,038	0,046	0,055	0,060	125 (94 – 150)
		2,0	0,00075	0,0010	0,0013	0,0015	0,0018	0,0022	0,0024	410 (310 – 490)
H11	M/A/D	2,0	0,025	0,034	0,042	0,050	0,060	0,070	0,080	155 (120 – 190)
		2,0	0,0010	0,0013	0,0017	0,0020	0,0024	0,0028	0,0032	510 (400 – 620)
H12	M/A/D	2,0	0,019	0,026	0,032	0,038	0,046	0,055	0,060	145 (110 – 180)
		2,0	0,00075	0,0010	0,0013	0,0015	0,0018	0,0022	0,0024	475 (370 – 590)
H21	M/A/D	2,0	0,019	0,026	0,032	0,038	0,046	0,055	0,060	125 (94 – 150)
		2,0	0,00075	0,0010	0,0013	0,0015	0,0018	0,0022	0,0024	410 (310 – 490)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

$v_c$  = m/min (sf/min)

$f_z$  = mm (in/tooth)

$a_p$  = mm/DC (in/DC) = factor

$a_e$  = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – ST5551 Side milling – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
				1/8	5/32	3/16	7/32	1/4	5/16	3/8	1/2	5/8	3/4	1	
P1	M/A/D/E	0,30	2,0	0,020	0,026	0,030	0,036	0,042	0,050	0,060	0,080	0,095	0,11	0,13	175 (140 — 210)
		0,30	2,0	0,00080	0,0010	0,0012	0,0014	0,0017	0,0020	0,0024	0,0032	0,0038	0,0044	0,0050	570 (460 — 680)
P2	M/A/D/E	0,30	2,0	0,020	0,026	0,032	0,036	0,042	0,050	0,065	0,080	0,095	0,11	0,13	170 (140 — 210)
		0,30	2,0	0,00080	0,0010	0,0013	0,0014	0,0017	0,0020	0,0026	0,0032	0,0038	0,0044	0,0050	560 (460 — 680)
P3	M/A/D/E	0,30	2,0	0,020	0,025	0,030	0,034	0,040	0,050	0,060	0,075	0,090	0,10	0,12	150 (120 — 180)
		0,30	2,0	0,00080	0,0010	0,0012	0,0013	0,0016	0,0020	0,0024	0,0030	0,0036	0,0040	0,0048	490 (400 — 590)
P4	M/A/D/E	0,30	2,0	0,019	0,024	0,030	0,034	0,038	0,048	0,060	0,075	0,090	0,10	0,12	130 (110 — 160)
		0,30	2,0	0,00075	0,00095	0,0012	0,0013	0,0015	0,0019	0,0024	0,0030	0,0036	0,0040	0,0048	425 (370 — 520)
P5	M/A/D/E	0,30	2,0	0,019	0,024	0,028	0,034	0,038	0,048	0,055	0,075	0,090	0,10	0,12	125 (97 — 150)
		0,30	2,0	0,00075	0,00095	0,0011	0,0013	0,0015	0,0019	0,0022	0,0030	0,0036	0,0040	0,0048	410 (320 — 490)
P6	M/A/D/E	0,30	2,0	0,019	0,024	0,028	0,034	0,038	0,048	0,055	0,075	0,085	0,10	0,11	140 (110 — 170)
		0,30	2,0	0,00075	0,00095	0,0011	0,0013	0,0015	0,0019	0,0022	0,0030	0,0034	0,0040	0,0044	460 (370 — 550)
P7	M/A/D/E	0,30	2,0	0,019	0,024	0,028	0,034	0,038	0,048	0,055	0,075	0,085	0,10	0,11	135 (110 — 160)
		0,30	2,0	0,00075	0,00095	0,0011	0,0013	0,0015	0,0019	0,0022	0,0030	0,0034	0,0040	0,0044	445 (370 — 520)
P8	M/A/D/E	0,30	2,0	0,020	0,025	0,030	0,034	0,040	0,050	0,060	0,075	0,090	0,10	0,12	125 (97 — 150)
		0,30	2,0	0,00080	0,0010	0,0012	0,0013	0,0016	0,0020	0,0024	0,0030	0,0036	0,0040	0,0048	410 (320 — 490)
P11	M/A/D/E	0,30	2,0	0,016	0,020	0,024	0,028	0,032	0,040	0,048	0,060	0,075	0,080	0,095	120 (110 — 140)
		0,30	2,0	0,00065	0,00080	0,00095	0,0011	0,0013	0,0016	0,0019	0,0024	0,0030	0,0032	0,0038	395 (370 — 450)
P12	M/A/D/E	0,30	2,0	0,011	0,014	0,016	0,019	0,022	0,028	0,032	0,042	0,050	0,055	0,065	75 (66 — 88)
		0,30	2,0	0,00044	0,00055	0,00065	0,00075	0,00085	0,0011	0,0013	0,0017	0,0020	0,0022	0,0026	245 (220 — 280)
M1	E	0,30	2,0	0,018	0,022	0,026	0,030	0,036	0,044	0,055	0,070	0,080	0,090	0,11	140 (120 — 160)
		0,30	2,0	0,00070	0,00085	0,0010	0,0012	0,0014	0,0017	0,0022	0,0028	0,0032	0,0036	0,0044	460 (400 — 520)
M2	E	0,30	2,0	0,016	0,020	0,024	0,028	0,032	0,040	0,048	0,060	0,075	0,085	0,095	115 (99 — 130)
		0,30	2,0	0,00065	0,00080	0,00095	0,0011	0,0013	0,0016	0,0019	0,0024	0,0030	0,0034	0,0038	375 (330 — 420)
M3	E	0,30	2,0	0,013	0,016	0,019	0,022	0,026	0,032	0,038	0,050	0,060	0,065	0,080	90 (79 — 100)
		0,30	2,0	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0015	0,0020	0,0024	0,0026	0,0032	295 (260 — 320)
M4	E	0,30	2,0	0,011	0,014	0,017	0,020	0,022	0,028	0,034	0,044	0,050	0,060	0,070	70 (60 — 80)
		0,30	2,0	0,00044	0,00055	0,00065	0,00080	0,00085	0,0011	0,0013	0,0017	0,0020	0,0024	0,0028	230 (200 — 260)
M5	E	0,30	2,0	0,011	0,014	0,017	0,020	0,022	0,028	0,034	0,044	0,050	0,060	0,070	60 (50 — 67)
		0,30	2,0	0,00044	0,00055	0,00065	0,00080	0,00085	0,0011	0,0013	0,0017	0,0020	0,0024	0,0028	195 (170 — 210)
K1	E	0,30	2,0	0,019	0,024	0,030	0,034	0,038	0,048	0,060	0,075	0,090	0,10	0,12	150 (120 — 180)
		0,30	2,0	0,00075	0,00095	0,0012	0,0013	0,0015	0,0019	0,0024	0,0030	0,0036	0,0040	0,0048	490 (400 — 590)
K2	E	0,30	2,0	0,018	0,022	0,026	0,030	0,036	0,044	0,055	0,070	0,080	0,090	0,11	130 (110 — 160)
		0,30	2,0	0,00070	0,00085	0,0010	0,0012	0,0014	0,0017	0,0022	0,0028	0,0032	0,0036	0,0044	425 (370 — 520)
K3	E	0,30	2,0	0,018	0,022	0,026	0,030	0,036	0,044	0,055	0,070	0,080	0,090	0,11	110 (85 — 140)
		0,30	2,0	0,00070	0,00085	0,0010	0,0012	0,0014	0,0017	0,0022	0,0028	0,0032	0,0036	0,0044	360 (280 — 450)
K4	E	0,30	2,0	0,018	0,022	0,026	0,030	0,036	0,044	0,055	0,070	0,080	0,090	0,11	105 (81 — 130)
		0,30	2,0	0,00070	0,00085	0,0010	0,0012	0,0014	0,0017	0,0022	0,0028	0,0032	0,0036	0,0044	345 (270 — 420)
K5	E	0,30	2,0	0,016	0,020	0,024	0,028	0,032	0,040	0,048	0,060	0,075	0,080	0,095	65 (50 — 81)
		0,30	2,0	0,00065	0,00080	0,00095	0,0011	0,0013	0,0016	0,0019	0,0024	0,0030	0,0032	0,0038	215 (170 — 260)
K6	E	0,30	2,0	0,018	0,022	0,026	0,030	0,036	0,044	0,055	0,070	0,080	0,090	0,11	110 (85 — 130)
		0,30	2,0	0,00070	0,00085	0,0010	0,0012	0,0014	0,0017	0,0022	0,0028	0,0032	0,0036	0,0044	360 (280 — 420)
K7	E	0,30	2,0	0,016	0,020	0,024	0,028	0,032	0,040	0,048	0,060	0,075	0,080	0,095	95 (75 — 120)
		0,30	2,0	0,00065	0,00080	0,00095	0,0011	0,0013	0,0016	0,0019	0,0024	0,0030	0,0032	0,0038	310 (250 — 390)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cf/ep  
Graphite  
X-Heads  
Minimaster

Cutting data – ST5551 Side milling – Inch

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
				1/8	5/32	3/16	7/32	1/4	5/16	3/8	1/2	5/8	3/4	1	
N1	E	0,30	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,12	0,14	0,16	385 (300 – 470)
		0,30	2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0048	0,0055	0,0065	1275 (990 – 1500)
N2	E	0,30	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,12	0,14	0,16	250 (190 – 300)
		0,30	2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0048	0,0055	0,0065	820 (630 – 980)
N3	E	0,30	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,12	0,14	0,16	165 (130 – 200)
		0,30	2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0048	0,0055	0,0065	540 (430 – 650)
N11	E	0,30	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,12	0,14	0,16	220 (170 – 270)
		0,30	2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0048	0,0055	0,0065	720 (560 – 880)
S1	E	0,24	2,0	0,013	0,016	0,019	0,022	0,025	0,032	0,038	0,050	0,060	0,065	0,075	47 (36 – 76)
		0,24	2,0	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0015	0,0020	0,0024	0,0026	0,0030	155 (120 – 240)
S2	E	0,24	2,0	0,013	0,016	0,019	0,022	0,025	0,032	0,038	0,050	0,060	0,065	0,075	38 (29 – 61)
		0,24	2,0	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0015	0,0020	0,0024	0,0026	0,0030	125 (96 – 200)
S3	E	0,24	2,0	0,012	0,015	0,018	0,020	0,024	0,030	0,036	0,046	0,055	0,060	0,070	33 (25 – 53)
		0,24	2,0	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	110 (83 – 170)
S11	E	0,24	2,0	0,015	0,018	0,022	0,025	0,030	0,036	0,044	0,055	0,065	0,075	0,090	65 (50 – 100)
		0,24	2,0	0,00060	0,00070	0,00085	0,0010	0,0012	0,0014	0,0017	0,0022	0,0026	0,0030	0,0036	215 (170 – 320)
S12	E	0,24	2,0	0,015	0,018	0,022	0,025	0,030	0,036	0,044	0,055	0,065	0,075	0,090	50 (39 – 82)
		0,24	2,0	0,00060	0,00070	0,00085	0,0010	0,0012	0,0014	0,0017	0,0022	0,0026	0,0030	0,0036	165 (130 – 260)
S13	E	0,24	2,0	0,013	0,016	0,019	0,022	0,025	0,032	0,038	0,050	0,060	0,065	0,075	40 (31 – 65)
		0,24	2,0	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0015	0,0020	0,0024	0,0026	0,0030	130 (110 – 210)
H5	M/A/D	0,15	2,0	0,011	0,014	0,017	0,020	0,022	0,028	0,034	0,044	0,050	0,055	0,065	115 (86 – 140)
		0,15	2,0	0,00044	0,00055	0,00065	0,00080	0,00085	0,0011	0,0013	0,0017	0,0020	0,0022	0,0026	375 (290 – 450)
H8	M/A/D	0,15	2,0	0,0085	0,011	0,013	0,015	0,017	0,022	0,026	0,032	0,038	0,044	0,050	120 (89 – 140)
		0,15	2,0	0,00034	0,00044	0,00050	0,00060	0,00065	0,00085	0,0010	0,0013	0,0015	0,0017	0,0020	395 (300 – 450)
H11	M/A/D	0,15	2,0	0,011	0,014	0,017	0,020	0,022	0,028	0,034	0,044	0,050	0,055	0,065	145 (110 – 180)
		0,15	2,0	0,00044	0,00055	0,00065	0,00080	0,00085	0,0011	0,0013	0,0017	0,0020	0,0022	0,0026	475 (370 – 590)
H12	M/A/D	0,15	2,0	0,0085	0,011	0,013	0,015	0,017	0,022	0,026	0,032	0,038	0,044	0,050	140 (110 – 170)
		0,15	2,0	0,00034	0,00044	0,00050	0,00060	0,00065	0,00085	0,0010	0,0013	0,0015	0,0017	0,0020	460 (370 – 550)
H21	M/A/D	0,15	2,0	0,0085	0,011	0,013	0,015	0,017	0,022	0,026	0,032	0,038	0,044	0,050	120 (89 – 140)
		0,15	2,0	0,00034	0,00044	0,00050	0,00060	0,00065	0,00085	0,0010	0,0013	0,0015	0,0017	0,0020	395 (300 – 450)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – ST5551 Side milling advanced roughing  $a_e/DC = 0,10$  – Inch

SMG	Icon	$a_p/DC$	$f_z$											$v_c$	
			1/8	5/32	3/16	7/32	1/4	5/16	3/8	1/2	5/8	3/4	1		
P1	M/A/D/E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,19	215 (170 – 260)	Universal
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0075	710 (560 – 850)	
P2	M/A/D/E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,20	210 (170 – 260)	Steel and cast iron
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0080	690 (560 – 850)	
P3	M/A/D/E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,19	180 (140 – 220)	Steel and cast iron
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0075	590 (460 – 720)	
P4	M/A/D/E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,18	160 (130 – 190)	Steel and cast iron
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0070	520 (430 – 620)	
P5	M/A/D/E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,18	155 (120 – 180)	Steel and cast iron
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0070	510 (400 – 590)	
P6	M/A/D/E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,18	170 (140 – 210)	Stainless steel and S-materials
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0070	560 (460 – 680)	
P7	M/A/D/E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,18	160 (130 – 200)	Stainless steel and S-materials
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0070	520 (430 – 650)	
P8	M/A/D/E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,19	155 (120 – 180)	Stainless steel and S-materials
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0075	510 (400 – 590)	
P11	M/A/D/E	2,0	0,022	0,028	0,034	0,038	0,044	0,055	0,065	0,090	0,11	0,13	0,15	145 (130 – 160)	Stainless steel and S-materials
		2,0	0,00085	0,0011	0,0013	0,0015	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0060	475 (430 – 520)	
P12	M/A/D/E	2,0	0,017	0,020	0,025	0,030	0,034	0,042	0,050	0,065	0,075	0,085	0,10	90 (78 – 100)	Non ferrous
		2,0	0,00065	0,00080	0,0010	0,0012	0,0013	0,0017	0,0020	0,0026	0,0030	0,0034	0,0040	295 (260 – 320)	
M1	E	2,0	0,022	0,028	0,034	0,038	0,044	0,055	0,065	0,090	0,11	0,13	0,16	170 (150 – 190)	Non ferrous
		2,0	0,00085	0,0011	0,0013	0,0015	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0065	560 (500 – 620)	
M2	E	2,0	0,022	0,028	0,034	0,038	0,044	0,055	0,065	0,090	0,11	0,13	0,15	140 (120 – 150)	Non ferrous
		2,0	0,00085	0,0011	0,0013	0,0015	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0060	460 (400 – 490)	
M3	E	2,0	0,020	0,024	0,030	0,034	0,040	0,048	0,060	0,075	0,090	0,10	0,12	110 (93 – 120)	Non ferrous
		2,0	0,00080	0,00095	0,0012	0,0013	0,0016	0,0019	0,0024	0,0030	0,0036	0,0040	0,0048	360 (310 – 390)	
M4	E	2,0	0,017	0,022	0,026	0,030	0,034	0,042	0,050	0,065	0,080	0,090	0,10	80 (71 – 94)	Non ferrous
		2,0	0,00065	0,00085	0,0010	0,0012	0,0013	0,0017	0,0020	0,0026	0,0032	0,0036	0,0040	260 (240 – 300)	
M5	E	2,0	0,017	0,022	0,026	0,030	0,034	0,042	0,050	0,065	0,080	0,090	0,10	70 (59 – 79)	Non ferrous
		2,0	0,00065	0,00085	0,0010	0,0012	0,0013	0,0017	0,0020	0,0026	0,0032	0,0036	0,0040	230 (200 – 250)	
K1	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,18	180 (140 – 220)	Hard
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0070	590 (460 – 720)	
K2	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,14	0,17	155 (120 – 190)	Hard
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0055	0,0065	510 (400 – 620)	
K3	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,14	0,17	135 (110 – 160)	Hard
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0055	0,0065	445 (370 – 520)	
K4	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,14	0,17	125 (97 – 160)	Plastic and CFRP
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0055	0,0065	410 (320 – 520)	
K5	E	2,0	0,024	0,030	0,036	0,042	0,048	0,060	0,075	0,095	0,11	0,13	0,15	75 (58 – 96)	Plastic and CFRP
		2,0	0,00095	0,0012	0,0014	0,0017	0,0019	0,0024	0,0030	0,0038	0,0044	0,0050	0,0060	245 (200 – 310)	
K6	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,14	0,17	130 (110 – 160)	Plastic and CFRP
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0055	0,0065	425 (370 – 520)	
K7	E	2,0	0,024	0,030	0,036	0,042	0,048	0,060	0,075	0,095	0,11	0,13	0,15	115 (88 – 140)	Plastic and CFRP
		2,0	0,00095	0,0012	0,0014	0,0017	0,0019	0,0024	0,0030	0,0038	0,0044	0,0050	0,0060	375 (290 – 450)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

$v_c$  = m/min (sf/min)

$f_z$  = mm (in/tooth)

$a_p$  = mm/DC (in/DC) = factor

$a_e$  = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – ST5551 Side milling advanced roughing  $a_e/DC = 0,10$  – Inch

SMG	Icon	$a_p/DC$	$f_z$											$v_c$
			1/8	5/32	3/16	7/32	1/4	5/16	3/8	1/2	5/8	3/4	1	
N1	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,20	495 (380 – 610)
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0080	1625 (1300 – 2000)
N2	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,20	320 (250 – 390)
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0080	1050 (830 – 1200)
N3	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,20	215 (170 – 260)
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0080	710 (560 – 850)
N11	E	2,0	0,025	0,032	0,038	0,044	0,050	0,065	0,075	0,10	0,13	0,15	0,20	285 (220 – 350)
		2,0	0,0010	0,0013	0,0015	0,0017	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0080	940 (730 – 1100)
S1	E	2,0	0,017	0,022	0,026	0,030	0,034	0,044	0,050	0,070	0,085	0,095	0,11	55 (41 – 86)
		2,0	0,00065	0,00085	0,0010	0,0012	0,0013	0,0017	0,0020	0,0028	0,0034	0,0038	0,0044	180 (140 – 260)
S2	E	2,0	0,017	0,022	0,026	0,030	0,034	0,044	0,050	0,070	0,085	0,095	0,11	43 (33 – 70)
		2,0	0,00065	0,00085	0,0010	0,0012	0,0013	0,0017	0,0020	0,0028	0,0034	0,0038	0,0044	140 (110 – 220)
S3	E	2,0	0,017	0,022	0,025	0,030	0,034	0,042	0,050	0,065	0,080	0,085	0,10	37 (28 – 60)
		2,0	0,00065	0,00085	0,0010	0,0012	0,0013	0,0017	0,0020	0,0026	0,0032	0,0034	0,0040	120 (92 – 190)
S11	E	2,0	0,017	0,022	0,026	0,030	0,034	0,044	0,050	0,070	0,085	0,10	0,13	75 (58 – 120)
		2,0	0,00065	0,00085	0,0010	0,0012	0,0013	0,0017	0,0020	0,0028	0,0034	0,0040	0,0050	245 (200 – 390)
S12	E	2,0	0,017	0,022	0,026	0,030	0,034	0,044	0,050	0,070	0,085	0,10	0,13	60 (45 – 96)
		2,0	0,00065	0,00085	0,0010	0,0012	0,0013	0,0017	0,0020	0,0028	0,0034	0,0040	0,0050	195 (150 – 310)
S13	E	2,0	0,017	0,022	0,026	0,030	0,034	0,044	0,050	0,070	0,085	0,095	0,11	46 (35 – 74)
		2,0	0,00065	0,00085	0,0010	0,0012	0,0013	0,0017	0,0020	0,0028	0,0034	0,0038	0,0044	150 (120 – 240)
H5	M/A/D	2,0	0,013	0,017	0,020	0,024	0,026	0,034	0,040	0,050	0,060	0,070	0,080	120 (91 – 150)
		2,0	0,00050	0,00065	0,00080	0,00095	0,0010	0,0013	0,0016	0,0020	0,0024	0,0028	0,0032	395 (300 – 490)
H8	M/A/D	2,0	0,010	0,013	0,015	0,018	0,020	0,025	0,030	0,040	0,046	0,050	0,060	125 (94 – 150)
		2,0	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0020	0,0024	410 (310 – 490)
H11	M/A/D	2,0	0,013	0,017	0,020	0,024	0,026	0,034	0,040	0,050	0,060	0,070	0,080	155 (120 – 190)
		2,0	0,00050	0,00065	0,00080	0,00095	0,0010	0,0013	0,0016	0,0020	0,0024	0,0028	0,0032	510 (400 – 620)
H12	M/A/D	2,0	0,010	0,013	0,015	0,018	0,020	0,025	0,030	0,040	0,046	0,050	0,060	145 (110 – 180)
		2,0	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0020	0,0024	475 (370 – 590)
H21	M/A/D	2,0	0,010	0,013	0,015	0,018	0,020	0,025	0,030	0,040	0,046	0,050	0,060	125 (94 – 150)
		2,0	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0020	0,0024	410 (310 – 490)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

$v_c$  = m/min (sf/min)

$f_z$  = mm (in/tooth)

$a_p$  = mm/DC (in/DC) = factor

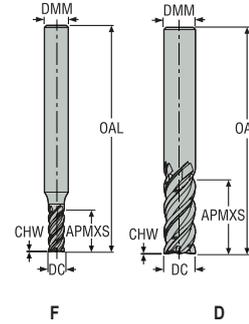
$a_e$  = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JS564

Advanced roughing – Universal – Square – 4 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is  $\geq \varnothing 8$



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS564030F2C.0Z4C-NXT	03067338	2	F	■	3,0	6,0	7,0	57,0	10,2	3,0	0,04	4	Cylindrical	■
JS564040F2C.0Z4C-NXT	03067339	2	F	■	4,0	6,0	10,0	57,0	13,2	4,0	0,05	4	Cylindrical	■
JS564050F2C.0Z4C-NXT	03067340	2	F	■	5,0	6,0	12,5	57,0	15,7	5,0	0,06	4	Cylindrical	■
JS564060D2C.0Z4C-NXT	03067341	2	D	■	6,0	6,0	15,0	57,0	–	–	0,075	4	Cylindrical	■
JS564080D2C.0Z4C-NXT	03067342	2	D	■	8,0	8,0	20,0	63,0	–	–	0,1	4	Cylindrical	■
JS564100D2C.0Z4C-NXT	03067343	2	D	■	10,0	10,0	25,0	72,0	–	–	0,125	4	Cylindrical	■
JS564120D2C.0Z4C-NXT	03067344	2	D	■	12,0	12,0	30,0	83,0	–	–	0,15	4	Cylindrical	■
JS564160D2C.0Z4C-NXT	03067345	2	D	■	16,0	16,0	40,0	99,0	–	–	0,2	4	Cylindrical	■
JS564200D2C.0Z4C-NXT	03067346	2	D	■	20,0	20,0	50,0	114,0	–	–	0,25	4	Cylindrical	■
JS564060D3C.0Z4C-NXT	03067347	3	D	■	6,0	6,0	23,0	64,0	–	–	0,075	4	Cylindrical	■
JS564080D3C.0Z4C-NXT	03067348	3	D	■	8,0	8,0	32,0	74,0	–	–	0,1	4	Cylindrical	■
JS564100D3C.0Z4C-NXT	03067349	3	D	■	10,0	10,0	40,0	88,0	–	–	0,125	4	Cylindrical	■
JS564120D3C.0Z4C-NXT	03067350	3	D	■	12,0	12,0	45,0	99,0	–	–	0,15	4	Cylindrical	■
JS564160D3C.0Z4C-NXT	03067351	3	D	■	16,0	16,0	55,0	114,0	–	–	0,2	4	Cylindrical	■
JS564200D3C.0Z4C-NXT	03067352	3	D	■	20,0	20,0	65,0	126,0	–	–	0,25	4	Cylindrical	■
JS564060D4C.0Z4C-NXT	10273179	4	D	■	6,0	6,0	30,0	80,0	–	–	0,075	4	Cylindrical	■
JS564080D4C.0Z4C-NXT	10273180	4	D	■	8,0	8,0	40,0	85,0	–	–	0,1	4	Cylindrical	■
JS564100D4C.0Z4C-NXT	10273181	4	D	■	10,0	10,0	50,0	100,0	–	–	0,125	4	Cylindrical	■
JS564120D4C.0Z4C-NXT	10273182	4	D	■	12,0	12,0	60,0	115,0	–	–	0,15	4	Cylindrical	■
JS564160D4C.0Z4C-NXT	10273183	4	D	■	16,0	16,0	80,0	150,0	–	–	0,2	4	Cylindrical	■
JS564200D4C.0Z4C-NXT	10273184	4	D	■	20,0	20,0	100,0	175,0	–	–	0,25	4	Cylindrical	■
JS564250D4C.0Z4C-NXT	10273185	4	D	■	25,0	25,0	125,0	205,0	–	–	0,3	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

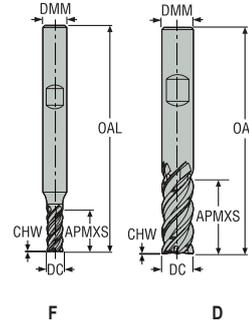
Graphite

X-Heads

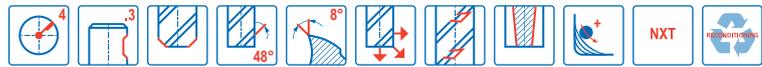
Minimaster

**JS564**

Advanced roughing – Universal – Square – 4 Flutes – Weldon – Chamfer



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –Regrind possible if DC is  $\geq \varnothing 8$



Designation	Item number	Length index	Tool shape	Chip splitters	DC		DMM		APMXS		OAL		LN		DN		CHW		PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm			
JS564030F2C.3Z4C-NXT	03067353	2	F	■	3,0	6,0	7,0	57,0	10,2	3,0	0,04	4	Weldon	■							
JS564040F2C.3Z4C-NXT	03067354	2	F	■	4,0	6,0	10,0	57,0	13,2	4,0	0,05	4	Weldon	■							
JS564050F2C.3Z4C-NXT	03067355	2	F	■	5,0	6,0	12,5	57,0	15,7	5,0	0,06	4	Weldon	■							
JS564060D2C.3Z4C-NXT	03067356	2	D	■	6,0	6,0	15,0	57,0	–	–	0,075	4	Weldon	■							
JS564080D2C.3Z4C-NXT	03067357	2	D	■	8,0	8,0	20,0	63,0	–	–	0,1	4	Weldon	■							
JS564100D2C.3Z4C-NXT	03067358	2	D	■	10,0	10,0	25,0	72,0	–	–	0,125	4	Weldon	■							
JS564120D2C.3Z4C-NXT	03067359	2	D	■	12,0	12,0	30,0	83,0	–	–	0,15	4	Weldon	■							
JS564160D2C.3Z4C-NXT	03067360	2	D	■	16,0	16,0	40,0	99,0	–	–	0,2	4	Weldon	■							
JS564200D2C.3Z4C-NXT	03067361	2	D	■	20,0	20,0	50,0	114,0	–	–	0,25	4	Weldon	■							
JS564060D3C.3Z4C-NXT	03067362	3	D	■	6,0	6,0	23,0	64,0	–	–	0,075	4	Weldon	■							
JS564080D3C.3Z4C-NXT	03067363	3	D	■	8,0	8,0	32,0	74,0	–	–	0,1	4	Weldon	■							
JS564100D3C.3Z4C-NXT	03067364	3	D	■	10,0	10,0	40,0	88,0	–	–	0,125	4	Weldon	■							
JS564120D3C.3Z4C-NXT	03067365	3	D	■	12,0	12,0	45,0	99,0	–	–	0,15	4	Weldon	■							
JS564160D3C.3Z4C-NXT	03067366	3	D	■	16,0	16,0	55,0	114,0	–	–	0,2	4	Weldon	■							
JS564200D3C.3Z4C-NXT	03067367	3	D	■	20,0	20,0	65,0	126,0	–	–	0,25	4	Weldon	■							
JS564060D4C.3Z4C-NXT	10273186	4	D	■	6,0	6,0	30,0	80,0	–	–	0,075	4	Weldon	□							
JS564080D4C.3Z4C-NXT	10273187	4	D	■	8,0	8,0	40,0	85,0	–	–	0,1	4	Weldon	□							
JS564100D4C.3Z4C-NXT	10273188	4	D	■	10,0	10,0	50,0	100,0	–	–	0,125	4	Weldon	□							
JS564120D4C.3Z4C-NXT	10273189	4	D	■	12,0	12,0	60,0	115,0	–	–	0,15	4	Weldon	□							
JS564160D4C.3Z4C-NXT	10273190	4	D	■	16,0	16,0	80,0	150,0	–	–	0,2	4	Weldon	□							
JS564200D4C.3Z4C-NXT	10273191	4	D	■	20,0	20,0	100,0	175,0	–	–	0,25	4	Weldon	□							
JS564250D4C.3Z4C-NXT	10273192	4	D	■	25,0	25,0	125,0	205,0	–	–	0,3	4	Weldon	□							

■ Stocked standard.

Cutting data – JS564 Side milling advanced roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				4	5	6	8	10	12	16	20	
P1	E/M/A/D	0.150	2.4	0.042	0.055	0.065	0.085	0.11	0.13	0.16	0.18	305 (270 — 340)
		0,150	2,4	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	1000 (890 — 1100)
P2	E/M/A/D	0.150	2.4	0.044	0.055	0.065	0.085	0.11	0.13	0.16	0.18	295 (260 — 330)
		0,150	2,4	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	970 (860 — 1000)
P3	E/M/A/D	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	260 (230 — 290)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	850 (760 — 950)
P4	E/M/A/D	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	230 (200 — 250)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	750 (660 — 820)
P5	E/M/A/D	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	215 (190 — 240)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	710 (630 — 780)
P6	E/M/A/D	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	240 (210 — 270)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	790 (690 — 880)
P7	E/M/A/D	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	230 (200 — 250)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	750 (660 — 820)
P8	E/M/A/D	0.150	2.4	0.042	0.050	0.060	0.085	0.10	0.12	0.15	0.18	215 (190 — 240)
		0,150	2,4	0,0017	0,0020	0,0024	0,0034	0,0040	0,0048	0,0060	0,0070	710 (630 — 780)
P11	E/M/A/D	0.150	2.4	0.060	0.075	0.090	0.12	0.15	0.17	0.22	0.25	200 (180 — 220)
		0,150	2,4	0,0024	0,0030	0,0036	0,0048	0,0060	0,0065	0,0085	0,010	660 (600 — 720)
P12	E/M/A/D	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	130 (120 — 140)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	425 (400 — 450)
M1	E	0.150	2.4	0.044	0.055	0.065	0.090	0.11	0.13	0.16	0.19	195 (170 — 210)
		0,150	2,4	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	640 (560 — 680)
M2	E	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	160 (140 — 170)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	520 (460 — 550)
M3	E	0.100	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	130 (110 — 140)
		0,100	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	425 (370 — 450)
M4	E	0.100	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	130 (110 — 140)
		0,100	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	425 (370 — 450)
M5	E	0.100	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	110 (92 — 120)
		0,100	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	360 (310 — 390)
K1	E	0.150	2.4	0.044	0.055	0.065	0.090	0.11	0.13	0.16	0.19	260 (230 — 290)
		0,150	2,4	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	850 (760 — 950)
K2	E	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	230 (200 — 250)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	750 (660 — 820)
K3	E	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	195 (170 — 210)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	640 (560 — 680)
K4	E	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	185 (170 — 200)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	610 (560 — 650)
K5	E	0.150	2.4	0.036	0.044	0.055	0.070	0.090	0.11	0.13	0.15	115 (99 — 120)
		0,150	2,4	0,0014	0,0017	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	375 (330 — 390)
K6	E	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	165 (150 — 180)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	540 (500 — 590)
K7	E	0.150	2.4	0.036	0.044	0.055	0.070	0.090	0.11	0.13	0.15	145 (130 — 160)
		0,150	2,4	0,0014	0,0017	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	475 (430 — 520)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cf/tp  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS564 Side milling advanced roughing

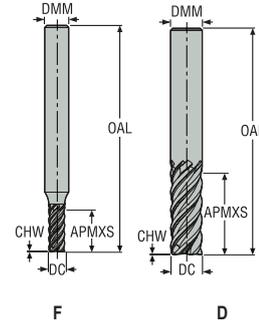
SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				4	5	6	8	10	12	16	20	
N1	E	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	700 (600 – 790)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	2300 (2000 – 2500)
N2	E	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	450 (390 – 510)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1475 (1300 – 1600)
N3	E	0.100	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	500 (400 – 590)
		0,100	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1650 (1400 – 1900)
N11	E	0.150	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	350 (300 – 390)
		0,150	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1150 (990 – 1200)
S1	E	0.0300	2.4	0.030	0.038	0.046	0.060	0.075	0.090	0.11	0.13	60 (37 – 86)
		0,0300	2,4	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	195 (130 – 260)
S2	E	0.0300	2.4	0.030	0.038	0.046	0.060	0.075	0.090	0.11	0.13	50 (30 – 69)
		0,0300	2,4	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	165 (99 – 220)
S3	E	0.0300	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	43 (26 – 60)
		0,0300	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	140 (86 – 190)
S11	E	0.0800	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	160 (140 – 180)
		0,0800	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	520 (460 – 590)
S12	E	0.0800	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	125 (110 – 140)
		0,0800	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	410 (370 – 450)
S13	E	0.0800	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	125 (110 – 140)
		0,0800	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	410 (370 – 450)
H8	M/A/D	0.0500	2.4	0.022	0.026	0.032	0.042	0.055	0.065	0.080	0.090	160 (140 – 180)
		0,0500	2,4	0,00085	0,0010	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	520 (460 – 590)
H21	M/A/D	0.0500	2.4	0.022	0.026	0.032	0.042	0.055	0.065	0.080	0.090	160 (140 – 180)
		0,0500	2,4	0,00085	0,0010	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	520 (460 – 590)
H31	M/A/D	0.0500	2.4	0.018	0.024	0.028	0.036	0.046	0.055	0.070	0.080	125 (110 – 140)
		0,0500	2,4	0,00070	0,00095	0,0011	0,0014	0,0018	0,0022	0,0028	0,0032	410 (370 – 450)

For cutting data recalculations, see pages 687 – 695

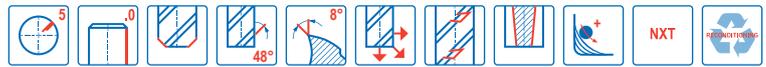
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JS565

Advanced roughing – Universal – Square – 5 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is ≥Ø8



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS565040F2C.0Z5-NXT	03067369	2	F	–	4,0	6,0	10,0	57,0	13,2	4,0	0,05	5	Cylindrical	■
JS565040F2C.0Z5C-NXT	03067378	2	F	■	4,0	6,0	10,0	57,0	13,2	4,0	0,05	5	Cylindrical	■
JS565050F2C.0Z5-NXT	03067370	2	F	–	5,0	6,0	12,5	57,0	15,7	5,0	0,06	5	Cylindrical	■
JS565050F2C.0Z5C-NXT	03067379	2	F	■	5,0	6,0	12,5	57,0	15,7	5,0	0,06	5	Cylindrical	■
JS565060D2C.0Z5-NXT	03067371	2	D	–	6,0	6,0	15,0	57,0	–	–	0,075	5	Cylindrical	■
JS565060D2C.0Z5C-NXT	03067380	2	D	■	6,0	6,0	15,0	57,0	–	–	0,075	5	Cylindrical	■
JS565080D2C.0Z5-NXT	03067372	2	D	–	8,0	8,0	20,0	63,0	–	–	0,1	5	Cylindrical	■
JS565080D2C.0Z5C-NXT	03067381	2	D	■	8,0	8,0	20,0	63,0	–	–	0,1	5	Cylindrical	■
JS565100D2C.0Z5-NXT	03067373	2	D	–	10,0	10,0	25,0	72,0	–	–	0,125	5	Cylindrical	■
JS565100D2C.0Z5C-NXT	03067382	2	D	■	10,0	10,0	25,0	72,0	–	–	0,125	5	Cylindrical	■
JS565120D2C.0Z5-NXT	03067374	2	D	–	12,0	12,0	30,0	83,0	–	–	0,15	5	Cylindrical	■
JS565120D2C.0Z5C-NXT	03067383	2	D	■	12,0	12,0	30,0	83,0	–	–	0,15	5	Cylindrical	■
JS565160D2C.0Z5-NXT	03067375	2	D	–	16,0	16,0	40,0	99,0	–	–	0,2	5	Cylindrical	■
JS565160D2C.0Z5C-NXT	03067384	2	D	■	16,0	16,0	40,0	99,0	–	–	0,2	5	Cylindrical	■
JS565200D2C.0Z5-NXT	03067376	2	D	–	20,0	20,0	50,0	114,0	–	–	0,25	5	Cylindrical	■
JS565200D2C.0Z5C-NXT	03067385	2	D	■	20,0	20,0	50,0	114,0	–	–	0,25	5	Cylindrical	■
JS565060D3C.0Z5C-NXT	03067386	3	D	■	6,0	6,0	23,0	64,0	–	–	0,075	5	Cylindrical	■
JS565080D3C.0Z5C-NXT	03067387	3	D	■	8,0	8,0	32,0	74,0	–	–	0,1	5	Cylindrical	■
JS565100D3C.0Z5C-NXT	03067388	3	D	■	10,0	10,0	40,0	88,0	–	–	0,125	5	Cylindrical	■
JS565120D3C.0Z5C-NXT	03067389	3	D	■	12,0	12,0	45,0	99,0	–	–	0,15	5	Cylindrical	■
JS565160D3C.0Z5C-NXT	03067390	3	D	■	16,0	16,0	55,0	114,0	–	–	0,2	5	Cylindrical	■
JS565200D3C.0Z5C-NXT	03067391	3	D	■	20,0	20,0	65,0	126,0	–	–	0,25	5	Cylindrical	■
JS565060D4C.0Z5C-NXT	10273193	4	D	■	6,0	6,0	30,0	80,0	–	–	0,075	5	Cylindrical	■
JS565080D4C.0Z5C-NXT	10273194	4	D	■	8,0	8,0	40,0	85,0	–	–	0,1	5	Cylindrical	■
JS565100D4C.0Z5C-NXT	10273195	4	D	■	10,0	10,0	50,0	100,0	–	–	0,125	5	Cylindrical	■
JS565120D4C.0Z5C-NXT	10273196	4	D	■	12,0	12,0	60,0	115,0	–	–	0,15	5	Cylindrical	■
JS565160D4C.0Z5C-NXT	10273197	4	D	■	16,0	16,0	80,0	150,0	–	–	0,2	5	Cylindrical	■
JS565200D4C.0Z5C-NXT	10273198	4	D	■	20,0	20,0	100,0	175,0	–	–	0,25	5	Cylindrical	■
JS565250D4C.0Z5C-NXT	10273199	4	D	■	25,0	25,0	125,0	205,0	–	–	0,3	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

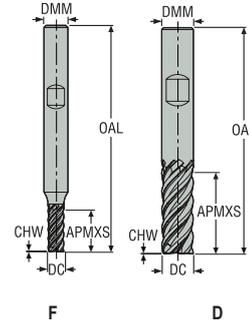
Graphite

X-Heads

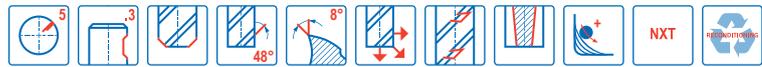
Minimaster

**JS565**

Advanced roughing – Universal – Square – 5 Flutes – Weldon – Chamfer



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –Regrind possible if DC is  $\geq \varnothing 8$



	Designation	Item number	Length index	Tool shape	Chip splitters	Dimensions (mm)										Stock standard
						DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank		
Non ferrous	JS565040F2C.3Z5-NXT	03067393	2	F	–	4,0	6,0	10,0	57,0	13,2	4,0	0,05	5	Weldon	■	
	JS565040F2C.3Z5C-NXT	03067402	2	F	■	4,0	6,0	10,0	57,0	13,2	4,0	0,05	5	Weldon	■	
Hard	JS565050F2C.3Z5-NXT	03067394	2	F	–	5,0	6,0	12,5	57,0	15,7	5,0	0,06	5	Weldon	■	
	JS565050F2C.3Z5C-NXT	03067403	2	F	■	5,0	6,0	12,5	57,0	15,7	5,0	0,06	5	Weldon	■	
Plastic and CFRP	JS565060D2C.3Z5-NXT	03067395	2	D	–	6,0	6,0	15,0	57,0	–	–	0,075	5	Weldon	■	
	JS565060D2C.3Z5C-NXT	03067404	2	D	■	6,0	6,0	15,0	57,0	–	–	0,075	5	Weldon	■	
Graphite	JS565080D2C.3Z5-NXT	03067396	2	D	–	8,0	8,0	20,0	63,0	–	–	0,1	5	Weldon	■	
	JS565080D2C.3Z5C-NXT	03067405	2	D	■	8,0	8,0	20,0	63,0	–	–	0,1	5	Weldon	■	
X-Heads	JS565100D2C.3Z5-NXT	03067397	2	D	–	10,0	10,0	25,0	72,0	–	–	0,125	5	Weldon	■	
	JS565100D2C.3Z5C-NXT	03067406	2	D	■	10,0	10,0	25,0	72,0	–	–	0,125	5	Weldon	■	
Minimaster	JS565120D2C.3Z5-NXT	03067398	2	D	–	12,0	12,0	30,0	83,0	–	–	0,15	5	Weldon	■	
	JS565120D2C.3Z5C-NXT	03067407	2	D	■	12,0	12,0	30,0	83,0	–	–	0,15	5	Weldon	■	
	JS565160D2C.3Z5-NXT	03067399	2	D	–	16,0	16,0	40,0	99,0	–	–	0,2	5	Weldon	■	
	JS565160D2C.3Z5C-NXT	03067408	2	D	■	16,0	16,0	40,0	99,0	–	–	0,2	5	Weldon	■	
	JS565200D2C.3Z5-NXT	03067400	2	D	–	20,0	20,0	50,0	114,0	–	–	0,25	5	Weldon	■	
	JS565200D2C.3Z5C-NXT	03067409	2	D	■	20,0	20,0	50,0	114,0	–	–	0,25	5	Weldon	■	
	JS565060D3C.3Z5C-NXT	03067410	3	D	■	6,0	6,0	23,0	64,0	–	–	0,075	5	Weldon	■	
	JS565080D3C.3Z5C-NXT	03067411	3	D	■	8,0	8,0	32,0	74,0	–	–	0,1	5	Weldon	■	
	JS565100D3C.3Z5C-NXT	03067412	3	D	■	10,0	10,0	40,0	88,0	–	–	0,125	5	Weldon	■	
	JS565120D3C.3Z5C-NXT	03067413	3	D	■	12,0	12,0	45,0	99,0	–	–	0,15	5	Weldon	■	
	JS565160D3C.3Z5C-NXT	03067414	3	D	■	16,0	16,0	55,0	114,0	–	–	0,2	5	Weldon	■	
	JS565200D3C.3Z5C-NXT	03067415	3	D	■	20,0	20,0	65,0	126,0	–	–	0,25	5	Weldon	■	
	JS565060D4C.3Z5C-NXT	10273200	4	D	■	6,0	6,0	30,0	80,0	–	–	0,075	5	Weldon	□	
	JS565080D4C.3Z5C-NXT	10273201	4	D	■	8,0	8,0	40,0	85,0	–	–	0,1	5	Weldon	□	
	JS565100D4C.3Z5C-NXT	10273202	4	D	■	10,0	10,0	50,0	100,0	–	–	0,125	5	Weldon	□	
	JS565120D4C.3Z5C-NXT	10273203	4	D	■	12,0	12,0	60,0	115,0	–	–	0,15	5	Weldon	□	
	JS565160D4C.3Z5C-NXT	10273204	4	D	■	16,0	16,0	80,0	150,0	–	–	0,2	5	Weldon	□	
	JS565200D4C.3Z5C-NXT	10273205	4	D	■	20,0	20,0	100,0	175,0	–	–	0,25	5	Weldon	□	
	JS565250D4C.3Z5C-NXT	10273206	4	D	■	25,0	25,0	125,0	205,0	–	–	0,3	5	Weldon	□	

■ Stocked standard.

Cutting data – JS565 Side milling advanced roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				4	5	6	8	10	12	16	20	
P1	E/M/A/D	0.100	2.4	0.050	0.065	0.075	0.10	0.13	0.15	0.19	0.22	325 (270 — 340)
		0,100	2,4	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0075	0,0085	1075 (890 — 1100)
P2	E/M/A/D	0.100	2.4	0.050	0.065	0.080	0.10	0.13	0.15	0.19	0.22	315 (260 — 330)
		0,100	2,4	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	0,0075	0,0085	1025 (860 — 1000)
P3	E/M/A/D	0.100	2.4	0.048	0.060	0.075	0.10	0.12	0.14	0.18	0.20	280 (230 — 290)
		0,100	2,4	0,0019	0,0024	0,0030	0,0040	0,0048	0,0055	0,0070	0,0080	920 (760 — 950)
P4	E/M/A/D	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	245 (200 — 250)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	800 (660 — 820)
P5	E/M/A/D	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	230 (190 — 240)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	750 (630 — 780)
P6	E/M/A/D	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.17	0.20	260 (210 — 270)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0080	850 (690 — 880)
P7	E/M/A/D	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.17	0.20	245 (200 — 250)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0080	800 (660 — 820)
P8	E/M/A/D	0.100	2.4	0.050	0.060	0.075	0.10	0.12	0.15	0.18	0.22	230 (190 — 240)
		0,100	2,4	0,0020	0,0024	0,0030	0,0040	0,0048	0,0060	0,0070	0,0085	750 (630 — 780)
P11	E/M/A/D	0.100	2.4	0.060	0.075	0.090	0.12	0.15	0.18	0.24	0.30	225 (190 — 230)
		0,100	2,4	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	740 (630 — 750)
P12	E/M/A/D	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	140 (120 — 140)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	460 (400 — 450)
M1	E	0.100	2.4	0.055	0.065	0.080	0.11	0.13	0.16	0.19	0.22	205 (180 — 210)
		0,100	2,4	0,0022	0,0026	0,0032	0,0044	0,0050	0,0065	0,0075	0,0085	670 (600 — 680)
M2	E	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	170 (140 — 170)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	560 (460 — 550)
M3	E	0.100	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	130 (110 — 140)
		0,100	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	425 (370 — 450)
M4	E	0.100	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	130 (110 — 140)
		0,100	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	425 (370 — 450)
M5	E	0.100	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	110 (92 — 120)
		0,100	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	360 (310 — 390)
K1	E	0.100	2.4	0.055	0.065	0.080	0.11	0.13	0.16	0.19	0.22	275 (230 — 290)
		0,100	2,4	0,0022	0,0026	0,0032	0,0044	0,0050	0,0065	0,0075	0,0085	900 (760 — 950)
K2	E	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	245 (200 — 250)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	800 (660 — 820)
K3	E	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	205 (170 — 210)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	670 (560 — 680)
K4	E	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	200 (170 — 200)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	660 (560 — 650)
K5	E	0.100	2.4	0.044	0.055	0.065	0.085	0.11	0.13	0.16	0.18	120 (98 — 120)
		0,100	2,4	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	395 (330 — 390)
K6	E	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	175 (150 — 180)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	570 (500 — 590)
K7	E	0.100	2.4	0.044	0.055	0.065	0.085	0.11	0.13	0.16	0.18	155 (130 — 160)
		0,100	2,4	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	510 (430 — 520)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cf/ep  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS665 Side milling advanced roughing

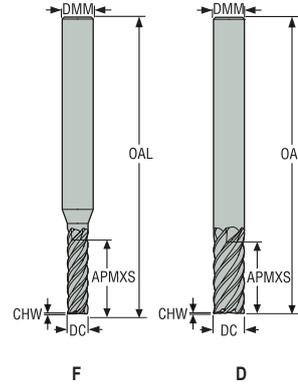
SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				4	5	6	8	10	12	16	20	
N1	E	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	740 (600 – 790)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	2425 (2000 – 2500)
N2	E	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	475 (390 – 510)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	1550 (1300 – 1600)
N3	E	0.100	2.4	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	500 (400 – 590)
		0,100	2,4	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1650 (1400 – 1900)
N11	E	0.100	2.4	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	370 (300 – 390)
		0,100	2,4	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	1225 (990 – 1200)
S1	E	0.0300	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	60 (38 – 86)
		0,0300	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	195 (130 – 260)
S2	E	0.0300	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	50 (30 – 70)
		0,0300	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	165 (99 – 220)
S3	E	0.0300	2.4	0.026	0.032	0.038	0.050	0.065	0.075	0.095	0.11	43 (27 – 60)
		0,0300	2,4	0,0010	0,0013	0,0015	0,0020	0,0026	0,0030	0,0038	0,0044	140 (89 – 190)
S11	E	0.0800	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	160 (140 – 180)
		0,0800	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	520 (460 – 590)
S12	E	0.0800	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	125 (110 – 140)
		0,0800	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	410 (370 – 450)
S13	E	0.0800	2.4	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	125 (110 – 140)
		0,0800	2,4	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	410 (370 – 450)
H8	M/A/D	0.0500	2.4	0.022	0.026	0.032	0.042	0.055	0.065	0.080	0.090	160 (140 – 180)
		0,0500	2,4	0,00085	0,0010	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	520 (460 – 590)
H21	M/A/D	0.0500	2.4	0.024	0.028	0.034	0.046	0.060	0.070	0.085	0.10	155 (140 – 180)
		0,0500	2,4	0,00095	0,0011	0,0013	0,0018	0,0024	0,0028	0,0034	0,0040	510 (460 – 590)
H31	M/A/D	0.0500	2.4	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	120 (110 – 140)
		0,0500	2,4	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	395 (370 – 450)

For cutting data recalculations, see pages 687 – 695

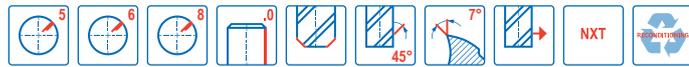
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JS520

High performance – Universal – Square – 5-8 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is  $\geq \varnothing 6$



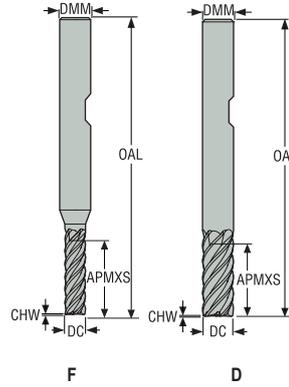
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS520040F2C.0Z5-NXT	02927474	2	F	4,0	6,0	10,0	57,0	12,0	4,0	0,04	5	Cylindrical	■
JS520050F2C.0Z5-NXT	02927476	2	F	5,0	6,0	12,0	57,0	14,0	5,0	0,05	5	Cylindrical	■
JS520060D2C.0Z5-NXT	02927478	2	D	6,0	6,0	15,0	57,0	-	-	0,06	5	Cylindrical	■
JS520060D2C.0Z6-NXT	02927479	2	D	6,0	6,0	15,0	57,0	-	-	0,06	6	Cylindrical	■
JS520080D2C.0Z5-NXT	02927482	2	D	8,0	8,0	20,0	63,0	-	-	0,08	5	Cylindrical	■
JS520080D2C.0Z6-NXT	02927483	2	D	8,0	8,0	20,0	63,0	-	-	0,08	6	Cylindrical	■
JS520100D2C.0Z6-NXT	02927486	2	D	10,0	10,0	25,0	72,0	-	-	0,1	6	Cylindrical	■
JS520120D2C.0Z6-NXT	02927488	2	D	12,0	12,0	25,0	83,0	-	-	0,12	6	Cylindrical	■
JS520140D2C.0Z6-NXT	02927490	2	D	14,0	14,0	30,0	83,0	-	-	0,14	6	Cylindrical	■
JS520160D2C.0Z6-NXT	02927491	2	D	16,0	16,0	30,0	92,0	-	-	0,16	6	Cylindrical	■
JS520160D2C.0Z8-NXT	02927492	2	D	16,0	16,0	30,0	92,0	-	-	0,16	8	Cylindrical	■
JS520200D2C.0Z8-NXT	02927495	2	D	20,0	20,0	35,0	104,0	-	-	0,2	8	Cylindrical	■
JS520250D2C.0Z8-NXT	02927497	2	D	25,0	25,0	50,0	125,0	-	-	0,25	8	Cylindrical	■
JS520040F3C.0Z5-NXT	02927475	3	F	4,0	6,0	15,0	57,0	17,0	4,0	0,04	5	Cylindrical	■
JS520050F3C.0Z5-NXT	02927477	3	F	5,0	6,0	19,0	57,0	21,0	5,0	0,05	5	Cylindrical	■
JS520060D3C.0Z5-NXT	02927480	3	D	6,0	6,0	20,0	63,0	-	-	0,06	5	Cylindrical	■
JS520060D3C.0Z6-NXT	02927481	3	D	6,0	6,0	20,0	63,0	-	-	0,06	6	Cylindrical	■
JS520080D3C.0Z5-NXT	02927484	3	D	8,0	8,0	30,0	80,0	-	-	0,08	5	Cylindrical	■
JS520080D3C.0Z6-NXT	02927485	3	D	8,0	8,0	30,0	80,0	-	-	0,08	6	Cylindrical	■
JS520100D3C.0Z6-NXT	02927487	3	D	10,0	10,0	40,0	89,0	-	-	0,1	6	Cylindrical	■
JS520120D3C.0Z6-NXT	02927489	3	D	12,0	12,0	45,0	100,0	-	-	0,12	6	Cylindrical	■
JS520160D3C.0Z6-NXT	02927493	3	D	16,0	16,0	65,0	125,0	-	-	0,16	6	Cylindrical	■
JS520160D3C.0Z8-NXT	02927494	3	D	16,0	16,0	65,0	125,0	-	-	0,16	8	Cylindrical	■
JS520200D3C.0Z8-NXT	02927496	3	D	20,0	20,0	65,0	125,0	-	-	0,2	8	Cylindrical	■
JS520250D3C.0Z8-NXT	02927498	3	D	25,0	25,0	75,0	150,0	-	-	0,25	8	Cylindrical	■

■ Stocked standard.

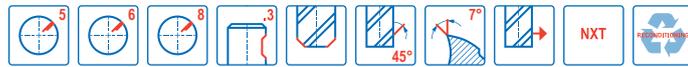
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

JS520

High performance – Universal – Square – 5-8 Flutes – Weldon – Chamfer



—Tolerances:  
—DMM=h5  
—DC=e7  
—Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC		APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm								
JS520040F2C.3Z5-NXT	02927499	2	F	4,0	6,0	10,0	57,0	12,0	4,0	0,04	5	Weldon	<input type="checkbox"/>
JS520050F2C.3Z5-NXT	02927501	2	F	5,0	6,0	12,0	57,0	14,0	5,0	0,05	5	Weldon	<input type="checkbox"/>
JS520060D2C.3Z5-NXT	02927503	2	D	6,0	6,0	15,0	57,0	—	—	0,06	5	Weldon	<input type="checkbox"/>
JS520060D2C.3Z6-NXT	02927504	2	D	6,0	6,0	15,0	57,0	—	—	0,06	6	Weldon	<input type="checkbox"/>
JS520080D2C.3Z5-NXT	02927507	2	D	8,0	8,0	20,0	63,0	—	—	0,08	5	Weldon	<input type="checkbox"/>
JS520080D2C.3Z6-NXT	02927508	2	D	8,0	8,0	20,0	63,0	—	—	0,08	6	Weldon	<input checked="" type="checkbox"/>
JS520100D2C.3Z6-NXT	02927511	2	D	10,0	10,0	25,0	72,0	—	—	0,1	6	Weldon	<input checked="" type="checkbox"/>
JS520120D2C.3Z6-NXT	02927513	2	D	12,0	12,0	25,0	83,0	—	—	0,12	6	Weldon	<input checked="" type="checkbox"/>
JS520140D2C.3Z6-NXT	02927515	2	D	14,0	14,0	30,0	83,0	—	—	0,14	6	Weldon	<input type="checkbox"/>
JS520160D2C.3Z6-NXT	02927516	2	D	16,0	16,0	30,0	92,0	—	—	0,16	6	Weldon	<input type="checkbox"/>
JS520160D2C.3Z8-NXT	02927517	2	D	16,0	16,0	30,0	92,0	—	—	0,16	8	Weldon	<input checked="" type="checkbox"/>
JS520200D2C.3Z8-NXT	02927520	2	D	20,0	20,0	35,0	104,0	—	—	0,2	8	Weldon	<input checked="" type="checkbox"/>
JS520250D2C.3Z8-NXT	02927522	2	D	25,0	25,0	50,0	125,0	—	—	0,25	8	Weldon	<input checked="" type="checkbox"/>
JS520040F3C.3Z5-NXT	02927500	3	F	4,0	6,0	15,0	57,0	17,0	4,0	0,04	5	Weldon	<input type="checkbox"/>
JS520050F3C.3Z5-NXT	02927502	3	F	5,0	6,0	19,0	57,0	21,0	5,0	0,05	5	Weldon	<input type="checkbox"/>
JS520060D3C.3Z5-NXT	02927505	3	D	6,0	6,0	20,0	63,0	—	—	0,06	5	Weldon	<input type="checkbox"/>
JS520060D3C.3Z6-NXT	02927506	3	D	6,0	6,0	20,0	63,0	—	—	0,06	6	Weldon	<input type="checkbox"/>
JS520080D3C.3Z5-NXT	02927509	3	D	8,0	8,0	30,0	80,0	—	—	0,08	5	Weldon	<input type="checkbox"/>
JS520080D3C.3Z6-NXT	02927510	3	D	8,0	8,0	30,0	80,0	—	—	0,08	6	Weldon	<input type="checkbox"/>
JS520100D3C.3Z6-NXT	02927512	3	D	10,0	10,0	40,0	89,0	—	—	0,1	6	Weldon	<input type="checkbox"/>
JS520120D3C.3Z6-NXT	02927514	3	D	12,0	12,0	45,0	100,0	—	—	0,12	6	Weldon	<input type="checkbox"/>
JS520160D3C.3Z6-NXT	02927518	3	D	16,0	16,0	65,0	125,0	—	—	0,16	6	Weldon	<input type="checkbox"/>
JS520160D3C.3Z8-NXT	02927519	3	D	16,0	16,0	65,0	125,0	—	—	0,16	8	Weldon	<input type="checkbox"/>
JS520200D3C.3Z8-NXT	02927521	3	D	20,0	20,0	65,0	125,0	—	—	0,2	8	Weldon	<input checked="" type="checkbox"/>
JS520250D3C.3Z8-NXT	02927523	3	D	25,0	25,0	75,0	150,0	—	—	0,25	8	Weldon	<input checked="" type="checkbox"/>

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Cutting data – JS520 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				4	5	6	8	10	12	14	16	20	25	
P1	E/M/A	0.100	2.0	0.034	0.044	0.050	0.070	0.085	0.10	0.12	0.13	0.15	0.17	180 (120 — 250)
		0,100	2,0	0,0013	0,0017	0,0020	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	0,0065	590 (400 — 820)
P2	E/M/A	0.100	2.0	0.036	0.044	0.055	0.070	0.090	0.10	0.12	0.13	0.15	0.17	175 (110 — 240)
		0,100	2,0	0,0014	0,0017	0,0022	0,0028	0,0036	0,0040	0,0048	0,0050	0,0060	0,0065	570 (370 — 780)
P3	E/M/A	0.100	2.0	0.034	0.042	0.050	0.065	0.085	0.10	0.11	0.12	0.14	0.16	155 (95 — 210)
		0,100	2,0	0,0013	0,0017	0,0020	0,0026	0,0034	0,0040	0,0044	0,0048	0,0055	0,0065	510 (320 — 680)
P4	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.16	135 (84 — 180)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0065	445 (280 — 590)
P5	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	130 (81 — 180)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	425 (270 — 590)
P6	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.13	0.15	145 (90 — 200)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0050	0,0060	475 (300 — 650)
P7	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.13	0.15	140 (85 — 190)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0050	0,0060	460 (280 — 620)
P8	E/M/A	0.100	2.0	0.034	0.042	0.050	0.065	0.085	0.10	0.11	0.12	0.14	0.16	130 (80 — 170)
		0,100	2,0	0,0013	0,0017	0,0020	0,0026	0,0034	0,0040	0,0044	0,0048	0,0055	0,0065	425 (270 — 550)
P11	E/M/A	0.100	2.0	0.046	0.060	0.070	0.095	0.12	0.14	0.16	0.17	0.20	0.22	195 (160 — 230)
		0,100	2,0	0,0018	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0065	0,0080	0,0085	640 (530 — 750)
P12	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	125 (100 — 140)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	410 (330 — 450)
M1	E/M/A	0.100	2.0	0.036	0.044	0.055	0.070	0.090	0.10	0.12	0.13	0.15	0.17	150 (130 — 180)
		0,100	2,0	0,0014	0,0017	0,0022	0,0028	0,0036	0,0040	0,0048	0,0050	0,0060	0,0065	490 (430 — 590)
M2	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	125 (100 — 150)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	410 (330 — 490)
M3	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	100 (75 — 120)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	330 (250 — 390)
M4	E/M/A	0.100	2.0	0.028	0.034	0.042	0.055	0.070	0.085	0.095	0.10	0.12	0.13	75 (58 — 96)
		0,100	2,0	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0038	0,0040	0,0048	0,0050	245 (200 — 310)
M5	E/M/A	0.100	2.0	0.028	0.034	0.042	0.055	0.070	0.085	0.095	0.10	0.12	0.13	65 (49 — 80)
		0,100	2,0	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0038	0,0040	0,0048	0,0050	215 (170 — 260)
K1	E/M/A	0.100	2.0	0.036	0.044	0.055	0.070	0.090	0.10	0.12	0.13	0.15	0.17	175 (110 — 240)
		0,100	2,0	0,0014	0,0017	0,0022	0,0028	0,0036	0,0040	0,0048	0,0050	0,0060	0,0065	570 (370 — 780)
K2	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	155 (97 — 210)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	510 (320 — 680)
K3	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	135 (82 — 180)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	445 (270 — 590)
K4	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	125 (79 — 170)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	410 (260 — 550)
K5	E/M/A	0.100	2.0	0.028	0.036	0.044	0.060	0.070	0.085	0.095	0.11	0.12	0.14	75 (48 — 100)
		0,100	2,0	0,0011	0,0014	0,0017	0,0024	0,0028	0,0034	0,0038	0,0044	0,0048	0,0055	245 (160 — 320)
K6	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	110 (69 — 150)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	360 (230 — 490)
K7	E/M/A	0.100	2.0	0.028	0.036	0.044	0.060	0.070	0.085	0.095	0.11	0.12	0.14	100 (62 — 130)
		0,100	2,0	0,0011	0,0014	0,0017	0,0024	0,0028	0,0034	0,0038	0,0044	0,0048	0,0055	330 (210 — 420)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS520 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				4	5	6	8	10	12	14	16	20	25	
N1	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	500 (450 — 550)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	1650 (1500 — 1800)
N2	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	320 (290 — 350)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	1050 (960 — 1100)
N3	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	215 (200 — 230)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	710 (660 — 750)
N11	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	400 (350 — 450)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	1300 (1200 — 1400)
S1	E/M/A	0.0600	2.0	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	75 (63 — 86)
		0,0600	2,0	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0026	0,0030	0,0034	0,0038	245 (210 — 280)
S2	E/M/A	0.0600	2.0	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	60 (50 — 70)
		0,0600	2,0	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0026	0,0030	0,0034	0,0038	195 (170 — 220)
S3	E/M/A	0.0600	2.0	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	40 (30 — 49)
		0,0600	2,0	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0026	0,0030	0,0034	0,0038	130 (99 — 160)
S11	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	105 (92 — 110)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	345 (310 — 360)
S12	E/M/A	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	80 (71 — 90)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	260 (240 — 290)
S13	E/M/A	0.100	2.0	0.028	0.034	0.042	0.055	0.070	0.085	0.095	0.10	0.12	0.13	65 (56 — 71)
		0,100	2,0	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0038	0,0040	0,0048	0,0050	215 (190 — 230)
H5	M/A	0.0600	2.0	0.030	0.038	0.046	0.060	0.075	0.090	0.10	0.11	0.13	0.14	125 (64 — 180)
		0,0600	2,0	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0040	0,0044	0,0050	0,0055	410 (210 — 590)
H8	M/A	0.0600	2.0	0.024	0.028	0.034	0.046	0.060	0.070	0.075	0.085	0.10	0.11	130 (66 — 190)
		0,0600	2,0	0,00095	0,0011	0,0013	0,0018	0,0024	0,0028	0,0030	0,0034	0,0040	0,0044	425 (220 — 620)
H11	M/A	0.0600	2.0	0.030	0.038	0.046	0.060	0.075	0.090	0.10	0.11	0.13	0.14	160 (81 — 240)
		0,0600	2,0	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0040	0,0044	0,0050	0,0055	520 (270 — 780)
H12	M/A	0.0600	2.0	0.024	0.028	0.034	0.046	0.060	0.070	0.075	0.085	0.10	0.11	150 (76 — 220)
		0,0600	2,0	0,00095	0,0011	0,0013	0,0018	0,0024	0,0028	0,0030	0,0034	0,0040	0,0044	490 (250 — 720)
H21	M/A	0.0600	2.0	0.024	0.028	0.034	0.046	0.060	0.070	0.075	0.085	0.10	0.11	130 (66 — 190)
		0,0600	2,0	0,00095	0,0011	0,0013	0,0018	0,0024	0,0028	0,0030	0,0034	0,0040	0,0044	425 (220 — 620)
H31	M/A	0.0600	2.0	0.020	0.025	0.030	0.040	0.050	0.060	0.065	0.075	0.085	0.095	100 (51 — 150)
		0,0600	2,0	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0026	0,0030	0,0034	0,0038	330 (170 — 490)
TS1	A/D	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	500 (450 — 550)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	1650 (1500 — 1800)
TP1	A/D	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	395 (350 — 440)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	1300 (1200 — 1400)
GR1	A/D	0.100	2.0	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	0.15	500 (450 — 550)
		0,100	2,0	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0060	1650 (1500 — 1800)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

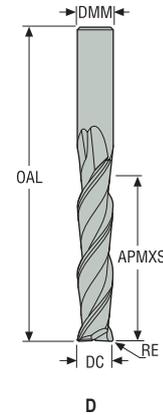
 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

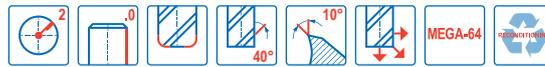
All cutting data are target values

JS522

High performance – Universal – Square – 2 Flutes – High shoulder – Cylindrical – Corner radius



- Tolerances:
- Run-out= Ø6-Ø8 <0,01, Ø10-Ø12 <0,015, Ø16-Ø32 <0,02
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= 0,1+0,1 mm, RE= 0,5 ±0,03 mm
- RE= 3,1 ±0,05 mm, RE= 4 ±0,05 mm
- RE= 6 ±0,05 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
522060R010Z2.0-MEGA-64	02747756	4	D	6,0	6,0	30,0	80,0	0,1	2	Cylindrical	■
522080R010Z2.0-MEGA-64	02747763	4	D	8,0	8,0	40,0	85,0	0,1	2	Cylindrical	■
522100R010Z2.0-MEGA-64	02747765	4	D	10,0	10,0	50,0	100,0	0,1	2	Cylindrical	■
522120R010Z2.0-MEGA-64	02747766	4	D	12,0	12,0	60,0	115,0	0,1	2	Cylindrical	■
522160R050Z2.0-MEGA-64	02747767	4	D	16,0	16,0	80,0	150,0	0,5	2	Cylindrical	■
522160R310Z2.0-MEGA-64	02747768	4	D	16,0	16,0	80,0	150,0	3,1	2	Cylindrical	■
JS522160D4R600.0Z2-M64	03093681	4	D	16,0	16,0	80,0	150,0	6,0	2	Cylindrical	■
522200R050Z2.0-MEGA-64	02747769	4	D	20,0	20,0	100,0	175,0	0,5	2	Cylindrical	■
522200R310Z2.0-MEGA-64	02747770	4	D	20,0	20,0	100,0	175,0	3,1	2	Cylindrical	■
JS522200D4R600.0Z2-M64	03093682	4	D	20,0	20,0	100,0	175,0	6,0	2	Cylindrical	■
522250R050Z2.0-MEGA-64	02747771	4	D	25,0	25,0	125,0	205,0	0,5	2	Cylindrical	■
522250R310Z2.0-MEGA-64	02747772	4	D	25,0	25,0	125,0	205,0	3,1	2	Cylindrical	■
522250R400Z2.0-MEGA-64	02747773	4	D	25,0	25,0	125,0	205,0	4,0	2	Cylindrical	■
JS522250D4R600.0Z2-M64	03093683	4	D	25,0	25,0	125,0	205,0	6,0	2	Cylindrical	■
522320R050Z2.0-MEGA-64	02747774	4	D	32,0	32,0	160,0	245,0	0,5	2	Cylindrical	■
522320R400Z2.0-MEGA-64	02747775	4	D	32,0	32,0	160,0	245,0	4,0	2	Cylindrical	■
JS522320D4R600.0Z2-M64	03093684	4	D	32,0	32,0	160,0	245,0	6,0	2	Cylindrical	■

■ Stocked standard.

\*JS522 long flute finisher, with its special geometry designed to machine high shoulders with excellent surface finish and perpendicularity.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JS522 Side milling semi finishing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				6	8	10	12	16	20	25	32	
P1	E/M/A	0.0500	4.0	0.046	0.060	0.075	0.090	0.11	0.13	0.14	0.16	160 (140 – 170)
		0,0500	4,0	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	0,0065	520 (460 – 550)
P2	E/M/A	0.0500	4.0	0.046	0.060	0.075	0.090	0.11	0.13	0.15	0.17	155 (140 – 170)
		0,0500	4,0	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0060	0,0065	510 (460 – 550)
P3	E/M/A	0.0500	4.0	0.044	0.060	0.075	0.085	0.11	0.12	0.14	0.16	165 (150 – 180)
		0,0500	4,0	0,0017	0,0024	0,0030	0,0034	0,0044	0,0048	0,0055	0,0065	540 (500 – 590)
P4	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.14	0.15	145 (130 – 160)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	475 (430 – 520)
P5	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	140 (130 – 160)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	460 (430 – 520)
P6	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.080	0.10	0.12	0.13	0.15	120 (110 – 140)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0032	0,0040	0,0048	0,0050	0,0060	395 (370 – 450)
P7	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.080	0.10	0.12	0.13	0.15	115 (95 – 130)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0032	0,0040	0,0048	0,0050	0,0060	375 (320 – 420)
P8	E/M/A	0.0500	4.0	0.044	0.060	0.075	0.085	0.11	0.12	0.14	0.16	105 (89 – 120)
		0,0500	4,0	0,0017	0,0024	0,0030	0,0034	0,0044	0,0048	0,0055	0,0065	345 (300 – 390)
P11	E/M/A	0.0500	4.0	0.060	0.080	0.10	0.12	0.15	0.17	0.20	0.22	105 (87 – 120)
		0,0500	4,0	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	0,0080	0,0085	345 (290 – 390)
P12	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	65 (55 – 75)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	215 (190 – 240)
M1	E/M/A	0.0500	4.0	0.046	0.060	0.075	0.090	0.11	0.13	0.15	0.17	110 (86 – 130)
		0,0500	4,0	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0060	0,0065	360 (290 – 420)
M2	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	90 (71 – 110)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	295 (240 – 360)
M3	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	80 (61 – 100)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	260 (210 – 320)
M4	E/M/A	0.0500	4.0	0.036	0.048	0.060	0.070	0.090	0.10	0.12	0.13	60 (47 – 76)
		0,0500	4,0	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	0,0050	195 (160 – 240)
M5	E/M/A	0.0500	4.0	0.036	0.048	0.060	0.070	0.090	0.10	0.12	0.13	50 (39 – 63)
		0,0500	4,0	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	0,0050	165 (130 – 200)
K1	E/M/A	0.0500	4.0	0.046	0.060	0.075	0.090	0.11	0.13	0.15	0.17	120 (100 – 130)
		0,0500	4,0	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0060	0,0065	395 (330 – 420)
K2	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	105 (87 – 120)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	345 (290 – 390)
K3	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	90 (74 – 100)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	295 (250 – 320)
K4	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	85 (71 – 98)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	280 (240 – 320)
K5	E/M/A	0.0500	4.0	0.038	0.050	0.065	0.075	0.090	0.11	0.12	0.14	100 (81 – 120)
		0,0500	4,0	0,0015	0,0020	0,0026	0,0030	0,0036	0,0044	0,0048	0,0055	330 (270 – 390)
K6	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	150 (120 – 170)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	490 (400 – 550)
K7	E/M/A	0.0500	4.0	0.038	0.050	0.065	0.075	0.090	0.11	0.12	0.14	130 (110 – 150)
		0,0500	4,0	0,0015	0,0020	0,0026	0,0030	0,0036	0,0044	0,0048	0,0055	425 (370 – 490)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## Cutting data – JS522 Side milling semi finishing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				6	8	10	12	16	20	25	32	
N1	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	400 (310 – 500)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	1300 (1100 – 1600)
N2	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	300 (210 – 400)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	980 (690 – 1300)
N3	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	200 (140 – 260)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	660 (460 – 850)
N11	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	300 (260 – 350)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	980 (860 – 1100)
S1	E/M/A	0.0500	4.0	0.018	0.024	0.030	0.036	0.044	0.050	0.055	0.065	48 (39 – 57)
		0,0500	4,0	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	0,0022	0,0026	155 (130 – 180)
S2	E/M/A	0.0500	4.0	0.018	0.024	0.030	0.036	0.044	0.050	0.055	0.065	39 (31 – 46)
		0,0500	4,0	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	0,0022	0,0026	130 (110 – 150)
S3	E/M/A	0.0300	4.0	0.018	0.024	0.030	0.036	0.044	0.050	0.055	0.065	42 (32 – 51)
		0,0300	4,0	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	0,0022	0,0026	140 (110 – 160)
S11	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	125 (100 – 140)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	410 (330 – 450)
S12	E/M/A	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	95 (77 – 110)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	310 (260 – 360)
S13	E/M/A	0.0500	4.0	0.036	0.048	0.060	0.070	0.090	0.10	0.12	0.13	75 (61 – 90)
		0,0500	4,0	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	0,0048	0,0050	245 (210 – 290)
TS1	A/D	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	500 (410 – 600)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	1650 (1400 – 1900)
TP1	A/D	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	400 (310 – 500)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	1300 (1100 – 1600)
GR1	A/D	0.0500	4.0	0.042	0.055	0.070	0.085	0.10	0.12	0.13	0.15	500 (410 – 600)
		0,0500	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	0,0060	1650 (1400 – 1900)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

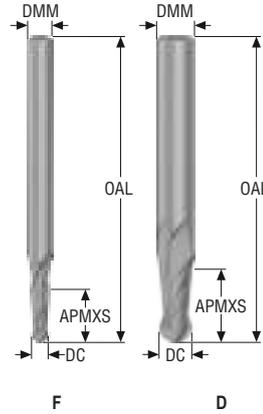
 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>s</sub> = mm/DC (in/DC) = factor

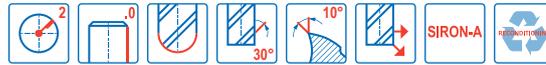
All cutting data are target values

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster

**C5321**  
General purpose – Universal – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC= h10
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø10

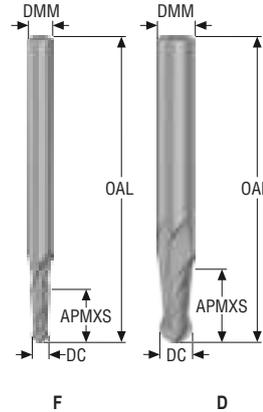


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
C5321-060D1B.0Z2	SIRA	10268679	1	D	6,0	6,0	9,0	57,0	—	—	3,0	2	Cylindrical	■
C5321-020F2B.0Z2	SIRA	10268669	2	F	2,0	3,0	4,0	38,0	7,683	2,127	1,0	2	Cylindrical	■
C5321-030D2B.0Z2	SIRA	10268672	2	D	3,0	3,0	6,0	38,0	—	—	1,5	2	Cylindrical	■
C5321-040D2B.0Z2	SIRA	10268675	2	D	4,0	4,0	8,0	50,0	—	—	2,0	2	Cylindrical	■
C5321-050F2B.0Z2	SIRA	10268677	2	D	5,0	6,0	10,0	57,0	—	—	2,5	2	Cylindrical	■
C5321-060D2B.0Z2	SIRA	10268680	2	D	6,0	6,0	12,0	57,0	—	—	3,0	2	Cylindrical	■
C5321-080D2B.0Z2	SIRA	10268682	2	D	8,0	8,0	16,0	63,0	—	—	4,0	2	Cylindrical	■
C5321-090F2B.0Z2	SIRA	10268684	2	F	9,0	10,0	22,0	72,0	18,35	9,127	4,5	2	Cylindrical	■
C5321-100D2B.0Z2	SIRA	10268685	2	D	10,0	10,0	22,0	72,0	—	—	5,0	2	Cylindrical	■
C5321-120D2B.0Z2	SIRA	10268687	2	D	12,0	12,0	25,0	83,0	—	—	6,0	2	Cylindrical	■
C5321-015F3B.0Z2	SIRA	10268668	3	F	1,5	3,0	4,5	38,0	8,183	1,627	0,75	2	Cylindrical	■
C5321-020F3B.0Z2	SIRA	10268670	3	F	2,0	3,0	6,3	38,0	9,983	2,127	1,0	2	Cylindrical	■
C5321-035F3B.0Z2	SIRA	10268674	3	F	3,5	4,0	12,0	50,0	15,683	3,627	1,75	2	Cylindrical	■
C5321-050F3B.0Z2	SIRA	10268678	3	D	5,0	6,0	16,0	57,0	—	—	2,5	2	Cylindrical	■
C5321-060D3B.0Z2	SIRA	10268681	3	D	6,0	6,0	19,0	63,0	—	—	3,0	2	Cylindrical	■
C5321-080D3B.0Z2	SIRA	10268683	3	D	8,0	8,0	20,0	63,0	—	—	4,0	2	Cylindrical	■
C5321-010F4B.0Z2	SIRA	10268667	4	F	1,0	3,0	4,0	38,0	7,683	1,127	0,5	2	Cylindrical	■
C5321-030D4B.0Z2	SIRA	10268673	4	D	3,0	3,0	12,0	38,0	—	—	1,5	2	Cylindrical	■
C5321-040D4B.0Z2	SIRA	10268676	4	D	4,0	4,0	14,0	50,0	—	—	2,0	2	Cylindrical	■
C5321-100D4B.0Z2	SIRA	10268686	4	D	10,0	10,0	35,0	89,0	—	—	5,0	2	Cylindrical	■
C5321-120D4B.0Z2	SIRA	10268688	4	D	12,0	12,0	50,0	100,0	—	—	6,0	2	Cylindrical	■

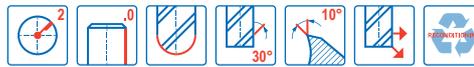
■ Stocked standard.

C5321

General purpose – Universal – Ball nose – 2 Flutes – Cylindrical – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- RE= ±.0005"
- Regrind possible if DC is ≥Ø.375



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				inch									
C5321-.500D1B.0Z2	10268913	1	D	0.500	0.500	0.625	2.500	-	-	0.250	2	Cylindrical	■
C5321-.750D1B.0Z2	10268920	1	D	0.750	0.750	1.000	3.000	-	-	0.375	2	Cylindrical	■
C5321-1.000D1B.0Z2	10268923	1	D	1.000	1.000	1.500	4.000	-	-	0.500	2	Cylindrical	■
C5321-.016F2B.0Z2	10268878	2	F	0.016	0.125	0.031	1.500	0.031	0.021	0.008	2	Cylindrical	■
C5321-.047F2B.0Z2	10268881	2	F	0.047	0.125	0.109	1.500	0.109	0.052	0.023	2	Cylindrical	■
C5321-.063F2B.0Z2	10268883	2	F	0.063	0.125	0.125	1.500	0.125	0.068	0.031	2	Cylindrical	■
C5321-.078F2B.0Z2	10268886	2	F	0.078	0.125	0.188	1.500	0.188	0.083	0.039	2	Cylindrical	■
C5321-.094F2B.0Z2	10268888	2	F	0.094	0.125	0.188	1.500	0.188	0.099	0.047	2	Cylindrical	■
C5321-.125D2B.0Z2	10268891	2	D	0.125	0.125	0.250	1.500	-	-	0.063	2	Cylindrical	■
C5321-.188D2B.0Z2	10268896	2	D	0.188	0.188	0.375	2.000	-	-	0.094	2	Cylindrical	■
C5321-.250D2B.0Z2	10268899	2	D	0.250	0.250	0.500	2.000	-	-	0.125	2	Cylindrical	■
C5321-.375D2B.0Z2	10268908	2	D	0.375	0.375	0.625	2.000	-	-	0.188	2	Cylindrical	■
C5321-.500D2B.0Z2	10268914	2	D	0.500	0.500	1.000	3.000	-	-	0.250	2	Cylindrical	■
C5321-.625D2B.0Z2	10268919	2	D	0.625	0.625	1.250	3.500	-	-	0.313	2	Cylindrical	■
C5321-.750D2B.0Z2	10268921	2	D	0.750	0.750	1.500	4.000	-	-	0.375	2	Cylindrical	■
C5321-.031F3B.0Z2	10268879	3	F	0.031	0.125	0.078	1.500	0.078	0.036	0.016	2	Cylindrical	■
C5321-.047F3B.0Z2	10268882	3	F	0.047	0.125	0.125	1.500	0.125	0.052	0.023	2	Cylindrical	■
C5321-.063F3B.0Z2	10268884	3	F	0.063	0.125	0.188	1.500	0.188	0.068	0.031	2	Cylindrical	■
C5321-.078F3B.0Z2	10268887	3	F	0.078	0.125	0.250	1.500	0.250	0.083	0.039	2	Cylindrical	■
C5321-.094F3B.0Z2	10268889	3	F	0.094	0.125	0.281	1.500	0.281	0.099	0.047	2	Cylindrical	■
C5321-.156F3B.0Z2	10268895	3	F	0.156	0.188	0.500	2.000	0.500	0.161	0.078	2	Cylindrical	■
C5321-.188D3B.0Z2	10268897	3	D	0.188	0.188	0.625	2.000	-	-	0.094	2	Cylindrical	■
C5321-.250D3B.0Z2	10268900	3	D	0.250	0.250	0.750	2.500	-	-	0.125	2	Cylindrical	■
C5321-.281F3B.0Z2	10268904	3	F	0.281	0.313	0.750	2.500	0.750	0.286	0.141	2	Cylindrical	■
C5321-.313D3B.0Z2	10268905	3	D	0.313	0.313	0.813	2.500	-	-	0.156	2	Cylindrical	■
C5321-.375D3B.0Z2	10268909	3	D	0.375	0.375	1.000	2.500	-	-	0.188	2	Cylindrical	■
C5321-.500D3B.0Z2	10268915	3	D	0.500	0.500	1.000	4.000	-	-	0.250	2	Cylindrical	■
C5321-.750D3B.0Z2	10268922	3	D	0.750	0.750	2.000	6.000	-	-	0.375	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

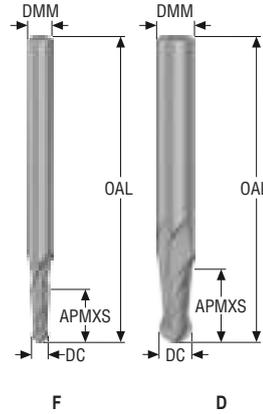
Graphite

X-Heads

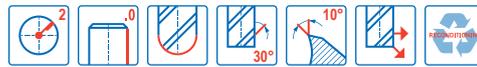
Minimaster

C5321

General purpose – Universal – Ball nose – 2 Flutes – Cylindrical – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- RE= ±.0005"
- Regrind possible if DC is ≥Ø.375

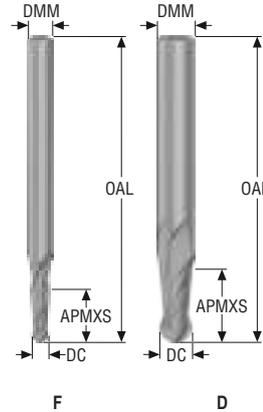


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				inch									
C5321-.031F4B.0Z2	10268880	4	F	0.031	0.125	0.094	1.500	0.094	0.036	0.016	2	Cylindrical	■
C5321-.063F4B.0Z2	10268885	4	F	0.063	0.125	0.250	1.500	0.250	0.068	0.031	2	Cylindrical	■
C5321-.094F4B.0Z2	10268890	4	F	0.094	0.125	0.375	1.500	0.375	0.099	0.047	2	Cylindrical	■
C5321-.125D4B.0Z2	10268892	4	D	0.125	0.125	0.500	1.500	—	—	0.063	2	Cylindrical	■
C5321-.188D4B.0Z2	10268898	4	D	0.188	0.188	1.000	3.000	—	—	0.094	2	Cylindrical	■
C5321-.250D4B.0Z2	10268901	4	D	0.250	0.250	1.000	3.000	—	—	0.125	2	Cylindrical	■
C5321-.375D4B.0Z2	10268910	4	D	0.375	0.375	1.000	3.000	—	—	0.188	2	Cylindrical	■
C5321-.500D4B.0Z2	10268916	4	D	0.500	0.500	1.500	6.000	—	—	0.250	2	Cylindrical	■
C5321-.125D5B.0Z2	10268893	5	D	0.125	0.125	0.625	2.000	—	—	0.063	2	Cylindrical	■
C5321-.250D5B.0Z2	10268902	5	D	0.250	0.250	1.000	4.000	—	—	0.125	2	Cylindrical	■
C5321-.313D5B.0Z2	10268906	5	D	0.313	0.313	1.000	4.000	—	—	0.156	2	Cylindrical	■
C5321-.500D5B.0Z2	10268917	5	D	0.500	0.500	2.000	4.000	—	—	0.250	2	Cylindrical	■
C5321-.125D6B.0Z2	10268894	6	D	0.125	0.125	0.750	3.000	—	—	0.063	2	Cylindrical	■
C5321-.250D6B.0Z2	10268903	6	D	0.250	0.250	1.500	4.000	—	—	0.125	2	Cylindrical	■
C5321-.375D6B.0Z2	10268911	6	D	0.375	0.375	1.500	6.000	—	—	0.188	2	Cylindrical	■
C5321-.500D6B.0Z2	10268918	6	D	0.500	0.500	3.000	6.000	—	—	0.250	2	Cylindrical	■
C5321-.313D7B.0Z2	10268907	7	D	0.313	0.313	1.625	4.000	—	—	0.156	2	Cylindrical	■
C5321-.375D7B.0Z2	10268912	7	D	0.375	0.375	2.000	4.000	—	—	0.188	2	Cylindrical	■

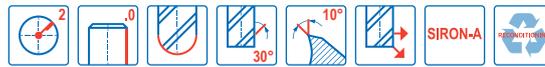
■ Stocked standard.

C5321

General purpose – Universal – Ball nose – 2 Flutes – Cylindrical – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- RE= ±.0005"
- Regrind possible if DC is ≥Ø.375



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
C5321-.500D1B.0Z2	SIRA	10268630	1	D	0.500	0.500	0.625	2.500	–	–	0.250	2	Cylindrical	■
C5321-.750D1B.0Z2	SIRA	10268637	1	D	0.750	0.750	1.000	3.000	–	–	0.375	2	Cylindrical	■
C5321-1.000D1B.0Z2	SIRA	10268640	1	D	1.000	1.000	1.500	4.000	–	–	0.500	2	Cylindrical	■
C5321-.016F2B.0Z2	SIRA	10268595	2	F	0.016	0.125	0.031	1.500	0.031	0.021	0.008	2	Cylindrical	■
C5321-.047F2B.0Z2	SIRA	10268598	2	F	0.047	0.125	0.109	1.500	0.109	0.052	0.023	2	Cylindrical	■
C5321-.063F2B.0Z2	SIRA	10268600	2	F	0.063	0.125	0.125	1.500	0.125	0.068	0.031	2	Cylindrical	■
C5321-.078F2B.0Z2	SIRA	10268603	2	F	0.078	0.125	0.188	1.500	0.188	0.083	0.039	2	Cylindrical	■
C5321-.094F2B.0Z2	SIRA	10268605	2	F	0.094	0.125	0.188	1.500	0.188	0.099	0.047	2	Cylindrical	■
C5321-.125D2B.0Z2	SIRA	10268608	2	D	0.125	0.125	0.250	1.500	–	–	0.063	2	Cylindrical	■
C5321-.188D2B.0Z2	SIRA	10268613	2	D	0.188	0.188	0.375	2.000	–	–	0.094	2	Cylindrical	■
C5321-.250D2B.0Z2	SIRA	10268616	2	D	0.250	0.250	0.500	2.000	–	–	0.125	2	Cylindrical	■
C5321-.375D2B.0Z2	SIRA	10268625	2	D	0.375	0.375	0.625	2.000	–	–	0.188	2	Cylindrical	■
C5321-.500D2B.0Z2	SIRA	10268631	2	D	0.500	0.500	1.000	3.000	–	–	0.250	2	Cylindrical	■
C5321-.625D2B.0Z2	SIRA	10268636	2	D	0.625	0.625	1.250	3.500	–	–	0.313	2	Cylindrical	■
C5321-.750D2B.0Z2	SIRA	10268638	2	D	0.750	0.750	1.500	4.000	–	–	0.375	2	Cylindrical	■
C5321-.031F3B.0Z2	SIRA	10268596	3	F	0.031	0.125	0.078	1.500	0.078	0.036	0.016	2	Cylindrical	■
C5321-.047F3B.0Z2	SIRA	10268599	3	F	0.047	0.125	0.125	1.500	0.125	0.052	0.023	2	Cylindrical	■
C5321-.063F3B.0Z2	SIRA	10268601	3	F	0.063	0.125	0.188	1.500	0.188	0.068	0.031	2	Cylindrical	■
C5321-.078F3B.0Z2	SIRA	10268604	3	F	0.078	0.125	0.250	1.500	0.250	0.083	0.039	2	Cylindrical	■
C5321-.094F3B.0Z2	SIRA	10268606	3	F	0.094	0.125	0.281	1.500	0.281	0.099	0.047	2	Cylindrical	■
C5321-.156F3B.0Z2	SIRA	10268612	3	F	0.156	0.188	0.500	2.000	0.500	0.161	0.078	2	Cylindrical	■
C5321-.188D3B.0Z2	SIRA	10268614	3	D	0.188	0.188	0.625	2.000	–	–	0.094	2	Cylindrical	■
C5321-.250D3B.0Z2	SIRA	10268617	3	D	0.250	0.250	0.750	2.500	–	–	0.125	2	Cylindrical	■
C5321-.281F3B.0Z2	SIRA	10268621	3	F	0.281	0.313	0.750	2.500	0.750	0.286	0.141	2	Cylindrical	■
C5321-.313D3B.0Z2	SIRA	10268622	3	D	0.313	0.313	0.813	2.500	–	–	0.156	2	Cylindrical	■
C5321-.375D3B.0Z2	SIRA	10268626	3	D	0.375	0.375	1.000	2.500	–	–	0.188	2	Cylindrical	■
C5321-.500D3B.0Z2	SIRA	10268632	3	D	0.500	0.500	1.000	4.000	–	–	0.250	2	Cylindrical	■
C5321-.750D3B.0Z2	SIRA	10268639	3	D	0.750	0.750	2.000	6.000	–	–	0.375	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

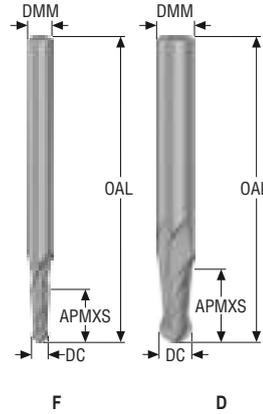
Graphite

X-Heads

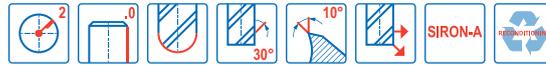
Minimaster

C5321

General purpose – Universal – Ball nose – 2 Flutes – Cylindrical – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- RE= ±.0005"
- Regrind possible if DC is ≥Ø.375

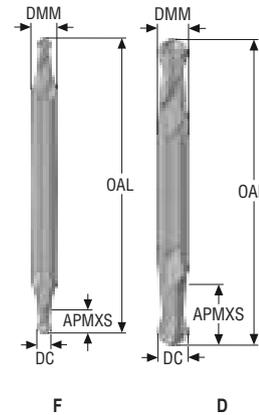


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
C5321-.031F4B.0Z2	SIRA	10268597	4	F	0.031	0.125	0.094	1.500	0.094	0.036	0.016	2	Cylindrical	■
C5321-.063F4B.0Z2	SIRA	10268602	4	F	0.063	0.125	0.250	1.500	0.250	0.068	0.031	2	Cylindrical	■
C5321-.094F4B.0Z2	SIRA	10268607	4	F	0.094	0.125	0.375	1.500	0.375	0.099	0.047	2	Cylindrical	■
C5321-.125D4B.0Z2	SIRA	10268609	4	D	0.125	0.125	0.500	1.500	—	—	0.063	2	Cylindrical	■
C5321-.188D4B.0Z2	SIRA	10268615	4	D	0.188	0.188	1.000	3.000	—	—	0.094	2	Cylindrical	■
C5321-.250D4B.0Z2	SIRA	10268618	4	D	0.250	0.250	1.000	3.000	—	—	0.125	2	Cylindrical	■
C5321-.375D4B.0Z2	SIRA	10268627	4	D	0.375	0.375	1.000	3.000	—	—	0.188	2	Cylindrical	■
C5321-.500D4B.0Z2	SIRA	10268633	4	D	0.500	0.500	1.500	6.000	—	—	0.250	2	Cylindrical	■
C5321-.125D5B.0Z2	SIRA	10268610	5	D	0.125	0.125	0.625	2.000	—	—	0.063	2	Cylindrical	■
C5321-.250D5B.0Z2	SIRA	10268619	5	D	0.250	0.250	1.000	4.000	—	—	0.125	2	Cylindrical	■
C5321-.313D5B.0Z2	SIRA	10268623	5	D	0.313	0.313	1.000	4.000	—	—	0.156	2	Cylindrical	■
C5321-.500D5B.0Z2	SIRA	10268634	5	D	0.500	0.500	2.000	4.000	—	—	0.250	2	Cylindrical	■
C5321-.125D6B.0Z2	SIRA	10268611	6	D	0.125	0.125	0.750	3.000	—	—	0.063	2	Cylindrical	■
C5321-.250D6B.0Z2	SIRA	10268620	6	D	0.250	0.250	1.500	4.000	—	—	0.125	2	Cylindrical	■
C5321-.375D6B.0Z2	SIRA	10268628	6	D	0.375	0.375	1.500	6.000	—	—	0.188	2	Cylindrical	■
C5321-.500D6B.0Z2	SIRA	10268635	6	D	0.500	0.500	3.000	6.000	—	—	0.250	2	Cylindrical	■
C5321-.313D7B.0Z2	SIRA	10268624	7	D	0.313	0.313	1.625	4.000	—	—	0.156	2	Cylindrical	■
C5321-.375D7B.0Z2	SIRA	10268629	7	D	0.375	0.375	2.000	4.000	—	—	0.188	2	Cylindrical	■

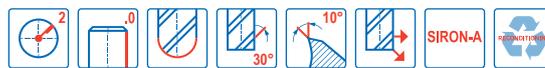
■ Stocked standard.

C5321

General purpose – Universal – Ball nose – 2 Flutes – Cylindrical – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- RE= ±.0005"
- Double end
- Regrind possible if DC is ≥Ø.375



Designation	Grade	Item number	Length index	Tool shape								PCEDC	Shank	Stock standard
					DC	DMM	APMXS	OAL	LN	DN	RE			
					inch									
C5321-.500D1B.0Z2D	SIRA	10268666	1	D	0.500	0.500	0.625	3.000	–	–	0.250	2	Cylindrical	■
C5321-.031F2B.0Z2D	SIRA	10268656	2	F	0.031	0.125	0.063	1.500	0.063	0.036	0.016	2	Cylindrical	■
C5321-.047F2B.0Z2D	SIRA	10268657	2	F	0.047	0.125	0.094	1.500	0.094	0.052	0.023	2	Cylindrical	■
C5321-.063F2B.0Z2D	SIRA	10268658	2	F	0.063	0.125	0.125	1.500	0.125	0.068	0.031	2	Cylindrical	■
C5321-.078F2B.0Z2D	SIRA	10268659	2	F	0.078	0.125	0.125	1.500	0.125	0.083	0.039	2	Cylindrical	■
C5321-.094F2B.0Z2D	SIRA	10268660	2	F	0.094	0.125	0.188	1.500	0.188	0.099	0.047	2	Cylindrical	■
C5321-.125D2B.0Z2D	SIRA	10268661	2	D	0.125	0.125	0.250	1.500	–	–	0.063	2	Cylindrical	■
C5321-.188D2B.0Z2D	SIRA	10268662	2	D	0.188	0.188	0.375	2.000	–	–	0.094	2	Cylindrical	■
C5321-.250D2B.0Z2D	SIRA	10268663	2	D	0.250	0.250	0.500	2.500	–	–	0.125	2	Cylindrical	■
C5321-.313D2B.0Z2D	SIRA	10268664	2	D	0.313	0.313	0.500	2.500	–	–	0.156	2	Cylindrical	■
C5321-.375D2B.0Z2D	SIRA	10268665	2	D	0.375	0.375	0.563	2.500	–	–	0.188	2	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – C5321 Side milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				1	1,5	2	3	3,5	4	5	6	8	9	10	12	
P1	E	0,10	1,0	0,004	0,006	0,008	0,012	0,014	0,016	0,02	0,024	0,032	0,036	0,04	0,048	150 (135 – 165)
		0,10	1,0	0,00016	0,00024	0,00032	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0014	0,0016	0,0019	490 (440 – 540)
P2	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	58 (45 – 70)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	190 (147 – 230)
P3	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	85 (70 – 95)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	279 (246 – 312)
P4	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	100 (90 – 110)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	330 (295 – 360)
P5	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	68 (50 – 75)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	223 (165 – 245)
P6	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	87 (77 – 100)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	285 (250 – 330)
P7	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	65 (55 – 75)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	213 (180 – 245)
P8	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	55 (45 – 65)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	213 (165 – 245)
P11	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	85 (70 – 95)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	280 (230 – 310)
P12	E	0,10	1,0	0,0025	0,0038	0,005	0,0075	0,009	0,01	0,013	0,015	0,02	0,022	0,025	0,03	55 (45 – 65)
		0,10	1,0	0,00010	0,00015	0,00020	0,00030	0,00036	0,00040	0,00050	0,00060	0,00080	0,00085	0,0010	0,0012	180 (147 – 213)
M1	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	93 (83 – 100)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	305 (270 – 360)
M2	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	60 (50 – 70)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	200 (165 – 230)
M3	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	55 (45 – 65)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	180 (147 – 213)
M4	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	45 (35 – 55)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	147 (115 – 180)
M5	E	0,10	1,0	0,0034	0,005	0,0065	0,01	0,012	0,013	0,017	0,02	0,026	0,03	0,034	0,04	35 (20 – 45)
		0,10	1,0	0,00013	0,00020	0,00026	0,00040	0,00048	0,00050	0,00065	0,00080	0,0010	0,0012	0,0013	0,0016	114 (65 – 147)
K1	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	80 (70 – 90)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	260 (230 – 290)
K2	E	0,10	1,0	0,0044	0,0065	0,0085	0,013	0,015	0,017	0,022	0,026	0,034	0,04	0,044	0,05	87 (75 – 100)
		0,10	1,0	0,00017	0,00026	0,00034	0,00050	0,00060	0,00065	0,00085	0,0010	0,0013	0,0016	0,0017	0,0020	285 (245 – 330)
K3	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	65 (55 – 75)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	213 (180 – 245)
K4	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	50 (35 – 65)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	165 (115 – 213)
K5	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	45 (30 – 55)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	147 (100 – 180)
K6	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	77 (65 – 85)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	250 (210 – 280)
K7	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	77 (60 – 90)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	250 (200 – 290)
S1	E	0,10	1,0	0,004	0,006	0,008	0,012	0,014	0,016	0,02	0,024	0,032	0,036	0,04	0,048	50 (35 – 60)
		0,10	1,0	0,00016	0,00024	0,00032	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0014	0,0016	0,0019	165 (115 – 200)
S2	E	0,10	1,0	0,0028	0,004	0,0055	0,008	0,0095	0,011	0,014	0,016	0,022	0,025	0,028	0,032	25 (15 – 35)
		0,10	1,0	0,00011	0,00016	0,00022	0,00032	0,00038	0,00044	0,00055	0,00065	0,00085	0,0010	0,0011	0,0013	82 (50 – 115)
S3	E	0,10	1,0	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	11 (7,5 – 16)
		0,10	1,0	0,000065	0,00010	0,00013	0,00020	0,00024	0,00028	0,00034	0,00040	0,00055	0,00060	0,00065	0,00080	35 (25 – 52)
S11	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	110 (95 – 120)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	360 (311 – 390)
S12	E	0,10	1,0	0,0025	0,0038	0,005	0,0075	0,009	0,01	0,013	0,015	0,02	0,022	0,025	0,03	77 (60 – 90)
		0,10	1,0	0,00010	0,00015	0,00020	0,00030	0,00036	0,00040	0,00050	0,00060	0,00080	0,00085	0,0010	0,0012	250 (190 – 290)
S13	E	0,10	1,0	0,0025	0,0038	0,005	0,0075	0,009	0,01	0,013	0,015	0,02	0,022	0,025	0,03	30 (20 – 40)
		0,10	1,0	0,00010	0,00015	0,00020	0,00030	0,00036	0,00040	0,00050	0,00060	0,00080	0,00085	0,0010	0,0012	100 (65 – 130)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – C5321 Side milling roughing – Inch

SMG	A	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
				1/32	1/16	1/8	1/6	1/5	2/9	1/4	1/3	3/8	1/2	5/8	3/4	1	
P1	E	0,10	1,0	0,0032	0,0065	0,013	0,016	0,019	0,022	0,026	0,032	0,038	0,05	0,06	0,065	0,08	150 (135 – 165)
		0,10	1,0	0,00013	0,00026	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0015	0,0020	0,0024	0,0026	0,0032	490 (440 – 540)
P2	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	58 (45 – 70)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	190 (147 – 230)
P3	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	85 (70 – 95)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	279 (246 – 312)
P4	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	100 (90 – 110)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	330 (295 – 360)
P5	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	68 (50 – 75)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	223 (165 – 245)
P6	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	87 (77 – 100)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	285 (250 – 330)
P7	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	65 (55 – 75)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	213 (180 – 245)
P8	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	65 (55 – 75)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	213 (165 – 245)
P11	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	85 (70 – 95)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	280 (230 – 310)
P12	E	0,10	1,0	0,002	0,004	0,008	0,01	0,012	0,014	0,016	0,02	0,024	0,032	0,038	0,042	0,05	55 (45 – 65)
		0,10	1,0	0,000080	0,00016	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0015	0,0017	0,0020	180 (147 – 213)
M1	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	93 (83 – 100)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	305 (270 – 360)
M2	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	60 (50 – 70)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	200 (165 – 230)
M3	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	55 (45 – 65)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	180 (147 – 213)
M4	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	45 (35 – 55)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	147 (115 – 180)
M5	E	0,10	1,0	0,0026	0,0055	0,011	0,013	0,016	0,019	0,022	0,026	0,032	0,042	0,048	0,055	0,065	35 (20 – 45)
		0,10	1,0	0,00010	0,00022	0,00044	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0017	0,0019	0,0022	0,0026	114 (65 – 147)
K1	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	80 (70 – 90)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	260 (230 – 290)
K2	E	0,10	1,0	0,0034	0,007	0,014	0,017	0,02	0,024	0,028	0,034	0,042	0,055	0,065	0,07	0,085	87 (75 – 100)
		0,10	1,0	0,00013	0,00028	0,00055	0,00065	0,00080	0,00095	0,0011	0,0013	0,0017	0,0022	0,0026	0,0028	0,0034	285 (245 – 330)
K3	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	65 (55 – 75)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	213 (180 – 245)
K4	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	50 (35 – 65)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	165 (115 – 213)
K5	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	45 (30 – 55)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	147 (100 – 180)
K6	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	77 (65 – 85)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	250 (210 – 280)
K7	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	77 (60 – 90)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	250 (200 – 290)
S1	E	0,10	1,0	0,0032	0,0065	0,013	0,016	0,019	0,022	0,026	0,032	0,038	0,05	0,06	0,065	0,08	50 (35 – 60)
		0,10	1,0	0,00013	0,00026	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0015	0,0020	0,0024	0,0026	0,0032	165 (115 – 200)
S2	E	0,10	1,0	0,0022	0,0044	0,009	0,011	0,013	0,015	0,018	0,022	0,026	0,034	0,04	0,044	0,055	25 (15 – 35)
		0,10	1,0	0,000085	0,00017	0,00036	0,00044	0,00050	0,00060	0,00070	0,00085	0,0010	0,0013	0,0016	0,0017	0,0022	82 (50 – 115)
S3	E	0,10	1,0	0,0014	0,0028	0,0055	0,007	0,008	0,0095	0,011	0,014	0,016	0,022	0,025	0,028	0,034	11 (7,5 – 16)
		0,10	1,0	0,000055	0,00011	0,00022	0,00028	0,00032	0,00038	0,00044	0,00055	0,00065	0,00085	0,0010	0,0011	0,0013	35 (25 – 52)
S11	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	110 (95 – 120)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	360 (311 – 390)
S12	E	0,10	1,0	0,002	0,004	0,008	0,01	0,012	0,014	0,016	0,02	0,024	0,032	0,038	0,042	0,05	77 (60 – 90)
		0,10	1,0	0,000080	0,00016	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0015	0,0017	0,0020	250 (190 – 290)
S13	E	0,10	1,0	0,002	0,004	0,008	0,01	0,012	0,014	0,016	0,02	0,024	0,032	0,038	0,042	0,05	30 (20 – 40)
		0,10	1,0	0,000080	0,00016	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0015	0,0017	0,0020	100 (65 – 130)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

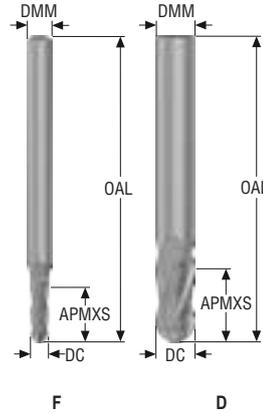
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

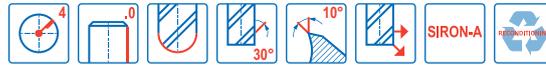
All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

**C5341**  
General purpose – Universal – Ball nose – 4 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC= h10
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø10

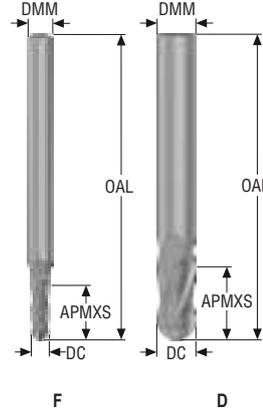


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	
C5341-020F2B.0Z4	SIRA	10268568	2	F	2,0	3,0	4,0	39,0	7,683	2,127	1,0	4	Cylindrical	■
C5341-030D2B.0Z4	SIRA	10268570	2	D	3,0	3,0	6,0	39,0	—	—	1,5	4	Cylindrical	■
C5341-040D2B.0Z4	SIRA	10268573	2	D	4,0	4,0	8,0	50,0	—	—	2,0	4	Cylindrical	■
C5341-050F2B.0Z4	SIRA	10268575	2	D	5,0	6,0	10,0	57,0	—	—	2,5	4	Cylindrical	■
C5341-060D1B.0Z4	SIRA	10268577	2	D	6,0	6,0	9,0	51,0	—	—	3,0	4	Cylindrical	■
C5341-060D2B.0Z4	SIRA	10268578	2	D	6,0	6,0	12,0	57,0	—	—	3,0	4	Cylindrical	■
C5341-080D2B.0Z4	SIRA	10268580	2	D	8,0	8,0	16,0	63,0	—	—	4,0	4	Cylindrical	■
C5341-090F2B.0Z4	SIRA	10268581	2	F	9,0	10,0	22,0	72,0	18,35	9,127	4,5	4	Cylindrical	■
C5341-100D2B.0Z4	SIRA	10268582	2	D	10,0	10,0	22,0	73,0	—	—	5,0	4	Cylindrical	■
C5341-120D2B.0Z4	SIRA	10268584	2	D	12,0	12,0	25,0	74,0	—	—	6,0	4	Cylindrical	■
C5341-160D2B.0Z4	SIRA	10268586	2	D	16,0	16,0	32,0	92,0	—	—	8,0	4	Cylindrical	■
C5341-200D2B.0Z4	SIRA	10268588	2	D	20,0	20,0	35,0	104,0	—	—	10,0	4	Cylindrical	■
C5341-015F3B.0Z4	SIRA	10268567	3	F	1,5	3,0	4,5	38,0	8,183	1,627	0,75	4	Cylindrical	■
C5341-020F3B.0Z4	SIRA	10268569	3	F	2,0	3,0	6,3	38,0	9,983	2,127	1,0	4	Cylindrical	■
C5341-035F3B.0Z4	SIRA	10268572	3	F	3,5	4,0	12,0	50,0	15,683	3,627	1,5	4	Cylindrical	■
C5341-050F3B.0Z4	SIRA	10268576	3	F	5,0	6,0	16,0	51,0	—	—	2,5	4	Cylindrical	■
C5341-060D3B.0Z4	SIRA	10268579	3	D	6,0	6,0	19,0	51,0	—	—	3,0	4	Cylindrical	■
C5341-160D3B.0Z4	SIRA	10268587	3	D	16,0	16,0	50,0	115,0	—	—	8,0	4	Cylindrical	■
C5341-200D3B.0Z4	SIRA	10268589	3	D	20,0	20,0	60,0	125,0	—	—	10,0	4	Cylindrical	■
C5341-010F4B.0Z4	SIRA	10268566	4	F	1,0	3,0	4,0	39,0	7,683	1,127	0,5	4	Cylindrical	■
C5341-030D4B.0Z4	SIRA	10268571	4	D	3,0	3,0	12,0	39,0	—	—	1,5	4	Cylindrical	■
C5341-040D4B.0Z4	SIRA	10268574	4	D	4,0	4,0	14,0	51,0	—	—	2,0	4	Cylindrical	■
C5341-100D4B.0Z4	SIRA	10268583	4	D	10,0	10,0	35,0	89,0	—	—	5,0	4	Cylindrical	■
C5341-120D4B.0Z4	SIRA	10268585	4	D	12,0	12,0	50,0	100,0	—	—	6,0	4	Cylindrical	■

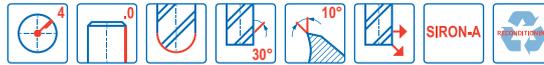
■ Stocked standard.

C5341

General purpose – Universal – Ball nose – 4 Flutes – Cylindrical – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.0007"/-.002"
- RE= ±.0005"
- Regrind possible if DC is ≥Ø.375



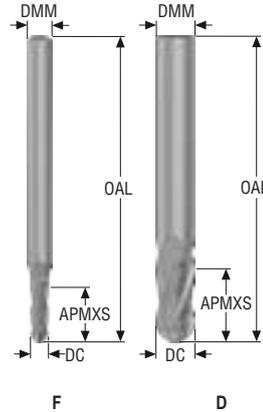
Designation	Grade	Item number	Length index	Tool shape	DC		APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch	inch								
C5341-.500D1B.0Z4	SIRA	10268532	1	D	0.500	0.500	0.625	2.500	–	–	0.250	4	Cylindrical	■
C5341-.625D1B.0Z4	SIRA	10268539	1	D	0.625	0.625	0.750	3.000	–	–	0.313	4	Cylindrical	■
C5341-.750D1B.0Z4	SIRA	10268543	1	D	0.750	0.750	1.000	3.000	–	–	0.375	4	Cylindrical	■
C5341-.016F2B.0Z4	SIRA	10268474	2	F	0.016	0.125	0.031	1.500	0.031	0.021	0.008	4	Cylindrical	■
C5341-.047F2B.0Z4	SIRA	10268477	2	F	0.047	0.125	0.109	1.500	0.109	0.052	0.023	4	Cylindrical	■
C5341-.063F2B.0Z4	SIRA	10268479	2	F	0.063	0.125	0.125	1.500	0.125	0.068	0.031	4	Cylindrical	■
C5341-.078F2B.0Z4	SIRA	10268483	2	F	0.078	0.125	0.188	1.500	0.188	0.083	0.039	4	Cylindrical	■
C5341-.094F2B.0Z4	SIRA	10268485	2	F	0.094	0.125	0.188	1.500	0.188	0.099	0.047	4	Cylindrical	■
C5341-.125D2B.0Z4	SIRA	10268490	2	D	0.125	0.125	0.250	1.500	–	–	0.063	4	Cylindrical	■
C5341-.156F2B.0Z4	SIRA	10268497	2	F	0.156	0.188	0.313	2.000	0.313	0.161	0.078	4	Cylindrical	■
C5341-.188D2B.0Z4	SIRA	10268500	2	D	0.188	0.188	0.375	2.000	–	–	0.094	4	Cylindrical	■
C5341-.250D2B.0Z4	SIRA	10268508	2	D	0.250	0.250	0.500	2.000	–	–	0.125	4	Cylindrical	■
C5341-.313D2B.0Z4	SIRA	10268515	2	D	0.313	0.313	0.500	2.000	–	–	0.156	4	Cylindrical	■
C5341-.375D2B.0Z4	SIRA	10268521	2	D	0.375	0.375	0.625	2.000	–	–	0.188	4	Cylindrical	■
C5341-.406F2B.0Z4	SIRA	10268528	2	F	0.406	0.438	1.000	2.750	1.000	0.411	0.203	4	Cylindrical	■
C5341-.438D2B.0Z4	SIRA	10268529	2	D	0.438	0.438	1.000	2.750	–	–	0.219	4	Cylindrical	■
C5341-.469F2B.0Z4	SIRA	10268531	2	F	0.469	0.500	1.000	3.000	1.000	0.474	0.234	4	Cylindrical	■
C5341-.500D2B.0Z4	SIRA	10268533	2	D	0.500	0.500	1.000	3.000	–	–	0.250	4	Cylindrical	■
C5341-.563D2B.0Z4	SIRA	10268538	2	D	0.563	0.563	1.125	3.500	–	–	0.281	4	Cylindrical	■
C5341-.625D2B.0Z4	SIRA	10268540	2	D	0.625	0.625	1.250	3.500	–	–	0.313	4	Cylindrical	■
C5341-.750D2B.0Z4	SIRA	10268544	2	D	0.750	0.750	1.500	4.000	–	–	0.375	4	Cylindrical	■
C5341-.875D2B.0Z4	SIRA	10268548	2	D	0.875	0.875	1.500	4.000	–	–	0.438	4	Cylindrical	■
C5341-1.000D2B.0Z4	SIRA	10268549	2	D	1.000	1.000	1.500	4.000	–	–	0.500	4	Cylindrical	■

■ Stocked standard.

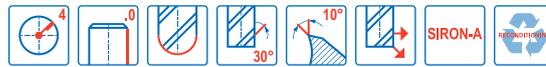
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

C5341

General purpose – Universal – Ball nose – 4 Flutes – Cylindrical – Inch



- Tolerances:  
 —DMM =  $-.0001"/-0.0004"$   
 —DC  $\leq \varnothing 7/64" = \pm 0.0005"$   
 —DC  $> \varnothing 7/64" = +0.0007/-0.002"$   
 —RE =  $\pm 0.0005"$   
 —Regrind possible if DC is  $\geq \varnothing 0.375$

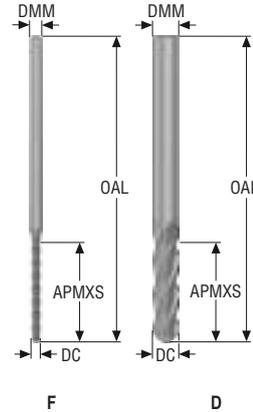


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
C5341-.031F3B.0Z4	SIRA	10268475	3	F	0.031	0.125	0.078	1.500	0.078	0.036	0.016	4	Cylindrical	■
C5341-.047F3B.0Z4	SIRA	10268478	3	F	0.047	0.125	0.125	1.500	0.125	0.052	0.023	4	Cylindrical	■
C5341-.063F3B.0Z4	SIRA	10268480	3	F	0.063	0.125	0.188	1.500	0.188	0.068	0.031	4	Cylindrical	■
C5341-.078F3B.0Z4	SIRA	10268484	3	F	0.078	0.125	0.250	1.500	0.250	0.083	0.039	4	Cylindrical	■
C5341-.094F3B.0Z4	SIRA	10268486	3	F	0.094	0.125	0.281	1.500	0.281	0.099	0.047	4	Cylindrical	■
C5341-.109F3B.0Z4	SIRA	10268489	3	F	0.109	0.125	0.375	1.500	0.375	0.114	0.055	4	Cylindrical	■
C5341-.156F3B.0Z4	SIRA	10268498	3	F	0.156	0.188	0.500	2.000	0.500	0.161	0.078	4	Cylindrical	■
C5341-.188D3B.0Z4	SIRA	10268501	3	D	0.188	0.188	0.625	2.000	—	—	0.094	4	Cylindrical	■
C5341-.203F3B.0Z4	SIRA	10268505	3	F	0.203	0.250	0.625	2.500	0.625	0.208	0.102	4	Cylindrical	■
C5341-.219F3B.0Z4	SIRA	10268506	3	F	0.219	0.250	0.625	2.500	0.625	0.224	0.109	4	Cylindrical	■
C5341-.234F3B.0Z4	SIRA	10268507	3	F	0.234	0.250	0.750	2.500	0.750	0.239	0.117	4	Cylindrical	■
C5341-.250D3B.0Z4	SIRA	10268509	3	D	0.250	0.250	0.750	2.500	—	—	0.125	4	Cylindrical	■
C5341-.281F3B.0Z4	SIRA	10268514	3	F	0.281	0.313	0.750	2.500	0.750	0.286	0.141	4	Cylindrical	■
C5341-.313D3B.0Z4	SIRA	10268516	3	D	0.313	0.313	0.813	2.500	—	—	0.156	4	Cylindrical	■
C5341-.328F3B.0Z4	SIRA	10268519	3	F	0.328	0.375	1.000	2.500	1.000	0.333	0.164	4	Cylindrical	■
C5341-.344F3B.0Z4	SIRA	10268520	3	F	0.344	0.375	1.000	2.500	1.000	0.349	0.172	4	Cylindrical	■
C5341-.375D3B.0Z4	SIRA	10268522	3	D	0.375	0.375	1.000	2.500	—	—	0.188	4	Cylindrical	■
C5341-.438D3B.0Z4	SIRA	10268530	3	D	0.438	0.438	1.000	4.000	—	—	0.219	4	Cylindrical	■
C5341-.500D3B.0Z4	SIRA	10268534	3	D	0.500	0.500	1.000	4.000	—	—	0.250	4	Cylindrical	■
C5341-.625D3B.0Z4	SIRA	10268541	3	D	0.625	0.625	2.000	6.000	—	—	0.313	4	Cylindrical	■
C5341-.750D3B.0Z4	SIRA	10268545	3	D	0.750	0.750	2.000	6.000	—	—	0.375	4	Cylindrical	■
C5341-1.000D3B.0Z4	SIRA	10268550	3	D	1.000	1.000	2.000	6.000	—	—	0.500	4	Cylindrical	■
C5341-.031F4B.0Z4	SIRA	10268476	4	F	0.031	0.125	0.094	1.500	0.094	0.036	0.016	4	Cylindrical	■
C5341-.063F4B.0Z4	SIRA	10268481	4	F	0.063	0.125	0.250	1.500	0.250	0.068	0.031	4	Cylindrical	■
C5341-.094F4B.0Z4	SIRA	10268487	4	F	0.094	0.125	0.375	1.500	0.375	0.099	0.047	4	Cylindrical	■
C5341-.125D4B.0Z4	SIRA	10268491	4	D	0.125	0.125	0.500	1.500	—	—	0.063	4	Cylindrical	■
C5341-.141F4B.0Z4	SIRA	10268496	4	F	0.141	0.188	0.500	2.000	0.500	0.146	0.070	4	Cylindrical	■
C5341-.172F4B.0Z4	SIRA	10268499	4	F	0.172	0.188	0.625	2.000	0.625	0.177	0.086	4	Cylindrical	■
C5341-.188D4B.0Z4	SIRA	10268502	4	D	0.188	0.188	1.000	3.000	—	—	0.094	4	Cylindrical	■
C5341-.250D4B.0Z4	SIRA	10268510	4	D	0.250	0.250	1.000	3.000	—	—	0.125	4	Cylindrical	■
C5341-.313D4B.0Z4	SIRA	10268517	4	D	0.313	0.313	1.000	3.000	—	—	0.156	4	Cylindrical	■
C5341-.375D4B.0Z4	SIRA	10268523	4	D	0.375	0.375	1.000	3.000	—	—	0.188	4	Cylindrical	■
C5341-.500D4B.0Z4	SIRA	10268535	4	D	0.500	0.500	1.500	6.000	—	—	0.250	4	Cylindrical	■
C5341-.750D4B.0Z4	SIRA	10268546	4	D	0.750	0.750	3.000	6.000	—	—	0.375	4	Cylindrical	■
C5341-1.000D4B.0Z4	SIRA	10268551	4	D	1.000	1.000	3.000	6.000	—	—	0.500	4	Cylindrical	■

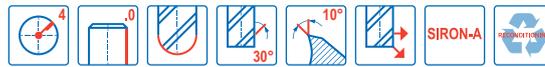
■ Stocked standard.

C5341

General purpose – Universal – Ball nose – 4 Flutes – Cylindrical – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC ≤ Ø7/64" = ±.0005"
- DC > Ø7/64" = +.000"/-.002"
- RE= ±.0005"
- Regrind possible if DC is ≥Ø.375



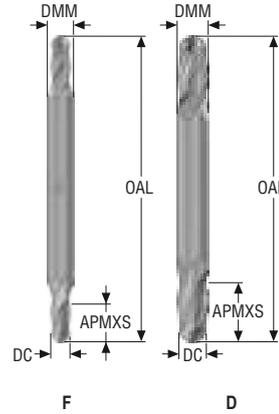
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
C5341-.125D5B.0Z4	SIRA	10268492	5	D	0.125	0.125	0.625	2.000	–	–	0.063	4	Cylindrical	■
C5341-.188D5B.0Z4	SIRA	10268503	5	D	0.188	0.188	1.000	4.000	–	–	0.094	4	Cylindrical	■
C5341-.250D5B.0Z4	SIRA	10268511	5	D	0.250	0.250	1.000	4.000	–	–	0.125	4	Cylindrical	■
C5341-.375D5B.0Z4	SIRA	10268524	5	D	0.375	0.375	1.000	4.000	–	–	0.188	4	Cylindrical	■
C5341-.500D5B.0Z4	SIRA	10268536	5	D	0.500	0.500	2.000	4.000	–	–	0.250	4	Cylindrical	■
C5341-.625D5B.0Z4	SIRA	10268542	5	D	0.625	0.625	3.000	6.000	–	–	0.313	4	Cylindrical	■
C5341-.750D5B.0Z4	SIRA	10268547	5	D	0.750	0.750	4.000	6.000	–	–	0.375	4	Cylindrical	■
C5341-1.000D5B.0Z4	SIRA	10268552	5	D	1.000	1.000	4.000	7.000	–	–	0.500	4	Cylindrical	■
C5341-.125D6B.0Z4	SIRA	10268493	6	D	0.125	0.125	0.750	3.000	–	–	0.063	4	Cylindrical	■
C5341-.188D6B.0Z4	SIRA	10268504	6	D	0.188	0.188	1.125	3.000	–	–	0.094	4	Cylindrical	■
C5341-.250D6B.0Z4	SIRA	10268512	6	D	0.250	0.250	1.500	4.000	–	–	0.125	4	Cylindrical	■
C5341-.313D6B.0Z4	SIRA	10268518	6	D	0.313	0.313	1.500	6.000	–	–	0.156	4	Cylindrical	■
C5341-.375D6B.0Z4	SIRA	10268525	6	D	0.375	0.375	1.500	6.000	–	–	0.188	4	Cylindrical	■
C5341-.500D6B.0Z4	SIRA	10268537	6	D	0.500	0.500	3.000	6.000	–	–	0.250	4	Cylindrical	■
C5341-.125D7B.0Z4	SIRA	10268494	7	D	0.125	0.125	1.000	3.000	–	–	0.063	4	Cylindrical	■
C5341-.250D7B.0Z4	SIRA	10268513	7	D	0.250	0.250	1.500	6.000	–	–	0.125	4	Cylindrical	■
C5341-.375D7B.0Z4	SIRA	10268526	7	D	0.375	0.375	2.000	4.000	–	–	0.188	4	Cylindrical	■
C5341-.063F8B.0Z4	SIRA	10268482	8	F	0.063	0.125	1.000	3.000	1.000	0.068	0.031	4	Cylindrical	■
C5341-.094F8B.0Z4	SIRA	10268488	8	F	0.094	0.125	1.000	3.000	1.000	0.099	0.047	4	Cylindrical	■
C5341-.125D8B.0Z4	SIRA	10268495	8	D	0.125	0.125	1.000	4.000	–	–	0.063	4	Cylindrical	■
C5341-.375D8B.0Z4	SIRA	10268527	8	D	0.375	0.375	3.000	6.000	–	–	0.188	4	Cylindrical	■

■ Stocked standard.

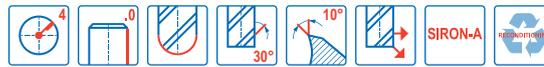
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaster

C5341

General purpose – Universal – Ball nose – 4 Flutes – Cylindrical – Inch



- Tolerances:
- DMM =  $-.0001"/-0.0004"$
- DC  $\leq \varnothing 7/64" = \pm 0.0005"$
- DC  $> \varnothing 7/64" = +0.0007/-0.002"$
- RE =  $\pm 0.0005"$
- Double end
- Regrind possible if DC is  $\geq \varnothing 0.375$



	Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
						inch									
Hard	C5341-.500D1B.0Z4D	SIRA	10268565	1	D	0.500	0.500	0.625	3.000	—	—	0.250	4	Cylindrical	■
	C5341-.031F2B.0Z4D	SIRA	10268553	2	F	0.031	0.125	0.063	1.500	0.063	0.036	0.016	4	Cylindrical	■
	C5341-.047F2B.0Z4D	SIRA	10268554	2	F	0.047	0.125	0.094	1.500	0.094	0.052	0.023	4	Cylindrical	■
	C5341-.063F2B.0Z4D	SIRA	10268555	2	F	0.063	0.125	0.125	1.500	0.125	0.068	0.031	4	Cylindrical	■
	C5341-.078F2B.0Z4D	SIRA	10268556	2	F	0.078	0.125	0.125	1.500	0.125	0.083	0.039	4	Cylindrical	■
Plastic and CFRP	C5341-.094F2B.0Z4D	SIRA	10268557	2	F	0.094	0.125	0.188	1.500	0.188	0.099	0.047	4	Cylindrical	■
	C5341-.125D2B.0Z4D	SIRA	10268558	2	D	0.125	0.125	0.250	1.500	—	—	0.063	4	Cylindrical	■
	C5341-.156F2B.0Z4D	SIRA	10268559	2	F	0.156	0.188	0.313	2.000	0.313	0.161	0.078	4	Cylindrical	■
	C5341-.172F2B.0Z4D	SIRA	10268560	2	F	0.172	0.188	0.313	2.000	0.313	0.177	0.086	4	Cylindrical	■
	C5341-.188D2B.0Z4D	SIRA	10268561	2	D	0.188	0.188	0.375	2.000	—	—	0.094	4	Cylindrical	■
	C5341-.250D2B.0Z4D	SIRA	10268562	2	D	0.250	0.250	0.500	2.500	—	—	0.125	4	Cylindrical	■
	C5341-.313D2B.0Z4D	SIRA	10268563	2	D	0.313	0.313	0.500	2.500	—	—	0.156	4	Cylindrical	■
	C5341-.375D2B.0Z4D	SIRA	10268564	2	D	0.375	0.375	0.563	2.500	—	—	0.188	4	Cylindrical	■

■ Stocked standard.

Cutting data – C5341 Side milling roughing

SMG	A	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>														v <sub>c</sub>
				1	1,5	2	3	3,5	4	5	6	8	9	10	12	16	20	
P1	E	0,10	1,0	0,004	0,006	0,008	0,012	0,014	0,016	0,02	0,024	0,032	0,036	0,04	0,048	0,06	0,07	150 (135 – 165)
		0,10	1,0	0,00016	0,00024	0,00032	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0014	0,0016	0,0019	0,0024	0,0028	490 (440 – 540)
P2	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	58 (45 – 70)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	190 (147 – 230)
P3	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	85 (70 – 95)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	279 (246 – 312)
P4	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	100 (90 – 110)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	330 (295 – 360)
P5	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	68 (50 – 75)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	223 (165 – 245)
P6	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	87 (77 – 100)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	285 (250 – 330)
P7	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	65 (55 – 75)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	213 (180 – 245)
P8	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	65 (55 – 75)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	213 (165 – 245)
P11	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	85 (70 – 95)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	280 (230 – 310)
P12	E	0,10	1,0	0,0025	0,0038	0,005	0,0075	0,009	0,01	0,013	0,015	0,02	0,022	0,025	0,03	0,038	0,044	55 (45 – 65)
		0,10	1,0	0,00010	0,00015	0,00020	0,00030	0,00036	0,00040	0,00050	0,00060	0,00080	0,00085	0,0010	0,0012	0,0015	0,0017	180 (147 – 213)
M1	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	0,055	0,065	93 (83 – 100)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	0,0022	0,0026	305 (270 – 360)
M2	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	0,055	0,065	60 (50 – 70)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	0,0022	0,0026	200 (165 – 230)
M3	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	0,055	0,065	55 (45 – 65)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	0,0022	0,0026	180 (147 – 213)
M4	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	0,055	0,065	45 (35 – 55)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	0,0022	0,0026	147 (115 – 180)
M5	E	0,10	1,0	0,0034	0,005	0,0065	0,01	0,012	0,013	0,017	0,02	0,026	0,03	0,034	0,04	0,05	0,055	35 (20 – 45)
		0,10	1,0	0,00013	0,00020	0,00026	0,00040	0,00048	0,00050	0,00065	0,00080	0,0010	0,0012	0,0013	0,0016	0,0020	0,0022	114 (65 – 147)
K1	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	80 (70 – 90)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	260 (230 – 290)
K2	E	0,10	1,0	0,0044	0,0065	0,0085	0,013	0,015	0,017	0,022	0,026	0,034	0,04	0,044	0,05	0,065	0,075	87 (75 – 100)
		0,10	1,0	0,00017	0,00026	0,00034	0,00050	0,00060	0,00065	0,00085	0,0010	0,0013	0,0016	0,0017	0,0020	0,0026	0,0030	285 (245 – 330)
K3	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	65 (55 – 75)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	213 (180 – 245)
K4	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	50 (35 – 65)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	165 (115 – 213)
K5	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	45 (30 – 55)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	147 (100 – 180)
K6	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	77 (65 – 85)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	250 (210 – 280)
K7	E	0,10	1,0	0,0032	0,0048	0,0065	0,0095	0,011	0,013	0,016	0,019	0,026	0,028	0,032	0,038	0,048	0,055	77 (60 – 90)
		0,10	1,0	0,00013	0,00019	0,00026	0,00038	0,00044	0,00050	0,00065	0,00075	0,0010	0,0011	0,0013	0,0015	0,0019	0,0022	250 (200 – 290)
S1	E	0,10	1,0	0,004	0,006	0,008	0,012	0,014	0,016	0,02	0,024	0,032	0,036	0,04	0,048	0,06	0,07	50 (35 – 60)
		0,10	1,0	0,00016	0,00024	0,00032	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0014	0,0016	0,0019	0,0024	0,0028	165 (115 – 200)
S2	E	0,10	1,0	0,0028	0,004	0,0055	0,008	0,0095	0,011	0,014	0,016	0,022	0,025	0,028	0,032	0,04	0,046	25 (15 – 35)
		0,10	1,0	0,00011	0,00016	0,00022	0,00032	0,00038	0,00044	0,00055	0,00065	0,00085	0,0010	0,0011	0,0013	0,0016	0,0018	82 (50 – 115)
S3	E	0,10	1,0	0,0017	0,0026	0,0034	0,005	0,006	0,007	0,0085	0,01	0,014	0,015	0,017	0,02	0,025	0,03	11 (7,5 – 16)
		0,10	1,0	0,000065	0,00010	0,00013	0,00020	0,00024	0,00028	0,00034	0,00040	0,00055	0,00060	0,00065	0,00080	0,0010	0,0012	35 (25 – 52)
S11	E	0,10	1,0	0,0038	0,0055	0,0075	0,011	0,013	0,015	0,019	0,022	0,03	0,034	0,038	0,044	0,055	0,065	110 (95 – 120)
		0,10	1,0	0,00015	0,00022	0,00030	0,00044	0,00050	0,00060	0,00075	0,00085	0,0012	0,0013	0,0015	0,0017	0,0022	0,0026	360 (311 – 390)
S12	E	0,10	1,0	0,0025	0,0038	0,005	0,0075	0,009	0,01	0,013	0,015	0,02	0,022	0,025	0,03	0,038	0,044	77 (60 – 90)
		0,10	1,0	0,00010	0,00015	0,00020	0,00030	0,00036	0,00040	0,00050	0,00060	0,00080	0,00085	0,0010	0,0012	0,0015	0,0017	250 (190 – 290)
S13	E	0,10	1,0	0,0025	0,0038	0,005	0,0075	0,009	0,01	0,013	0,015							

Cutting data – C5341 Side milling roughing – Inch

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
				1/32	1/16	1/8	1/6	1/5	2/9	1/4	1/3	3/8	1/2	5/8	3/4	1	
P1	E	0,10	1,0	0,0032	0,0065	0,013	0,016	0,019	0,022	0,026	0,032	0,038	0,05	0,06	0,065	0,08	150 (135 – 165)
		0,10	1,0	0,00013	0,00026	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0015	0,0020	0,0024	0,0026	0,0032	490 (440 – 540)
P2	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	58 (45 – 70)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	190 (147 – 230)
P3	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	85 (70 – 95)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	279 (246 – 312)
P4	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	100 (90 – 110)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	330 (295 – 360)
P5	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	68 (50 – 75)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	223 (165 – 245)
P6	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	87 (77 – 100)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	285 (250 – 330)
P7	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	65 (55 – 75)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	213 (180 – 245)
P8	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	65 (50 – 75)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	213 (165 – 245)
P11	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	85 (70 – 95)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	280 (230 – 310)
P12	E	0,10	1,0	0,002	0,004	0,008	0,01	0,012	0,014	0,016	0,02	0,024	0,032	0,038	0,042	0,05	55 (45 – 65)
		0,10	1,0	0,000080	0,00016	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0015	0,0017	0,0020	180 (147 – 213)
M1	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	93 (83 – 100)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	305 (270 – 360)
M2	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	60 (50 – 70)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	200 (165 – 230)
M3	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	55 (45 – 65)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	180 (147 – 213)
M4	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	45 (35 – 55)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	147 (115 – 180)
M5	E	0,10	1,0	0,0026	0,0055	0,011	0,013	0,016	0,019	0,022	0,026	0,032	0,042	0,048	0,055	0,065	35 (20 – 45)
		0,10	1,0	0,00010	0,00022	0,00044	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0017	0,0019	0,0022	0,0026	114 (65 – 147)
K1	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	80 (70 – 90)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	260 (230 – 290)
K2	E	0,10	1,0	0,0034	0,007	0,014	0,017	0,02	0,024	0,028	0,034	0,042	0,055	0,065	0,07	0,085	87 (75 – 100)
		0,10	1,0	0,00013	0,00028	0,00055	0,00065	0,00080	0,00095	0,0011	0,0013	0,0017	0,0022	0,0026	0,0028	0,0034	285 (245 – 330)
K3	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	65 (55 – 75)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	213 (180 – 245)
K4	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	50 (35 – 65)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	165 (115 – 213)
K5	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	45 (30 – 55)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	147 (100 – 180)
K6	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	77 (65 – 85)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	250 (210 – 280)
K7	E	0,10	1,0	0,0025	0,005	0,01	0,013	0,015	0,018	0,02	0,026	0,03	0,04	0,046	0,055	0,06	77 (60 – 90)
		0,10	1,0	0,00010	0,00020	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0018	0,0022	0,0024	250 (200 – 290)
S1	E	0,10	1,0	0,0032	0,0065	0,013	0,016	0,019	0,022	0,026	0,032	0,038	0,05	0,06	0,065	0,08	50 (35 – 60)
		0,10	1,0	0,00013	0,00026	0,00050	0,00065	0,00075	0,00085	0,0010	0,0013	0,0015	0,0020	0,0024	0,0026	0,0032	165 (115 – 200)
S2	E	0,10	1,0	0,0022	0,0044	0,009	0,011	0,013	0,015	0,018	0,022	0,026	0,034	0,04	0,044	0,055	25 (15 – 35)
		0,10	1,0	0,000085	0,00017	0,00036	0,00044	0,00050	0,00060	0,00070	0,00085	0,0010	0,0013	0,0016	0,0017	0,0022	82 (50 – 115)
S3	E	0,10	1,0	0,0014	0,0028	0,0055	0,007	0,008	0,0095	0,011	0,014	0,016	0,022	0,025	0,028	0,034	11 (7,5 – 16)
		0,10	1,0	0,000055	0,00011	0,00022	0,00028	0,00032	0,00038	0,00044	0,00055	0,00065	0,00085	0,0010	0,0011	0,0013	35 (25 – 52)
S11	E	0,10	1,0	0,003	0,006	0,012	0,015	0,018	0,02	0,024	0,03	0,036	0,046	0,055	0,06	0,07	110 (95 – 120)
		0,10	1,0	0,00012	0,00024	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0018	0,0022	0,0024	0,0028	360 (311 – 390)
S12	E	0,10	1,0	0,002	0,004	0,008	0,01	0,012	0,014	0,016	0,02	0,024	0,032	0,038	0,042	0,05	77 (60 – 90)
		0,10	1,0	0,000080	0,00016	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0015	0,0017	0,0020	250 (190 – 290)
S13	E	0,10	1,0	0,002	0,004	0,008	0,01	0,012	0,014	0,016	0,02	0,024	0,032	0,038	0,042	0,05	30 (20 – 40)
		0,10	1,0	0,000080	0,00016	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0015	0,0017	0,0020	100 (65 – 130)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

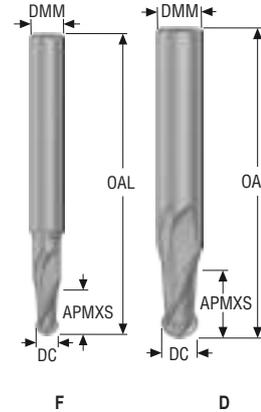
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

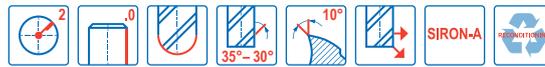
All cutting data are target values

JSB512

General purpose – Universal – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø10



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	
JSB512020F2B.0Z2	SIRA	10053561	2	F	2,0	3,0	3,0	40,0	10,0	2,05	1,0	2	Cylindrical	■
JSB512030D2B.0Z2	SIRA	10053562	2	D	3,0	3,0	5,0	40,0	–	–	1,5	2	Cylindrical	■
JSB512040D2B.0Z2	SIRA	10053563	2	D	4,0	4,0	6,0	50,0	–	–	2,0	2	Cylindrical	■
JSB512050F2B.0Z2	SIRA	10053564	2	F	5,0	6,0	8,0	57,0	16,0	5,05	2,5	2	Cylindrical	■
JSB512060D2B.0Z2	SIRA	10053565	2	D	6,0	6,0	9,0	57,0	–	–	3,0	2	Cylindrical	■
JSB512080D2B.0Z2	SIRA	10053566	2	D	8,0	8,0	12,0	63,0	–	–	4,0	2	Cylindrical	■
JSB512100D2B.0Z2	SIRA	10053567	2	D	10,0	10,0	15,0	72,0	–	–	5,0	2	Cylindrical	■
JSB512120D2B.0Z2	SIRA	10053568	2	D	12,0	12,0	18,0	83,0	–	–	6,0	2	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – JSB512 Copy milling roughing

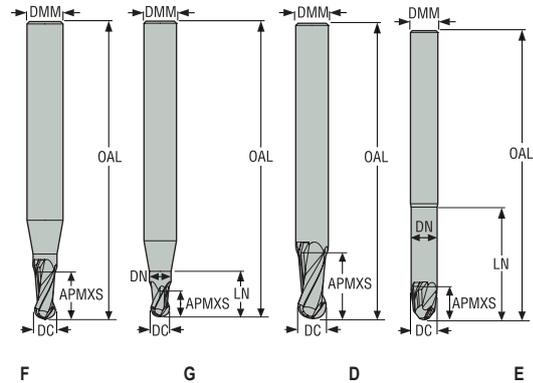
SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				2	3	4	5	6	8	10	12	
P1	M/A/D/E	0.150	1.2	0.010	0.015	0.020	0.025	0.030	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00060	0,00080	0,0010	0,0012	0,0017	0,0020	0,0024	490 (210 — 590)
P2	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
P3	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
P4	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
P5	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
P6	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
P7	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
P8	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
P11	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)
P12	M/A/D/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)
M1	E/M/A	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)
M2	E/M/A	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)
M3	E/M/A	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)
M4	E/M/A	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)
M5	E/M/A	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)
K1	A/D/M/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
K2	A/D/M/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
K3	A/D/M/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
K4	A/D/M/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
K5	A/D/M/E	0.150	1.2	0.012	0.018	0.025	0.030	0.036	0.050	0.060	0.070	145 (61 — 180)
		0,150	1,2	0,00048	0,00070	0,0010	0,0012	0,0014	0,0020	0,0024	0,0028	475 (210 — 590)
K6	A/D/M/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
K7	A/D/M/E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	150 (63 — 180)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	490 (210 — 590)
N1	E/M/A	0.150	1.2	0.010	0.015	0.020	0.025	0.030	0.042	0.050	0.060	500 (380 — 620)
		0,150	1,2	0,00040	0,00060	0,00080	0,0010	0,0012	0,0017	0,0020	0,0024	1650 (1300 — 2000)
N11	E/M/A	0.150	1.2	0.010	0.015	0.020	0.025	0.030	0.042	0.050	0.060	375 (260 — 500)
		0,150	1,2	0,00040	0,00060	0,00080	0,0010	0,0012	0,0017	0,0020	0,0024	1225 (860 — 1600)
S11	E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (66 — 130)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (220 — 420)
S12	E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)
S13	E	0.150	1.2	0.010	0.016	0.020	0.026	0.032	0.042	0.050	0.060	90 (63 — 120)
		0,150	1,2	0,00040	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	295 (210 — 390)

For cutting data recalculations, see pages 687 – 695

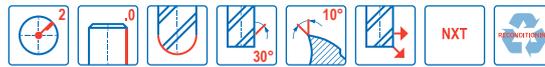
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## JS532

## High performance – Universal – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



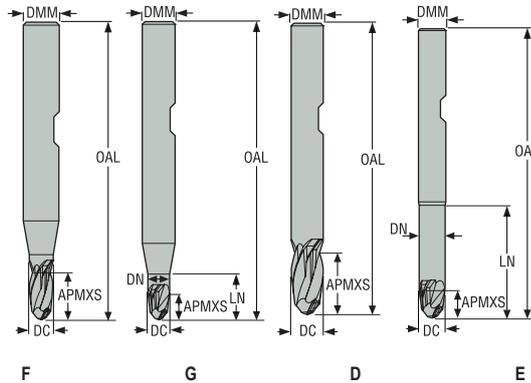
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS532010F1B.0Z2-NXT	02928193	1	F	1,0	3,0	2,0	38,0	3,1	1,0	0,5	2	Cylindrical	■
JS532015F1B.0Z2-NXT	02928194	1	F	1,5	3,0	3,0	38,0	4,6	1,5	0,75	2	Cylindrical	■
JS532020F1B.0Z2-NXT	02928195	1	F	2,0	3,0	4,0	38,0	6,1	2,0	1,0	2	Cylindrical	■
JS532025F1B.0Z2-NXT	02928197	1	F	2,5	3,0	5,0	38,0	7,1	2,5	1,25	2	Cylindrical	■
JS532030D1B.0Z2-NXT	02928199	1	D	3,0	3,0	6,0	38,0	–	–	1,5	2	Cylindrical	■
JS532035F1B.0Z2-NXT	02928202	1	F	3,5	6,0	7,0	57,0	9,6	3,5	1,75	2	Cylindrical	■
JS532040F1B.0Z2-NXT	02928203	1	F	4,0	6,0	8,0	57,0	10,75	4,0	2,0	2	Cylindrical	■
JS532045F1B.0Z2-NXT	02928206	1	F	4,5	6,0	9,0	57,0	11,75	4,5	2,25	2	Cylindrical	■
JS532050F1B.0Z2-NXT	02928207	1	F	5,0	6,0	10,0	57,0	12,75	5,0	2,5	2	Cylindrical	■
JS532060D1B.0Z2-NXT	02928210	1	D	6,0	6,0	12,0	57,0	–	–	3,0	2	Cylindrical	■
JS532080D1B.0Z2-NXT	02928213	1	D	8,0	8,0	16,0	63,0	–	–	4,0	2	Cylindrical	■
JS532100D1B.0Z2-NXT	02928216	1	D	10,0	10,0	20,0	72,0	–	–	5,0	2	Cylindrical	■
JS532120D1B.0Z2-NXT	02928219	1	D	12,0	12,0	24,0	83,0	–	–	6,0	2	Cylindrical	■
JS532160D1B.0Z2-NXT	02928222	1	D	16,0	16,0	32,0	92,0	–	–	8,0	2	Cylindrical	■
JS532200D1B.0Z2-NXT	02928225	1	D	20,0	20,0	40,0	104,0	–	–	10,0	2	Cylindrical	■
JS532020G2B.0Z2-NXT	02928196	2	G	2,0	3,0	2,0	38,0	8,0	1,9	1,0	2	Cylindrical	■
JS532030E2B.0Z2-NXT	02928200	2	E	3,0	3,0	3,0	38,0	10,0	2,85	1,5	2	Cylindrical	■
JS532040G2B.0Z2-NXT	02928204	2	G	4,0	6,0	4,0	57,0	15,0	3,8	2,0	2	Cylindrical	■
JS532050G2B.0Z2-NXT	02928208	2	G	5,0	6,0	5,0	57,0	20,0	4,8	2,5	2	Cylindrical	■
JS532060E2B.0Z2-NXT	02928211	2	E	6,0	6,0	6,0	63,0	25,0	5,7	3,0	2	Cylindrical	■
JS532080E2B.0Z2-NXT	02928214	2	E	8,0	8,0	8,0	80,0	35,0	7,6	4,0	2	Cylindrical	■
JS532100E2B.0Z2-NXT	02928217	2	E	10,0	10,0	10,0	82,0	40,0	9,5	5,0	2	Cylindrical	■
JS532120E2B.0Z2-NXT	02928220	2	E	12,0	12,0	12,0	100,0	50,0	11,4	6,0	2	Cylindrical	■
JS532160E2B.0Z2-NXT	02928223	2	E	16,0	16,0	16,0	125,0	72,0	15,2	8,0	2	Cylindrical	■
JS532030E3B.0Z2-NXT	02928201	3	E	3,0	3,0	3,0	52,0	20,0	2,85	1,5	2	Cylindrical	■
JS532040G3B.0Z2-NXT	02928205	3	G	4,0	6,0	4,0	63,0	24,0	3,8	2,0	2	Cylindrical	■
JS532050G3B.0Z2-NXT	02928209	3	G	5,0	6,0	5,0	75,0	35,0	4,8	2,5	2	Cylindrical	■
JS532060E3B.0Z2-NXT	02928212	3	E	6,0	6,0	6,0	80,0	42,0	5,7	3,0	2	Cylindrical	■
JS532080E3B.0Z2-NXT	02928215	3	E	8,0	8,0	8,0	100,0	60,0	7,6	4,0	2	Cylindrical	■
JS532100E3B.0Z2-NXT	02928218	3	E	10,0	10,0	10,0	125,0	80,0	9,5	5,0	2	Cylindrical	■
JS532120E3B.0Z2-NXT	02928221	3	E	12,0	12,0	12,0	125,0	75,0	11,4	6,0	2	Cylindrical	■
JS532160E3B.0Z2-NXT	02928224	3	E	16,0	16,0	16,0	150,0	100,0	15,2	8,0	2	Cylindrical	■

■ Stocked standard.

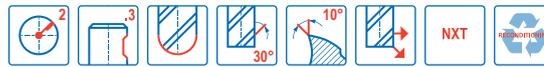
 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

**JS532**

High performance – Universal – Ball nose – 2 Flutes – Weldon



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
JS532035F1B.3Z2-NXT	02928254	1	F	3,5	6,0	7,0	57,0	9,6	3,5	1,75	2	Weldon	■
JS532040F1B.3Z2-NXT	02928255	1	F	4,0	6,0	8,0	57,0	10,75	4,0	2,0	2	Weldon	□
JS532045F1B.3Z2-NXT	02928258	1	F	4,5	6,0	9,0	57,0	11,75	4,5	2,25	2	Weldon	□
JS532050F1B.3Z2-NXT	02928259	1	F	5,0	6,0	10,0	57,0	12,75	5,0	2,5	2	Weldon	□
JS532060D1B.3Z2-NXT	02928263	1	D	6,0	6,0	12,0	57,0	–	–	3,0	2	Weldon	□
JS532080D1B.3Z2-NXT	02928266	1	D	8,0	8,0	16,0	63,0	–	–	4,0	2	Weldon	□
JS532100D1B.3Z2-NXT	02928269	1	D	10,0	10,0	20,0	72,0	–	–	5,0	2	Weldon	□
JS532120D1B.3Z2-NXT	02928272	1	D	12,0	12,0	24,0	83,0	–	–	6,0	2	Weldon	□
JS532160D1B.3Z2-NXT	02928275	1	D	16,0	16,0	32,0	92,0	–	–	8,0	2	Weldon	□
JS532200D1B.3Z2-NXT	02928278	1	D	20,0	20,0	40,0	104,0	–	–	10,0	2	Weldon	□
JS532040G2B.3Z2-NXT	02928256	2	G	4,0	6,0	4,0	57,0	18,0	3,8	2,0	2	Weldon	□
JS532050G2B.3Z2-NXT	02928260	2	G	5,0	6,0	5,0	57,0	18,0	4,8	2,5	2	Weldon	□
JS532060E2B.3Z2-NXT	02928264	2	E	6,0	6,0	6,0	63,0	25,0	5,7	3,0	2	Weldon	□
JS532080E2B.3Z2-NXT	02928267	2	E	8,0	8,0	8,0	80,0	35,0	7,6	4,0	2	Weldon	□
JS532100E2B.3Z2-NXT	02928270	2	E	10,0	10,0	10,0	82,0	40,0	9,5	5,0	2	Weldon	□
JS532120E2B.3Z2-NXT	02928273	2	E	12,0	12,0	12,0	100,0	50,0	11,4	6,0	2	Weldon	□
JS532160E2B.3Z2-NXT	02928276	2	E	16,0	16,0	16,0	125,0	70,0	15,2	8,0	2	Weldon	□
JS532040G3B.3Z2-NXT	02928257	3	G	4,0	6,0	4,0	63,0	24,0	3,8	2,0	2	Weldon	□
JS532050G3B.3Z2-NXT	02928261	3	G	5,0	6,0	5,0	75,0	35,0	4,8	2,5	2	Weldon	□
JS532060E3B.3Z2-NXT	02928265	3	E	6,0	6,0	6,0	80,0	42,0	5,7	3,0	2	Weldon	□
JS532080E3B.3Z2-NXT	02928268	3	E	8,0	8,0	8,0	100,0	60,0	7,6	4,0	2	Weldon	□
JS532100E3B.3Z2-NXT	02928271	3	E	10,0	10,0	10,0	125,0	80,0	9,5	5,0	2	Weldon	□
JS532120E3B.3Z2-NXT	02928274	3	E	12,0	12,0	12,0	125,0	75,0	11,4	6,0	2	Weldon	□
JS532160E3B.3Z2-NXT	02928277	3	E	16,0	16,0	16,0	150,0	100,0	15,2	8,0	2	Weldon	□

 Weldon available. Delivery time is 3 days.

Cutting data – JS532 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>	
				1	2	3	4	5	6	8	10	12	16	20			
P1	M/A/D/E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.11	205 (140 – 180)	Universal	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0044	670 (460 – 590)		
P2	M/A/D/E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.11	200 (130 – 180)	Steel and cast iron	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0044	660 (430 – 590)		
P3	M/A/D/E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.11	170 (110 – 150)	Steel and cast iron	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0044	560 (370 – 490)		
P4	M/A/D/E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.10	150 (97 – 130)	Steel and cast iron	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0040	490 (320 – 420)		
P5	M/A/D/E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	145 (93 – 130)	Steel and cast iron	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0036	0.0040	475 (310 – 420)		
P6	M/A/D/E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	160 (110 – 140)	Stainless steel and S-materials	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0036	0.0040	520 (370 – 450)		
P7	M/A/D/E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	150 (98 – 140)	Stainless steel and S-materials	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0036	0.0040	490 (330 – 450)		
P8	M/A/D/E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.11	145 (93 – 130)	Stainless steel and S-materials	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0044	475 (310 – 420)		
P11	M/A/D/E	0.100	0.10	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	170 (110 – 150)	Stainless steel and S-materials	
		0.100	0.10	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0048	560 (370 – 490)		
P12	M/A/D/E	0.100	0.10	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	100 (64 – 92)	Stainless steel and S-materials	
		0.100	0.10	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0048	330 (210 – 300)		
M1	E	0.100	0.10	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	195 (170 – 220)	Non ferrous	
		0.100	0.10	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0048	640 (560 – 720)		
M2	E	0.100	0.10	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.095	0.12	115 (93 – 130)	Non ferrous	
		0.100	0.10	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0038	0.0048	375 (310 – 420)		
M3	E	0.100	0.10	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.095	95 (73 – 110)	Non ferrous	
		0.100	0.10	0.00020	0.00040	0.00060	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0032	0.0038	310 (240 – 360)		
M4	E	0.100	0.10	0.0048	0.0095	0.014	0.019	0.024	0.028	0.038	0.048	0.055	0.070	0.080	70 (55 – 85)	Non ferrous	
		0.100	0.10	0.00019	0.00038	0.00055	0.00075	0.00095	0.0011	0.0015	0.0019	0.0022	0.0028	0.0032	230 (190 – 270)		
M5	E	0.100	0.10	0.0048	0.0095	0.014	0.019	0.024	0.028	0.038	0.048	0.055	0.070	0.080	60 (46 – 71)	Non ferrous	
		0.100	0.10	0.00019	0.00038	0.00055	0.00075	0.00095	0.0011	0.0015	0.0019	0.0022	0.0028	0.0032	195 (160 – 230)		
K1	E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	195 (180 – 210)	Hard	
		0.200	0.20	0.00024	0.00048	0.00070	0.00095	0.0012	0.0014	0.0019	0.0024	0.0028	0.0036	0.0040	640 (600 – 680)		
K2	E	0.200	0.20	0.0055	0.011	0.016	0.022	0.028	0.032	0.044	0.055	0.065	0.085	0.095	170 (160 – 180)	Hard	
		0.200	0.20	0.00022	0.00044	0.00065	0.00085	0.0011	0.0013	0.0017	0.0022	0.0026	0.0034	0.0038	560 (530 – 590)		
K3	E	0.200	0.20	0.0055	0.011	0.016	0.022	0.028	0.032	0.044	0.055	0.065	0.085	0.095	145 (130 – 150)	Hard	
		0.200	0.20	0.00022	0.00044	0.00065	0.00085	0.0011	0.0013	0.0017	0.0022	0.0026	0.0034	0.0038	475 (430 – 490)		
K4	E	0.200	0.20	0.0055	0.011	0.016	0.022	0.028	0.032	0.044	0.055	0.065	0.085	0.095	140 (130 – 150)	Plastic and CFRP	
		0.200	0.20	0.00022	0.00044	0.00065	0.00085	0.0011	0.0013	0.0017	0.0022	0.0026	0.0034	0.0038	460 (430 – 490)		
K5	E	0.100	0.10	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.095	165 (150 – 180)	Plastic and CFRP	
		0.100	0.10	0.00020	0.00040	0.00060	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0032	0.0038	540 (500 – 590)		
K6	E	0.100	0.10	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	245 (220 – 270)	Plastic and CFRP	
		0.100	0.10	0.00020	0.00040	0.00060	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0032	0.0040	800 (730 – 880)		
K7	E	0.100	0.10	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.095	210 (190 – 230)	Plastic and CFRP	
		0.100	0.10	0.00020	0.00040	0.00060	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0032	0.0038	690 (630 – 750)		

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS532 Copy milling roughing

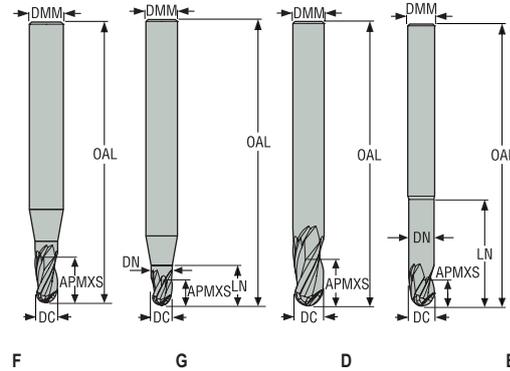
SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				1	2	3	4	5	6	8	10	12	16	20		
N1	E	0.200	0.30	0.0080	0.016	0.024	0.032	0.038	0.046	0.060	0.080	0.095	0.11	0.13	610 (520 — 710)	
		0,200	0,30	0,00032	0,00065	0,00095	0,0013	0,0015	0,0018	0,0024	0,0032	0,0038	0,0044	0,0050	2000 (1800 — 2300)	
N2	E	0.200	0.30	0.0080	0.016	0.024	0.032	0.038	0.046	0.060	0.080	0.095	0.11	0.13	395 (330 — 450)	
		0,200	0,30	0,00032	0,00065	0,00095	0,0013	0,0015	0,0018	0,0024	0,0032	0,0038	0,0044	0,0050	1300 (1100 — 1400)	
N3	E	0.200	0.30	0.0080	0.016	0.024	0.032	0.038	0.046	0.060	0.080	0.095	0.11	0.13	260 (220 — 300)	
		0,200	0,30	0,00032	0,00065	0,00095	0,0013	0,0015	0,0018	0,0024	0,0032	0,0038	0,0044	0,0050	850 (730 — 980)	
N11	E	0.200	0.30	0.0050	0.010	0.016	0.020	0.026	0.032	0.040	0.050	0.060	0.075	0.090	415 (370 — 460)	
		0,200	0,30	0,00020	0,00040	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0024	0,0030	0,0036	1350 (1300 — 1500)	
S1	E	0.150	0.10	0.0040	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	60 (52 — 72)	
		0,150	0,10	0,00016	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	195 (180 — 230)	
S2	E	0.150	0.10	0.0040	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	50 (42 — 58)	
		0,150	0,10	0,00016	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	165 (140 — 190)	
S3	E	0.100	0.10	0.0036	0.0070	0.010	0.014	0.018	0.020	0.028	0.036	0.042	0.055	0.060	32 (22 — 42)	
		0,100	0,10	0,00014	0,00028	0,00040	0,00055	0,00070	0,00080	0,0011	0,0014	0,0017	0,0022	0,0024	105 (73 — 130)	
S11	E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	105 (94 — 110)	
		0,200	0,20	0,00024	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	345 (310 — 360)	
S12	E	0.200	0.20	0.0060	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	80 (72 — 92)	
		0,200	0,20	0,00024	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	260 (240 — 300)	
S13	E	0.200	0.20	0.0055	0.011	0.016	0.022	0.026	0.032	0.042	0.055	0.060	0.080	0.090	65 (57 — 72)	
		0,200	0,20	0,00022	0,00044	0,00065	0,00085	0,0010	0,0013	0,0017	0,0022	0,0024	0,0032	0,0036	215 (190 — 230)	
TS1	A	0.200	0.40	0.0075	0.015	0.024	0.030	0.038	0.046	0.065	0.075	0.090	0.12	0.13	610 (570 — 660)	
		0,200	0,40	0,00030	0,00060	0,00095	0,0012	0,0015	0,0018	0,0026	0,0030	0,0036	0,0048	0,0050	2000 (1900 — 2100)	
TP1	A	0.200	0.40	0.0075	0.015	0.024	0.030	0.038	0.046	0.065	0.075	0.090	0.12	0.13	610 (570 — 660)	
		0,200	0,40	0,00030	0,00060	0,00095	0,0012	0,0015	0,0018	0,0026	0,0030	0,0036	0,0048	0,0050	2000 (1900 — 2100)	
GR1	A	0.200	0.40	0.0075	0.015	0.024	0.030	0.038	0.046	0.065	0.075	0.090	0.12	0.13	610 (570 — 660)	
		0,200	0,40	0,00030	0,00060	0,00095	0,0012	0,0015	0,0018	0,0026	0,0030	0,0036	0,0048	0,0050	2000 (1900 — 2100)	

For cutting data recalculations, see pages 687 – 695

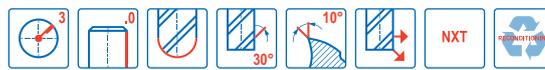
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JS533

High performance – Universal – Ball nose – 3 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS533010F1B.0Z3-NXT	02928284	1	F	1,0	3,0	2,0	38,0	3,0	1,05	0,5	3	Cylindrical	■
JS533015F1B.0Z3-NXT	02928286	1	F	1,5	3,0	3,0	38,0	4,6	1,55	0,75	3	Cylindrical	■
JS533020F1B.0Z3-NXT	02928287	1	F	2,0	3,0	4,0	38,0	5,6	2,05	1,0	3	Cylindrical	■
JS533030D1B.0Z3-NXT	02928289	1	D	3,0	3,0	6,0	38,0	–	–	1,5	3	Cylindrical	■
JS533040F1B.0Z3-NXT	02928291	1	F	4,0	6,0	8,0	57,0	10,75	4,05	2,0	3	Cylindrical	■
JS533050F1B.0Z3-NXT	02928293	1	F	5,0	6,0	10,0	57,0	13,75	5,05	2,5	3	Cylindrical	■
JS533060D1B.0Z3-NXT	02928295	1	D	6,0	6,0	12,0	57,0	–	–	3,0	3	Cylindrical	■
JS533080D1B.0Z3-NXT	02928297	1	D	8,0	8,0	16,0	63,0	–	–	4,0	3	Cylindrical	■
JS533100D1B.0Z3-NXT	02928299	1	D	10,0	10,0	20,0	72,0	–	–	5,0	3	Cylindrical	■
JS533120D1B.0Z3-NXT	02928301	1	D	12,0	12,0	24,0	83,0	–	–	6,0	3	Cylindrical	■
JS533160D1B.0Z3-NXT	02928303	1	D	16,0	16,0	32,0	110,0	–	–	8,0	3	Cylindrical	■
JS533200D1B.0Z3-NXT	02928305	1	D	20,0	20,0	40,0	125,0	–	–	10,0	3	Cylindrical	■
JS533020G2B.0Z3-NXT	02928288	2	G	2,0	3,0	2,0	38,0	7,0	1,9	1,0	3	Cylindrical	■
JS533030E2B.0Z3-NXT	02928290	2	E	3,0	3,0	3,0	38,0	9,0	2,85	1,5	3	Cylindrical	■
JS533040G2B.0Z3-NXT	02928292	2	G	4,0	6,0	4,0	57,0	15,0	3,8	2,0	3	Cylindrical	■
JS533050G2B.0Z3-NXT	02928294	2	G	5,0	6,0	5,0	57,0	15,0	4,8	2,5	3	Cylindrical	■
JS533060E2B.0Z3-NXT	02928296	2	E	6,0	6,0	6,0	63,0	25,0	5,7	3,0	3	Cylindrical	■
JS533080E2B.0Z3-NXT	02928298	2	E	8,0	8,0	8,0	80,0	35,0	7,6	4,0	3	Cylindrical	■
JS533100E2B.0Z3-NXT	02928300	2	E	10,0	10,0	10,0	89,0	40,0	9,5	5,0	3	Cylindrical	■
JS533120E2B.0Z3-NXT	02928302	2	E	12,0	12,0	12,0	100,0	50,0	11,4	6,0	3	Cylindrical	■
JS533160E2B.0Z3-NXT	02928304	2	E	16,0	16,0	16,0	125,0	70,0	15,2	8,0	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

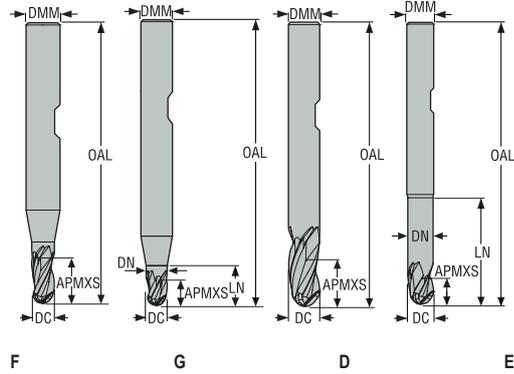
Graphite

X-Heads

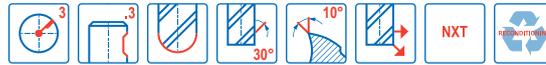
Minimaster

JS533

High performance – Universal – Ball nose – 3 Flutes – Weldon



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS533040F1B.3Z3-NXT	02928323	1	F	4,0	6,0	8,0	57,0	10,75	4,05	2,0	3	Weldon	<input type="checkbox"/>
JS533050F1B.3Z3-NXT	02928325	1	F	5,0	6,0	10,0	57,0	13,75	5,05	2,5	3	Weldon	<input type="checkbox"/>
JS533060D1B.3Z3-NXT	02928326	1	D	6,0	6,0	12,0	57,0	—	—	3,0	3	Weldon	<input type="checkbox"/>
JS533080D1B.3Z3-NXT	02928328	1	D	8,0	8,0	16,0	63,0	—	—	4,0	3	Weldon	<input type="checkbox"/>
JS533100D1B.3Z3-NXT	02928330	1	D	10,0	10,0	20,0	72,0	—	—	5,0	3	Weldon	<input type="checkbox"/>
JS533120D1B.3Z3-NXT	02928332	1	D	12,0	12,0	24,0	83,0	—	—	6,0	3	Weldon	<input type="checkbox"/>
JS533160D1B.3Z3-NXT	02928334	1	D	16,0	16,0	32,0	109,0	—	—	8,0	3	Weldon	<input type="checkbox"/>
JS533200D1B.3Z3-NXT	02928336	1	D	20,0	20,0	40,0	125,0	—	—	10,0	3	Weldon	<input type="checkbox"/>
JS533040G2B.3Z3-NXT	02928324	2	G	4,0	6,0	4,0	57,0	15,0	3,8	2,0	3	Weldon	<input type="checkbox"/>
JS533050G2B.3Z3-NXT	02928341	2	G	5,0	6,0	5,0	57,0	15,0	4,8	2,5	3	Weldon	<input type="checkbox"/>
JS533060E2B.3Z3-NXT	02928327	2	E	6,0	6,0	6,0	63,0	25,0	5,7	3,0	3	Weldon	<input type="checkbox"/>
JS533080E2B.3Z3-NXT	02928329	2	E	8,0	8,0	8,0	80,0	35,0	7,6	4,0	3	Weldon	<input type="checkbox"/>
JS533100E2B.3Z3-NXT	02928331	2	E	10,0	10,0	10,0	89,0	40,0	9,5	5,0	3	Weldon	<input type="checkbox"/>
JS533120E2B.3Z3-NXT	02928333	2	E	12,0	12,0	12,0	100,0	50,0	11,4	6,0	3	Weldon	<input type="checkbox"/>
JS533160E2B.3Z3-NXT	02928335	2	E	16,0	16,0	16,0	122,0	70,0	15,2	8,0	3	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Cutting data – JS533 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				1	2	3	4	5	6	8	10	12	16	20		
P1	M/A/D/E	0.0300	0.80	0.0032	0.0065	0.0095	0.013	0.016	0.019	0.026	0.032	0.038	0.048	0.055	200 (180 – 220)	
		0,0300	0,80	0,00013	0,00026	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	0,0019	0,0022	660 (600 – 720)	
P2	M/A/D/E	0.0300	0.80	0.0034	0.0065	0.010	0.013	0.017	0.020	0.026	0.034	0.038	0.048	0.055	195 (170 – 220)	
		0,0300	0,80	0,00013	0,00026	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0015	0,0019	0,0022	640 (560 – 720)	
P3	M/A/D/E	0.0300	0.80	0.0032	0.0060	0.0095	0.013	0.016	0.019	0.025	0.032	0.036	0.046	0.055	165 (150 – 180)	
		0,0300	0,80	0,00013	0,00024	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0014	0,0018	0,0022	540 (500 – 590)	
P4	M/A/D/E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.025	0.030	0.036	0.044	0.050	145 (130 – 160)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,0010	0,0012	0,0014	0,0017	0,0020	475 (430 – 520)	
P5	M/A/D/E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.044	0.050	140 (130 – 160)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	460 (430 – 520)	
P6	M/A/D/E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.034	0.044	0.050	155 (140 – 170)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0013	0,0017	0,0020	510 (460 – 550)	
P7	M/A/D/E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.034	0.044	0.050	150 (130 – 160)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0013	0,0017	0,0020	490 (430 – 520)	
P8	M/A/D/E	0.0300	0.80	0.0032	0.0060	0.0095	0.013	0.016	0.019	0.025	0.032	0.036	0.046	0.055	140 (120 – 150)	
		0,0300	0,80	0,00013	0,00024	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0014	0,0018	0,0022	460 (400 – 490)	
P11	M/A/D/E	0.0300	0.80	0.0044	0.0090	0.013	0.018	0.022	0.026	0.036	0.044	0.050	0.065	0.075	140 (130 – 160)	
		0,0300	0,80	0,00017	0,00036	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0020	0,0026	0,0030	460 (430 – 520)	
P12	M/A/D/E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.044	0.050	85 (73 – 97)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	280 (240 – 310)	
M1	E	0.0300	0.80	0.0034	0.0065	0.010	0.013	0.017	0.020	0.026	0.034	0.038	0.048	0.055	125 (99 – 140)	
		0,0300	0,80	0,00013	0,00026	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0015	0,0019	0,0022	410 (330 – 450)	
M2	E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.044	0.050	100 (80 – 120)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	330 (270 – 390)	
M3	E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.044	0.050	70 (50 – 90)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	230 (170 – 290)	
M4	E	0.0300	0.80	0.0026	0.0050	0.0080	0.011	0.013	0.016	0.022	0.026	0.030	0.038	0.044	55 (38 – 67)	
		0,0300	0,80	0,00010	0,00020	0,00032	0,00044	0,00050	0,00065	0,00085	0,0010	0,0012	0,0015	0,0017	180 (130 – 210)	
M5	E	0.0300	0.80	0.0026	0.0050	0.0080	0.011	0.013	0.016	0.022	0.026	0.030	0.038	0.044	44 (32 – 56)	
		0,0300	0,80	0,00010	0,00020	0,00032	0,00044	0,00050	0,00065	0,00085	0,0010	0,0012	0,0015	0,0017	145 (110 – 180)	
K1	E	0.0300	0.80	0.0040	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.046	0.060	0.070	145 (130 – 160)	
		0,0300	0,80	0,00016	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0018	0,0024	0,0028	475 (430 – 520)	
K2	E	0.0300	0.80	0.0036	0.0075	0.011	0.015	0.018	0.022	0.030	0.036	0.042	0.055	0.060	125 (110 – 140)	
		0,0300	0,80	0,00014	0,00030	0,00044	0,00060	0,00070	0,00085	0,0012	0,0014	0,0017	0,0022	0,0024	410 (370 – 450)	
K3	E	0.0300	0.80	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	105 (91 – 110)	
		0,0300	0,80	0,00020	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	345 (300 – 360)	
K4	E	0.0300	0.80	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	120 (100 – 140)	
		0,0300	0,80	0,00020	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	395 (330 – 450)	
K5	E	0.0300	0.80	0.0044	0.0090	0.013	0.018	0.022	0.026	0.036	0.044	0.055	0.065	0.075	70 (61 – 84)	
		0,0300	0,80	0,00017	0,00036	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0022	0,0026	0,0030	230 (210 – 270)	
K6	E	0.0300	0.80	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	105 (89 – 120)	
		0,0300	0,80	0,00020	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	345 (300 – 390)	
K7	E	0.0300	0.80	0.0044	0.0090	0.013	0.018	0.022	0.026	0.036	0.044	0.055	0.065	0.075	155 (130 – 180)	
		0,0300	0,80	0,00017	0,00036	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0022	0,0026	0,0030	510 (430 – 590)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – JS533 Copy milling roughing

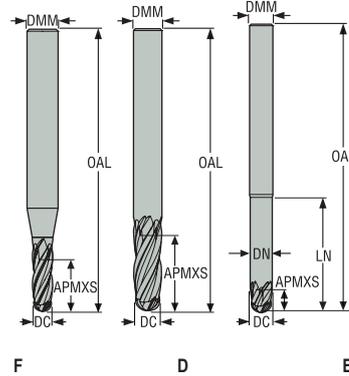
SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				1	2	3	4	5	6	8	10	12	16	20		
N1	E	0.0300	0.80	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	800 (700 – 900)	
		0,0300	0,80	0,00020	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	2625 (2300 – 2900)	
N2	E	0.0300	0.80	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	510 (450 – 570)	
		0,0300	0,80	0,00020	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	1675 (1500 – 1800)	
N3	E	0.0300	0.80	0.0050	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	345 (300 – 380)	
		0,0300	0,80	0,00020	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	1125 (990 – 1200)	
N11	E	0.0300	0.80	0.0040	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.046	0.060	0.070	400 (350 – 450)	
		0,0300	0,80	0,00016	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0018	0,0024	0,0028	1300 (1200 – 1400)	
S1	E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.044	0.050	100 (90 – 110)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	330 (300 – 360)	
S2	E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.044	0.050	80 (73 – 88)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	260 (240 – 280)	
S11	E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.044	0.050	130 (120 – 140)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	425 (400 – 450)	
S12	E	0.0300	0.80	0.0030	0.0060	0.0090	0.012	0.015	0.018	0.024	0.030	0.036	0.044	0.050	100 (91 – 110)	
		0,0300	0,80	0,00012	0,00024	0,00036	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	330 (300 – 360)	
S13	E	0.0300	0.80	0.0026	0.0050	0.0080	0.011	0.013	0.016	0.022	0.026	0.030	0.038	0.044	80 (70 – 85)	
		0,0300	0,80	0,00010	0,00020	0,00032	0,00044	0,00050	0,00065	0,00085	0,0010	0,0012	0,0015	0,0017	260 (230 – 270)	
TS1	A	0.0300	0.80	0.0040	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.046	0.060	0.070	800 (760 – 850)	
		0,0300	0,80	0,00016	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0018	0,0024	0,0028	2625 (2500 – 2700)	
		0,0300	0,80	0,00016	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0018	0,0024	0,0028	2625 (2500 – 2700)	
TP1	A	0.0300	0.80	0.0040	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.046	0.060	0.070	800 (760 – 850)	
		0,0300	0,80	0,00016	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0018	0,0024	0,0028	2625 (2500 – 2700)	
GR1	A	0.0300	0.80	0.0040	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.046	0.060	0.070	800 (760 – 850)	
		0,0300	0,80	0,00016	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0018	0,0024	0,0028	2625 (2500 – 2700)	

For cutting data recalculations, see pages 687 – 695

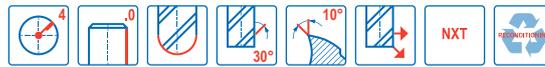
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JS534

High performance – Universal – Ball nose – 4 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS534020F1B.0Z4-NXT	02928366	1	F	2,0	3,0	6,0	38,0	6,7	2,05	1,0	4	Cylindrical	■
JS534030D1B.0Z4-NXT	02928367	1	D	3,0	3,0	9,0	38,0	–	–	1,5	4	Cylindrical	■
JS534040F1B.0Z4-NXT	02928368	1	F	4,0	6,0	12,0	57,0	14,0	4,05	2,0	4	Cylindrical	■
JS534050F1B.0Z4-NXT	02928370	1	F	5,0	6,0	15,0	57,0	17,0	5,05	2,5	4	Cylindrical	■
JS534060D1B.0Z4-NXT	02928372	1	D	6,0	6,0	18,0	57,0	–	–	3,0	4	Cylindrical	■
JS534080D1B.0Z4-NXT	02928375	1	D	8,0	8,0	24,0	69,0	–	–	4,0	4	Cylindrical	■
JS534100D1B.0Z4-NXT	02928378	1	D	10,0	10,0	30,0	82,0	–	–	5,0	4	Cylindrical	■
JS534120D1B.0Z4-NXT	02928381	1	D	12,0	12,0	36,0	100,0	–	–	6,0	4	Cylindrical	■
JS534160D1B.0Z4-NXT	02928384	1	D	16,0	16,0	48,0	110,0	–	–	8,0	4	Cylindrical	■
JS534200D1B.0Z4-NXT	02928387	1	D	20,0	20,0	60,0	125,0	–	–	10,0	4	Cylindrical	■
JS534040F2B.0Z4-NXT	02928369	2	F	4,0	6,0	20,0	63,0	22,0	4,05	2,0	4	Cylindrical	■
JS534050F2B.0Z4-NXT	02928371	2	F	5,0	6,0	25,0	75,0	27,0	5,05	2,5	4	Cylindrical	■
JS534060D2B.0Z4-NXT	02928373	2	D	6,0	6,0	30,0	75,0	–	–	3,0	4	Cylindrical	■
JS534080D2B.0Z4-NXT	02928376	2	D	8,0	8,0	40,0	80,0	–	–	4,0	4	Cylindrical	■
JS534100D2B.0Z4-NXT	02928379	2	D	10,0	10,0	50,0	100,0	–	–	5,0	4	Cylindrical	■
JS534120D2B.0Z4-NXT	02928382	2	D	12,0	12,0	60,0	125,0	–	–	6,0	4	Cylindrical	■
JS534160D2B.0Z4-NXT	02928385	2	D	16,0	16,0	80,0	130,0	–	–	8,0	4	Cylindrical	■
JS534060E3B.0Z4-NXT	02928374	3	E	6,0	6,0	6,0	75,0	30,0	5,7	3,0	4	Cylindrical	■
JS534080E3B.0Z4-NXT	02928377	3	E	8,0	8,0	8,0	80,0	40,0	7,6	4,0	4	Cylindrical	■
JS534100E3B.0Z4-NXT	02928380	3	E	10,0	10,0	10,0	100,0	50,0	9,7	5,0	4	Cylindrical	■
JS534120E3B.0Z4-NXT	02928383	3	E	12,0	12,0	12,0	125,0	60,0	11,4	6,0	4	Cylindrical	■
JS534160E3B.0Z4-NXT	02928386	3	E	16,0	16,0	16,0	130,0	80,0	15,2	8,0	4	Cylindrical	■
JS534200E3B.0Z4-NXT	02928388	3	E	20,0	20,0	20,0	150,0	100,0	19,0	10,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

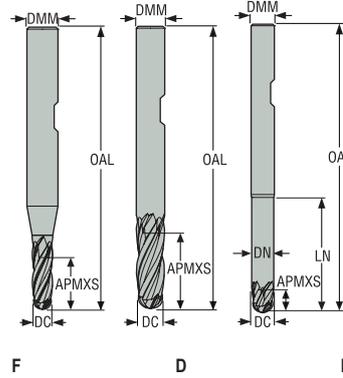
Graphite

X-Heads

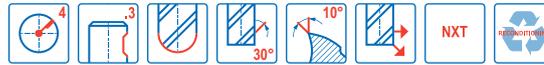
Minimaster

JS534

High performance – Universal – Ball nose – 4 Flutes – Weldon



- Tolerances:
- DMM=h5
- DC=e8
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS534040F1B.3Z4-NXT	02928390	1	F	4,0	6,0	12,0	57,0	14,0	4,05	2,0	4	Weldon	<input type="checkbox"/>
JS534050F1B.3Z4-NXT	02928392	1	F	5,0	6,0	15,0	57,0	17,0	5,05	2,5	4	Weldon	<input type="checkbox"/>
JS534060D1B.3Z4-NXT	02928394	1	D	6,0	6,0	18,0	57,0	—	—	3,0	4	Weldon	<input type="checkbox"/>
JS534080D1B.3Z4-NXT	02928397	1	D	8,0	8,0	24,0	69,0	—	—	4,0	4	Weldon	<input type="checkbox"/>
JS534100D1B.3Z4-NXT	02928400	1	D	10,0	10,0	30,0	82,0	—	—	5,0	4	Weldon	<input type="checkbox"/>
JS534120D1B.3Z4-NXT	02928403	1	D	12,0	12,0	36,0	100,0	—	—	6,0	4	Weldon	<input type="checkbox"/>
JS534160D1B.3Z4-NXT	02928406	1	D	16,0	16,0	48,0	110,0	—	—	8,0	4	Weldon	<input type="checkbox"/>
JS534200D1B.3Z4-NXT	02928409	1	D	20,0	20,0	60,0	125,0	—	—	10,0	4	Weldon	<input type="checkbox"/>
JS534040F2B.3Z4-NXT	02928391	2	F	4,0	6,0	20,0	63,0	22,0	4,05	2,0	4	Weldon	<input type="checkbox"/>
JS534050F2B.3Z4-NXT	02928393	2	F	5,0	6,0	25,0	75,0	27,0	5,05	2,5	4	Weldon	<input type="checkbox"/>
JS534060D2B.3Z4-NXT	02928395	2	D	6,0	6,0	30,0	75,0	—	—	3,0	4	Weldon	<input type="checkbox"/>
JS534080D2B.3Z4-NXT	02928398	2	D	8,0	8,0	40,0	80,0	—	—	4,0	4	Weldon	<input type="checkbox"/>
JS534100D2B.3Z4-NXT	02928401	2	D	10,0	10,0	50,0	100,0	—	—	5,0	4	Weldon	<input type="checkbox"/>
JS534120D2B.3Z4-NXT	02928404	2	D	12,0	12,0	60,0	125,0	—	—	6,0	4	Weldon	<input type="checkbox"/>
JS534160D2B.3Z4-NXT	02928407	2	D	16,0	16,0	80,0	130,0	—	—	8,0	4	Weldon	<input type="checkbox"/>
JS534060E3B.3Z4-NXT	02928396	3	E	6,0	6,0	6,0	75,0	30,0	5,7	3,0	4	Weldon	<input type="checkbox"/>
JS534080E3B.3Z4-NXT	02928399	3	E	8,0	8,0	8,0	80,0	40,0	7,6	4,0	4	Weldon	<input type="checkbox"/>
JS534100E3B.3Z4-NXT	02928402	3	E	10,0	10,0	10,0	100,0	50,0	9,7	5,0	4	Weldon	<input type="checkbox"/>
JS534120E3B.3Z4-NXT	02928405	3	E	12,0	12,0	12,0	125,0	60,0	11,4	6,0	4	Weldon	<input type="checkbox"/>
JS534160E3B.3Z4-NXT	02928408	3	E	16,0	16,0	16,0	130,0	80,0	15,2	8,0	4	Weldon	<input type="checkbox"/>
JS534200E3B.3Z4-NXT	02928410	3	E	20,0	20,0	20,0	150,0	100,0	19,0	10,0	4	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

## Cutting data – JS534 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
P1	M/A/D/E	0.0300	4.0	0.0085	0.013	0.017	0.022	0.026	0.034	0.044	0.050	0.065	0.075	345 (310 — 370)
		0,0300	4,0	0,00034	0,00050	0,00065	0,00085	0,0010	0,0013	0,0017	0,0020	0,0026	0,0030	1125 (1100 — 1200)
P2	M/A/D/E	0.0300	4.0	0.0090	0.013	0.018	0.022	0.026	0.036	0.044	0.050	0.065	0.075	335 (300 — 360)
		0,0300	4,0	0,00036	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0020	0,0026	0,0030	1100 (990 — 1100)
P3	M/A/D/E	0.0300	4.0	0.0085	0.012	0.017	0.020	0.025	0.034	0.042	0.050	0.060	0.070	290 (260 — 310)
		0,0300	4,0	0,00034	0,00048	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	0,0028	950 (860 — 1000)
P4	M/A/D/E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	255 (230 — 280)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	840 (760 — 910)
P5	M/A/D/E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	245 (220 — 260)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	800 (730 — 850)
P6	M/A/D/E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.046	0.060	0.065	230 (210 — 250)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0018	0,0024	0,0026	750 (660 — 820)
P7	M/A/D/E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.046	0.060	0.065	220 (200 — 240)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0018	0,0024	0,0026	720 (660 — 780)
P8	M/A/D/E	0.0300	4.0	0.0085	0.012	0.017	0.020	0.025	0.034	0.042	0.050	0.060	0.070	205 (190 — 220)
		0,0300	4,0	0,00034	0,00048	0,00065	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	0,0028	670 (630 — 720)
P11	M/A/D/E	0.0300	4.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.080	0.10	210 (190 — 230)
		0,0300	4,0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	690 (630 — 750)
P12	M/A/D/E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	125 (120 — 130)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	410 (400 — 420)
M1	E	0.0300	4.0	0.0090	0.013	0.018	0.022	0.026	0.036	0.044	0.050	0.065	0.075	180 (160 — 200)
		0,0300	4,0	0,00036	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0020	0,0026	0,0030	590 (530 — 650)
M2	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	145 (130 — 160)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	475 (430 — 520)
M3	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	155 (140 — 180)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	510 (460 — 590)
M4	E	0.0300	4.0	0.0070	0.010	0.014	0.017	0.020	0.028	0.034	0.042	0.050	0.060	120 (100 — 130)
		0,0300	4,0	0,00028	0,00040	0,00055	0,00065	0,00080	0,0011	0,0013	0,0017	0,0020	0,0024	395 (330 — 420)
M5	E	0.0300	4.0	0.0070	0.010	0.014	0.017	0.020	0.028	0.034	0.042	0.050	0.060	100 (83 — 110)
		0,0300	4,0	0,00028	0,00040	0,00055	0,00065	0,00080	0,0011	0,0013	0,0017	0,0020	0,0024	330 (280 — 360)
K1	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	245 (220 — 260)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	800 (730 — 850)
K2	E	0.0300	4.0	0.0075	0.011	0.015	0.018	0.022	0.030	0.036	0.042	0.055	0.060	215 (200 — 230)
		0,0300	4,0	0,00030	0,00044	0,00060	0,00070	0,00085	0,0012	0,0014	0,0017	0,0022	0,0024	710 (660 — 750)
K3	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	180 (160 — 190)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	590 (530 — 620)
K4	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	170 (160 — 180)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	560 (530 — 590)
K5	E	0.0300	4.0	0.0070	0.011	0.014	0.018	0.022	0.028	0.036	0.042	0.055	0.060	200 (180 — 220)
		0,0300	4,0	0,00028	0,00044	0,00055	0,00070	0,00085	0,0011	0,0014	0,0017	0,0022	0,0024	660 (600 — 720)
K6	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	295 (260 — 330)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	970 (860 — 1000)
K7	E	0.0300	4.0	0.0070	0.011	0.014	0.018	0.022	0.028	0.036	0.042	0.055	0.060	260 (230 — 280)
		0,0300	4,0	0,00028	0,00044	0,00055	0,00070	0,00085	0,0011	0,0014	0,0017	0,0022	0,0024	850 (760 — 910)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cf/tp  
 Graphite  
 X-Heads  
 Minimaxter

## Cutting data – JS534 Copy milling roughing

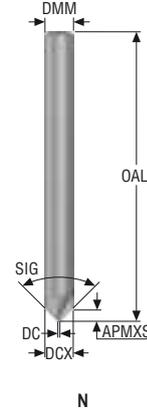
SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
N1	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	1025 (910 — 1100)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	3375 (3000 — 3600)
N2	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	910 (780 — 1000)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	2975 (2600 — 3200)
N3	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	600 (520 — 690)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	1975 (1800 — 2200)
N11	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	500 (440 — 560)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	1650 (1500 — 1800)
S1	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	110 (88 — 110)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	360 (290 — 360)
S2	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	90 (71 — 90)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	295 (240 — 290)
S3	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	85 (63 — 87)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	280 (210 — 280)
S11	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	185 (150 — 180)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	610 (500 — 590)
S12	E	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	140 (120 — 140)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	460 (400 — 450)
S13	E	0.0300	4.0	0.0070	0.010	0.014	0.017	0.020	0.028	0.034	0.042	0.050	0.060	110 (91 — 110)
		0,0300	4,0	0,00028	0,00040	0,00055	0,00065	0,00080	0,0011	0,0013	0,0017	0,0020	0,0024	360 (300 — 360)
TS1	A	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	900 (840 — 960)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	2950 (2800 — 3100)
TP1	A	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	900 (840 — 960)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	2950 (2800 — 3100)
GR1	A	0.0300	4.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	900 (840 — 960)
		0,0300	4,0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	2950 (2800 — 3100)

For cutting data recalculations, see pages 687 – 695

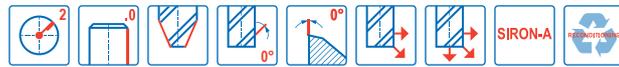
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

C5021

General purpose – Universal – Chamfer – 2 Flutes – Cylindrical – Inch



- Tolerances:
- DMM =  $-.0001$ " /  $-.0004$ "
- SIG =  $\pm 1^\circ$
- Re grind possible if DC is  $\geq \varnothing.375$



Designation	Grade	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch					
C5021-.250N1S.0Z2T30	SIRA	10268641	1	N	0.250	0.035	0.250	0.186	2.500	30,0	60,0	2	Cylindrical	■
C5021-.250N1S.0Z2T45	SIRA	10268644	1	N	0.250	0.035	0.250	0.108	2.500	45,0	90,0	2	Cylindrical	■
C5021-.375N1S.0Z2T30	SIRA	10268642	1	N	0.375	0.040	0.375	0.290	2.500	30,0	60,0	2	Cylindrical	■
C5021-.375N1S.0Z2T45	SIRA	10268645	1	N	0.375	0.040	0.375	0.168	2.500	45,0	90,0	2	Cylindrical	■
C5021-.500N1S.0Z2T30	SIRA	10268643	1	N	0.500	0.045	0.500	0.186	3.000	30,0	60,0	2	Cylindrical	■
C5021-.500N1S.0Z2T45	SIRA	10268646	1	N	0.500	0.045	0.500	0.228	3.000	45,0	90,0	2	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

## Cutting data – C5021 Chamfering – Inch

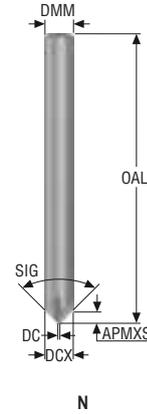
SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>			v <sub>c</sub>
				1/4	3/8	1/2	
P1	E	0,02	0,3	0,05	0,055	0,065	205 (160 – 230)
		0.02	0.3	0.0020	0.0022	0.0026	670 (530 – 750)
P2	E	0,02	0,3	0,044	0,05	0,055	195 (160 – 230)
		0.02	0.3	0.0017	0.0020	0.0022	640 (530 – 750)
P3	E	0,02	0,3	0,044	0,05	0,055	165 (130 – 180)
		0.02	0.3	0.0017	0.0020	0.0022	540 (430 – 590)
P4	E	0,02	0,3	0,044	0,05	0,055	140 (120 – 160)
		0.02	0.3	0.0017	0.0020	0.0022	460 (400 – 520)
P5	E	0,02	0,3	0,044	0,05	0,055	135 (120 – 170)
		0.02	0.3	0.0017	0.0020	0.0022	445 (400 – 550)
P6	E	0,02	0,3	0,044	0,05	0,055	160 (120 – 170)
		0.02	0.3	0.0017	0.0020	0.0022	520 (400 – 550)
P7	E	0,02	0,3	0,044	0,05	0,055	145 (120 – 180)
		0.02	0.3	0.0017	0.0020	0.0022	475 (400 – 590)
P8	E	0,02	0,3	0,044	0,05	0,055	135 (120 – 150)
		0.02	0.3	0.0017	0.0020	0.0022	445 (400 – 490)
P11	E	0,02	0,3	0,044	0,05	0,055	85 (69 – 110)
		0.02	0.3	0.0017	0.0020	0.0022	280 (230 – 360)
P12	E	0,02	0,3	0,032	0,038	0,042	60 (49 – 91)
		0.02	0.3	0.0013	0.0015	0.0017	195 (170 – 290)
M1	E	0,02	0,3	0,05	0,06	0,065	120 (110 – 150)
		0.02	0.3	0.0020	0.0024	0.0026	395 (370 – 490)
M2	E	0,02	0,3	0,042	0,05	0,055	80 (65 – 100)
		0.02	0.3	0.0017	0.0020	0.0022	260 (220 – 320)
M3	E	0,02	0,3	0,05	0,055	0,065	75 (59 – 100)
		0.02	0.3	0.0020	0.0022	0.0026	245 (200 – 320)
M4	E	0,02	0,3	0,05	0,055	0,065	43 (30 – 59)
		0.02	0.3	0.0020	0.0022	0.0026	140 (99 – 190)
M5	E	0,02	0,3	0,044	0,05	0,06	36 (19 – 55)
		0.02	0.3	0.0017	0.0020	0.0024	120 (63 – 180)
K1	E	0,02	0,3	0,044	0,05	0,055	195 (160 – 240)
		0.02	0.3	0.0017	0.0020	0.0022	640 (530 – 780)
K2	E	0,02	0,3	0,055	0,065	0,075	170 (150 – 200)
		0.02	0.3	0.0022	0.0026	0.0030	560 (500 – 650)
K3	E	0,02	0,3	0,044	0,05	0,055	145 (130 – 160)
		0.02	0.3	0.0017	0.0020	0.0022	475 (430 – 520)
K4	E	0,02	0,3	0,044	0,05	0,055	130 (110 – 150)
		0.02	0.3	0.0017	0.0020	0.0022	425 (370 – 490)
K5	E	0,02	0,3	0,042	0,048	0,055	85 (65 – 110)
		0.02	0.3	0.0017	0.0019	0.0022	280 (220 – 360)
K6	E	0,02	0,3	0,04	0,048	0,055	130 (120 – 160)
		0.02	0.3	0.0016	0.0019	0.0022	425 (400 – 520)
K7	E	0,02	0,3	0,04	0,048	0,055	110 (94 – 140)
		0.02	0.3	0.0016	0.0019	0.0022	360 (310 – 450)

For cutting data recalculations, see pages 687 – 695

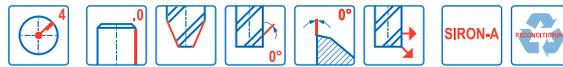
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

C5041

General purpose – Universal – Chamfer – 4 Flutes – Cylindrical – Inch



- Tolerances:
- DMM =  $-.0001$ " /  $-.0004$ "
- SIG =  $\pm 1^\circ$
- Regrind possible if DMM is  $\geq \varnothing.375$ "



Designation	Grade	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch					
C5041-.250N1S.0Z4T30	SIRA	10268647	1	N	0.250	0.035	0.250	0.186	2.500	30,0	60,0	4	Cylindrical	■
C5041-.250N1S.0Z4T45	SIRA	10268652	1	N	0.250	0.035	0.250	0.108	2.500	45,0	90,0	4	Cylindrical	■
C5041-.375N1S.0Z4T30	SIRA	10268648	1	N	0.375	0.040	0.375	0.290	2.500	30,0	60,0	4	Cylindrical	■
C5041-.375N1S.0Z4T45	SIRA	10268653	1	N	0.375	0.040	0.375	0.168	2.500	45,0	90,0	4	Cylindrical	■
C5041-.500N1S.0Z4T30	SIRA	10268649	1	N	0.500	0.045	0.500	0.394	3.000	30,0	60,0	4	Cylindrical	■
C5041-.500N1S.0Z4T45	SIRA	10268654	1	N	0.500	0.045	0.500	0.228	3.000	45,0	90,0	4	Cylindrical	■
C5041-.750N1S.0Z4T30	SIRA	10268651	1	N	0.750	0.055	0.750	0.602	3.000	30,0	60,0	4	Cylindrical	■
C5041-.750N1S.0Z4T45	SIRA	10268655	1	N	0.750	0.055	0.750	0.348	3.000	45,0	90,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – C5041 Chamfering – Inch

SMG		$a_e/DCX$	$a_p/DCX$	$f_z$				$v_c$
				1/4	3/8	1/2	3/4	
P1	E	0,02	0,3	0,05	0,055	0,065	0,08	205 (160 – 230)
		0.02	0.3	0.0020	0.0022	0.0026	0.0032	670 (530 – 750)
P2	E	0,02	0,3	0,044	0,05	0,055	0,07	195 (160 – 230)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	640 (530 – 750)
P3	E	0,02	0,3	0,044	0,05	0,055	0,07	165 (130 – 180)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	540 (430 – 590)
P4	E	0,02	0,3	0,044	0,05	0,055	0,07	140 (120 – 160)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	460 (400 – 520)
P5	E	0,02	0,3	0,044	0,05	0,055	0,07	135 (120 – 170)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	445 (400 – 550)
P6	E	0,02	0,3	0,044	0,05	0,055	0,07	160 (120 – 170)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	520 (400 – 550)
P7	E	0,02	0,3	0,044	0,05	0,055	0,07	145 (120 – 180)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	475 (400 – 590)
P8	E	0,02	0,3	0,044	0,05	0,055	0,07	135 (120 – 150)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	445 (400 – 490)
P11	E	0,02	0,3	0,044	0,05	0,055	0,07	85 (69 – 110)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	280 (230 – 360)
P12	E	0,02	0,3	0,032	0,038	0,042	0,05	60 (49 – 91)
		0.02	0.3	0.0013	0.0015	0.0017	0.0020	195 (170 – 290)
M1	E	0,02	0,3	0,05	0,06	0,065	0,08	120 (110 – 150)
		0.02	0.3	0.0020	0.0024	0.0026	0.0032	395 (370 – 490)
M2	E	0,02	0,3	0,042	0,05	0,055	0,065	80 (65 – 100)
		0.02	0.3	0.0017	0.0020	0.0022	0.0026	260 (220 – 320)
M3	E	0,02	0,3	0,05	0,055	0,065	0,08	75 (59 – 100)
		0.02	0.3	0.0020	0.0022	0.0026	0.0032	245 (200 – 320)
M4	E	0,02	0,3	0,05	0,055	0,065	0,08	43 (30 – 59)
		0.02	0.3	0.0020	0.0022	0.0026	0.0032	140 (99 – 190)
M5	E	0,02	0,3	0,044	0,05	0,06	0,07	36 (19 – 55)
		0.02	0.3	0.0017	0.0020	0.0024	0.0028	120 (63 – 180)
K1	E	0,02	0,3	0,044	0,05	0,055	0,07	195 (160 – 240)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	640 (530 – 780)
K2	E	0,02	0,3	0,055	0,065	0,075	0,085	170 (150 – 200)
		0.02	0.3	0.0022	0.0026	0.0030	0.0034	560 (500 – 650)
K3	E	0,02	0,3	0,044	0,05	0,055	0,07	145 (130 – 160)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	475 (430 – 520)
K4	E	0,02	0,3	0,044	0,05	0,055	0,07	130 (110 – 150)
		0.02	0.3	0.0017	0.0020	0.0022	0.0028	425 (370 – 490)
K5	E	0,02	0,3	0,042	0,048	0,055	0,065	85 (65 – 110)
		0.02	0.3	0.0017	0.0019	0.0022	0.0026	280 (220 – 360)
K6	E	0,02	0,3	0,04	0,048	0,055	0,06	130 (120 – 160)
		0.02	0.3	0.0016	0.0019	0.0022	0.0024	425 (400 – 520)
K7	E	0,02	0,3	0,04	0,048	0,055	0,06	110 (94 – 140)
		0.02	0.3	0.0016	0.0019	0.0022	0.0024	360 (310 – 450)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

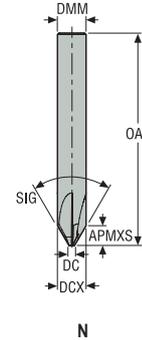
Coolant = A=air D=dry E=emulsion M=mist spray

 $v_c = m/min (sf/min)$ 
 $f_z = mm (in/tooth)$ 
 $a_p = mm/DC (in/DC) = factor$ 
 $a_e = mm/DC (in/DC) = factor$ 

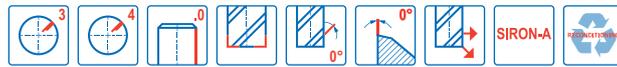
All cutting data are target values

JS506

General purpose – Universal – Chamfer – 3-4 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- SIG= ±0,5°
- Re grind possible if DMM is ≥Ø6



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
JS506030N2CZ3.0-SIRA	02881622	2	N	3,0	0,6	3,0	2,0	50,0	30,0	60,0	3	Cylindrical	■
JS506040N2CZ3.0-SIRA	02881623	2	N	4,0	0,8	4,0	2,7	50,0	30,0	60,0	3	Cylindrical	■
JS506060N2CZ4.0-SIRA	02881624	2	N	6,0	1,2	6,0	4,1	57,0	30,0	60,0	4	Cylindrical	■
JS506080N2CZ4.0-SIRA	02881626	2	N	8,0	1,6	8,0	5,5	63,0	30,0	60,0	4	Cylindrical	■
JS506100N2CZ4.0-SIRA	02881628	2	N	10,0	2,0	10,0	6,9	72,0	30,0	60,0	4	Cylindrical	■
JS506120N2CZ4.0-SIRA	02881630	2	N	12,0	2,4	12,0	8,3	83,0	30,0	60,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

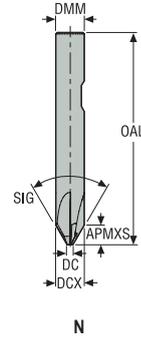
Graphite

X-Heads

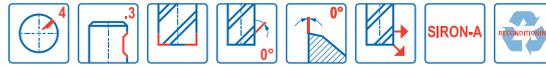
Minimaster

JS506

General purpose – Universal – Chamfer – 3-4 Flutes – Weldon



- Tolerances:
- DMM=h5
- SIG= ±0,5°
- Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
JS506060N2CZ4.3-SIRA	02881625	2	N	6,0	1,2	6,0	4,1	57,0	30,0	60,0	4	Weldon	■
JS506080N2CZ4.3-SIRA	02881627	2	N	8,0	1,6	8,0	5,5	63,0	30,0	60,0	4	Weldon	■
JS506100N2CZ4.3-SIRA	02881629	2	N	10,0	2,0	10,0	6,9	72,0	30,0	60,0	4	Weldon	■
JS506120N2CZ4.3-SIRA	02881631	2	N	12,0	2,4	12,0	8,3	83,0	30,0	60,0	4	Weldon	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS506 Chamfering

SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
P1	M/A/D/E	0,02	0,3	0,026	0,034	0,05	0,07	0,085	0,1	190 (170 – 210)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	620 (560 – 680)
P2	M/A/D/E	0,02	0,3	0,026	0,036	0,055	0,07	0,09	0,1	180 (160 – 200)
		0,02	0,3	0,0010	0,0014	0,0022	0,0028	0,0036	0,0040	590 (530 – 650)
P3	M/A/D/E	0,02	0,3	0,025	0,034	0,05	0,07	0,085	0,1	155 (140 – 170)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	510 (460 – 550)
P4	M/A/D/E	0,02	0,3	0,025	0,032	0,05	0,065	0,08	0,095	140 (130 – 150)
		0,02	0,3	0,0010	0,0013	0,0020	0,0026	0,0032	0,0038	460 (430 – 490)
P5	M/A/D/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	135 (120 – 150)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	445 (400 – 490)
P6	M/A/D/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	150 (130 – 160)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	490 (430 – 520)
P7	M/A/D/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	140 (130 – 160)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	460 (430 – 520)
P8	M/A/D/E	0,02	0,3	0,025	0,034	0,05	0,07	0,085	0,1	130 (120 – 140)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	425 (400 – 450)
P11	M/A/D/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	95 (76 – 110)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	310 (250 – 360)
P12	M/A/D/E	0,02	0,3	0,016	0,022	0,032	0,044	0,055	0,065	60 (47 – 69)
		0,02	0,3	0,00065	0,00085	0,0013	0,0017	0,0022	0,0026	195 (160 – 220)
M1	E/M/A	0,02	0,3	0,026	0,036	0,055	0,07	0,09	0,1	110 (87 – 120)
		0,02	0,3	0,0010	0,0014	0,0022	0,0028	0,0036	0,0040	360 (290 – 390)
M2	E/M/A	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	90 (72 – 100)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	295 (240 – 320)
M3	E/M/A	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	60 (41 – 75)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	195 (140 – 240)
M4	E/M/A	0,02	0,3	0,022	0,028	0,042	0,055	0,07	0,08	44 (31 – 57)
		0,02	0,3	0,00085	0,0011	0,0017	0,0022	0,0028	0,0032	145 (110 – 180)
M5	E/M/A	0,02	0,3	0,022	0,028	0,042	0,055	0,07	0,08	37 (26 – 48)
		0,02	0,3	0,00085	0,0011	0,0017	0,0022	0,0028	0,0032	120 (86 – 150)
K1	A/D/M/E	0,02	0,3	0,026	0,036	0,055	0,07	0,09	0,1	185 (160 – 200)
		0,02	0,3	0,0010	0,0014	0,0022	0,0028	0,0036	0,0040	610 (530 – 650)
K2	A/D/M/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	160 (140 – 180)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	520 (460 – 590)
K3	A/D/M/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	135 (120 – 150)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	445 (400 – 490)
K4	A/D/M/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	130 (120 – 140)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	425 (400 – 450)
K5	A/D/M/E	0,02	0,3	0,022	0,028	0,044	0,06	0,07	0,085	80 (69 – 89)
		0,02	0,3	0,00085	0,0011	0,0017	0,0024	0,0028	0,0034	260 (230 – 290)
K6	A/D/M/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	115 (100 – 130)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	375 (330 – 420)
K7	A/D/M/E	0,02	0,3	0,022	0,028	0,044	0,06	0,07	0,085	100 (88 – 110)
		0,02	0,3	0,00085	0,0011	0,0017	0,0024	0,0028	0,0034	330 (290 – 360)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

## Cutting data – JS506 Chamfering

SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
N1	E/M/A	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	445 (410 — 480)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	1450 (1400 — 1500)
N2	E/M/A	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	285 (260 — 310)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	940 (860 — 1000)
N3	E/M/A	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	190 (180 — 200)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	620 (600 — 650)
N11	E/M/A	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	255 (230 — 270)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	840 (760 — 880)
S1	E	0,02	0,3	0,013	0,017	0,026	0,034	0,044	0,05	42 (14 — 69)
		0,02	0,3	0,00050	0,00065	0,0010	0,0013	0,0017	0,0020	140 (46 — 220)
S2	E	0,02	0,3	0,013	0,017	0,026	0,034	0,044	0,05	34 (12 — 56)
		0,02	0,3	0,00050	0,00065	0,0010	0,0013	0,0017	0,0020	110 (40 — 180)
S3	E	0,02	0,3	0,012	0,016	0,024	0,032	0,04	0,048	29 (9,8 — 48)
		0,02	0,3	0,00048	0,00065	0,00095	0,0013	0,0016	0,0019	95 (33 — 150)
S11	E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	85 (64 — 100)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	280 (210 — 320)
S12	E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	65 (49 — 84)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	215 (170 — 270)
S13	E	0,02	0,3	0,022	0,028	0,042	0,055	0,07	0,08	55 (39 — 66)
		0,02	0,3	0,00085	0,0011	0,0017	0,0022	0,0028	0,0032	180 (130 — 210)
H5	M/A/D	0,02	0,3	0,012	0,016	0,024	0,032	0,04	0,048	65 (47 — 87)
		0,02	0,3	0,00048	0,00065	0,00095	0,0013	0,0016	0,0019	215 (160 — 280)
H8	M/A/D	0,02	0,3	0,0095	0,012	0,019	0,025	0,03	0,036	70 (47 — 88)
		0,02	0,3	0,00038	0,00048	0,00075	0,0010	0,0012	0,0014	230 (160 — 280)
H11	M/A/D	0,02	0,3	0,012	0,016	0,024	0,032	0,04	0,048	85 (60 — 110)
		0,02	0,3	0,00048	0,00065	0,00095	0,0013	0,0016	0,0019	280 (200 — 360)
H12	M/A/D	0,02	0,3	0,0095	0,012	0,019	0,025	0,03	0,036	80 (55 — 100)
		0,02	0,3	0,00038	0,00048	0,00075	0,0010	0,0012	0,0014	260 (190 — 320)
H21	M/A/D	0,02	0,3	0,0095	0,012	0,019	0,025	0,03	0,036	70 (47 — 88)
		0,02	0,3	0,00038	0,00048	0,00075	0,0010	0,0012	0,0014	230 (160 — 280)
TS1	A/D	0,02	0,3	0,03	0,04	0,06	0,08	0,1	0,12	550 (500 — 600)
		0,02	0,3	0,0012	0,0016	0,0024	0,0032	0,0040	0,0048	1800 (1700 — 1900)
TP1	A/D	0,02	0,3	0,03	0,04	0,06	0,08	0,1	0,12	550 (500 — 600)
		0,02	0,3	0,0012	0,0016	0,0024	0,0032	0,0040	0,0048	1800 (1700 — 1900)
GR1	A/D	0,02	0,3	0,03	0,04	0,06	0,08	0,1	0,12	550 (500 — 600)
		0,02	0,3	0,0012	0,0016	0,0024	0,0032	0,0040	0,0048	1800 (1700 — 1900)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

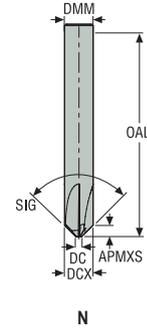
 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

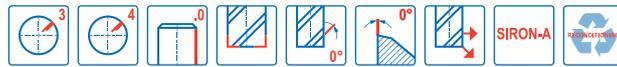
All cutting data are target values

JS509

General purpose – Universal – Chamfer – 3-4 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- SIG= ±0,5°
- Re grind possible if DMM is ≥Ø6



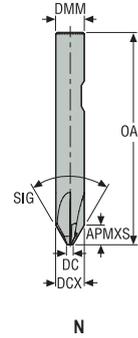
Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
JS509030N2CZ3.0-SIRA	02881634	2	N	3,0	0,6	3,0	1,2	50,0	45,0	90,0	3	Cylindrical	■
JS509040N2CZ3.0-SIRA	02881635	2	N	4,0	0,8	4,0	1,6	50,0	45,0	90,0	3	Cylindrical	■
JS509060N2CZ4.0-SIRA	02881636	2	N	6,0	1,2	6,0	2,4	57,0	45,0	90,0	4	Cylindrical	■
JS509080N2CZ4.0-SIRA	02881638	2	N	8,0	1,6	8,0	3,2	63,0	45,0	90,0	4	Cylindrical	■
JS509100N2CZ4.0-SIRA	02881640	2	N	10,0	2,0	10,0	4,0	72,0	45,0	90,0	4	Cylindrical	■
JS509120N2CZ4.0-SIRA	02881642	2	N	12,0	2,4	12,0	4,8	83,0	45,0	90,0	4	Cylindrical	■

■ Stocked standard.

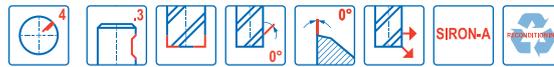
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

JS509

General purpose – Universal – Chamfer – 3-4 Flutes – Weldon



—Tolerances:  
—DMM=h5  
—SIG= ±0,5°  
—Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
JS509060N2CZ4.3-SIRA	02881637	2	N	6,0	1,2	6,0	2,4	57,0	45,0	90,0	4	Weldon	■
JS509080N2CZ4.3-SIRA	02881639	2	N	8,0	1,6	8,0	3,2	63,0	45,0	90,0	4	Weldon	■
JS509100N2CZ4.3-SIRA	02881641	2	N	10,0	2,0	10,0	4,0	72,0	45,0	90,0	4	Weldon	■
JS509120N2CZ4.3-SIRA	02881643	2	N	12,0	2,4	12,0	4,8	83,0	45,0	90,0	4	Weldon	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

## Cutting data – JS509 Chamfering

SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
P1	M/A/D/E	0,02	0,3	0,026	0,034	0,05	0,07	0,085	0,1	200 (180 – 220)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	660 (600 – 720)
P2	M/A/D/E	0,02	0,3	0,026	0,036	0,055	0,07	0,09	0,1	190 (170 – 210)
		0,02	0,3	0,0010	0,0014	0,0022	0,0028	0,0036	0,0040	620 (560 – 680)
P3	M/A/D/E	0,02	0,3	0,025	0,034	0,05	0,07	0,085	0,1	165 (150 – 180)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	540 (500 – 590)
P4	M/A/D/E	0,02	0,3	0,025	0,032	0,05	0,065	0,08	0,095	145 (130 – 160)
		0,02	0,3	0,0010	0,0013	0,0020	0,0026	0,0032	0,0038	475 (430 – 520)
P5	M/A/D/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	140 (130 – 150)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	460 (430 – 490)
P6	M/A/D/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	160 (140 – 170)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	520 (460 – 550)
P7	M/A/D/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	150 (130 – 160)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	490 (430 – 520)
P8	M/A/D/E	0,02	0,3	0,025	0,034	0,05	0,07	0,085	0,1	140 (130 – 150)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	460 (430 – 490)
P11	M/A/D/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	100 (79 – 110)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	330 (260 – 360)
P12	M/A/D/E	0,02	0,3	0,016	0,022	0,032	0,044	0,055	0,065	60 (49 – 72)
		0,02	0,3	0,00065	0,00085	0,0013	0,0017	0,0022	0,0026	195 (170 – 230)
M1	E/M/A	0,02	0,3	0,026	0,036	0,055	0,07	0,09	0,1	115 (92 – 130)
		0,02	0,3	0,0010	0,0014	0,0022	0,0028	0,0036	0,0040	375 (310 – 420)
M2	E/M/A	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	95 (75 – 110)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	310 (250 – 360)
M3	E/M/A	0,02	0,3	0,026	0,034	0,05	0,07	0,085	0,1	60 (43 – 79)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	195 (150 – 250)
M4	E/M/A	0,02	0,3	0,022	0,03	0,044	0,06	0,075	0,09	46 (32 – 60)
		0,02	0,3	0,00085	0,0012	0,0017	0,0024	0,0030	0,0036	150 (110 – 190)
M5	E/M/A	0,02	0,3	0,022	0,03	0,044	0,06	0,075	0,09	39 (27 – 50)
		0,02	0,3	0,00085	0,0012	0,0017	0,0024	0,0030	0,0036	130 (89 – 160)
K1	A/D/M/E	0,02	0,3	0,026	0,036	0,055	0,07	0,09	0,1	195 (170 – 210)
		0,02	0,3	0,0010	0,0014	0,0022	0,0028	0,0036	0,0040	640 (560 – 680)
K2	A/D/M/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	170 (150 – 190)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	560 (500 – 620)
K3	A/D/M/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	145 (130 – 160)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	475 (430 – 520)
K4	A/D/M/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	135 (120 – 150)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	445 (400 – 490)
K5	A/D/M/E	0,02	0,3	0,022	0,028	0,044	0,06	0,07	0,085	85 (72 – 93)
		0,02	0,3	0,00085	0,0011	0,0017	0,0024	0,0028	0,0034	280 (240 – 300)
K6	A/D/M/E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	120 (110 – 130)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	395 (370 – 420)
K7	A/D/M/E	0,02	0,3	0,022	0,028	0,044	0,06	0,07	0,085	105 (92 – 120)
		0,02	0,3	0,00085	0,0011	0,0017	0,0024	0,0028	0,0034	345 (310 – 390)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaxter

## Cutting data – JS509 Chamfering

SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
N1	E/M/A	0,02	0,3	0,026	0,034	0,05	0,07	0,085	0,1	470 (430 – 510)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	1550 (1500 – 1600)
N2	E/M/A	0,02	0,3	0,026	0,034	0,05	0,07	0,085	0,1	300 (280 – 330)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	980 (920 – 1000)
N3	E/M/A	0,02	0,3	0,026	0,034	0,05	0,07	0,085	0,1	200 (190 – 220)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	660 (630 – 720)
N11	E/M/A	0,02	0,3	0,026	0,034	0,05	0,07	0,085	0,1	265 (250 – 290)
		0,02	0,3	0,0010	0,0013	0,0020	0,0028	0,0034	0,0040	870 (830 – 950)
S1	E	0,02	0,3	0,013	0,017	0,026	0,036	0,044	0,05	45 (15 – 74)
		0,02	0,3	0,00050	0,00065	0,0010	0,0014	0,0017	0,0020	150 (50 – 240)
S2	E	0,02	0,3	0,013	0,017	0,026	0,036	0,044	0,05	36 (12 – 59)
		0,02	0,3	0,00050	0,00065	0,0010	0,0014	0,0017	0,0020	120 (40 – 190)
S3	E	0,02	0,3	0,012	0,016	0,024	0,032	0,04	0,048	31 (11 – 51)
		0,02	0,3	0,00048	0,00065	0,00095	0,0013	0,0016	0,0019	100 (37 – 160)
S11	E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	90 (67 – 110)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	295 (220 – 360)
S12	E	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	70 (52 – 88)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	230 (180 – 280)
S13	E	0,02	0,3	0,022	0,028	0,042	0,055	0,07	0,085	55 (41 – 69)
		0,02	0,3	0,00085	0,0011	0,0017	0,0022	0,0028	0,0034	180 (140 – 220)
H5	M/A/D	0,02	0,3	0,012	0,016	0,025	0,034	0,042	0,048	70 (49 – 92)
		0,02	0,3	0,00048	0,00065	0,0010	0,0013	0,0017	0,0019	230 (170 – 300)
H8	M/A/D	0,02	0,3	0,0095	0,012	0,019	0,025	0,032	0,036	70 (49 – 92)
		0,02	0,3	0,00038	0,00048	0,00075	0,0010	0,0013	0,0014	230 (170 – 300)
H11	M/A/D	0,02	0,3	0,012	0,016	0,025	0,034	0,042	0,048	90 (63 – 110)
		0,02	0,3	0,00048	0,00065	0,0010	0,0013	0,0017	0,0019	295 (210 – 360)
H12	M/A/D	0,02	0,3	0,0095	0,012	0,019	0,025	0,032	0,036	80 (57 – 100)
		0,02	0,3	0,00038	0,00048	0,00075	0,0010	0,0013	0,0014	260 (190 – 320)
H21	M/A/D	0,02	0,3	0,0095	0,012	0,019	0,025	0,032	0,036	70 (49 – 92)
		0,02	0,3	0,00038	0,00048	0,00075	0,0010	0,0013	0,0014	230 (170 – 300)
TS1	A/D	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	470 (430 – 510)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	1550 (1500 – 1600)
TP1	A/D	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	470 (430 – 510)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	1550 (1500 – 1600)
GR1	A/D	0,02	0,3	0,024	0,032	0,048	0,065	0,08	0,095	470 (430 – 510)
		0,02	0,3	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	1550 (1500 – 1600)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

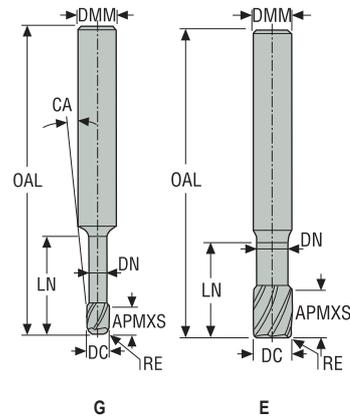
 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

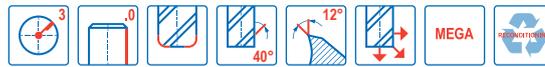
All cutting data are target values

JH910

High speed – Universal – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,03 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



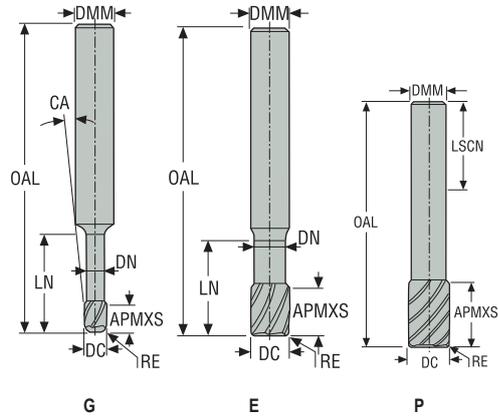
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
910020R020-MEGA	00020058	2	G	2,0	3,0	3,0	40,0	6,0	1,9	0,2	3,5	3	Cylindrical	■
910025R020-MEGA	00020065	2	G	2,5	3,0	4,0	40,0	6,0	2,4	0,2	2,0	3	Cylindrical	■
910030R010-MEGA	00020073	2	E	3,0	3,0	4,0	40,0	7,0	2,8	0,1	–	3	Cylindrical	■
910030R020-MEGA	00020142	2	E	3,0	3,0	4,0	40,0	7,0	2,8	0,2	–	3	Cylindrical	■
910035R020-MEGA	00020144	2	G	3,5	6,0	5,0	50,0	9,0	3,2	0,2	6,0	3	Cylindrical	■
910040R020-MEGA	00020151	2	G	4,0	6,0	5,0	50,0	9,0	3,7	0,2	5,0	3	Cylindrical	■
910040R030-MEGA	00020152	2	G	4,0	6,0	5,0	50,0	9,0	3,7	0,3	5,0	3	Cylindrical	■
910040R050-MEGA	00020155	2	G	4,0	6,0	5,0	50,0	9,0	3,7	0,5	5,0	3	Cylindrical	■
910050R020-MEGA	00020159	2	G	5,0	6,0	6,0	50,0	11,0	4,6	0,2	2,5	3	Cylindrical	■
910060R020-MEGA	00020160	2	E	6,0	6,0	7,0	60,0	14,0	5,6	0,2	–	3	Cylindrical	■
910060R030-MEGA	00020161	2	E	6,0	6,0	7,0	60,0	14,0	5,6	0,3	–	3	Cylindrical	■
910060R050-MEGA	00020162	2	E	6,0	6,0	7,0	60,0	14,0	5,6	0,5	–	3	Cylindrical	■
910080R020-MEGA	00020163	2	E	8,0	8,0	9,0	60,0	18,0	7,4	0,2	–	3	Cylindrical	■
910080R050-MEGA	00020164	2	E	8,0	8,0	9,0	60,0	18,0	7,4	0,5	–	3	Cylindrical	■
910100R020-MEGA	00020165	2	E	10,0	10,0	12,0	70,0	25,0	9,4	0,2	–	3	Cylindrical	■
910100R050-MEGA	00020166	2	E	10,0	10,0	12,0	70,0	25,0	9,4	0,5	–	3	Cylindrical	■
910100R100-MEGA	00020167	2	E	10,0	10,0	12,0	70,0	25,0	9,4	1,0	–	3	Cylindrical	■
910120R050-MEGA	00020168	2	E	12,0	12,0	15,0	80,0	30,0	11,4	0,5	–	3	Cylindrical	■
910120R100-MEGA	00020169	2	E	12,0	12,0	15,0	80,0	30,0	11,4	1,0	–	3	Cylindrical	■

■ Stocked standard.

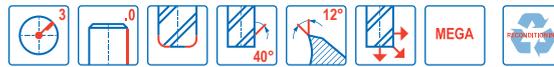
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

JH910

High speed – Universal – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,03 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
910L020-MEGA	00022002	3	G	2,0	3,0	3,0	60,0	10,0	1,9	0,2	2,5	3	Cylindrical	■
910L030-MEGA	00022003	3	E	3,0	3,0	4,0	60,0	14,0	2,8	0,2	–	3	Cylindrical	■
910L040-MEGA	00022004	3	G	4,0	6,0	5,0	65,0	18,0	3,7	0,2	3,0	3	Cylindrical	■
910L050-MEGA	00022005	3	G	5,0	6,0	6,0	65,0	22,0	4,6	0,2	1,5	3	Cylindrical	■
910L060-MEGA	00022006	3	E	6,0	6,0	7,0	80,0	26,0	5,6	0,3	–	3	Cylindrical	■
910L080-MEGA	00022007	3	E	8,0	8,0	9,0	85,0	36,0	7,4	0,5	–	3	Cylindrical	■
910L100-MEGA	00022009	3	E	10,0	10,0	12,0	100,0	45,0	9,4	0,5	–	3	Cylindrical	■
910L120-MEGA	00022011	3	E	12,0	12,0	15,0	125,0	54,0	11,4	0,5	–	3	Cylindrical	■
910L160-MEGA	00022013	3	E	16,0	16,0	18,0	125,0	65,0	15,4	1,0	–	3	Cylindrical	■
910RS070-MEGA	00021772	4	P	7,0	6,0	8,0	100,0	–	–	0,3	–	3	Cylindrical	■
910RS090-MEGA	00021781	4	P	9,0	8,0	11,0	100,0	–	–	0,5	–	3	Cylindrical	■
910RS110-MEGA	00021782	4	P	11,0	10,0	13,0	125,0	–	–	0,5	–	3	Cylindrical	■
910RS130-MEGA	00021784	4	P	13,0	12,0	16,0	150,0	–	–	0,6	–	3	Cylindrical	■
910RS170-MEGA	00021800	4	P	17,0	16,0	20,0	150,0	–	–	0,6	–	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

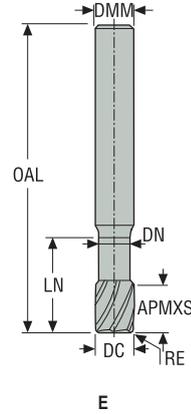
Cutting data – JH910 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>														v <sub>c</sub>
				2	3	4	5	6	7	8	9	10	11	12	13	16	17	
P1	M/E/A	0.0400	1.1	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	455 (410 — 500)
		0,0400	1,1	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1500 (1400 — 1600)
P2	M/E/A	0.0400	1.1	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	445 (400 — 490)
		0,0400	1,1	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1450 (1400 — 1600)
P3	M/E/A	0.0400	1.1	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	385 (350 — 420)
		0,0400	1,1	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1275 (1200 — 1300)
P4	M/E/A	0.0400	1.1	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	335 (300 — 370)
		0,0400	1,1	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1100 (990 — 1200)
P5	M/E/A	0.0400	1.1	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	320 (290 — 350)
		0,0400	1,1	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1050 (960 — 1100)
P6	M/E/A	0.0400	1.1	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	360 (330 — 400)
		0,0400	1,1	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1175 (1100 — 1300)
P7	M/E/A	0.0400	1.1	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	340 (310 — 370)
		0,0400	1,1	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1125 (1100 — 1200)
P8	M/E/A	0.0400	1.1	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	320 (290 — 350)
		0,0400	1,1	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1050 (960 — 1100)
P11	M/E/A	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	330 (300 — 360)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1075 (990 — 1100)
P12	M/E/A	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	195 (180 — 210)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	640 (600 — 680)
M1	M/E/A	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	200 (180 — 220)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	660 (600 — 720)
M2	M/E/A	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	160 (150 — 170)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	520 (500 — 550)
M3	M/E/A	0.0300	0.80	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	110 (91 — 120)
		0,0300	0,80	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	360 (300 — 390)
M4	M/E/A	0.0300	0.80	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	80 (68 — 94)
		0,0300	0,80	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	260 (230 — 300)
M5	M/E/A	0.0300	0.80	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	70 (57 — 78)
		0,0300	0,80	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	230 (190 — 250)
K1	A/E	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	315 (270 — 350)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1025 (890 — 1100)
K2	A/E	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	270 (240 — 310)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	890 (790 — 1000)
K3	A/E	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	230 (200 — 260)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	750 (660 — 850)
K4	A/E	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	220 (190 — 250)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	720 (630 — 820)
K5	A/E	0.0300	0.80	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	280 (240 — 320)
		0,0300	0,80	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	920 (790 — 1000)
K6	A/E	0.0300	0.80	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	415 (350 — 480)
		0,0300	0,80	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1350 (1200 — 1500)
K7	A/E	0.0300	0.80	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	355 (300 — 410)
		0,0300	0,80	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	1175 (990 — 1300)
S1	E/M/A	0.0300	0.70	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	115 (93 — 130)
		0,0300	0,70	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	375 (310 — 420)
S2	E/M/A	0.0300	0.70	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	95 (75 — 110)
		0,0300	0,70	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	310 (250 — 360)
S3	E/M/A	0.0200	0.50	0.016	0.024	0.032	0.040	0.048	0.055	0.065	0.070	0.080	0.090	0.095	0.10	0.13	0.14	50 (40 — 59)
		0,0200	0,50	0,00065	0,00095	0,0013	0,0016	0,0019	0,0022	0,0026	0,0028	0,0032	0,0036	0,0038	0,0040	0,0050	0,0055	165 (140 — 190)
S11	E/M/A	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	175 (160 — 190)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	570 (530 — 620)
S12	E/M/A	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	135 (120 — 150)
		0,0400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	0,0048	0,0050	0,0065	0,0065	445 (400 — 490)
S13	E/M/A	0.0400	1.0	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090	0.10	0.11	0.12	0.13	0.16	0.17	105 (90 — 110)
		0,0400	1,0	0,00080	0													

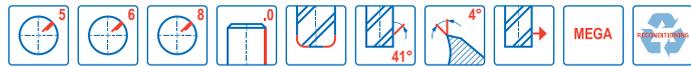


JH930

High speed – Universal – Square – 5-8 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
930060R020-MEGA	00022026	2	E	6,0	6,0	9,0	55,0	15,0	5,6	0,2	5	Cylindrical	■
930060R050-MEGA	00022027	2	E	6,0	6,0	9,0	55,0	15,0	5,6	0,5	5	Cylindrical	■
930080R020-MEGA	00022028	2	E	8,0	8,0	12,0	60,0	18,0	7,4	0,2	5	Cylindrical	■
930080R050-MEGA	00022029	2	E	8,0	8,0	12,0	60,0	18,0	7,4	0,5	5	Cylindrical	■
930100R030-MEGA	00022030	2	E	10,0	10,0	15,0	70,0	25,0	9,4	0,3	6	Cylindrical	■
930100R100-MEGA	00022031	2	E	10,0	10,0	15,0	70,0	25,0	9,4	1,0	6	Cylindrical	■
930120R050-MEGA	00022033	2	E	12,0	12,0	18,0	80,0	30,0	11,4	0,5	6	Cylindrical	■
930120R100-MEGA	00022034	2	E	12,0	12,0	18,0	80,0	30,0	11,4	1,0	6	Cylindrical	■
930160R050-MEGA	00022035	2	E	16,0	16,0	24,0	90,0	35,0	15,4	0,5	8	Cylindrical	■
930160R100-MEGA	00022040	2	E	16,0	16,0	24,0	90,0	35,0	15,4	1,0	8	Cylindrical	■
930200R050-MEGA	00022044	2	E	20,0	20,0	30,0	100,0	38,0	19,2	0,5	8	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfprp

Graphite

X-Heads

Minimaster

Cutting data – JH930 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				6	8	10	12	16	20	
P1	M/E/A	0.0400	0.70	0.065	0.085	0.11	0.13	0.16	0.18	440 (370 – 490)
		0,0400	0,70	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	1450 (1300 – 1600)
P2	M/E/A	0.0400	0.70	0.065	0.090	0.11	0.13	0.16	0.19	430 (360 – 480)
		0,0400	0,70	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	1400 (1200 – 1500)
P3	M/E/A	0.0400	0.70	0.060	0.085	0.10	0.12	0.15	0.18	375 (320 – 420)
		0,0400	0,70	0,0024	0,0034	0,0040	0,0048	0,0060	0,0070	1225 (1100 – 1300)
P4	M/E/A	0.0400	0.70	0.060	0.080	0.10	0.12	0.15	0.17	330 (280 – 370)
		0,0400	0,70	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1075 (920 – 1200)
P5	M/E/A	0.0400	0.70	0.060	0.080	0.10	0.12	0.15	0.17	315 (270 – 350)
		0,0400	0,70	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1025 (890 – 1100)
P6	M/E/A	0.0400	0.70	0.060	0.080	0.10	0.12	0.15	0.17	355 (300 – 390)
		0,0400	0,70	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1175 (990 – 1200)
P7	M/E/A	0.0400	0.70	0.060	0.080	0.10	0.12	0.15	0.17	335 (280 – 370)
		0,0400	0,70	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1100 (920 – 1200)
P8	M/E/A	0.0400	0.70	0.060	0.085	0.10	0.12	0.15	0.18	315 (270 – 350)
		0,0400	0,70	0,0024	0,0034	0,0040	0,0048	0,0060	0,0070	1025 (890 – 1100)
P11	M/E/A	0.0400	0.70	0.060	0.080	0.10	0.12	0.15	0.17	325 (280 – 360)
		0,0400	0,70	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1075 (920 – 1100)
P12	M/E/A	0.0400	0.70	0.040	0.055	0.070	0.080	0.10	0.11	200 (170 – 220)
		0,0400	0,70	0,0016	0,0022	0,0028	0,0032	0,0040	0,0044	660 (560 – 720)
K1	E/M/A	0.0400	0.70	0.060	0.080	0.10	0.12	0.15	0.17	255 (210 – 300)
		0,0400	0,70	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	840 (690 – 980)
K2	E/M/A	0.0400	0.70	0.055	0.075	0.090	0.11	0.13	0.15	225 (180 – 260)
		0,0400	0,70	0,0022	0,0030	0,0036	0,0044	0,0050	0,0060	740 (600 – 850)
K3	E/M/A	0.0400	0.70	0.055	0.075	0.090	0.11	0.13	0.15	190 (160 – 220)
		0,0400	0,70	0,0022	0,0030	0,0036	0,0044	0,0050	0,0060	620 (530 – 720)
K4	E/M/A	0.0400	0.70	0.055	0.075	0.090	0.11	0.13	0.15	180 (150 – 210)
		0,0400	0,70	0,0022	0,0030	0,0036	0,0044	0,0050	0,0060	590 (500 – 680)
K5	E/M/A	0.0300	0.50	0.060	0.080	0.10	0.12	0.15	0.17	205 (160 – 250)
		0,0300	0,50	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	670 (530 – 820)
K6	E/M/A	0.0300	0.50	0.065	0.090	0.11	0.13	0.16	0.19	300 (230 – 370)
		0,0300	0,50	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	980 (760 – 1200)
K7	E/M/A	0.0300	0.50	0.060	0.080	0.10	0.12	0.15	0.17	260 (200 – 320)
		0,0300	0,50	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	850 (660 – 1000)
S1	E/M/A	0.0300	0.44	0.055	0.070	0.090	0.11	0.13	0.15	80 (62 – 100)
		0,0300	0,44	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	260 (210 – 320)
S2	E/M/A	0.0300	0.44	0.055	0.070	0.090	0.11	0.13	0.15	65 (50 – 82)
		0,0300	0,44	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	215 (170 – 260)
S3	E/M/A	0.0200	0.70	0.055	0.070	0.090	0.11	0.13	0.15	41 (31 – 50)
		0,0200	0,70	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	135 (110 – 160)
S11	E/M/A	0.0400	0.70	0.060	0.080	0.10	0.12	0.15	0.17	160 (140 – 180)
		0,0400	0,70	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	520 (460 – 590)
S12	E/M/A	0.0400	0.70	0.060	0.080	0.10	0.12	0.15	0.17	120 (110 – 140)
		0,0400	0,70	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	395 (370 – 450)
S13	E/M/A	0.0400	0.70	0.050	0.070	0.085	0.10	0.13	0.15	95 (81 – 110)
		0,0400	0,70	0,0020	0,0028	0,0034	0,0040	0,0050	0,0060	310 (270 – 360)
H3	M/A	0.0200	0.50	0.018	0.024	0.030	0.036	0.044	0.050	55 (41 – 71)
		0,0200	0,50	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	180 (140 – 230)
H5	M/A	0.0300	0.50	0.024	0.032	0.040	0.048	0.060	0.070	250 (210 – 300)
		0,0300	0,50	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	820 (690 – 980)
H7	M/A	0.0200	0.50	0.018	0.024	0.030	0.036	0.044	0.050	55 (41 – 71)
		0,0200	0,50	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	180 (140 – 230)
H8	M/A	0.0300	0.50	0.018	0.024	0.030	0.036	0.044	0.050	255 (210 – 300)
		0,0300	0,50	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	840 (690 – 980)
H11	M/A	0.0300	0.50	0.024	0.032	0.040	0.048	0.060	0.070	320 (260 – 380)
		0,0300	0,50	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	1050 (860 – 1200)
H12	M/A	0.0400	0.70	0.030	0.042	0.050	0.060	0.075	0.085	270 (220 – 320)
		0,0400	0,70	0,0012	0,0017	0,0020	0,0024	0,0030	0,0034	890 (730 – 1000)
H21	M/A	0.0300	0.50	0.018	0.024	0.030	0.036	0.044	0.050	255 (210 – 300)
		0,0300	0,50	0,00070	0,00095	0,0012	0,0014	0,0017	0,0020	840 (690 – 980)
H31	M/A	0.0300	0.50	0.024	0.032	0.040	0.048	0.060	0.070	155 (130 – 180)
		0,0300	0,50	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	510 (430 – 590)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

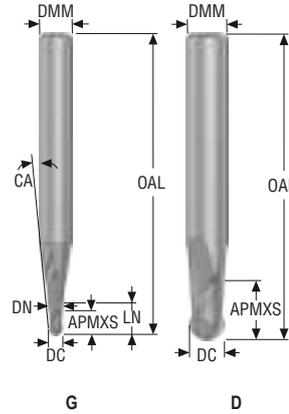
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

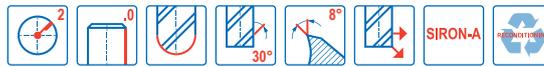
All cutting data are target values

JHB970

High speed – Universal – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm				
JHB970020G1B.0Z2	SIRA	10072058	1	G	2,0	3,0	3,0	50,0	10,0	1,9	1,0	2,5	2	Cylindrical	■
JHB970030D1B.0Z2	SIRA	10072059	1	D	3,0	3,0	4,5	50,0	–	–	1,5	–	2	Cylindrical	■
JHB970040D1B.0Z2	SIRA	10072060	1	D	4,0	4,0	6,0	60,0	–	–	2,0	–	2	Cylindrical	■
JHB970050D1B.0Z2	SIRA	10072061	1	D	5,0	5,0	7,5	60,0	–	–	2,5	–	2	Cylindrical	■
JHB970060D1B.0Z2	SIRA	10072062	1	D	6,0	6,0	9,0	75,0	–	–	3,0	–	2	Cylindrical	■
JHB970020G2B.0Z2	SIRA	10072063	2	G	2,0	6,0	3,0	60,0	4,0	1,9	1,0	8,0	2	Cylindrical	■
JHB970025G2B.0Z2	SIRA	10072064	2	G	2,5	6,0	4,0	60,0	5,0	2,4	1,25	7,5	2	Cylindrical	■
JHB970030G2B.0Z2	SIRA	10072065	2	G	3,0	6,0	4,5	60,0	6,0	2,8	1,5	5,5	2	Cylindrical	■
JHB970035G2B.0Z2	SIRA	10072066	2	G	3,5	6,0	5,0	60,0	7,0	3,2	1,75	4,5	2	Cylindrical	■
JHB970040G2B.0Z2	SIRA	10072067	2	G	4,0	6,0	6,0	60,0	8,0	3,7	2,0	3,0	2	Cylindrical	■
JHB970050G2B.0Z2	SIRA	10072068	2	G	5,0	6,0	7,5	60,0	10,0	4,6	2,5	2,0	2	Cylindrical	■
JHB970060G2B.0Z2	SIRA	10072069	2	G	6,0	8,0	9,0	75,0	12,0	5,6	3,0	2,5	2	Cylindrical	■
JHB970080D2B.0Z2	SIRA	10072070	2	D	8,0	8,0	12,0	75,0	–	–	4,0	–	2	Cylindrical	■
JHB970100D2B.0Z2	SIRA	10072071	2	D	10,0	10,0	15,0	80,0	–	–	5,0	–	2	Cylindrical	■
JHB970120D2B.0Z2	SIRA	10072072	2	D	12,0	12,0	18,0	90,0	–	–	6,0	–	2	Cylindrical	■
JHB970160D2B.0Z2	SIRA	10072073	2	D	16,0	16,0	24,0	100,0	–	–	8,0	–	2	Cylindrical	■
JHB970020G3B.0Z2	SIRA	10072074	3	G	2,0	6,0	3,0	80,0	4,0	1,9	1,0	8,0	2	Cylindrical	■
JHB970030G3B.0Z2	SIRA	10072075	3	G	3,0	6,0	4,5	80,0	6,0	2,8	1,5	5,5	2	Cylindrical	■
JHB970040G3B.0Z2	SIRA	10072076	3	G	4,0	6,0	6,0	80,0	8,0	3,7	2,0	3,0	2	Cylindrical	■
JHB970060G3B.0Z2	SIRA	10072077	3	G	6,0	8,0	9,0	100,0	12,0	5,6	3,0	2,5	2	Cylindrical	■
JHB970080D3B.0Z2	SIRA	10072078	3	D	8,0	8,0	12,0	108,0	–	–	4,0	–	2	Cylindrical	■
JHB970100D3B.0Z2	SIRA	10072079	3	D	10,0	10,0	15,0	125,0	–	–	5,0	–	2	Cylindrical	■
JHB970120D3B.0Z2	SIRA	10072080	3	D	12,0	12,0	18,0	125,0	–	–	6,0	–	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JHB970 Copy milling roughing

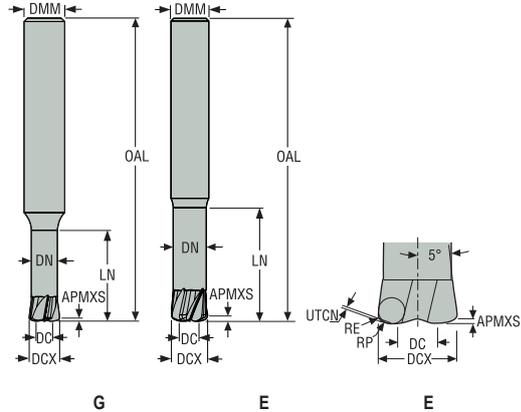
SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				2	2.5	3	3.5	4	5	6	8	10	12	16		
P1	M	0.200	1.0	0.011	0.014	0.016	0.019	0.022	0.028	0.032	0.044	0.055	0.065	0.080	210 (190 – 230)	
		0,200	1,0	0,00044	0,00055	0,00065	0,00075	0,00085	0,0011	0,0013	0,0017	0,0022	0,0026	0,0032	690 (630 – 750)	
P2	M	0.200	1.0	0.011	0.014	0.017	0.019	0.022	0.028	0.034	0.044	0.055	0.065	0.080	205 (180 – 230)	
		0,200	1,0	0,00044	0,00055	0,00065	0,00075	0,00085	0,0011	0,0013	0,0017	0,0022	0,0026	0,0032	670 (600 – 750)	
P3	M	0.200	1.0	0.010	0.013	0.016	0.018	0.020	0.026	0.032	0.042	0.050	0.060	0.075	180 (160 – 200)	
		0,200	1,0	0,00040	0,00050	0,00065	0,00070	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	0,0030	590 (530 – 650)	
P4	M	0.200	1.0	0.010	0.013	0.015	0.018	0.020	0.026	0.030	0.040	0.050	0.060	0.075	155 (140 – 170)	
		0,200	1,0	0,00040	0,00050	0,00060	0,00070	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	510 (460 – 550)	
P5	M	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	150 (140 – 170)	
		0,200	1,0	0,00040	0,00048	0,00060	0,00065	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	490 (460 – 550)	
P6	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	170 (150 – 190)	
		0,200	1,0	0,00040	0,00048	0,00060	0,00065	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	560 (500 – 620)	
P7	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	160 (140 – 180)	
		0,200	1,0	0,00040	0,00048	0,00060	0,00065	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	520 (460 – 590)	
P8	M	0.200	1.0	0.010	0.013	0.016	0.018	0.020	0.026	0.032	0.042	0.050	0.060	0.075	150 (140 – 170)	
		0,200	1,0	0,00040	0,00050	0,00065	0,00070	0,00080	0,0010	0,0013	0,0017	0,0020	0,0024	0,0030	490 (460 – 550)	
P11	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	75 (67 – 86)	
		0,200	1,0	0,00040	0,00048	0,00060	0,00065	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	245 (220 – 280)	
P12	M	0.200	1.0	0.0070	0.0085	0.010	0.012	0.014	0.017	0.020	0.028	0.034	0.040	0.050	48 (42 – 53)	
		0,200	1,0	0,00028	0,00034	0,00040	0,00048	0,00055	0,00065	0,00080	0,0011	0,0013	0,0016	0,0020	155 (140 – 170)	
M1	E	0.200	1.0	0.0090	0.011	0.013	0.015	0.018	0.022	0.026	0.036	0.044	0.050	0.065	90 (80 – 100)	
		0,200	1,0	0,00036	0,00044	0,00050	0,00060	0,00070	0,00085	0,0010	0,0014	0,0017	0,0020	0,0026	295 (270 – 320)	
M2	E	0.200	1.0	0.0080	0.010	0.012	0.014	0.016	0.020	0.024	0.032	0.040	0.048	0.060	75 (65 – 85)	
		0,200	1,0	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	245 (220 – 270)	
M3	E	0.150	1.0	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	65 (55 – 75)	
		0,150	1,0	0,00024	0,00030	0,00036	0,00040	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	215 (190 – 240)	
M4	E	0.150	1.0	0.0050	0.0065	0.0080	0.0090	0.010	0.013	0.016	0.020	0.026	0.032	0.038	49 (42 – 56)	
		0,150	1,0	0,00020	0,00026	0,00032	0,00036	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0015	160 (140 – 180)	
M5	E	0.150	1.0	0.0050	0.0065	0.0080	0.0090	0.010	0.013	0.016	0.020	0.026	0.032	0.038	41 (35 – 47)	
		0,150	1,0	0,00020	0,00026	0,00032	0,00036	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0015	135 (120 – 150)	
S1	E	0.100	0.80	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	50 (40 – 59)	
		0,100	0,80	0,00024	0,00030	0,00036	0,00040	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	165 (140 – 190)	
S2	E	0.100	0.80	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	40 (33 – 48)	
		0,100	0,80	0,00024	0,00030	0,00036	0,00040	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0017	130 (110 – 150)	
S3	E	0.100	0.60	0.0040	0.0050	0.0060	0.0070	0.0080	0.010	0.012	0.016	0.020	0.024	0.028	30 (20 – 39)	
		0,100	0,60	0,00016	0,00020	0,00024	0,00028	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0011	100 (66 – 120)	
S11	E	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	90 (79 – 100)	
		0,200	1,0	0,00040	0,00048	0,00060	0,00065	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	295 (260 – 320)	
S12	E	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	70 (61 – 80)	
		0,200	1,0	0,00040	0,00048	0,00060	0,00065	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	230 (210 – 260)	
S13	E	0.200	1.0	0.0085	0.011	0.013	0.015	0.017	0.022	0.026	0.034	0.044	0.050	0.065	55 (48 – 63)	
		0,200	1,0	0,00034	0,00044	0,00050	0,00060	0,00065	0,00085	0,0010	0,0013	0,0017	0,0020	0,0026	180 (160 – 200)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JHF980

High feed – Universal – 2-5 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,05 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø6



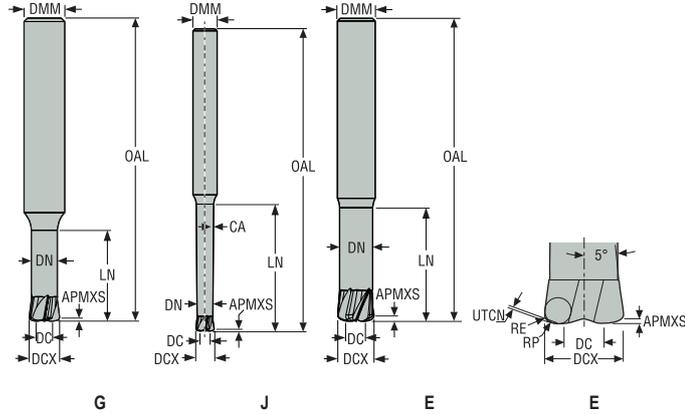
Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	LN	DN	RE	RP	UTCN	CA°	PSIR°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
980K080Z3-MEGA	02587115	1	E	8,0	4,0	8,0	0,4	70,0	12,0	3,0	0,6	0,935	0,198	-	-5,0	3	Cylindrical	■
JHF980080E1H.0Z5-MEGA	03003384	1	E	8,0	4,0	8,0	0,4	70,0	12,0	7,0	0,6	0,935	0,198	-	-5,0	5	Cylindrical	■
980K100Z3-MEGA	02587117	1	E	10,0	5,0	10,0	0,45	80,0	15,0	3,8	0,8	1,176	0,232	-	-5,0	3	Cylindrical	■
JHF980100E1H.0Z5-MEGA	03003385	1	E	10,0	5,0	10,0	0,45	80,0	15,0	8,8	0,8	1,176	0,232	-	-5,0	5	Cylindrical	■
980K120Z3-MEGA	02587118	1	E	12,0	6,0	12,0	0,5	80,0	18,0	4,6	1,0	1,417	0,265	-	-5,0	3	Cylindrical	■
JHF980120E1H.0Z5-MEGA	03003386	1	E	12,0	6,0	12,0	0,5	80,0	18,0	10,6	1,0	1,417	0,265	-	-5,0	5	Cylindrical	■
980010-MEGA	02587111	2	G	1,0	0,5	6,0	0,07	40,0	3,0	0,7	0,07	0,127	0,028	19,5	-5,0	2	Cylindrical	■
980015-MEGA	02511199	2	G	1,5	0,75	6,0	0,1	40,0	4,5	1,2	0,1	0,183	0,043	14,0	-5,0	2	Cylindrical	■
980020-MEGA	02511221	2	G	2,0	1,0	6,0	0,15	40,0	6,0	1,7	0,15	0,269	0,055	11,0	-5,0	2	Cylindrical	■
980030-MEGA	02511224	2	G	3,0	1,5	6,0	0,2	50,0	9,0	2,6	0,2	0,366	0,085	7,0	-5,0	2	Cylindrical	■
JHF980030G2H.0Z4-MEGA	03003387	2	G	3,0	1,5	6,0	0,2	50,0	9,0	2,6	0,2	0,366	0,085	7,12	-5,0	4	Cylindrical	■
980040-MEGA	02511229	2	G	4,0	2,0	6,0	0,25	60,0	12,0	3,5	0,3	0,503	0,107	4,0	-5,0	2	Cylindrical	■
JHF980040G2H.0Z4-MEGA	03003388	2	G	4,0	2,0	6,0	0,25	60,0	12,0	3,5	0,3	0,503	0,107	4,0	-5,0	4	Cylindrical	■
980050-MEGA	02511233	2	G	5,0	2,5	6,0	0,3	60,0	15,0	4,4	0,4	0,641	0,128	2,0	-5,0	2	Cylindrical	■
JHF980050G2H.0Z4-MEGA	03003389	2	G	5,0	2,5	6,0	0,3	60,0	15,0	4,4	0,4	0,641	0,128	1,77	-5,0	4	Cylindrical	■
980060-MEGA	02511314	2	G	6,0	3,0	8,0	0,35	60,0	18,0	5,2	0,5	0,778	0,15	3,0	-5,0	2	Cylindrical	■
JHF980060G2H.0Z4-MEGA	03003390	2	G	6,0	3,0	8,0	0,35	60,0	18,0	5,2	0,5	0,778	0,15	2,86	-5,0	4	Cylindrical	■
980080-MEGA	02511322	2	E	8,0	4,0	8,0	0,4	70,0	24,0	7,0	0,6	0,935	0,198	-	-5,0	2	Cylindrical	■
JHF980080E2H.0Z5-MEGA	03003391	2	E	8,0	4,0	8,0	0,4	70,0	24,0	7,0	0,6	0,935	0,198	-	-5,0	5	Cylindrical	■
980100-MEGA	02511341	2	E	10,0	5,0	10,0	0,45	80,0	30,0	8,8	0,8	1,176	0,232	-	-5,0	2	Cylindrical	■
980100Z3-MEGA	02511342	2	E	10,0	5,0	10,0	0,45	80,0	30,0	8,8	0,8	1,176	0,232	-	-5,0	3	Cylindrical	■
JHF980100E2H.0Z5-MEGA	03003392	2	E	10,0	5,0	10,0	0,45	80,0	30,0	8,8	0,8	1,176	0,232	-	-5,0	5	Cylindrical	■
980120-MEGA	02511346	2	E	12,0	6,0	12,0	0,5	80,0	36,0	10,6	1,0	1,417	0,265	-	-5,0	2	Cylindrical	■
980120Z3-MEGA	02511347	2	E	12,0	6,0	12,0	0,5	80,0	36,0	10,6	1,0	1,417	0,265	-	-5,0	3	Cylindrical	■
JHF980120E2H.0Z5-MEGA	03003393	2	E	12,0	6,0	12,0	0,5	80,0	36,0	10,6	1,0	1,417	0,265	-	-5,0	5	Cylindrical	■

■ Stocked standard.  
\*UTCN=uncut-thickness

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

**JHF980**

High feed – Universal – 2-5 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,05 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥06



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	AP-MXS	OAL	LN	DN	RE	RP	UTCN	CA°	NA°	PSIR°	PCEDC	Shank	Stock standard
980ML010-MEGA	02587113	3	G	1,0	0,5	6,0	0,07	40,0	5,0	0,7	0,07	0,127	0,028	15,5	—	-5,0	2	Cylindrical	■
980ML015-MEGA	02511219	3	G	1,5	0,75	6,0	0,1	40,0	7,5	1,2	0,1	0,183	0,043	10,5	—	-5,0	2	Cylindrical	■
980ML020-MEGA	02511222	3	G	2,0	1,0	6,0	0,15	40,0	10,0	1,7	0,15	0,269	0,055	8,0	—	-5,0	2	Cylindrical	■
JHF980020G3H.0Z4-MEGA	03003394	3	G	2,0	1,0	6,0	0,15	40,0	10,0	1,7	0,15	0,269	0,055	8,46	—	-5,0	4	Cylindrical	■
980ML030-MEGA	02511225	3	G	3,0	1,5	6,0	0,2	50,0	15,0	2,6	0,2	0,366	0,085	5,0	—	-5,0	2	Cylindrical	■
JHF980030G3H.0Z4-MEGA	03003395	3	G	3,0	1,5	6,0	0,2	50,0	15,0	2,6	0,2	0,366	0,085	4,79	—	-5,0	4	Cylindrical	■
980ML040-MEGA	02511231	3	G	4,0	2,0	6,0	0,25	70,0	20,0	3,5	0,3	0,503	0,107	2,5	—	-5,0	2	Cylindrical	■
JHF980040G3H.0Z4-MEGA	03003396	3	G	4,0	2,0	6,0	0,25	70,0	20,0	3,5	0,3	0,503	0,107	2,59	—	-5,0	4	Cylindrical	■
980ML050-MEGA	02511234	3	G	5,0	2,5	6,0	0,3	80,0	25,0	4,4	0,4	0,641	0,128	1,5	—	-5,0	2	Cylindrical	■
JHF980050G3H.0Z4-MEGA	03003397	3	G	5,0	2,5	6,0	0,3	80,0	25,0	4,4	0,4	0,641	0,128	1,12	—	-5,0	4	Cylindrical	■
980ML060-MEGA	02511315	3	G	6,0	3,0	8,0	0,35	80,0	30,0	5,2	0,5	0,778	0,15	2,0	—	-5,0	2	Cylindrical	■
JHF980060G3H.0Z4-MEGA	03003398	3	G	6,0	3,0	8,0	0,35	80,0	30,0	5,2	0,5	0,778	0,15	1,8	—	-5,0	4	Cylindrical	■
980ML080-MEGA	02511338	3	E	8,0	4,0	8,0	0,4	80,0	40,0	7,0	0,6	0,935	0,198	—	—	-5,0	2	Cylindrical	■
JHF980080E3H.0Z5-MEGA	03003399	3	E	8,0	4,0	8,0	0,4	80,0	40,0	7,0	0,6	0,935	0,198	—	—	-5,0	5	Cylindrical	■
980ML100-MEGA	02511344	3	E	10,0	5,0	10,0	0,45	90,0	50,0	8,8	0,8	1,176	0,232	—	—	-5,0	2	Cylindrical	■
JHF980100E3H.0Z5-MEGA	03003400	3	E	10,0	5,0	10,0	0,45	90,0	50,0	8,8	0,8	1,176	0,232	—	—	-5,0	5	Cylindrical	■
980ML120-MEGA	02511348	3	E	12,0	6,0	12,0	0,5	110,0	60,0	10,6	1,0	1,417	0,265	—	—	-5,0	2	Cylindrical	■
JHF980120E3H.0Z5-MEGA	03003401	3	E	12,0	6,0	12,0	0,5	110,0	60,0	10,6	1,0	1,417	0,265	—	—	-5,0	5	Cylindrical	■
980TL010-MEGA	02587114	4	J	1,0	0,5	6,0	0,07	40,0	7,0	0,7	0,07	0,127	0,028	13,0	0,5	-5,0	2	Cylindrical	■
980TL015-MEGA	02511220	4	J	1,5	0,75	6,0	0,1	40,0	10,5	1,2	0,1	0,183	0,043	8,5	0,5	-5,0	2	Cylindrical	■
980TL020-MEGA	02511223	4	J	2,0	1,0	6,0	0,15	50,0	14,0	1,7	0,15	0,269	0,055	6,5	0,5	-5,0	2	Cylindrical	■
980TL030-MEGA	02511226	4	J	3,0	1,5	6,0	0,2	60,0	21,0	2,6	0,2	0,366	0,085	3,5	0,5	-5,0	2	Cylindrical	■
JHF980030J4H.0Z4-MEGA	03003402	4	J	3,0	1,5	6,0	0,2	60,0	21,0	2,6	0,2	0,366	0,085	3,63	0,5	-5,0	4	Cylindrical	■
980TL040-MEGA	02511232	4	J	4,0	2,0	6,0	0,25	80,0	28,0	3,5	0,3	0,503	0,107	2,0	0,5	-5,0	2	Cylindrical	■
JHF980040J4H.0Z4-MEGA	03003403	4	J	4,0	2,0	6,0	0,25	80,0	28,0	3,5	0,3	0,503	0,107	1,93	0,5	-5,0	4	Cylindrical	■
980TL050-MEGA	02511240	4	J	5,0	2,5	6,0	0,3	90,0	35,0	4,4	0,4	0,641	0,128	1,0	0,5	-5,0	2	Cylindrical	■
JHF980050J4H.0Z4-MEGA	03003404	4	J	5,0	2,5	6,0	0,3	90,0	35,0	4,4	0,4	0,641	0,128	0,82	0,5	-5,0	4	Cylindrical	■
980TL060-MEGA	02511321	4	J	6,0	3,0	8,0	0,35	100,0	42,0	5,2	0,5	0,778	0,15	1,5	0,5	-5,0	2	Cylindrical	■
JHF980060J4H.0Z4-MEGA	03003405	4	J	6,0	3,0	8,0	0,35	100,0	42,0	5,2	0,5	0,778	0,15	1,33	0,5	-5,0	4	Cylindrical	■
980TL080-MEGA	02511340	4	E	8,0	4,0	8,0	0,4	100,0	56,0	7,0	0,6	0,935	0,198	—	0,5	-5,0	2	Cylindrical	■
JHF980080E4H.0Z5-MEGA	03003406	4	E	8,0	4,0	8,0	0,4	100,0	56,0	7,0	0,6	0,935	0,198	—	—	-5,0	5	Cylindrical	■
980TL100-MEGA	02511345	4	E	10,0	5,0	10,0	0,45	110,0	70,0	8,8	0,8	1,176	0,232	—	0,5	-5,0	2	Cylindrical	■
JHF980100E4H.0Z5-MEGA	03003407	4	E	10,0	5,0	10,0	0,45	110,0	70,0	8,8	0,8	1,176	0,232	—	—	-5,0	5	Cylindrical	■
980TL120-MEGA	02511349	4	E	12,0	6,0	12,0	0,5	130,0	84,0	10,6	1,0	1,417	0,265	—	0,5	-5,0	2	Cylindrical	■
JHF980120E4H.0Z5-MEGA	03003408	4	E	12,0	6,0	12,0	0,5	130,0	84,0	10,6	1,0	1,417	0,265	—	—	-5,0	5	Cylindrical	■

■ Stocked standard. \*UTCN=uncut-thickness

Cutting data – JHF980 Side milling

SMG		a <sub>g</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>										v <sub>c</sub>	
				1	1.5	2	3	4	5	6	8	10	12		
P1	E/M/A	0.30	0.040	0.050	0.075	0.10	0.15	0.20	0.25	0.30	0.40	0.50	0.60	385 (350 — 430)	Universal
		0.30	0.040	0.0020	0.0030	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	1275 (1200 — 1400)	
P2	E/M/A	0.30	0.040	0.050	0.075	0.10	0.15	0.20	0.25	0.30	0.40	0.50	0.60	375 (340 — 410)	
		0.30	0.040	0.0020	0.0030	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	1225 (1200 — 1300)	
P3	E/M/A	0.30	0.040	0.050	0.075	0.10	0.15	0.20	0.25	0.30	0.40	0.50	0.60	325 (290 — 360)	
		0.30	0.040	0.0020	0.0030	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	1075 (960 — 1100)	
P4	E/M/A	0.30	0.040	0.050	0.075	0.10	0.15	0.20	0.25	0.30	0.40	0.50	0.60	285 (260 — 310)	
		0.30	0.040	0.0020	0.0030	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	940 (860 — 1000)	
P5	E/M/A	0.30	0.040	0.050	0.075	0.10	0.15	0.20	0.25	0.30	0.40	0.50	0.60	275 (250 — 300)	
		0.30	0.040	0.0020	0.0030	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	900 (830 — 980)	
P6	E/M/A	0.30	0.040	0.044	0.070	0.090	0.14	0.18	0.22	0.28	0.36	0.44	0.55	215 (190 — 240)	
		0.30	0.040	0.0017	0.0028	0.0036	0.0055	0.0070	0.0085	0.011	0.014	0.017	0.022	710 (630 — 780)	
P7	E/M/A	0.30	0.040	0.044	0.070	0.090	0.14	0.18	0.22	0.28	0.36	0.44	0.55	205 (180 — 230)	
		0.30	0.040	0.0017	0.0028	0.0036	0.0055	0.0070	0.0085	0.011	0.014	0.017	0.022	670 (600 — 750)	
P8	E/M/A	0.30	0.040	0.044	0.070	0.090	0.14	0.18	0.22	0.28	0.36	0.44	0.55	190 (170 — 210)	
		0.30	0.040	0.0017	0.0028	0.0036	0.0055	0.0070	0.0085	0.011	0.014	0.017	0.022	620 (560 — 680)	
P11	E/M/A	0.30	0.040	0.044	0.070	0.090	0.14	0.18	0.22	0.28	0.36	0.44	0.55	195 (170 — 220)	
		0.30	0.040	0.0017	0.0028	0.0036	0.0055	0.0070	0.0085	0.011	0.014	0.017	0.022	640 (560 — 720)	
P12	E/M/A	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	120 (110 — 130)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	395 (370 — 420)	
M1	E/M/A	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	190 (170 — 210)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	620 (560 — 680)	
M2	E/M/A	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	150 (140 — 160)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	490 (460 — 520)	
M3	E/M/A	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	115 (98 — 130)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	375 (330 — 420)	
M4	E/M/A	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	85 (73 — 100)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	280 (240 — 320)	
M5	E/M/A	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	70 (61 — 83)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	230 (210 — 270)	
K1	E/M/A	0.30	0.040	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	225 (200 — 250)	
		0.30	0.040	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	740 (660 — 820)	
K2	E/M/A	0.30	0.040	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	195 (170 — 220)	
		0.30	0.040	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	640 (560 — 720)	
K3	E/M/A	0.30	0.040	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	165 (150 — 180)	
		0.30	0.040	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	540 (500 — 590)	
K4	E/M/A	0.30	0.040	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	155 (140 — 170)	
		0.30	0.040	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	510 (460 — 550)	
K5	E/M/A	0.30	0.040	0.032	0.050	0.065	0.10	0.13	0.16	0.20	0.26	0.32	0.40	165 (140 — 190)	
		0.30	0.040	0.0013	0.0020	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	540 (460 — 620)	
K6	E/M/A	0.30	0.040	0.032	0.050	0.065	0.10	0.13	0.16	0.20	0.26	0.32	0.40	245 (200 — 290)	
		0.30	0.040	0.0013	0.0020	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	800 (660 — 950)	
K7	E/M/A	0.30	0.040	0.032	0.050	0.065	0.10	0.13	0.16	0.20	0.26	0.32	0.40	210 (170 — 250)	
		0.30	0.040	0.0013	0.0020	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	690 (560 — 820)	
S1	E	0.30	0.022	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	60 (50 — 74)	
		0.30	0.022	0.00095	0.0014	0.0019	0.0028	0.0038	0.0048	0.0055	0.0075	0.0095	0.011	195 (170 — 240)	
S2	E	0.30	0.022	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	50 (41 — 60)	
		0.30	0.022	0.00095	0.0014	0.0019	0.0028	0.0038	0.0048	0.0055	0.0075	0.0095	0.011	165 (140 — 190)	
S3	E	0.30	0.022	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	37 (25 — 49)	
		0.30	0.022	0.00095	0.0014	0.0019	0.0028	0.0038	0.0048	0.0055	0.0075	0.0095	0.011	120 (83 — 160)	
S11	E	0.30	0.022	0.036	0.050	0.070	0.10	0.14	0.18	0.20	0.28	0.36	0.42	175 (160 — 190)	
		0.30	0.022	0.0014	0.0020	0.0028	0.0040	0.0055	0.0070	0.0080	0.011	0.014	0.017	570 (530 — 620)	
S12	E	0.30	0.022	0.036	0.050	0.070	0.10	0.14	0.18	0.20	0.28	0.36	0.42	135 (120 — 150)	
		0.30	0.022	0.0014	0.0020	0.0028	0.0040	0.0055	0.0070	0.0080	0.011	0.014	0.017	445 (400 — 490)	
S13	E	0.30	0.022	0.036	0.050	0.070	0.10	0.14	0.18	0.20	0.28	0.36	0.42	105 (90 — 110)	
		0.30	0.022	0.0014	0.0020	0.0028	0.0040	0.0055	0.0070	0.0080	0.011	0.014	0.017	345 (300 — 360)	
H5	M/A/D	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	115 (98 — 130)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	375 (330 — 420)	
H8	M/A/D	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	115 (98 — 130)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	375 (330 — 420)	
H21	M/A/D	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	115 (98 — 130)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	375 (330 — 420)	
H31	M/A/D	0.30	0.036	0.040	0.060	0.080	0.12	0.16	0.20	0.24	0.32	0.40	0.48	90 (74 — 100)	
		0.30	0.036	0.0016	0.0024	0.0032	0.0048	0.0065	0.0080	0.0095	0.013	0.016	0.019	295 (250 — 320)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>g</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

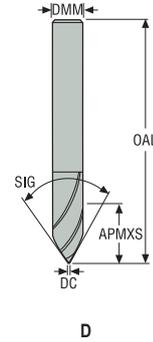
## Cutting data – JHF980 Slot milling

SMG	Icon	a <sub>p</sub> /DCX	f <sub>z</sub>										v <sub>c</sub>
			1	1.5	2	3	4	5	6	8	10	12	
P1	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	340 (310 – 370)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	1125 (1100 – 1200)
P2	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	330 (300 – 360)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	1075 (990 – 1100)
P3	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	285 (260 – 310)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	940 (860 – 1000)
P4	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	250 (230 – 270)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	820 (760 – 880)
P5	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	240 (220 – 260)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	790 (730 – 850)
P6	E/M/A	0.040	0.028	0.040	0.055	0.080	0.11	0.14	0.16	0.22	0.28	0.32	185 (160 – 210)
		0,040	0,0011	0,0016	0,0022	0,0032	0,0044	0,0055	0,0065	0,0085	0,011	0,013	610 (530 – 680)
P7	E/M/A	0.040	0.028	0.040	0.055	0.080	0.11	0.14	0.16	0.22	0.28	0.32	175 (160 – 200)
		0,040	0,0011	0,0016	0,0022	0,0032	0,0044	0,0055	0,0065	0,0085	0,011	0,013	570 (530 – 650)
P8	E/M/A	0.040	0.028	0.040	0.055	0.080	0.11	0.14	0.16	0.22	0.28	0.32	165 (150 – 180)
		0,040	0,0011	0,0016	0,0022	0,0032	0,0044	0,0055	0,0065	0,0085	0,011	0,013	540 (500 – 590)
P11	E/M/A	0.040	0.028	0.040	0.055	0.080	0.11	0.14	0.16	0.22	0.28	0.32	170 (150 – 190)
		0,040	0,0011	0,0016	0,0022	0,0032	0,0044	0,0055	0,0065	0,0085	0,011	0,013	560 (500 – 620)
P12	E/M/A	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	105 (90 – 110)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	345 (300 – 360)
M1	E/M/A	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	165 (150 – 180)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	540 (500 – 590)
M2	E/M/A	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	130 (120 – 140)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	425 (400 – 450)
M3	E/M/A	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	100 (85 – 110)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	330 (280 – 360)
M4	E/M/A	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	75 (64 – 87)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	245 (210 – 280)
M5	E/M/A	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	65 (53 – 72)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	215 (180 – 230)
K1	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	185 (160 – 210)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	610 (530 – 680)
K2	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	160 (140 – 180)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	520 (460 – 590)
K3	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	135 (120 – 150)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	445 (400 – 490)
K4	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	0.30	0.36	130 (120 – 140)
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	0,012	0,014	425 (400 – 450)
K5	E/M/A	0.040	0.028	0.040	0.055	0.080	0.11	0.14	0.16	0.22	0.28	0.32	135 (110 – 150)
		0,040	0,0011	0,0016	0,0022	0,0032	0,0044	0,0055	0,0065	0,0085	0,011	0,013	445 (370 – 490)
K6	E/M/A	0.040	0.028	0.040	0.055	0.080	0.11	0.14	0.16	0.22	0.28	0.32	195 (160 – 230)
		0,040	0,0011	0,0016	0,0022	0,0032	0,0044	0,0055	0,0065	0,0085	0,011	0,013	640 (530 – 750)
K7	E/M/A	0.040	0.028	0.040	0.055	0.080	0.11	0.14	0.16	0.22	0.28	0.32	170 (140 – 200)
		0,040	0,0011	0,0016	0,0022	0,0032	0,0044	0,0055	0,0065	0,0085	0,011	0,013	560 (460 – 650)
S1	E	0.022	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.14	0.18	0.22	50 (42 – 62)
		0,022	0,00070	0,0011	0,0014	0,0022	0,0028	0,0036	0,0044	0,0055	0,0070	0,0085	165 (140 – 200)
S2	E	0.022	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.14	0.18	0.22	42 (34 – 50)
		0,022	0,00070	0,0011	0,0014	0,0022	0,0028	0,0036	0,0044	0,0055	0,0070	0,0085	140 (120 – 160)
S3	E	0.022	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.14	0.18	0.22	31 (21 – 41)
		0,022	0,00070	0,0011	0,0014	0,0022	0,0028	0,0036	0,0044	0,0055	0,0070	0,0085	100 (69 – 130)
S11	E	0.022	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.14	0.18	0.22	155 (140 – 170)
		0,022	0,00070	0,0011	0,0014	0,0022	0,0028	0,0036	0,0044	0,0055	0,0070	0,0085	510 (460 – 550)
S12	E	0.022	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.14	0.18	0.22	120 (110 – 130)
		0,022	0,00070	0,0011	0,0014	0,0022	0,0028	0,0036	0,0044	0,0055	0,0070	0,0085	395 (370 – 420)
S13	E	0.022	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.14	0.18	0.22	95 (82 – 100)
		0,022	0,00070	0,0011	0,0014	0,0022	0,0028	0,0036	0,0044	0,0055	0,0070	0,0085	310 (270 – 320)
H5	M/A/D	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	100 (86 – 110)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	330 (290 – 360)
H8	M/A/D	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	100 (86 – 110)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	330 (290 – 360)
H21	M/A/D	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	100 (86 – 110)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	330 (290 – 360)
H31	M/A/D	0.036	0.024	0.036	0.048	0.070	0.095	0.12	0.14	0.19	0.24	0.28	75 (65 – 88)
		0,036	0,00095	0,0014	0,0019	0,0028	0,0038	0,0048	0,0055	0,0075	0,0095	0,011	245 (220 – 280)

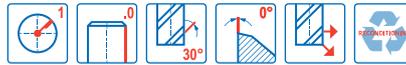
For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>s</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

J29  
General purpose – Universal – Engraving – 1 Flute – Cylindrical



- Tolerances:
- DMM=h5
- Regrind possible if DMM is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm				
29030	00029373	2	D	3,0	0,2	3,0	2,6	40,0	60,0	1	Cylindrical	■
29040	00029381	2	D	4,0	0,2	4,0	3,5	50,0	60,0	1	Cylindrical	■
29060	00029396	2	D	6,0	0,2	6,0	5,2	50,0	60,0	1	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – J29 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			3	4	6	
P1	E	0.50	0.24	0.26	0.28	42 (32 – 63)
		0.50	0,0095	0,010	0,011	140 (110 – 200)
P2	E	0.50	0.24	0.26	0.30	41 (32 – 61)
		0.50	0,0095	0,010	0,012	135 (110 – 200)
P3	E	0.50	0.24	0.25	0.28	36 (28 – 54)
		0.50	0,0095	0,010	0,011	120 (92 – 170)
P4	E	0.50	0.22	0.24	0.26	31 (24 – 47)
		0.50	0,0085	0,0095	0,010	100 (79 – 150)
P5	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0.50	0,0085	0,0095	0,010	100 (76 – 140)
P6	E	0.50	0.22	0.24	0.26	34 (26 – 51)
		0.50	0,0085	0,0095	0,010	110 (86 – 160)
P7	E	0.50	0.22	0.24	0.26	32 (25 – 48)
		0.50	0,0085	0,0095	0,010	105 (83 – 150)
P8	E	0.50	0.24	0.25	0.28	30 (23 – 45)
		0.50	0,0095	0,010	0,011	100 (76 – 140)
P11	E	0.50	0.22	0.24	0.26	31 (24 – 46)
		0.50	0,0085	0,0095	0,010	100 (79 – 150)
P12	E	0.50	0.15	0.16	0.18	19 (15 – 29)
		0.50	0,0060	0,0065	0,0070	60 (50 – 95)
M1	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0.50	0,0085	0,0095	0,010	100 (76 – 140)
M2	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0.50	0,0085	0,0095	0,010	100 (76 – 140)
M3	E	0.50	0.18	0.19	0.22	24 (18 – 35)
		0.50	0,0070	0,0075	0,0085	80 (60 – 110)
M4	E	0.50	0.16	0.17	0.18	18 (14 – 27)
		0.50	0,0065	0,0065	0,0070	60 (46 – 88)
M5	E	0.50	0.16	0.17	0.18	15 (12 – 22)
		0.50	0,0065	0,0065	0,0070	49 (40 – 72)
K1	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0.50	0,0085	0,0095	0,010	100 (76 – 140)
K2	E	0.50	0.20	0.22	0.24	26 (21 – 40)
		0.50	0,0080	0,0085	0,0095	85 (69 – 130)
K3	E	0.50	0.20	0.22	0.24	22 (17 – 33)
		0.50	0,0080	0,0085	0,0095	70 (56 – 100)
K4	E	0.50	0.20	0.22	0.24	21 (17 – 32)
		0.50	0,0080	0,0085	0,0095	70 (56 – 100)
K5	E	0.50	0.18	0.20	0.22	13 (9.8 – 19)
		0.50	0,0070	0,0080	0,0085	43 (33 – 62)
K6	E	0.50	0.20	0.22	0.24	19 (15 – 28)
		0.50	0,0080	0,0085	0,0095	60 (50 – 91)
K7	E	0.50	0.18	0.20	0.22	16 (13 – 25)
		0.50	0,0070	0,0080	0,0085	50 (43 – 82)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## Cutting data – J29 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			3	4	6	
N1	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0,50	0,0085	0,0095	0,010	100 (76 – 140)
N2	E	0.50	0.22	0.24	0.26	19 (15 – 29)
		0,50	0,0085	0,0095	0,010	60 (50 – 95)
N3	E	0.50	0.22	0.24	0.26	13 (9.8 – 19)
		0,50	0,0085	0,0095	0,010	43 (33 – 62)
N11	E	0.50	0.22	0.24	0.26	17 (14 – 26)
		0,50	0,0085	0,0095	0,010	55 (46 – 85)
S1	E	0.50	0.24	0.26	0.28	43 (33 – 64)
		0,50	0,0095	0,010	0,011	140 (110 – 200)
S2	E	0.50	0.24	0.26	0.28	34 (27 – 51)
		0,50	0,0095	0,010	0,011	110 (89 – 160)
S3	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0,50	0,0085	0,0095	0,010	100 (76 – 140)
S11	E	0.50	0.22	0.24	0.26	39 (30 – 59)
		0,50	0,0085	0,0095	0,010	130 (99 – 190)
S12	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0,50	0,0085	0,0095	0,010	100 (76 – 140)
S13	E	0.50	0.19	0.20	0.24	24 (18 – 35)
		0,50	0,0075	0,0080	0,0095	80 (60 – 110)
H5	M/A/D	0.50	0.22	0.24	0.26	30 (23 – 45)
		0,50	0,0085	0,0095	0,010	100 (76 – 140)
H8	M/A/D	0.50	0.17	0.18	0.20	32 (24 – 47)
		0,50	0,0065	0,0070	0,0080	105 (79 – 150)
H11	M/A/D	0.50	0.22	0.24	0.26	39 (30 – 58)
		0,50	0,0085	0,0095	0,010	130 (99 – 190)
H12	M/A/D	0.50	0.12	0.12	0.14	12 (9.1 – 18)
		0,50	0,0048	0,0048	0,0055	39 (30 – 59)
H21	M/A/D	0.50	0.17	0.18	0.20	32 (24 – 47)
		0,50	0,0065	0,0070	0,0080	105 (79 – 150)
H31	M/A/D	0.50	0.15	0.16	0.17	24 (19 – 36)
		0,50	0,0060	0,0065	0,0065	80 (63 – 110)
TS1	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0,50	0,0085	0,0095	0,010	100 (76 – 140)
TP1	E	0.50	0.22	0.24	0.26	30 (23 – 45)
		0,50	0,0085	0,0095	0,010	100 (76 – 140)
GR1	D	0.50	0.22	0.24	0.26	30 (23 – 45)
		0,50	0,0085	0,0095	0,010	100 (76 – 140)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm/tooth (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

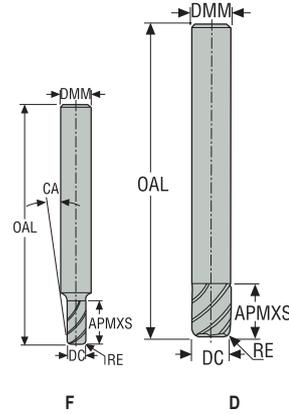
 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

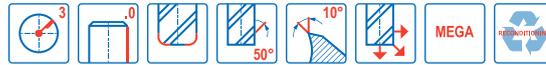
 Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

J36

General purpose – Universal – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC=  $\varnothing 2\text{-}\varnothing 6 = -0,02/-0,034$  mm
- DC=  $\varnothing 8\text{-}\varnothing 20 = -0,02/-0,044$  mm
- RE=  $\varnothing 2\text{-}\varnothing 12 = +0,05$  mm
- RE=  $\varnothing 14\text{-}\varnothing 20 = +0,1$  mm
- Regrind possible if DC is  $\geq \varnothing 6$



	Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Hard	36020-MEGA	00025621	2	F	2,0	3,0	9,0	40,0	2,05	2,05	0,1	2,5	3	Cylindrical	■
	36030-MEGA	00025626	2	D	3,0	3,0	12,0	40,0	—	—	0,1	—	3	Cylindrical	■
	36040-MEGA	00025628	2	D	4,0	4,0	14,0	50,0	—	—	0,1	—	3	Cylindrical	■
	36050-MEGA	00025651	2	D	5,0	5,0	20,0	50,0	—	—	0,1	—	3	Cylindrical	■
	36060-MEGA	00025663	2	D	6,0	6,0	20,0	65,0	—	—	0,1	—	3	Cylindrical	■
Plastic and cfrp	36080-MEGA	00025674	2	D	8,0	8,0	20,0	65,0	—	—	0,2	—	3	Cylindrical	■
	36100-MEGA	00025680	2	D	10,0	10,0	25,0	75,0	—	—	0,2	—	3	Cylindrical	■
	36120-MEGA	00025681	2	D	12,0	12,0	25,0	75,0	—	—	0,2	—	3	Cylindrical	■
	36160-MEGA	00025689	2	D	16,0	16,0	30,0	90,0	—	—	0,5	—	3	Cylindrical	■
	36200-MEGA	00025692	2	D	20,0	20,0	40,0	100,0	—	—	0,5	—	3	Cylindrical	■

■ Stocked standard.

Cutting data – J36 Side milling

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>	
				2	3	4	5	6	8	10	12	16	20		
P1	E	0.200	1.0	0.013	0.019	0.026	0.032	0.038	0.050	0.065	0.075	0.095	0.11	200 (170 – 220)	Universal
		0.200	1.0	0,00050	0,00075	0,0010	0,0013	0,0015	0,0020	0,0026	0,0030	0,0038	0,0044	660 (560 – 720)	
P2	E	0.200	1.0	0.013	0.020	0.026	0.034	0.040	0.055	0.065	0.080	0.095	0.11	190 (170 – 210)	Steel and cast iron
		0.200	1.0	0,00050	0,00080	0,0010	0,0013	0,0016	0,0022	0,0026	0,0032	0,0038	0,0044	620 (560 – 680)	
P3	E	0.200	1.0	0.012	0.019	0.025	0.032	0.038	0.050	0.060	0.075	0.090	0.11	170 (150 – 190)	Steel and cast iron
		0.200	1.0	0,00048	0,00075	0,0010	0,0013	0,0015	0,0020	0,0024	0,0030	0,0036	0,0044	560 (500 – 620)	
P4	E	0.200	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	150 (130 – 160)	Steel and cast iron
		0.200	1.0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	490 (430 – 520)	
P5	E	0.200	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	140 (130 – 160)	Steel and cast iron
		0.200	1.0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	460 (430 – 520)	
P6	E	0.200	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.085	0.10	160 (140 – 180)	Stainless steel and S-materials
		0.200	1.0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0034	0,0040	520 (460 – 590)	
P7	E	0.200	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.085	0.10	150 (130 – 170)	Stainless steel and S-materials
		0.200	1.0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0034	0,0040	490 (430 – 550)	
P8	E	0.200	1.0	0.012	0.019	0.025	0.032	0.038	0.050	0.060	0.075	0.090	0.11	140 (130 – 160)	Stainless steel and S-materials
		0.200	1.0	0,00048	0,00075	0,0010	0,0013	0,0015	0,0020	0,0024	0,0030	0,0036	0,0044	460 (430 – 520)	
P11	E	0.200	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.085	0.10	145 (130 – 160)	Stainless steel and S-materials
		0.200	1.0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0034	0,0040	475 (430 – 520)	
P12	E	0.200	1.0	0.0080	0.012	0.016	0.020	0.024	0.032	0.040	0.048	0.060	0.070	90 (79 – 100)	Non ferrous
		0.200	1.0	0,00032	0,00048	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	0,0028	295 (260 – 320)	
M1	E	0.200	1.0	0.015	0.024	0.030	0.038	0.046	0.060	0.075	0.090	0.11	0.13	115 (92 – 140)	Non ferrous
		0.200	1.0	0,00060	0,00095	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	375 (310 – 450)	
M2	E	0.200	1.0	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.10	0.12	95 (76 – 110)	Non ferrous
		0.200	1.0	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	310 (250 – 360)	
M3	E	0.100	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	75 (56 – 95)	Non ferrous
		0.100	1.0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	245 (190 – 310)	
M4	E	0.100	1.0	0.0085	0.013	0.017	0.022	0.026	0.034	0.044	0.050	0.065	0.075	60 (43 – 73)	Non ferrous
		0.100	1.0	0,00034	0,00050	0,00065	0,00085	0,0010	0,0013	0,0017	0,0020	0,0026	0,0030	195 (150 – 230)	
M5	E	0.100	1.0	0.0085	0.013	0.017	0.022	0.026	0.034	0.044	0.050	0.065	0.075	48 (36 – 60)	Non ferrous
		0.100	1.0	0,00034	0,00050	0,00065	0,00085	0,0010	0,0013	0,0017	0,0020	0,0026	0,0030	155 (120 – 190)	
K1	E	0.200	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	140 (130 – 160)	Hard
		0.200	1.0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	460 (430 – 520)	
K2	E	0.200	1.0	0.011	0.016	0.022	0.028	0.032	0.044	0.055	0.065	0.080	0.090	125 (110 – 140)	Hard
		0.200	1.0	0,00044	0,00065	0,00085	0,0011	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	410 (370 – 450)	
K3	E	0.200	1.0	0.011	0.016	0.022	0.028	0.032	0.044	0.055	0.065	0.080	0.090	105 (91 – 120)	Hard
		0.200	1.0	0,00044	0,00065	0,00085	0,0011	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	345 (300 – 390)	
K4	E	0.200	1.0	0.011	0.016	0.022	0.028	0.032	0.044	0.055	0.065	0.080	0.090	100 (87 – 110)	Plastic and CFRP
		0.200	1.0	0,00044	0,00065	0,00085	0,0011	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	330 (290 – 360)	
K5	E	0.200	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.085	60 (53 – 69)	Plastic and CFRP
		0.200	1.0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0034	195 (180 – 220)	
K6	E	0.200	1.0	0.011	0.016	0.022	0.028	0.032	0.044	0.055	0.065	0.080	0.090	90 (76 – 100)	Plastic and CFRP
		0.200	1.0	0,00044	0,00065	0,00085	0,0011	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	295 (250 – 320)	
K7	E	0.200	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.085	80 (67 – 89)	Plastic and CFRP
		0.200	1.0	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0034	260 (220 – 290)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## Cutting data – J36 Side milling

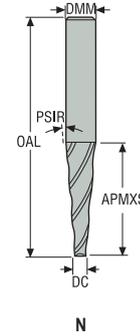
SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
N1	E	0.300	1.2	0.022	0.032	0.042	0.055	0.065	0.085	0.11	0.13	0.16	0.18	650 (540 – 750)
		0,300	1,2	0,00085	0,0013	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	2125 (1800 – 2400)
N2	E	0.300	1.2	0.022	0.032	0.042	0.055	0.065	0.085	0.11	0.13	0.16	0.18	415 (350 – 480)
		0,300	1,2	0,00085	0,0013	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	1350 (1200 – 1500)
N3	E	0.300	1.2	0.022	0.032	0.042	0.055	0.065	0.085	0.11	0.13	0.16	0.18	275 (240 – 320)
		0,300	1,2	0,00085	0,0013	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	900 (790 – 1000)
N11	E	0.300	1.0	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	305 (260 – 350)
		0,300	1,0	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	1000 (860 – 1100)
S1	E	0.120	0.90	0.0055	0.0080	0.011	0.014	0.016	0.022	0.028	0.032	0.040	0.046	70 (60 – 83)
		0,120	0,90	0,00022	0,00032	0,00044	0,00055	0,00065	0,00085	0,0011	0,0013	0,0016	0,0018	230 (200 – 270)
S2	E	0.120	0.90	0.0055	0.0080	0.011	0.014	0.016	0.022	0.028	0.032	0.040	0.046	60 (48 – 67)
		0,120	0,90	0,00022	0,00032	0,00044	0,00055	0,00065	0,00085	0,0011	0,0013	0,0016	0,0018	195 (160 – 210)
S3	E	0.120	0.90	0.0036	0.0055	0.0075	0.0090	0.011	0.015	0.018	0.022	0.028	0.032	39 (30 – 48)
		0,120	0,90	0,00014	0,00022	0,00030	0,00036	0,00044	0,00060	0,00070	0,00085	0,0011	0,0013	130 (99 – 150)
S11	E	0.300	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	100 (89 – 110)
		0,300	0,90	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	330 (300 – 360)
S12	E	0.300	1.0	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.075	0.085	80 (68 – 87)
		0,300	0,90	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	260 (230 – 280)
S13	E	0.300	1.0	0.0085	0.013	0.017	0.022	0.026	0.034	0.044	0.050	0.065	0.075	60 (54 – 69)
		0,300	0,90	0,00036	0,00050	0,00070	0,00085	0,0010	0,0014	0,0017	0,0020	0,0026	0,0030	195 (180 – 220)
TS1	A	0.400	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	500 (460 – 550)
		0,400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1650 (1600 – 1800)
TP1	A	0.400	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	500 (460 – 550)
		0,400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1650 (1600 – 1800)

For cutting data recalculations, see pages 687 – 695

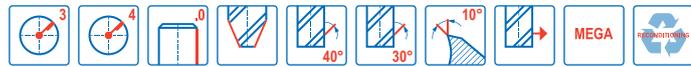
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



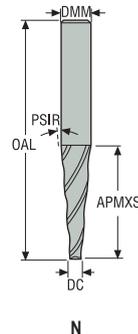
Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK020-040-MEGA	00028666	2	N	5,5	4,0	6,0	20,0	65,0	2,0	4,0	3	Cylindrical	■
HK020-050-MEGA	00028669	2	N	7,15	5,0	8,0	30,0	75,0	2,0	4,0	3	Cylindrical	■
HK020-100-MEGA	00028694	2	N	12,0	10,0	12,0	28,0	80,0	2,0	4,0	4	Cylindrical	■

■ Stocked standard.  
For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

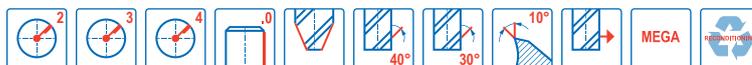
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

HKM-HK

General purpose – Universal – Conical – 2-4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= HKM= +0,07/+0,03 mm
- DC= HK= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible if DC is ≥06



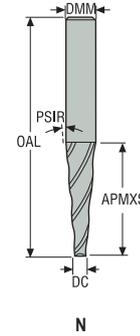
Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HKM030-015-MEGA	00028738	2	N	2,4	1,5	3,0	6,0	40,0	3,0	6,0	2	Cylindrical	■
HK030-025-MEGA	00028741	2	N	4,9	2,5	6,0	20,0	65,0	3,0	6,0	3	Cylindrical	■
HK030-033-MEGA	00028744	2	N	6,2	3,0	8,0	30,0	75,0	3,0	6,0	3	Cylindrical	■
HK030-065-MEGA	00028759	2	N	12,0	6,0	12,0	55,0	110,0	3,0	6,0	3	Cylindrical	■
HK030-083-MEGA	00028771	2	N	11,2	8,0	12,0	30,0	80,0	3,0	6,0	4	Cylindrical	■

■ Stocked standard.  
For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

HKM-HK

General purpose – Universal – Conical – 2-4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= HKM= +0,07/+0,03 mm
- DC= HK= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HKM050-010-MEGA	00028947	2	N	2,4	1,0	3,0	4,0	40,0	5,0	10,0	2	Cylindrical	■
HKM050-015-MEGA	00028952	2	N	3,0	1,5	3,0	6,0	40,0	5,0	10,0	2	Cylindrical	■
HKM050-020-MEGA	00028954	2	N	4,0	2,0	4,0	10,0	50,0	5,0	10,0	2	Cylindrical	■
HKM050-025-MEGA	00028958	2	N	4,7	2,5	5,0	10,0	50,0	5,0	10,0	2	Cylindrical	■
HK050-025-MEGA	00028960	2	N	6,0	2,5	6,0	20,0	65,0	5,0	10,0	3	Cylindrical	■
HK050-032-MEGA	00028972	2	N	8,0	3,0	8,0	28,0	70,0	5,0	10,0	3	Cylindrical	■
HK050-0420-MEGA	00028998	2	N	8,0	4,0	8,0	22,0	65,0	5,0	10,0	3	Cylindrical	■
HK050-050-MEGA	00029012	2	N	12,0	5,0	12,0	40,0	100,0	5,0	10,0	3	Cylindrical	■
HK050-063-MEGA	00029014	2	N	12,0	6,0	12,0	32,0	90,0	5,0	10,0	3	Cylindrical	■
HK050-065-MEGA	00029017	2	N	16,0	6,0	16,0	55,0	110,0	5,0	10,0	3	Cylindrical	■
HK050-103-MEGA	00029020	2	N	16,0	10,0	16,0	32,0	90,0	5,0	10,0	4	Cylindrical	■
HK050-105-MEGA	00029025	2	N	20,0	10,0	20,0	55,0	115,0	5,0	10,0	4	Cylindrical	■

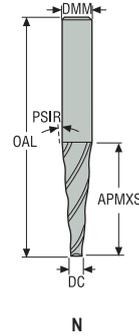
■ Stocked standard.

For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

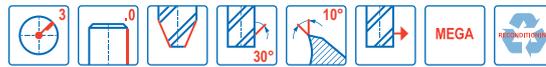
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

HK

General purpose – Universal – Conical – 3 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK070-025-MEGA	00029030	2	N	8,0	2,5	8,0	22,0	65,0	7,0	14,0	3	Cylindrical	■
HK070-050-MEGA	00029034	2	N	12,0	5,0	12,0	28,0	80,0	7,0	14,0	3	Cylindrical	■

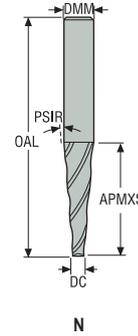
■ Stocked standard.

For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

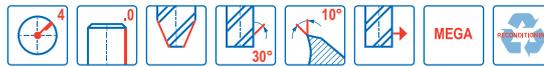
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

HK

General purpose – Universal – Conical – 4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK080-083-MEGA	00029041	2	N	18,0	8,0	18,0	35,0	90,0	8,0	16,0	4	Cylindrical	■

■ Stocked standard.  
For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

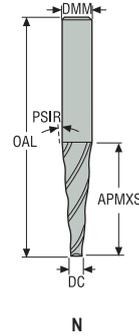
Graphite

X-Heads

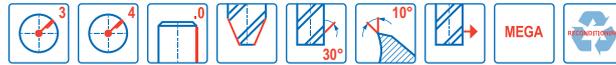
Minimaster

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



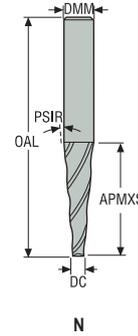
Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK100-025-MEGA	00029052	2	N	10,0	2,5	10,0	20,0	75,0	10,0	20,0	3	Cylindrical	■
HK100-030-MEGA	00029066	2	N	14,0	3,0	14,0	30,0	90,0	10,0	20,0	3	Cylindrical	■
HK100-050-MEGA	00029069	2	N	16,0	5,0	16,0	30,0	90,0	10,0	20,0	3	Cylindrical	■
HK100-080-MEGA	00029083	2	N	20,0	8,0	20,0	32,0	90,0	10,0	20,0	4	Cylindrical	■

■ Stocked standard.  
For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

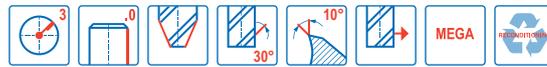
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

HK

General purpose – Universal – Conical – 3 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK110-020-MEGA	00029110	2	N	10,0	2,0	10,0	20,0	75,0	11,0	22,0	3	Cylindrical	■
HK110-050-MEGA	00029117	2	N	14,0	5,0	14,0	20,0	80,0	11,0	22,0	3	Cylindrical	■

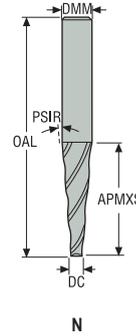
■ Stocked standard.

For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

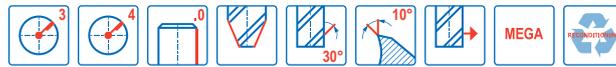
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
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 Graphite  
 X-Heads  
 Minimaster

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



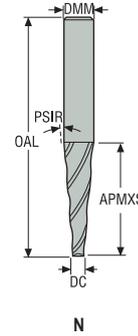
Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK150-025	00029119	2	N	14,0	2,5	14,0	20,0	80,0	15,0	30,0	3	Cylindrical	■
HK150-025-MEGA	00029151	2	N	14,0	2,5	14,0	20,0	80,0	15,0	30,0	3	Cylindrical	■
HK150-040	00029124	2	N	12,0	4,0	12,0	15,0	65,0	15,0	30,0	3	Cylindrical	■
HK150-040-MEGA	00029154	2	N	12,0	4,0	12,0	15,0	65,0	15,0	30,0	3	Cylindrical	■
HK150-0651	00029133	2	N	12,0	6,5	12,0	10,0	65,0	15,0	30,0	3	Cylindrical	■
HK150-0651-MEGA	00029160	2	N	12,0	6,5	12,0	10,0	65,0	15,0	30,0	3	Cylindrical	■
HK150-0652	00029138	2	N	20,0	6,5	20,0	25,0	90,0	15,0	30,0	3	Cylindrical	■
HK150-0652-MEGA	00029161	2	N	20,0	6,5	20,0	25,0	90,0	15,0	30,0	3	Cylindrical	■
HK150-080	00029149	2	N	20,0	8,0	20,0	20,0	80,0	15,0	30,0	4	Cylindrical	■
HK150-080-MEGA	00029162	2	N	20,0	8,0	20,0	20,0	80,0	15,0	30,0	4	Cylindrical	■

■ Stocked standard.  
For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

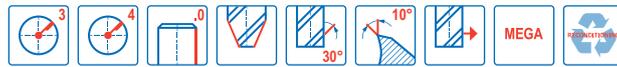
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK200-025	00029165	2	N	10,0	2,5	10,0	10,0	75,0	20,0	40,0	3	Cylindrical	■
HK200-025-MEGA	00029168	2	N	10,0	2,5	10,0	10,0	75,0	20,0	40,0	3	Cylindrical	■
HK200-045	00029166	2	N	16,0	4,5	16,0	15,0	90,0	20,0	40,0	4	Cylindrical	■
HK200-045-MEGA	00029203	2	N	16,0	4,5	16,0	15,0	90,0	20,0	40,0	4	Cylindrical	■

■ Stocked standard.  
For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

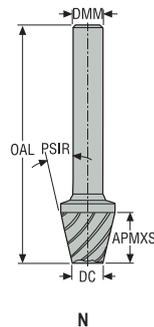
Graphite

X-Heads

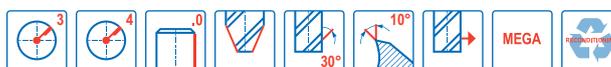
Minimaster

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



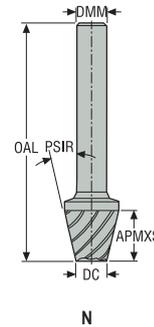
Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK300-025	00029208	2	N	14,5	2,5	10,0	10,0	75,0	30,0	60,0	3	Cylindrical	■
HK300-025-MEGA	00029211	2	N	14,5	2,5	10,0	10,0	75,0	30,0	60,0	3	Cylindrical	■
HK300-045	00029210	2	N	23,0	4,5	16,0	16,0	90,0	30,0	60,0	4	Cylindrical	■
HK300-045-MEGA	00029212	2	N	23,0	4,5	16,0	16,0	90,0	30,0	60,0	4	Cylindrical	■

■ Stocked standard.  
For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

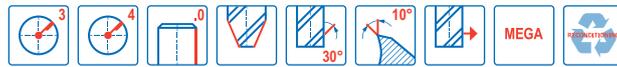
- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and cfrp
- Graphite
- X-Heads
- Minimaster

HK

General purpose – Universal – Conical – 3-4 Flutes – Cylindrical – Tapered sharp



- Tolerances:
- DMM= h5
- DC= +0,1/0 mm
- PSIR= ±0,1°
- Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm					
HK450-025	00029215	2	N	23,0	2,5	12,0	10,0	75,0	45,0	90,0	3	Cylindrical	■
HK450-025-MEGA	00029229	2	N	23,0	2,5	12,0	10,0	75,0	45,0	90,0	3	Cylindrical	■
HK450-045	00029217	2	N	37,0	4,5	16,0	16,0	90,0	45,0	90,0	4	Cylindrical	■
HK450-045-MEGA	00029232	2	N	37,0	4,5	16,0	16,0	90,0	45,0	90,0	4	Cylindrical	■

■ Stocked standard.  
For cutting data, please see My Pages – Suggest on [www.secotools.com](http://www.secotools.com)

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

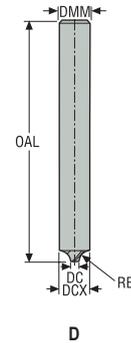
Graphite

X-Heads

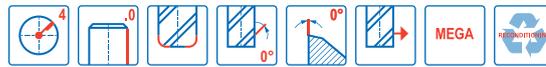
Minimaster

V31

General purpose – Universal – Concave – 4 Flutes – Cylindrical



—Tolerances:  
—DMM= h5  
—DC= ±0,04 mm  
—RE= ±0,02 mm  
—Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm			
31100-MEGA	00029307	2	D	6,0	4,0	6,0	1,0	64,0	1,0	4	Cylindrical	■
31200-MEGA	00029315	2	D	8,0	4,0	8,0	2,0	75,0	2,0	4	Cylindrical	■
31300-MEGA	00029326	2	D	10,0	4,0	10,0	3,0	75,0	3,0	4	Cylindrical	■
31400-MEGA	00029328	2	D	12,0	4,0	12,0	4,0	75,0	4,0	4	Cylindrical	■
31050-MEGA	00029285	2	D	6,0	5,0	6,0	0,5	64,0	0,5	4	Cylindrical	■
31150-MEGA	00029313	2	D	8,0	5,0	8,0	1,5	75,0	1,5	4	Cylindrical	■
31250-MEGA	00029324	2	D	10,0	5,0	10,0	2,5	75,0	2,5	4	Cylindrical	■
31350-MEGA	00029327	2	D	12,0	5,0	12,0	3,5	75,0	3,5	4	Cylindrical	■
31500-MEGA	00029330	2	D	16,0	6,0	16,0	5,0	75,0	5,0	4	Cylindrical	■
31600-MEGA	00029331	2	D	20,0	8,0	20,0	6,0	80,0	6,0	4	Cylindrical	■
31999-MEGA	00029335	2	D	28,0	8,0	25,0	10,0	80,0	10,0	4	Cylindrical	■
31800-MEGA	00029333	2	D	25,0	9,0	25,0	8,0	75,0	8,0	4	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

## Cutting data – V31 Side milling roughing

SMG		a <sub>p</sub> /DC		f <sub>z</sub>							v <sub>c</sub>
		6	8	10	12	16	20	25	28		
P1	E/M/A	0,24	0,024	0,032	0,040	0,048	0,065	0,080	0,095	0,10	290 (195 – 310)
		0,24	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,004	950 (640 – 1100)
P2	E/M/A	0,24	0,024	0,034	0,042	0,050	0,065	0,080	0,095	0,10	280 (190 – 305)
		0,24	0,00095	0,0013	0,0017	0,0022	0,0026	0,0032	0,0038	0,004	910 (620 – 1000)
P3	E/M/A	0,24	0,024	0,032	0,040	0,046	0,060	0,075	0,090	0,095	240 (165 – 260)
		0,24	0,00095	0,0013	0,0016	0,0018	0,0024	0,003	0,0036	0,0038	790 (540 – 850)
P4	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,090	0,095	210 (145 – 230)
		0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0036	0,0038	680 (475 – 760)
P5	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
		0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0034	0,0038	670 (445 – 730)
P6	E/M/A	0,24	0,022	0,030	0,038	0,044	0,060	0,075	0,085	0,095	230 (155 – 245)
		0,24	0,00085	0,0012	0,0015	0,0017	0,0024	0,003	0,0050	0,0038	760 (510 – 800)
P7	E/M/A	0,24	0,022	0,030	0,038	0,044	0,060	0,075	0,085	0,095	215 (145 – 230)
		0,24	0,00085	0,0012	0,0015	0,0017	0,0024	0,003	0,0050	0,0038	710 (475 – 760)
P8	E/M/A	0,24	0,024	0,032	0,040	0,046	0,060	0,075	0,090	0,095	205 (140 – 220)
		0,24	0,00095	0,0013	0,0016	0,0018	0,0024	0,003	0,0036	0,0038	670 (460 – 730)
P11	E/M/A	0,24	0,022	0,030	0,038	0,044	0,060	0,075	0,085	0,095	210 (140 – 225)
		0,24	0,00085	0,0012	0,0015	0,0017	0,0024	0,003	0,0050	0,0038	680 (460 – 740)
M1	E/M/A	0,24	0,024	0,034	0,042	0,050	0,065	0,080	0,095	0,10	255 (170 – 270)
		0,24	0,00095	0,0013	0,0017	0,0022	0,0026	0,0032	0,0038	0,004	840 (560 – 890)
M2	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
		0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
M3	E/M/A	0,24	0,018	0,024	0,030	0,036	0,048	0,060	0,070	0,075	150 (105 – 165)
		0,24	0,0007	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,003	490 (345 – 540)
M4	E/M/A	0,24	0,016	0,020	0,026	0,032	0,042	0,050	0,060	0,065	110 (75 – 120)
		0,24	0,00065	0,0008	0,0010	0,0013	0,0017	0,0022	0,0024	0,0026	360 (250 – 400)
M5	E/M/A	0,24	0,016	0,020	0,026	0,032	0,042	0,050	0,060	0,065	95 (65 – 100)
		0,24	0,00065	0,0008	0,0010	0,0013	0,0017	0,0022	0,0024	0,0026	310 (220 – 320)
K1	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
		0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
K2	E/M/A	0,24	0,020	0,028	0,034	0,040	0,055	0,065	0,080	0,085	175 (120 – 190)
		0,24	0,0008	0,0011	0,0013	0,0016	0,0022	0,0026	0,0032	0,0050	570 (400 – 620)
K3	E/M/A	0,24	0,020	0,028	0,034	0,040	0,055	0,065	0,080	0,085	150 (100 – 160)
		0,24	0,0008	0,0011	0,0013	0,0016	0,0022	0,0026	0,0032	0,0050	490 (320 – 530)
K4	E/M/A	0,24	0,020	0,028	0,034	0,040	0,055	0,065	0,080	0,085	140 (95 – 150)
		0,24	0,0008	0,0011	0,0013	0,0016	0,0022	0,0026	0,0032	0,0050	460 (310 – 490)
K5	E/M/A	0,24	0,018	0,024	0,030	0,036	0,050	0,060	0,070	0,075	85 (55 – 90)
		0,24	0,0007	0,00095	0,0012	0,0014	0,0022	0,0024	0,0028	0,003	280 (180 – 300)
K6	E/M/A	0,24	0,020	0,028	0,034	0,040	0,055	0,065	0,080	0,085	125 (85 – 135)
		0,24	0,0008	0,0011	0,0013	0,0016	0,0022	0,0026	0,0032	0,0050	410 (280 – 445)
K7	E/M/A	0,24	0,018	0,024	0,030	0,036	0,050	0,060	0,070	0,075	105 (70 – 115)
		0,24	0,0007	0,00095	0,0012	0,0014	0,0022	0,0024	0,0028	0,003	345 (220 – 375)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

 Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cf/ep  
Graphite  
X-Heads  
Minimaster

## Cutting data – V31 Side milling roughing

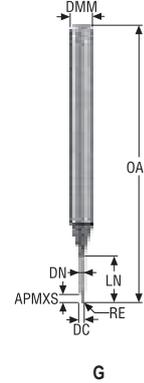
	SMG	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>	
			6	8	10	12	16	20	25	28		
Universal	N1	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	315 (215 – 340)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	1025 (710 – 1125)
Steel and cast iron	N2	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
	N3	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	135 (90 – 145)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	445 (300 – 475)
	N11	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
	S1	E/M/A	0,24	0,024	0,032	0,040	0,048	0,065	0,080	0,095	0,10	205 (140 – 220)
			0,24	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,004	670 (460 – 730)
Stainless steel and S-materials	S2	E/M/A	0,24	0,024	0,032	0,040	0,048	0,065	0,080	0,095	0,10	205 (140 – 220)
			0,24	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,004	670 (460 – 730)
	S3	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
	S11	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	265 (180 – 285)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	870 (590 – 940)
	S12	E/M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
	S13	E/M/A	0,24	0,020	0,026	0,032	0,040	0,050	0,065	0,075	0,080	155 (105 – 165)
			0,24	0,0008	0,0010	0,0013	0,0016	0,0022	0,0026	0,003	0,0032	510 (345 – 540)
Non ferrous	H5	M/A	0,24	0,034	0,046	0,055	0,070	0,090	0,11	0,13	0,14	275 (185 – 295)
			0,24	0,0013	0,0018	0,0022	0,0028	0,0036	0,0044	0,0050	0,0055	900 (610 – 950)
	H8	M/A	0,24	0,026	0,034	0,044	0,050	0,070	0,085	0,10	0,11	270 (185 – 290)
			0,24	0,0010	0,0013	0,0017	0,0022	0,0028	0,0036	0,0044	0,0044	890 (610 – 950)
	H21	M/A	0,24	0,026	0,034	0,044	0,050	0,070	0,085	0,10	0,11	270 (185 – 290)
			0,24	0,0010	0,0013	0,0017	0,0022	0,0028	0,0036	0,0044	0,0044	890 (610 – 950)
	H31	M/A	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
Hard	TS1	A/D	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
	TP1	A/D	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)
	GR1	A/D	0,24	0,022	0,030	0,038	0,046	0,060	0,075	0,085	0,095	205 (135 – 220)
			0,24	0,00085	0,0012	0,0015	0,0018	0,0024	0,003	0,0050	0,0038	670 (445 – 730)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JME542

Miniature – Universal – Square – 2 Flutes – DMM 4 – Cylindrical – Sharp or corner radius



- Tolerances:
- Run-out= <0,007 mm
- DMM= h5
- DC=  $\varnothing 0,2\text{-}\varnothing 0,4 = 0, -0,01$  mm
- DC=  $\varnothing 0,5\text{-}\varnothing 3,0 = 0, -0,013$  mm
- RE=  $\pm 0,005$  mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm		
JME542002G1S.0Z2-SIRA	03171095	1	G	0,2	4,0	0,3	45,0	0,4	0,18	–	14,41	2	Cylindrical	■
JME542003G1S.0Z2-SIRA	03171096	1	G	0,3	4,0	0,45	45,0	0,6	0,28	–	14,0	2	Cylindrical	■
JME542004G1S.0Z2-SIRA	03171128	1	G	0,4	4,0	0,6	45,0	0,8	0,37	–	13,5	2	Cylindrical	■
JME542005G1R005.0Z2-SIRA	03171097	1	G	0,5	4,0	0,8	45,0	1,0	0,46	0,05	13,17	2	Cylindrical	■
JME542006G1R005.0Z2-SIRA	03171098	1	G	0,6	4,0	0,9	45,0	1,2	0,56	0,05	12,76	2	Cylindrical	■
JME542008G1R005.0Z2-SIRA	03171129	1	G	0,8	4,0	1,2	45,0	1,6	0,76	0,05	11,96	2	Cylindrical	■
JME542010G1R010.0Z2-SIRA	03171099	1	G	1,0	4,0	1,5	50,0	2,0	0,95	0,1	11,22	2	Cylindrical	■
JME542012G1R010.0Z2-SIRA	03171100	1	G	1,2	4,0	1,8	50,0	2,4	1,15	0,1	10,43	2	Cylindrical	■
JME542015G1R015.0Z2-SIRA	03171130	1	G	1,5	4,0	2,3	50,0	3,0	1,45	0,15	9,2	2	Cylindrical	■
JME542005G3R005.0Z2-SIRA	03171102	3	G	0,5	4,0	0,8	45,0	2,5	0,46	0,05	11,03	2	Cylindrical	■
JME542006G3R005.0Z2-SIRA	03171103	3	G	0,6	4,0	0,9	45,0	3,0	0,56	0,05	10,36	2	Cylindrical	■
JME542008G3R005.0Z2-SIRA	03171131	3	G	0,8	4,0	1,2	45,0	4,0	0,76	0,05	9,14	2	Cylindrical	■
JME542010G3R010.0Z2-SIRA	03171104	3	G	1,0	4,0	1,5	50,0	5,0	0,95	0,1	8,09	2	Cylindrical	■
JME542012G3R010.0Z2-SIRA	03171105	3	G	1,2	4,0	1,8	50,0	6,0	1,15	0,1	7,13	2	Cylindrical	■
JME542015G3R015.0Z2-SIRA	03171132	3	G	1,5	4,0	2,3	50,0	7,5	1,45	0,15	5,89	2	Cylindrical	■
JME542020G3R015.0Z2-SIRA	03171106	3	G	2,0	4,0	3,0	50,0	10,0	1,94	0,15	4,14	2	Cylindrical	■
JME542025G3R015.0Z2-SIRA	03171108	3	G	2,5	4,0	3,8	50,0	12,5	2,4	0,15	2,79	2	Cylindrical	■
JME542030G3R015.0Z2-SIRA	03171134	3	G	3,0	4,0	4,5	60,0	15,0	2,85	0,15	1,67	2	Cylindrical	■
JME542005G4R005.0Z2-SIRA	03171109	4	G	0,5	4,0	0,8	45,0	4,0	0,46	0,05	9,49	2	Cylindrical	■
JME542006G4R005.0Z2-SIRA	03171110	4	G	0,6	4,0	0,9	45,0	5,0	0,56	0,05	8,56	2	Cylindrical	■
JME542008G4R005.0Z2-SIRA	03171135	4	G	0,8	4,0	1,2	45,0	7,0	0,76	0,05	7,05	2	Cylindrical	■
JME542010G4R010.0Z2-SIRA	03171111	4	G	1,0	4,0	1,5	50,0	8,5	0,95	0,1	6,1	2	Cylindrical	■
JME542012G4R010.0Z2-SIRA	03171112	4	G	1,2	4,0	1,8	50,0	10,0	1,15	0,1	5,27	2	Cylindrical	■
JME542015G4R015.0Z2-SIRA	03171136	4	G	1,5	4,0	2,3	50,0	12,0	1,45	0,15	4,29	2	Cylindrical	■
JME542020G4R015.0Z2-SIRA	03171113	4	G	2,0	4,0	3,0	60,0	16,0	1,94	0,15	2,9	2	Cylindrical	■
JME542030G4R015.0Z2-SIRA	03171137	4	G	3,0	4,0	4,5	70,0	24,0	2,85	0,15	1,1	2	Cylindrical	■
JME542015G5R015.0Z2-SIRA	03171115	5	G	1,5	4,0	2,3	60,0	15,0	1,45	0,15	3,64	2	Cylindrical	■
JME542020G5R015.0Z2-SIRA	03171116	5	G	2,0	4,0	3,0	60,0	20,0	1,94	0,15	2,41	2	Cylindrical	■
JME542030G5R015.0Z2-SIRA	03171117	5	G	3,0	4,0	4,5	70,0	30,0	2,85	0,15	0,9	2	Cylindrical	■
JME542015G6R015.0Z2-SIRA	03171118	6	G	1,5	4,0	2,3	70,0	22,5	1,45	0,15	2,64	2	Cylindrical	■
JME542020G6R015.0Z2-SIRA	03171139	6	G	2,0	4,0	3,0	70,0	30,0	1,94	0,15	1,7	2	Cylindrical	■
JME542030G6R015.0Z2-SIRA	03171120	6	G	3,0	4,0	4,5	90,0	45,0	2,85	0,15	0,61	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JME542 Side milling roughing

SMG	M	a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	415 (370 — 460)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1350 (1300 — 1500)
P2	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	405 (360 — 440)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1325 (1200 — 1400)
P3	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	350 (310 — 380)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1150 (1100 — 1200)
P4	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	305 (280 — 340)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1000 (920 — 1100)
P5	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 320)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	950 (860 — 1000)
P6	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	330 (300 — 360)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1075 (990 — 1100)
P7	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	310 (280 — 340)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1025 (920 — 1100)
P8	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 320)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	950 (860 — 1000)
P11	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	300 (270 — 330)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	980 (890 — 1000)
P12	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (160 — 190)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (530 — 620)
M1	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	220 (190 — 260)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	720 (630 — 850)
M2	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (150 — 210)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	590 (500 — 680)
M3	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (150 — 210)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	590 (500 — 680)
M4	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	135 (110 — 150)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	445 (370 — 490)
M5	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	110 (92 — 130)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	360 (310 — 420)
N1	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	570 (500 — 640)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1875 (1700 — 2000)
N2	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	570 (500 — 640)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1875 (1700 — 2000)
N3	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	380 (340 — 420)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1250 (1200 — 1300)
N11	E/M/A	0.100	0.75	0.0050	0.0075	0.010	0.012	0.015	0.020	0.025	0.030	0.046	0.050	0.060	0.075	510 (440 — 580)
		0,100	0,75	0,00020	0,00030	0,00040	0,00048	0,00060	0,00080	0,0010	0,0012	0,0018	0,0020	0,0024	0,0030	1675 (1500 — 1900)
S11	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	295 (260 — 330)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	970 (860 — 1000)
S12	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	225 (200 — 250)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	740 (660 — 820)
S13	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (160 — 200)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (530 — 650)
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0013	0,0014	0,0017	0,0022	395 (300 — 450)
H5	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0013	0,0014	0,0017	0,0022	395 (300 — 450)
H8	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
H11	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	325 (290 — 360)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1075 (960 — 1100)
H12	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	295 (270 — 330)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	970 (890 — 1000)
H21	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
H31	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	195 (170 — 210)
		0,0500	0,44	0,00016												

Cutting data – JME542 Slot milling

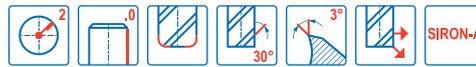
SMG	M	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>						
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0							
P1	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	255 (230 — 280)	Universal					
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	840 (760 — 910)						
P2	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	250 (230 — 270)		Steel and cast iron				
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	820 (760 — 880)						
P3	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	215 (200 — 230)			Steel and stainless steel and S-materials			
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	710 (660 — 750)						
P4	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 200)				Steel and stainless steel and S-materials		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 650)						
P5	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (170 — 200)					Steel and stainless steel and S-materials	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (560 — 650)						
P6	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	200 (180 — 220)						Steel and stainless steel and S-materials
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	660 (600 — 720)						
P7	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 210)	Steel and stainless steel and S-materials					
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 680)						
P8	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (170 — 200)		Steel and stainless steel and S-materials				
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (560 — 650)						
P11	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	185 (170 — 200)			Steel and stainless steel and S-materials			
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	610 (560 — 650)						
P12	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.022	0.022	0.026	0.028	110 (98 — 120)				Non ferrous		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00085	0.00085	0.0010	0.0011	360 (330 — 390)						
M1	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	135 (120 — 160)					Non ferrous	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	445 (400 — 520)						
M2	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (91 — 130)						Non ferrous
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (300 — 420)						
M3	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (91 — 130)	Non ferrous					
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (300 — 420)						
M4	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.036	80 (68 — 97)		Hard				
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0014	260 (230 — 310)						
M5	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.036	70 (57 — 81)			Hard			
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0014	230 (190 — 260)						
N1	E/M/A	0.24	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	400 (350 — 440)				Hard		
		0.24	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	1300 (1200 — 1400)						
N2	E/M/A	0.24	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	400 (350 — 440)					Hard	
		0.24	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	1300 (1200 — 1400)						
N3	E/M/A	0.24	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	265 (240 — 290)						Hard
		0.24	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	870 (790 — 950)						
N11	E/M/A	0.24	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.048	0.050	350 (300 — 400)	Hard					
		0.24	0.00016	0.00024	0.00032	0.00040	0.00048	0.00065	0.00080	0.00095	0.0014	0.0016	0.0019	0.0020	1150 (990 — 1300)						
S11	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (160 — 200)		Plastic and CFRP				
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (530 — 650)						
S12	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	140 (120 — 150)			Plastic and CFRP			
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	460 (400 — 490)						
S13	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.036	110 (93 — 120)				Plastic and CFRP		
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0014	360 (310 — 390)						
H3	M/A	0.095	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.022	0.024	0.030	0.036	80 (61 — 100)					Graphite	
		0.095	0.000095	0.00014	0.00019	0.00024	0.00028	0.00038	0.00048	0.00055	0.00085	0.00095	0.0012	0.0014	260 (210 — 320)						
H5	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)						Graphite
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)						
H7	M/A	0.095	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.022	0.024	0.030	0.036	80 (61 — 100)	Graphite					
		0.095	0.000095	0.00014	0.00019	0.00024	0.00028	0.00038	0.00048	0.00055	0.00085	0.00095	0.0012	0.0014	260 (210 — 320)						
H8	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)		Graphite				
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)						
H11	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	205 (180 — 230)			X-Heads			
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	670 (600 — 750)						
H12	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 210)				X-Heads		
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 680)						
H21	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)					X-Heads	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)						
H31	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.036	120 (110 — 130)						X-Heads
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0014	395 (370 — 420)						
GR1	A	0.50	0.0020	0.0030	0.0040	0.0050															

**JME562**

Miniature – Universal – Square – 2 Flutes – DMM 6 – Cylindrical – Corner radius


**G**

–Tolerances:  
 –Run-out= <0,007 mm  
 –DMM= h5  
 –DC= 0,-0,013 mm  
 –RE= ±0,005 mm

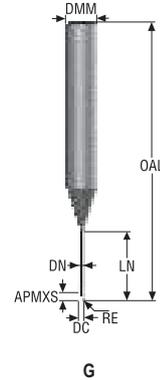


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JME562005G2R005.0Z2-SIRA	03171145	2	G	0,5	6,0	0,8	50,0	1,5	0,46	0,05	13,48	2	Cylindrical	■
JME562006G2R005.0Z2-SIRA	03171146	2	G	0,6	6,0	0,9	50,0	2,0	0,56	0,05	12,9	2	Cylindrical	■
JME562008G2R005.0Z2-SIRA	03171147	2	G	0,8	6,0	1,2	50,0	2,5	0,76	0,05	12,28	2	Cylindrical	■
JME562010G2R010.0Z2-SIRA	03171148	2	G	1,0	6,0	1,5	50,0	4,0	0,95	0,1	10,85	2	Cylindrical	■
JME562012G2R010.0Z2-SIRA	03171150	2	G	1,2	6,0	1,8	50,0	4,5	1,15	0,1	10,31	2	Cylindrical	■
JME562015G2R015.0Z2-SIRA	03171151	2	G	1,5	6,0	2,3	50,0	5,0	1,45	0,15	9,67	2	Cylindrical	■
JME562018G2R015.0Z2-SIRA	03171152	2	G	1,8	6,0	2,7	50,0	5,4	1,75	0,15	9,12	2	Cylindrical	■
JME562020G2R015.0Z2-SIRA	03171153	2	G	2,0	6,0	3,0	50,0	6,0	1,94	0,15	8,53	2	Cylindrical	■
JME562025G2R015.0Z2-SIRA	03171154	2	G	2,5	6,0	3,8	60,0	7,5	2,4	0,15	7,15	2	Cylindrical	■
JME562030G2R015.0Z2-SIRA	03171155	2	G	3,0	6,0	4,5	60,0	9,0	2,85	0,15	5,81	2	Cylindrical	■
JME562005G4R005.0Z2-SIRA	03171156	4	G	0,5	6,0	0,8	50,0	3,5	0,46	0,05	11,54	2	Cylindrical	■
JME562006G4R005.0Z2-SIRA	03171157	4	G	0,6	6,0	0,9	50,0	4,2	0,56	0,05	10,93	2	Cylindrical	■
JME562008G4R005.0Z2-SIRA	03171158	4	G	0,8	6,0	1,2	50,0	5,6	0,76	0,05	9,81	2	Cylindrical	■
JME562010G4R010.0Z2-SIRA	03171159	4	G	1,0	6,0	1,5	50,0	7,0	0,95	0,1	8,86	2	Cylindrical	■
JME562012G4R010.0Z2-SIRA	03171160	4	G	1,2	6,0	1,8	50,0	8,4	1,15	0,1	8,0	2	Cylindrical	■
JME562015G4R015.0Z2-SIRA	03171162	4	G	1,5	6,0	2,3	50,0	10,5	1,45	0,15	6,86	2	Cylindrical	■
JME562020G4R015.0Z2-SIRA	03171163	4	G	2,0	6,0	3,0	60,0	14,0	1,94	0,15	5,36	2	Cylindrical	■
JME562030G4R015.0Z2-SIRA	03171165	4	G	3,0	6,0	4,5	70,0	21,0	2,85	0,15	3,22	2	Cylindrical	■
JME562005G5R005.0Z2-SIRA	03171166	5	G	0,5	6,0	0,8	50,0	5,0	0,46	0,05	10,42	2	Cylindrical	■
JME562006G5R005.0Z2-SIRA	03171167	5	G	0,6	6,0	0,9	50,0	6,0	0,56	0,05	9,71	2	Cylindrical	■
JME562008G5R005.0Z2-SIRA	03171168	5	G	0,8	6,0	1,2	50,0	8,0	0,76	0,05	8,48	2	Cylindrical	■
JME562010G5R010.0Z2-SIRA	03171169	5	G	1,0	6,0	1,5	50,0	10,0	0,95	0,1	7,48	2	Cylindrical	■
JME562012G5R010.0Z2-SIRA	03171170	5	G	1,2	6,0	1,8	50,0	12,0	1,15	0,1	6,62	2	Cylindrical	■
JME562015G5R015.0Z2-SIRA	03171171	5	G	1,5	6,0	2,3	60,0	15,0	1,45	0,15	5,54	2	Cylindrical	■
JME562020G5R015.0Z2-SIRA	03171172	5	G	2,0	6,0	3,0	60,0	20,0	1,94	0,15	4,19	2	Cylindrical	■
JME562030G5R015.0Z2-SIRA	03171174	5	G	3,0	6,0	4,5	70,0	30,0	2,85	0,15	2,41	2	Cylindrical	■

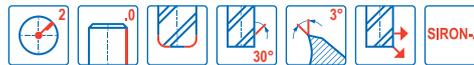
■ Stocked standard.

JME562

Miniature – Universal – Square – 2 Flutes – DMM 6 – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,007 mm
- DMM= h5
- DC= 0,-0,013 mm
- RE= ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JME562010G6R010.0Z2-SIRA	03171175	6	G	1,0	6,0	1,5	60,0	15,0	0,95	0,1	5,94	2	Cylindrical	■
JME562012G6R010.0Z2-SIRA	03171176	6	G	1,2	6,0	1,8	60,0	18,0	1,15	0,1	5,14	2	Cylindrical	■
JME562015G6R015.0Z2-SIRA	03171177	6	G	1,5	6,0	2,3	70,0	22,5	1,45	0,15	4,2	2	Cylindrical	■
JME562020G6R015.0Z2-SIRA	03171178	6	G	2,0	6,0	3,0	80,0	30,0	1,94	0,15	3,07	2	Cylindrical	■
JME562030G6R015.0Z2-SIRA	03171180	6	G	3,0	6,0	4,5	90,0	45,0	2,85	0,15	1,7	2	Cylindrical	■
JME562010G7R010.0Z2-SIRA	03171181	7	G	1,0	6,0	1,5	60,0	20,0	0,95	0,1	4,93	2	Cylindrical	■
JME562012G7R010.0Z2-SIRA	03171182	7	G	1,2	6,0	1,8	80,0	24,0	1,15	0,1	4,2	2	Cylindrical	■
JME562015G7R015.0Z2-SIRA	03171183	7	G	1,5	6,0	2,3	80,0	30,0	1,45	0,15	3,38	2	Cylindrical	■
JME562020G7R015.0Z2-SIRA	03171184	7	G	2,0	6,0	3,0	80,0	40,0	1,94	0,15	2,42	2	Cylindrical	■
JME562030G7R015.0Z2-SIRA	03171186	7	G	3,0	6,0	4,5	100,0	60,0	2,85	0,15	1,31	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

Graphite

X-Heads

Minimaster

## Cutting data – JME562 Side milling roughing

SMG	Image	a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	415 (370 – 460)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1350 (1300 – 1500)
P2	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	405 (360 – 440)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1325 (1200 – 1400)
P3	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	350 (310 – 380)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1150 (1100 – 1200)
P4	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	305 (280 – 340)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1000 (920 – 1100)
P5	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 – 320)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	950 (860 – 1000)
P6	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	330 (300 – 360)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1075 (990 – 1100)
P7	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	310 (280 – 340)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1025 (920 – 1100)
P8	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 – 320)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	950 (860 – 1000)
P11	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	300 (270 – 330)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	980 (890 – 1000)
P12	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (160 – 190)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (530 – 620)
M1	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	220 (190 – 260)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	720 (630 – 850)
M2	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (150 – 210)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	590 (500 – 680)
M3	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (150 – 210)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	590 (500 – 680)
M4	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	135 (110 – 150)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	445 (370 – 490)
M5	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	110 (92 – 130)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	360 (310 – 420)
N1	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	570 (500 – 640)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1875 (1700 – 2000)
N2	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	570 (500 – 640)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1875 (1700 – 2000)
N3	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	380 (340 – 420)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1250 (1200 – 1300)
N11	E/M/A	0.100	0.75	0.0050	0.0075	0.010	0.012	0.015	0.020	0.025	0.030	0.046	0.050	0.060	0.075	510 (440 – 580)
		0,100	0,75	0,00020	0,00030	0,00040	0,00048	0,00060	0,00080	0,0010	0,0012	0,0018	0,0020	0,0024	0,0030	1675 (1500 – 1900)
S11	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	295 (260 – 330)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	970 (860 – 1000)
S12	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	225 (200 – 250)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	740 (660 – 820)
S13	E/M/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (160 – 200)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (530 – 650)
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 – 140)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0013	0,0014	0,0017	0,0022	395 (300 – 450)
H5	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 – 280)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 – 910)
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 – 140)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0013	0,0014	0,0017	0,0022	395 (300 – 450)
H8	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 – 280)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 – 910)
H11	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	325 (290 – 360)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1075 (960 – 1100)
H12	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	295 (270 – 330)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	970 (890 – 1000)
H21	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 – 280)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 – 910)
H31	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	195 (170 – 210)
		0,0500														

Cutting data – JME562 Slot milling

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>	
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0		
P1	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	255 (230 — 280)	Universal
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	840 (760 — 910)	
P2	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	250 (230 — 270)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	820 (760 — 880)	
P3	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	215 (200 — 230)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	710 (660 — 750)	
P4	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 200)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 650)	
P5	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (170 — 200)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (560 — 650)	
P6	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	200 (180 — 220)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	660 (600 — 720)	
P7	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 210)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 680)	
P8	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (170 — 200)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (560 — 650)	
P11	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	185 (170 — 200)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	610 (560 — 650)	
P12	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.022	0.022	0.026	0.028	110 (98 — 120)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00085	0.00085	0.0010	0.0011	360 (330 — 390)	
M1	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	135 (120 — 160)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	445 (400 — 520)	
M2	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (91 — 130)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (300 — 420)	
M3	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (91 — 130)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (300 — 420)	
M4	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.036	80 (68 — 97)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0014	260 (230 — 310)	
M5	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.036	70 (57 — 81)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0014	230 (190 — 260)	
N1	E/M/A	0.24	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	400 (350 — 440)	
		0.24	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	1300 (1200 — 1400)	
N2	E/M/A	0.24	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	400 (350 — 440)	
		0.24	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	1300 (1200 — 1400)	
N3	E/M/A	0.24	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	265 (240 — 290)	
		0.24	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	870 (790 — 950)	
N11	E/M/A	0.24	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.048	0.050	350 (300 — 400)	
		0.24	0.00016	0.00024	0.00032	0.00040	0.00048	0.00065	0.00080	0.00095	0.0014	0.0016	0.0019	0.0020	1150 (990 — 1300)	
S11	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (160 — 200)	
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (530 — 650)	
S12	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	140 (120 — 150)	
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	460 (400 — 490)	
S13	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.036	110 (93 — 120)	
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0014	360 (310 — 390)	
H3	M/A	0.095	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.022	0.024	0.030	0.036	80 (61 — 100)	
		0.095	0.000095	0.00014	0.00019	0.00024	0.00028	0.00038	0.00048	0.00055	0.00085	0.00095	0.0012	0.0014	260 (210 — 320)	
H5	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)	
H7	M/A	0.095	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.022	0.024	0.030	0.036	80 (61 — 100)	
		0.095	0.000095	0.00014	0.00019	0.00024	0.00028	0.00038	0.00048	0.00055	0.00085	0.00095	0.0012	0.0014	260 (210 — 320)	
H8	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)	
H11	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	205 (180 — 230)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	670 (600 — 750)	
H12	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 210)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 680)	
H21	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)	
H31	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.036	120 (110 — 130)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0014	395 (370 — 420)	
GR1	A	0.50	0.0020	0.0030	0.0040	0.0050	0.0060	0.0080	0.010	0.012	0.018	0.020	0.025	0.030	350 (300 — 400)	
		0.50	0.000080	0.00012	0.00016	0.00020	0.00024	0.00032	0.00040	0.00048	0.00070	0.00080	0.0010	0.0012	1150 (990 — 1300)	

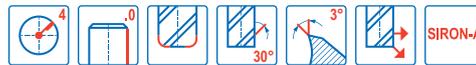
Table based on LV1, please recalc based on length version chosen. See page(s) 687 - 695

**JME564**

Miniature – Universal – Square – 4 Flutes – DMM 6 – Cylindrical – Corner radius


**G**

–Tolerances:  
 –Run-out= <0-0,007 mm  
 –DMM= h5  
 –DC= 0,-0,013 mm  
 –RE= ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JME564005G2R005.0Z4-SIRA	03227166	2	G	0,5	6,0	1,0	50,0	1,5	0,46	0,05	13,48	4	Cylindrical	■
JME564006G2R005.0Z4-SIRA	03227271	2	G	0,6	6,0	1,2	50,0	2,0	0,56	0,05	12,9	4	Cylindrical	■
JME564008G2R005.0Z4-SIRA	03171194	2	G	0,8	6,0	1,6	50,0	2,5	0,76	0,05	12,28	4	Cylindrical	■
JME564010G2R010.0Z4-SIRA	03171195	2	G	1,0	6,0	2,0	50,0	4,0	0,95	0,1	10,85	4	Cylindrical	■
JME564012G2R010.0Z4-SIRA	03171196	2	G	1,2	6,0	2,4	50,0	4,5	1,15	0,1	10,31	4	Cylindrical	■
JME564015G2R015.0Z4-SIRA	03171197	2	G	1,5	6,0	3,0	50,0	5,0	1,45	0,15	9,67	4	Cylindrical	■
JME564020G2R015.0Z4-SIRA	03171198	2	G	2,0	6,0	4,0	50,0	6,0	1,94	0,15	8,53	4	Cylindrical	■
JME564025G2R015.0Z4-SIRA	03171199	2	G	2,5	6,0	5,0	60,0	7,5	2,4	0,15	7,15	4	Cylindrical	■
JME564030G2R015.0Z4-SIRA	03171200	2	G	3,0	6,0	6,0	60,0	9,0	2,85	0,15	5,81	4	Cylindrical	■
JME564005G4R005.0Z4-SIRA	03171201	4	G	0,5	6,0	1,0	50,0	3,5	0,46	0,05	11,54	4	Cylindrical	■
JME564006G4R005.0Z4-SIRA	03171202	4	G	0,6	6,0	1,2	50,0	4,2	0,56	0,05	10,93	4	Cylindrical	■
JME564008G4R005.0Z4-SIRA	03171203	4	G	0,8	6,0	1,6	50,0	5,6	0,76	0,05	9,81	4	Cylindrical	■
JME564010G4R010.0Z4-SIRA	03171204	4	G	1,0	6,0	2,0	50,0	7,0	0,95	0,1	8,86	4	Cylindrical	■
JME564012G4R010.0Z4-SIRA	03171205	4	G	1,2	6,0	2,4	50,0	8,4	1,15	0,1	8,0	4	Cylindrical	■
JME564015G4R015.0Z4-SIRA	03171206	4	G	1,5	6,0	3,0	50,0	10,5	1,45	0,15	6,86	4	Cylindrical	■
JME564020G4R015.0Z4-SIRA	03171207	4	G	2,0	6,0	4,0	60,0	14,0	1,94	0,15	5,36	4	Cylindrical	■
JME564030G4R015.0Z4-SIRA	03171209	4	G	3,0	6,0	6,0	70,0	21,0	2,85	0,15	3,22	4	Cylindrical	■

■ Stocked standard.

Cutting data – JME564 Side milling roughing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>									v <sub>c</sub>	
				0.5	0.6	0.8	1.0	1.2	1.5	2.0	2.5	3		
P1	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	395 (360 — 430)	Universal
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1300 (1200 — 1400)	
P2	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	385 (350 — 420)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1275 (1200 — 1300)	
P3	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	330 (300 — 360)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1075 (990 — 1100)	
P4	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	290 (260 — 320)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	950 (860 — 1000)	
P5	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	280 (250 — 300)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	920 (830 — 980)	
P6	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	310 (280 — 340)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1025 (920 — 1100)	
P7	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	295 (270 — 320)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	970 (890 — 1000)	
P8	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	280 (250 — 300)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	920 (830 — 980)	
P11	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	285 (260 — 310)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	940 (860 — 1000)	
P12	M/E/A	0.0500	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	170 (160 — 180)	
		0,0500	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	560 (530 — 590)	
M1	E/M/A	0.0250	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	235 (200 — 280)	
		0,0250	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	770 (660 — 910)	
M2	E/M/A	0.0250	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	190 (160 — 220)	
		0,0250	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	620 (530 — 720)	
M3	E/M/A	0.0250	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	190 (160 — 220)	
		0,0250	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	620 (530 — 720)	
M4	E/M/A	0.0250	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	145 (120 — 160)	
		0,0250	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	475 (400 — 520)	
M5	E/M/A	0.0250	0.50	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	120 (99 — 140)	
		0,0250	0,50	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	395 (330 — 450)	
N1	E/M/A	0.100	0.90	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	550 (490 — 610)	
		0,100	0,90	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1800 (1700 — 2000)	
N2	E/M/A	0.100	0.90	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	550 (490 — 610)	
		0,100	0,90	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1800 (1700 — 2000)	
N3	E/M/A	0.100	0.90	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	365 (330 — 410)	
		0,100	0,90	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1200 (1100 — 1300)	
N11	E/M/A	0.100	0.90	0.012	0.015	0.020	0.025	0.030	0.038	0.050	0.060	0.075	490 (430 — 560)	
		0,100	0,90	0,00048	0,00060	0,00080	0,0010	0,0012	0,0015	0,0020	0,0024	0,0030	1600 (1500 — 1800)	
S11	E/M/A	0.0500	0.60	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	285 (250 — 320)	
		0,0500	0,60	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	940 (830 — 1000)	
S12	E/M/A	0.0500	0.60	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	220 (190 — 250)	
		0,0500	0,60	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	720 (630 — 820)	
S13	E/M/A	0.0500	0.60	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	170 (150 — 190)	
		0,0500	0,60	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	560 (500 — 620)	
H3	M/A	0.0500	0.060	0.0090	0.011	0.014	0.018	0.022	0.026	0.036	0.038	0.042	125 (95 — 150)	
		0,0500	0,060	0,00036	0,00044	0,00055	0,00070	0,00085	0,0010	0,0014	0,0015	0,0017	410 (320 — 490)	
H5	M/A	0.0500	0.28	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	240 (210 — 260)	
		0,0500	0,28	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	790 (690 — 850)	
H7	M/A	0.0500	0.060	0.0090	0.011	0.014	0.018	0.022	0.026	0.036	0.038	0.042	125 (95 — 150)	
		0,0500	0,060	0,00036	0,00044	0,00055	0,00070	0,00085	0,0010	0,0014	0,0015	0,0017	410 (320 — 490)	
H8	M/A	0.0500	0.28	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.055	240 (210 — 260)	
		0,0500	0,28	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0022	790 (690 — 850)	
H11	M/A	0.0500	0.28	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.060	305 (270 — 340)	
		0,0500	0,28	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1000 (890 — 1100)	
H12	M/A	0.0500	0.28	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.055	275 (250 — 310)	
		0,0500	0,28	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0022	900 (830 — 1000)	
H21	M/A	0.0500	0.28	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.050	0.055	240 (210 — 260)	
		0,0500	0,28	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0020	0,0022	790 (690 — 850)	
H31	M/A	0.0500	0.28	0.010	0.012	0.016	0.020	0.024	0.030	0.038	0.044	0.048	180 (160 — 200)	
		0,0500	0,28	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0015	0,0017	0,0019	590 (530 — 650)	
GR1	A	0.500	0.65	0.0075	0.0090	0.012	0.015	0.018	0.020	0.025	0.028	0.032	390 (340 — 440)	
		0,500	0,50	0,00030	0,00036	0,00048	0,00060	0,00070	0,00085	0,0010	0,0011	0,0013	1300 (1200 — 1400)	

Table based on LV1, please recalc based on length version chosen. See page(s) 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfpr  
Graphite  
X-Heads  
Minimaster

Cutting data – JME564 Slot milling

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>									v <sub>c</sub>
			0.5	0.6	0.8	1.0	1.2	1.5	2.0	2.5	3	
P1	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	250 (230 – 270)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	820 (760 – 880)
P2	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	245 (220 – 270)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	800 (730 – 880)
P3	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	210 (190 – 230)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	690 (630 – 750)
P4	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	185 (170 – 200)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	610 (560 – 650)
P5	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	175 (160 – 190)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	570 (530 – 620)
P6	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	200 (180 – 220)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	660 (600 – 720)
P7	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	185 (170 – 200)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	610 (560 – 650)
P8	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	175 (160 – 190)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	570 (530 – 620)
P11	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	180 (170 – 200)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	590 (560 – 650)
P12	M/E/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.019	0.024	0.026	0.030	105 (96 – 110)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00075	0,00095	0,0010	0,0012	345 (320 – 360)
M1	E/M/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	135 (110 – 150)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	445 (370 – 490)
M2	E/M/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	110 (89 – 120)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	360 (300 – 390)
M3	E/M/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	110 (89 – 120)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	360 (300 – 390)
M4	E/M/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.038	80 (67 – 95)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0015	260 (220 – 310)
M5	E/M/A	0.038	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.038	65 (56 – 79)
		0,038	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0015	215 (190 – 250)
N1	E/M/A	0.15	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	390 (350 – 440)
		0,15	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	1275 (1200 – 1400)
N2	E/M/A	0.15	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	390 (350 – 440)
		0,15	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	1275 (1200 – 1400)
N3	E/M/A	0.15	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	260 (230 – 290)
		0,15	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	850 (760 – 950)
N11	E/M/A	0.15	0.010	0.012	0.016	0.020	0.024	0.030	0.040	0.048	0.055	345 (300 – 390)
		0,15	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0016	0,0019	0,0022	1125 (990 – 1200)
S11	E/M/A	0.11	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	180 (160 – 200)
		0,11	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	590 (530 – 650)
S12	E/M/A	0.11	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	135 (120 – 150)
		0,11	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	445 (400 – 490)
S13	E/M/A	0.11	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.036	105 (92 – 120)
		0,11	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0014	345 (310 – 390)
H3	M/A	0.0060	0.0060	0.0070	0.0095	0.012	0.014	0.018	0.024	0.030	0.036	80 (59 – 98)
		0,0060	0,00024	0,00028	0,00038	0,00048	0,00055	0,00070	0,00095	0,0012	0,0014	260 (200 – 320)
H5	M/A	0.020	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	160 (140 – 170)
		0,020	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	520 (460 – 550)
H7	M/A	0.0060	0.0060	0.0070	0.0095	0.012	0.014	0.018	0.024	0.030	0.036	80 (59 – 98)
		0,0060	0,00024	0,00028	0,00038	0,00048	0,00055	0,00070	0,00095	0,0012	0,0014	260 (200 – 320)
H8	M/A	0.020	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.030	0.032	160 (140 – 170)
		0,020	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0012	0,0013	520 (460 – 550)
H11	M/A	0.020	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.032	0.040	200 (180 – 220)
		0,020	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0013	0,0016	660 (600 – 720)
H12	M/A	0.020	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.030	0.032	185 (170 – 200)
		0,020	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0012	0,0013	610 (560 – 650)
H21	M/A	0.020	0.0065	0.0080	0.010	0.013	0.016	0.020	0.026	0.030	0.032	160 (140 – 170)
		0,020	0,00026	0,00032	0,00040	0,00050	0,00065	0,00080	0,0010	0,0012	0,0013	520 (460 – 550)
H31	M/A	0.020	0.0065	0.0080	0.010	0.013	0.016	0.019	0.022	0.025	0.028	120 (110 – 130)
		0,020	0,00026	0,00032	0,00040	0,00050	0,00065	0,00075	0,00085	0,0010	0,0011	395 (370 – 420)
GR1	A	0.20	0.0050	0.0060	0.0080	0.010	0.012	0.015	0.020	0.024	0.026	325 (280 – 370)
		0,20	0,00020	0,00024	0,00032	0,00040	0,00048	0,00060	0,00080	0,00095	0,0010	1075 (920 – 1200)

Table based on LV1, please recalc based on length version chosen. See page(s) 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

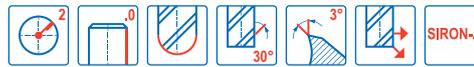
All cutting data are target values

JMB542

Miniature – Universal – Ball nose – 2 Flutes – DMM 4 – Cylindrical



- Tolerances:
- Run-out=<0,007 mm
- DMM= h5
- DC= 0,-0,01 mm
- RE= ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JMB542002G1B.0Z2-SIRA	03171221	1	G	0,2	4,0	0,2	45,0	0,4	0,18	0,1	14,57	2	Cylindrical	■
JMB542003G1B.0Z2-SIRA	03171222	1	G	0,3	4,0	0,3	45,0	0,6	0,28	0,15	14,24	2	Cylindrical	■
JMB542004G1B.0Z2-SIRA	03171223	1	G	0,4	4,0	0,4	45,0	0,8	0,37	0,2	13,81	2	Cylindrical	■
JMB542005G1B.0Z2-SIRA	03171224	1	G	0,5	4,0	0,5	45,0	1,0	0,46	0,25	13,47	2	Cylindrical	■
JMB542006G1B.0Z2-SIRA	03171225	1	G	0,6	4,0	0,6	45,0	1,2	0,56	0,3	13,14	2	Cylindrical	■
JMB542008G1B.0Z2-SIRA	03171226	1	G	0,8	4,0	0,8	45,0	1,6	0,76	0,4	12,46	2	Cylindrical	■
JMB542010G1B.0Z2-SIRA	03171228	1	G	1,0	4,0	1,0	50,0	2,0	0,95	0,5	11,77	2	Cylindrical	■
JMB542012G1B.0Z2-SIRA	03171229	1	G	1,2	4,0	1,2	50,0	2,4	1,15	0,6	11,07	2	Cylindrical	■
JMB542015G1B.0Z2-SIRA	03171230	1	G	1,5	4,0	1,5	50,0	3,0	1,45	0,75	9,88	2	Cylindrical	■
JMB542005G3B.0Z2-SIRA	03171231	3	G	0,5	4,0	0,5	45,0	2,5	0,46	0,25	11,25	2	Cylindrical	■
JMB542006G3B.0Z2-SIRA	03171233	3	G	0,6	4,0	0,6	45,0	3,0	0,56	0,3	10,61	2	Cylindrical	■
JMB542008G3B.0Z2-SIRA	03171234	3	G	0,8	4,0	0,8	45,0	4,0	0,76	0,4	9,44	2	Cylindrical	■
JMB542010G3B.0Z2-SIRA	03171235	3	G	1,0	4,0	1,0	50,0	5,0	0,95	0,5	8,38	2	Cylindrical	■
JMB542012G3B.0Z2-SIRA	03171236	3	G	1,2	4,0	1,2	50,0	6,0	1,15	0,6	7,44	2	Cylindrical	■
JMB542015G3B.0Z2-SIRA	03171237	3	G	1,5	4,0	1,5	50,0	7,5	1,45	0,75	6,13	2	Cylindrical	■
JMB542020G3B.0Z2-SIRA	03171238	3	G	2,0	4,0	2,0	50,0	10,0	1,94	1,0	4,4	2	Cylindrical	■
JMB542030G3B.0Z2-SIRA	03171240	3	G	3,0	4,0	3,0	60,0	15,0	2,85	1,5	1,81	2	Cylindrical	■
JMB542005G4B.0Z2-SIRA	03171241	4	G	0,5	4,0	0,5	45,0	4,0	0,46	0,25	9,65	2	Cylindrical	■
JMB542006G4B.0Z2-SIRA	03171242	4	G	0,6	4,0	0,6	45,0	5,0	0,56	0,3	8,74	2	Cylindrical	■
JMB542008G4B.0Z2-SIRA	03171243	4	G	0,8	4,0	0,8	45,0	7,0	0,76	0,4	7,23	2	Cylindrical	■
JMB542010G4B.0Z2-SIRA	03171244	4	G	1,0	4,0	1,0	50,0	8,5	0,95	0,5	6,27	2	Cylindrical	■
JMB542012G4B.0Z2-SIRA	03171245	4	G	1,2	4,0	1,2	50,0	10,0	1,15	0,6	5,44	2	Cylindrical	■
JMB542015G4B.0Z2-SIRA	03171246	4	G	1,5	4,0	1,5	50,0	12,0	1,45	0,75	4,44	2	Cylindrical	■
JMB542020G4B.0Z2-SIRA	03171247	4	G	2,0	4,0	2,0	60,0	16,0	1,94	1,0	3,02	2	Cylindrical	■
JMB542030G4B.0Z2-SIRA	03171249	4	G	3,0	4,0	3,0	70,0	24,0	2,85	1,5	1,16	2	Cylindrical	■
JMB542015G5B.0Z2-SIRA	03171250	5	G	1,5	4,0	1,5	60,0	15,0	1,45	0,75	3,75	2	Cylindrical	■
JMB542020G5B.0Z2-SIRA	03171251	5	G	2,0	4,0	2,0	60,0	20,0	1,94	1,0	2,5	2	Cylindrical	■
JMB542030G5B.0Z2-SIRA	03171253	5	G	3,0	4,0	3,0	70,0	30,0	2,85	1,5	0,93	2	Cylindrical	■
JMB542015G6B.0Z2-SIRA	03171254	6	G	1,5	4,0	1,5	70,0	22,5	1,45	0,75	2,7	2	Cylindrical	■
JMB542020G6B.0Z2-SIRA	03171255	6	G	2,0	4,0	2,0	70,0	30,0	1,94	1,0	1,74	2	Cylindrical	■
JMB542030G6B.0Z2-SIRA	03171257	6	G	3,0	4,0	3,0	90,0	45,0	2,85	1,5	0,63	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfpr  
Graphite  
X-Heads  
Minimaster

## Cutting data – JMB542 Copy milling roughing

SMG	Image of tool	a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	365 (330 — 400)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1200 (1100 — 1300)
P2	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	355 (320 — 390)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1175 (1100 — 1200)
P3	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	305 (280 — 330)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1000 (920 — 1000)
P4	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	270 (240 — 290)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
P5	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
P6	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 310)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	950 (860 — 1000)
P7	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	270 (250 — 300)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	890 (830 — 980)
P8	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
P11	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	265 (240 — 290)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	870 (790 — 950)
P12	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	155 (140 — 170)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	510 (460 — 550)
M1	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	215 (180 — 250)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	710 (600 — 820)
M2	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 200)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (500 — 650)
M3	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 200)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (500 — 650)
M4	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	130 (110 — 150)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	425 (370 — 490)
M5	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	110 (90 — 120)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	360 (300 — 390)
N1	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	485 (430 — 540)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1600 (1500 — 1700)
N2	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	485 (430 — 540)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1600 (1500 — 1700)
N3	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	325 (290 — 360)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1075 (960 — 1100)
N11	E/M/A	0.100	0.75	0.0050	0.0075	0.010	0.012	0.015	0.020	0.025	0.030	0.046	0.050	0.060	0.075	430 (370 — 480)
		0,100	0,75	0,00020	0,00030	0,00040	0,00048	0,00060	0,00080	0,0010	0,0012	0,0018	0,0020	0,0024	0,0030	1400 (1300 — 1500)
S11	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (250 — 330)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	950 (830 — 1000)
S12	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	225 (200 — 250)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	740 (660 — 820)
S13	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 190)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (500 — 620)
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0013	0,0014	0,0017	0,0022	395 (300 — 450)
H5	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	770 (690 — 850)
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0013	0,0014	0,0017	0,0022	395 (300 — 450)
H8	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	770 (690 — 850)
H11	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	300 (270 — 330)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	980 (890 — 1000)
H12	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	275 (240 — 300)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	900 (790 — 980)
H21	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	770 (690 — 850)
H31	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (160 — 200)
		0,0500	0,44													

Cutting data – JMB542 Slot milling

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>	
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0		
P1	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	255 (230 — 280)	Universal
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	840 (760 — 910)	
P2	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	250 (230 — 270)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	820 (760 — 880)	
P3	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	215 (200 — 230)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	710 (660 — 750)	
P4	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 200)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 650)	
P5	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (170 — 200)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (560 — 650)	
P6	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	200 (180 — 220)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	660 (600 — 720)	
P7	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 210)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 680)	
P8	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (170 — 200)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (560 — 650)	
P11	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	185 (170 — 200)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	610 (560 — 650)	
P12	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (98 — 120)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (330 — 390)	
M1	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	135 (120 — 160)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	445 (400 — 520)	
M2	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (90 — 130)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (300 — 420)	
M3	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (90 — 130)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (300 — 420)	
M4	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	80 (68 — 97)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	260 (230 — 310)	
M5	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	70 (57 — 81)	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	230 (190 — 260)	
N1	E/M/A	0.24	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	400 (350 — 440)	
		0.24	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	1300 (1200 — 1400)	
N2	E/M/A	0.26	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	400 (350 — 440)	
		0.26	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	1300 (1200 — 1400)	
N3	E/M/A	0.26	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	265 (240 — 290)	
		0.26	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	870 (790 — 950)	
N11	E/M/A	0.24	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	350 (300 — 390)	
		0.24	0.00016	0.00024	0.00032	0.00040	0.00048	0.00065	0.00080	0.00095	0.0014	0.0016	0.0020	0.0024	1150 (990 — 1200)	
S11	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (160 — 200)	
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (530 — 650)	
S12	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	140 (120 — 150)	
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	460 (400 — 490)	
S13	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	105 (93 — 120)	
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	345 (310 — 390)	
H3	M/A	0.10	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.022	0.024	0.030	0.036	80 (61 — 100)	
		0.10	0.000095	0.00014	0.00019	0.00024	0.00028	0.00038	0.00048	0.00055	0.00085	0.00095	0.0012	0.0014	260 (210 — 320)	
H5	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)	
H7	M/A	0.10	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.022	0.024	0.030	0.036	80 (61 — 100)	
		0.10	0.000095	0.00014	0.00019	0.00024	0.00028	0.00038	0.00048	0.00055	0.00085	0.00095	0.0012	0.0014	260 (210 — 320)	
H8	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)	
H11	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	205 (180 — 230)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	670 (600 — 750)	
H12	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 210)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 680)	
H21	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)	
H31	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	120 (110 — 130)	
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	395 (370 — 420)	
GR1	A	0.50	0.0020	0.0030	0.0040	0.0050	0.0060	0.0080	0.010	0.012	0.018	0.020	0.025	0.030	350 (300 — 390)	
		0.50	0.00080	0.00012	0.00016	0.00020	0.00024	0.00032	0.00040	0.00048	0.00070	0.00080	0.0010	0.0012	1150 (990 — 1200)	

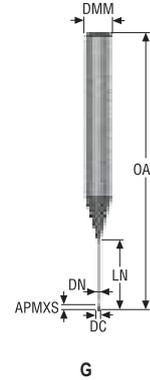
Table based on LV1, please recalc based on length version chosen. See page(s) 687 - 695

SMG = Sec

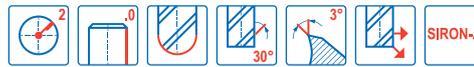


JMB562

Miniature – Universal – Ball nose – 2 Flutes – DMM 6 – Cylindrical



- Tolerances:
- Run-out<0,007 mm
- DMM= h5
- DC= 0,-0,01 mm
- RE= ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JMB562010G6B.0Z2-SIRA	03171290	6	G	1,0	6,0	1,0	60,0	15,0	0,95	0,5	6,04	2	Cylindrical	■
JMB562012G6B.0Z2-SIRA	03171291	6	G	1,2	6,0	1,2	60,0	18,0	1,15	0,6	5,24	2	Cylindrical	■
JMB562015G6B.0Z2-SIRA	03171292	6	G	1,5	6,0	1,5	70,0	22,5	1,45	0,75	4,28	2	Cylindrical	■
JMB562020G6B.0Z2-SIRA	03171293	6	G	2,0	6,0	2,0	80,0	30,0	1,94	1,0	3,14	2	Cylindrical	■
JMB562030G6B.0Z2-SIRA	03171295	6	G	3,0	6,0	3,0	90,0	45,0	2,85	1,5	1,74	2	Cylindrical	■
JMB562010G7B.0Z2-SIRA	03171296	7	G	1,0	6,0	1,0	60,0	20,0	0,95	0,5	4,99	2	Cylindrical	■
JMB562012G7B.0Z2-SIRA	03171297	7	G	1,2	6,0	1,2	80,0	24,0	1,15	0,6	4,27	2	Cylindrical	■
JMB562015G7B.0Z2-SIRA	03171298	7	G	1,5	6,0	1,5	80,0	30,0	1,45	0,75	3,43	2	Cylindrical	■
JMB562020G7B.0Z2-SIRA	03171299	7	G	2,0	6,0	2,0	80,0	40,0	1,94	1,0	2,47	2	Cylindrical	■
JMB562030G7B.0Z2-SIRA	03171301	7	G	3,0	6,0	3,0	100,0	60,0	2,85	1,5	1,34	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

Graphite

X-Heads

Minimaster

## Cutting data – JMB562 Copy milling roughing

SMG	M	a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	365 (330 — 400)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1200 (1100 — 1300)
P2	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	355 (320 — 390)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1175 (1100 — 1200)
P3	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	305 (280 — 330)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1000 (920 — 1000)
P4	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	270 (240 — 290)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
P5	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
P6	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (260 — 310)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	950 (860 — 1000)
P7	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	270 (250 — 300)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	890 (830 — 980)
P8	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	255 (230 — 280)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	840 (760 — 910)
P11	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	265 (240 — 290)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	870 (790 — 950)
P12	M/E/A	0.0500	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	155 (140 — 170)
		0,0500	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	510 (460 — 550)
M1	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	215 (180 — 250)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	710 (600 — 820)
M2	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 200)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (500 — 650)
M3	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 200)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (500 — 650)
M4	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	130 (110 — 150)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	425 (370 — 490)
M5	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	110 (90 — 120)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	360 (300 — 390)
N1	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	485 (430 — 540)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1600 (1500 — 1700)
N2	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	485 (430 — 540)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1600 (1500 — 1700)
N3	E/M/A	0.100	0.75	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	325 (290 — 360)
		0,100	0,75	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	1075 (960 — 1100)
N11	E/M/A	0.100	0.75	0.0050	0.0075	0.010	0.012	0.015	0.020	0.025	0.030	0.046	0.050	0.060	0.075	430 (370 — 480)
		0,100	0,75	0,00020	0,00030	0,00040	0,00048	0,00060	0,00080	0,0010	0,0012	0,0018	0,0020	0,0024	0,0030	1400 (1300 — 1500)
S11	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	290 (250 — 330)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	950 (830 — 1000)
S12	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	225 (200 — 250)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	740 (660 — 820)
S13	E/M/A	0.0250	0.60	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	175 (150 — 190)
		0,0250	0,60	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	570 (500 — 620)
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0013	0,0014	0,0017	0,0022	395 (300 — 450)
H5	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	770 (690 — 850)
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.032	0.036	0.044	0.055	120 (90 — 140)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0013	0,0014	0,0017	0,0022	395 (300 — 450)
H8	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	770 (690 — 850)
H11	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	300 (270 — 330)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	980 (890 — 1000)
H12	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	275 (240 — 300)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	900 (790 — 980)
H21	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	235 (210 — 260)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0014	0,0016	0,0020	0,0024	770 (690 — 850)
H31	M/A	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	180 (160 — 200)
		0,0500	0,44	0,00016	0,00024	0,0										

Cutting data – JMB562 Slot milling

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>		
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.8	2.0	2.5	3.0			
P1	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	255 (230 — 280)	Universal	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	840 (760 — 910)		
P2	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	250 (230 — 270)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	820 (760 — 880)		
P3	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	215 (200 — 230)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	710 (660 — 750)		
P4	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 200)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 650)		
P5	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (170 — 200)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (560 — 650)		
P6	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	200 (180 — 220)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	660 (600 — 720)		
P7	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 210)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 680)		
P8	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (170 — 200)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (560 — 650)		
P11	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	185 (170 — 200)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	610 (560 — 650)		
P12	M/E/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (98 — 120)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (330 — 390)		
M1	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	135 (120 — 160)	Steel and cast iron	
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	445 (400 — 520)		
M2	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (90 — 130)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (300 — 420)		
M3	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	110 (90 — 130)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	360 (300 — 420)		
M4	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	80 (68 — 97)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	260 (230 — 310)		
M5	E/M/A	0.32	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	70 (57 — 81)		
		0.32	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	230 (190 — 260)		
N1	E/M/A	0.24	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	400 (350 — 440)		Non ferrous
		0.24	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	1300 (1200 — 1400)		
N2	E/M/A	0.26	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	400 (350 — 440)		
		0.26	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	1300 (1200 — 1400)		
N3	E/M/A	0.26	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	265 (240 — 290)		
		0.26	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	870 (790 — 950)		
N11	E/M/A	0.24	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.036	0.040	0.050	0.060	350 (300 — 390)		
		0.24	0.00016	0.00024	0.00032	0.00040	0.00048	0.00065	0.00080	0.00095	0.0014	0.0016	0.0020	0.0024	1150 (990 — 1200)		
S11	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	180 (160 — 200)	Hard	
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	590 (530 — 650)		
S12	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	140 (120 — 150)		
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	460 (400 — 490)		
S13	E/M/A	0.36	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	105 (93 — 120)		
		0.36	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	345 (310 — 390)		
H3	M/A	0.10	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.022	0.024	0.030	0.036	80 (61 — 100)		Plastic and cf/ep
		0.10	0.000095	0.00014	0.00019	0.00024	0.00028	0.00038	0.00048	0.00055	0.00085	0.00095	0.0012	0.0014	260 (210 — 320)		
H5	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)		
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)		
H7	M/A	0.10	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.022	0.024	0.030	0.036	80 (61 — 100)		
		0.10	0.000095	0.00014	0.00019	0.00024	0.00028	0.00038	0.00048	0.00055	0.00085	0.00095	0.0012	0.0014	260 (210 — 320)		
H8	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)		
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)		
H11	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	205 (180 — 230)		
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	670 (600 — 750)		
H12	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	190 (170 — 210)		
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	620 (560 — 680)		
H21	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	160 (150 — 180)		
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	520 (500 — 590)		
H31	M/A	0.20	0.0026	0.0040	0.0050	0.0065	0.0080	0.010	0.013	0.016	0.024	0.026	0.032	0.040	120 (110 — 130)		
		0.20	0.00010	0.00016	0.00020	0.00026	0.00032	0.00040	0.00050	0.00065	0.00095	0.0010	0.0013	0.0016	395 (370 — 420)		
GR1	A	0.50	0.0020	0.0030	0.0040	0.0050	0.0060	0.0080	0.010	0.012	0.018	0.020	0.025	0.030	350 (300 — 390)	X-Heads	
		0.50	0.00080	0.00012	0.00016	0.00020	0.00024	0.00032	0.00040	0.00048	0.00070	0.00080	0.0010	0.0012	1150 (990 — 1200)		

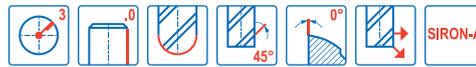
JMB563

Miniature – Universal – Ball nose – 3 Flutes – DMM 6 – Cylindrical



G

—Tolerances:  
—Run-out=<0,007 mm  
—DMM= h5  
—DC= 0,-0,02 mm  
—RE= ±0,01 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
JMB563010G2B.0Z3-SIRA	03171307	2	G	1,0	6,0	1,0	50,0	4,0	0,95	0,5	11,15	3	Cylindrical	■
JMB563012G2B.0Z3-SIRA	03171308	2	G	1,2	6,0	1,2	50,0	4,5	1,15	0,6	10,67	3	Cylindrical	■
JMB563015G2B.0Z3-SIRA	03171309	2	G	1,5	6,0	1,5	50,0	5,0	1,45	0,75	10,07	3	Cylindrical	■
JMB563020G2B.0Z3-SIRA	03171310	2	G	2,0	6,0	2,0	50,0	6,0	1,94	1,0	9,05	3	Cylindrical	■
JMB563025G2B.0Z3-SIRA	03171311	2	G	2,5	6,0	2,5	60,0	7,5	2,4	1,25	7,71	3	Cylindrical	■
JMB563030G2B.0Z3-SIRA	03171312	2	G	3,0	6,0	3,0	60,0	9,0	2,85	1,5	6,35	3	Cylindrical	■
JMB563010G4B.0Z3-SIRA	03171316	4	G	1,0	6,0	1,0	50,0	7,0	0,95	0,5	9,06	3	Cylindrical	■
JMB563012G4B.0Z3-SIRA	03171317	4	G	1,2	6,0	1,2	50,0	8,4	1,15	0,6	8,22	3	Cylindrical	■
JMB563015G4B.0Z3-SIRA	03171318	4	G	1,5	6,0	1,5	50,0	10,5	1,45	0,75	7,07	3	Cylindrical	■
JMB563020G4B.0Z3-SIRA	03171319	4	G	2,0	6,0	2,0	60,0	14,0	1,94	1,0	5,57	3	Cylindrical	■
JMB563030G4B.0Z3-SIRA	03171321	4	G	3,0	6,0	3,0	70,0	21,0	2,85	1,5	3,38	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JMB563 Copy milling roughing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				1	1.2	1.5	2.0	2.5	3.0	
P1	M/E/A	0.0500	0.38	0.020	0.024	0.030	0.040	0.050	0.060	460 (410 — 500)
		0,0500	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1500 (1400 — 1600)
P2	M/E/A	0.0500	0.38	0.020	0.024	0.030	0.040	0.050	0.060	445 (400 — 490)
		0,0500	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1450 (1400 — 1600)
P3	M/E/A	0.0500	0.38	0.020	0.024	0.030	0.040	0.050	0.060	385 (350 — 420)
		0,0500	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1275 (1200 — 1300)
P4	M/E/A	0.0500	0.38	0.020	0.024	0.030	0.040	0.050	0.060	340 (310 — 370)
		0,0500	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1125 (1100 — 1200)
P5	M/E/A	0.0500	0.38	0.020	0.024	0.030	0.040	0.050	0.060	325 (290 — 350)
		0,0500	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1075 (960 — 1100)
P6	M/E/A	0.0500	0.38	0.020	0.024	0.030	0.040	0.050	0.060	365 (330 — 400)
		0,0500	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1200 (1100 — 1300)
P7	M/E/A	0.0500	0.38	0.020	0.024	0.030	0.040	0.050	0.060	340 (310 — 380)
		0,0500	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1125 (1100 — 1200)
P8	M/E/A	0.0500	0.38	0.020	0.024	0.030	0.040	0.050	0.060	325 (290 — 350)
		0,0500	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1075 (960 — 1100)
P11	M/E/A	0.0250	0.38	0.020	0.024	0.030	0.040	0.050	0.060	230 (190 — 270)
		0,0250	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	750 (630 — 880)
P12	M/E/A	0.0250	0.38	0.020	0.024	0.030	0.040	0.050	0.060	135 (120 — 160)
		0,0250	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	445 (400 — 520)
M1	E/M/A	0.0250	0.38	0.020	0.024	0.030	0.040	0.050	0.060	270 (230 — 320)
		0,0250	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	890 (760 — 1000)
M2	E/M/A	0.0250	0.38	0.020	0.024	0.030	0.040	0.050	0.060	220 (180 — 250)
		0,0250	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	720 (600 — 820)
M3	E/M/A	0.0250	0.38	0.020	0.024	0.030	0.040	0.050	0.060	220 (180 — 250)
		0,0250	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	720 (600 — 820)
M4	E/M/A	0.0250	0.38	0.020	0.024	0.030	0.040	0.050	0.060	165 (140 — 190)
		0,0250	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	540 (460 — 620)
M5	E/M/A	0.0250	0.38	0.020	0.024	0.030	0.040	0.050	0.060	135 (120 — 160)
		0,0250	0,38	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	445 (400 — 520)
N1	E/M/A	0.100	0.65	0.020	0.024	0.030	0.040	0.050	0.060	590 (520 — 660)
		0,100	0,65	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1925 (1800 — 2100)
N2	E/M/A	0.100	0.65	0.020	0.024	0.030	0.040	0.050	0.060	590 (520 — 660)
		0,100	0,65	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1925 (1800 — 2100)
N3	E/M/A	0.100	0.65	0.020	0.024	0.030	0.040	0.050	0.060	395 (350 — 440)
		0,100	0,65	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1300 (1200 — 1400)
N11	E/M/A	0.100	0.65	0.025	0.030	0.038	0.050	0.060	0.075	520 (450 — 590)
		0,100	0,65	0,0010	0,0012	0,0015	0,0020	0,0024	0,0030	1700 (1500 — 1900)
S11	E/M/A	0.0250	0.46	0.020	0.024	0.030	0.040	0.050	0.060	345 (300 — 390)
		0,0250	0,46	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1125 (990 — 1200)
S12	E/M/A	0.0250	0.46	0.020	0.024	0.030	0.040	0.050	0.060	265 (230 — 300)
		0,0250	0,46	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	870 (760 — 980)
S13	E/M/A	0.0250	0.46	0.020	0.024	0.030	0.040	0.050	0.060	205 (180 — 230)
		0,0250	0,46	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	670 (600 — 750)
H3	M/A	0.0250	0.095	0.018	0.022	0.026	0.036	0.044	0.055	155 (120 — 190)
		0,0250	0,095	0,00070	0,00085	0,0010	0,0014	0,0017	0,0022	510 (400 — 620)
H5	M/A	0.0500	0.22	0.020	0.024	0.030	0.040	0.050	0.060	295 (260 — 330)
		0,0500	0,22	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	970 (860 — 1000)
H7	M/A	0.0250	0.095	0.018	0.022	0.026	0.036	0.044	0.055	155 (120 — 190)
		0,0250	0,095	0,00070	0,00085	0,0010	0,0014	0,0017	0,0022	510 (400 — 620)
H8	M/A	0.0500	0.22	0.020	0.024	0.030	0.040	0.050	0.060	295 (260 — 330)
		0,0500	0,22	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	970 (860 — 1000)
H11	M/A	0.0500	0.22	0.020	0.024	0.030	0.040	0.050	0.060	375 (330 — 420)
		0,0500	0,22	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1225 (1100 — 1300)
H12	M/A	0.0500	0.22	0.020	0.024	0.030	0.040	0.050	0.060	345 (310 — 380)
		0,0500	0,22	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	1125 (1100 — 1200)
H21	M/A	0.0500	0.22	0.020	0.024	0.030	0.040	0.050	0.060	295 (260 — 330)
		0,0500	0,22	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	970 (860 — 1000)
H31	M/A	0.0500	0.22	0.020	0.024	0.030	0.040	0.050	0.060	225 (200 — 250)
		0,0500	0,22	0,00080	0,00095	0,0012	0,0016	0,0020	0,0024	740 (660 — 820)
GR1	A	0.500	0.50	0.015	0.018	0.022	0.030	0.038	0.040	450 (390 — 510)
		0,500	0,50	0,00060	0,00070	0,00085	0,0012	0,0015	0,0016	1475 (1300 — 1600)

Table based on LV1, please recalc based on length version chosen. See page(s)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

 Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and CFRP
- Graphite
- X-Heads
- Minimaster



## STEEL AND CAST IRON

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity in steel and cast iron.

- ST5541, JHP993, JHP951 and JH142 for chamfer or radius type.
- ST5341, JHB970, JH112, JH150, JH160 for ball-nose type.

## Tool selection Steel and cast iron

							
Name		ST5541	JHP993	JHP951	JH142	ST5341	JHB970
Page(s)		275	292	298	302, 510	305	227, 311
Family name		Stabilizer	HPM	HPM	HSM/TORNADO	Stabilizer	HSM/TORNADO
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon	□	■	■		□	
Number of Flutes		4	3,4,5	3,4,5	2-4-5-6	4	2
CSP							
Diameter range	Metric	3-25	4-25	3-20	2-12	6-20	2-16
	Inch	1/8-1				1/4-1	
Length availability		1,2,3,4	2,3	2	2,3,6	2,3	1,2,3
Operation							
							
							
SMG							
P1		●	●	●	●	●	●
P2		●	●	●	●	●	●
P3		●	●	●	●	●	●
P4		●	●	●	●	●	●
P5		●	●	●	●	●	●
P6		●	●	●	●	●	●
P7		●	●	●	●	●	●
P8		●	●	●	●	●	●
P11-12		●	○	○	●	●	○
K1		●	●	●	●	●	●
K2		●	●	●	●	●	●
K3		●	●	●	●	●	●
K4		●	●	●	●	●	●
K5		●	●	●	●	●	●
K6		●	●	●	●	●	●
K7		●	●	●	●	●	●

■ Stock standard □ Weldon available, delivery time is 3 days.  
 ● Preferred choice ○ Alternative choice

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaxter

## Tool selection Steel and cast iron

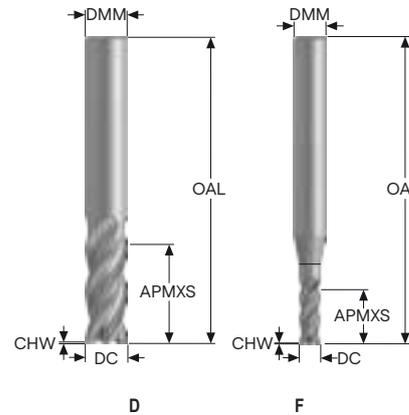
				
Name		JH112	JH150	JH160
Page(s)		313, 513	516	518
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO
Type of mill				
Shank	Cylindrical	■	■	■
	Weldon			
Number of Flutes		2	4	4
CSP				
Diameter range	Metric	2-12	6-12	3-12
	Inch			
Length availability		1,2,3,4,5,6	2	2
Operation				
SMG				
P1				●
P2				●
P3				●
P4				●
P5				●
P6				●
P7				●
P8				●
P11-12				○
K1		●	●	
K2		●	●	
K3		●	●	
K4		●	●	
K5		●	●	
K6		●	●	
K7		●	●	

■ Stock standard □ Weldon available, delivery time is 3 days.

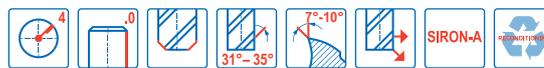
● Preferred choice ○ Alternative choice

ST5541

High performance – Steel – Square – 4 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
ST5541-030F2C.0Z4	SIRA	10302942	2	F	3,0	6,0	7,0	58,0	10,638	3,127	0,035	4	Cylindrical	■
ST5541-040F2C.0Z4	SIRA	10302943	2	F	4,0	6,0	10,0	58,0	14,953	4,127	0,045	4	Cylindrical	■
ST5541-050F2C.0Z4	SIRA	10302944	2	F	5,0	6,0	12,0	58,0	17,334	5,127	0,055	4	Cylindrical	■
ST5541-060D2C.0Z4	SIRA	10302945	2	D	6,0	6,0	14,0	58,0	–	–	0,075	4	Cylindrical	■
ST5541-080D2C.0Z4	SIRA	10302946	2	D	8,0	8,0	18,0	64,0	–	–	0,1	4	Cylindrical	■
ST5541-100D2C.0Z4	SIRA	10302947	2	D	10,0	10,0	22,0	73,0	–	–	0,125	4	Cylindrical	■
ST5541-120D2C.0Z4	SIRA	10302948	2	D	12,0	12,0	26,0	84,0	–	–	0,15	4	Cylindrical	■
ST5541-160D2C.0Z4	SIRA	10302949	2	D	16,0	16,0	34,0	95,0	–	–	0,2	4	Cylindrical	■
ST5541-200D2C.0Z4	SIRA	10302950	2	D	20,0	20,0	42,0	109,0	–	–	0,25	4	Cylindrical	■
ST5541-250D2C.0Z4	SIRA	10302951	2	D	25,0	25,0	52,0	125,0	–	–	0,3	4	Cylindrical	■
ST5541-030F3C.0Z4	SIRA	10302952	3	F	3,0	6,0	9,0	58,0	12,683	3,127	0,035	4	Cylindrical	■
ST5541-040F3C.0Z4	SIRA	10302953	3	F	4,0	6,0	12,0	58,0	16,953	4,127	0,045	4	Cylindrical	■
ST5541-050F3C.0Z4	SIRA	10302954	3	F	5,0	6,0	15,0	58,0	20,334	5,127	0,055	4	Cylindrical	■
ST5541-060D3C.0Z4	SIRA	10302955	3	D	6,0	6,0	18,0	64,0	–	–	0,075	4	Cylindrical	■
ST5541-080D3C.0Z4	SIRA	10302956	3	D	8,0	8,0	24,0	73,0	–	–	0,1	4	Cylindrical	■
ST5541-100D3C.0Z4	SIRA	10302957	3	D	10,0	10,0	30,0	85,0	–	–	0,125	4	Cylindrical	■
ST5541-120D3C.0Z4	SIRA	10302958	3	D	12,0	12,0	36,0	100,0	–	–	0,15	4	Cylindrical	■
ST5541-160D3C.0Z4	SIRA	10302959	3	D	16,0	16,0	48,0	115,0	–	–	0,2	4	Cylindrical	■
ST5541-200D3C.0Z4	SIRA	10302960	3	D	20,0	20,0	60,0	125,0	–	–	0,25	4	Cylindrical	■
ST5541-250D3C.0Z4	SIRA	10302961	3	D	25,0	25,0	75,0	155,0	–	–	0,3	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

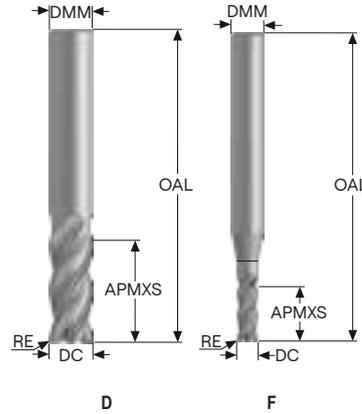
Graphite

X-Heads

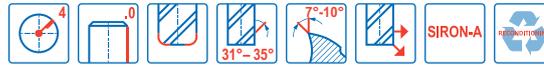
Minimaster

ST5541

High performance – Steel – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

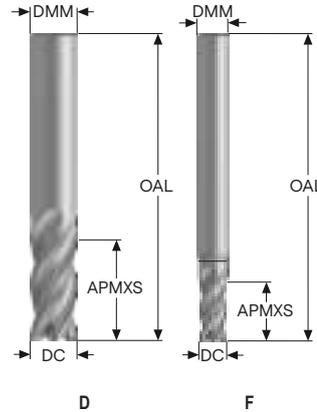


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
ST5541-030F2R020.0Z4	SIRA	10302962	2	F	3,0	6,0	7,0	58,0	10,638	3,127	0,2	4	Cylindrical	■
ST5541-040F2R020.0Z4	SIRA	10302963	2	F	4,0	6,0	10,0	58,0	14,953	4,127	0,2	4	Cylindrical	■
ST5541-050F2R020.0Z4	SIRA	10302964	2	F	5,0	6,0	12,0	58,0	17,334	5,127	0,2	4	Cylindrical	■
ST5541-060D2R050.0Z4	SIRA	10302965	2	D	6,0	6,0	14,0	58,0	—	—	0,5	4	Cylindrical	■
ST5541-080D2R050.0Z4	SIRA	10302966	2	D	8,0	8,0	18,0	64,0	—	—	0,5	4	Cylindrical	■
ST5541-100D2R050.0Z4	SIRA	10302967	2	D	10,0	10,0	22,0	73,0	—	—	0,5	4	Cylindrical	■
ST5541-120D2R050.0Z4	SIRA	10302968	2	D	12,0	12,0	26,0	84,0	—	—	0,5	4	Cylindrical	■
ST5541-120D2R100.0Z4	SIRA	10302969	2	D	12,0	12,0	26,0	84,0	—	—	1,0	4	Cylindrical	■
ST5541-160D2R050.0Z4	SIRA	10302970	2	D	16,0	16,0	34,0	95,0	—	—	0,5	4	Cylindrical	■
ST5541-160D2R100.0Z4	SIRA	10302972	2	D	16,0	16,0	34,0	95,0	—	—	1,0	4	Cylindrical	■
ST5541-160D2R300.0Z4	SIRA	10302971	2	D	16,0	16,0	34,0	95,0	—	—	3,0	4	Cylindrical	■
ST5541-200D2R050.0Z4	SIRA	10302973	2	D	20,0	20,0	42,0	109,0	—	—	0,5	4	Cylindrical	■
ST5541-200D2R100.0Z4	SIRA	10302975	2	D	20,0	20,0	42,0	109,0	—	—	1,0	4	Cylindrical	■
ST5541-200D2R300.0Z4	SIRA	10302974	2	D	20,0	20,0	42,0	109,0	—	—	3,0	4	Cylindrical	■
ST5541-250D2R050.0Z4	SIRA	10302976	2	D	25,0	25,0	52,0	125,0	—	—	0,5	4	Cylindrical	■
ST5541-250D2R100.0Z4	SIRA	10302978	2	D	25,0	25,0	52,0	125,0	—	—	1,0	4	Cylindrical	■
ST5541-250D2R300.0Z4	SIRA	10302977	2	D	25,0	25,0	52,0	125,0	—	—	3,0	4	Cylindrical	■
ST5541-030F3R020.0Z4	SIRA	10302979	3	F	3,0	6,0	9,0	58,0	12,683	3,127	0,2	4	Cylindrical	■
ST5541-040F3R020.0Z4	SIRA	10302980	3	F	4,0	6,0	12,0	58,0	16,953	4,127	0,2	4	Cylindrical	■
ST5541-050F3R020.0Z4	SIRA	10302981	3	F	5,0	6,0	15,0	58,0	20,334	5,127	0,2	4	Cylindrical	■
ST5541-060D3R050.0Z4	SIRA	10302982	3	D	6,0	6,0	18,0	64,0	—	—	0,5	4	Cylindrical	■
ST5541-080D3R050.0Z4	SIRA	10302983	3	D	8,0	8,0	24,0	73,0	—	—	0,5	4	Cylindrical	■
ST5541-100D3R050.0Z4	SIRA	10302984	3	D	10,0	10,0	30,0	85,0	—	—	0,5	4	Cylindrical	■
ST5541-120D3R050.0Z4	SIRA	10302985	3	D	12,0	12,0	36,0	100,0	—	—	0,5	4	Cylindrical	■
ST5541-120D3R100.0Z4	SIRA	10302986	3	D	12,0	12,0	36,0	100,0	—	—	1,0	4	Cylindrical	■
ST5541-160D3R050.0Z4	SIRA	10302987	3	D	16,0	16,0	48,0	115,0	—	—	0,5	4	Cylindrical	■
ST5541-160D3R100.0Z4	SIRA	10302989	3	D	16,0	16,0	48,0	115,0	—	—	1,0	4	Cylindrical	■
ST5541-160D3R300.0Z4	SIRA	10302988	3	D	16,0	16,0	48,0	115,0	—	—	3,0	4	Cylindrical	■
ST5541-200D3R050.0Z4	SIRA	10302990	3	D	20,0	20,0	60,0	125,0	—	—	0,5	4	Cylindrical	■
ST5541-200D3R100.0Z4	SIRA	10302992	3	D	20,0	20,0	60,0	125,0	—	—	1,0	4	Cylindrical	■
ST5541-200D3R300.0Z4	SIRA	10302991	3	D	20,0	20,0	60,0	125,0	—	—	3,0	4	Cylindrical	■
ST5541-250D3R050.0Z4	SIRA	10302993	3	D	25,0	25,0	75,0	155,0	—	—	0,5	4	Cylindrical	■
ST5541-250D3R100.0Z4	SIRA	10302995	3	D	25,0	25,0	75,0	155,0	—	—	1,0	4	Cylindrical	■
ST5541-250D3R300.0Z4	SIRA	10302994	3	D	25,0	25,0	75,0	155,0	—	—	3,0	4	Cylindrical	■

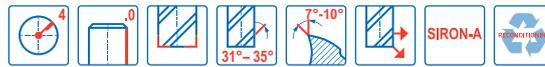
■ Stocked standard.

ST5541

High performance – Steel – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000" / -.002"
- Regrind possible if DC is  $\geq \varnothing.250$



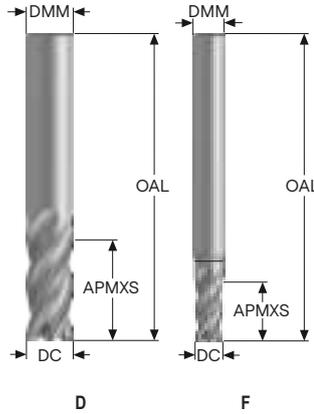
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
ST5541-.125D1S.OZ4	SIRA	10302742	1	D	0.125	0.125	0.125	1.500	–	–	4	Cylindrical	■
ST5541-.156F1S.OZ4	SIRA	10302743	1	F	0.156	0.188	0.156	2.000	0.301	0.161	4	Cylindrical	■
ST5541-.188D1S.OZ4	SIRA	10302744	1	D	0.188	0.188	0.188	2.000	–	–	4	Cylindrical	■
ST5541-.219F1S.OZ4	SIRA	10302745	1	F	0.219	0.250	0.219	2.000	0.429	0.224	4	Cylindrical	■
ST5541-.250D1S.OZ4	SIRA	10302746	1	D	0.250	0.250	0.250	2.000	–	–	4	Cylindrical	■
ST5541-.281F1S.OZ4	SIRA	10302747	1	F	0.281	0.313	0.281	2.000	0.428	0.286	4	Cylindrical	■
ST5541-.313D1S.OZ4	SIRA	10302748	1	D	0.313	0.313	0.313	2.000	–	–	4	Cylindrical	■
ST5541-.375D1S.OZ4	SIRA	10302749	1	D	0.375	0.375	0.375	2.000	–	–	4	Cylindrical	■
ST5541-.438D1S.OZ4	SIRA	10302750	1	D	0.438	0.438	0.438	2.750	–	–	4	Cylindrical	■
ST5541-.500D1S.OZ4	SIRA	10302751	1	D	0.500	0.500	0.500	2.500	–	–	4	Cylindrical	■
ST5541-.625D1S.OZ4	SIRA	10302752	1	D	0.625	0.625	0.625	3.000	–	–	4	Cylindrical	■
ST5541-.750D1S.OZ4	SIRA	10302753	1	D	0.750	0.750	0.750	3.000	–	–	4	Cylindrical	■
ST5541-.875D1S.OZ4	SIRA	10302754	1	D	0.875	0.875	0.875	4.000	–	–	4	Cylindrical	■
ST5541-1.00D1S.OZ4	SIRA	10302755	1	D	1.000	1.000	1.000	4.000	–	–	4	Cylindrical	■
ST5541-.125D2S.OZ4	SIRA	10302756	2	D	0.125	0.125	0.250	1.500	–	–	4	Cylindrical	■
ST5541-.156F2S.OZ4	SIRA	10302757	2	F	0.156	0.188	0.313	2.000	0.458	0.161	4	Cylindrical	■
ST5541-.188D2S.OZ4	SIRA	10302758	2	D	0.188	0.188	0.375	2.000	–	–	4	Cylindrical	■
ST5541-.219F2S.OZ4	SIRA	10302759	2	F	0.219	0.250	0.438	2.500	0.648	0.224	4	Cylindrical	■
ST5541-.250D2S.OZ4	SIRA	10302760	2	D	0.250	0.250	0.500	2.500	–	–	4	Cylindrical	■
ST5541-.281F2S.OZ4	SIRA	10302761	2	F	0.281	0.313	0.563	2.500	0.660	0.286	4	Cylindrical	■
ST5541-.313D2S.OZ4	SIRA	10302762	2	D	0.313	0.313	0.625	2.500	–	–	4	Cylindrical	■
ST5541-.375D2S.OZ4	SIRA	10302763	2	D	0.375	0.375	0.750	2.500	–	–	4	Cylindrical	■
ST5541-.438D2S.OZ4	SIRA	10302764	2	D	0.438	0.438	0.875	2.750	–	–	4	Cylindrical	■
ST5541-.500D2S.OZ4	SIRA	10302765	2	D	0.500	0.500	1.000	3.000	–	–	4	Cylindrical	■
ST5541-.625D2S.OZ4	SIRA	10302766	2	D	0.625	0.625	1.250	3.500	–	–	4	Cylindrical	■
ST5541-.750D2S.OZ4	SIRA	10302767	2	D	0.750	0.750	1.500	4.000	–	–	4	Cylindrical	■
ST5541-.875D2S.OZ4	SIRA	10302768	2	D	0.875	0.875	1.750	4.000	–	–	4	Cylindrical	■
ST5541-1.00D2S.OZ4	SIRA	10302769	2	D	1.000	1.000	2.000	5.000	–	–	4	Cylindrical	■

■ Stocked standard.

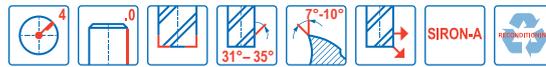
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

ST5541

High performance – Steel – Square – 4 Flutes – Cylindrical – Sharp – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000" / -.002"
- Regrind possible if DC is  $\geq \varnothing 0.250$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
ST5541-.125D3S.0Z4	SIRA	10302770	3	D	0.125	0.125	0.375	1.500	–	–	4	Cylindrical	■
ST5541-.156F3S.0Z4	SIRA	10302771	3	F	0.156	0.188	0.469	2.000	0.469	0.161	4	Cylindrical	■
ST5541-.188D3S.0Z4	SIRA	10302772	3	D	0.188	0.188	0.563	2.000	–	–	4	Cylindrical	■
ST5541-.219F3S.0Z4	SIRA	10302773	3	F	0.219	0.250	0.656	2.500	0.866	0.224	4	Cylindrical	■
ST5541-.250D3S.0Z4	SIRA	10302774	3	D	0.250	0.250	0.750	2.500	–	–	4	Cylindrical	■
ST5541-.281F3S.0Z4	SIRA	10302775	3	F	0.281	0.313	0.844	2.500	0.844	0.286	4	Cylindrical	■
ST5541-.313D3S.0Z4	SIRA	10302776	3	D	0.313	0.313	0.938	2.500	–	–	4	Cylindrical	■
ST5541-.375D3S.0Z4	SIRA	10302777	3	D	0.375	0.375	1.125	3.000	–	–	4	Cylindrical	■
ST5541-.438D3S.0Z4	SIRA	10302778	3	D	0.438	0.438	1.313	4.000	–	–	4	Cylindrical	■
ST5541-.500D3S.0Z4	SIRA	10302779	3	D	0.500	0.500	1.250	3.000	–	–	4	Cylindrical	■
ST5541-.625D3S.0Z4	SIRA	10302780	3	D	0.625	0.625	1.875	4.000	–	–	4	Cylindrical	■
ST5541-.750D3S.0Z4	SIRA	10302781	3	D	0.750	0.750	2.250	5.000	–	–	4	Cylindrical	■
ST5541-.875D3S.0Z4	SIRA	10302782	3	D	0.875	0.875	2.625	5.000	–	–	4	Cylindrical	■
ST5541-1.00D3S.0Z4	SIRA	10302783	3	D	1.000	1.000	3.000	6.000	–	–	4	Cylindrical	■
ST5541-.500D4S.0Z4	SIRA	10302784	4	D	0.500	0.500	1.500	4.000	–	–	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

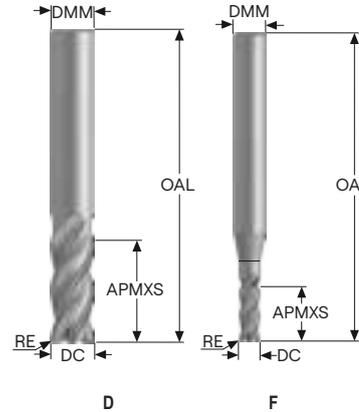
Graphite

X-Heads

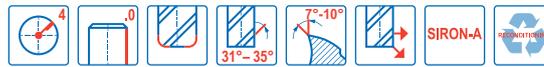
Minimaster

## ST5541

High performance – Steel – Square – 4 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:
- DMM=  $-.0001"/-.0004"$
- DC=  $+.000"/-.002"$
- RE=  $\pm 0.008"$
- Regrind possible if DC is  $\geq \varnothing.250$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5541-125D1R010.0Z4	SIRA	10302785	1	D	0.125	0.125	0.125	1.500	–	–	0.010	4	Cylindrical	■
ST5541-156F1R010.0Z4	SIRA	10302786	1	F	0.156	0.188	0.156	2.000	0.301	0.161	0.010	4	Cylindrical	■
ST5541-188D1R010.0Z4	SIRA	10302787	1	D	0.188	0.188	0.188	2.000	–	–	0.010	4	Cylindrical	■
ST5541-219F1R020.0Z4	SIRA	10302788	1	F	0.219	0.250	0.219	2.000	0.414	0.224	0.020	4	Cylindrical	■
ST5541-250D1R020.0Z4	SIRA	10302789	1	D	0.250	0.250	0.250	2.000	–	–	0.020	4	Cylindrical	■
ST5541-281F1R020.0Z4	SIRA	10302790	1	F	0.281	0.313	0.281	2.000	0.281	0.286	0.020	4	Cylindrical	■
ST5541-313D1R020.0Z4	SIRA	10302791	1	D	0.313	0.313	0.313	2.000	–	–	0.020	4	Cylindrical	■
ST5541-375D1R020.0Z4	SIRA	10302792	1	D	0.375	0.375	0.375	2.000	–	–	0.020	4	Cylindrical	■
ST5541-438D1R020.0Z4	SIRA	10302793	1	D	0.438	0.438	0.438	2.750	–	–	0.020	4	Cylindrical	■
ST5541-500D1R030.0Z4	SIRA	10302794	1	D	0.500	0.500	0.500	2.500	–	–	0.030	4	Cylindrical	■
ST5541-625D1R030.0Z4	SIRA	10302795	1	D	0.625	0.625	0.625	3.000	–	–	0.030	4	Cylindrical	■
ST5541-750D1R030.0Z4	SIRA	10302796	1	D	0.750	0.750	0.750	3.000	–	–	0.030	4	Cylindrical	■
ST5541-875D1R030.0Z4	SIRA	10302797	1	D	0.875	0.875	0.875	4.000	–	–	0.030	4	Cylindrical	■
ST5541-1.00D1R030.0Z4	SIRA	10302798	1	D	1.000	1.000	1.000	4.000	–	–	0.030	4	Cylindrical	■
ST5541-125D2R010.0Z4	SIRA	10302799	2	D	0.125	0.125	0.250	1.500	–	–	0.010	4	Cylindrical	■
ST5541-156F2R010.0Z4	SIRA	10302800	2	F	0.156	0.188	0.313	2.000	0.458	0.161	0.010	4	Cylindrical	■
ST5541-188D2R010.0Z4	SIRA	10302801	2	D	0.188	0.188	0.375	2.000	–	–	0.010	4	Cylindrical	■
ST5541-219F2R020.0Z4	SIRA	10302802	2	F	0.219	0.250	0.438	2.500	0.633	0.224	0.020	4	Cylindrical	■
ST5541-250D2R020.0Z4	SIRA	10302803	2	D	0.250	0.250	0.500	2.500	–	–	0.020	4	Cylindrical	■
ST5541-281F2R020.0Z4	SIRA	10302805	2	F	0.281	0.313	0.563	2.500	0.563	0.286	0.020	4	Cylindrical	■
ST5541-313D2R020.0Z4	SIRA	10302806	2	D	0.313	0.313	0.625	2.500	–	–	0.020	4	Cylindrical	■
ST5541-375D2R020.0Z4	SIRA	10302808	2	D	0.375	0.375	0.750	2.500	–	–	0.020	4	Cylindrical	■
ST5541-438D2R020.0Z4	SIRA	10302810	2	D	0.438	0.438	0.875	2.750	–	–	0.020	4	Cylindrical	■
ST5541-500D2R030.0Z4	SIRA	10302812	2	D	0.500	0.500	1.000	3.000	–	–	0.030	4	Cylindrical	■
ST5541-500D2R060.0Z4	SIRA	10302813	2	D	0.500	0.500	1.000	3.000	–	–	0.060	4	Cylindrical	■
ST5541-500D2R120.0Z4	SIRA	10302814	2	D	0.500	0.500	1.000	3.000	–	–	0.120	4	Cylindrical	■
ST5541-625D2R030.0Z4	SIRA	10302816	2	D	0.625	0.625	1.250	3.500	–	–	0.030	4	Cylindrical	■
ST5541-625D2R060.0Z4	SIRA	10302817	2	D	0.625	0.625	1.250	3.500	–	–	0.060	4	Cylindrical	■
ST5541-625D2R090.0Z4	SIRA	10302818	2	D	0.625	0.625	1.250	3.500	–	–	0.090	4	Cylindrical	■
ST5541-625D2R120.0Z4	SIRA	10302819	2	D	0.625	0.625	1.250	3.500	–	–	0.120	4	Cylindrical	■
ST5541-750D2R030.0Z4	SIRA	10302821	2	D	0.750	0.750	1.500	4.000	–	–	0.030	4	Cylindrical	■
ST5541-750D2R060.0Z4	SIRA	10302822	2	D	0.750	0.750	1.500	4.000	–	–	0.060	4	Cylindrical	■
ST5541-750D2R090.0Z4	SIRA	10302823	2	D	0.750	0.750	1.500	4.000	–	–	0.090	4	Cylindrical	■
ST5541-750D2R120.0Z4	SIRA	10302824	2	D	0.750	0.750	1.500	4.000	–	–	0.120	4	Cylindrical	■
ST5541-750D2R250.0Z4	SIRA	10302825	2	D	0.750	0.750	1.500	4.000	–	–	0.250	4	Cylindrical	■
ST5541-875D2R030.0Z4	SIRA	10302827	2	D	0.875	0.875	1.750	4.000	–	–	0.030	4	Cylindrical	■
ST5541-1.00D2R030.0Z4	SIRA	10302828	2	D	1.000	1.000	2.000	5.000	–	–	0.030	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

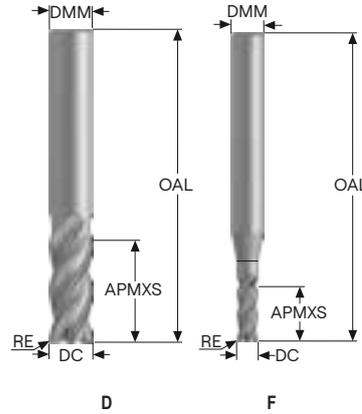
Graphite

X-Heads

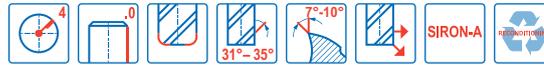
Minimaster

ST5541

High performance – Steel – Square – 4 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000"/-.002"
- RE= ±.0008"
- Regrind possible if DC is ≥Ø.250

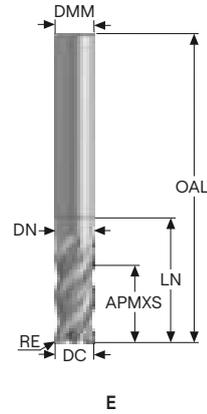


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5541-.125D3R010.0Z4	SIRA	10302830	3	D	0.125	0.125	0.375	1.500	–	–	0.010	4	Cylindrical	■
ST5541-.156F3R010.0Z4	SIRA	10302831	3	F	0.156	0.188	0.469	2.000	0.614	0.161	0.010	4	Cylindrical	■
ST5541-.188D3R010.0Z4	SIRA	10302832	3	D	0.188	0.188	0.563	2.000	–	–	0.010	4	Cylindrical	■
ST5541-.219F3R020.0Z4	SIRA	10302833	3	F	0.219	0.250	0.656	2.500	0.851	0.224	0.020	4	Cylindrical	■
ST5541-.250D3R020.0Z4	SIRA	10302834	3	D	0.250	0.250	0.750	2.500	–	–	0.020	4	Cylindrical	■
ST5541-.281F3R020.0Z4	SIRA	10302835	3	F	0.281	0.313	0.844	2.500	0.844	0.286	0.020	4	Cylindrical	■
ST5541-.313D3R020.0Z4	SIRA	10302836	3	D	0.313	0.313	0.938	2.500	–	–	0.020	4	Cylindrical	■
ST5541-.375D3R020.0Z4	SIRA	10302837	3	D	0.375	0.375	1.125	3.000	–	–	0.020	4	Cylindrical	■
ST5541-.438D3R020.0Z4	SIRA	10302838	3	D	0.438	0.438	1.313	4.000	–	–	0.020	4	Cylindrical	■
ST5541-.500D3R030.0Z4	SIRA	10302839	3	D	0.500	0.500	1.250	3.000	–	–	0.030	4	Cylindrical	■
ST5541-.500D3R060.0Z4	SIRA	10302840	3	D	0.500	0.500	1.250	3.000	–	–	0.060	4	Cylindrical	■
ST5541-.500D3R120.0Z4	SIRA	10302841	3	D	0.500	0.500	1.250	3.000	–	–	0.120	4	Cylindrical	■
ST5541-.625D3R030.0Z4	SIRA	10302842	3	D	0.625	0.625	1.875	4.000	–	–	0.030	4	Cylindrical	■
ST5541-.625D3R060.0Z4	SIRA	10302843	3	D	0.625	0.625	1.875	4.000	–	–	0.060	4	Cylindrical	■
ST5541-.625D3R090.0Z4	SIRA	10302844	3	D	0.625	0.625	1.875	4.000	–	–	0.090	4	Cylindrical	■
ST5541-.625D3R120.0Z4	SIRA	10302845	3	D	0.625	0.625	1.875	4.000	–	–	0.120	4	Cylindrical	■
ST5541-.750D3R030.0Z4	SIRA	10302846	3	D	0.750	0.750	2.250	5.000	–	–	0.030	4	Cylindrical	■
ST5541-.750D3R060.0Z4	SIRA	10302847	3	D	0.750	0.750	2.250	5.000	–	–	0.060	4	Cylindrical	■
ST5541-.750D3R090.0Z4	SIRA	10302848	3	D	0.750	0.750	2.250	5.000	–	–	0.090	4	Cylindrical	■
ST5541-.750D3R120.0Z4	SIRA	10302849	3	D	0.750	0.750	2.250	5.000	–	–	0.120	4	Cylindrical	■
ST5541-.750D3R250.0Z4	SIRA	10302850	3	D	0.750	0.750	2.250	5.000	–	–	0.250	4	Cylindrical	■
ST5541-.875D3R030.0Z4	SIRA	10302851	3	D	0.875	0.875	2.625	5.000	–	–	0.030	4	Cylindrical	■
ST5541-1.00D3R030.0Z4	SIRA	10302852	3	D	1.000	1.000	3.000	6.000	–	–	0.030	4	Cylindrical	■
ST5541-.500D4R030.0Z4	SIRA	10302853	4	D	0.500	0.500	1.500	4.000	–	–	0.030	4	Cylindrical	■

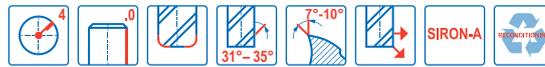
■ Stocked standard.

ST5541

High performance – Steel – Square – 4 Flutes – Cylindrical – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000"/-.002"
- RE= ±.0008"
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5541-.250E2R020.0Z4	SIRA	10302804	2	E	0.250	0.250	0.500	2.500	0.750	0.240	0.020	4	Cylindrical	■
ST5541-.313E2R020.0Z4	SIRA	10302807	2	E	0.313	0.313	0.625	3.000	0.938	0.300	0.020	4	Cylindrical	■
ST5541-.375E2R020.0Z4	SIRA	10302809	2	E	0.375	0.375	0.750	3.000	1.125	0.360	0.020	4	Cylindrical	■
ST5541-.438E2R020.0Z4	SIRA	10302811	2	E	0.438	0.438	0.875	4.000	1.313	0.420	0.020	4	Cylindrical	■
ST5541-.500E2R030.0Z4	SIRA	10302815	2	E	0.500	0.500	1.000	3.000	1.500	0.480	0.030	4	Cylindrical	■
ST5541-.625E2R030.0Z4	SIRA	10302820	2	E	0.625	0.625	1.250	3.500	1.875	0.600	0.030	4	Cylindrical	■
ST5541-.750E2R030.0Z4	SIRA	10302826	2	E	0.750	0.750	1.500	4.000	2.250	0.720	0.030	4	Cylindrical	■
ST5541-1.00E2R030.0Z4	SIRA	10302829	2	E	1.000	1.000	2.000	5.000	3.000	0.960	0.030	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

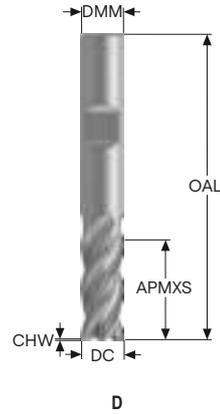
Graphite

X-Heads

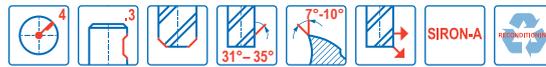
Minimaster

ST5541

High performance – Steel – Square – 4 Flutes – Weldon – Chamfer



- Tolerances:
- DMM=h5
- DC=e7
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
ST5541-060D2C.3Z4	SIRA	10302996	2	D	6,0	6,0	14,0	58,0	0,075	4	Weldon	<input type="checkbox"/>
ST5541-080D2C.3Z4	SIRA	10302997	2	D	8,0	8,0	18,0	64,0	0,1	4	Weldon	<input type="checkbox"/>
ST5541-100D2C.3Z4	SIRA	10302998	2	D	10,0	10,0	22,0	73,0	0,125	4	Weldon	<input type="checkbox"/>
ST5541-120D2C.3Z4	SIRA	10302999	2	D	12,0	12,0	26,0	84,0	0,15	4	Weldon	<input type="checkbox"/>
ST5541-160D2C.3Z4	SIRA	10303000	2	D	16,0	16,0	34,0	95,0	0,2	4	Weldon	<input type="checkbox"/>
ST5541-200D2C.3Z4	SIRA	10303001	2	D	20,0	20,0	42,0	109,0	0,25	4	Weldon	<input type="checkbox"/>
ST5541-250D2C.3Z4	SIRA	10303002	2	D	25,0	25,0	52,0	125,0	0,3	4	Weldon	<input type="checkbox"/>
ST5541-060D3C.3Z4	SIRA	10303003	3	D	6,0	6,0	18,0	64,0	0,075	4	Weldon	<input type="checkbox"/>
ST5541-080D3C.3Z4	SIRA	10303004	3	D	8,0	8,0	24,0	73,0	0,1	4	Weldon	<input type="checkbox"/>
ST5541-100D3C.3Z4	SIRA	10303005	3	D	10,0	10,0	30,0	85,0	0,125	4	Weldon	<input type="checkbox"/>
ST5541-120D3C.3Z4	SIRA	10303006	3	D	12,0	12,0	36,0	100,0	0,15	4	Weldon	<input type="checkbox"/>
ST5541-160D3C.3Z4	SIRA	10303007	3	D	16,0	16,0	48,0	115,0	0,2	4	Weldon	<input type="checkbox"/>
ST5541-200D3C.3Z4	SIRA	10303008	3	D	20,0	20,0	60,0	125,0	0,25	4	Weldon	<input type="checkbox"/>
ST5541-250D3C.3Z4	SIRA	10303009	3	D	25,0	25,0	75,0	155,0	0,3	4	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

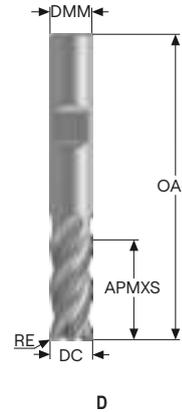
Graphite

X-Heads

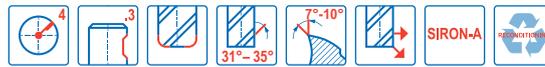
Minimaster

**ST5541**

High performance – Steel – Square – 4 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
ST5541-060D2R050.3Z4	SIRA	10303010	2	D	6,0	6,0	14,0	58,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-080D2R050.3Z4	SIRA	10303011	2	D	8,0	8,0	18,0	64,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-100D2R050.3Z4	SIRA	10303012	2	D	10,0	10,0	22,0	73,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-120D2R050.3Z4	SIRA	10303013	2	D	12,0	12,0	26,0	84,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-120D2R100.3Z4	SIRA	10303014	2	D	12,0	12,0	26,0	84,0	1,0	4	Weldon	<input type="checkbox"/>
ST5541-160D2R050.3Z4	SIRA	10303015	2	D	16,0	16,0	34,0	95,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-160D2R100.3Z4	SIRA	10303017	2	D	16,0	16,0	34,0	95,0	1,0	4	Weldon	<input type="checkbox"/>
ST5541-160D2R300.3Z4	SIRA	10303016	2	D	16,0	16,0	34,0	95,0	3,0	4	Weldon	<input type="checkbox"/>
ST5541-200D2R050.3Z4	SIRA	10303018	2	D	20,0	20,0	42,0	109,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-200D2R100.3Z4	SIRA	10303020	2	D	20,0	20,0	42,0	109,0	1,0	4	Weldon	<input type="checkbox"/>
ST5541-200D2R300.3Z4	SIRA	10303019	2	D	20,0	20,0	42,0	109,0	3,0	4	Weldon	<input type="checkbox"/>
ST5541-250D2R050.3Z4	SIRA	10303021	2	D	25,0	25,0	52,0	125,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-250D2R100.3Z4	SIRA	10303023	2	D	25,0	25,0	52,0	125,0	1,0	4	Weldon	<input type="checkbox"/>
ST5541-250D2R300.3Z4	SIRA	10303022	2	D	25,0	25,0	52,0	125,0	3,0	4	Weldon	<input type="checkbox"/>
ST5541-060D3R050.3Z4	SIRA	10303024	3	D	6,0	6,0	18,0	64,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-080D3R050.3Z4	SIRA	10303025	3	D	8,0	8,0	24,0	73,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-100D3R050.3Z4	SIRA	10303026	3	D	10,0	10,0	30,0	85,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-120D3R050.3Z4	SIRA	10303027	3	D	12,0	12,0	36,0	100,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-120D3R100.3Z4	SIRA	10303028	3	D	12,0	12,0	36,0	100,0	1,0	4	Weldon	<input type="checkbox"/>
ST5541-160D3R050.3Z4	SIRA	10303029	3	D	16,0	16,0	48,0	115,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-160D3R100.3Z4	SIRA	10303031	3	D	16,0	16,0	48,0	115,0	1,0	4	Weldon	<input type="checkbox"/>
ST5541-160D3R300.3Z4	SIRA	10303030	3	D	16,0	16,0	48,0	115,0	3,0	4	Weldon	<input type="checkbox"/>
ST5541-200D3R050.3Z4	SIRA	10303032	3	D	20,0	20,0	60,0	125,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-200D3R100.3Z4	SIRA	10303034	3	D	20,0	20,0	60,0	125,0	1,0	4	Weldon	<input type="checkbox"/>
ST5541-200D3R300.3Z4	SIRA	10303033	3	D	20,0	20,0	60,0	125,0	3,0	4	Weldon	<input type="checkbox"/>
ST5541-250D3R050.3Z4	SIRA	10303035	3	D	25,0	25,0	75,0	155,0	0,5	4	Weldon	<input type="checkbox"/>
ST5541-250D3R100.3Z4	SIRA	10303037	3	D	25,0	25,0	75,0	155,0	1,0	4	Weldon	<input type="checkbox"/>
ST5541-250D3R300.3Z4	SIRA	10303036	3	D	25,0	25,0	75,0	155,0	3,0	4	Weldon	<input type="checkbox"/>

 Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

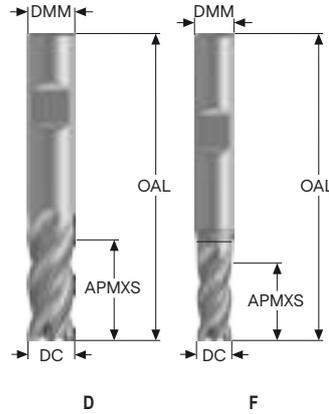
Graphite

X-Heads

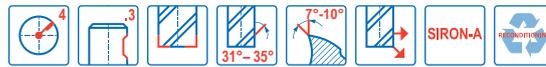
Minimaster

ST5541

High performance – Steel – Square – 4 Flutes – Weldon – Sharp – Inch



—Tolerances:  
 —DMM= -.0001"/-.0004"  
 —DC= +.000"/-.002"  
 —Regrind possible

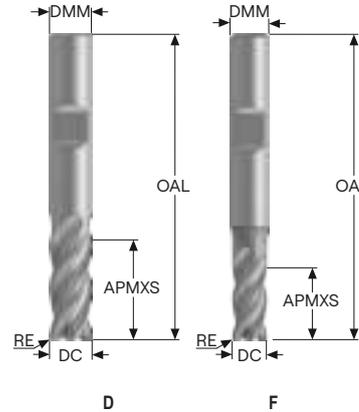


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch	inch			
ST5541-250D1S.3Z4	SIRA	10302854	1	D	0.250	0.250	0.250	2.000	-	-	4	Weldon	<input type="checkbox"/>
ST5541-281F1S.3Z4	SIRA	10302855	1	F	0.281	0.313	0.281	2.000	0.531	0.286	4	Weldon	<input type="checkbox"/>
ST5541-313D1S.3Z4	SIRA	10302856	1	D	0.313	0.313	0.313	2.000	-	-	4	Weldon	<input type="checkbox"/>
ST5541-375D1S.3Z4	SIRA	10302857	1	D	0.375	0.375	0.375	2.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-438D1S.3Z4	SIRA	10302858	1	D	0.438	0.438	0.438	2.750	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-500D1S.3Z4	SIRA	10302859	1	D	0.500	0.500	0.500	2.500	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-625D1S.3Z4	SIRA	10302860	1	D	0.625	0.625	0.625	3.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-750D1S.3Z4	SIRA	10302861	1	D	0.750	0.750	0.750	3.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-875D1S.3Z4	SIRA	10302862	1	D	0.875	0.875	0.875	4.000	-	-	4	Weldon	<input type="checkbox"/>
ST5541-1.00D1S.3Z4	SIRA	10302863	1	D	1.000	1.000	1.000	4.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-250D2S.3Z4	SIRA	10302864	2	D	0.250	0.250	0.500	2.500	-	-	4	Weldon	<input type="checkbox"/>
ST5541-281F2S.3Z4	SIRA	10302865	2	F	0.281	0.313	0.563	2.500	0.813	0.286	4	Weldon	<input type="checkbox"/>
ST5541-313D2S.3Z4	SIRA	10302866	2	D	0.313	0.313	0.625	2.500	-	-	4	Weldon	<input type="checkbox"/>
ST5541-375D2S.3Z4	SIRA	10302867	2	D	0.375	0.375	0.750	2.500	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-438D2S.3Z4	SIRA	10302868	2	D	0.438	0.438	0.875	2.750	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-500D2S.3Z4	SIRA	10302869	2	D	0.500	0.500	1.000	3.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-625D2S.3Z4	SIRA	10302870	2	D	0.625	0.625	1.250	3.500	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-750D2S.3Z4	SIRA	10302871	2	D	0.750	0.750	1.500	4.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-875D2S.3Z4	SIRA	10302872	2	D	0.875	0.875	1.750	4.000	-	-	4	Weldon	<input type="checkbox"/>
ST5541-1.00D2S.3Z4	SIRA	10302873	2	D	1.000	1.000	2.000	5.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-250D3S.3Z4	SIRA	10302874	3	D	0.250	0.250	0.750	2.500	-	-	4	Weldon	<input type="checkbox"/>
ST5541-281F3S.3Z4	SIRA	10302875	3	F	0.281	0.313	0.844	2.500	1.094	0.286	4	Weldon	<input type="checkbox"/>
ST5541-313D3S.3Z4	SIRA	10302876	3	D	0.313	0.313	0.938	2.500	-	-	4	Weldon	<input type="checkbox"/>
ST5541-375D3S.3Z4	SIRA	10302877	3	D	0.375	0.375	1.125	3.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-438D3S.3Z4	SIRA	10302878	3	D	0.438	0.438	1.313	4.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-500D3S.3Z4	SIRA	10302879	3	D	0.500	0.500	1.250	3.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-625D3S.3Z4	SIRA	10302880	3	D	0.625	0.625	1.875	4.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-750D3S.3Z4	SIRA	10302881	3	D	0.750	0.750	2.250	5.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-875D3S.3Z4	SIRA	10302882	3	D	0.875	0.875	2.625	5.000	-	-	4	Weldon	<input type="checkbox"/>
ST5541-1.00D3S.3Z4	SIRA	10302883	3	D	1.000	1.000	3.000	6.000	-	-	4	Weldon	<input checked="" type="checkbox"/>
ST5541-500D4S.3Z4	SIRA	10302884	4	D	0.500	0.500	1.500	4.000	-	-	4	Weldon	<input checked="" type="checkbox"/>

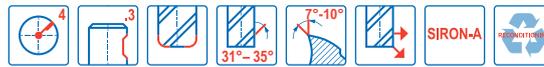
■ Stocked standard. □ Weldon available. Delivery time is 3 days.

**ST5541**

High performance – Steel – Square – 4 Flutes – Weldon – Corner radius – Inch



- Tolerances:
- DMM=  $-.0001"/-.0004"$
- DC=  $+.000"/-.002"$
- RE=  $\pm 0.008"$
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5541-250D1R020.3Z4	SIRA	10302885	1	D	0.250	0.250	0.250	2.000	–	–	0.020	4	Weldon	<input type="checkbox"/>
ST5541-281F1R020.3Z4	SIRA	10302886	1	F	0.281	0.313	0.281	2.000	0.531	0.286	0.020	4	Weldon	<input type="checkbox"/>
ST5541-313D1R020.3Z4	SIRA	10302887	1	D	0.313	0.313	0.313	2.000	–	–	0.020	4	Weldon	<input type="checkbox"/>
ST5541-375D1R020.3Z4	SIRA	10302888	1	D	0.375	0.375	0.375	2.000	–	–	0.020	4	Weldon	<input checked="" type="checkbox"/>
ST5541-438D1R020.3Z4	SIRA	10302889	1	D	0.438	0.438	0.438	2.750	–	–	0.020	4	Weldon	<input type="checkbox"/>
ST5541-500D1R030.3Z4	SIRA	10302890	1	D	0.500	0.500	0.500	2.500	–	–	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-625D1R030.3Z4	SIRA	10302891	1	D	0.625	0.625	0.625	3.000	–	–	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-750D1R030.3Z4	SIRA	10302892	1	D	0.750	0.750	0.750	3.000	–	–	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-875D1R030.3Z4	SIRA	10302893	1	D	0.875	0.875	0.875	4.000	–	–	0.030	4	Weldon	<input type="checkbox"/>
ST5541-1.00D1R030.3Z4	SIRA	10302894	1	D	1.000	1.000	1.000	4.000	–	–	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-250D2R020.3Z4	SIRA	10302895	2	D	0.250	0.250	0.500	2.500	–	–	0.020	4	Weldon	<input type="checkbox"/>
ST5541-281F2R020.3Z4	SIRA	10302897	2	F	0.281	0.313	0.563	2.500	0.813	0.286	0.020	4	Weldon	<input type="checkbox"/>
ST5541-313D2R020.3Z4	SIRA	10302898	2	D	0.313	0.313	0.625	2.500	–	–	0.020	4	Weldon	<input type="checkbox"/>
ST5541-375D2R020.3Z4	SIRA	10302900	2	D	0.375	0.375	0.750	2.500	–	–	0.020	4	Weldon	<input checked="" type="checkbox"/>
ST5541-438D2R020.3Z4	SIRA	10302902	2	D	0.438	0.438	0.875	2.750	–	–	0.020	4	Weldon	<input type="checkbox"/>
ST5541-500D2R030.3Z4	SIRA	10302904	2	D	0.500	0.500	1.000	3.000	–	–	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-500D2R060.3Z4	SIRA	10302905	2	D	0.500	0.500	1.000	3.000	–	–	0.060	4	Weldon	<input type="checkbox"/>
ST5541-500D2R120.3Z4	SIRA	10302907	2	D	0.500	0.500	1.000	3.000	–	–	0.120	4	Weldon	<input type="checkbox"/>
ST5541-625D2R030.3Z4	SIRA	10302908	2	D	0.625	0.625	1.250	3.500	–	–	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-625D2R060.3Z4	SIRA	10302909	2	D	0.625	0.625	1.250	3.500	–	–	0.060	4	Weldon	<input type="checkbox"/>
ST5541-625D2R090.3Z4	SIRA	10302910	2	D	0.625	0.625	1.250	3.500	–	–	0.090	4	Weldon	<input type="checkbox"/>
ST5541-625D2R120.3Z4	SIRA	10302911	2	D	0.625	0.625	1.250	3.500	–	–	0.120	4	Weldon	<input type="checkbox"/>
ST5541-750D2R030.3Z4	SIRA	10302913	2	D	0.750	0.750	1.500	4.000	–	–	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-750D2R060.3Z4	SIRA	10302914	2	D	0.750	0.750	1.500	4.000	–	–	0.060	4	Weldon	<input type="checkbox"/>
ST5541-750D2R090.3Z4	SIRA	10302915	2	D	0.750	0.750	1.500	4.000	–	–	0.090	4	Weldon	<input type="checkbox"/>
ST5541-750D2R120.3Z4	SIRA	10302916	2	D	0.750	0.750	1.500	4.000	–	–	0.120	4	Weldon	<input type="checkbox"/>
ST5541-750D2R250.3Z4	SIRA	10302917	2	D	0.750	0.750	1.500	4.000	–	–	0.250	4	Weldon	<input type="checkbox"/>
ST5541-875D2R030.3Z4	SIRA	10302919	2	D	0.875	0.875	1.750	4.000	–	–	0.030	4	Weldon	<input type="checkbox"/>
ST5541-1.00D2R030.3Z4	SIRA	10302920	2	D	1.000	1.000	2.000	5.000	–	–	0.030	4	Weldon	<input checked="" type="checkbox"/>

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

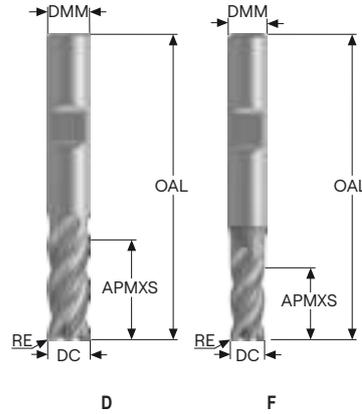
Graphite

X-Heads

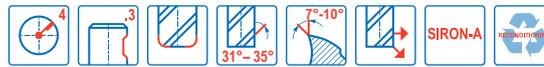
Minimaster

ST5541

High performance – Steel – Square – 4 Flutes – Weldon – Corner radius – Inch



—Tolerances:  
 —DMM= -.0001"/-.0004"  
 —DC= +.000"/-.002"  
 —RE= ±.0008"  
 —Regrind possible

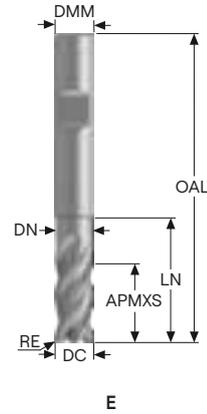


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5541-.250D3R020.3Z4	SIRA	10302922	3	D	0.250	0.250	0.750	2.500	—	—	0.020	4	Weldon	<input type="checkbox"/>
ST5541-.281F3R020.3Z4	SIRA	10302923	3	F	0.281	0.313	0.844	2.500	1.094	0.286	0.020	4	Weldon	<input type="checkbox"/>
ST5541-.313D3R020.3Z4	SIRA	10302924	3	D	0.313	0.313	0.938	2.500	—	—	0.020	4	Weldon	<input type="checkbox"/>
ST5541-.375D3R020.3Z4	SIRA	10302925	3	D	0.375	0.375	1.125	3.000	—	—	0.020	4	Weldon	<input checked="" type="checkbox"/>
ST5541-.438D3R020.3Z4	SIRA	10302926	3	D	0.438	0.438	1.313	4.000	—	—	0.020	4	Weldon	<input type="checkbox"/>
ST5541-.500D3R030.3Z4	SIRA	10302927	3	D	0.500	0.500	1.250	3.000	—	—	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-.500D3R060.3Z4	SIRA	10302928	3	D	0.500	0.500	1.250	3.000	—	—	0.060	4	Weldon	<input type="checkbox"/>
ST5541-.500D3R120.3Z4	SIRA	10302929	3	D	0.500	0.500	1.250	3.000	—	—	0.120	4	Weldon	<input type="checkbox"/>
ST5541-.625D3R030.3Z4	SIRA	10302930	3	D	0.625	0.625	1.875	4.000	—	—	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-.625D3R060.3Z4	SIRA	10302931	3	D	0.625	0.625	1.875	4.000	—	—	0.060	4	Weldon	<input type="checkbox"/>
ST5541-.625D3R090.3Z4	SIRA	10302932	3	D	0.625	0.625	1.875	4.000	—	—	0.090	4	Weldon	<input type="checkbox"/>
ST5541-.625D3R120.3Z4	SIRA	10302933	3	D	0.625	0.625	1.875	4.000	—	—	0.120	4	Weldon	<input type="checkbox"/>
ST5541-.750D3R030.3Z4	SIRA	10302934	3	D	0.750	0.750	2.250	5.000	—	—	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-.750D3R060.3Z4	SIRA	10302935	3	D	0.750	0.750	2.250	5.000	—	—	0.060	4	Weldon	<input type="checkbox"/>
ST5541-.750D3R090.3Z4	SIRA	10302936	3	D	0.750	0.750	2.250	5.000	—	—	0.090	4	Weldon	<input type="checkbox"/>
ST5541-.750D3R120.3Z4	SIRA	10302937	3	D	0.750	0.750	2.250	5.000	—	—	0.120	4	Weldon	<input type="checkbox"/>
ST5541-.750D3R250.3Z4	SIRA	10302938	3	D	0.750	0.750	2.250	5.000	—	—	0.250	4	Weldon	<input type="checkbox"/>
ST5541-.875D3R030.3Z4	SIRA	10302939	3	D	0.875	0.875	2.625	5.000	—	—	0.030	4	Weldon	<input type="checkbox"/>
ST5541-1.00D3R030.3Z4	SIRA	10302940	3	D	1.000	1.000	3.000	6.000	—	—	0.030	4	Weldon	<input checked="" type="checkbox"/>
ST5541-.500D4R030.3Z4	SIRA	10302941	4	D	0.500	0.500	1.500	4.000	—	—	0.030	4	Weldon	<input checked="" type="checkbox"/>

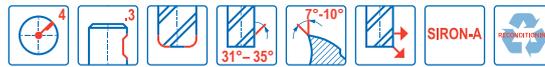
■ Stocked standard. □ Weldon available. Delivery time is 3 days.

ST5541

High performance – Steel – Square – 4 Flutes – Weldon – Corner radius – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000" / -.002"
- RE= ±.0008"
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5541-.250E2R020.3Z4	SIRA	10302896	2	E	0.250	0.250	0.500	2.500	0.750	0.240	0.020	4	Weldon	<input type="checkbox"/>
ST5541-.313E2R020.3Z4	SIRA	10302899	2	E	0.313	0.313	0.625	3.000	0.938	0.300	0.020	4	Weldon	<input type="checkbox"/>
ST5541-.375E2R020.3Z4	SIRA	10302901	2	E	0.375	0.375	0.750	3.000	1.125	0.360	0.020	4	Weldon	<input type="checkbox"/>
ST5541-.438E2R020.3Z4	SIRA	10302903	2	E	0.438	0.438	0.875	4.000	1.313	0.420	0.020	4	Weldon	<input type="checkbox"/>
ST5541-.500E2R030.3Z4	SIRA	10302906	2	E	0.500	0.500	1.000	3.000	1.500	0.480	0.030	4	Weldon	<input type="checkbox"/>
ST5541-.625E2R030.3Z4	SIRA	10302912	2	E	0.625	0.625	1.250	3.500	1.875	0.600	0.030	4	Weldon	<input type="checkbox"/>
ST5541-.750E2R030.3Z4	SIRA	10302918	2	E	0.750	0.750	1.500	4.000	2.250	0.720	0.030	4	Weldon	<input type="checkbox"/>
ST5541-1.00E2R030.3Z4	SIRA	10302921	2	E	1.000	1.000	2.000	5.000	3.000	0.960	0.030	4	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

## Cutting data – ST5541 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				3	4	5	6	8	10	12	16	20	25	
P1	M/A/D/E	0,25	1,5	0,046	0,06	0,08	0,095	0,12	0,16	0,18	0,22	0,26	0,3	220 (170 – 230)
		0,25	1,5	0,0018	0,0024	0,0032	0,0038	0,0048	0,0065	0,0070	0,0085	0,010	0,012	720 (560 – 750)
P2	M/A/D/E	0,25	1,5	0,048	0,065	0,08	0,095	0,13	0,16	0,19	0,24	0,26	0,3	215 (160 – 220)
		0,25	1,5	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0075	0,0095	0,010	0,012	710 (530 – 720)
P3	M/A/D/E	0,25	1,5	0,044	0,06	0,075	0,09	0,12	0,15	0,18	0,22	0,25	0,28	190 (140 – 200)
		0,25	1,5	0,0017	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0085	0,010	0,011	620 (460 – 650)
P4	M/A/D/E	0,25	1,5	0,044	0,06	0,075	0,09	0,12	0,15	0,17	0,22	0,25	0,28	165 (130 – 170)
		0,25	1,5	0,0017	0,0024	0,0030	0,0036	0,0048	0,0060	0,0065	0,0085	0,010	0,011	540 (430 – 550)
P5	M/A/D/E	0,25	1,5	0,044	0,055	0,07	0,085	0,11	0,14	0,17	0,22	0,24	0,28	160 (120 – 170)
		0,25	1,5	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	0,0085	0,0095	0,011	520 (400 – 550)
P6	M/A/D/E	0,25	1,5	0,042	0,055	0,07	0,085	0,11	0,14	0,17	0,2	0,24	0,28	180 (140 – 190)
		0,25	1,5	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	0,0080	0,0095	0,011	590 (460 – 620)
P7	M/A/D/E	0,25	1,5	0,042	0,055	0,07	0,085	0,11	0,14	0,17	0,2	0,24	0,28	170 (130 – 180)
		0,25	1,5	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	0,0080	0,0095	0,011	560 (430 – 590)
P8	M/A/D/E	0,25	1,5	0,044	0,06	0,075	0,09	0,12	0,15	0,18	0,22	0,25	0,28	160 (120 – 160)
		0,25	1,5	0,0017	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0085	0,010	0,011	520 (400 – 520)
P11	M/A/D/E	0,25	1,5	0,042	0,055	0,07	0,085	0,11	0,14	0,17	0,2	0,24	0,28	165 (130 – 170)
		0,25	1,5	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	0,0080	0,0095	0,011	540 (430 – 550)
P12	M/A/D/E	0,25	1,5	0,03	0,038	0,048	0,06	0,08	0,095	0,12	0,14	0,16	0,19	110 (80 – 110)
		0,25	1,5	0,0012	0,0015	0,0019	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	360 (270 – 360)
K1	E	0,25	1,5	0,048	0,065	0,08	0,095	0,13	0,16	0,19	0,24	0,26	0,3	215 (170 – 230)
		0,25	1,5	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	0,0075	0,0095	0,010	0,012	710 (560 – 750)
K2	E	0,25	1,5	0,044	0,055	0,07	0,085	0,11	0,14	0,17	0,22	0,24	0,28	195 (150 – 200)
		0,25	1,5	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	0,0085	0,0095	0,011	640 (500 – 650)
K3	E	0,25	1,5	0,044	0,055	0,07	0,085	0,11	0,14	0,17	0,22	0,24	0,28	165 (130 – 170)
		0,25	1,5	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	0,0085	0,0095	0,011	540 (430 – 550)
K4	E	0,25	1,5	0,044	0,055	0,07	0,085	0,11	0,14	0,17	0,22	0,24	0,28	160 (120 – 160)
		0,25	1,5	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	0,0085	0,0095	0,011	520 (400 – 520)
K5	E	0,25	1,5	0,038	0,05	0,065	0,075	0,1	0,13	0,15	0,19	0,22	0,25	95 (71 – 100)
		0,25	1,5	0,0015	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0075	0,0085	0,010	310 (240 – 320)
K6	E	0,25	1,5	0,044	0,055	0,07	0,085	0,11	0,14	0,17	0,22	0,24	0,28	140 (110 – 140)
		0,25	1,5	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	0,0085	0,0095	0,011	460 (370 – 450)
K7	E	0,25	1,5	0,038	0,05	0,065	0,075	0,1	0,13	0,15	0,19	0,22	0,25	120 (91 – 130)
		0,25	1,5	0,0015	0,0020	0,0026	0,0030	0,0040	0,0050	0,0060	0,0075	0,0085	0,010	395 (300 – 420)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## Cutting data – ST5541 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>	
			3	4	5	6	8	10	12	16	20	25		
P1	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,16	195 (150 — 200)	Universal
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	640 (500 — 650)	
P2	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,16	190 (140 — 200)	Steel and cast iron
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	620 (460 — 650)	
P3	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,16	165 (130 — 170)	Steel and cast iron
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	540 (430 — 550)	
P4	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	145 (110 — 150)	Steel and cast iron
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	475 (370 — 490)	
P5	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	135 (110 — 140)	Steel and cast iron
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	445 (370 — 450)	
P6	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	155 (120 — 160)	Steel and cast iron
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	510 (400 — 520)	
P7	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	145 (110 — 150)	Stainless steel and S-materials
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	475 (370 — 490)	
P8	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,16	135 (110 — 140)	Stainless steel and S-materials
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	445 (370 — 450)	
P11	M/A/D/E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	140 (110 — 150)	Stainless steel and S-materials
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	460 (370 — 490)	
P12	M/A/D/E	1,5	0,016	0,022	0,026	0,032	0,042	0,055	0,065	0,080	0,090	0,10	85 (64 — 92)	Stainless steel and S-materials
		1,5	0,00065	0,00085	0,0010	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	0,0040	280 (210 — 300)	
K1	E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,16	190 (150 — 200)	Non ferrous
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	620 (500 — 650)	
K2	E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	165 (130 — 170)	Non ferrous
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	540 (430 — 550)	
K3	E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	140 (110 — 140)	Non ferrous
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	460 (370 — 450)	
K4	E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	135 (99 — 140)	Non ferrous
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	445 (330 — 450)	
K5	E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,12	0,13	80 (59 — 85)	Hard
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0048	0,0050	260 (200 — 270)	
K6	E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,13	0,15	120 (87 — 120)	Hard
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	395 (290 — 390)	
K7	E	1,5	0,020	0,026	0,032	0,040	0,050	0,065	0,080	0,10	0,12	0,13	100 (76 — 100)	Hard
		1,5	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	0,0040	0,0048	0,0050	330 (250 — 320)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimax

Cutting data – ST5541 Side milling – Inch

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>														v <sub>c</sub>
				1/8	5/32	3/16	7/32	1/4	9/32	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	
P1	M/A/D/E	0,25	1,5	0,05	0,06	0,075	0,085	0,1	0,11	0,12	0,15	0,17	0,19	0,22	0,25	0,28	0,3	220 (170 – 230)
		0,25	1,5	0,0020	0,0024	0,0030	0,0034	0,0040	0,0044	0,0048	0,0060	0,0065	0,0075	0,0085	0,010	0,011	0,012	720 (560 – 750)
P2	M/A/D/E	0,25	1,5	0,05	0,065	0,075	0,09	0,1	0,11	0,13	0,15	0,17	0,2	0,24	0,26	0,28	0,3	215 (160 – 220)
		0,25	1,5	0,0020	0,0026	0,0030	0,0036	0,0040	0,0044	0,0050	0,0060	0,0065	0,0080	0,0095	0,010	0,011	0,012	710 (530 – 720)
P3	M/A/D/E	0,25	1,5	0,048	0,06	0,07	0,085	0,095	0,11	0,12	0,14	0,17	0,18	0,22	0,25	0,26	0,28	190 (140 – 200)
		0,25	1,5	0,0019	0,0024	0,0028	0,0034	0,0038	0,0044	0,0048	0,0055	0,0065	0,0070	0,0085	0,010	0,010	0,011	620 (460 – 650)
P4	M/A/D/E	0,25	1,5	0,046	0,06	0,07	0,08	0,095	0,1	0,12	0,14	0,16	0,18	0,22	0,24	0,26	0,28	165 (130 – 170)
		0,25	1,5	0,0018	0,0024	0,0028	0,0032	0,0038	0,0040	0,0048	0,0055	0,0065	0,0070	0,0085	0,0095	0,010	0,011	540 (430 – 550)
P5	M/A/D/E	0,25	1,5	0,046	0,055	0,07	0,08	0,09	0,1	0,11	0,14	0,16	0,18	0,2	0,24	0,26	0,28	160 (120 – 170)
		0,25	1,5	0,0018	0,0022	0,0028	0,0032	0,0036	0,0040	0,0044	0,0055	0,0065	0,0070	0,0080	0,0095	0,010	0,011	520 (400 – 550)
P6	M/A/D/E	0,25	1,5	0,046	0,055	0,07	0,08	0,09	0,1	0,11	0,14	0,16	0,18	0,2	0,24	0,26	0,28	180 (140 – 190)
		0,25	1,5	0,0018	0,0022	0,0028	0,0032	0,0036	0,0040	0,0044	0,0055	0,0065	0,0070	0,0080	0,0095	0,010	0,011	590 (460 – 620)
P7	M/A/D/E	0,25	1,5	0,046	0,055	0,07	0,08	0,09	0,1	0,11	0,14	0,16	0,18	0,2	0,24	0,26	0,28	170 (130 – 180)
		0,25	1,5	0,0018	0,0022	0,0028	0,0032	0,0036	0,0040	0,0044	0,0055	0,0065	0,0070	0,0080	0,0095	0,010	0,011	560 (430 – 590)
P8	M/A/D/E	0,25	1,5	0,048	0,06	0,07	0,085	0,095	0,11	0,12	0,14	0,17	0,18	0,22	0,25	0,26	0,28	160 (120 – 160)
		0,25	1,5	0,0019	0,0024	0,0028	0,0034	0,0038	0,0044	0,0048	0,0055	0,0065	0,0070	0,0085	0,010	0,010	0,011	520 (400 – 520)
P11	M/A/D/E	0,25	1,5	0,046	0,055	0,07	0,08	0,09	0,1	0,11	0,14	0,16	0,18	0,2	0,24	0,26	0,28	165 (130 – 170)
		0,25	1,5	0,0018	0,0022	0,0028	0,0032	0,0036	0,0040	0,0044	0,0055	0,0065	0,0070	0,0080	0,0095	0,010	0,011	540 (430 – 550)
P12	M/A/D/E	0,25	1,5	0,03	0,038	0,046	0,055	0,06	0,07	0,075	0,095	0,11	0,12	0,14	0,16	0,18	0,19	110 (80 – 110)
		0,25	1,5	0,0012	0,0015	0,0018	0,0022	0,0024	0,0028	0,0030	0,0038	0,0044	0,0048	0,0055	0,0065	0,0070	0,0075	360 (270 – 360)
K1	E	0,25	1,5	0,05	0,065	0,075	0,09	0,1	0,11	0,13	0,15	0,17	0,2	0,24	0,26	0,28	0,3	215 (170 – 230)
		0,25	1,5	0,0020	0,0026	0,0030	0,0036	0,0040	0,0044	0,0050	0,0060	0,0065	0,0080	0,0095	0,010	0,011	0,012	710 (560 – 750)
K2	E	0,25	1,5	0,046	0,055	0,07	0,08	0,09	0,1	0,11	0,14	0,16	0,18	0,2	0,24	0,26	0,28	195 (150 – 200)
		0,25	1,5	0,0018	0,0022	0,0028	0,0032	0,0036	0,0040	0,0044	0,0055	0,0065	0,0070	0,0080	0,0095	0,010	0,011	640 (500 – 650)
K3	E	0,25	1,5	0,046	0,055	0,07	0,08	0,09	0,1	0,11	0,14	0,16	0,18	0,2	0,24	0,26	0,28	165 (130 – 170)
		0,25	1,5	0,0018	0,0022	0,0028	0,0032	0,0036	0,0040	0,0044	0,0055	0,0065	0,0070	0,0080	0,0095	0,010	0,011	540 (430 – 550)
K4	E	0,25	1,5	0,046	0,055	0,07	0,08	0,09	0,1	0,11	0,14	0,16	0,18	0,2	0,24	0,26	0,28	160 (120 – 160)
		0,25	1,5	0,0018	0,0022	0,0028	0,0032	0,0036	0,0040	0,0044	0,0055	0,0065	0,0070	0,0080	0,0095	0,010	0,011	520 (400 – 520)
K5	E	0,25	1,5	0,04	0,05	0,06	0,07	0,08	0,09	0,1	0,12	0,14	0,16	0,19	0,22	0,24	0,25	95 (71 – 100)
		0,25	1,5	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0048	0,0055	0,0065	0,0075	0,0085	0,0095	0,010	310 (240 – 320)
K6	E	0,25	1,5	0,046	0,055	0,07	0,08	0,09	0,1	0,11	0,14	0,16	0,18	0,2	0,24	0,26	0,28	140 (110 – 140)
		0,25	1,5	0,0018	0,0022	0,0028	0,0032	0,0036	0,0040	0,0044	0,0055	0,0065	0,0070	0,0080	0,0095	0,010	0,011	460 (370 – 450)
K7	E	0,25	1,5	0,04	0,05	0,06	0,07	0,08	0,09	0,1	0,12	0,14	0,16	0,19	0,22	0,24	0,25	120 (91 – 130)
		0,25	1,5	0,0016	0,0020	0,0024	0,0028	0,0032	0,0036	0,0040	0,0048	0,0055	0,0065	0,0075	0,0085	0,0095	0,010	395 (300 – 420)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – ST5541 Slot milling – Inch

SMG	A D E	a <sub>p</sub> /DC	f <sub>z</sub>														v <sub>c</sub>	
			1/8	5/32	3/16	7/32	1/4	9/32	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1		
P1	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,16	195 (150 — 200)	Universal
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0065	640 (500 — 650)	
P2	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,17	190 (140 — 200)	Steel and cast iron
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0065	620 (460 — 650)	
P3	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,16	165 (130 — 170)	Steel and cast iron
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0065	540 (430 — 550)	
P4	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	145 (110 — 150)	Steel and cast iron
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	475 (370 — 490)	
P5	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	135 (110 — 140)	Steel and cast iron
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	445 (370 — 450)	
P6	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	155 (120 — 160)	Steel and cast iron
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	510 (400 — 520)	
P7	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	145 (110 — 150)	Stainless steel and S-materials
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	475 (370 — 490)	
P8	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,16	135 (110 — 140)	Stainless steel and S-materials
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0065	445 (370 — 450)	
P11	M/A/D/E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	140 (110 — 150)	Stainless steel and S-materials
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	460 (370 — 490)	
P12	M/A/D/E	1,5	0,017	0,022	0,025	0,030	0,034	0,038	0,042	0,050	0,060	0,065	0,080	0,085	0,095	0,10	85 (64 — 92)	Stainless steel and S-materials
		1,5	0,00065	0,00085	0,0010	0,0012	0,0013	0,0015	0,0017	0,0020	0,0024	0,0026	0,0032	0,0034	0,0038	0,0040	280 (210 — 300)	
K1	E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,17	190 (150 — 200)	Non ferrous
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0065	620 (500 — 650)	
K2	E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	165 (130 — 170)	Non ferrous
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	540 (430 — 550)	
K3	E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	140 (110 — 140)	Non ferrous
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	460 (370 — 450)	
K4	E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	135 (99 — 140)	Non ferrous
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	445 (330 — 450)	
K5	E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,13	0,14	80 (59 — 85)	Hard
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0050	0,0055	260 (200 — 270)	
K6	E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,14	0,15	120 (87 — 120)	Hard
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0055	0,0060	395 (290 — 390)	
K7	E	1,5	0,020	0,026	0,030	0,036	0,042	0,046	0,050	0,060	0,070	0,085	0,10	0,12	0,13	0,14	100 (76 — 100)	Hard
		1,5	0,00080	0,0010	0,0012	0,0014	0,0017	0,0018	0,0020	0,0024	0,0028	0,0034	0,0040	0,0048	0,0050	0,0055	330 (250 — 320)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

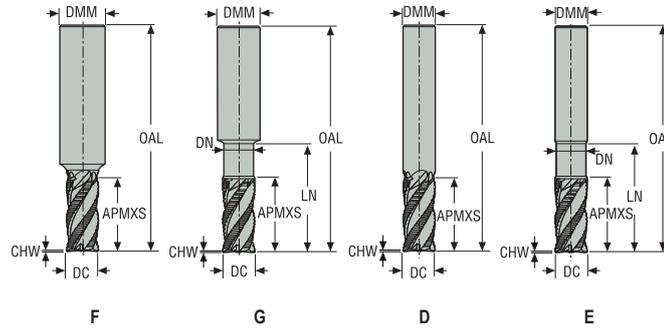
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

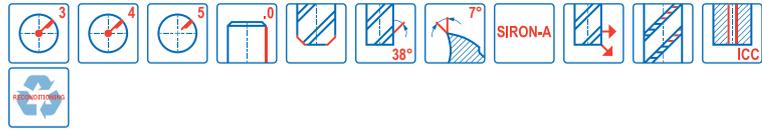
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

**JHP993**

High performance – Steel – Square – 3-5 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- CHW= ±0,05 mm
- Regrind possible if DC is ≥Ø6

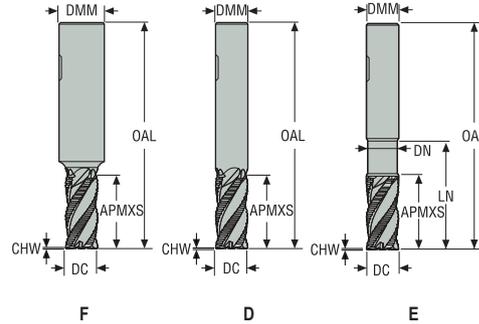


Designation	Item number	Length index	Tool shape	Chip splitters	CSP	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm			
JHP993040F2C.0Z3-SIRA	02826806	2	F	■	–	4,0	6,0	10,0	50,0	12,56	4,0	0,15	3	Cylindrical	■
JHP993050F2C.0Z4-SIRA	02826808	2	F	■	–	5,0	6,0	12,0	55,0	14,75	5,0	0,15	4	Cylindrical	■
JHP993060D2C.0Z4-SIRA	02826809	2	D	■	–	6,0	6,0	14,0	55,0	–	–	0,2	4	Cylindrical	■
JHP993075F2C.0Z4-SIRA	02826811	2	F	■	–	7,5	8,0	17,0	60,0	20,0	7,5	0,2	4	Cylindrical	■
JHP993080D2C.0Z4A-SIRA	02826814	2	D	■	■	8,0	8,0	18,0	60,0	–	–	0,2	4	Cylindrical	■
JHP993080D2C.0Z4-SIRA	02826812	2	D	■	–	8,0	8,0	18,0	60,0	–	–	0,2	4	Cylindrical	■
JHP993095F2C.0Z4-SIRA	02826816	2	F	■	–	9,5	10,0	20,0	70,0	23,0	9,5	0,2	4	Cylindrical	■
JHP993100D2C.0Z4A-SIRA	02826818	2	D	■	■	10,0	10,0	22,0	70,0	–	–	0,2	4	Cylindrical	■
JHP993100D2C.0Z4-SIRA	02826817	2	D	■	–	10,0	10,0	22,0	70,0	–	–	0,2	4	Cylindrical	■
JHP993115F2C.0Z4-SIRA	02826820	2	F	■	–	11,5	12,0	25,0	80,0	28,0	11,5	0,2	4	Cylindrical	■
JHP993120D2C.0Z4A-SIRA	02826822	2	D	■	■	12,0	12,0	26,0	80,0	–	–	0,2	4	Cylindrical	■
JHP993120D2C.0Z4-SIRA	02826821	2	D	■	–	12,0	12,0	26,0	80,0	–	–	0,2	4	Cylindrical	■
JHP993140D2C.0Z4-SIRA	02826824	2	D	■	–	14,0	14,0	30,0	80,0	–	–	0,3	4	Cylindrical	■
JHP993160D2C.0Z4A-SIRA	02856501	2	D	■	■	16,0	16,0	34,0	90,0	–	–	0,3	4	Cylindrical	■
JHP993160D2C.0Z4-SIRA	02856499	2	D	■	–	16,0	16,0	34,0	90,0	–	–	0,3	4	Cylindrical	■
JHP993160D2C.0Z5-SIRA	02826825	2	D	■	–	16,0	16,0	34,0	90,0	–	–	0,3	5	Cylindrical	■
JHP993200D2C.0Z4A-SIRA	02856506	2	D	■	■	20,0	20,0	42,0	100,0	–	–	0,5	4	Cylindrical	■
JHP993200D2C.0Z4-SIRA	02856505	2	D	■	–	20,0	20,0	42,0	100,0	–	–	0,5	4	Cylindrical	■
JHP993200D2C.0Z5-SIRA	02826828	2	D	■	–	20,0	20,0	42,0	100,0	–	–	0,5	5	Cylindrical	■
JHP993250D2C.0Z4A-SIRA	02856510	2	D	■	■	25,0	25,0	52,0	125,0	–	–	0,5	4	Cylindrical	■
JHP993040G3C.0Z3-SIRA	02826807	3	G	■	–	4,0	6,0	10,0	55,0	15,0	3,7	0,15	3	Cylindrical	■
JHP993060E3C.0Z4-SIRA	02826810	3	E	■	–	6,0	6,0	14,0	65,0	24,0	5,6	0,2	4	Cylindrical	■
JHP993080E3C.0Z4-SIRA	02826815	3	E	■	–	8,0	8,0	18,0	70,0	32,0	7,4	0,2	4	Cylindrical	■
JHP993100E3C.0Z4-SIRA	02826819	3	E	■	–	10,0	10,0	22,0	85,0	40,0	9,4	0,2	4	Cylindrical	■
JHP993120E3C.0Z4-SIRA	02826823	3	E	■	–	12,0	12,0	26,0	100,0	50,0	11,4	0,2	4	Cylindrical	■
JHP993160E3C.0Z4-SIRA	02856502	3	E	■	–	16,0	16,0	34,0	110,0	60,0	15,4	0,3	4	Cylindrical	■
JHP993200E3C.0Z4-SIRA	02856507	3	E	■	–	20,0	20,0	42,0	125,0	70,0	19,2	0,5	4	Cylindrical	■

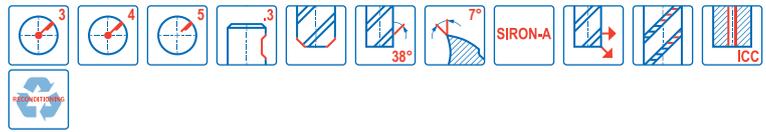
■ Stocked standard.

JHP993

High performance – Steel – Square – 3-5 Flutes – Weldon – Chamfer



- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- CHW= ±0,05 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	Chip splitters	CSP	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm			
JHP993040F2C.3Z3-SIRA	02828150	2	F	■	-	4,0	6,0	10,0	50,0	12,56	4,0	0,15	3	Weldon	■
JHP993050F2C.3Z4-SIRA	02828152	2	F	■	-	5,0	6,0	12,0	55,0	14,75	5,0	0,15	4	Weldon	■
JHP993060D2C.3Z4-SIRA	02828153	2	D	■	-	6,0	6,0	14,0	55,0	-	-	0,2	4	Weldon	■
JHP993075F2C.3Z4-SIRA	02828155	2	F	■	-	7,5	8,0	17,0	60,0	20,0	7,5	0,2	4	Weldon	■
JHP993080D2C.3Z4A-SIRA	02828246	2	D	■	■	8,0	8,0	18,0	60,0	-	-	0,2	4	Weldon	□
JHP993080D2C.3Z4-SIRA	02828156	2	D	■	-	8,0	8,0	18,0	60,0	-	-	0,2	4	Weldon	■
JHP993095F2C.3Z4-SIRA	02828158	2	F	■	-	9,5	10,0	20,0	70,0	23,0	9,5	0,2	4	Weldon	■
JHP993100D2C.3Z4A-SIRA	02828247	2	D	■	■	10,0	10,0	22,0	70,0	-	-	0,2	4	Weldon	□
JHP993100D2C.3Z4-SIRA	02828159	2	D	■	-	10,0	10,0	22,0	70,0	-	-	0,2	4	Weldon	■
JHP993120D2C.3Z4A-SIRA	02828248	2	D	■	■	12,0	12,0	26,0	80,0	-	-	0,2	4	Weldon	□
JHP993120D2C.3Z4-SIRA	02828162	2	D	■	-	12,0	12,0	26,0	80,0	-	-	0,2	4	Weldon	■
JHP993140D2C.3Z4-SIRA	02828164	2	D	■	-	14,0	14,0	30,0	80,0	-	-	0,3	4	Weldon	■
JHP993160D2C.3Z4A-SIRA	02856512	2	D	■	■	16,0	16,0	34,0	90,0	-	-	0,3	4	Weldon	■
JHP993160D2C.3Z4-SIRA	02856500	2	D	■	-	16,0	16,0	34,0	90,0	-	-	0,3	4	Weldon	■
JHP993160D2C.3Z5-SIRA	02828165	2	D	■	-	16,0	16,0	34,0	90,0	-	-	0,3	5	Weldon	■
JHP993200D2C.3Z4A-SIRA	02856513	2	D	■	■	20,0	20,0	42,0	100,0	-	-	0,5	4	Weldon	■
JHP993200D2C.3Z4-SIRA	02856504	2	D	■	-	20,0	20,0	42,0	100,0	-	-	0,5	4	Weldon	■
JHP993200D2C.3Z5-SIRA	02828167	2	D	■	-	20,0	20,0	42,0	100,0	-	-	0,5	5	Weldon	■
JHP993250D2C.3Z4A-SIRA	02856514	2	D	■	■	25,0	25,0	52,0	125,0	-	-	0,5	4	Weldon	■
JHP993250D2C.3Z4-SIRA	02856509	2	D	■	-	25,0	25,0	52,0	125,0	-	-	0,5	4	Weldon	■
JHP993060E3C.3Z4-SIRA	02828154	3	E	■	-	6,0	6,0	14,0	65,0	24,0	5,6	0,2	4	Weldon	■
JHP993080E3C.3Z4-SIRA	02828157	3	E	■	-	8,0	8,0	18,0	70,0	32,0	7,4	0,2	4	Weldon	■
JHP993100E3C.3Z4-SIRA	02828160	3	E	■	-	10,0	10,0	22,0	85,0	40,0	9,4	0,2	4	Weldon	■
JHP993120E3C.3Z4-SIRA	02828163	3	E	■	-	12,0	12,0	26,0	100,0	50,0	11,4	0,2	4	Weldon	■
JHP993160E3C.3Z4-SIRA	02856503	3	E	■	-	16,0	16,0	34,0	110,0	60,0	15,4	0,3	4	Weldon	■
JHP993200E3C.3Z4-SIRA	02856508	3	E	■	-	20,0	20,0	42,0	125,0	70,0	19,2	0,5	4	Weldon	■
JHP993200E3C.3Z5-SIRA	02828168	3	E	■	-	20,0	20,0	42,0	125,0	70,0	19,2	0,5	5	Weldon	■
JHP993250E3C.3Z4-SIRA	02856511	3	E	■	-	25,0	25,0	52,0	150,0	90,0	24,0	0,5	4	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JHP993 Side milling PCEDC=3 and PCEDC=4

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				4	5	6	8	10	12	14	16	20	25	
P1	E/M/A	0.400	1.7	0.044	0.055	0.065	0.090	0.11	0.13	0.15	0.16	0.19	0.22	230 (200 – 260)
		0,400	1,7	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0060	0,0065	0,0075	0,0085	750 (660 – 850)
P2	E/M/A	0.400	1.7	0.044	0.055	0.065	0.090	0.11	0.13	0.15	0.17	0.19	0.22	225 (200 – 250)
		0,400	1,7	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0060	0,0065	0,0075	0,0085	740 (660 – 820)
P3	E/M/A	0.400	1.7	0.042	0.055	0.065	0.085	0.11	0.13	0.14	0.16	0.18	0.20	195 (170 – 220)
		0,400	1,7	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0055	0,0065	0,0070	0,0080	640 (560 – 720)
P4	E/M/A	0.400	1.7	0.042	0.050	0.060	0.085	0.10	0.12	0.14	0.15	0.18	0.20	175 (150 – 190)
		0,400	1,7	0,0017	0,0020	0,0024	0,0034	0,0040	0,0048	0,0055	0,0060	0,0070	0,0080	570 (500 – 620)
P5	E/M/A	0.400	1.7	0.040	0.050	0.060	0.080	0.10	0.12	0.14	0.15	0.17	0.20	165 (150 – 190)
		0,400	1,7	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0060	0,0065	0,0080	540 (500 – 620)
P6	E/M/A	0.400	1.7	0.040	0.050	0.060	0.080	0.10	0.12	0.14	0.15	0.17	0.19	185 (160 – 210)
		0,400	1,7	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0060	0,0065	0,0075	610 (530 – 680)
P7	E/M/A	0.400	1.7	0.040	0.050	0.060	0.080	0.10	0.12	0.14	0.15	0.17	0.19	175 (160 – 200)
		0,400	1,7	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0060	0,0065	0,0075	570 (530 – 650)
P8	E/M/A	0.400	1.7	0.042	0.055	0.065	0.085	0.11	0.13	0.14	0.16	0.18	0.20	160 (140 – 180)
		0,400	1,7	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0055	0,0065	0,0070	0,0080	520 (460 – 590)
P11	E/M/A	0.400	1.7	0.040	0.050	0.060	0.080	0.10	0.12	0.14	0.15	0.17	0.19	170 (150 – 190)
		0,400	1,7	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0060	0,0065	0,0075	560 (500 – 620)
P12	E/M/A	0.400	1.7	0.028	0.034	0.042	0.055	0.070	0.080	0.095	0.10	0.12	0.13	110 (95 – 120)
		0,400	1,7	0,0011	0,0013	0,0017	0,0022	0,0028	0,0032	0,0038	0,0040	0,0048	0,0050	360 (320 – 390)
K1	E/M/A	0.400	1.7	0.044	0.055	0.065	0.090	0.11	0.13	0.15	0.17	0.19	0.22	225 (200 – 250)
		0,400	1,7	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0060	0,0065	0,0075	0,0085	740 (660 – 820)
K2	E/M/A	0.400	1.7	0.040	0.050	0.060	0.080	0.10	0.12	0.14	0.15	0.17	0.20	200 (180 – 220)
		0,400	1,7	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0060	0,0065	0,0080	660 (600 – 720)
K3	E/M/A	0.400	1.7	0.040	0.050	0.060	0.080	0.10	0.12	0.14	0.15	0.17	0.20	170 (150 – 190)
		0,400	1,7	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0060	0,0065	0,0080	560 (500 – 620)
K4	E/M/A	0.400	1.7	0.040	0.050	0.060	0.080	0.10	0.12	0.14	0.15	0.17	0.20	160 (140 – 180)
		0,400	1,7	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0060	0,0065	0,0080	520 (460 – 590)
K5	E/M/A	0.400	1.7	0.036	0.046	0.055	0.075	0.090	0.11	0.12	0.14	0.16	0.18	100 (86 – 110)
		0,400	1,7	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0048	0,0055	0,0065	0,0070	330 (290 – 360)
K6	E/M/A	0.400	1.7	0.040	0.050	0.060	0.080	0.10	0.12	0.14	0.15	0.17	0.20	145 (130 – 160)
		0,400	1,7	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0060	0,0065	0,0080	475 (430 – 520)
K7	E/M/A	0.400	1.7	0.036	0.046	0.055	0.075	0.090	0.11	0.12	0.14	0.16	0.18	125 (110 – 140)
		0,400	1,7	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0048	0,0055	0,0065	0,0070	410 (370 – 450)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## Cutting data – JHP993 Side milling PCEDC=5

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>		v <sub>c</sub>
				16	20	
P1	E/MA	0.376	1.0	0.17	0.22	205 (180 – 230)
		0,376	1,0	0,0065	0,0085	670 (600 – 750)
P2	E/MA	0.376	1.0	0.18	0.22	195 (170 – 220)
		0,376	1,0	0,0070	0,0085	640 (560 – 720)
P3	E/MA	0.376	1.0	0.17	0.20	170 (150 – 190)
		0,376	1,0	0,0065	0,0080	560 (500 – 620)
P4	E/MA	0.376	1.0	0.16	0.20	155 (140 – 170)
		0,376	1,0	0,0065	0,0080	510 (460 – 550)
P5	E/MA	0.376	1.0	0.16	0.20	145 (130 – 160)
		0,376	1,0	0,0065	0,0080	475 (430 – 520)
P6	E/MA	0.376	1.0	0.16	0.20	165 (150 – 180)
		0,376	1,0	0,0065	0,0080	540 (500 – 590)
P7	E/MA	0.376	1.0	0.16	0.20	155 (140 – 170)
		0,376	1,0	0,0065	0,0080	510 (460 – 550)
P8	E/MA	0.376	1.0	0.17	0.20	145 (130 – 160)
		0,376	1,0	0,0065	0,0080	475 (430 – 520)
P11	E/MA	0.376	1.0	0.16	0.20	150 (130 – 170)
		0,376	1,0	0,0065	0,0080	490 (430 – 550)
P12	E/MA	0.376	1.0	0.11	0.13	100 (85 – 110)
		0,376	1,0	0,0044	0,0050	330 (280 – 360)
K1	E/MA	0.376	1.0	0.18	0.22	195 (170 – 220)
		0,376	1,0	0,0070	0,0085	640 (560 – 720)
K2	E/MA	0.376	1.0	0.16	0.20	175 (160 – 200)
		0,376	1,0	0,0065	0,0080	570 (530 – 650)
K3	E/MA	0.376	1.0	0.16	0.20	150 (130 – 170)
		0,376	1,0	0,0065	0,0080	490 (430 – 550)
K4	E/MA	0.376	1.0	0.16	0.20	145 (130 – 160)
		0,376	1,0	0,0065	0,0080	475 (430 – 520)
K5	E/MA	0.376	1.0	0.15	0.18	85 (75 – 99)
		0,376	1,0	0,0060	0,0070	280 (250 – 320)
K6	E/MA	0.376	1.0	0.16	0.20	125 (110 – 140)
		0,376	1,0	0,0065	0,0080	410 (370 – 450)
K7	E/MA	0.376	1.0	0.15	0.18	110 (96 – 120)
		0,376	1,0	0,0060	0,0070	360 (320 – 390)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimax

Cutting data – JHP993 Slot milling PCEDC=3 and PCEDC=4

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			4	5	6	8	10	12	14	16	20	25	
P1	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.20	200 (180 – 220)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0080	660 (600 – 720)
P2	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.20	195 (170 – 220)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0080	640 (560 – 720)
P3	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.20	165 (150 – 190)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0080	540 (500 – 620)
P4	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.20	145 (130 – 160)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0080	475 (430 – 520)
P5	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.19	140 (130 – 160)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0075	460 (430 – 520)
P6	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.19	155 (140 – 170)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0075	510 (460 – 550)
P7	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.19	150 (130 – 160)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0075	490 (430 – 520)
P8	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.20	140 (130 – 160)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0080	460 (430 – 520)
P11	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.19	145 (130 – 160)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0075	475 (430 – 520)
P12	E/M/A	1.5	0.028	0.034	0.040	0.055	0.070	0.080	0.090	0.10	0.12	0.13	90 (76 – 100)
		1,5	0,0011	0,0013	0,0016	0,0022	0,0028	0,0032	0,0036	0,0040	0,0048	0,0050	295 (250 – 320)
K1	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.20	195 (170 – 220)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0080	640 (560 – 720)
K2	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.19	170 (150 – 190)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0075	560 (500 – 620)
K3	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.19	145 (130 – 160)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0075	475 (430 – 520)
K4	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.19	135 (120 – 150)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0075	445 (400 – 490)
K5	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.15	0.17	80 (70 – 93)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0060	0,0065	260 (230 – 300)
K6	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.16	0.19	120 (110 – 130)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	0,0075	395 (370 – 420)
K7	E/M/A	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.13	0.15	0.17	105 (90 – 110)
		1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0060	0,0065	345 (300 – 360)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JHP993 Slot milling PCEDC=5

SMG		a <sub>p</sub> /DC		f <sub>z</sub>		v <sub>c</sub>
				16	20	
P1	E/M/A	0.44	0.44	0.17	0.20	160 (140 – 180) 520 (460 – 590)
P2	E/M/A	0.44	0.44	0.17	0.22	155 (140 – 170) 510 (460 – 550)
P3	E/M/A	0.44	0.44	0.16	0.20	135 (120 – 150) 445 (400 – 490)
P4	E/M/A	0.44	0.44	0.16	0.20	120 (110 – 130) 395 (370 – 420)
P5	E/M/A	0.44	0.44	0.16	0.19	115 (99 – 130) 375 (330 – 420)
P6	E/M/A	0.44	0.44	0.16	0.19	130 (120 – 140) 425 (400 – 450)
P7	E/M/A	0.44	0.44	0.16	0.19	120 (110 – 130) 395 (370 – 420)
P8	E/M/A	0.44	0.44	0.16	0.20	115 (99 – 130) 375 (330 – 420)
P11	E/M/A	0.44	0.44	0.16	0.19	120 (110 – 130) 395 (370 – 420)
P12	E/M/A	0.44	0.44	0.11	0.13	80 (68 – 89) 260 (230 – 290)
K1	E/M/A	0.44	0.44	0.17	0.22	160 (140 – 180) 520 (460 – 590)
K2	E/M/A	0.44	0.44	0.16	0.19	140 (120 – 150) 460 (400 – 490)
K3	E/M/A	0.44	0.44	0.16	0.19	120 (110 – 130) 395 (370 – 420)
K4	E/M/A	0.44	0.44	0.16	0.19	115 (97 – 120) 375 (320 – 390)
K5	E/M/A	0.44	0.44	0.14	0.17	70 (60 – 79) 230 (200 – 250)
K6	E/M/A	0.44	0.44	0.16	0.19	100 (86 – 110) 330 (290 – 360)
K7	E/M/A	0.44	0.44	0.14	0.17	90 (77 – 100) 295 (260 – 320)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

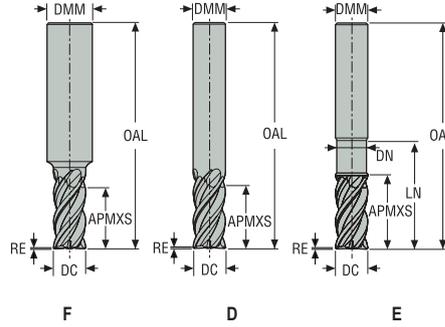
Graphite

X-Heads

Minimaster

**JHP951**

High performance – Square – Steel – 3-5 Flutes – Cylindrical – Corner radius or chamfer



–Tolerances:  
 –DMM=h5  
 –DC=e7  
 –RE= ±0,02 mm  
 –Regrind possible if DC is ≥Ø6

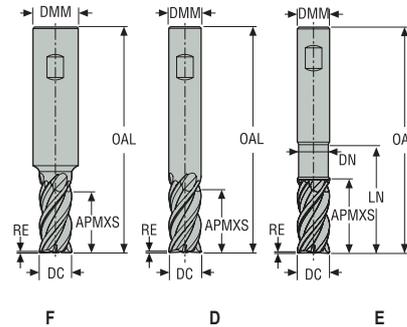


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm			
JHP951030F2C.0Z3-SIRA	02828192	2	F	3,0	6,0	8,0	50,0	10,25	3,0	0,1	–	3	Cylindrical	■
JHP951030F2R020.0Z3-SIRA	02828191	2	F	3,0	6,0	8,0	50,0	10,25	3,0	–	0,2	3	Cylindrical	■
JHP951030F2R050.0Z3-SIRA	02828190	2	F	3,0	6,0	8,0	50,0	10,25	3,0	–	0,5	3	Cylindrical	■
JHP951040F2C.0Z4-SIRA	02828197	2	F	4,0	6,0	10,0	55,0	13,25	4,0	0,15	–	4	Cylindrical	■
JHP951040F2R020.0Z4-SIRA	02828194	2	F	4,0	6,0	10,0	55,0	13,25	4,0	–	0,2	4	Cylindrical	■
JHP951040F2R050.0Z4-SIRA	02828195	2	F	4,0	6,0	10,0	55,0	13,25	4,0	–	0,5	4	Cylindrical	■
JHP951050F2C.0Z4-SIRA	02828201	2	F	5,0	6,0	12,0	55,0	15,25	5,0	0,2	–	4	Cylindrical	■
JHP951050F2R020.0Z4-SIRA	02828199	2	F	5,0	6,0	12,0	55,0	15,25	5,0	–	0,2	4	Cylindrical	■
JHP951050F2R050.0Z4-SIRA	02828198	2	F	5,0	6,0	12,0	55,0	15,25	5,0	–	0,5	4	Cylindrical	■
JHP951060D2C.0Z4-SIRA	02828205	2	D	6,0	6,0	14,0	55,0	–	–	0,2	–	4	Cylindrical	■
JHP951060D2R020.0Z4-SIRA	02828203	2	D	6,0	6,0	14,0	55,0	–	–	–	0,2	4	Cylindrical	■
JHP951060D2R050.0Z4-SIRA	02828202	2	D	6,0	6,0	14,0	55,0	–	–	–	0,5	4	Cylindrical	■
JHP951080D2C.0Z4-SIRA	02828212	2	D	8,0	8,0	18,0	60,0	–	–	0,3	–	4	Cylindrical	■
JHP951080D2R020.0Z4-SIRA	02828209	2	D	8,0	8,0	18,0	60,0	–	–	–	0,2	4	Cylindrical	■
JHP951080D2R050.0Z4-SIRA	02828207	2	D	8,0	8,0	18,0	60,0	–	–	–	0,5	4	Cylindrical	■
JHP951080D2R100.0Z4-SIRA	02828208	2	D	8,0	8,0	18,0	60,0	–	–	–	1,0	4	Cylindrical	■
JHP951100E2C.0Z4-SIRA	02828218	2	E	10,0	10,0	22,0	70,0	28,0	9,4	0,3	–	4	Cylindrical	■
JHP951100E2R050.0Z4-SIRA	02828216	2	E	10,0	10,0	22,0	70,0	28,0	9,4	–	0,5	4	Cylindrical	■
JHP951100E2R100.0Z4-SIRA	02828214	2	E	10,0	10,0	22,0	70,0	28,0	9,4	–	1,0	4	Cylindrical	■
JHP951120E2C.0Z4-SIRA	02828226	2	E	12,0	12,0	26,0	80,0	33,0	11,4	0,4	–	4	Cylindrical	■
JHP951120E2R050.0Z4-SIRA	02828224	2	E	12,0	12,0	26,0	80,0	33,0	11,4	–	0,5	4	Cylindrical	■
JHP951120E2R100.0Z4-SIRA	02828222	2	E	12,0	12,0	26,0	80,0	33,0	11,4	–	1,0	4	Cylindrical	■
JHP951160E2C.0Z4-SIRA	02927873	2	E	16,0	16,0	34,0	90,0	40,0	15,0	0,5	–	4	Cylindrical	■
JHP951160E2C.0Z5-SIRA	02828232	2	E	16,0	16,0	34,0	90,0	40,0	15,4	0,5	–	5	Cylindrical	■
JHP951160E2R050.0Z4-SIRA	02927875	2	E	16,0	16,0	34,0	90,0	40,0	15,0	–	0,5	4	Cylindrical	■
JHP951160E2R050.0Z5-SIRA	02828230	2	E	16,0	16,0	34,0	90,0	40,0	15,4	–	0,5	5	Cylindrical	■
JHP951160E2R100.0Z4-SIRA	02927876	2	E	16,0	16,0	34,0	90,0	40,0	15,0	–	1,0	4	Cylindrical	■
JHP951160E2R100.0Z5-SIRA	02828231	2	E	16,0	16,0	34,0	90,0	40,0	15,4	–	1,0	5	Cylindrical	■

■ Stocked standard.

JHP951

High performance – Square – Steel – 3-5 Flutes – Weldon – Corner radius or chamfer



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm			
JHP951030F2C.3Z3-SIRA	02828193	2	F	3,0	6,0	8,0	50,0	10,25	3,0	0,1	-	3	Weldon	■
JHP951030F2R020.3Z3-SIRA	02828260	2	F	3,0	6,0	8,0	50,0	10,25	3,0	-	0,2	3	Weldon	■
JHP951030F2R050.3Z3-SIRA	02828259	2	F	3,0	6,0	8,0	50,0	10,25	3,0	-	0,5	3	Weldon	□
JHP951040F2C.3Z4-SIRA	02828196	2	F	4,0	6,0	10,0	55,0	13,25	4,0	0,15	-	4	Weldon	■
JHP951040F2R020.3Z4-SIRA	02828261	2	F	4,0	6,0	10,0	55,0	13,25	4,0	-	0,2	4	Weldon	□
JHP951040F2R050.3Z4-SIRA	02828262	2	F	4,0	6,0	10,0	55,0	13,25	4,0	-	0,5	4	Weldon	□
JHP951050F2C.3Z4-SIRA	02828200	2	F	5,0	6,0	12,0	55,0	15,25	5,0	0,2	-	4	Weldon	■
JHP951050F2R020.3Z4-SIRA	02828264	2	F	5,0	6,0	12,0	55,0	15,25	5,0	-	0,2	4	Weldon	□
JHP951050F2R050.3Z4-SIRA	02828263	2	F	5,0	6,0	12,0	55,0	15,25	5,0	-	0,5	4	Weldon	□
JHP951060D2C.3Z4-SIRA	02828206	2	D	6,0	6,0	14,0	55,0	-	-	0,2	-	4	Weldon	■
JHP951060D2R020.3Z4-SIRA	02828266	2	D	6,0	6,0	14,0	55,0	-	-	-	0,2	4	Weldon	□
JHP951060D2R050.3Z4-SIRA	02828265	2	D	6,0	6,0	14,0	55,0	-	-	-	0,5	4	Weldon	□
JHP951080D2C.3Z4-SIRA	02828210	2	D	8,0	8,0	18,0	60,0	-	-	0,3	-	4	Weldon	■
JHP951080D2R020.3Z4-SIRA	02828269	2	D	8,0	8,0	18,0	60,0	-	-	-	0,2	4	Weldon	□
JHP951080D2R050.3Z4-SIRA	02828267	2	D	8,0	8,0	18,0	60,0	-	-	-	0,5	4	Weldon	■
JHP951080D2R100.3Z4-SIRA	02828268	2	D	8,0	8,0	18,0	60,0	-	-	-	1,0	4	Weldon	□
JHP951100E2C.3Z4-SIRA	02828220	2	E	10,0	10,0	22,0	70,0	28,0	9,4	0,3	-	4	Weldon	■
JHP951100E2R050.3Z4-SIRA	02828271	2	E	10,0	10,0	22,0	70,0	28,0	9,4	-	0,5	4	Weldon	■
JHP951100E2R100.3Z4-SIRA	02828270	2	E	10,0	10,0	22,0	70,0	28,0	9,4	-	1,0	4	Weldon	□
JHP951120E2C.3Z4-SIRA	02828228	2	E	12,0	12,0	26,0	80,0	33,0	11,4	0,4	-	4	Weldon	■
JHP951120E2R050.3Z4-SIRA	02828273	2	E	12,0	12,0	26,0	80,0	33,0	11,4	-	0,5	4	Weldon	■
JHP951120E2R100.3Z4-SIRA	02828272	2	E	12,0	12,0	26,0	80,0	33,0	11,4	-	1,0	4	Weldon	■
JHP951160E2C.3Z4-SIRA	02927874	2	E	16,0	16,0	34,0	90,0	40,0	15,0	0,5	-	4	Weldon	■
JHP951160E2C.3Z5-SIRA	02828233	2	E	16,0	16,0	34,0	90,0	40,0	15,4	0,5	-	5	Weldon	■
JHP951160E2R050.3Z4-SIRA	02927879	2	E	16,0	16,0	34,0	90,0	40,0	15,0	-	0,5	4	Weldon	■
JHP951160E2R050.3Z5-SIRA	02828275	2	E	16,0	16,0	34,0	90,0	40,0	15,4	-	0,5	5	Weldon	□
JHP951160E2R100.3Z4-SIRA	02927880	2	E	16,0	16,0	34,0	90,0	40,0	15,0	-	1,0	4	Weldon	□
JHP951160E2R100.3Z5-SIRA	02828276	2	E	16,0	16,0	34,0	90,0	40,0	15,4	-	1,0	5	Weldon	□
JHP951200E2R050.3Z4-SIRA	02927877	2	E	20,0	20,0	42,0	100,0	48,0	19,0	-	0,5	4	Weldon	■
JHP951200E2R050.3Z5-SIRA	02828235	2	E	20,0	20,0	42,0	100,0	48,0	19,4	-	0,5	5	Weldon	■
JHP951200E2R100.3Z4-SIRA	02927878	2	E	20,0	20,0	42,0	100,0	48,0	19,0	-	1,0	4	Weldon	■
JHP951200E2R100.3Z5-SIRA	02828234	2	E	20,0	20,0	42,0	100,0	48,0	19,4	-	1,0	5	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JHP951 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				3	4	5	6	8	10	12	16	20		
P1	E/M/A	0.400	1.7	0.034	0.044	0.055	0.065	0.090	0.11	0.13	0.16	0.19	230 (200 – 260)	
		0,400	1,7	0,0013	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	750 (660 – 850)	
P2	E/M/A	0.400	1.7	0.034	0.044	0.055	0.065	0.090	0.11	0.13	0.17	0.19	220 (200 – 250)	
		0,400	1,7	0,0013	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	720 (660 – 820)	
P3	E/M/A	0.400	1.7	0.032	0.042	0.055	0.065	0.085	0.11	0.13	0.16	0.18	190 (170 – 210)	
		0,400	1,7	0,0013	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	620 (560 – 680)	
P4	E/M/A	0.400	1.7	0.032	0.042	0.050	0.060	0.085	0.10	0.12	0.15	0.18	170 (150 – 190)	
		0,400	1,7	0,0013	0,0017	0,0020	0,0024	0,0034	0,0040	0,0048	0,0060	0,0070	560 (500 – 620)	
P5	E/M/A	0.400	1.7	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	165 (150 – 180)	
		0,400	1,7	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	540 (500 – 590)	
P6	E/M/A	0.400	1.7	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	185 (160 – 210)	
		0,400	1,7	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	610 (530 – 680)	
P7	E/M/A	0.400	1.7	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	175 (150 – 190)	
		0,400	1,7	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	570 (500 – 620)	
P8	E/M/A	0.400	1.7	0.032	0.042	0.055	0.065	0.085	0.11	0.13	0.16	0.18	160 (140 – 180)	
		0,400	1,7	0,0013	0,0017	0,0022	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	520 (460 – 590)	
P11	E/M/A	0.400	1.7	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	170 (150 – 190)	
		0,400	1,7	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	560 (500 – 620)	
P12	E/M/A	0.400	1.7	0.020	0.028	0.034	0.042	0.055	0.070	0.080	0.10	0.12	110 (94 – 120)	
		0,400	1,7	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0032	0,0040	0,0048	360 (310 – 390)	
K1	E/M/A	0.400	1.7	0.034	0.044	0.055	0.065	0.090	0.11	0.13	0.17	0.19	225 (200 – 250)	
		0,400	1,7	0,0013	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	740 (660 – 820)	
K2	E/M/A	0.400	1.7	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	200 (180 – 220)	
		0,400	1,7	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	660 (600 – 720)	
K3	E/M/A	0.400	1.7	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	170 (150 – 190)	
		0,400	1,7	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	560 (500 – 620)	
K4	E/M/A	0.400	1.7	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	160 (140 – 180)	
		0,400	1,7	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	520 (460 – 590)	
K5	E/M/A	0.400	1.7	0.028	0.036	0.046	0.055	0.075	0.090	0.11	0.14	0.16	100 (85 – 110)	
		0,400	1,7	0,0011	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0055	0,0065	330 (280 – 360)	
K6	E/M/A	0.400	1.7	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.15	0.17	140 (130 – 160)	
		0,400	1,7	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	460 (430 – 520)	
K7	E/M/A	0.400	1.7	0.028	0.036	0.046	0.055	0.075	0.090	0.11	0.14	0.16	125 (110 – 140)	
		0,400	1,7	0,0011	0,0014	0,0018	0,0022	0,0030	0,0036	0,0044	0,0055	0,0065	410 (370 – 450)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JHP951 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>									v <sub>c</sub>		
			3	4	5	6	8	10	12	16	20			
P1	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	195 (170 — 220)	Universal	
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	640 (560 — 720)		
P2	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	190 (170 — 210)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	620 (560 — 680)		
P3	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	165 (150 — 180)		Steel and cast iron
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	540 (500 — 590)		
P4	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	145 (130 — 160)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	475 (430 — 520)		
P5	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	140 (120 — 150)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	460 (400 — 490)		
P6	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	155 (140 — 170)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	510 (460 — 550)		
P7	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	145 (130 — 160)	Stainless steel and S-materials	
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	475 (430 — 520)		
P8	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	140 (120 — 150)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	460 (400 — 490)		
P11	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	145 (130 — 160)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	475 (430 — 520)		
P12	E/MA	1.5	0.020	0.028	0.034	0.040	0.055	0.070	0.080	0.10	0.12	85 (75 — 99)		
		1,5	0,00080	0,0011	0,0013	0,0016	0,0022	0,0028	0,0032	0,0040	0,0048	280 (250 — 320)		
K1	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	195 (170 — 220)		Non ferrous
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	640 (560 — 720)		
K2	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	170 (150 — 190)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	560 (500 — 620)		
K3	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	140 (130 — 160)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	460 (430 — 520)		
K4	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	135 (120 — 150)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	445 (400 — 490)		
K5	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.15	80 (70 — 92)	Hard	
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0060	260 (230 — 300)		
K6	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	120 (110 — 130)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	395 (370 — 420)		
K7	E/MA	1.5	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.15	105 (89 — 110)		
		1,5	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0060	345 (300 — 360)		

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

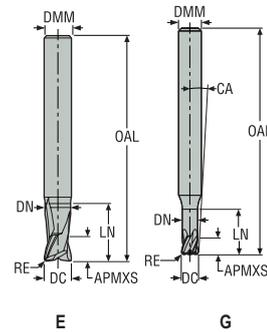
 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

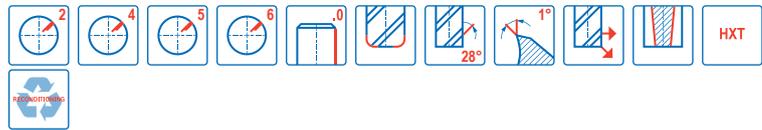
 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimax

## JH142

High speed – High precision – Torical – Hardened steel – 2-6 Flutes – Cylindrical – Corner radius



- Tolerances:  
 —Run-out= <0,005 mm  
 —DMM= h5  
 —DC= 0-0,01 mm  
 —RE= ±0,005 mm  
 —Regrind possible if DC is ≥Ø6

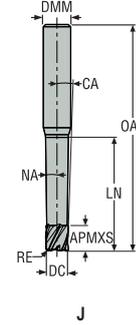


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JH142020G2R030.0Z2-HXT	02968223	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	2	Cylindrical	■
JH142020G2R030.0Z4-HXT	02968224	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	4	Cylindrical	■
JH142020G2R050.0Z2-HXT	02968225	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	2	Cylindrical	■
JH142020G2R050.0Z4-HXT	02968226	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	4	Cylindrical	■
JH142030G2R050.0Z2-HXT	02968227	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	2	Cylindrical	■
JH142030G2R050.0Z4-HXT	02968228	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	4	Cylindrical	■
JH142030G2R100.0Z2-HXT	02968229	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	2	Cylindrical	■
JH142030G2R100.0Z4-HXT	02968230	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	4	Cylindrical	■
JH142040G2R030.0Z2-HXT	02968231	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	2	Cylindrical	■
JH142040G2R030.0Z4-HXT	02970110	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	4	Cylindrical	■
JH142040G2R050.0Z4-HXT	02968232	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,5	5,44	4	Cylindrical	■
JH142040G2R100.0Z4-HXT	02968233	2	G	4,0	6,0	4,0	50,0	8,0	3,7	1,0	5,69	4	Cylindrical	■
JH142060E2R050.0Z4-HXT	02968235	2	E	6,0	6,0	6,0	50,0	12,0	5,6	0,5	—	4	Cylindrical	■
JH142060E2R100.0Z4-HXT	02968237	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	—	4	Cylindrical	■
JH142060E2R100.0Z5-HXT	02968238	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	—	5	Cylindrical	■
JH142060E2R150.0Z5-HXT	02968240	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,5	—	5	Cylindrical	■
JH142060E2R200.0Z5-HXT	02968241	2	E	6,0	6,0	6,0	50,0	12,0	5,6	2,0	—	5	Cylindrical	■
JH142080E2R050.0Z5-HXT	02968242	2	E	8,0	8,0	8,0	60,0	16,0	7,4	0,5	—	5	Cylindrical	■
JH142080E2R100.0Z5-HXT	02968243	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,0	—	5	Cylindrical	■
JH142080E2R150.0Z5-HXT	02968244	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,5	—	5	Cylindrical	■
JH142080E2R200.0Z5-HXT	02968245	2	E	8,0	8,0	8,0	60,0	16,0	7,4	2,0	—	5	Cylindrical	■
JH142080E2R300.0Z5-HXT	02968246	2	E	8,0	8,0	8,0	60,0	16,0	7,4	3,0	—	5	Cylindrical	■
JH142100E2R050.0Z5-HXT	02968247	2	E	10,0	10,0	10,0	70,0	20,0	9,4	0,5	—	5	Cylindrical	■
JH142100E2R100.0Z5-HXT	02968248	2	E	10,0	10,0	10,0	70,0	20,0	9,4	1,0	—	5	Cylindrical	■
JH142100E2R200.0Z5-HXT	02968249	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,0	—	5	Cylindrical	■
JH142100E2R250.0Z5-HXT	02968250	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,5	—	5	Cylindrical	■
JH142120E2R100.0Z6-HXT	02968251	2	E	12,0	12,0	12,0	75,0	24,0	11,4	1,0	—	6	Cylindrical	■
JH142120E2R200.0Z6-HXT	02968252	2	E	12,0	12,0	12,0	75,0	24,0	11,4	2,0	—	6	Cylindrical	■
JH142120E2R300.0Z6-HXT	02968253	2	E	12,0	12,0	12,0	75,0	24,0	11,4	3,0	—	6	Cylindrical	■

■ Stocked standard.

JH142

High speed – High precision – Torical – Hardened steel – 2-5 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out = <0,005 mm
- DMM = h5
- DC = 0-0,01 mm
- RE = ±0,005 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm					
JH142020J3R030.0Z2-HXT	02968255	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	0,9	2	Cylindrical	■
JH142020J3R030.0Z4-HXT	02968256	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	0,9	4	Cylindrical	■
JH142020J3R050.0Z2-HXT	02968257	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	0,9	2	Cylindrical	■
JH142020J3R050.0Z4-HXT	02968258	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	0,9	4	Cylindrical	■
JH142030J3R050.0Z2-HXT	02968259	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	0,9	2	Cylindrical	■
JH142030J3R050.0Z4-HXT	02968260	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	0,9	4	Cylindrical	■
JH142030J3R100.0Z2-HXT	02968261	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	0,9	2	Cylindrical	■
JH142030J3R100.0Z4-HXT	02968262	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	0,9	4	Cylindrical	■
JH142040J3R030.0Z2-HXT	02968263	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	0,9	2	Cylindrical	■
JH142040J3R030.0Z4-HXT	02970111	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	0,9	4	Cylindrical	■
JH142040J3R050.0Z2-HXT	02968265	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	0,9	2	Cylindrical	■
JH142040J3R050.0Z4-HXT	02968264	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	0,9	4	Cylindrical	■
JH142040J3R100.0Z2-HXT	02968266	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	0,9	2	Cylindrical	■
JH142040J3R100.0Z4-HXT	02968267	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	0,9	4	Cylindrical	■
JH142060J3R050.0Z4-HXT	02968268	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	0,9	4	Cylindrical	■
JH142060J3R050.0Z5-HXT	02968269	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	0,9	5	Cylindrical	■
JH142060J3R100.0Z4-HXT	02968270	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	0,9	4	Cylindrical	■
JH142060J3R100.0Z5-HXT	02968271	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	0,9	5	Cylindrical	■
JH142060J3R150.0Z5-HXT	02968272	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,5	1,8	0,9	5	Cylindrical	■
JH142060J3R200.0Z5-HXT	02968273	3	J	6,0	8,0	6,0	75,0	30,0	5,6	2,0	1,83	0,9	5	Cylindrical	■
JH142080J3R050.0Z5-HXT	02968274	3	J	8,0	10,0	8,0	85,0	40,0	7,4	0,5	1,34	0,9	5	Cylindrical	■
JH142080J3R100.0Z5-HXT	02968275	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,0	1,36	0,9	5	Cylindrical	■
JH142080J3R150.0Z5-HXT	02968276	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,5	1,37	0,9	5	Cylindrical	■
JH142080J3R200.0Z5-HXT	02968277	3	J	8,0	10,0	8,0	85,0	40,0	7,4	2,0	1,39	0,9	5	Cylindrical	■
JH142100J3R050.0Z5-HXT	02968278	3	J	10,0	12,0	10,0	100,0	50,0	9,4	0,5	1,1	0,9	5	Cylindrical	■
JH142100J3R100.0Z5-HXT	02968279	3	J	10,0	12,0	10,0	100,0	50,0	9,4	1,0	1,11	0,9	5	Cylindrical	■
JH142100J3R200.0Z5-HXT	02968280	3	J	10,0	12,0	10,0	100,0	50,0	9,4	2,0	1,13	0,9	5	Cylindrical	■
JH142020J6R030.0Z4-HXT	02968282	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,3	4,33	0,9	4	Cylindrical	■
JH142020J6R050.0Z4-HXT	02968283	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,5	4,36	0,9	4	Cylindrical	■
JH142030J6R050.0Z4-HXT	02968284	6	J	3,0	6,0	3,0	75,0	30,0	2,8	0,5	2,52	0,9	4	Cylindrical	■
JH142030J6R100.0Z4-HXT	02968285	6	J	3,0	6,0	3,0	75,0	30,0	2,8	1,0	2,56	0,9	4	Cylindrical	■
JH142040J6R030.0Z4-HXT	02968286	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,3	1,36	0,9	4	Cylindrical	■
JH142040J6R050.0Z4-HXT	02968287	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,5	1,37	0,9	4	Cylindrical	■
JH142040J6R100.0Z4-HXT	02968288	6	J	4,0	6,0	4,0	80,0	40,0	3,7	1,0	1,38	0,9	4	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JH142 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				2	3	4	6	8	10	12	16	
P1	M/E	0.0500	0.050	0.020	0.030	0.040	0.060	0.080	0.10	0.12	0.14	485 (460 – 530)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00080</i>	<i>0,0012</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0055</i>	1600 (1600 – 1700)
P2	M/E	0.0500	0.050	0.020	0.030	0.040	0.060	0.080	0.10	0.12	0.15	470 (450 – 520)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00080</i>	<i>0,0012</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0060</i>	1550 (1500 – 1700)
P3	M/E	0.0500	0.050	0.019	0.028	0.038	0.055	0.075	0.095	0.11	0.14	405 (390 – 450)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00075</i>	<i>0,0011</i>	<i>0,0015</i>	<i>0,0022</i>	<i>0,0030</i>	<i>0,0038</i>	<i>0,0044</i>	<i>0,0055</i>	1325 (1300 – 1400)
P4	M/E	0.0500	0.050	0.019	0.028	0.038	0.055	0.075	0.095	0.11	0.14	360 (340 – 390)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00075</i>	<i>0,0011</i>	<i>0,0015</i>	<i>0,0022</i>	<i>0,0030</i>	<i>0,0038</i>	<i>0,0044</i>	<i>0,0055</i>	1175 (1200 – 1200)
P5	M/E	0.0500	0.050	0.018	0.028	0.036	0.055	0.075	0.090	0.11	0.13	345 (330 – 380)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00070</i>	<i>0,0011</i>	<i>0,0014</i>	<i>0,0022</i>	<i>0,0030</i>	<i>0,0036</i>	<i>0,0044</i>	<i>0,0050</i>	1125 (1100 – 1200)
P6	M/E	0.0500	0.050	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.13	385 (370 – 420)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00070</i>	<i>0,0011</i>	<i>0,0014</i>	<i>0,0022</i>	<i>0,0028</i>	<i>0,0036</i>	<i>0,0044</i>	<i>0,0050</i>	1275 (1300 – 1300)
P7	M/E	0.0500	0.050	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.13	365 (350 – 400)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00070</i>	<i>0,0011</i>	<i>0,0014</i>	<i>0,0022</i>	<i>0,0028</i>	<i>0,0036</i>	<i>0,0044</i>	<i>0,0050</i>	1200 (1200 – 1300)
P8	M/E	0.0500	0.050	0.019	0.028	0.038	0.055	0.075	0.095	0.11	0.14	345 (330 – 380)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00075</i>	<i>0,0011</i>	<i>0,0015</i>	<i>0,0022</i>	<i>0,0030</i>	<i>0,0038</i>	<i>0,0044</i>	<i>0,0055</i>	1125 (1100 – 1200)
P11	M/E	0.0500	0.050	0.018	0.028	0.036	0.055	0.070	0.090	0.11	0.13	355 (340 – 390)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00070</i>	<i>0,0011</i>	<i>0,0014</i>	<i>0,0022</i>	<i>0,0028</i>	<i>0,0036</i>	<i>0,0044</i>	<i>0,0050</i>	1175 (1200 – 1200)
K1	A/E	0.0500	0.050	0.018	0.028	0.036	0.055	0.075	0.090	0.11	0.13	345 (330 – 380)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00070</i>	<i>0,0011</i>	<i>0,0014</i>	<i>0,0022</i>	<i>0,0030</i>	<i>0,0036</i>	<i>0,0044</i>	<i>0,0050</i>	1125 (1100 – 1200)
K2	A/E	0.0500	0.050	0.017	0.025	0.034	0.050	0.065	0.085	0.10	0.12	300 (290 – 330)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00065</i>	<i>0,0010</i>	<i>0,0013</i>	<i>0,0020</i>	<i>0,0026</i>	<i>0,0034</i>	<i>0,0040</i>	<i>0,0048</i>	980 (960 – 1000)
K3	A/E	0.0500	0.050	0.017	0.025	0.034	0.050	0.065	0.085	0.10	0.12	255 (240 – 280)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00065</i>	<i>0,0010</i>	<i>0,0013</i>	<i>0,0020</i>	<i>0,0026</i>	<i>0,0034</i>	<i>0,0040</i>	<i>0,0048</i>	840 (790 – 910)
K4	A/E	0.0500	0.050	0.017	0.025	0.034	0.050	0.065	0.085	0.10	0.12	245 (230 – 260)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00065</i>	<i>0,0010</i>	<i>0,0013</i>	<i>0,0020</i>	<i>0,0026</i>	<i>0,0034</i>	<i>0,0040</i>	<i>0,0048</i>	800 (760 – 850)
K5	A/E	0.0500	0.050	0.018	0.028	0.036	0.055	0.075	0.090	0.11	0.13	345 (330 – 380)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00070</i>	<i>0,0011</i>	<i>0,0014</i>	<i>0,0022</i>	<i>0,0030</i>	<i>0,0036</i>	<i>0,0044</i>	<i>0,0050</i>	1125 (1100 – 1200)
K6	A/E	0.0500	0.050	0.020	0.030	0.040	0.060	0.080	0.10	0.12	0.15	500 (480 – 550)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00080</i>	<i>0,0012</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0060</i>	1650 (1600 – 1800)
K7	A/E	0.0500	0.050	0.018	0.028	0.036	0.055	0.075	0.090	0.11	0.13	440 (420 – 490)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00070</i>	<i>0,0011</i>	<i>0,0014</i>	<i>0,0022</i>	<i>0,0030</i>	<i>0,0036</i>	<i>0,0044</i>	<i>0,0050</i>	1450 (1400 – 1600)
H3	M/A	0.0200	0.020	0.014	0.020	0.028	0.042	0.055	0.070	0.080	0.10	95 (72 – 110)
		<i>0,0200</i>	<i>0,020</i>	<i>0,00055</i>	<i>0,00080</i>	<i>0,0011</i>	<i>0,0017</i>	<i>0,0022</i>	<i>0,0028</i>	<i>0,0032</i>	<i>0,0040</i>	310 (240 – 360)
H5	M/A	0.0400	0.040	0.014	0.022	0.028	0.042	0.055	0.070	0.085	0.10	305 (290 – 330)
		<i>0,0400</i>	<i>0,040</i>	<i>0,00055</i>	<i>0,00085</i>	<i>0,0011</i>	<i>0,0017</i>	<i>0,0022</i>	<i>0,0028</i>	<i>0,0034</i>	<i>0,0040</i>	1000 (960 – 1000)
H7	M/A	0.0200	0.020	0.014	0.020	0.028	0.042	0.055	0.070	0.080	0.10	95 (72 – 110)
		<i>0,0200</i>	<i>0,020</i>	<i>0,00055</i>	<i>0,00080</i>	<i>0,0011</i>	<i>0,0017</i>	<i>0,0022</i>	<i>0,0028</i>	<i>0,0032</i>	<i>0,0040</i>	310 (240 – 360)
H8	M/A	0.0400	0.040	0.011	0.016	0.022	0.032	0.042	0.055	0.065	0.080	310 (290 – 330)
		<i>0,0400</i>	<i>0,040</i>	<i>0,00044</i>	<i>0,00065</i>	<i>0,00085</i>	<i>0,0013</i>	<i>0,0017</i>	<i>0,0022</i>	<i>0,0026</i>	<i>0,0032</i>	1025 (960 – 1000)
H11	M/A	0.0400	0.040	0.014	0.022	0.028	0.042	0.055	0.070	0.085	0.10	390 (360 – 420)
		<i>0,0400</i>	<i>0,040</i>	<i>0,00055</i>	<i>0,00085</i>	<i>0,0011</i>	<i>0,0017</i>	<i>0,0022</i>	<i>0,0028</i>	<i>0,0034</i>	<i>0,0040</i>	1275 (1200 – 1300)
H12	M/A	0.0500	0.050	0.0095	0.014	0.019	0.028	0.038	0.046	0.055	0.070	345 (320 – 370)
		<i>0,0500</i>	<i>0,050</i>	<i>0,00038</i>	<i>0,00055</i>	<i>0,00075</i>	<i>0,0011</i>	<i>0,0015</i>	<i>0,0018</i>	<i>0,0022</i>	<i>0,0028</i>	1125 (1100 – 1200)
H21	M/A	0.0400	0.040	0.011	0.016	0.022	0.032	0.042	0.055	0.065	0.080	310 (290 – 330)
		<i>0,0400</i>	<i>0,040</i>	<i>0,00044</i>	<i>0,00065</i>	<i>0,00085</i>	<i>0,0013</i>	<i>0,0017</i>	<i>0,0022</i>	<i>0,0026</i>	<i>0,0032</i>	1025 (960 – 1000)
H31	M/A	0.0300	0.030	0.013	0.019	0.025	0.038	0.050	0.065	0.075	0.090	140 (120 – 160)
		<i>0,0300</i>	<i>0,030</i>	<i>0,00050</i>	<i>0,00075</i>	<i>0,0010</i>	<i>0,0015</i>	<i>0,0020</i>	<i>0,0026</i>	<i>0,0030</i>	<i>0,0036</i>	460 (400 – 520)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

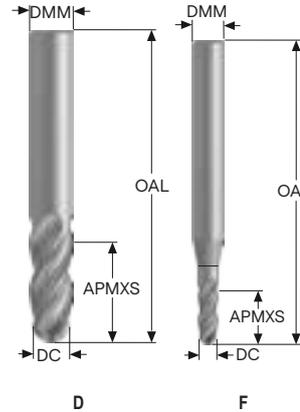
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

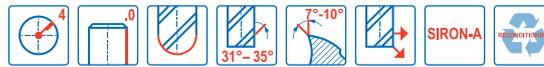
All cutting data are target values

**ST5341**

High performance – Steel – Ball nose – 4 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
ST5341-030F2B.0Z4	SIRA	10302669	2	F	3,0	6,0	7,0	58,0	10,683	3,127	1,5	4	Cylindrical	■
ST5341-040F2B.0Z4	SIRA	10302670	2	F	4,0	6,0	10,0	58,0	14,953	4,127	2,0	4	Cylindrical	■
ST5341-050F2B.0Z4	SIRA	10302671	2	F	5,0	6,0	12,0	58,0	17,334	5,127	2,5	4	Cylindrical	■
ST5341-060D2B.0Z4	SIRA	10302672	2	D	6,0	6,0	14,0	58,0	–	–	3,0	4	Cylindrical	■
ST5341-080D2B.0Z4	SIRA	10302673	2	D	8,0	8,0	18,0	64,0	–	–	4,0	4	Cylindrical	■
ST5341-100D2B.0Z4	SIRA	10302674	2	D	10,0	10,0	22,0	73,0	–	–	5,0	4	Cylindrical	■
ST5341-120D2B.0Z4	SIRA	10302675	2	D	12,0	12,0	26,0	84,0	–	–	6,0	4	Cylindrical	■
ST5341-160D2B.0Z4	SIRA	10302676	2	D	16,0	16,0	34,0	95,0	–	–	8,0	4	Cylindrical	■
ST5341-200D2B.0Z4	SIRA	10302677	2	D	20,0	20,0	42,0	109,0	–	–	10,0	4	Cylindrical	■
ST5341-030F3B.0Z4	SIRA	10302678	3	F	3,0	6,0	9,0	58,0	12,683	3,127	1,5	4	Cylindrical	■
ST5341-040F3B.0Z4	SIRA	10302679	3	F	4,0	6,0	12,0	58,0	16,953	4,127	2,0	4	Cylindrical	■
ST5341-050F3B.0Z4	SIRA	10302680	3	F	5,0	6,0	15,0	58,0	20,334	5,127	2,5	4	Cylindrical	■
ST5341-060D3B.0Z4	SIRA	10302681	3	D	6,0	6,0	18,0	64,0	–	–	3,0	4	Cylindrical	■
ST5341-080D3B.0Z4	SIRA	10302682	3	D	8,0	8,0	24,0	73,0	–	–	4,0	4	Cylindrical	■
ST5341-100D3B.0Z4	SIRA	10302683	3	D	10,0	10,0	30,0	85,0	–	–	5,0	4	Cylindrical	■
ST5341-120D3B.0Z4	SIRA	10302684	3	D	12,0	12,0	36,0	100,0	–	–	6,0	4	Cylindrical	■
ST5341-160D3B.0Z4	SIRA	10302685	3	D	16,0	16,0	48,0	115,0	–	–	8,0	4	Cylindrical	■
ST5341-200D3B.0Z4	SIRA	10302686	3	D	20,0	20,0	60,0	125,0	–	–	10,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

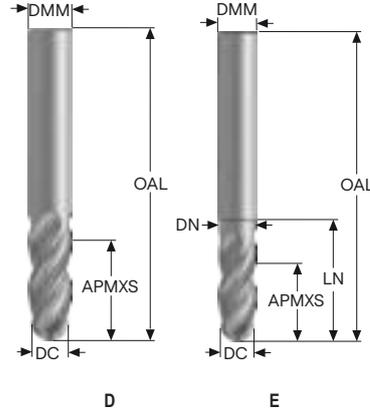
Graphite

X-Heads

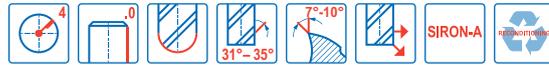
Minimaster

ST5341

High performance – Steel – Ball nose – 4 Flutes – Cylindrical – Inch



- Tolerances:
- DMM= -.0001"/-.0004"
- DC= +.000"/-.002"
- RE= ±.0004"
- Regrind possible if DC is ≥Ø.250



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5341-.125D2B.0Z4	SIRA	10302637	2	D	0.125	0.125	0.250	1.500	—	—	0.063	4	Cylindrical	■
ST5341-.188D2B.0Z4	SIRA	10302638	2	D	0.188	0.188	0.375	2.000	—	—	0.094	4	Cylindrical	■
ST5341-.250D2B.0Z4	SIRA	10302639	2	D	0.250	0.250	0.500	2.500	—	—	0.125	4	Cylindrical	■
ST5341-.250E2B.0Z4	SIRA	10302640	2	E	0.250	0.250	0.500	2.500	0.750	0.240	0.125	4	Cylindrical	■
ST5341-.313D2B.0Z4	SIRA	10302641	2	D	0.313	0.313	0.625	2.500	—	—	0.156	4	Cylindrical	■
ST5341-.313E2B.0Z4	SIRA	10302642	2	E	0.313	0.313	0.625	3.000	0.938	0.300	0.156	4	Cylindrical	■
ST5341-.375D2B.0Z4	SIRA	10302643	2	D	0.375	0.375	0.750	2.500	—	—	0.188	4	Cylindrical	■
ST5341-.375E2B.0Z4	SIRA	10302644	2	E	0.375	0.375	0.750	3.000	1.125	0.360	0.188	4	Cylindrical	■
ST5341-.438D2B.0Z4	SIRA	10302645	2	D	0.438	0.438	0.875	2.750	—	—	0.219	4	Cylindrical	■
ST5341-.500D2B.0Z4	SIRA	10302646	2	D	0.500	0.500	1.000	3.000	—	—	0.250	4	Cylindrical	■
ST5341-.500E2B.0Z4	SIRA	10302647	2	E	0.500	0.500	1.000	3.000	1.500	0.480	0.250	4	Cylindrical	■
ST5341-.625D2B.0Z4	SIRA	10302648	2	D	0.625	0.625	1.250	3.500	—	—	0.313	4	Cylindrical	■
ST5341-.625E2B.0Z4	SIRA	10302649	2	E	0.625	0.625	1.250	3.500	1.875	0.600	0.313	4	Cylindrical	■
ST5341-.750D2B.0Z4	SIRA	10302650	2	D	0.750	0.750	1.500	4.000	—	—	0.375	4	Cylindrical	■
ST5341-.750E2B.0Z4	SIRA	10302651	2	E	0.750	0.750	1.500	4.000	2.250	0.720	0.375	4	Cylindrical	■
ST5341-1.00D2B.0Z4	SIRA	10302652	2	D	1.000	1.000	2.000	5.000	—	—	0.500	4	Cylindrical	■
ST5341-1.00E2B.0Z4	SIRA	10302653	2	E	1.000	1.000	2.000	5.000	3.000	0.960	0.500	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

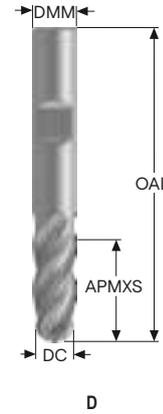
Graphite

X-Heads

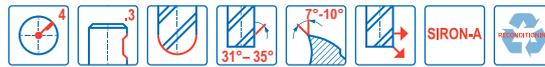
Minimaster

**ST5341**

High performance – Steel – Ball nose – 4 Flutes – Weldon



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,01 mm
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
ST5341-060D2B.3Z4	SIRA	10302687	2	D	6,0	6,0	14,0	58,0	3,0	4	Weldon	<input type="checkbox"/>
ST5341-080D2B.3Z4	SIRA	10302688	2	D	8,0	8,0	18,0	64,0	4,0	4	Weldon	<input type="checkbox"/>
ST5341-100D2B.3Z4	SIRA	10302689	2	D	10,0	10,0	22,0	73,0	5,0	4	Weldon	<input type="checkbox"/>
ST5341-120D2B.3Z4	SIRA	10302690	2	D	12,0	12,0	26,0	84,0	6,0	4	Weldon	<input type="checkbox"/>
ST5341-160D2B.3Z4	SIRA	10302691	2	D	16,0	16,0	34,0	95,0	8,0	4	Weldon	<input type="checkbox"/>
ST5341-200D2B.3Z4	SIRA	10302692	2	D	20,0	20,0	42,0	109,0	10,0	4	Weldon	<input type="checkbox"/>
ST5341-060D3B.3Z4	SIRA	10302693	3	D	6,0	6,0	18,0	64,0	3,0	4	Weldon	<input type="checkbox"/>
ST5341-080D3B.3Z4	SIRA	10302694	3	D	8,0	8,0	24,0	73,0	4,0	4	Weldon	<input type="checkbox"/>
ST5341-100D3B.3Z4	SIRA	10302695	3	D	10,0	10,0	30,0	85,0	5,0	4	Weldon	<input type="checkbox"/>
ST5341-120D3B.3Z4	SIRA	10302696	3	D	12,0	12,0	36,0	100,0	6,0	4	Weldon	<input type="checkbox"/>
ST5341-160D3B.3Z4	SIRA	10302697	3	D	16,0	16,0	48,0	115,0	8,0	4	Weldon	<input type="checkbox"/>
ST5341-200D3B.3Z4	SIRA	10302698	3	D	20,0	20,0	60,0	125,0	10,0	4	Weldon	<input type="checkbox"/>

 Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

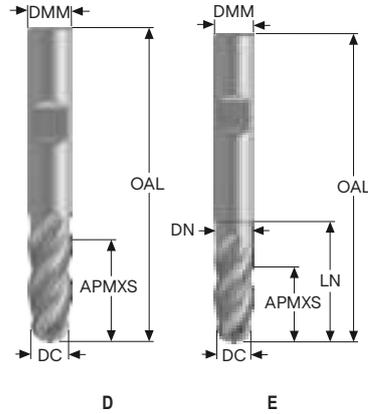
Graphite

X-Heads

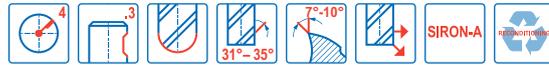
Minimaxter

ST5341

High performance – Steel – Ball nose – 4 Flutes – Weldon – Inch



—Tolerances:  
 —DMM= -.0001"/-.0004"  
 —DC= +.000"/-.002"  
 —RE= ±.0004"  
 —Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					inch									
ST5341-.250D2B.3Z4	SIRA	10302654	2	D	0.250	0.250	0.500	2.500	—	—	0.125	4	Weldon	<input type="checkbox"/>
ST5341-.250E2B.3Z4	SIRA	10302655	2	E	0.250	0.250	0.500	2.500	0.750	0.240	0.125	4	Weldon	<input type="checkbox"/>
ST5341-.313D2B.3Z4	SIRA	10302656	2	D	0.313	0.313	0.625	2.500	—	—	0.156	4	Weldon	<input type="checkbox"/>
ST5341-.313E2B.3Z4	SIRA	10302657	2	E	0.313	0.313	0.625	3.000	0.938	0.300	0.156	4	Weldon	<input type="checkbox"/>
ST5341-.375D2B.3Z4	SIRA	10302658	2	D	0.375	0.375	0.750	2.500	—	—	0.188	4	Weldon	<input type="checkbox"/>
ST5341-.375E2B.3Z4	SIRA	10302659	2	E	0.375	0.375	0.750	3.000	1.125	0.360	0.188	4	Weldon	<input type="checkbox"/>
ST5341-.438D2B.3Z4	SIRA	10302660	2	D	0.438	0.438	0.875	2.750	—	—	0.219	4	Weldon	<input type="checkbox"/>
ST5341-.500D2B.3Z4	SIRA	10302661	2	D	0.500	0.500	1.000	3.000	—	—	0.250	4	Weldon	<input type="checkbox"/>
ST5341-.500E2B.3Z4	SIRA	10302662	2	E	0.500	0.500	1.000	3.000	1.500	0.480	0.250	4	Weldon	<input type="checkbox"/>
ST5341-.625D2B.3Z4	SIRA	10302663	2	D	0.625	0.625	1.250	3.500	—	—	0.313	4	Weldon	<input type="checkbox"/>
ST5341-.625E2B.3Z4	SIRA	10302664	2	E	0.625	0.625	1.250	3.500	1.875	0.600	0.313	4	Weldon	<input type="checkbox"/>
ST5341-.750D2B.3Z4	SIRA	10302665	2	D	0.750	0.750	1.500	4.000	—	—	0.375	4	Weldon	<input type="checkbox"/>
ST5341-.750E2B.3Z4	SIRA	10302666	2	E	0.750	0.750	1.500	4.000	2.250	0.720	0.375	4	Weldon	<input type="checkbox"/>
ST5341-1.00D2B.3Z4	SIRA	10302667	2	D	1.000	1.000	2.000	5.000	—	—	0.500	4	Weldon	<input type="checkbox"/>
ST5341-1.00E2B.3Z4	SIRA	10302668	2	E	1.000	1.000	2.000	5.000	3.000	0.960	0.500	4	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaxter

Cutting data – ST5341 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>	
				1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1		
P1	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	260 (210 – 310)	Universal
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	850 (690 – 1000)	
P2	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	250 (200 – 310)	Steel and cast iron
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	820 (660 – 1000)	
P3	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	215 (180 – 260)	Steel and cast iron
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	710 (600 – 850)	
P4	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	190 (160 – 230)	Steel and cast iron
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	620 (530 – 750)	
P5	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	180 (150 – 220)	Steel and cast iron
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	590 (500 – 720)	
P6	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	205 (170 – 250)	Steel and cast iron
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	670 (560 – 820)	
P7	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	190 (160 – 230)	Stainless steel and S-materials
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	620 (530 – 750)	
P8	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	180 (150 – 220)	Stainless steel and S-materials
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	590 (500 – 720)	
P11	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	185 (150 – 230)	Stainless steel and S-materials
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	610 (500 – 750)	
P12	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,20	110 (88 – 130)	Stainless steel and S-materials
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0080	360 (290 – 420)	
K1	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	255 (210 – 310)	Non ferrous
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	840 (690 – 1000)	
K2	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	220 (180 – 270)	Non ferrous
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	720 (600 – 880)	
K3	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	185 (150 – 230)	Non ferrous
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	610 (500 – 750)	
K4	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	175 (150 – 210)	Non ferrous
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	570 (500 – 680)	
K5	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	105 (85 – 130)	Hard
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	345 (280 – 420)	
K6	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	155 (130 – 190)	Hard
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	510 (430 – 620)	
K7	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	135 (110 – 160)	Hard
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	445 (370 – 520)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – ST5341 Copy milling roughing – Inch

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1	
P1	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	260 (210 – 310)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	850 (690 – 1000)
P2	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	250 (200 – 310)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	820 (660 – 1000)
P3	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	215 (180 – 260)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	710 (600 – 850)
P4	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	190 (160 – 230)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	620 (530 – 750)
P5	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	180 (150 – 220)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	590 (500 – 720)
P6	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	205 (170 – 250)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	670 (560 – 820)
P7	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	190 (160 – 230)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	620 (530 – 750)
P8	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	180 (150 – 220)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	590 (500 – 720)
P11	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	185 (150 – 230)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	610 (500 – 750)
P12	M/A/D/E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,20	110 (88 – 130)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0080	360 (290 – 420)
K1	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	255 (210 – 310)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	840 (690 – 1000)
K2	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	220 (180 – 270)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	720 (600 – 880)
K3	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	185 (150 – 230)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	610 (500 – 750)
K4	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	175 (150 – 210)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	570 (500 – 680)
K5	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	105 (85 – 130)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	345 (280 – 420)
K6	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	155 (130 – 190)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	510 (430 – 620)
K7	E	0,060	2,0	0,028	0,042	0,055	0,070	0,085	0,10	0,11	0,14	0,17	0,22	135 (110 – 160)
		0.060	2.0	0.0011	0.0017	0.0022	0.0028	0.0034	0.0040	0.0044	0.0055	0.0065	0.0085	445 (370 – 520)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

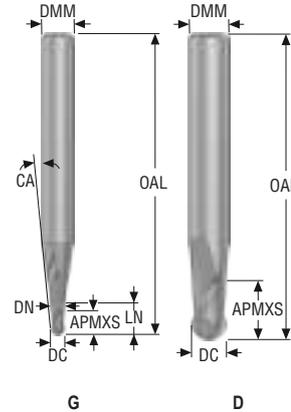
Graphite

X-Heads

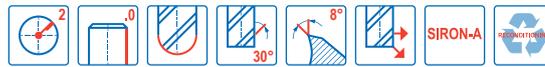
Minimaster

JHB970

High speed – Universal – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm				
JHB970020G1B.0Z2	SIRA	10072058	1	G	2,0	3,0	3,0	50,0	10,0	1,9	1,0	2,5	2	Cylindrical	■
JHB970030D1B.0Z2	SIRA	10072059	1	D	3,0	3,0	4,5	50,0	–	–	1,5	–	2	Cylindrical	■
JHB970040D1B.0Z2	SIRA	10072060	1	D	4,0	4,0	6,0	60,0	–	–	2,0	–	2	Cylindrical	■
JHB970050D1B.0Z2	SIRA	10072061	1	D	5,0	5,0	7,5	60,0	–	–	2,5	–	2	Cylindrical	■
JHB970060D1B.0Z2	SIRA	10072062	1	D	6,0	6,0	9,0	75,0	–	–	3,0	–	2	Cylindrical	■
JHB970020G2B.0Z2	SIRA	10072063	2	G	2,0	6,0	3,0	60,0	4,0	1,9	1,0	8,0	2	Cylindrical	■
JHB970025G2B.0Z2	SIRA	10072064	2	G	2,5	6,0	4,0	60,0	5,0	2,4	1,25	7,5	2	Cylindrical	■
JHB970030G2B.0Z2	SIRA	10072065	2	G	3,0	6,0	4,5	60,0	6,0	2,8	1,5	5,5	2	Cylindrical	■
JHB970035G2B.0Z2	SIRA	10072066	2	G	3,5	6,0	5,0	60,0	7,0	3,2	1,75	4,5	2	Cylindrical	■
JHB970040G2B.0Z2	SIRA	10072067	2	G	4,0	6,0	6,0	60,0	8,0	3,7	2,0	3,0	2	Cylindrical	■
JHB970050G2B.0Z2	SIRA	10072068	2	G	5,0	6,0	7,5	60,0	10,0	4,6	2,5	2,0	2	Cylindrical	■
JHB970060G2B.0Z2	SIRA	10072069	2	G	6,0	8,0	9,0	75,0	12,0	5,6	3,0	2,5	2	Cylindrical	■
JHB970080D2B.0Z2	SIRA	10072070	2	D	8,0	8,0	12,0	75,0	–	–	4,0	–	2	Cylindrical	■
JHB970100D2B.0Z2	SIRA	10072071	2	D	10,0	10,0	15,0	80,0	–	–	5,0	–	2	Cylindrical	■
JHB970120D2B.0Z2	SIRA	10072072	2	D	12,0	12,0	18,0	90,0	–	–	6,0	–	2	Cylindrical	■
JHB970160D2B.0Z2	SIRA	10072073	2	D	16,0	16,0	24,0	100,0	–	–	8,0	–	2	Cylindrical	■
JHB970020G3B.0Z2	SIRA	10072074	3	G	2,0	6,0	3,0	80,0	4,0	1,9	1,0	8,0	2	Cylindrical	■
JHB970030G3B.0Z2	SIRA	10072075	3	G	3,0	6,0	4,5	80,0	6,0	2,8	1,5	5,5	2	Cylindrical	■
JHB970040G3B.0Z2	SIRA	10072076	3	G	4,0	6,0	6,0	80,0	8,0	3,7	2,0	3,0	2	Cylindrical	■
JHB970060G3B.0Z2	SIRA	10072077	3	G	6,0	8,0	9,0	100,0	12,0	5,6	3,0	2,5	2	Cylindrical	■
JHB970080D3B.0Z2	SIRA	10072078	3	D	8,0	8,0	12,0	108,0	–	–	4,0	–	2	Cylindrical	■
JHB970100D3B.0Z2	SIRA	10072079	3	D	10,0	10,0	15,0	125,0	–	–	5,0	–	2	Cylindrical	■
JHB970120D3B.0Z2	SIRA	10072080	3	D	12,0	12,0	18,0	125,0	–	–	6,0	–	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – JHB970 Copy milling roughing

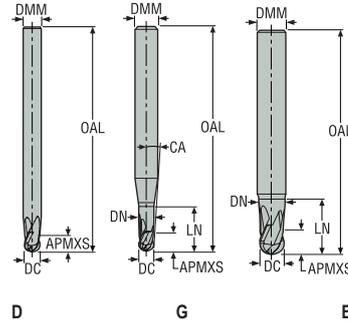
SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				2	2.5	3	3.5	4	5	6	8	10	12	16		
P1	M	0.200	1.0	0.011	0.014	0.016	0.019	0.022	0.028	0.032	0.044	0.055	0.065	0.080	210 (190 – 230)	
		0.200	1.0	0.00044	0.00055	0.00065	0.00075	0.00085	0.0011	0.0013	0.0017	0.0022	0.0026	0.0032	690 (630 – 750)	
P2	M	0.200	1.0	0.011	0.014	0.017	0.019	0.022	0.028	0.034	0.044	0.055	0.065	0.080	205 (180 – 230)	
		0.200	1.0	0.00044	0.00055	0.00065	0.00075	0.00085	0.0011	0.0013	0.0017	0.0022	0.0026	0.0032	670 (600 – 750)	
P3	M	0.200	1.0	0.010	0.013	0.016	0.018	0.020	0.026	0.032	0.042	0.050	0.060	0.075	180 (160 – 200)	
		0.200	1.0	0.00040	0.00050	0.00065	0.00070	0.00080	0.0010	0.0013	0.0017	0.0020	0.0024	0.0030	590 (530 – 650)	
P4	M	0.200	1.0	0.010	0.013	0.015	0.018	0.020	0.026	0.030	0.040	0.050	0.060	0.075	155 (140 – 170)	
		0.200	1.0	0.00040	0.00050	0.00060	0.00070	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0030	510 (460 – 550)	
P5	M	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	150 (140 – 170)	
		0.200	1.0	0.00040	0.00048	0.00060	0.00065	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0030	490 (460 – 550)	
P6	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	170 (150 – 190)	
		0.200	1.0	0.00040	0.00048	0.00060	0.00065	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0030	560 (500 – 620)	
P7	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	160 (140 – 180)	
		0.200	1.0	0.00040	0.00048	0.00060	0.00065	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0030	520 (460 – 590)	
P8	M	0.200	1.0	0.010	0.013	0.016	0.018	0.020	0.026	0.032	0.042	0.050	0.060	0.075	150 (140 – 170)	
		0.200	1.0	0.00040	0.00050	0.00065	0.00070	0.00080	0.0010	0.0013	0.0017	0.0020	0.0024	0.0030	490 (460 – 550)	
P11	M	0.200	1.0	0.010	0.012	0.015	0.017	0.020	0.025	0.030	0.040	0.050	0.060	0.075	75 (67 – 86)	
		0.200	1.0	0.00040	0.00048	0.00060	0.00065	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0030	245 (220 – 280)	
P12	M	0.200	1.0	0.0070	0.0085	0.010	0.012	0.014	0.017	0.020	0.028	0.034	0.040	0.050	48 (42 – 53)	
		0.200	1.0	0.00028	0.00034	0.00040	0.00048	0.00055	0.00065	0.00080	0.0011	0.0013	0.0016	0.0020	155 (140 – 170)	
M1	E	0.200	1.0	0.0090	0.011	0.013	0.015	0.018	0.022	0.026	0.036	0.044	0.050	0.065	90 (80 – 100)	
		0.200	1.0	0.00036	0.00044	0.00050	0.00060	0.00070	0.00085	0.0010	0.0014	0.0017	0.0020	0.0026	295 (270 – 320)	
M2	E	0.200	1.0	0.0080	0.010	0.012	0.014	0.016	0.020	0.024	0.032	0.040	0.048	0.060	75 (65 – 85)	
		0.200	1.0	0.00032	0.00040	0.00048	0.00055	0.00065	0.00080	0.00095	0.0013	0.0016	0.0019	0.0024	245 (220 – 270)	
M3	E	0.150	1.0	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	65 (55 – 75)	
		0.150	1.0	0.00024	0.00030	0.00036	0.00040	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0017	215 (190 – 240)	
M4	E	0.150	1.0	0.0050	0.0065	0.0080	0.0090	0.010	0.013	0.016	0.020	0.026	0.032	0.038	49 (42 – 56)	
		0.150	1.0	0.00020	0.00026	0.00032	0.00036	0.00040	0.00050	0.00065	0.00080	0.0010	0.0013	0.0015	160 (140 – 180)	
M5	E	0.150	1.0	0.0050	0.0065	0.0080	0.0090	0.010	0.013	0.016	0.020	0.026	0.032	0.038	41 (35 – 47)	
		0.150	1.0	0.00020	0.00026	0.00032	0.00036	0.00040	0.00050	0.00065	0.00080	0.0010	0.0013	0.0015	135 (120 – 150)	
S1	E	0.100	0.80	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	50 (40 – 59)	
		0.100	0.80	0.00024	0.00030	0.00036	0.00040	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0017	165 (140 – 190)	
S2	E	0.100	0.80	0.0060	0.0075	0.0090	0.010	0.012	0.015	0.018	0.024	0.030	0.036	0.044	40 (33 – 48)	
		0.100	0.80	0.00024	0.00030	0.00036	0.00040	0.00048	0.00060	0.00070	0.00095	0.0012	0.0014	0.0017	130 (110 – 150)	
S3	E	0.100	0.60	0.0040	0.0050	0.0060	0.0070	0.0080	0.010	0.012	0.016	0.020	0.024	0.028	30 (20 – 39)	
		0.100	0.60	0.00016	0.00020	0.00024	0.00028	0.00032	0.00040	0.00048	0.00065	0.00080	0.00095	0.0011	100 (66 – 120)	
S11	E	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	90 (79 – 100)	
		0.200	1.0	0.00040	0.00048	0.00060	0.00065	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0030	295 (260 – 320)	
S12	E	0.200	1.0	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.040	0.050	0.060	0.075	70 (61 – 80)	
		0.200	1.0	0.00040	0.00048	0.00060	0.00065	0.00080	0.0010	0.0012	0.0016	0.0020	0.0024	0.0030	230 (210 – 260)	
S13	E	0.200	1.0	0.0085	0.011	0.013	0.015	0.017	0.022	0.026	0.034	0.044	0.050	0.065	55 (48 – 63)	
		0.200	1.0	0.00034	0.00044	0.00050	0.00060	0.00065	0.00085	0.0010	0.0013	0.0017	0.0020	0.0026	180 (160 – 200)	

For cutting data recalculations, see pages 687 – 695

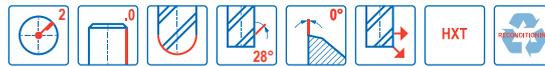
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

**JH112**

High speed – High precision – Hardened steel – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JH112020G1B.0Z2-HXT	02970112	1	G	2,0	4,0	2,0	40,0	4,0	1,9	1,0	6,45	2	Cylindrical	■
JH112030G1B.0Z2-HXT	02970113	1	G	3,0	4,0	3,0	40,0	6,0	2,8	1,5	3,3	2	Cylindrical	■
JH112040D1B.0Z2-HXT	02970114	1	D	4,0	4,0	4,0	40,0	–	–	2,0	–	2	Cylindrical	■
JH112050G1B.0Z2-HXT	02970115	1	G	5,0	6,0	5,0	50,0	10,0	4,6	2,5	2,0	2	Cylindrical	■
JH112060D1B.0Z2-HXT	02970116	1	D	6,0	6,0	6,0	50,0	–	–	3,0	–	2	Cylindrical	■
JH112080D1B.0Z2-HXT	02970117	1	D	8,0	8,0	8,0	65,0	–	–	4,0	–	2	Cylindrical	■
JH112100D1B.0Z2-HXT	02970118	1	D	10,0	10,0	10,0	65,0	–	–	5,0	–	2	Cylindrical	■
JH112020G2B.0Z2-HXT	02970119	2	G	2,0	3,0	2,0	50,0	10,0	1,9	1,0	2,5	2	Cylindrical	■
JH112030D2B.0Z2-HXT	02970120	2	D	3,0	3,0	3,0	50,0	–	–	1,5	–	2	Cylindrical	■
JH112040D2B.0Z2-HXT	02970121	2	D	4,0	4,0	4,0	60,0	–	–	2,0	–	2	Cylindrical	■
JH112050D2B.0Z2-HXT	02970122	2	D	5,0	5,0	5,0	60,0	–	–	2,5	–	2	Cylindrical	■
JH112060D2B.0Z2-HXT	02970123	2	D	6,0	6,0	6,0	75,0	–	–	3,0	–	2	Cylindrical	■
JH112020G3B.0Z2-HXT	02970124	3	G	2,0	6,0	2,0	60,0	4,0	1,9	1,0	8,12	2	Cylindrical	■
JH112025G3B.0Z2-HXT	02970125	3	G	2,5	6,0	2,5	60,0	5,0	2,4	1,25	7,39	2	Cylindrical	■
JH112030G3B.0Z2-HXT	02970126	3	G	3,0	6,0	3,0	60,0	6,0	2,8	1,5	5,5	2	Cylindrical	■
JH112035G3B.0Z2-HXT	02968289	3	G	3,5	6,0	3,5	65,0	7,0	3,2	1,75	3,81	2	Cylindrical	■
JH112040G3B.0Z2-HXT	02970127	3	G	4,0	6,0	4,0	65,0	8,0	3,7	2,0	3,34	2	Cylindrical	■
JH112050G3B.0Z2-HXT	02970128	3	G	5,0	6,0	5,0	65,0	10,0	4,6	2,5	2,0	2	Cylindrical	■
JH112060G3B.0Z2-HXT	02970129	3	G	6,0	8,0	6,0	75,0	12,0	5,6	3,0	2,78	2	Cylindrical	■
JH112080E3B.0Z2-HXT	02968290	3	E	8,0	8,0	8,0	75,0	16,0	7,4	4,0	–	2	Cylindrical	■
JH112100E3B.0Z2-HXT	02968291	3	E	10,0	10,0	10,0	80,0	20,0	9,4	5,0	–	2	Cylindrical	■
JH112120E3B.0Z2-HXT	02968292	3	E	12,0	12,0	12,0	90,0	24,0	11,4	6,0	–	2	Cylindrical	■
JH112020G4B.0Z2-HXT	02970130	4	G	2,0	6,0	2,0	80,0	20,0	1,9	1,0	3,82	2	Cylindrical	■
JH112030G4B.0Z2-HXT	02970131	4	G	3,0	6,0	3,0	80,0	20,0	2,8	1,5	2,91	2	Cylindrical	■
JH112040G4B.0Z2-HXT	02970132	4	G	4,0	6,0	4,0	80,0	20,0	3,7	2,0	1,97	2	Cylindrical	■
JH112050G4B.0Z2-HXT	02970133	4	G	5,0	6,0	5,0	100,0	50,0	4,6	2,5	0,53	2	Cylindrical	■
JH112060D4B.0Z2-HXT	02968293	4	D	6,0	6,0	6,0	100,0	–	–	3,0	–	2	Cylindrical	■
JH112080D4B.0Z2-HXT	02968294	4	D	8,0	8,0	8,0	110,0	–	–	4,0	–	2	Cylindrical	■
JH112100D4B.0Z2-HXT	02968295	4	D	10,0	10,0	10,0	125,0	–	–	5,0	–	2	Cylindrical	■
JH112120D4B.0Z2-HXT	02968296	4	D	12,0	12,0	12,0	125,0	–	–	6,0	–	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

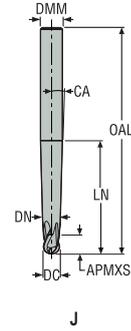
Plastic and cfrp

Graphite

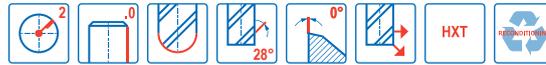
X-Heads

Minimaster

JH112  
High speed – High precision – Hardened steel – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PCEDC	Shank	Stock standard
JH112020J5B.0Z2-HXT	02970134	5	J	2,0	6,0	2,0	80,0	35,0	1,9	1,0	3,3	3,55	2	Cylindrical	■
JH112030J5B.0Z2-HXT	02970135	5	J	3,0	6,0	3,0	80,0	40,0	2,8	1,5	2,2	2,5	2	Cylindrical	■
JH112040J5B.0Z2-HXT	02970136	5	J	4,0	6,0	4,0	80,0	52,0	3,7	2,0	1,2	1,4	2	Cylindrical	■
JH112050J5B.0Z2-HXT	02970137	5	J	5,0	8,0	5,0	100,0	56,0	4,6	2,5	1,6	1,95	2	Cylindrical	■
JH112060J5B.0Z2-HXT	02970138	5	J	6,0	8,0	6,0	100,0	56,0	5,6	3,0	1,1	1,4	2	Cylindrical	■
JH112080J5B.0Z2-HXT	02970139	5	J	8,0	10,0	8,0	125,0	62,0	7,4	4,0	1,0	1,43	2	Cylindrical	■
JH112100J5B.0Z2-HXT	02970140	5	J	10,0	12,0	10,0	125,0	61,0	9,4	5,0	1,0	1,5	2	Cylindrical	■
JH112060J6B.0Z2-HXT	02970141	6	J	6,0	10,0	6,0	125,0	62,0	5,6	3,0	2,0	2,3	2	Cylindrical	■
JH112080J6B.0Z2-HXT	02970142	6	J	8,0	12,0	8,0	150,0	67,0	7,4	4,0	1,8	2,3	2	Cylindrical	■
JH112100J6B.0Z2-HXT	02970143	6	J	10,0	12,0	10,0	150,0	79,0	9,4	5,0	0,8	1,1	2	Cylindrical	■

■ Stocked standard.

## Cutting data – JH112 Copy milling finishing

SMG	A D E M	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>	
			2	2.5	3	3.5	4	5	6	8	10	12		
K1	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	520 (500 — 730)	Universal
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1700 (1700 — 2300)	
K2	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	445 (430 — 630)	Steel and cast iron
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1450 (1500 — 2000)	
K3	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	380 (360 — 530)	Steel and cast iron
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1250 (1200 — 1700)	
K4	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	360 (350 — 510)	Steel and cast iron
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1175 (1200 — 1600)	
K5	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	415 (370 — 610)	Steel and cast iron
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1350 (1300 — 2000)	
K6	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	610 (550 — 900)	Steel and cast iron
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	2000 (1900 — 2900)	
K7	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	680 (560 — 790)	Stainless steel and S-materials
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	2225 (1900 — 2500)	
H3	M	0.16	0.028	0.036	0.042	0.048	0.055	0.070	0.085	0.11	0.14	0.17	155 (150 — 230)	Stainless steel and S-materials
		0,16	0,0011	0,0014	0,0017	0,0019	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	510 (500 — 750)	
H5	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	285 (240 — 330)	Stainless steel and S-materials
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	940 (790 — 1000)	
H7	M	0.16	0.028	0.036	0.042	0.048	0.055	0.070	0.085	0.11	0.14	0.17	155 (150 — 230)	Stainless steel and S-materials
		0,16	0,0011	0,0014	0,0017	0,0019	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	510 (500 — 750)	
H8	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	285 (240 — 330)	Non ferrous
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	940 (790 — 1000)	
H11	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	360 (300 — 420)	Non ferrous
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1175 (990 — 1300)	
H12	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	330 (280 — 380)	Non ferrous
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1075 (920 — 1200)	
H21	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	285 (240 — 330)	Non ferrous
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	940 (790 — 1000)	
H31	M	0.30	0.026	0.032	0.040	0.046	0.050	0.065	0.080	0.10	0.13	0.16	300 (290 — 430)	Hard
		0,30	0,0010	0,0013	0,0016	0,0018	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	980 (960 — 1400)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaxter

Cutting data – JH112 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	2.5	3	3.5	4	5	6	8	10	12	
K1	E	0.250	0.15	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	315 (310 — 450)
		0,250	0,15	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1025 (1100 — 1400)
K2	E	0.250	0.15	0.028	0.036	0.044	0.050	0.060	0.070	0.085	0.12	0.14	0.17	280 (270 — 390)
		0,250	0,15	0,0011	0,0014	0,0017	0,0020	0,0024	0,0028	0,0034	0,0048	0,0055	0,0065	920 (890 — 1200)
K3	E	0.250	0.15	0.028	0.036	0.044	0.050	0.060	0.070	0.085	0.12	0.14	0.17	235 (230 — 330)
		0,250	0,15	0,0011	0,0014	0,0017	0,0020	0,0024	0,0028	0,0034	0,0048	0,0055	0,0065	770 (760 — 1000)
K4	E	0.250	0.15	0.028	0.036	0.044	0.050	0.060	0.070	0.085	0.12	0.14	0.17	225 (220 — 320)
		0,250	0,15	0,0011	0,0014	0,0017	0,0020	0,0024	0,0028	0,0034	0,0048	0,0055	0,0065	740 (730 — 1000)
K5	E	0.160	0.15	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	280 (250 — 410)
		0,160	0,15	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	920 (830 — 1300)
K6	E	0.160	0.15	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	415 (370 — 610)
		0,160	0,15	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1350 (1300 — 2000)
K7	E	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	420 (350 — 490)
		0,250	0,10	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1375 (1200 — 1600)
H3	M	0.120	0.040	0.028	0.036	0.042	0.048	0.055	0.070	0.085	0.11	0.14	0.17	110 (100 — 160)
		0,120	0,040	0,0011	0,0014	0,0017	0,0019	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	360 (330 — 520)
H5	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	175 (150 — 200)
		0,250	0,10	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	570 (500 — 650)
H7	M	0.120	0.040	0.028	0.036	0.042	0.048	0.055	0.070	0.085	0.11	0.14	0.17	110 (100 — 160)
		0,120	0,040	0,0011	0,0014	0,0017	0,0019	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	360 (330 — 520)
H8	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	175 (150 — 200)
		0,250	0,10	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	570 (500 — 650)
H11	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	225 (190 — 260)
		0,250	0,10	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	740 (630 — 850)
H12	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	205 (170 — 240)
		0,250	0,10	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	670 (560 — 780)
H21	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	175 (150 — 200)
		0,250	0,10	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	570 (500 — 650)
H31	M	0.200	0.10	0.026	0.032	0.040	0.046	0.050	0.065	0.080	0.10	0.13	0.16	200 (200 — 280)
		0,200	0,10	0,0010	0,0013	0,0016	0,0018	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	660 (660 — 910)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

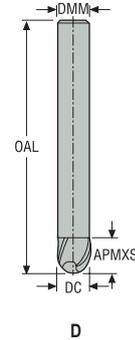
Graphite

X-Heads

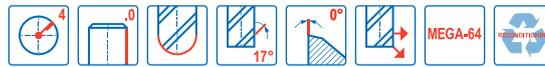
Minimaster

JH150

High speed – Hardened steel – Ball nose – 4 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
150060-MEGA-64	00019198	2	D	6,0	6,0	6,0	80,0	3,0	4	Cylindrical	■
150080-MEGA-64	00019208	2	D	8,0	8,0	8,0	85,0	4,0	4	Cylindrical	■
150100-MEGA-64	00019219	2	D	10,0	10,0	10,0	100,0	5,0	4	Cylindrical	■
150120-MEGA-64	00019254	2	D	12,0	12,0	12,0	100,0	6,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH150 Copy milling roughing

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
K1-K7	A	0.300 <i>0,300</i>	0.15 <i>0,15</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	290 (310 – 370) <i>950 (1100 – 1200)</i>
	A	0.300 <i>0,300</i>	0.15 <i>0,15</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	250 (270 – 320) <i>820 (890 – 1000)</i>
	A	0.300 <i>0,300</i>	0.15 <i>0,15</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	210 (230 – 270) <i>690 (760 – 880)</i>
	A	0.200 <i>0,200</i>	0.15 <i>0,15</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	255 (270 – 330) <i>840 (890 – 1000)</i>
	A	0.200 <i>0,200</i>	0.15 <i>0,15</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	375 (390 – 500) <i>1225 (1300 – 1600)</i>
	A	0.200 <i>0,200</i>	0.15 <i>0,15</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	325 (340 – 430) <i>1075 (1200 – 1400)</i>
	A	0.200 <i>0,200</i>	0.15 <i>0,15</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	1075 (1200 – 1400)
H3-H8	M	0.0500 <i>0,0500</i>	0.020 <i>0,020</i>	0.085 <i>0,0034</i>	0.11 <i>0,0044</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	85 (88 – 120) <i>280 (290 – 390)</i>
	M	0.200 <i>0,200</i>	0.060 <i>0,060</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	180 (160 – 200) <i>590 (530 – 650)</i>
	M	0.0500 <i>0,0500</i>	0.020 <i>0,020</i>	0.085 <i>0,0034</i>	0.11 <i>0,0044</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	85 (88 – 120) <i>280 (290 – 390)</i>
	M	0.200 <i>0,200</i>	0.060 <i>0,060</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	180 (160 – 200) <i>590 (530 – 650)</i>
H11-H12	M	0.200 <i>0,200</i>	0.060 <i>0,060</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	230 (210 – 250) <i>750 (690 – 820)</i>
	M	0.200 <i>0,200</i>	0.060 <i>0,060</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	210 (190 – 230) <i>690 (630 – 750)</i>
	M	0.200 <i>0,200</i>	0.060 <i>0,060</i>	0.10 <i>0,0040</i>	0.14 <i>0,0055</i>	0.17 <i>0,0065</i>	0.20 <i>0,0080</i>	180 (160 – 200) <i>590 (530 – 650)</i>
H31	M	0.150 <i>0,150</i>	0.060 <i>0,060</i>	0.090 <i>0,0036</i>	0.12 <i>0,0048</i>	0.15 <i>0,0060</i>	0.18 <i>0,0070</i>	125 (130 – 180) <i>410 (430 – 590)</i>

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

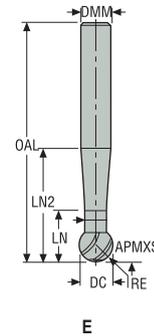
Graphite

X-Heads

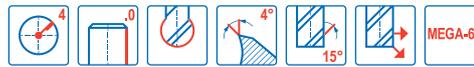
Minimaster

JH160

High speed – Hardened steel – Ball nose – 4 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- DC= 0,02/-0,06 mm
- SA=250°



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm	
160030-MEGA-64	00040365	2	E	3,0	3,0	2,3	60,0	4,5	1,8	1,5	4	Cylindrical	■
160040-MEGA-64	00040366	2	E	4,0	4,0	3,1	60,0	5,6	2,4	2,0	4	Cylindrical	■
160050-MEGA-64	00040367	2	E	5,0	5,0	3,9	70,0	6,4	3,0	2,5	4	Cylindrical	■
160060-MEGA-64	00040368	2	E	6,0	6,0	4,7	80,0	9,7	3,6	3,0	4	Cylindrical	■
160080-MEGA-64	00040369	2	E	8,0	8,0	6,2	85,0	11,2	4,8	4,0	4	Cylindrical	■
160100-MEGA-64	00040370	2	E	10,0	10,0	7,8	100,0	15,6	6,0	5,0	4	Cylindrical	■
160120-MEGA-64	00040371	2	E	12,0	12,0	9,4	125,0	17,2	7,2	6,0	4	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

## Cutting data – JH160 Copy milling finishing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				3	4	5	6	8	10	12		
P1	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	550 (450 – 700)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1800 (1500 – 2200)	
P2	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	530 (440 – 680)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1750 (1500 – 2200)	
P3	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	460 (380 – 590)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1500 (1300 – 1900)	
P4	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	405 (340 – 520)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1325 (1200 – 1700)	
P5	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	385 (320 – 490)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1275 (1100 – 1600)	
P6	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	430 (360 – 560)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1400 (1200 – 1800)	
P7	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	410 (340 – 520)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1350 (1200 – 1700)	
P8	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	395 (330 – 510)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1275 (1100 – 1600)	
P11	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	395 (330 – 510)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1300 (1100 – 1600)	
P12	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	235 (200 – 300)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	770 (660 – 980)	
H3	M/E/A	0.0100	0.0075	0.040	0.050	0.065	0.080	0.10	0.13	0.16	85 (91 – 110)	
		0,0100	0,0075	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	280 (300 – 360)	
H5	M/E/A	0.0100	0.016	0.040	0.050	0.065	0.080	0.10	0.13	0.16	340 (320 – 360)	
		0,0100	0,016	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	1125 (1100 – 1100)	
H7	M/E/A	0.0100	0.0075	0.040	0.050	0.065	0.080	0.10	0.13	0.16	85 (91 – 110)	
		0,0100	0,0075	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	280 (300 – 360)	
H8	M/E/A	0.0100	0.016	0.040	0.050	0.065	0.080	0.10	0.13	0.16	340 (320 – 360)	
		0,0100	0,016	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	1125 (1100 – 1100)	
H11	M/E/A	0.0100	0.016	0.040	0.050	0.065	0.080	0.10	0.13	0.16	430 (400 – 460)	
		0,0100	0,016	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	1400 (1400 – 1500)	
H12	M/E/A	0.0200	0.024	0.050	0.070	0.085	0.10	0.14	0.17	0.20	355 (340 – 380)	
		0,0200	0,024	0,0020	0,0028	0,0034	0,0040	0,0055	0,0065	0,0080	1175 (1200 – 1200)	
H21	M/E/A	0.0100	0.016	0.040	0.050	0.065	0.080	0.10	0.13	0.16	340 (320 – 360)	
		0,0100	0,016	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	1125 (1100 – 1100)	
H31	M/E/A	0.0100	0.016	0.040	0.050	0.065	0.080	0.10	0.13	0.16	165 (180 – 210)	
		0,0100	0,016	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	540 (600 – 680)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values



## STAINLESS AND S-MATERIALS

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity in stainless steel and ISO S-materials.

- JS754, JS755, JS720, JHP751, JHP760, JHP770, JHP780, JHP794, JCG790, JH770, JH740, JH710, JH790, JH730, JHP994, SHF712, SME714, SME716 and JCO710 for chamfer or radius type.
- JS730, JH780, JHB720, JH721, JH722, SMB713, SMB714 and SMB716 for ball-nose type.
- JH724, JH726, JH734, JH736, JH744, JH746 for barrel type.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Tool selection Stainless and S-materials

								
Name		JS754	JS755	JS720	JS730	JHP751	JHP760	JHP770
Page(s)		326	343	354	374	378	381	385
Family name		SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	HPM	HPM	HPM
Type of mill								
Shank	Cylindrical	■	■	■	■	■	■	■
	Weldon	■	■	■	□	■	■	■
	Safelock	□	□	□	□			□
Number of Flutes		4	5	6-9	6	2-4	2,3,4	4-5
CSP		■					■	■
Diameter range	Metric	3-25	6-25	6-25	6-25	2-20	4-25	6-25
	Inch							
Length availability		2,3	2,3	2,3	2,3	1,2	2,3	2
Operation								
								
								
								
SMG								
X-Heads	M1	●	●	●	●		●	
	M2	●	●	●	●		●	
	M3	●	●	●	●		●	
	M4	●	●	●	●		●	
	M5	●	●	●	●		●	
Minimaster	S1	●	●	●	●	●		
	S2	●	●	●	●	●		
	S3	●	●	●	●	●		
	S11	●	●	●	●	●		●
	S12	●	●	●	●	●		●
	S13	●	●	●	●	●		●

■ Stock standard □ Weldon available, delivery time is 3 days. □ Safe-Lock available, delivery time is 6 days  
 ● Preferred choice ○ Alternative choice

Tool selection Stainless and S-materials

										
Name		JHP780	JHP794	JCG790	JH724	JH726	JH734	JH736	JH744	JH746
Page(s)		392	381	399	431	431	405	407	409	411
Family name		HPM	HPM	Ceramic	HSM/ TORNADO	HSM/ TORNADO	HSM/ TORNADO	HSM/ TORNADO	HSM/ TORNADO	HSM/ TORNADO
Type of mill										
Shank	Cylindrical	■		■	■	■	■	■	■	■
	Weldon	■	■							
	Safe-lock	□								
Number of Flutes		4	4	5-6	6	6	4	6	4	6
CSP		■	■						■	■
Diameter range	Metric	6-25	6-25	6-25	10	10	6-16	10-16	4-16	10-16
	Inch									
Length availability		2	2	2	2	2	2	2	2,4	2
Operation										
										
										
SMG										
M1			●		●	●	●	●	●	●
M2			●		●	●	●	●	●	●
M3			●		●	●	●	●	●	●
M4			●		●	●				
M5			●		●	●				
S1		●		●	●	●				
S2		●		●	●	●				
S3		●		●	●	●				
S11					●	●	●	●	●	●
S12					●	●	●	●	●	●
S13					●	●	●	●	●	●

■ Stock standard □ Weldon available, delivery time is 3 days. □ Safe-Lock available, delivery time is 6 days

● Preferred choice ○ Alternative choice

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Tool selection Stainless and S-materials

Universal									
									
Steel and cast iron	Name	JH770	JH740	JH710	JH790	JH730	JHP994	JH780	
Stainless steel and S-materials	Page(s)	413	415	417	419	421	423	425	
	Family name	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HPM	HSM/TORNADO	
Non ferrous	Type of mill								
	Shank	Cylindrical	■	■	■	■	■	■	■
		Weldon							
Safelock									
Hard	Number of Flutes	3,4,5,6	4-5	5	6	5,6,7	4	4	
	CSP								
Plastic and cfrp	Diameter range	Metric	3-10	6-10	6-8	9,5	6-10	6-10	1,83-4,89
		Inch							
Graphite	Length availability		2	2	2	2,3	2	3	2
X-Heads	Operation								
									
Minimaster	SMG								
	M1								
	M2								
	M3								
	M4								
	M5								
	S1								
	S2	●	●	●	●	●	●	●	
	S3								
	S11	●	●	●	●	●	●	●	
	S12	●	●	●	●	●	●	●	
	S13								

■ Stock standard □ Weldon available, delivery time is 3 days. □ Safe-Lock available, delivery time is 6 days  
 ● Preferred choice ○ Alternative choice

Tool selection Stainless and S-materials

							
Name		JHB720	JH721	JH722	SHF712	SME714/716	SMB713/714/416
Page(s)		427	429	431	500	500	260
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HFM	MINI	MINI
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon						
	Safelock						
Number of Flutes		3	6	6	3-4-5	3-4-5	4
CSP							
Diameter range	Metric	2-16	6-8	10	3-6	0,5-2	0,3-3
	Inch						
Length availability		2	2	2	1,2,3,4	1,2,3,4	2,4
Operation							
							
							
SMG							
M1		●					
M2		●					
M3		●					
M4		●					
M5		●					
S1		○					
S2		○	●	●	●	●	●
S3		○					
S11		●	●	●			
S12		●	●	●	●	●	●
S13		●					

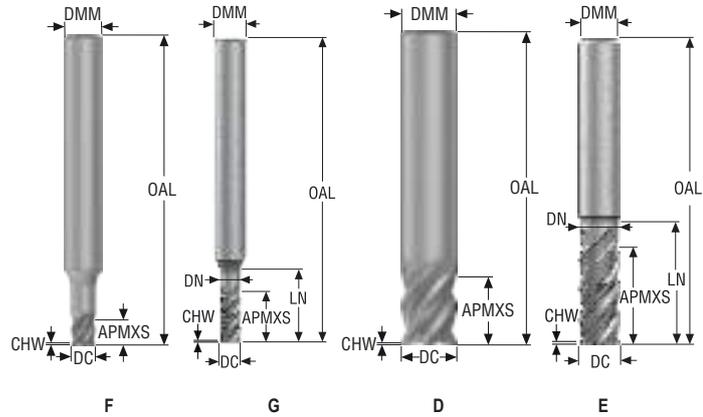
■ Stock standard □ Weldon available, delivery time is 3 days.  
● Preferred choice ○ Alternative choice

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

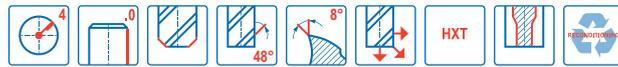
JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Chamfer

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is ≥Ø6

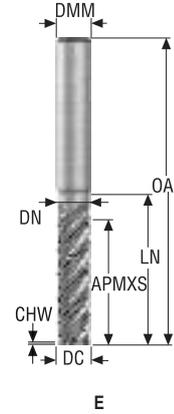


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JS754030F1C.0Z4-HXT	10165556	1	F	3,0	6,0	4,0	50,0	6,0	3,05	0,035	–	4	Cylindrical	■
JS754040F1C.0Z4-HXT	10164855	1	F	4,0	6,0	6,0	50,0	9,0	4,05	0,045	–	4	Cylindrical	■
JS754050F1C.0Z4-HXT	10165557	1	F	5,0	6,0	7,0	50,0	10,0	5,05	0,055	–	4	Cylindrical	■
JS754060D1C.0Z4-HXT	10164856	1	D	6,0	6,0	8,0	50,0	–	–	0,075	–	4	Cylindrical	■
JS754080D1C.0Z4-HXT	10164857	1	D	8,0	8,0	11,0	58,0	–	–	0,1	–	4	Cylindrical	■
JS754100D1C.0Z4-HXT	10164858	1	D	10,0	10,0	13,0	58,0	–	–	0,125	–	4	Cylindrical	■
JS754120D1C.0Z4-HXT	10164859	1	D	12,0	12,0	15,0	67,0	–	–	0,15	–	4	Cylindrical	■
JS754160D1C.0Z4-HXT	10164860	1	D	16,0	16,0	19,0	73,0	–	–	0,2	–	4	Cylindrical	■
JS754030G2C.0Z4-HXT	03186807	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,035	7,0	4	Cylindrical	■
JS754040G2C.0Z4-HXT	03186808	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,045	4,0	4	Cylindrical	■
JS754050G2C.0Z4-HXT	03186809	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,055	2,0	4	Cylindrical	■
JS754060E2C.0Z4-HXT	03186810	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	–	4	Cylindrical	■
JS754080E2C.0Z4-HXT	03186811	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	–	4	Cylindrical	■
JS754100E2C.0Z4-HXT	03186812	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	–	4	Cylindrical	■
JS754120E2C.0Z4-HXT	03186813	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	–	4	Cylindrical	■
JS754160E2C.0Z4-HXT	03186814	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	–	4	Cylindrical	■
JS754200E2C.0Z4-HXT	03186815	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	–	4	Cylindrical	■
JS754250E2C.0Z4-HXT	03186816	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	–	4	Cylindrical	■
JS754060E3C.0Z4-HXT	03186823	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	–	4	Cylindrical	■
JS754080E3C.0Z4-HXT	03186824	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	–	4	Cylindrical	■
JS754100E3C.0Z4-HXT	03186825	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	–	4	Cylindrical	■
JS754120E3C.0Z4-HXT	03186826	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	–	4	Cylindrical	■
JS754160E3C.0Z4-HXT	03186827	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	–	4	Cylindrical	■
JS754200E3C.0Z4-HXT	03186828	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	–	4	Cylindrical	■
JS754250E3C.0Z4-HXT	03186829	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	–	4	Cylindrical	■

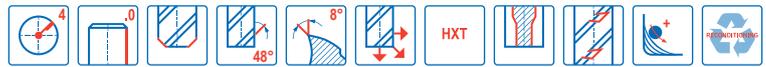
■ Stocked standard.

**JS754**

High performance – Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS754100E2C.0Z4C-HXT	03186817	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	Cylindrical	■
JS754120E2C.0Z4C-HXT	03186818	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	Cylindrical	■
JS754060E3C.0Z4C-HXT	03200550	3	E	■	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	Cylindrical	■
JS754080E3C.0Z4C-HXT	03200551	3	E	■	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	Cylindrical	■
JS754100E3C.0Z4C-HXT	03186830	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	Cylindrical	■
JS754120E3C.0Z4C-HXT	03186831	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	Cylindrical	■
JS754160E3C.0Z4C-HXT	03186832	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	Cylindrical	■
JS754200E3C.0Z4C-HXT	03186833	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

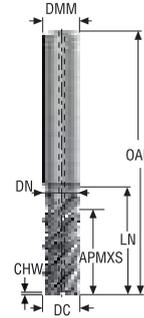
Graphite

X-Heads

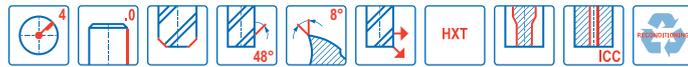
Minimaster

## JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Chamfer

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaxter


E

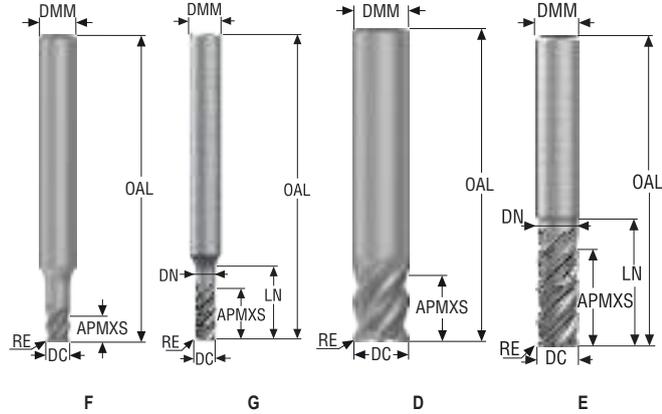
 –Tolerances:  
 –DMM= h5  
 –DC= e7  
 –Regrind possible


Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS754060E2C.0Z4A-HXT	03186834	2	E	■	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	Cylindrical	■
JS754080E2C.0Z4A-HXT	03186835	2	E	■	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	Cylindrical	■
JS754100E2C.0Z4A-HXT	03186836	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	Cylindrical	■
JS754120E2C.0Z4A-HXT	03186837	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	Cylindrical	■
JS754160E2C.0Z4A-HXT	03186838	2	E	■	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	Cylindrical	■
JS754200E2C.0Z4A-HXT	03186839	2	E	■	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	Cylindrical	■

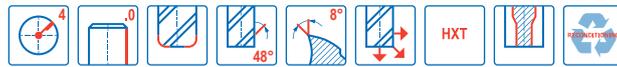
■ Stocked standard.

JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JS754030F1R020.0Z4-HXT	10165558	1	F	3,0	6,0	4,0	50,0	6,0	3,05	0,2	–	4	Cylindrical	■
JS754040F1R020.0Z4-HXT	10164867	1	F	4,0	6,0	6,0	50,0	9,0	4,05	0,2	–	4	Cylindrical	■
JS754050F1R020.0Z4-HXT	10165559	1	F	5,0	6,0	7,0	50,0	10,0	5,05	0,2	–	4	Cylindrical	■
JS754060D1R020.0Z4-HXT	10164868	1	D	6,0	6,0	8,0	50,0	–	–	0,2	–	4	Cylindrical	■
JS754060D1R050.0Z4-HXT	10164869	1	D	6,0	6,0	8,0	50,0	–	–	0,5	–	4	Cylindrical	■
JS754080D1R050.0Z4-HXT	10164871	1	D	8,0	8,0	11,0	58,0	–	–	0,5	–	4	Cylindrical	■
JS754100D1R050.0Z4-HXT	10164873	1	D	10,0	10,0	13,0	58,0	–	–	0,5	–	4	Cylindrical	■
JS754100D1R100.0Z4-HXT	10164874	1	D	10,0	10,0	13,0	58,0	–	–	1,0	–	4	Cylindrical	■
JS754120D1R050.0Z4-HXT	10164875	1	D	12,0	12,0	15,0	67,0	–	–	0,5	–	4	Cylindrical	■
JS754120D1R100.0Z4-HXT	10164876	1	D	12,0	12,0	15,0	67,0	–	–	1,0	–	4	Cylindrical	■
JS754160D1R050.0Z4-HXT	10164877	1	D	16,0	16,0	19,0	73,0	–	–	0,5	–	4	Cylindrical	■
JS754160D1R100.0Z4-HXT	10164878	1	D	16,0	16,0	19,0	73,0	–	–	1,0	–	4	Cylindrical	■
JS754030G2R020.0Z4-HXT	03186840	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,2	7,0	4	Cylindrical	■
JS754040G2R020.0Z4-HXT	03186841	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,2	4,0	4	Cylindrical	■
JS754050G2R020.0Z4-HXT	03186842	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,2	2,0	4	Cylindrical	■
JS754060E2R020.0Z4-HXT	03186843	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	–	4	Cylindrical	■
JS754060E2R050.0Z4-HXT	03186844	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	–	4	Cylindrical	■
JS754060E2R100.0Z4-HXT	03186845	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	–	4	Cylindrical	■
JS754080E2R050.0Z4-HXT	03186846	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	–	4	Cylindrical	■
JS754080E2R100.0Z4-HXT	03186847	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	–	4	Cylindrical	■
JS754100E2R050.0Z4-HXT	03186848	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	–	4	Cylindrical	■
JS754100E2R100.0Z4-HXT	03186849	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	–	4	Cylindrical	■
JS754100E2R150.0Z4-HXT	03200552	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,5	–	4	Cylindrical	■
JS754100E2R200.0Z4-HXT	03186850	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	–	4	Cylindrical	■
JS754100E2R300.0Z4-HXT	03186851	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	–	4	Cylindrical	■
JS754120E2R050.0Z4-HXT	03186852	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	–	4	Cylindrical	■
JS754120E2R100.0Z4-HXT	03186853	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	–	4	Cylindrical	■
JS754120E2R150.0Z4-HXT	03200553	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,5	–	4	Cylindrical	■
JS754120E2R200.0Z4-HXT	03186854	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	–	4	Cylindrical	■
JS754120E2R300.0Z4-HXT	03186855	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	–	4	Cylindrical	■
JS754160E2R050.0Z4-HXT	03186856	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	–	4	Cylindrical	■
JS754160E2R100.0Z4-HXT	03186857	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	–	4	Cylindrical	■
JS754160E2R200.0Z4-HXT	03186858	2	E	16,0	16,0	32,0	92,0	42,0	15,2	2,0	–	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

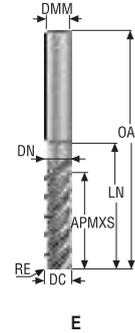
## JS754

High performance –Square – ISO– M and ISO– S – 4 Flutes – Cylindrical – Corner radius

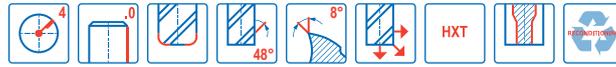
Universal

Steel and cast iron

Stainless steel and S-materials



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

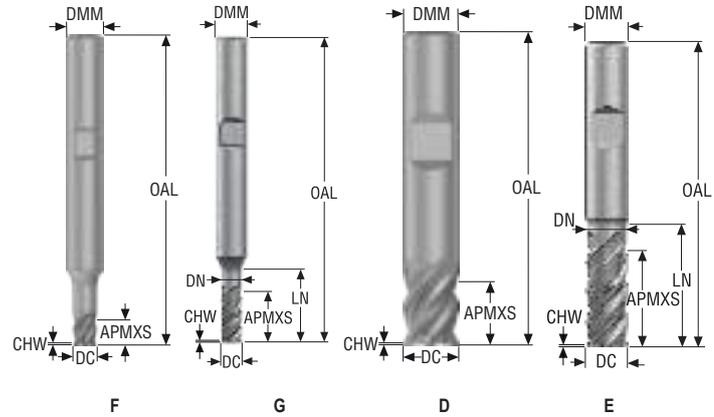
Minimaster

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS754160E2R300.0Z4-HXT	03186859	2	E	16,0	16,0	32,0	92,0	42,0	15,2	3,0	4	Cylindrical	■
JS754160E2R400.0Z4-HXT	03186860	2	E	16,0	16,0	32,0	92,0	42,0	15,2	4,0	4	Cylindrical	■
JS754160E2R600.0Z4-HXT	03186861	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	4	Cylindrical	■
JS754200E2R050.0Z4-HXT	03186862	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	4	Cylindrical	■
JS754200E2R100.0Z4-HXT	03186863	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	4	Cylindrical	■
JS754200E2R200.0Z4-HXT	03186864	2	E	20,0	20,0	40,0	104,0	51,0	19,0	2,0	4	Cylindrical	■
JS754200E2R300.0Z4-HXT	03186865	2	E	20,0	20,0	40,0	104,0	51,0	19,0	3,0	4	Cylindrical	■
JS754200E2R400.0Z4-HXT	03186866	2	E	20,0	20,0	40,0	104,0	51,0	19,0	4,0	4	Cylindrical	■
JS754200E2R600.0Z4-HXT	03186867	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	4	Cylindrical	■
JS754060E3R020.0Z4-HXT	03186873	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	4	Cylindrical	■
JS754060E3R050.0Z4-HXT	03186874	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	4	Cylindrical	■
JS754060E3R100.0Z4-HXT	03186875	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	4	Cylindrical	■
JS754080E3R050.0Z4-HXT	03186876	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	4	Cylindrical	■
JS754080E3R100.0Z4-HXT	03186877	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	4	Cylindrical	■
JS754100E3R050.0Z4-HXT	03186878	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	4	Cylindrical	■
JS754100E3R100.0Z4-HXT	03186879	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	4	Cylindrical	■
JS754100E3R200.0Z4-HXT	03186880	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	4	Cylindrical	■
JS754100E3R300.0Z4-HXT	03186881	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	4	Cylindrical	■
JS754120E3R050.0Z4-HXT	03186882	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	4	Cylindrical	■
JS754120E3R100.0Z4-HXT	03186883	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	4	Cylindrical	■
JS754120E3R200.0Z4-HXT	03186884	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	4	Cylindrical	■
JS754120E3R300.0Z4-HXT	03186885	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	4	Cylindrical	■
JS754160E3R050.0Z4-HXT	03186886	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	4	Cylindrical	■
JS754160E3R100.0Z4-HXT	03186887	3	E	16,0	16,0	55,0	115,0	65,0	15,2	1,0	4	Cylindrical	■
JS754160E3R200.0Z4-HXT	03186888	3	E	16,0	16,0	55,0	115,0	65,0	15,2	2,0	4	Cylindrical	■
JS754160E3R300.0Z4-HXT	03186889	3	E	16,0	16,0	55,0	115,0	65,0	15,2	3,0	4	Cylindrical	■
JS754160E3R400.0Z4-HXT	03186890	3	E	16,0	16,0	55,0	115,0	65,0	15,2	4,0	4	Cylindrical	■
JS754160E3R600.0Z4-HXT	03186891	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	4	Cylindrical	■
JS754200E3R050.0Z4-HXT	03186892	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	4	Cylindrical	■
JS754200E3R100.0Z4-HXT	03186893	3	E	20,0	20,0	61,0	125,0	72,0	19,0	1,0	4	Cylindrical	■
JS754200E3R200.0Z4-HXT	03186894	3	E	20,0	20,0	61,0	125,0	72,0	19,0	2,0	4	Cylindrical	■
JS754200E3R300.0Z4-HXT	03186895	3	E	20,0	20,0	61,0	125,0	72,0	19,0	3,0	4	Cylindrical	■
JS754200E3R400.0Z4-HXT	03186896	3	E	20,0	20,0	61,0	125,0	72,0	19,0	4,0	4	Cylindrical	■
JS754200E3R600.0Z4-HXT	03186897	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	4	Cylindrical	■

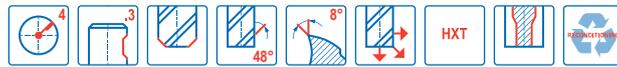
■ Stocked standard.

## JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JS754030F1C.3Z4-HXT	10165658	1	F	3,0	6,0	4,0	50,0	6,0	3,05	0,035	–	4	Weldon	<input type="checkbox"/>
JS754040F1C.3Z4-HXT	10164861	1	F	4,0	6,0	6,0	50,0	9,0	4,05	0,045	–	4	Weldon	<input type="checkbox"/>
JS754050F1C.3Z4-HXT	10165660	1	F	5,0	6,0	7,0	50,0	10,0	5,05	0,055	–	4	Weldon	<input type="checkbox"/>
JS754060D1C.3Z4-HXT	10164862	1	D	6,0	6,0	8,0	50,0	–	–	0,075	–	4	Weldon	<input type="checkbox"/>
JS754080D1C.3Z4-HXT	10164863	1	D	8,0	8,0	11,0	58,0	–	–	0,1	–	4	Weldon	<input type="checkbox"/>
JS754100D1C.3Z4-HXT	10164864	1	D	10,0	10,0	13,0	58,0	–	–	0,125	–	4	Weldon	<input type="checkbox"/>
JS754120D1C.3Z4-HXT	10164865	1	D	12,0	12,0	15,0	67,0	–	–	0,15	–	4	Weldon	<input type="checkbox"/>
JS754160D1C.3Z4-HXT	10164866	1	D	16,0	16,0	19,0	73,0	–	–	0,2	–	4	Weldon	<input type="checkbox"/>
JS754030G2C.3Z4-HXT	03186975	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,035	7,0	4	Weldon	<input type="checkbox"/>
JS754040G2C.3Z4-HXT	03186976	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,045	4,0	4	Weldon	<input type="checkbox"/>
JS754050G2C.3Z4-HXT	03186977	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,055	2,0	4	Weldon	<input type="checkbox"/>
JS754060E2C.3Z4-HXT	03186978	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	–	4	Weldon	<input checked="" type="checkbox"/>
JS754080E2C.3Z4-HXT	03186979	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	–	4	Weldon	<input checked="" type="checkbox"/>
JS754100E2C.3Z4-HXT	03186980	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	–	4	Weldon	<input checked="" type="checkbox"/>
JS754120E2C.3Z4-HXT	03186981	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	–	4	Weldon	<input checked="" type="checkbox"/>
JS754160E2C.3Z4-HXT	03186982	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	–	4	Weldon	<input checked="" type="checkbox"/>
JS754200E2C.3Z4-HXT	03186983	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	–	4	Weldon	<input checked="" type="checkbox"/>
JS754250E2C.3Z4-HXT	03186984	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	–	4	Weldon	<input checked="" type="checkbox"/>
JS754060E3C.3Z4-HXT	03186990	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	–	4	Weldon	<input checked="" type="checkbox"/>
JS754080E3C.3Z4-HXT	03186991	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	–	4	Weldon	<input checked="" type="checkbox"/>
JS754100E3C.3Z4-HXT	03186992	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	–	4	Weldon	<input checked="" type="checkbox"/>
JS754120E3C.3Z4-HXT	03186993	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	–	4	Weldon	<input checked="" type="checkbox"/>
JS754160E3C.3Z4-HXT	03186994	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	–	4	Weldon	<input checked="" type="checkbox"/>
JS754200E3C.3Z4-HXT	03186995	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	–	4	Weldon	<input checked="" type="checkbox"/>
JS754250E3C.3Z4-HXT	03186996	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	–	4	Weldon	<input checked="" type="checkbox"/>

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaster

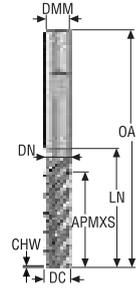
JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Chamfer – Chip splitters

Universal

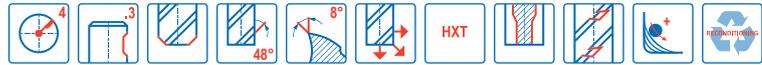
Steel and cast iron

Stainless steel and S-materials



E

- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

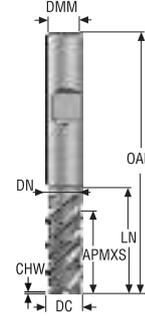
Minimaster

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS754100E2C.3Z4C-HXT	03186985	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	Weldon	■
JS754120E2C.3Z4C-HXT	03186986	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	Weldon	■
JS754060E3C.3Z4C-HXT	03200562	3	E	■	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	Weldon	■
JS754080E3C.3Z4C-HXT	03200563	3	E	■	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	Weldon	■
JS754100E3C.3Z4C-HXT	03186997	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	Weldon	■
JS754120E3C.3Z4C-HXT	03186998	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	Weldon	■
JS754160E3C.3Z4C-HXT	03186999	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	Weldon	■
JS754200E3C.3Z4C-HXT	03187000	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	Weldon	■

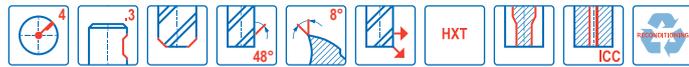
■ Stocked standard.

**JS754**

High performance – Square – ISO- M and ISO- S – 4 Flutes – Weldon – Chamfer


**E**

- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS754060E2C.3Z4A-HXT	03187001	2	E	■	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	Weldon	■
JS754080E2C.3Z4A-HXT	03187002	2	E	■	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	Weldon	■
JS754100E2C.3Z4A-HXT	03187003	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	Weldon	■
JS754120E2C.3Z4A-HXT	03187004	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	Weldon	■
JS754160E2C.3Z4A-HXT	03187005	2	E	■	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	Weldon	■
JS754200E2C.3Z4A-HXT	03187006	2	E	■	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

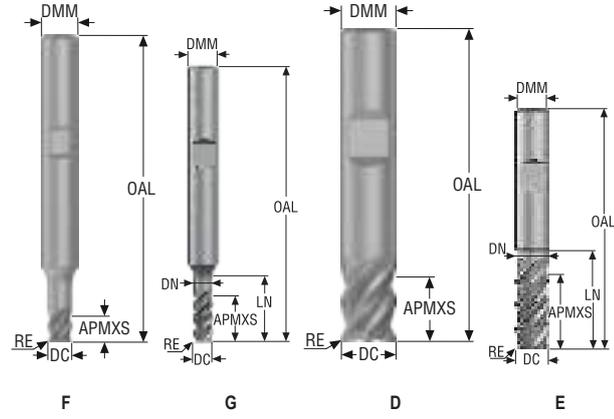
## JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Corner radius

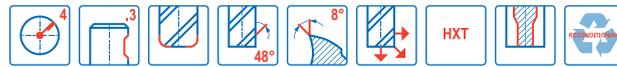
Universal

Steel and cast iron

Stainless steel and S-materials



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

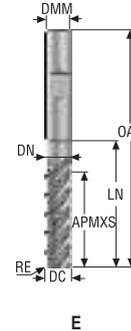
Minimaxter

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JS754030F1R020.3Z4-HXT	10165560	1	F	3,0	6,0	4,0	50,0	6,0	3,05	0,2	–	4	Weldon	□
JS754040F1R020.3Z4-HXT	10164879	1	F	4,0	6,0	6,0	50,0	9,0	4,05	0,2	–	4	Weldon	□
JS754050F1R020.3Z4-HXT	10165561	1	F	5,0	6,0	7,0	50,0	10,0	5,05	0,2	–	4	Weldon	□
JS754060D1R020.3Z4-HXT	10164880	1	D	6,0	6,0	8,0	50,0	–	–	0,2	–	4	Weldon	□
JS754060D1R050.3Z4-HXT	10164881	1	D	6,0	6,0	8,0	50,0	–	–	0,5	–	4	Weldon	□
JS754080D1R050.3Z4-HXT	10164883	1	D	8,0	8,0	11,0	58,0	–	–	0,5	–	4	Weldon	□
JS754100D1R050.3Z4-HXT	10164885	1	D	10,0	10,0	13,0	58,0	–	–	0,5	–	4	Weldon	□
JS754100D1R100.3Z4-HXT	10164886	1	D	10,0	10,0	13,0	58,0	–	–	1,0	–	4	Weldon	□
JS754120D1R050.3Z4-HXT	10164887	1	D	12,0	12,0	15,0	67,0	–	–	0,5	–	4	Weldon	□
JS754120D1R100.3Z4-HXT	10164888	1	D	12,0	12,0	15,0	67,0	–	–	1,0	–	4	Weldon	□
JS754160D1R050.3Z4-HXT	10164889	1	D	16,0	16,0	19,0	73,0	–	–	0,5	–	4	Weldon	□
JS754160D1R100.3Z4-HXT	10164890	1	D	16,0	16,0	19,0	73,0	–	–	1,0	–	4	Weldon	□
JS754030G2R020.3Z4-HXT	03187007	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,2	7,0	4	Weldon	□
JS754040G2R020.3Z4-HXT	03187008	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,2	4,0	4	Weldon	□
JS754050G2R020.3Z4-HXT	03187009	2	G	5,0	6,0	10,0	57,0	16,0	4,75	0,2	2,0	4	Weldon	□
JS754060E2R020.3Z4-HXT	03187010	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	–	4	Weldon	■
JS754060E2R050.3Z4-HXT	03187011	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	–	4	Weldon	■
JS754060E2R100.3Z4-HXT	03187012	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	–	4	Weldon	■
JS754080E2R050.3Z4-HXT	03187013	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	–	4	Weldon	■
JS754080E2R100.3Z4-HXT	03187014	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	–	4	Weldon	■
JS754100E2R050.3Z4-HXT	03187015	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	–	4	Weldon	■
JS754100E2R100.3Z4-HXT	03187016	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	–	4	Weldon	■
JS754100E2R150.3Z4-HXT	03200564	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,5	–	4	Weldon	■
JS754100E2R200.3Z4-HXT	03187017	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	–	4	Weldon	■
JS754100E2R300.3Z4-HXT	03187018	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	–	4	Weldon	■
JS754120E2R050.3Z4-HXT	03187019	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	–	4	Weldon	■
JS754120E2R100.3Z4-HXT	03187020	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	–	4	Weldon	■
JS754120E2R150.3Z4-HXT	03200565	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,5	–	4	Weldon	■
JS754120E2R200.3Z4-HXT	03187021	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	–	4	Weldon	■
JS754120E2R300.3Z4-HXT	03187022	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	–	4	Weldon	■
JS754160E2R050.3Z4-HXT	03187023	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	–	4	Weldon	■
JS754160E2R100.3Z4-HXT	03187024	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	–	4	Weldon	■
JS754160E2R200.3Z4-HXT	03187025	2	E	16,0	16,0	32,0	92,0	42,0	15,2	2,0	–	4	Weldon	■
JS754160E2R300.3Z4-HXT	03187026	2	E	16,0	16,0	32,0	92,0	42,0	15,2	3,0	–	4	Weldon	■
JS754160E2R400.3Z4-HXT	03187027	2	E	16,0	16,0	32,0	92,0	42,0	15,2	4,0	–	4	Weldon	■
JS754160E2R600.3Z4-HXT	03187028	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	–	4	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

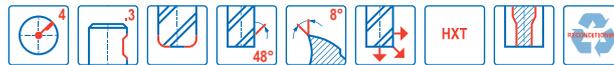
## JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Weldon – Corner radius



E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS754200E2R050.3Z4-HXT	03187029	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	4	Weldon	■
JS754200E2R100.3Z4-HXT	03187030	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	4	Weldon	■
JS754200E2R200.3Z4-HXT	03187031	2	E	20,0	20,0	40,0	104,0	51,0	19,0	2,0	4	Weldon	■
JS754200E2R300.3Z4-HXT	03187032	2	E	20,0	20,0	40,0	104,0	51,0	19,0	3,0	4	Weldon	■
JS754200E2R400.3Z4-HXT	03187033	2	E	20,0	20,0	40,0	104,0	51,0	19,0	4,0	4	Weldon	■
JS754200E2R600.3Z4-HXT	03187034	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	4	Weldon	■
JS754060E3R020.3Z4-HXT	03187040	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	4	Weldon	□
JS754060E3R050.3Z4-HXT	03187041	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	4	Weldon	□
JS754060E3R100.3Z4-HXT	03187042	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	4	Weldon	□
JS754080E3R050.3Z4-HXT	03187043	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	4	Weldon	□
JS754080E3R100.3Z4-HXT	03187044	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	4	Weldon	□
JS754100E3R050.3Z4-HXT	03187045	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	4	Weldon	□
JS754100E3R100.3Z4-HXT	03187046	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	4	Weldon	□
JS754100E3R200.3Z4-HXT	03187047	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	4	Weldon	□
JS754100E3R300.3Z4-HXT	03187049	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	4	Weldon	□
JS754120E3R050.3Z4-HXT	03187050	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	4	Weldon	□
JS754120E3R100.3Z4-HXT	03187051	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	4	Weldon	□
JS754120E3R200.3Z4-HXT	03187052	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	4	Weldon	□
JS754120E3R300.3Z4-HXT	03187053	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	4	Weldon	□
JS754160E3R050.3Z4-HXT	03187054	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	4	Weldon	■
JS754160E3R100.3Z4-HXT	03187055	3	E	16,0	16,0	55,0	115,0	65,0	15,2	1,0	4	Weldon	□
JS754160E3R200.3Z4-HXT	03187056	3	E	16,0	16,0	55,0	115,0	65,0	15,2	2,0	4	Weldon	□
JS754160E3R300.3Z4-HXT	03187057	3	E	16,0	16,0	55,0	115,0	65,0	15,2	3,0	4	Weldon	□
JS754160E3R400.3Z4-HXT	03187058	3	E	16,0	16,0	55,0	115,0	65,0	15,2	4,0	4	Weldon	□
JS754160E3R600.3Z4-HXT	03187059	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	4	Weldon	□
JS754200E3R050.3Z4-HXT	03187060	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	4	Weldon	□
JS754200E3R100.3Z4-HXT	03187061	3	E	20,0	20,0	61,0	125,0	72,0	19,0	1,0	4	Weldon	□
JS754200E3R200.3Z4-HXT	03187062	3	E	20,0	20,0	61,0	125,0	72,0	19,0	2,0	4	Weldon	□
JS754200E3R300.3Z4-HXT	03187063	3	E	20,0	20,0	61,0	125,0	72,0	19,0	3,0	4	Weldon	□
JS754200E3R400.3Z4-HXT	03187064	3	E	20,0	20,0	61,0	125,0	72,0	19,0	4,0	4	Weldon	□
JS754200E3R600.3Z4-HXT	03187065	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	4	Weldon	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

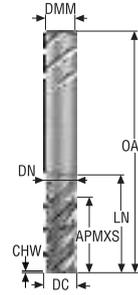
## JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Chamfer

Universal

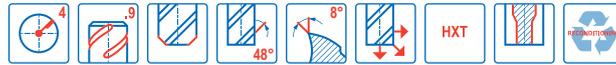
Steel and cast iron

Stainless steel and S-materials



E

–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –Regrind possible



Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

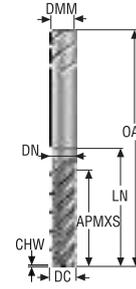
Minimaxter

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS754060E2C.9Z4-HXT	03187144	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	Safe-lock	<input type="checkbox"/>
JS754080E2C.9Z4-HXT	03187145	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	Safe-lock	<input type="checkbox"/>
JS754100E2C.9Z4-HXT	03187146	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	Safe-lock	<input type="checkbox"/>
JS754120E2C.9Z4-HXT	03187147	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	Safe-lock	<input type="checkbox"/>
JS754160E2C.9Z4-HXT	03187148	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	Safe-lock	<input type="checkbox"/>
JS754200E2C.9Z4-HXT	03187149	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	Safe-lock	<input type="checkbox"/>
JS754250E2C.9Z4-HXT	03187150	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	4	Safe-lock	<input type="checkbox"/>
JS754060E3C.9Z4-HXT	03187153	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	Safe-lock	<input type="checkbox"/>
JS754080E3C.9Z4-HXT	03187154	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	Safe-lock	<input type="checkbox"/>
JS754100E3C.9Z4-HXT	03187155	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	Safe-lock	<input type="checkbox"/>
JS754120E3C.9Z4-HXT	03187156	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	Safe-lock	<input type="checkbox"/>
JS754160E3C.9Z4-HXT	03187157	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	Safe-lock	<input type="checkbox"/>
JS754200E3C.9Z4-HXT	03187158	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	Safe-lock	<input type="checkbox"/>
JS754250E3C.9Z4-HXT	03187159	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	4	Safe-lock	<input type="checkbox"/>

 Safelock available. Delivery time is 6 days.

**JS754**

High performance – Square – ISO- M and ISO- S – 4 Flutes – Safelock – Chamfer


**E**

- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	
JS754100E2C.9Z4C-HXT	03187151	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	Safe-lock	<input type="checkbox"/>
JS754120E2C.9Z4C-HXT	03187152	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	Safe-lock	<input type="checkbox"/>
JS754060E3C.9Z4C-HXT	03200571	3	E	■	6,0	6,0	21,0	65,0	26,0	5,7	0,075	4	Safe-lock	<input type="checkbox"/>
JS754080E3C.9Z4C-HXT	03200572	3	E	■	8,0	8,0	32,0	75,0	37,0	7,6	0,1	4	Safe-lock	<input type="checkbox"/>
JS754100E3C.9Z4C-HXT	03187160	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	4	Safe-lock	<input type="checkbox"/>
JS754120E3C.9Z4C-HXT	03187161	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	4	Safe-lock	<input type="checkbox"/>
JS754160E3C.9Z4C-HXT	03187162	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	4	Safe-lock	<input type="checkbox"/>
JS754200E3C.9Z4C-HXT	03187163	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	4	Safe-lock	<input type="checkbox"/>

 Safelock available. Delivery time is 6 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

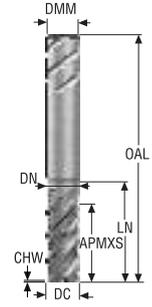
JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Chamfer

Universal

Steel and cast iron

Stainless steel and S-materials



E

- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Non ferrous

Hard

Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS754060E2C.9Z4A-HXT	03187164	2	E	■	6,0	6,0	12,0	57,0	18,0	5,7	0,075	4	Safe-lock	<input type="checkbox"/>
JS754080E2C.9Z4A-HXT	03187165	2	E	■	8,0	8,0	16,0	63,0	25,0	7,6	0,1	4	Safe-lock	<input type="checkbox"/>
JS754100E2C.9Z4A-HXT	03187166	2	E	■	10,0	10,0	20,0	72,0	29,0	9,5	0,125	4	Safe-lock	<input type="checkbox"/>
JS754120E2C.9Z4A-HXT	03187167	2	E	■	12,0	12,0	24,0	83,0	35,0	11,4	0,15	4	Safe-lock	<input type="checkbox"/>
JS754160E2C.9Z4A-HXT	03187168	2	E	■	16,0	16,0	32,0	92,0	42,0	15,2	0,2	4	Safe-lock	<input type="checkbox"/>
JS754200E2C.9Z4A-HXT	03187169	2	E	■	20,0	20,0	40,0	104,0	51,0	19,0	0,25	4	Safe-lock	<input type="checkbox"/>

Safelock available. Delivery time is 6 days.

Plastic and CFRP

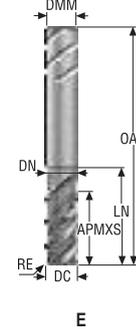
Graphite

X-Heads

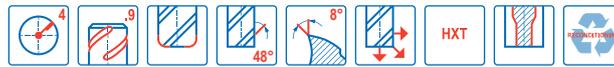
Minimaster

## JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS754060E2R020.9Z4-HXT	03187170	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	4	Safe-lock	<input type="checkbox"/>
JS754060E2R050.9Z4-HXT	03187171	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	4	Safe-lock	<input type="checkbox"/>
JS754060E2R100.9Z4-HXT	03187172	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	4	Safe-lock	<input type="checkbox"/>
JS754080E2R050.9Z4-HXT	03187173	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	4	Safe-lock	<input type="checkbox"/>
JS754080E2R100.9Z4-HXT	03187174	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	4	Safe-lock	<input type="checkbox"/>
JS754100E2R050.9Z4-HXT	03187175	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	4	Safe-lock	<input type="checkbox"/>
JS754100E2R100.9Z4-HXT	03187176	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	4	Safe-lock	<input type="checkbox"/>
JS754100E2R150.9Z4-HXT	03200573	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,5	4	Safe-lock	<input type="checkbox"/>
JS754100E2R200.9Z4-HXT	03187177	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	4	Safe-lock	<input type="checkbox"/>
JS754100E2R300.9Z4-HXT	03187178	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	4	Safe-lock	<input type="checkbox"/>
JS754120E2R050.9Z4-HXT	03187179	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	4	Safe-lock	<input type="checkbox"/>
JS754120E2R100.9Z4-HXT	03187180	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	4	Safe-lock	<input type="checkbox"/>
JS754120E2R150.9Z4-HXT	03200832	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,5	4	Safe-lock	<input type="checkbox"/>
JS754120E2R200.9Z4-HXT	03187181	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	4	Safe-lock	<input type="checkbox"/>
JS754120E2R300.9Z4-HXT	03187182	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	4	Safe-lock	<input type="checkbox"/>
JS754160E2R050.9Z4-HXT	03187183	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	4	Safe-lock	<input type="checkbox"/>
JS754160E2R100.9Z4-HXT	03187184	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	4	Safe-lock	<input type="checkbox"/>
JS754160E2R200.9Z4-HXT	03187185	2	E	16,0	16,0	32,0	92,0	42,0	15,2	2,0	4	Safe-lock	<input type="checkbox"/>
JS754160E2R300.9Z4-HXT	03187186	2	E	16,0	16,0	32,0	92,0	42,0	15,2	3,0	4	Safe-lock	<input type="checkbox"/>
JS754160E2R400.9Z4-HXT	03187187	2	E	16,0	16,0	32,0	92,0	42,0	15,2	4,0	4	Safe-lock	<input checked="" type="checkbox"/>
JS754160E2R600.9Z4-HXT	03187188	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	4	Safe-lock	<input type="checkbox"/>
JS754200E2R050.9Z4-HXT	03187189	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	4	Safe-lock	<input type="checkbox"/>
JS754200E2R100.9Z4-HXT	03187190	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	4	Safe-lock	<input type="checkbox"/>
JS754200E2R200.9Z4-HXT	03187191	2	E	20,0	20,0	40,0	104,0	51,0	19,0	2,0	4	Safe-lock	<input type="checkbox"/>
JS754200E2R300.9Z4-HXT	03187192	2	E	20,0	20,0	40,0	104,0	51,0	19,0	3,0	4	Safe-lock	<input type="checkbox"/>
JS754200E2R400.9Z4-HXT	03187193	2	E	20,0	20,0	40,0	104,0	51,0	19,0	4,0	4	Safe-lock	<input type="checkbox"/>
JS754200E2R600.9Z4-HXT	03187194	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	4	Safe-lock	<input type="checkbox"/>

 Safelock available. Delivery time is 6 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

Graphite

X-Heads

Minimaster

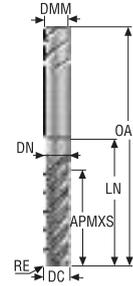
## JS754

High performance – Square – ISO– M and ISO– S – 4 Flutes – Safelock – Corner radius

Universal

Steel and cast iron

Stainless steel and S-materials



E

–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible



Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS754060E3R020.9Z4-HXT	03187197	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	4	Safe-lock	<input type="checkbox"/>
JS754060E3R050.9Z4-HXT	03187198	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	4	Safe-lock	<input type="checkbox"/>
JS754060E3R100.9Z4-HXT	03187199	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	4	Safe-lock	<input type="checkbox"/>
JS754080E3R050.9Z4-HXT	03187200	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	4	Safe-lock	<input type="checkbox"/>
JS754080E3R100.9Z4-HXT	03187201	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	4	Safe-lock	<input type="checkbox"/>
JS754100E3R050.9Z4-HXT	03187202	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	4	Safe-lock	<input type="checkbox"/>
JS754100E3R100.9Z4-HXT	03187203	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	4	Safe-lock	<input type="checkbox"/>
JS754100E3R200.9Z4-HXT	03187204	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	4	Safe-lock	<input type="checkbox"/>
JS754100E3R300.9Z4-HXT	03187205	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	4	Safe-lock	<input type="checkbox"/>
JS754120E3R050.9Z4-HXT	03187206	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	4	Safe-lock	<input type="checkbox"/>
JS754120E3R100.9Z4-HXT	03187207	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	4	Safe-lock	<input type="checkbox"/>
JS754120E3R200.9Z4-HXT	03187208	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	4	Safe-lock	<input type="checkbox"/>
JS754120E3R300.9Z4-HXT	03187209	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	4	Safe-lock	<input type="checkbox"/>
JS754160E3R050.9Z4-HXT	03187210	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	4	Safe-lock	<input type="checkbox"/>
JS754160E3R100.9Z4-HXT	03187211	3	E	16,0	16,0	55,0	115,0	65,0	15,2	1,0	4	Safe-lock	<input type="checkbox"/>
JS754160E3R200.9Z4-HXT	03187212	3	E	16,0	16,0	55,0	115,0	65,0	15,2	2,0	4	Safe-lock	<input type="checkbox"/>
JS754160E3R300.9Z4-HXT	03187213	3	E	16,0	16,0	55,0	115,0	65,0	15,2	3,0	4	Safe-lock	<input type="checkbox"/>
JS754160E3R400.9Z4-HXT	03187214	3	E	16,0	16,0	55,0	115,0	65,0	15,2	4,0	4	Safe-lock	<input type="checkbox"/>
JS754160E3R600.9Z4-HXT	03187215	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	4	Safe-lock	<input type="checkbox"/>
JS754200E3R050.9Z4-HXT	03187216	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	4	Safe-lock	<input type="checkbox"/>
JS754200E3R100.9Z4-HXT	03187217	3	E	20,0	20,0	61,0	125,0	72,0	19,0	1,0	4	Safe-lock	<input type="checkbox"/>
JS754200E3R200.9Z4-HXT	03187218	3	E	20,0	20,0	61,0	125,0	72,0	19,0	2,0	4	Safe-lock	<input type="checkbox"/>
JS754200E3R300.9Z4-HXT	03187219	3	E	20,0	20,0	61,0	125,0	72,0	19,0	3,0	4	Safe-lock	<input type="checkbox"/>
JS754200E3R400.9Z4-HXT	03187220	3	E	20,0	20,0	61,0	125,0	72,0	19,0	4,0	4	Safe-lock	<input type="checkbox"/>
JS754200E3R600.9Z4-HXT	03187221	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	4	Safe-lock	<input type="checkbox"/>

Safelock available. Delivery time is 6 days.

Cutting data – JS754 Side milling roughing

SMG	Icon	a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>	
				3	4	5	6	8	10	12	16	20	25		
P11	M/A/D/E	0.400 0.400	0.80 0.80	0.026 0.0010	0.036 0.0014	0.044 0.0017	0.055 0.0022	0.070 0.0028	0.090 0.0036	0.11 0.0044	0.13 0.0050	0.15 0.0060	0.17 0.0065	165 (130 – 180) 540 (430 – 590)	Universal
P12	M/A/D/E	0.400 0.400	0.80 0.80	0.018 0.00070	0.024 0.00095	0.030 0.0012	0.036 0.0014	0.048 0.0019	0.060 0.0024	0.070 0.0028	0.090 0.0036	0.10 0.0040	0.12 0.0048	105 (83 – 120) 345 (280 – 390)	
M1	E	0.400 0.400	1.0 1.0	0.020 0.00080	0.026 0.0010	0.034 0.0013	0.040 0.0016	0.055 0.0022	0.065 0.0026	0.080 0.0032	0.10 0.0040	0.11 0.0044	0.13 0.0050	110 (96 – 130) 360 (320 – 420)	Steel and cast iron
M2	E	0.400 0.400	1.0 1.0	0.018 0.00070	0.024 0.00095	0.030 0.0012	0.036 0.0014	0.048 0.0019	0.060 0.0024	0.070 0.0028	0.090 0.0036	0.10 0.0040	0.12 0.0048	90 (79 – 110) 295 (260 – 360)	
M3	E	0.400 0.400	0.90 0.90	0.015 0.00060	0.020 0.00080	0.025 0.0010	0.030 0.0012	0.040 0.0016	0.050 0.0020	0.060 0.0024	0.075 0.0030	0.085 0.0034	0.095 0.0038	60 (44 – 76) 195 (150 – 240)	Steel and stainless steel and S-materials
M4	E	0.400 0.400	0.90 0.90	0.013 0.00050	0.018 0.00070	0.022 0.00085	0.026 0.0010	0.036 0.0014	0.044 0.0017	0.055 0.0022	0.065 0.0026	0.075 0.0030	0.085 0.0034	46 (34 – 59) 150 (120 – 190)	
M5	E	0.400 0.400	0.90 0.90	0.013 0.00050	0.018 0.00070	0.022 0.00085	0.026 0.0010	0.036 0.0014	0.044 0.0017	0.055 0.0022	0.065 0.0026	0.075 0.0030	0.085 0.0034	39 (29 – 49) 130 (96 – 160)	Steel and stainless steel and S-materials
S1	E	0.150 0.150	0.50 0.50	0.026 0.0010	0.034 0.0013	0.044 0.0017	0.050 0.0020	0.070 0.0028	0.085 0.0034	0.10 0.0040	0.13 0.0050	0.15 0.0060	0.17 0.0065	165 (86 – 220) 41 (21 – 55)	
S2	E	0.150 0.150	0.50 0.50	0.026 0.0010	0.034 0.0013	0.044 0.0017	0.050 0.0020	0.070 0.0028	0.085 0.0034	0.10 0.0040	0.13 0.0050	0.15 0.0060	0.17 0.0065	135 (69 – 180) 36 (19 – 48)	Non ferrous
S3	E	0.150 0.150	0.50 0.50	0.024 0.00095	0.032 0.0013	0.040 0.0016	0.048 0.0019	0.065 0.0026	0.080 0.0032	0.095 0.0038	0.12 0.0048	0.14 0.0055	0.15 0.0060	120 (63 – 150) 360 (240 – 450)	
S11	E	0.400 0.400	0.70 0.70	0.018 0.00070	0.024 0.00095	0.030 0.0012	0.036 0.0014	0.048 0.0019	0.060 0.0024	0.070 0.0028	0.090 0.0036	0.10 0.0040	0.12 0.0048	110 (73 – 140) 85 (56 – 110)	Non ferrous
S12	E	0.400 0.400	0.70 0.70	0.018 0.00070	0.024 0.00095	0.030 0.0012	0.036 0.0014	0.048 0.0019	0.060 0.0024	0.070 0.0028	0.090 0.0036	0.10 0.0040	0.12 0.0048	280 (190 – 360) 65 (44 – 87)	
S13	E	0.400 0.400	0.70 0.70	0.016 0.00065	0.022 0.00085	0.026 0.0010	0.032 0.0013	0.042 0.0017	0.055 0.0022	0.065 0.0026	0.080 0.0032	0.090 0.0036	0.10 0.0040	215 (150 – 280)	

Cutting data – JS754 Slot milling

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>	
			3	4	5	6	8	10	12	16	20	25		
P11	M/A/D/E	0.80 0.80	0.015 0.00060	0.020 0.00080	0.025 0.0010	0.030 0.0012	0.040 0.0016	0.050 0.0020	0.060 0.0024	0.080 0.0032	0.10 0.0040	0.13 0.0050	150 (120 – 170) 490 (400 – 550)	Hard
P12	M/A/D/E	0.80 0.80	0.015 0.00060	0.020 0.00080	0.025 0.0010	0.030 0.0012	0.040 0.0016	0.050 0.0020	0.060 0.0024	0.080 0.0032	0.10 0.0040	0.11 0.0044	90 (69 – 100) 295 (230 – 320)	
M1	E	0.80 0.80	0.012 0.00048	0.016 0.00065	0.020 0.00080	0.024 0.00095	0.032 0.0013	0.040 0.0016	0.048 0.0019	0.065 0.0026	0.080 0.0032	0.10 0.0040	80 (69 – 97) 310 (280 – 390)	Plastic and cfrp
M2	E	0.80 0.80	0.012 0.00048	0.016 0.00065	0.020 0.00080	0.024 0.00095	0.032 0.0013	0.040 0.0016	0.048 0.0019	0.065 0.0026	0.080 0.0032	0.10 0.0040	80 (69 – 97) 260 (230 – 310)	
M3	E	0.60 0.60	0.0095 0.00038	0.012 0.00048	0.015 0.00060	0.019 0.00075	0.025 0.0010	0.030 0.0012	0.038 0.0015	0.050 0.0020	0.060 0.0024	0.075 0.0030	55 (39 – 67) 180 (130 – 210)	Graphite
M4	E	0.60 0.60	0.0095 0.00038	0.012 0.00048	0.015 0.00060	0.019 0.00075	0.025 0.0010	0.030 0.0012	0.038 0.0015	0.050 0.0020	0.060 0.0024	0.075 0.0030	40 (29 – 50) 130 (96 – 160)	
M5	E	0.60 0.60	0.0095 0.00038	0.012 0.00048	0.015 0.00060	0.019 0.00075	0.025 0.0010	0.030 0.0012	0.038 0.0015	0.050 0.0020	0.060 0.0024	0.075 0.0030	33 (25 – 42) 110 (83 – 130)	X-Heads
S1	E	0.30 0.30	0.0095 0.00038	0.012 0.00048	0.015 0.00060	0.019 0.00075	0.025 0.0010	0.030 0.0012	0.038 0.0015	0.050 0.0020	0.060 0.0024	0.075 0.0030	41 (21 – 54) 135 (69 – 170)	
S2	E	0.30 0.30	0.0095 0.00038	0.012 0.00048	0.015 0.00060	0.019 0.00075	0.025 0.0010	0.030 0.0012	0.038 0.0015	0.050 0.0020	0.060 0.0024	0.075 0.0030	33 (17 – 43) 110 (56 – 140)	Minimaster
S3	E	0.30 0.30	0.0095 0.00038	0.012 0.00048	0.015 0.00060	0.019 0.00075	0.025 0.0010	0.030 0.0012	0.038 0.0015	0.050 0.0020	0.060 0.0024	0.075 0.0030	28 (15 – 37) 90 (50 – 120)	
S11	E	0.50 0.50	0.012 0.00048	0.016 0.00065	0.020 0.00080	0.025 0.0010	0.032 0.0013	0.042 0.0017	0.050 0.0020	0.065 0.0026	0.080 0.0032	0.10 0.0040	95 (63 – 120) 310 (210 – 390)	X-Heads
S12	E	0.50 0.50	0.012 0.00048	0.016 0.00065	0.020 0.00080	0.025 0.0010	0.032 0.0013	0.042 0.0017	0.050 0.0020	0.065 0.0026	0.080 0.0032	0.10 0.0040	70 (48 – 95) 230 (160 – 310)	
S13	E	0.50 0.50	0.012 0.00048	0.016 0.00065	0.020 0.00080	0.025 0.0010	0.032 0.0013	0.042 0.0017	0.050 0.0020	0.065 0.0026	0.080 0.0032	0.10 0.0040	55 (38 – 74) 180 (130 – 240)	

If radius exceeds 15% of value DC please reduce fz with 20%

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – JS754-2C Advanced roughing  $a_e/DC=0,05-0,1$ 

SMG		$a_e/DC$	$a_p/DC$	$f_z$		$v_c$
				10	12	
P11	M/A/D/E	0.100	2.0	0.15	0.17	265 (220 – 290)
		0,100	2,0	0,0060	0,0065	870 (730 – 950)
P12	M/A/D/E	0.100	2.0	0.10	0.12	170 (150 – 190)
		0,100	2,0	0,0040	0,0048	560 (500 – 620)
M1	E	0.100	2.0	0.11	0.13	205 (180 – 230)
		0,100	2,0	0,0044	0,0050	670 (600 – 750)
M2	E	0.100	2.0	0.10	0.12	170 (150 – 190)
		0,100	2,0	0,0040	0,0048	560 (500 – 620)
M3	E	0.100	2.0	0.10	0.12	130 (120 – 150)
		0,100	2,0	0,0040	0,0048	425 (400 – 490)
M4	E	0.100	2.0	0.085	0.10	100 (86 – 110)
		0,100	2,0	0,0034	0,0040	330 (290 – 360)
M5	E	0.100	2.0	0.085	0.10	85 (72 – 96)
		0,100	2,0	0,0034	0,0040	280 (240 – 310)
S1	E	0.0500	2.0	0.085	0.10	70 (43 – 99)
		0,0500	2,0	0,0034	0,0040	230 (150 – 320)
S2	E	0.0500	2.0	0.085	0.10	60 (35 – 80)
		0,0500	2,0	0,0034	0,0040	195 (120 – 260)
S3	E	0.0500	2.0	0.080	0.095	50 (31 – 70)
		0,0500	2,0	0,0032	0,0038	165 (110 – 220)
S11	E	0.0800	2.0	0.070	0.085	165 (140 – 190)
		0,0800	2,0	0,0028	0,0034	540 (460 – 620)
S12	E	0.0800	2.0	0.070	0.085	125 (110 – 150)
		0,0800	2,0	0,0028	0,0034	410 (370 – 490)
S13	E	0.0800	2.0	0.060	0.070	100 (84 – 110)
		0,0800	2,0	0,0024	0,0028	330 (280 – 360)

 Cutting data – JS754-3C Advanced roughing  $a_e/DC=0,05-0,1$ 

SMG		$a_e/DC$	$a_p/DC$	$f_z$						$v_c$
				6	8	10	12	16	20	
P11	M/A/D/E	0.100	4.0	0.090	0.12	0.15	0.17	0.22	0.25	265 (220 – 290)
		0,100	4,0	0,0036	0,0048	0,0060	0,0065	0,0085	0,010	870 (730 – 950)
P12	M/A/D/E	0.100	4.0	0.060	0.080	0.10	0.12	0.15	0.17	170 (140 – 180)
		0,100	4,0	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	560 (460 – 590)
M1	E	0.100	4.0	0.065	0.090	0.11	0.13	0.16	0.19	205 (170 – 230)
		0,100	4,0	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	670 (560 – 750)
M2	E	0.100	4.0	0.060	0.080	0.10	0.12	0.15	0.17	170 (140 – 190)
		0,100	4,0	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	560 (460 – 620)
M3	E	0.100	4.0	0.060	0.080	0.10	0.12	0.15	0.17	130 (110 – 150)
		0,100	4,0	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	425 (370 – 490)
M4	E	0.100	4.0	0.050	0.070	0.085	0.10	0.13	0.15	100 (86 – 110)
		0,100	4,0	0,0020	0,0028	0,0034	0,0040	0,0050	0,0060	330 (290 – 360)
M5	E	0.100	4.0	0.050	0.070	0.085	0.10	0.13	0.15	85 (72 – 96)
		0,100	4,0	0,0020	0,0028	0,0034	0,0040	0,0050	0,0060	280 (240 – 310)
S1	E	0.0500	4.0	0.050	0.070	0.085	0.10	0.13	0.15	70 (43 – 99)
		0,0500	4,0	0,0020	0,0028	0,0034	0,0040	0,0050	0,0060	230 (150 – 320)
S2	E	0.0500	4.0	0.050	0.070	0.085	0.10	0.13	0.15	55 (35 – 80)
		0,0500	4,0	0,0020	0,0028	0,0034	0,0040	0,0050	0,0060	180 (120 – 260)
S3	E	0.0500	4.0	0.048	0.065	0.080	0.095	0.12	0.14	50 (30 – 70)
		0,0500	4,0	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	165 (99 – 220)
S11	E	0.0800	4.0	0.042	0.055	0.070	0.085	0.10	0.12	165 (140 – 190)
		0,0800	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	540 (460 – 620)
S12	E	0.0800	4.0	0.042	0.055	0.070	0.085	0.10	0.12	125 (110 – 150)
		0,0800	4,0	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	410 (370 – 490)
S13	E	0.0800	4.0	0.036	0.048	0.060	0.070	0.090	0.10	100 (84 – 110)
		0,0800	4,0	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	330 (280 – 360)

 If radius exceeds 15% of value DC please reduce  $f_z$  with 20%

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 $v_c$  = m/min (sf/min)

 $f_z$  = mm (in/tooth)

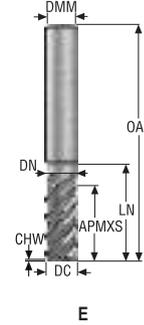
 $a_p$  = mm/DC (in/DC) = factor

 $a_e$  = mm/DC (in/DC) = factor

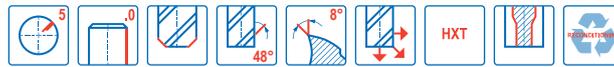
All cutting data are target values

## JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS755060E2C.0Z5-HXT	03186907	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	5	Cylindrical	■
JS755080E2C.0Z5-HXT	03186908	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	5	Cylindrical	■
JS755100E2C.0Z5-HXT	03186909	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	5	Cylindrical	■
JS755120E2C.0Z5-HXT	03186910	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	5	Cylindrical	■
JS755160E2C.0Z5-HXT	03186911	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	5	Cylindrical	■
JS755200E2C.0Z5-HXT	03186912	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	5	Cylindrical	■
JS755250E2C.0Z5-HXT	03186913	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	5	Cylindrical	■
JS755060E3C.0Z5-HXT	03186914	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	5	Cylindrical	■
JS755080E3C.0Z5-HXT	03186915	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	5	Cylindrical	■
JS755100E3C.0Z5-HXT	03186916	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	Cylindrical	■
JS755120E3C.0Z5-HXT	03186917	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	Cylindrical	■
JS755160E3C.0Z5-HXT	03186918	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	Cylindrical	■
JS755200E3C.0Z5-HXT	03186919	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	Cylindrical	■
JS755250E3C.0Z5-HXT	03186920	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

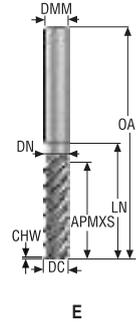
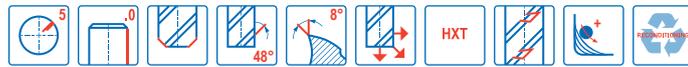
Graphite

X-Heads

Minimaster

## JS755

High performance - Square - ISO- M and ISO- S - 5 Flutes - Cylindrical - Chamfer

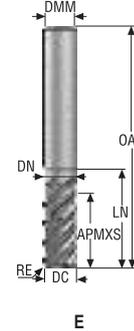
 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaxter

 -Tolerances:  
 -DMM= h5  
 -DC= e7  
 -Regrind possible


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS755100E3C.0Z5C-HXT	03186921	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	Cylindrical	■
JS755120E3C.0Z5C-HXT	03186922	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	Cylindrical	■
JS755160E3C.0Z5C-HXT	03186923	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	Cylindrical	■
JS755200E3C.0Z5C-HXT	03186924	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	Cylindrical	■

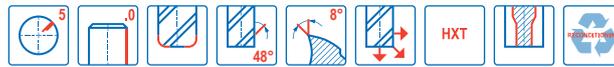
■ Stocked standard.

## JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS755060E2R020.0Z5-HXT	03186925	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	5	Cylindrical	■
JS755060E2R050.0Z5-HXT	03186926	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	5	Cylindrical	■
JS755060E2R100.0Z5-HXT	03186927	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	5	Cylindrical	■
JS755080E2R050.0Z5-HXT	03186928	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	5	Cylindrical	■
JS755080E2R100.0Z5-HXT	03186929	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	5	Cylindrical	■
JS755100E2R050.0Z5-HXT	03186930	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	5	Cylindrical	■
JS755100E2R100.0Z5-HXT	03186931	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	5	Cylindrical	■
JS755100E2R200.0Z5-HXT	03186932	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	5	Cylindrical	■
JS755100E2R300.0Z5-HXT	03186933	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	5	Cylindrical	■
JS755120E2R050.0Z5-HXT	03186934	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	5	Cylindrical	■
JS755120E2R100.0Z5-HXT	03186935	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	5	Cylindrical	■
JS755120E2R200.0Z5-HXT	03186936	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	5	Cylindrical	■
JS755120E2R300.0Z5-HXT	03186937	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	5	Cylindrical	■
JS755160E2R050.0Z5-HXT	03186938	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	5	Cylindrical	■
JS755160E2R100.0Z5-HXT	03186939	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	5	Cylindrical	■
JS755160E2R600.0Z5-HXT	03186940	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	5	Cylindrical	■
JS755200E2R050.0Z5-HXT	03186941	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	5	Cylindrical	■
JS755200E2R100.0Z5-HXT	03186942	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	5	Cylindrical	■
JS755200E2R600.0Z5-HXT	03186943	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

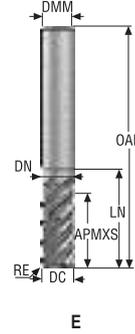
Graphite

X-Heads

Minimaster

## JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Cylindrical – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible

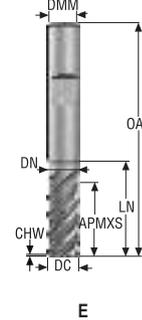


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
JS755060E3R020.0Z5-HXT	03186946	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	5	Cylindrical	■
JS755060E3R050.0Z5-HXT	03186947	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	5	Cylindrical	■
JS755060E3R100.0Z5-HXT	03186948	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	5	Cylindrical	■
JS755080E3R050.0Z5-HXT	03186949	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	5	Cylindrical	■
JS755080E3R100.0Z5-HXT	03186950	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	5	Cylindrical	■
JS755100E3R050.0Z5-HXT	03186951	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	5	Cylindrical	■
JS755100E3R100.0Z5-HXT	03186952	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	5	Cylindrical	■
JS755100E3R200.0Z5-HXT	03186953	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	5	Cylindrical	■
JS755100E3R300.0Z5-HXT	03186954	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	5	Cylindrical	■
JS755120E3R050.0Z5-HXT	03186955	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	5	Cylindrical	■
JS755120E3R100.0Z5-HXT	03186956	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	5	Cylindrical	■
JS755120E3R200.0Z5-HXT	03186957	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	5	Cylindrical	■
JS755120E3R300.0Z5-HXT	03186958	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	5	Cylindrical	■
JS755160E3R050.0Z5-HXT	03186959	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	5	Cylindrical	■
JS755160E3R600.0Z5-HXT	03186960	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	5	Cylindrical	■
JS755200E3R050.0Z5-HXT	03186961	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	5	Cylindrical	■
JS755200E3R600.0Z5-HXT	03186962	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	5	Cylindrical	■

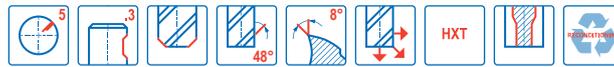
■ Stocked standard.

## JS755

High performance – Square – ISO- M and ISO- S – 5 Flutes – Weldon – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS755060E2C.3Z5-HXT	03187083	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	5	Weldon	■
JS755080E2C.3Z5-HXT	03187084	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	5	Weldon	■
JS755100E2C.3Z5-HXT	03187085	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	5	Weldon	■
JS755120E2C.3Z5-HXT	03187086	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	5	Weldon	■
JS755160E2C.3Z5-HXT	03187087	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	5	Weldon	■
JS755200E2C.3Z5-HXT	03187088	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	5	Weldon	■
JS755250E2C.3Z5-HXT	03187089	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	5	Weldon	■
JS755060E3C.3Z5-HXT	03187090	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	5	Weldon	■
JS755080E3C.3Z5-HXT	03187091	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	5	Weldon	■
JS755100E3C.3Z5-HXT	03187092	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	Weldon	■
JS755120E3C.3Z5-HXT	03187093	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	Weldon	■
JS755160E3C.3Z5-HXT	03187094	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	Weldon	■
JS755200E3C.3Z5-HXT	03187095	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	Weldon	■
JS755250E3C.3Z5-HXT	03187096	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	5	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

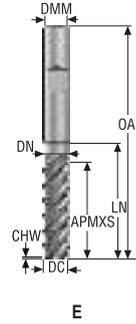
JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Weldon – Chamfer

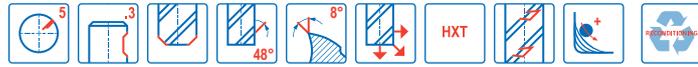
Universal

Steel and cast iron

Stainless steel and S-materials



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Non ferrous

Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS755100E3C.3Z5C-HXT	03187097	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	Weldon	■
JS755120E3C.3Z5C-HXT	03187098	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	Weldon	■
JS755160E3C.3Z5C-HXT	03187099	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	Weldon	■
JS755200E3C.3Z5C-HXT	03187100	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	Weldon	■

■ Stocked standard.

Hard

Plastic and cfrp

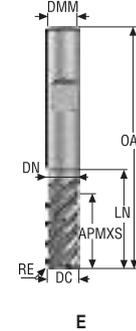
Graphite

X-Heads

Minimaster

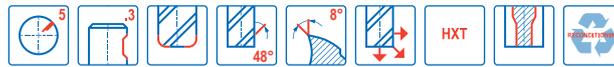
## JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Weldon – Corner radius



E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS755060E2R020.3Z5-HXT	03187101	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	5	Weldon	■
JS755060E2R050.3Z5-HXT	03187102	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	5	Weldon	■
JS755060E2R100.3Z5-HXT	03187103	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	5	Weldon	■
JS755080E2R050.3Z5-HXT	03187104	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	5	Weldon	■
JS755080E2R100.3Z5-HXT	03187105	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	5	Weldon	■
JS755100E2R050.3Z5-HXT	03187106	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	5	Weldon	■
JS755100E2R100.3Z5-HXT	03187107	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	5	Weldon	■
JS755100E2R200.3Z5-HXT	03187108	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	5	Weldon	■
JS755100E2R300.3Z5-HXT	03187109	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	5	Weldon	■
JS755120E2R050.3Z5-HXT	03187110	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	5	Weldon	■
JS755120E2R100.3Z5-HXT	03187111	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	5	Weldon	■
JS755120E2R200.3Z5-HXT	03187112	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	5	Weldon	■
JS755120E2R300.3Z5-HXT	03187113	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	5	Weldon	■
JS755160E2R050.3Z5-HXT	03187114	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	5	Weldon	■
JS755160E2R100.3Z5-HXT	03187115	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	5	Weldon	■
JS755160E2R600.3Z5-HXT	03187116	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	5	Weldon	■
JS755200E2R050.3Z5-HXT	03187117	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	5	Weldon	■
JS755200E2R100.3Z5-HXT	03187118	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	5	Weldon	■
JS755200E2R600.3Z5-HXT	03187119	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	5	Weldon	■
JS755060E3R020.3Z5-HXT	03187122	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	5	Weldon	□
JS755060E3R050.3Z5-HXT	03187123	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	5	Weldon	□
JS755060E3R100.3Z5-HXT	03187124	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	5	Weldon	□
JS755080E3R050.3Z5-HXT	03187125	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	5	Weldon	□
JS755080E3R100.3Z5-HXT	03187126	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	5	Weldon	□
JS755100E3R050.3Z5-HXT	03187127	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	5	Weldon	□
JS755100E3R100.3Z5-HXT	03187128	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	5	Weldon	□
JS755100E3R200.3Z5-HXT	03187129	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	5	Weldon	□
JS755100E3R300.3Z5-HXT	03187130	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	5	Weldon	□
JS755120E3R050.3Z5-HXT	03187131	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	5	Weldon	□
JS755120E3R100.3Z5-HXT	03187132	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	5	Weldon	□
JS755120E3R200.3Z5-HXT	03187133	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	5	Weldon	□
JS755120E3R300.3Z5-HXT	03187134	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	5	Weldon	□
JS755160E3R050.3Z5-HXT	03187135	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	5	Weldon	□
JS755160E3R600.3Z5-HXT	03187136	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	5	Weldon	□
JS755200E3R050.3Z5-HXT	03187137	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	5	Weldon	□
JS755200E3R600.3Z5-HXT	03187138	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	5	Weldon	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

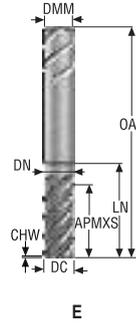
Graphite

X-Heads

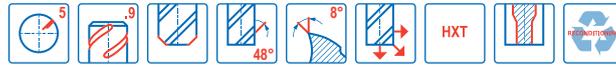
Minimaster

## JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Safelock – Chamfer



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –Regrind possible

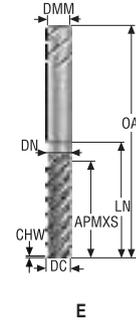


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JS755060E2C.9Z5-HXT	03187235	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,075	5	Safe-lock	<input type="checkbox"/>
JS755080E2C.9Z5-HXT	03187236	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	5	Safe-lock	<input type="checkbox"/>
JS755100E2C.9Z5-HXT	03187237	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,125	5	Safe-lock	<input type="checkbox"/>
JS755120E2C.9Z5-HXT	03187238	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,15	5	Safe-lock	<input type="checkbox"/>
JS755160E2C.9Z5-HXT	03187239	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,2	5	Safe-lock	<input type="checkbox"/>
JS755200E2C.9Z5-HXT	03187240	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,25	5	Safe-lock	<input type="checkbox"/>
JS755250E2C.9Z5-HXT	03187241	2	E	25,0	25,0	50,0	121,0	65,0	23,8	0,3	5	Safe-lock	<input type="checkbox"/>
JS755060E3C.9Z5-HXT	03187242	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,075	5	Safe-lock	<input type="checkbox"/>
JS755080E3C.9Z5-HXT	03187243	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,1	5	Safe-lock	<input type="checkbox"/>
JS755100E3C.9Z5-HXT	03187244	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	Safe-lock	<input type="checkbox"/>
JS755120E3C.9Z5-HXT	03187245	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	Safe-lock	<input type="checkbox"/>
JS755160E3C.9Z5-HXT	03187246	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	Safe-lock	<input type="checkbox"/>
JS755200E3C.9Z5-HXT	03187247	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	Safe-lock	<input type="checkbox"/>
JS755250E3C.9Z5-HXT	03187248	3	E	25,0	25,0	85,0	153,0	94,0	23,8	0,3	5	Safe-lock	<input type="checkbox"/>

Safelock available. Delivery time is 6 days.

**JS755**

High performance – Square – ISO- M and ISO- S – 5 Flutes – Safelock – Chamfer



- Tolerances:
- DMM= h5
- DC= e7
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JS755100E3C.9Z5C-HXT	03187249	3	E	■	10,0	10,0	40,0	89,0	47,0	9,5	0,125	5	Safe-lock	<input type="checkbox"/>
JS755120E3C.9Z5C-HXT	03187250	3	E	■	12,0	12,0	45,0	100,0	53,0	11,4	0,15	5	Safe-lock	<input type="checkbox"/>
JS755160E3C.9Z5C-HXT	03187252	3	E	■	16,0	16,0	55,0	115,0	65,0	15,2	0,2	5	Safe-lock	<input type="checkbox"/>
JS755200E3C.9Z5C-HXT	03187253	3	E	■	20,0	20,0	61,0	125,0	72,0	19,0	0,25	5	Safe-lock	<input type="checkbox"/>

 Safelock available. Delivery time is 6 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

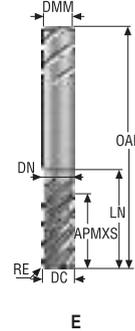
Graphite

X-Heads

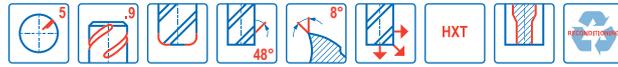
Minimaster

## JS755

High performance – Square – ISO– M and ISO– S – 5 Flutes – Safelock – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible



	Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
Non ferrous	JS755060E2R020.9Z5-HXT	03187254	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,2	5	Safe-lock	<input type="checkbox"/>
	JS755060E2R050.9Z5-HXT	03187255	2	E	6,0	6,0	12,0	57,0	18,0	5,7	0,5	5	Safe-lock	<input type="checkbox"/>
Hard	JS755060E2R100.9Z5-HXT	03187256	2	E	6,0	6,0	12,0	57,0	18,0	5,7	1,0	5	Safe-lock	<input type="checkbox"/>
	JS755080E2R050.9Z5-HXT	03187257	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755080E2R100.9Z5-HXT	03187258	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	5	Safe-lock	<input type="checkbox"/>
	JS755100E2R050.9Z5-HXT	03187259	2	E	10,0	10,0	20,0	72,0	29,0	9,5	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755100E2R100.9Z5-HXT	03187260	2	E	10,0	10,0	20,0	72,0	29,0	9,5	1,0	5	Safe-lock	<input type="checkbox"/>
	JS755100E2R200.9Z5-HXT	03187261	2	E	10,0	10,0	20,0	72,0	29,0	9,5	2,0	5	Safe-lock	<input type="checkbox"/>
	JS755100E2R300.9Z5-HXT	03187262	2	E	10,0	10,0	20,0	72,0	29,0	9,5	3,0	5	Safe-lock	<input type="checkbox"/>
	JS755120E2R050.9Z5-HXT	03187263	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,5	5	Safe-lock	<input type="checkbox"/>
Plastic and cfrp	JS755120E2R100.9Z5-HXT	03187264	2	E	12,0	12,0	24,0	83,0	35,0	11,4	1,0	5	Safe-lock	<input type="checkbox"/>
	JS755120E2R200.9Z5-HXT	03187265	2	E	12,0	12,0	24,0	83,0	35,0	11,4	2,0	5	Safe-lock	<input type="checkbox"/>
	JS755120E2R300.9Z5-HXT	03187266	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,0	5	Safe-lock	<input type="checkbox"/>
	JS755160E2R050.9Z5-HXT	03187267	2	E	16,0	16,0	32,0	92,0	42,0	15,2	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755160E2R100.9Z5-HXT	03187269	2	E	16,0	16,0	32,0	92,0	42,0	15,2	1,0	5	Safe-lock	<input type="checkbox"/>
	JS755160E2R600.9Z5-HXT	03187270	2	E	16,0	16,0	32,0	92,0	42,0	15,2	6,0	5	Safe-lock	<input type="checkbox"/>
	JS755200E2R050.9Z5-HXT	03187271	2	E	20,0	20,0	40,0	104,0	51,0	19,0	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755200E2R100.9Z5-HXT	03187272	2	E	20,0	20,0	40,0	104,0	51,0	19,0	1,0	5	Safe-lock	<input type="checkbox"/>
Graphite	JS755200E2R600.9Z5-HXT	03187273	2	E	20,0	20,0	40,0	104,0	51,0	19,0	6,0	5	Safe-lock	<input type="checkbox"/>
	JS755060E3R020.9Z5-HXT	03187276	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,2	5	Safe-lock	<input type="checkbox"/>
	JS755060E3R050.9Z5-HXT	03187277	3	E	6,0	6,0	21,0	65,0	26,0	5,7	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755060E3R100.9Z5-HXT	03187279	3	E	6,0	6,0	21,0	65,0	26,0	5,7	1,0	5	Safe-lock	<input type="checkbox"/>
	JS755080E3R050.9Z5-HXT	03187280	3	E	8,0	8,0	32,0	75,0	37,0	7,6	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755080E3R100.9Z5-HXT	03187281	3	E	8,0	8,0	32,0	75,0	37,0	7,6	1,0	5	Safe-lock	<input type="checkbox"/>
	JS755100E3R050.9Z5-HXT	03187282	3	E	10,0	10,0	40,0	89,0	47,0	9,5	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755100E3R100.9Z5-HXT	03187283	3	E	10,0	10,0	40,0	89,0	47,0	9,5	1,0	5	Safe-lock	<input type="checkbox"/>
X-Heads	JS755100E3R200.9Z5-HXT	03187284	3	E	10,0	10,0	40,0	89,0	47,0	9,5	2,0	5	Safe-lock	<input type="checkbox"/>
	JS755100E3R300.9Z5-HXT	03187285	3	E	10,0	10,0	40,0	89,0	47,0	9,5	3,0	5	Safe-lock	<input type="checkbox"/>
	JS755120E3R050.9Z5-HXT	03187286	3	E	12,0	12,0	45,0	100,0	53,0	11,4	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755120E3R100.9Z5-HXT	03187287	3	E	12,0	12,0	45,0	100,0	53,0	11,4	1,0	5	Safe-lock	<input type="checkbox"/>
	JS755120E3R200.9Z5-HXT	03187288	3	E	12,0	12,0	45,0	100,0	53,0	11,4	2,0	5	Safe-lock	<input type="checkbox"/>
	JS755120E3R300.9Z5-HXT	03187289	3	E	12,0	12,0	45,0	100,0	53,0	11,4	3,0	5	Safe-lock	<input type="checkbox"/>
	JS755160E3R050.9Z5-HXT	03187290	3	E	16,0	16,0	55,0	115,0	65,0	15,2	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755160E3R600.9Z5-HXT	03187291	3	E	16,0	16,0	55,0	115,0	65,0	15,2	6,0	5	Safe-lock	<input type="checkbox"/>
Minimaster	JS755200E3R050.9Z5-HXT	03187292	3	E	20,0	20,0	61,0	125,0	72,0	19,0	0,5	5	Safe-lock	<input type="checkbox"/>
	JS755200E3R600.9Z5-HXT	03187293	3	E	20,0	20,0	61,0	125,0	72,0	19,0	6,0	5	Safe-lock	<input type="checkbox"/>

Safelock available. Delivery time is 6 days.

Cutting data – JS755 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				6	8	10	12	16	20	25	
P11	M/A/D/E	0.400 0,400	1.1 1,1	0.044 0,0017	0.060 0,0024	0.075 0,0030	0.085 0,0034	0.11 0,0044	0.12 0,0048	0.14 0,0055	135 (97 — 150) 445 (320 — 490)
P12	M/A/D/E	0.400 0,400	1.1 1,1	0.030 0,0012	0.040 0,0016	0.050 0,0020	0.060 0,0024	0.075 0,0030	0.085 0,0034	0.095 0,0038	85 (63 — 99) 280 (210 — 320)
M1	E	0.400 0,400	1.1 1,1	0.032 0,0013	0.044 0,0017	0.055 0,0022	0.065 0,0026	0.080 0,0032	0.095 0,0038	0.11 0,0044	170 (150 — 190) 560 (500 — 620)
M2	E	0.400 0,400	1.1 1,1	0.030 0,0012	0.040 0,0016	0.050 0,0020	0.060 0,0024	0.075 0,0030	0.085 0,0034	0.095 0,0038	140 (120 — 150) 460 (400 — 490)
M3	E	0.400 0,400	1.1 1,1	0.030 0,0012	0.040 0,0016	0.050 0,0020	0.060 0,0024	0.075 0,0030	0.085 0,0034	0.095 0,0038	110 (92 — 120) 360 (310 — 390)
M4	E	0.400 0,400	1.1 1,1	0.026 0,0010	0.034 0,0013	0.044 0,0017	0.050 0,0020	0.065 0,0026	0.075 0,0030	0.085 0,0034	85 (71 — 95) 280 (240 — 310)
M5	E	0.400 0,400	1.1 1,1	0.026 0,0010	0.034 0,0013	0.044 0,0017	0.050 0,0020	0.065 0,0026	0.075 0,0030	0.085 0,0034	70 (59 — 79) 230 (200 — 250)
S1	E	0.0300 0,0300	2.0 2,0	0.046 0,0018	0.060 0,0024	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.14 0,0055	70 (48 — 110) 230 (160 — 360)
S2	E	0.0300 0,0300	2.0 2,0	0.046 0,0018	0.060 0,0024	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.14 0,0055	60 (39 — 89) 195 (130 — 290)
S3	E	0.0300 0,0300	2.0 2,0	0.042 0,0017	0.055 0,0022	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.12 0,0048	0.13 0,0050	50 (34 — 78) 165 (120 — 250)
S11	E	0.400 0,400	1.1 1,1	0.030 0,0012	0.040 0,0016	0.050 0,0020	0.060 0,0024	0.075 0,0030	0.085 0,0034	0.095 0,0038	140 (120 — 160) 460 (400 — 520)
S12	E	0.400 0,400	1.1 1,1	0.030 0,0012	0.040 0,0016	0.050 0,0020	0.060 0,0024	0.075 0,0030	0.085 0,0034	0.095 0,0038	110 (91 — 120) 360 (300 — 390)
S13	E	0.400 0,400	1.1 1,1	0.026 0,0010	0.034 0,0013	0.044 0,0017	0.050 0,0020	0.065 0,0026	0.075 0,0030	0.085 0,0034	85 (73 — 100) 280 (240 — 320)

Cutting data – JS755\_3C Advanced roughing a<sub>e</sub>/DC=0,05-0,1

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				10	12	16	20	
P11	M/A/D/E	0.100 0,100	4.0 4,0	0.15 0,0060	0.17 0,0065	0.22 0,0085	0.25 0,010	265 (220 — 290) 870 (730 — 950)
P12	M/A/D/E	0.100 0,100	4.0 4,0	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	170 (140 — 180) 560 (460 — 590)
M1	E	0.100 0,100	4.0 4,0	0.11 0,0044	0.13 0,0050	0.16 0,0065	0.19 0,0075	205 (170 — 220) 670 (560 — 720)
M2	E	0.100 0,100	4.0 4,0	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	170 (140 — 180) 560 (460 — 590)
M3	E	0.100 0,100	4.0 4,0	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	130 (110 — 140) 425 (370 — 450)
M4	E	0.100 0,100	4.0 4,0	0.085 0,0034	0.10 0,0040	0.13 0,0050	0.15 0,0060	100 (85 — 110) 330 (280 — 360)
M5	E	0.100 0,100	4.0 4,0	0.085 0,0034	0.10 0,0040	0.13 0,0050	0.15 0,0060	85 (71 — 96) 280 (240 — 310)
S1	E	0.0500 0,0500	4.0 4,0	0.085 0,0034	0.10 0,0040	0.13 0,0050	0.15 0,0060	70 (43 — 99) 230 (150 — 320)
S2	E	0.0500 0,0500	4.0 4,0	0.085 0,0034	0.10 0,0040	0.13 0,0050	0.15 0,0060	55 (35 — 80) 180 (120 — 260)
S3	E	0.0500 0,0500	4.0 4,0	0.080 0,0032	0.095 0,0038	0.12 0,0048	0.14 0,0055	50 (31 — 70) 165 (110 — 220)
S11	E	0.0800 0,0800	4.0 4,0	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.12 0,0048	160 (140 — 190) 520 (460 — 620)
S12	E	0.0800 0,0800	4.0 4,0	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.12 0,0048	125 (110 — 140) 410 (370 — 450)
S13	E	0.0800 0,0800	4.0 4,0	0.060 0,0024	0.070 0,0028	0.090 0,0036	0.10 0,0040	100 (83 — 110) 330 (280 — 360)

If radius exceeds 15% of value DC please reduce fz with 20%

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

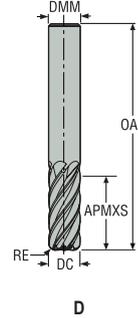
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

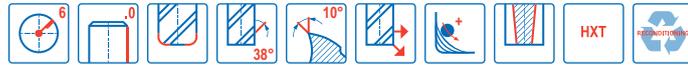
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrrp  
Graphite  
X-Heads  
Minimaster

## JS720

High performance – Titanium – Square – 6 Flutes – Cylindrical – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible

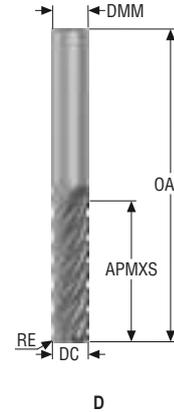


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS720060D2R050.0Z6-HXT	03060293	2	D	6,0	6,0	17,0	57,0	0,5	6	Cylindrical	■
JS720060D2R100.0Z6-HXT	03060294	2	D	6,0	6,0	17,0	57,0	1,0	6	Cylindrical	■
JS720080D2R050.0Z6-HXT	03060295	2	D	8,0	8,0	23,0	63,0	0,5	6	Cylindrical	■
JS720080D2R100.0Z6-HXT	03061294	2	D	8,0	8,0	23,0	63,0	1,0	6	Cylindrical	■
JS720100D2R050.0Z6-HXT	03060296	2	D	10,0	10,0	26,0	72,0	0,5	6	Cylindrical	■
JS720100D2R100.0Z6-HXT	03060298	2	D	10,0	10,0	26,0	72,0	1,0	6	Cylindrical	■
JS720100D2R200.0Z6-HXT	03060299	2	D	10,0	10,0	26,0	72,0	2,0	6	Cylindrical	■
JS720100D2R300.0Z6-HXT	03060300	2	D	10,0	10,0	26,0	72,0	3,0	6	Cylindrical	■
JS720120D2R050.0Z6-HXT	03060301	2	D	12,0	12,0	30,0	83,0	0,5	6	Cylindrical	■
JS720120D2R100.0Z6-HXT	03060304	2	D	12,0	12,0	30,0	83,0	1,0	6	Cylindrical	■
JS720120D2R200.0Z6-HXT	03060305	2	D	12,0	12,0	30,0	83,0	2,0	6	Cylindrical	■
JS720120D2R300.0Z6-HXT	03060306	2	D	12,0	12,0	30,0	83,0	3,0	6	Cylindrical	■
JS720160D2R050.0Z6-HXT	03060307	2	D	16,0	16,0	44,0	99,0	0,5	6	Cylindrical	■
JS720160D2R100.0Z6-HXT	03060309	2	D	16,0	16,0	44,0	99,0	1,0	6	Cylindrical	■
JS720160D2R200.0Z6-HXT	03060310	2	D	16,0	16,0	44,0	99,0	2,0	6	Cylindrical	■
JS720160D2R300.0Z6-HXT	03060311	2	D	16,0	16,0	44,0	99,0	3,0	6	Cylindrical	■
JS720160D2R400.0Z6-HXT	03060312	2	D	16,0	16,0	44,0	99,0	4,0	6	Cylindrical	■
JS720160D2R600.0Z6-HXT	03060313	2	D	16,0	16,0	44,0	99,0	6,0	6	Cylindrical	■
JS720200D2R050.0Z6-HXT	10228426	2	D	20,0	20,0	45,0	105,0	0,5	6	Cylindrical	■
JS720200D2R100.0Z6-HXT	10228427	2	D	20,0	20,0	45,0	105,0	1,0	6	Cylindrical	■
JS720200D2R200.0Z6-HXT	10228428	2	D	20,0	20,0	45,0	105,0	2,0	6	Cylindrical	■
JS720200D2R300.0Z6-HXT	10228429	2	D	20,0	20,0	45,0	105,0	3,0	6	Cylindrical	■
JS720250D2R050.0Z6-HXT	10228430	2	D	25,0	25,0	50,0	125,0	0,5	6	Cylindrical	■
JS720250D2R100.0Z6-HXT	10228431	2	D	25,0	25,0	50,0	125,0	1,0	6	Cylindrical	■
JS720250D2R200.0Z6-HXT	10228432	2	D	25,0	25,0	50,0	125,0	2,0	6	Cylindrical	■
JS720250D2R300.0Z6-HXT	03169498	2	D	25,0	25,0	50,0	125,0	3,0	6	Cylindrical	■

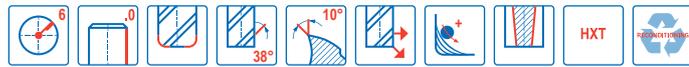
■ Stocked standard.

## JS720

High performance – Titanium – Square – 6 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS720080D3R050.0Z6-HXT	10228433	3	D	8,0	8,0	32,0	80,0	0,5	6	Cylindrical	■
JS720080D3R100.0Z6-HXT	10228434	3	D	8,0	8,0	32,0	80,0	1,0	6	Cylindrical	■
JS720100D3R050.0Z6-HXT	10228435	3	D	10,0	10,0	40,0	89,0	0,5	6	Cylindrical	■
JS720100D3R100.0Z6-HXT	10228436	3	D	10,0	10,0	40,0	89,0	1,0	6	Cylindrical	■
JS720100D3R200.0Z6-HXT	10228437	3	D	10,0	10,0	40,0	89,0	2,0	6	Cylindrical	■
JS720120D3R050.0Z6-HXT	10228438	3	D	12,0	12,0	45,0	100,0	0,5	6	Cylindrical	■
JS720120D3R100.0Z6-HXT	10228439	3	D	12,0	12,0	45,0	100,0	1,0	6	Cylindrical	■
JS720120D3R200.0Z6-HXT	10228440	3	D	12,0	12,0	45,0	100,0	2,0	6	Cylindrical	■
JS720160D3R050.0Z6-HXT	10228441	3	D	16,0	16,0	65,0	130,0	0,5	6	Cylindrical	■
JS720160D3R100.0Z6-HXT	10228442	3	D	16,0	16,0	65,0	130,0	1,0	6	Cylindrical	■
JS720160D3R200.0Z6-HXT	10228443	3	D	16,0	16,0	65,0	130,0	2,0	6	Cylindrical	■
JS720160D3R300.0Z6-HXT	03169497	3	D	16,0	16,0	65,0	130,0	3,0	6	Cylindrical	■
JS720200D3R050.0Z6-HXT	03060314	3	D	20,0	20,0	62,0	121,0	0,5	6	Cylindrical	■
JS720200D3R100.0Z6-HXT	03060316	3	D	20,0	20,0	62,0	121,0	1,0	6	Cylindrical	■
JS720200D3R200.0Z6-HXT	03060317	3	D	20,0	20,0	62,0	121,0	2,0	6	Cylindrical	■
JS720200D3R300.0Z6-HXT	03060318	3	D	20,0	20,0	62,0	121,0	3,0	6	Cylindrical	■
JS720200D3R400.0Z6-HXT	03060319	3	D	20,0	20,0	62,0	121,0	4,0	6	Cylindrical	■
JS720200D3R500.0Z6-HXT	03060320	3	D	20,0	20,0	62,0	121,0	5,0	6	Cylindrical	■
JS720200D3R600.0Z6-HXT	03060321	3	D	20,0	20,0	62,0	121,0	6,0	6	Cylindrical	■
JS720250D3R050.0Z6-HXT	03060322	3	D	25,0	25,0	78,0	146,0	0,5	6	Cylindrical	■
JS720250D3R100.0Z6-HXT	03060323	3	D	25,0	25,0	78,0	146,0	1,0	6	Cylindrical	■
JS720250D3R200.0Z6-HXT	03060324	3	D	25,0	25,0	78,0	146,0	2,0	6	Cylindrical	■
JS720250D3R300.0Z6-HXT	03060325	3	D	25,0	25,0	78,0	146,0	3,0	6	Cylindrical	■
JS720250D3R400.0Z6-HXT	03060326	3	D	25,0	25,0	78,0	146,0	4,0	6	Cylindrical	■
JS720250D3R600.0Z6-HXT	03060327	3	D	25,0	25,0	78,0	146,0	6,0	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

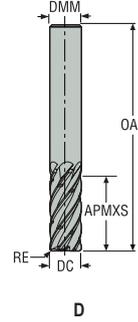
Graphite

X-Heads

Minimaster

JS720

High performance – Titanium – Square – 6 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



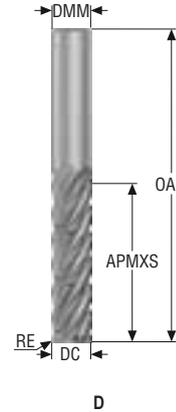
Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720080D2R050.0Z6C-HXT	10228513	2	D	■	8,0	8,0	23,0	63,0	0,5	6	Cylindrical	■
JS720080D2R100.0Z6C-HXT	10228514	2	D	■	8,0	8,0	23,0	63,0	1,0	6	Cylindrical	■
JS720100D2R050.0Z6C-HXT	03060297	2	D	■	10,0	10,0	26,0	72,0	0,5	6	Cylindrical	■
JS720100D2R100.0Z6C-HXT	10228515	2	D	■	10,0	10,0	26,0	72,0	1,0	6	Cylindrical	■
JS720120D2R050.0Z6C-HXT	03060302	2	D	■	12,0	12,0	30,0	83,0	0,5	6	Cylindrical	■
JS720120D2R100.0Z6C-HXT	03298280	2	D	■	12,0	12,0	30,0	83,0	1,0	6	Cylindrical	■
JS720120D2R200.0Z6C-HXT	03298281	2	D	■	12,0	12,0	30,0	83,0	2,0	6	Cylindrical	■
JS720120D2R250.0Z6C-HXT	03298282	2	D	■	12,0	12,0	30,0	83,0	2,5	6	Cylindrical	■
JS720120D2R300.0Z6C-HXT	03298283	2	D	■	12,0	12,0	30,0	83,0	3,0	6	Cylindrical	■
JS720120D2R310.0Z6C-HXT	03298284	2	D	■	12,0	12,0	30,0	83,0	3,1	6	Cylindrical	■
JS720160D2R050.0Z6C-HXT	03060308	2	D	■	16,0	16,0	44,0	99,0	0,5	6	Cylindrical	■
JS720160D2R100.0Z6C-HXT	03298285	2	D	■	16,0	16,0	44,0	99,0	1,0	6	Cylindrical	■
JS720160D2R200.0Z6C-HXT	03298286	2	D	■	16,0	16,0	44,0	99,0	2,0	6	Cylindrical	■
JS720160D2R250.0Z6C-HXT	03298287	2	D	■	16,0	16,0	44,0	99,0	2,5	6	Cylindrical	■
JS720160D2R300.0Z6C-HXT	03298288	2	D	■	16,0	16,0	44,0	99,0	3,0	6	Cylindrical	■
JS720160D2R310.0Z6C-HXT	03298289	2	D	■	16,0	16,0	44,0	99,0	3,1	6	Cylindrical	■
JS720160D2R400.0Z6C-HXT	03298290	2	D	■	16,0	16,0	44,0	99,0	4,0	6	Cylindrical	■
JS720160D2R600.0Z6C-HXT	03298291	2	D	■	16,0	16,0	44,0	99,0	6,0	6	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

## JS720

High performance – Titanium – Square – 6 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720160D3R050.0Z6C-HXT	10228516	3	D	■	16,0	16,0	65,0	130,0	0,5	6	Cylindrical	■
JS720160D3R100.0Z6C-HXT	10228517	3	D	■	16,0	16,0	65,0	130,0	1,0	6	Cylindrical	■
JS720160D3R200.0Z6C-HXT	10228518	3	D	■	16,0	16,0	65,0	130,0	2,0	6	Cylindrical	■
JS720160D3R300.0Z6C-HXT	10228519	3	D	■	16,0	16,0	65,0	130,0	3,0	6	Cylindrical	■
JS720200D3R050.0Z6C-HXT	03060315	3	D	■	20,0	20,0	62,0	121,0	0,5	6	Cylindrical	■
JS720200D3R100.0Z6C-HXT	03298292	3	D	■	20,0	20,0	62,0	121,0	1,0	6	Cylindrical	■
JS720200D3R200.0Z6C-HXT	03298293	3	D	■	20,0	20,0	62,0	121,0	2,0	6	Cylindrical	■
JS720200D3R250.0Z6C-HXT	03298294	3	D	■	20,0	20,0	62,0	121,0	2,5	6	Cylindrical	■
JS720200D3R300.0Z6C-HXT	03298295	3	D	■	20,0	20,0	62,0	121,0	3,0	6	Cylindrical	■
JS720200D3R310.0Z6C-HXT	03298296	3	D	■	20,0	20,0	62,0	121,0	3,1	6	Cylindrical	■
JS720200D3R400.0Z6C-HXT	03298297	3	D	■	20,0	20,0	62,0	121,0	4,0	6	Cylindrical	■
JS720200D3R500.0Z6C-HXT	03298298	3	D	■	20,0	20,0	62,0	121,0	5,0	6	Cylindrical	■
JS720200D3R600.0Z6C-HXT	03298299	3	D	■	20,0	20,0	62,0	121,0	6,0	6	Cylindrical	■
JS720250D3R050.0Z6C-HXT	03066270	3	D	■	25,0	25,0	78,0	146,0	0,5	6	Cylindrical	■
JS720250D3R100.0Z6C-HXT	03298300	3	D	■	25,0	25,0	78,0	146,0	1,0	6	Cylindrical	■
JS720250D3R200.0Z6C-HXT	03298301	3	D	■	25,0	25,0	78,0	146,0	2,0	6	Cylindrical	■
JS720250D3R300.0Z6C-HXT	03298302	3	D	■	25,0	25,0	78,0	146,0	3,0	6	Cylindrical	■
JS720250D3R400.0Z6C-HXT	03298303	3	D	■	25,0	25,0	78,0	146,0	4,0	6	Cylindrical	■
JS720250D3R600.0Z6C-HXT	03298304	3	D	■	25,0	25,0	78,0	146,0	6,0	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

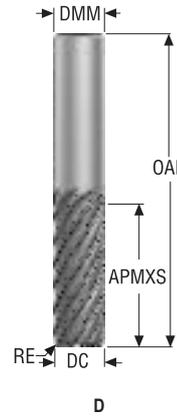
Graphite

X-Heads

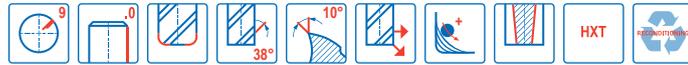
Minimaster

## JS720

High performance – Titanium – Square – 9 Flutes – Cylindrical – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS720100D2R050.0Z9-HXT	10067510	2	D	10,0	10,0	26,0	72,0	0,5	9	Cylindrical	■
JS720100D2R100.0Z9-HXT	10067511	2	D	10,0	10,0	26,0	72,0	1,0	9	Cylindrical	■
JS720100D2R200.0Z9-HXT	10067512	2	D	10,0	10,0	26,0	72,0	2,0	9	Cylindrical	■
JS720120D2R050.0Z9-HXT	10067513	2	D	12,0	12,0	30,0	83,0	0,5	9	Cylindrical	■
JS720120D2R100.0Z9-HXT	10067514	2	D	12,0	12,0	30,0	83,0	1,0	9	Cylindrical	■
JS720120D2R200.0Z9-HXT	10067515	2	D	12,0	12,0	30,0	83,0	2,0	9	Cylindrical	■
JS720160D2R100.0Z9-HXT	10008152	2	D	16,0	16,0	44,0	99,0	1,0	9	Cylindrical	■
JS720160D2R200.0Z9-HXT	10008153	2	D	16,0	16,0	44,0	99,0	2,0	9	Cylindrical	■
JS720160D2R300.0Z9-HXT	10008154	2	D	16,0	16,0	44,0	99,0	3,0	9	Cylindrical	■
JS720200D2R100.0Z9-HXT	10228393	2	D	20,0	20,0	45,0	105,0	1,0	9	Cylindrical	■
JS720200D2R200.0Z9-HXT	10228394	2	D	20,0	20,0	45,0	105,0	2,0	9	Cylindrical	■
JS720200D2R300.0Z9-HXT	10228395	2	D	20,0	20,0	45,0	105,0	3,0	9	Cylindrical	■
JS720250D2R100.0Z9-HXT	10008155	2	D	25,0	25,0	50,0	125,0	1,0	9	Cylindrical	■
JS720250D2R200.0Z9-HXT	10008156	2	D	25,0	25,0	50,0	125,0	2,0	9	Cylindrical	■
JS720250D2R300.0Z9-HXT	10008157	2	D	25,0	25,0	50,0	125,0	3,0	9	Cylindrical	■
JS720100D3R050.0Z9-HXT	10067516	3	D	10,0	10,0	40,0	89,0	0,5	9	Cylindrical	■
JS720100D3R100.0Z9-HXT	10067517	3	D	10,0	10,0	40,0	89,0	1,0	9	Cylindrical	■
JS720100D3R200.0Z9-HXT	10067518	3	D	10,0	10,0	40,0	89,0	2,0	9	Cylindrical	■
JS720120D3R050.0Z9-HXT	10067519	3	D	12,0	12,0	45,0	100,0	0,5	9	Cylindrical	■
JS720120D3R100.0Z9-HXT	10067520	3	D	12,0	12,0	45,0	100,0	1,0	9	Cylindrical	■
JS720120D3R200.0Z9-HXT	10067521	3	D	12,0	12,0	45,0	100,0	2,0	9	Cylindrical	■
JS720160D3R100.0Z9-HXT	10008158	3	D	16,0	16,0	65,0	130,0	1,0	9	Cylindrical	■
JS720160D3R200.0Z9-HXT	10008159	3	D	16,0	16,0	65,0	130,0	2,0	9	Cylindrical	■
JS720160D3R300.0Z9-HXT	10008160	3	D	16,0	16,0	65,0	130,0	3,0	9	Cylindrical	■
JS720200D3R100.0Z9-HXT	10008161	3	D	20,0	20,0	62,0	121,0	1,0	9	Cylindrical	■
JS720200D3R200.0Z9-HXT	10008162	3	D	20,0	20,0	62,0	121,0	2,0	9	Cylindrical	■
JS720200D3R300.0Z9-HXT	10008163	3	D	20,0	20,0	62,0	121,0	3,0	9	Cylindrical	■
JS720250D3R100.0Z9-HXT	10008164	3	D	25,0	25,0	78,0	146,0	1,0	9	Cylindrical	■
JS720250D3R200.0Z9-HXT	10008165	3	D	25,0	25,0	78,0	146,0	2,0	9	Cylindrical	■
JS720250D3R300.0Z9-HXT	10008166	3	D	25,0	25,0	78,0	146,0	3,0	9	Cylindrical	■

■ Stocked standard.

**JS720**

High performance – Titanium – Square – 9 Flutes – Cylindrical – Corner radius


**D**

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720100D3R050.0Z9C-HXT	10067522	3	D	■	10,0	10,0	40,0	89,0	0,5	9	Cylindrical	■
JS720100D3R100.0Z9C-HXT	10067523	3	D	■	10,0	10,0	40,0	89,0	1,0	9	Cylindrical	■
JS720100D3R200.0Z9C-HXT	10067524	3	D	■	10,0	10,0	40,0	89,0	2,0	9	Cylindrical	■
JS720120D3R050.0Z9C-HXT	10067525	3	D	■	12,0	12,0	45,0	100,0	0,5	9	Cylindrical	■
JS720120D3R100.0Z9C-HXT	10067526	3	D	■	12,0	12,0	45,0	100,0	1,0	9	Cylindrical	■
JS720120D3R200.0Z9C-HXT	10067527	3	D	■	12,0	12,0	45,0	100,0	2,0	9	Cylindrical	■
JS720160D3R100.0Z9C-HXT	10067528	3	D	■	16,0	16,0	65,0	130,0	1,0	9	Cylindrical	■
JS720160D3R200.0Z9C-HXT	10067529	3	D	■	16,0	16,0	65,0	130,0	2,0	9	Cylindrical	■
JS720160D3R300.0Z9C-HXT	10067530	3	D	■	16,0	16,0	65,0	130,0	3,0	9	Cylindrical	■
JS720200D3R100.0Z9C-HXT	10067531	3	D	■	20,0	20,0	62,0	121,0	1,0	9	Cylindrical	■
JS720200D3R200.0Z9C-HXT	10067532	3	D	■	20,0	20,0	62,0	121,0	2,0	9	Cylindrical	■
JS720200D3R300.0Z9C-HXT	10067533	3	D	■	20,0	20,0	62,0	121,0	3,0	9	Cylindrical	■
JS720250D3R100.0Z9C-HXT	10067534	3	D	■	25,0	25,0	78,0	146,0	1,0	9	Cylindrical	■
JS720250D3R200.0Z9C-HXT	10067535	3	D	■	25,0	25,0	78,0	146,0	2,0	9	Cylindrical	■
JS720250D3R300.0Z9C-HXT	10067536	3	D	■	25,0	25,0	78,0	146,0	3,0	9	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

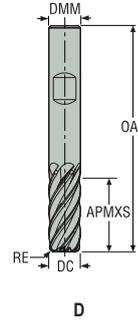
Graphite

X-Heads

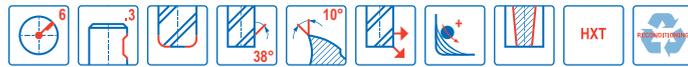
Minimaster

## JS720

High performance – Titanium – Square – 6 Flutes – Weldon – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible

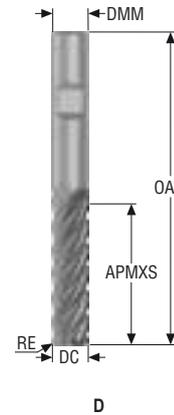


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS720060D2R050.3Z6-HXT	03060339	2	D	6,0	6,0	17,0	57,0	0,5	6	Weldon	<input type="checkbox"/>
JS720060D2R100.3Z6-HXT	03060340	2	D	6,0	6,0	17,0	57,0	1,0	6	Weldon	<input type="checkbox"/>
JS720080D2R050.3Z6-HXT	03060341	2	D	8,0	8,0	23,0	63,0	0,5	6	Weldon	<input type="checkbox"/>
JS720080D2R100.3Z6-HXT	03061295	2	D	8,0	8,0	23,0	63,0	1,0	6	Weldon	<input type="checkbox"/>
JS720100D2R050.3Z6-HXT	03060342	2	D	10,0	10,0	26,0	72,0	0,5	6	Weldon	<input type="checkbox"/>
JS720100D2R100.3Z6-HXT	03060344	2	D	10,0	10,0	26,0	72,0	1,0	6	Weldon	<input type="checkbox"/>
JS720100D2R200.3Z6-HXT	03060345	2	D	10,0	10,0	26,0	72,0	2,0	6	Weldon	<input type="checkbox"/>
JS720100D2R300.3Z6-HXT	03060346	2	D	10,0	10,0	26,0	72,0	3,0	6	Weldon	<input type="checkbox"/>
JS720120D2R050.3Z6-HXT	03060347	2	D	12,0	12,0	30,0	83,0	0,5	6	Weldon	<input type="checkbox"/>
JS720120D2R100.3Z6-HXT	03060349	2	D	12,0	12,0	30,0	83,0	1,0	6	Weldon	<input type="checkbox"/>
JS720120D2R200.3Z6-HXT	03060350	2	D	12,0	12,0	30,0	83,0	2,0	6	Weldon	<input type="checkbox"/>
JS720120D2R300.3Z6-HXT	03060351	2	D	12,0	12,0	30,0	83,0	3,0	6	Weldon	<input type="checkbox"/>
JS720160D2R050.3Z6-HXT	03060352	2	D	16,0	16,0	44,0	99,0	0,5	6	Weldon	<input type="checkbox"/>
JS720160D2R100.3Z6-HXT	03060354	2	D	16,0	16,0	44,0	99,0	1,0	6	Weldon	<input type="checkbox"/>
JS720160D2R200.3Z6-HXT	03060355	2	D	16,0	16,0	44,0	99,0	2,0	6	Weldon	<input checked="" type="checkbox"/>
JS720160D2R300.3Z6-HXT	03060356	2	D	16,0	16,0	44,0	99,0	3,0	6	Weldon	<input checked="" type="checkbox"/>
JS720160D2R400.3Z6-HXT	03060357	2	D	16,0	16,0	44,0	99,0	4,0	6	Weldon	<input type="checkbox"/>
JS720160D2R600.3Z6-HXT	03060358	2	D	16,0	16,0	44,0	99,0	6,0	6	Weldon	<input type="checkbox"/>
JS720200D2R050.3Z6-HXT	10228444	2	D	20,0	20,0	45,0	105,0	0,5	6	Weldon	<input type="checkbox"/>
JS720200D2R100.3Z6-HXT	10228445	2	D	20,0	20,0	45,0	105,0	1,0	6	Weldon	<input type="checkbox"/>
JS720200D2R200.3Z6-HXT	10228446	2	D	20,0	20,0	45,0	105,0	2,0	6	Weldon	<input type="checkbox"/>
JS720200D2R300.3Z6-HXT	10228447	2	D	20,0	20,0	45,0	105,0	3,0	6	Weldon	<input type="checkbox"/>
JS720250D2R050.3Z6-HXT	10228448	2	D	25,0	25,0	50,0	125,0	0,5	6	Weldon	<input type="checkbox"/>
JS720250D2R100.3Z6-HXT	10228449	2	D	25,0	25,0	50,0	125,0	1,0	6	Weldon	<input type="checkbox"/>
JS720250D2R200.3Z6-HXT	10228450	2	D	25,0	25,0	50,0	125,0	2,0	6	Weldon	<input type="checkbox"/>
JS720250D2R300.3Z6-HXT	10228451	2	D	25,0	25,0	50,0	125,0	3,0	6	Weldon	<input type="checkbox"/>

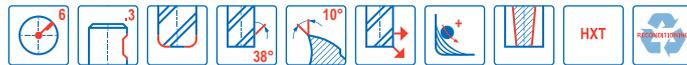
■ Stocked standard. □ Weldon available. Delivery time is 3 days.

## JS720

High performance – Titanium – Square – 6 Flutes – Weldon – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS720080D3R050.3Z6-HXT	10228452	3	D	8,0	8,0	32,0	80,0	0,5	6	Weldon	<input type="checkbox"/>
JS720080D3R100.3Z6-HXT	10228453	3	D	8,0	8,0	32,0	80,0	1,0	6	Weldon	<input type="checkbox"/>
JS720100D3R050.3Z6-HXT	10228454	3	D	10,0	10,0	40,0	89,0	0,5	6	Weldon	<input type="checkbox"/>
JS720100D3R100.3Z6-HXT	10228455	3	D	10,0	10,0	40,0	89,0	1,0	6	Weldon	<input type="checkbox"/>
JS720100D3R200.3Z6-HXT	10228456	3	D	10,0	10,0	40,0	89,0	2,0	6	Weldon	<input type="checkbox"/>
JS720120D3R050.3Z6-HXT	10228457	3	D	12,0	12,0	45,0	100,0	0,5	6	Weldon	<input type="checkbox"/>
JS720120D3R100.3Z6-HXT	10228458	3	D	12,0	12,0	45,0	100,0	1,0	6	Weldon	<input type="checkbox"/>
JS720120D3R200.3Z6-HXT	10228459	3	D	12,0	12,0	45,0	100,0	2,0	6	Weldon	<input type="checkbox"/>
JS720160D3R050.3Z6-HXT	10228460	3	D	16,0	16,0	65,0	130,0	0,5	6	Weldon	<input type="checkbox"/>
JS720160D3R100.3Z6-HXT	10228461	3	D	16,0	16,0	65,0	130,0	1,0	6	Weldon	<input type="checkbox"/>
JS720160D3R200.3Z6-HXT	10228462	3	D	16,0	16,0	65,0	130,0	2,0	6	Weldon	<input type="checkbox"/>
JS720160D3R300.3Z6-HXT	10228463	3	D	16,0	16,0	65,0	130,0	3,0	6	Weldon	<input type="checkbox"/>
JS720200D3R050.3Z6-HXT	03060359	3	D	20,0	20,0	62,0	121,0	0,5	6	Weldon	<input type="checkbox"/>
JS720200D3R100.3Z6-HXT	03060361	3	D	20,0	20,0	62,0	121,0	1,0	6	Weldon	<input type="checkbox"/>
JS720200D3R200.3Z6-HXT	03060362	3	D	20,0	20,0	62,0	121,0	2,0	6	Weldon	<input type="checkbox"/>
JS720200D3R300.3Z6-HXT	03060363	3	D	20,0	20,0	62,0	121,0	3,0	6	Weldon	<input checked="" type="checkbox"/>
JS720200D3R400.3Z6-HXT	03060364	3	D	20,0	20,0	62,0	121,0	4,0	6	Weldon	<input checked="" type="checkbox"/>
JS720200D3R500.3Z6-HXT	03060365	3	D	20,0	20,0	62,0	121,0	5,0	6	Weldon	<input type="checkbox"/>
JS720200D3R600.3Z6-HXT	03060366	3	D	20,0	20,0	62,0	121,0	6,0	6	Weldon	<input type="checkbox"/>
JS720250D3R050.3Z6-HXT	03060367	3	D	25,0	25,0	78,0	146,0	0,5	6	Weldon	<input type="checkbox"/>
JS720250D3R100.3Z6-HXT	03060368	3	D	25,0	25,0	78,0	146,0	1,0	6	Weldon	<input type="checkbox"/>
JS720250D3R200.3Z6-HXT	03060369	3	D	25,0	25,0	78,0	146,0	2,0	6	Weldon	<input type="checkbox"/>
JS720250D3R300.3Z6-HXT	03060370	3	D	25,0	25,0	78,0	146,0	3,0	6	Weldon	<input type="checkbox"/>
JS720250D3R400.3Z6-HXT	03060371	3	D	25,0	25,0	78,0	146,0	4,0	6	Weldon	<input checked="" type="checkbox"/>
JS720250D3R600.3Z6-HXT	03060372	3	D	25,0	25,0	78,0	146,0	6,0	6	Weldon	<input type="checkbox"/>

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

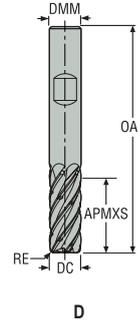
Graphite

X-Heads

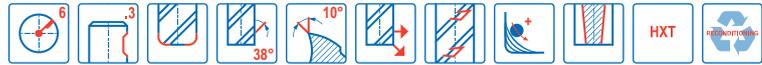
Minimaster

## JS720

High performance – Titanium – Square – 6 Flutes – Weldon – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible

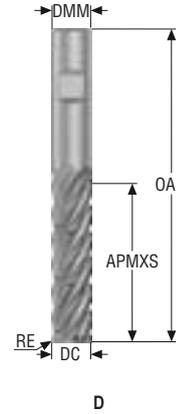


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720080D2R050.3Z6C-HXT	10228520	2	D	■	8,0	8,0	23,0	63,0	0,5	6	Weldon	<input type="checkbox"/>
JS720080D2R100.3Z6C-HXT	10228521	2	D	■	8,0	8,0	23,0	63,0	1,0	6	Weldon	<input type="checkbox"/>
JS720100D2R050.3Z6C-HXT	03060343	2	D	■	10,0	10,0	26,0	72,0	0,5	6	Weldon	<input type="checkbox"/>
JS720100D2R100.3Z6C-HXT	10228522	2	D	■	10,0	10,0	26,0	72,0	1,0	6	Weldon	<input type="checkbox"/>
JS720120D2R050.3Z6C-HXT	03060348	2	D	■	12,0	12,0	30,0	83,0	0,5	6	Weldon	<input type="checkbox"/>
JS720120D2R100.3Z6C-HXT	03298308	2	D	■	12,0	12,0	30,0	83,0	1,0	6	Weldon	<input type="checkbox"/>
JS720120D2R200.3Z6C-HXT	03298309	2	D	■	12,0	12,0	30,0	83,0	2,0	6	Weldon	<input type="checkbox"/>
JS720120D2R250.3Z6C-HXT	03298310	2	D	■	12,0	12,0	30,0	83,0	2,5	6	Weldon	<input type="checkbox"/>
JS720120D2R300.3Z6C-HXT	03298311	2	D	■	12,0	12,0	30,0	83,0	3,0	6	Weldon	<input type="checkbox"/>
JS720120D2R310.3Z6C-HXT	03298312	2	D	■	12,0	12,0	30,0	83,0	3,1	6	Weldon	<input type="checkbox"/>
JS720160D2R050.3Z6C-HXT	03060353	2	D	■	16,0	16,0	44,0	99,0	0,5	6	Weldon	■
JS720160D2R100.3Z6C-HXT	03298313	2	D	■	16,0	16,0	44,0	99,0	1,0	6	Weldon	■
JS720160D2R200.3Z6C-HXT	03298314	2	D	■	16,0	16,0	44,0	99,0	2,0	6	Weldon	■
JS720160D2R250.3Z6C-HXT	03298315	2	D	■	16,0	16,0	44,0	99,0	2,5	6	Weldon	■
JS720160D2R300.3Z6C-HXT	03298316	2	D	■	16,0	16,0	44,0	99,0	3,0	6	Weldon	■
JS720160D2R310.3Z6C-HXT	03298317	2	D	■	16,0	16,0	44,0	99,0	3,1	6	Weldon	■
JS720160D2R400.3Z6C-HXT	03298318	2	D	■	16,0	16,0	44,0	99,0	4,0	6	Weldon	■
JS720160D2R600.3Z6C-HXT	03298319	2	D	■	16,0	16,0	44,0	99,0	6,0	6	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

## JS720

High performance – Titanium – Square – 6 Flutes – Weldon – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720160D3R050.3Z6C-HXT	10228523	3	D	■	16,0	16,0	65,0	130,0	0,5	6	Weldon	□
JS720160D3R100.3Z6C-HXT	10228524	3	D	■	16,0	16,0	65,0	130,0	1,0	6	Weldon	□
JS720160D3R200.3Z6C-HXT	10228525	3	D	■	16,0	16,0	65,0	130,0	2,0	6	Weldon	□
JS720160D3R300.3Z6C-HXT	10228526	3	D	■	16,0	16,0	65,0	130,0	3,0	6	Weldon	□
JS720200D3R050.3Z6C-HXT	03060360	3	D	■	20,0	20,0	62,0	121,0	0,5	6	Weldon	■
JS720200D3R100.3Z6C-HXT	03298320	3	D	■	20,0	20,0	62,0	121,0	1,0	6	Weldon	■
JS720200D3R200.3Z6C-HXT	03298321	3	D	■	20,0	20,0	62,0	121,0	2,0	6	Weldon	■
JS720200D3R250.3Z6C-HXT	03298322	3	D	■	20,0	20,0	62,0	121,0	2,5	6	Weldon	■
JS720200D3R300.3Z6C-HXT	03298323	3	D	■	20,0	20,0	62,0	121,0	3,0	6	Weldon	■
JS720200D3R310.3Z6C-HXT	03298324	3	D	■	20,0	20,0	62,0	121,0	3,1	6	Weldon	■
JS720200D3R400.3Z6C-HXT	03298325	3	D	■	20,0	20,0	62,0	121,0	4,0	6	Weldon	■
JS720200D3R500.3Z6C-HXT	03298326	3	D	■	20,0	20,0	62,0	121,0	5,0	6	Weldon	■
JS720200D3R600.3Z6C-HXT	03298327	3	D	■	20,0	20,0	62,0	121,0	6,0	6	Weldon	■
JS720250D3R050.3Z6C-HXT	03066460	3	D	■	25,0	25,0	78,0	146,0	0,5	6	Weldon	■
JS720250D3R100.3Z6C-HXT	03298328	3	D	■	25,0	25,0	78,0	146,0	1,0	6	Weldon	■
JS720250D3R200.3Z6C-HXT	03298329	3	D	■	25,0	25,0	78,0	146,0	2,0	6	Weldon	■
JS720250D3R300.3Z6C-HXT	03298330	3	D	■	25,0	25,0	78,0	146,0	3,0	6	Weldon	■
JS720250D3R400.3Z6C-HXT	03298331	3	D	■	25,0	25,0	78,0	146,0	4,0	6	Weldon	■
JS720250D3R600.3Z6C-HXT	03298332	3	D	■	25,0	25,0	78,0	146,0	6,0	6	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

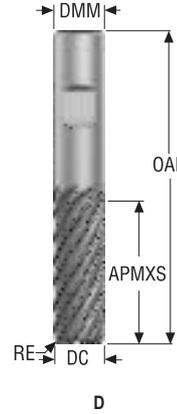
Graphite

X-Heads

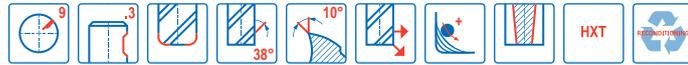
Minimaster

## JS720

High performance – Titanium – Square – 9 Flutes – Weldon – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS720100D2R050.3Z9-HXT	10067881	2	D	10,0	10,0	26,0	72,0	0,5	9	Weldon	<input type="checkbox"/>
JS720100D2R100.3Z9-HXT	10067882	2	D	10,0	10,0	26,0	72,0	1,0	9	Weldon	<input type="checkbox"/>
JS720100D2R200.3Z9-HXT	10067883	2	D	10,0	10,0	26,0	72,0	2,0	9	Weldon	<input type="checkbox"/>
JS720120D2R050.3Z9-HXT	10067884	2	D	12,0	12,0	30,0	83,0	0,5	9	Weldon	<input type="checkbox"/>
JS720120D2R100.3Z9-HXT	10067885	2	D	12,0	12,0	30,0	83,0	1,0	9	Weldon	<input type="checkbox"/>
JS720120D2R200.3Z9-HXT	10067886	2	D	12,0	12,0	30,0	83,0	2,0	9	Weldon	<input type="checkbox"/>
JS720160D2R100.3Z9-HXT	10008279	2	D	16,0	16,0	44,0	99,0	1,0	9	Weldon	<input type="checkbox"/>
JS720160D2R200.3Z9-HXT	10008280	2	D	16,0	16,0	44,0	99,0	2,0	9	Weldon	<input type="checkbox"/>
JS720160D2R300.3Z9-HXT	10008281	2	D	16,0	16,0	44,0	99,0	3,0	9	Weldon	<input type="checkbox"/>
JS720200D2R100.3Z9-HXT	10228396	2	D	20,0	20,0	45,0	105,0	1,0	9	Weldon	<input type="checkbox"/>
JS720200D2R200.3Z9-HXT	10228397	2	D	20,0	20,0	45,0	105,0	2,0	9	Weldon	<input type="checkbox"/>
JS720200D2R300.3Z9-HXT	10228398	2	D	20,0	20,0	45,0	105,0	3,0	9	Weldon	<input type="checkbox"/>
JS720250D2R100.3Z9-HXT	10008282	2	D	25,0	25,0	50,0	125,0	1,0	9	Weldon	<input type="checkbox"/>
JS720250D2R200.3Z9-HXT	10008283	2	D	25,0	25,0	50,0	125,0	2,0	9	Weldon	<input type="checkbox"/>
JS720250D2R300.3Z9-HXT	10008284	2	D	25,0	25,0	50,0	125,0	3,0	9	Weldon	<input type="checkbox"/>
JS720100D3R050.3Z9-HXT	10067887	3	D	10,0	10,0	40,0	89,0	0,5	9	Weldon	<input type="checkbox"/>
JS720100D3R100.3Z9-HXT	10067888	3	D	10,0	10,0	40,0	89,0	1,0	9	Weldon	<input type="checkbox"/>
JS720100D3R200.3Z9-HXT	10067889	3	D	10,0	10,0	40,0	89,0	2,0	9	Weldon	<input type="checkbox"/>
JS720120D3R050.3Z9-HXT	10067890	3	D	12,0	12,0	45,0	100,0	0,5	9	Weldon	<input type="checkbox"/>
JS720120D3R100.3Z9-HXT	10067891	3	D	12,0	12,0	45,0	100,0	1,0	9	Weldon	<input type="checkbox"/>
JS720120D3R200.3Z9-HXT	10067892	3	D	12,0	12,0	45,0	100,0	2,0	9	Weldon	<input type="checkbox"/>
JS720160D3R100.3Z9-HXT	10008285	3	D	16,0	16,0	65,0	130,0	1,0	9	Weldon	<input type="checkbox"/>
JS720160D3R200.3Z9-HXT	10008286	3	D	16,0	16,0	65,0	130,0	2,0	9	Weldon	<input type="checkbox"/>
JS720160D3R300.3Z9-HXT	10008287	3	D	16,0	16,0	65,0	130,0	3,0	9	Weldon	<input type="checkbox"/>
JS720200D3R100.3Z9-HXT	10008288	3	D	20,0	20,0	62,0	121,0	1,0	9	Weldon	<input type="checkbox"/>
JS720200D3R200.3Z9-HXT	10008289	3	D	20,0	20,0	62,0	121,0	2,0	9	Weldon	<input type="checkbox"/>
JS720200D3R300.3Z9-HXT	10008290	3	D	20,0	20,0	62,0	121,0	3,0	9	Weldon	<input type="checkbox"/>
JS720250D3R100.3Z9-HXT	10008292	3	D	25,0	25,0	78,0	146,0	1,0	9	Weldon	<input type="checkbox"/>
JS720250D3R200.3Z9-HXT	10008293	3	D	25,0	25,0	78,0	146,0	2,0	9	Weldon	<input type="checkbox"/>
JS720250D3R300.3Z9-HXT	10008294	3	D	25,0	25,0	78,0	146,0	3,0	9	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

**JS720**

High performance – Titanium – Square – 9 Flutes – Weldon – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720100D3R050.3Z9C-HXT	10067893	3	D	■	10,0	10,0	40,0	89,0	0,5	9	Weldon	<input type="checkbox"/>
JS720100D3R100.3Z9C-HXT	10067894	3	D	■	10,0	10,0	40,0	89,0	1,0	9	Weldon	<input type="checkbox"/>
JS720100D3R200.3Z9C-HXT	10067895	3	D	■	10,0	10,0	40,0	89,0	2,0	9	Weldon	<input type="checkbox"/>
JS720120D3R050.3Z9C-HXT	10067897	3	D	■	12,0	12,0	45,0	100,0	0,5	9	Weldon	<input type="checkbox"/>
JS720120D3R100.3Z9C-HXT	10067898	3	D	■	12,0	12,0	45,0	100,0	1,0	9	Weldon	<input type="checkbox"/>
JS720120D3R200.3Z9C-HXT	10067899	3	D	■	12,0	12,0	45,0	100,0	2,0	9	Weldon	<input type="checkbox"/>
JS720160D3R100.3Z9C-HXT	10067900	3	D	■	16,0	16,0	65,0	130,0	1,0	9	Weldon	<input type="checkbox"/>
JS720160D3R200.3Z9C-HXT	10067901	3	D	■	16,0	16,0	65,0	130,0	2,0	9	Weldon	<input type="checkbox"/>
JS720160D3R300.3Z9C-HXT	10067902	3	D	■	16,0	16,0	65,0	130,0	3,0	9	Weldon	<input type="checkbox"/>
JS720200D3R100.3Z9C-HXT	10067903	3	D	■	20,0	20,0	62,0	121,0	1,0	9	Weldon	<input type="checkbox"/>
JS720200D3R200.3Z9C-HXT	10067904	3	D	■	20,0	20,0	62,0	121,0	2,0	9	Weldon	<input type="checkbox"/>
JS720200D3R300.3Z9C-HXT	10067905	3	D	■	20,0	20,0	62,0	121,0	3,0	9	Weldon	<input type="checkbox"/>
JS720250D3R100.3Z9C-HXT	10067906	3	D	■	25,0	25,0	78,0	146,0	1,0	9	Weldon	<input type="checkbox"/>
JS720250D3R200.3Z9C-HXT	10067907	3	D	■	25,0	25,0	78,0	146,0	2,0	9	Weldon	<input type="checkbox"/>
JS720250D3R300.3Z9C-HXT	10067908	3	D	■	25,0	25,0	78,0	146,0	3,0	9	Weldon	<input type="checkbox"/>

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

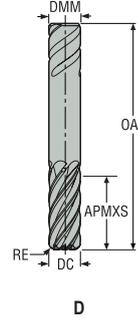
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X-Heads

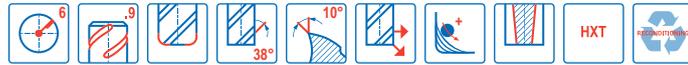
Minimaster

## JS720

High performance – Titanium – Square – 6 Flutes – Safelock – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible

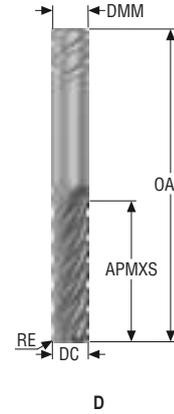


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS720060D2R050.9Z6-HXT	03060374	2	D	6,0	6,0	17,0	57,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720060D2R100.9Z6-HXT	03060375	2	D	6,0	6,0	17,0	57,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720080D2R050.9Z6-HXT	03060376	2	D	8,0	8,0	23,0	63,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720080D2R100.9Z6-HXT	03061296	2	D	8,0	8,0	23,0	63,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720100D2R050.9Z6-HXT	03060377	2	D	10,0	10,0	26,0	72,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720100D2R100.9Z6-HXT	03060379	2	D	10,0	10,0	26,0	72,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720100D2R200.9Z6-HXT	03060380	2	D	10,0	10,0	26,0	72,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720100D2R300.9Z6-HXT	03060381	2	D	10,0	10,0	26,0	72,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720120D2R050.9Z6-HXT	03060382	2	D	12,0	12,0	30,0	83,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720120D2R100.9Z6-HXT	03060384	2	D	12,0	12,0	30,0	83,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720120D2R200.9Z6-HXT	03060385	2	D	12,0	12,0	30,0	83,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720120D2R300.9Z6-HXT	03060386	2	D	12,0	12,0	30,0	83,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R050.9Z6-HXT	03060387	2	D	16,0	16,0	44,0	99,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720160D2R100.9Z6-HXT	03060389	2	D	16,0	16,0	44,0	99,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R200.9Z6-HXT	03060390	2	D	16,0	16,0	44,0	99,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R300.9Z6-HXT	03060391	2	D	16,0	16,0	44,0	99,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R400.9Z6-HXT	03060392	2	D	16,0	16,0	44,0	99,0	4,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R600.9Z6-HXT	03060393	2	D	16,0	16,0	44,0	99,0	6,0	6	Safe-lock	<input type="checkbox"/>
JS720200D2R050.9Z6-HXT	10228464	2	D	20,0	20,0	45,0	105,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720200D2R100.9Z6-HXT	10228465	2	D	20,0	20,0	45,0	105,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720200D2R200.9Z6-HXT	10228467	2	D	20,0	20,0	45,0	105,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720200D2R300.9Z6-HXT	10228468	2	D	20,0	20,0	45,0	105,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720250D2R050.9Z6-HXT	10228469	2	D	25,0	25,0	50,0	125,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720250D2R100.9Z6-HXT	10228470	2	D	25,0	25,0	50,0	125,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720250D2R200.9Z6-HXT	10228471	2	D	25,0	25,0	50,0	125,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720250D2R300.9Z6-HXT	10228472	2	D	25,0	25,0	50,0	125,0	3,0	6	Safe-lock	<input type="checkbox"/>

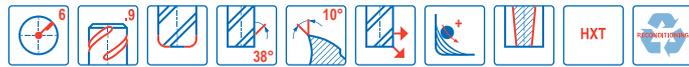
Safelock available. Delivery time is 6 days.

## JS720

High performance – Titanium – Square – 6 Flutes – Safelock – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS720080D3R050.9Z6-HXT	10228473	3	D	8,0	8,0	32,0	80,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720080D3R100.9Z6-HXT	10228474	3	D	8,0	8,0	32,0	80,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720100D3R050.9Z6-HXT	10228475	3	D	10,0	10,0	40,0	89,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720100D3R100.9Z6-HXT	10228476	3	D	10,0	10,0	40,0	89,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720100D3R200.9Z6-HXT	10228477	3	D	10,0	10,0	40,0	89,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720120D3R050.9Z6-HXT	10228478	3	D	12,0	12,0	45,0	100,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720120D3R100.9Z6-HXT	10228479	3	D	12,0	12,0	45,0	100,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720120D3R200.9Z6-HXT	10228480	3	D	12,0	12,0	45,0	100,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720160D3R050.9Z6-HXT	10228481	3	D	16,0	16,0	65,0	130,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720160D3R100.9Z6-HXT	10228482	3	D	16,0	16,0	65,0	130,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720160D3R200.9Z6-HXT	10228483	3	D	16,0	16,0	65,0	130,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720160D3R300.9Z6-HXT	10228484	3	D	16,0	16,0	65,0	130,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R050.9Z6-HXT	03060394	3	D	20,0	20,0	62,0	121,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720200D3R100.9Z6-HXT	03060396	3	D	20,0	20,0	62,0	121,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R200.9Z6-HXT	03060397	3	D	20,0	20,0	62,0	121,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R300.9Z6-HXT	03060398	3	D	20,0	20,0	62,0	121,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R400.9Z6-HXT	03060399	3	D	20,0	20,0	62,0	121,0	4,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R500.9Z6-HXT	03060400	3	D	20,0	20,0	62,0	121,0	5,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R600.9Z6-HXT	03060401	3	D	20,0	20,0	62,0	121,0	6,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R050.9Z6-HXT	03060402	3	D	25,0	25,0	78,0	146,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720250D3R100.9Z6-HXT	03060403	3	D	25,0	25,0	78,0	146,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R200.9Z6-HXT	03060404	3	D	25,0	25,0	78,0	146,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R300.9Z6-HXT	03060405	3	D	25,0	25,0	78,0	146,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R400.9Z6-HXT	03060406	3	D	25,0	25,0	78,0	146,0	4,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R600.9Z6-HXT	03060407	3	D	25,0	25,0	78,0	146,0	6,0	6	Safe-lock	<input type="checkbox"/>

 Safelock available. Delivery time is 6 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

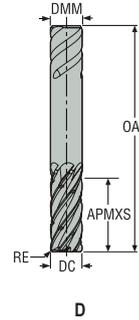
Graphite

X-Heads

Minimaster

## JS720

High performance – Titanium – Square – 6 Flutes – Safelock – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible

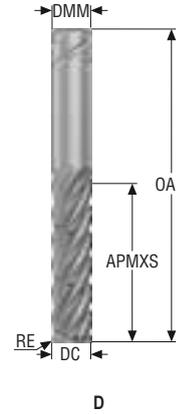


Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720080D2R050.9Z6C-HXT	10228527	2	D	■	8,0	8,0	23,0	63,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720080D2R100.9Z6C-HXT	10228528	2	D	■	8,0	8,0	23,0	63,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720100D2R050.9Z6C-HXT	03060378	2	D	■	10,0	10,0	26,0	72,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720100D2R100.9Z6C-HXT	10228529	2	D	■	10,0	10,0	26,0	72,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720120D2R050.9Z6C-HXT	03060383	2	D	■	12,0	12,0	30,0	83,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720120D2R100.9Z6C-HXT	03298334	2	D	■	12,0	12,0	30,0	83,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720120D2R200.9Z6C-HXT	03298335	2	D	■	12,0	12,0	30,0	83,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720120D2R250.9Z6C-HXT	03298336	2	D	■	12,0	12,0	30,0	83,0	2,5	6	Safe-lock	<input type="checkbox"/>
JS720120D2R300.9Z6C-HXT	03298337	2	D	■	12,0	12,0	30,0	83,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720120D2R310.9Z6C-HXT	03298338	2	D	■	12,0	12,0	30,0	83,0	3,1	6	Safe-lock	<input type="checkbox"/>
JS720160D2R050.9Z6C-HXT	03060388	2	D	■	16,0	16,0	44,0	99,0	0,5	6	Safe-lock	■
JS720160D2R100.9Z6C-HXT	03298339	2	D	■	16,0	16,0	44,0	99,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R200.9Z6C-HXT	03298340	2	D	■	16,0	16,0	44,0	99,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R250.9Z6C-HXT	03298341	2	D	■	16,0	16,0	44,0	99,0	2,5	6	Safe-lock	<input type="checkbox"/>
JS720160D2R300.9Z6C-HXT	03298342	2	D	■	16,0	16,0	44,0	99,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R310.9Z6C-HXT	03298343	2	D	■	16,0	16,0	44,0	99,0	3,1	6	Safe-lock	<input type="checkbox"/>
JS720160D2R400.9Z6C-HXT	03298344	2	D	■	16,0	16,0	44,0	99,0	4,0	6	Safe-lock	<input type="checkbox"/>
JS720160D2R600.9Z6C-HXT	03298345	2	D	■	16,0	16,0	44,0	99,0	6,0	6	Safe-lock	<input type="checkbox"/>

■ Stocked standard.

## JS720

High performance – Titanium – Square – 6 Flutes – Safelock – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720160D3R050.9Z6C-HXT	10228530	3	D	■	16,0	16,0	65,0	130,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720160D3R100.9Z6C-HXT	10228531	3	D	■	16,0	16,0	65,0	130,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720160D3R200.9Z6C-HXT	10228532	3	D	■	16,0	16,0	65,0	130,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720160D3R300.9Z6C-HXT	10228533	3	D	■	16,0	16,0	65,0	130,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R050.9Z6C-HXT	03060395	3	D	■	20,0	20,0	62,0	121,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720200D3R100.9Z6C-HXT	03298346	3	D	■	20,0	20,0	62,0	121,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R200.9Z6C-HXT	03298347	3	D	■	20,0	20,0	62,0	121,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R250.9Z6C-HXT	03298348	3	D	■	20,0	20,0	62,0	121,0	2,5	6	Safe-lock	<input type="checkbox"/>
JS720200D3R300.9Z6C-HXT	03298349	3	D	■	20,0	20,0	62,0	121,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R310.9Z6C-HXT	03298350	3	D	■	20,0	20,0	62,0	121,0	3,1	6	Safe-lock	<input type="checkbox"/>
JS720200D3R400.9Z6C-HXT	03298351	3	D	■	20,0	20,0	62,0	121,0	4,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R500.9Z6C-HXT	03298352	3	D	■	20,0	20,0	62,0	121,0	5,0	6	Safe-lock	<input type="checkbox"/>
JS720200D3R600.9Z6C-HXT	03298353	3	D	■	20,0	20,0	62,0	121,0	6,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R050.9Z6C-HXT	03066461	3	D	■	25,0	25,0	78,0	146,0	0,5	6	Safe-lock	<input type="checkbox"/>
JS720250D3R100.9Z6C-HXT	03298354	3	D	■	25,0	25,0	78,0	146,0	1,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R200.9Z6C-HXT	03298355	3	D	■	25,0	25,0	78,0	146,0	2,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R300.9Z6C-HXT	03298356	3	D	■	25,0	25,0	78,0	146,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R400.9Z6C-HXT	03298357	3	D	■	25,0	25,0	78,0	146,0	4,0	6	Safe-lock	<input type="checkbox"/>
JS720250D3R600.9Z6C-HXT	03298358	3	D	■	25,0	25,0	78,0	146,0	6,0	6	Safe-lock	<input type="checkbox"/>

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

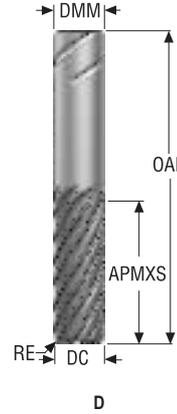
Graphite

X-Heads

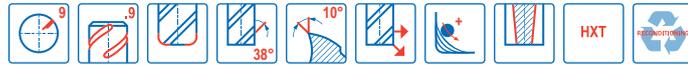
Minimaster

## JS720

High performance – Titanium – Square – 9 Flutes – Safelock – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible



	Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
Non ferrous	JS720100D2R050.9Z9-HXT	10067909	2	D	10,0	10,0	26,0	72,0	0,5	9	Safe-lock	<input type="checkbox"/>
	JS720100D2R100.9Z9-HXT	10067910	2	D	10,0	10,0	26,0	72,0	1,0	9	Safe-lock	<input type="checkbox"/>
Hard	JS720100D2R200.9Z9-HXT	10067911	2	D	10,0	10,0	26,0	72,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720120D2R050.9Z9-HXT	10067912	2	D	12,0	12,0	30,0	83,0	0,5	9	Safe-lock	<input type="checkbox"/>
	JS720120D2R100.9Z9-HXT	10067913	2	D	12,0	12,0	30,0	83,0	1,0	9	Safe-lock	<input type="checkbox"/>
	JS720120D2R200.9Z9-HXT	10067914	2	D	12,0	12,0	30,0	83,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720160D2R100.9Z9-HXT	10008295	2	D	16,0	16,0	44,0	99,0	1,0	9	Safe-lock	<input type="checkbox"/>
	JS720160D2R200.9Z9-HXT	10008296	2	D	16,0	16,0	44,0	99,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720160D2R300.9Z9-HXT	10008297	2	D	16,0	16,0	44,0	99,0	3,0	9	Safe-lock	<input type="checkbox"/>
	JS720200D2R100.9Z9-HXT	10228399	2	D	20,0	20,0	45,0	105,0	1,0	9	Safe-lock	<input type="checkbox"/>
Plastic and CFRP	JS720200D2R200.9Z9-HXT	10228400	2	D	20,0	20,0	45,0	105,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720200D2R300.9Z9-HXT	10228401	2	D	20,0	20,0	45,0	105,0	3,0	9	Safe-lock	<input type="checkbox"/>
	JS720250D2R100.9Z9-HXT	10008298	2	D	25,0	25,0	50,0	125,0	1,0	9	Safe-lock	<input type="checkbox"/>
	JS720250D2R200.9Z9-HXT	10008299	2	D	25,0	25,0	50,0	125,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720250D2R300.9Z9-HXT	10008300	2	D	25,0	25,0	50,0	125,0	3,0	9	Safe-lock	<input type="checkbox"/>
	JS720100D3R050.9Z9-HXT	10067915	3	D	10,0	10,0	40,0	89,0	0,5	9	Safe-lock	<input type="checkbox"/>
Graphite	JS720100D3R100.9Z9-HXT	10067916	3	D	10,0	10,0	40,0	89,0	1,0	9	Safe-lock	<input type="checkbox"/>
	JS720100D3R200.9Z9-HXT	10067917	3	D	10,0	10,0	40,0	89,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720120D3R050.9Z9-HXT	10067918	3	D	12,0	12,0	45,0	100,0	0,5	9	Safe-lock	<input type="checkbox"/>
	JS720120D3R100.9Z9-HXT	10067919	3	D	12,0	12,0	45,0	100,0	1,0	9	Safe-lock	<input type="checkbox"/>
	JS720120D3R200.9Z9-HXT	10067921	3	D	12,0	12,0	45,0	100,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720160D3R100.9Z9-HXT	10008301	3	D	16,0	16,0	65,0	130,0	1,0	9	Safe-lock	<input type="checkbox"/>
X-Heads	JS720160D3R200.9Z9-HXT	10008302	3	D	16,0	16,0	65,0	130,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720160D3R300.9Z9-HXT	10008303	3	D	16,0	16,0	65,0	130,0	3,0	9	Safe-lock	<input type="checkbox"/>
	JS720200D3R100.9Z9-HXT	10008304	3	D	20,0	20,0	62,0	121,0	1,0	9	Safe-lock	<input type="checkbox"/>
	JS720200D3R200.9Z9-HXT	10008305	3	D	20,0	20,0	62,0	121,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720200D3R300.9Z9-HXT	10008306	3	D	20,0	20,0	62,0	121,0	3,0	9	Safe-lock	<input type="checkbox"/>
	JS720250D3R100.9Z9-HXT	10008307	3	D	25,0	25,0	78,0	146,0	1,0	9	Safe-lock	<input type="checkbox"/>
Minimaster	JS720250D3R200.9Z9-HXT	10008308	3	D	25,0	25,0	78,0	146,0	2,0	9	Safe-lock	<input type="checkbox"/>
	JS720250D3R300.9Z9-HXT	10008309	3	D	25,0	25,0	78,0	146,0	3,0	9	Safe-lock	<input type="checkbox"/>

Safelock available. Delivery time is 6 days.

**JS720**

High performance – Titanium – Square – 9 Flutes – Safelock – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JS720100D3R050.9Z9C-HXT	10067922	3	D	■	10,0	10,0	40,0	89,0	0,5	9	Safe-lock	<input type="checkbox"/>
JS720100D3R100.9Z9C-HXT	10067923	3	D	■	10,0	10,0	40,0	89,0	1,0	9	Safe-lock	<input type="checkbox"/>
JS720100D3R200.9Z9C-HXT	10067924	3	D	■	10,0	10,0	40,0	89,0	2,0	9	Safe-lock	<input type="checkbox"/>
JS720120D3R050.9Z9C-HXT	10067925	3	D	■	12,0	12,0	45,0	100,0	0,5	9	Safe-lock	<input type="checkbox"/>
JS720120D3R100.9Z9C-HXT	10067926	3	D	■	12,0	12,0	45,0	100,0	1,0	9	Safe-lock	<input type="checkbox"/>
JS720120D3R200.9Z9C-HXT	10067927	3	D	■	12,0	12,0	45,0	100,0	2,0	9	Safe-lock	<input type="checkbox"/>
JS720160D3R100.9Z9C-HXT	10067928	3	D	■	16,0	16,0	65,0	130,0	1,0	9	Safe-lock	<input type="checkbox"/>
JS720160D3R200.9Z9C-HXT	10067929	3	D	■	16,0	16,0	65,0	130,0	2,0	9	Safe-lock	<input type="checkbox"/>
JS720160D3R300.9Z9C-HXT	10067930	3	D	■	16,0	16,0	65,0	130,0	3,0	9	Safe-lock	<input type="checkbox"/>
JS720200D3R100.9Z9C-HXT	10067931	3	D	■	20,0	20,0	62,0	121,0	1,0	9	Safe-lock	<input type="checkbox"/>
JS720200D3R200.9Z9C-HXT	10067932	3	D	■	20,0	20,0	62,0	121,0	2,0	9	Safe-lock	<input type="checkbox"/>
JS720200D3R300.9Z9C-HXT	10067933	3	D	■	20,0	20,0	62,0	121,0	3,0	9	Safe-lock	<input type="checkbox"/>
JS720250D3R100.9Z9C-HXT	10067934	3	D	■	25,0	25,0	78,0	146,0	1,0	9	Safe-lock	<input type="checkbox"/>
JS720250D3R200.9Z9C-HXT	10067935	3	D	■	25,0	25,0	78,0	146,0	2,0	9	Safe-lock	<input type="checkbox"/>
JS720250D3R300.9Z9C-HXT	10067936	3	D	■	25,0	25,0	78,0	146,0	3,0	9	Safe-lock	<input type="checkbox"/>

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JS720 Side milling PCEDC =6

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				6	8	10	12	16	20	25	
M1	E	0.400	1.1	0.032	0.044	0.055	0.065	0.080	0.095	0.11	110 (85 — 140)
		0,400	1,1	0,0013	0,0017	0,0022	0,0026	0,0032	0,0038	0,0044	360 (280 — 450)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	90 (70 — 110)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	295 (230 — 360)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	70 (55 — 99)
M2	E	0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	65 (50 — 83)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	215 (170 — 270)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	43 (29 — 71)
M3	E	0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	105 (78 — 120)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	345 (260 — 390)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
M4	E	0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	105 (78 — 120)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	345 (260 — 390)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
M5	E	0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
S1	E	0.0500	2.6	0.046	0.060	0.075	0.090	0.11	0.13	0.14	43 (29 — 71)
		0,0500	2,6	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	140 (96 — 230)
		0.0500	2.6	0.046	0.060	0.075	0.090	0.11	0.13	0.14	34 (23 — 57)
		0,0500	2,6	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	110 (76 — 180)
		0.0500	2.6	0.042	0.055	0.070	0.085	0.10	0.12	0.13	30 (20 — 49)
S2	E	0.0500	2.6	0.046	0.060	0.075	0.090	0.11	0.13	0.14	34 (23 — 57)
		0,0500	2,6	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0055	110 (76 — 180)
		0.0500	2.6	0.042	0.055	0.070	0.085	0.10	0.12	0.13	30 (20 — 49)
		0,0500	2,6	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	100 (66 — 160)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	105 (78 — 120)
S3	E	0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	105 (78 — 120)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	345 (260 — 390)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
S11	E	0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	105 (78 — 120)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	345 (260 — 390)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
S12	E	0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
S13	E	0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)
		0,400	1,1	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	260 (200 — 320)
		0.400	1.1	0.030	0.040	0.050	0.060	0.075	0.085	0.095	80 (60 — 99)

 Cutting data – JS720 Side milling advanced roughing a<sub>e</sub>/DC=0,07 PCEDC =6

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
			6	8	10	12	16	20	25	
M1	E	1.9	0.065	0.085	0.11	0.13	0.16	0.18	0.20	140 (110 — 180)
		1,9	0,0026	0,0034	0,0044	0,0050	0,0065	0,0070	0,0080	460 (370 — 590)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	115 (91 — 150)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	375 (300 — 490)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	90 (72 — 120)
M2	E	1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	85 (65 — 100)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	280 (220 — 320)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	41 (28 — 68)
M3	E	2.6	0.038	0.050	0.065	0.075	0.095	0.11	0.12	135 (92 — 220)
		2,6	0,0015	0,0020	0,0026	0,0030	0,0038	0,0044	0,0048	33 (22 — 54)
		2.6	0.038	0.050	0.065	0.075	0.095	0.11	0.12	33 (22 — 54)
		2,6	0,0015	0,0020	0,0026	0,0030	0,0038	0,0044	0,0048	110 (73 — 170)
		2.6	0.036	0.048	0.060	0.070	0.085	0.10	0.11	29 (20 — 47)
M4	E	2.6	0.036	0.048	0.060	0.070	0.085	0.10	0.11	95 (66 — 150)
		2,6	0,0014	0,0019	0,0024	0,0028	0,0034	0,0040	0,0044	95 (66 — 150)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	135 (110 — 160)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	445 (370 — 520)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
M5	E	1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
S1	E	1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
S2	E	1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
S3	E	1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024	0,0032	0,0038	0,0048	0,0055	0,0065	0,0075	345 (260 — 390)
		1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
S11	E	1.9	0.060	0.080	0.095	0.12	0.14	0.16	0.19	105 (78 — 120)
		1,9	0,0024							

Cutting data – JS720 Side milling advanced roughing  $a_e/DC=0,07$   $PCEDC=9$ 

SMG		$a_p/DC$	$f_z$					$v_c$
			10	12	16	20	25	
M1	E	2.0	0.11	0.13	0.16	0.18	0.20	125 (98 – 160)
		2.0	0,0044	0,0050	0,0065	0,0070	0,0080	410 (330 – 520)
M2	E	2.0	0.095	0.12	0.14	0.16	0.19	105 (82 – 130)
		2.0	0,0038	0,0048	0,0055	0,0065	0,0075	345 (270 – 420)
M3	E	2.0	0.095	0.12	0.14	0.16	0.19	80 (64 – 110)
		2.0	0,0038	0,0048	0,0055	0,0065	0,0075	260 (210 – 360)
M4	E	2.0	0.095	0.12	0.14	0.16	0.19	95 (70 – 110)
		2.0	0,0038	0,0048	0,0055	0,0065	0,0075	310 (230 – 360)
M5	E	2.0	0.095	0.12	0.14	0.16	0.19	75 (59 – 96)
		2.0	0,0038	0,0048	0,0055	0,0065	0,0075	245 (200 – 310)
S1	E	2.8	0.065	0.075	0.095	0.11	0.12	37 (25 – 61)
		2.8	0,0026	0,0030	0,0038	0,0044	0,0048	120 (83 – 200)
S2	E	2.8	0.065	0.075	0.095	0.11	0.12	30 (20 – 49)
		2.8	0,0026	0,0030	0,0038	0,0044	0,0048	100 (66 – 160)
S3	E	2.8	0.060	0.070	0.085	0.10	0.11	26 (18 – 43)
		2.8	0,0024	0,0028	0,0034	0,0040	0,0044	85 (60 – 140)
S11	E	2.0	0.095	0.12	0.14	0.16	0.19	120 (91 – 150)
		2.0	0,0038	0,0048	0,0055	0,0065	0,0075	395 (300 – 490)
S12	E	2.0	0.095	0.12	0.14	0.16	0.19	95 (70 – 110)
		2.0	0,0038	0,0048	0,0055	0,0065	0,0075	310 (230 – 360)
S13	E	2.0	0.095	0.12	0.14	0.16	0.19	95 (70 – 110)
		2.0	0,0038	0,0048	0,0055	0,0065	0,0075	310 (230 – 360)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 $v_c = m/min (sf/min)$ 
 $f_z = mm (in/tooth)$ 
 $a_p = mm/DC (in/DC) = factor$ 
 $a_e = mm/DC (in/DC) = factor$ 

All cutting data are target values

Universal

 Steel and cast  
iron

 Stainless steel  
and S-materials

Non ferrous

Hard

Plastic and CFRP

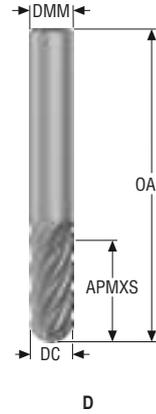
Graphite

X-Heads

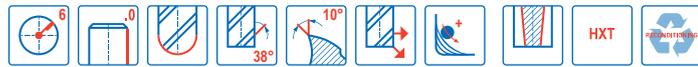
Minimax

## JS730

High performance – Titanium – Ball nose – 6 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Two flutes to centre
- Regrind possible

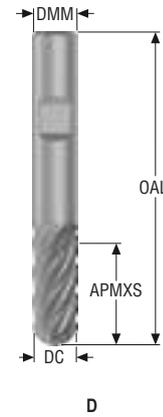


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS730060D2B.0Z6-HXT	03067605	2	D	6,0	6,0	17,0	57,0	3,0	6	Cylindrical	■
JS730080D2B.0Z6-HXT	03067606	2	D	8,0	8,0	23,0	63,0	4,0	6	Cylindrical	■
JS730100D2B.0Z6-HXT	03067607	2	D	10,0	10,0	26,0	72,0	5,0	6	Cylindrical	■
JS730120D2B.0Z6-HXT	03067608	2	D	12,0	12,0	30,0	83,0	6,0	6	Cylindrical	■
JS730160D2B.0Z6-HXT	03067609	2	D	16,0	16,0	44,0	99,0	8,0	6	Cylindrical	■
JS730200D3B.0Z6-HXT	03067610	3	D	20,0	20,0	62,0	121,0	10,0	6	Cylindrical	■
JS730250D3B.0Z6-HXT	03067611	3	D	25,0	25,0	78,0	146,0	12,5	6	Cylindrical	■

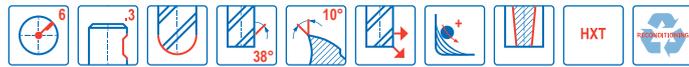
■ Stocked standard.

## JS730

High performance – Titanium – Ball nose – 6 Flutes – Weldon



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Two flutes to centre
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS730060D2B.3Z6-HXT	03067778	2	D	6,0	6,0	17,0	57,0	3,0	6	Weldon	<input type="checkbox"/>
JS730080D2B.3Z6-HXT	03067779	2	D	8,0	8,0	23,0	63,0	4,0	6	Weldon	<input checked="" type="checkbox"/>
JS730100D2B.3Z6-HXT	03067780	2	D	10,0	10,0	26,0	72,0	5,0	6	Weldon	<input type="checkbox"/>
JS730120D2B.3Z6-HXT	03067781	2	D	12,0	12,0	30,0	83,0	6,0	6	Weldon	<input type="checkbox"/>
JS730160D2B.3Z6-HXT	03067782	2	D	16,0	16,0	44,0	99,0	8,0	6	Weldon	<input type="checkbox"/>
JS730200D3B.3Z6-HXT	03067783	3	D	20,0	20,0	62,0	121,0	10,0	6	Weldon	<input type="checkbox"/>
JS730250D3B.3Z6-HXT	03067784	3	D	25,0	25,0	78,0	146,0	12,5	6	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

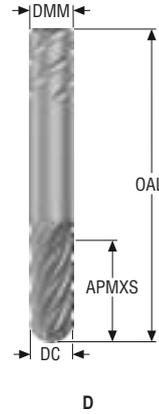
Graphite

X-Heads

Minimaster

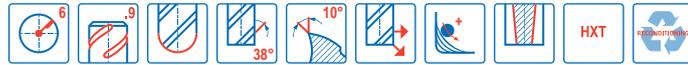
JS730

High performance – Titanium – Ball nose 6 Flutes – Safelock



D

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Two flutes to centre
- Regrind possible



Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JS730060D2B.9Z6-HXT	03067785	2	D	6,0	6,0	17,0	57,0	3,0	6	Safe-lock	<input type="checkbox"/>
JS730080D2B.9Z6-HXT	03067786	2	D	8,0	8,0	23,0	63,0	4,0	6	Safe-lock	<input type="checkbox"/>
JS730100D2B.9Z6-HXT	03067787	2	D	10,0	10,0	26,0	72,0	5,0	6	Safe-lock	<input type="checkbox"/>
JS730120D2B.9Z6-HXT	03067788	2	D	12,0	12,0	30,0	83,0	6,0	6	Safe-lock	<input type="checkbox"/>
JS730160D2B.9Z6-HXT	03067789	2	D	16,0	16,0	44,0	99,0	8,0	6	Safe-lock	<input type="checkbox"/>
JS730200D3B.9Z6-HXT	03067790	3	D	20,0	20,0	62,0	121,0	10,0	6	Safe-lock	<input type="checkbox"/>
JS730250D3B.9Z6-HXT	03067791	3	D	25,0	25,0	78,0	146,0	12,5	6	Safe-lock	<input type="checkbox"/>

Safelock available. Delivery time is 6 days.

## Cutting data – JS730 Side milling roughing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>	
				6	8	10	12	16	20		25
M1	E	0.100	1.8	0.048	0.065	0.080	0.095	0.12	0.14	0.15	140 (89 — 150)
		0,100	1,8	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0060	460 (300 — 490)
M2	E	0.150	2.2	0.030	0.040	0.050	0.060	0.075	0.085	0.095	110 (70 — 120)
		0,150	2,2	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	360 (230 — 390)
M3	E	0.100	1.8	0.048	0.065	0.080	0.095	0.12	0.14	0.15	85 (55 — 99)
		0,100	1,8	0,0019	0,0026	0,0032	0,0038	0,0048	0,0055	0,0060	280 (190 — 320)
M4	E	0.100	1.8	0.042	0.055	0.070	0.085	0.10	0.12	0.13	90 (57 — 100)
		0,100	1,8	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	295 (190 — 320)
M5	E	0.100	1.8	0.042	0.055	0.070	0.085	0.10	0.12	0.13	75 (47 — 85)
		0,100	1,8	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	245 (160 — 270)
S1	E	0.150	2.2	0.032	0.044	0.055	0.065	0.080	0.090	0.10	43 (29 — 70)
		0,150	2,2	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	0,0040	140 (96 — 220)
S2	E	0.150	2.2	0.032	0.044	0.055	0.065	0.080	0.090	0.10	34 (23 — 57)
		0,150	2,2	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	0,0040	110 (76 — 180)
S3	E	0.150	2.2	0.030	0.040	0.050	0.060	0.075	0.085	0.095	30 (20 — 49)
		0,150	2,2	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	100 (66 — 160)
S11	E	0.300	1.2	0.030	0.040	0.050	0.060	0.075	0.085	0.095	130 (79 — 130)
		0,300	1,2	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	425 (260 — 420)
S12	E	0.300	1.2	0.030	0.040	0.050	0.060	0.075	0.085	0.095	100 (61 — 100)
		0,300	1,2	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	0,0038	330 (210 — 320)
S13	E	0.300	1.2	0.026	0.034	0.044	0.050	0.065	0.075	0.085	100 (62 — 100)
		0,300	1,2	0,0010	0,0013	0,0017	0,0020	0,0026	0,0030	0,0034	330 (210 — 320)

 Cutting data – JS730 Side milling advanced roughing a<sub>p</sub>/DC=0,07

SMG		a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>	
			6	8	10	12	16	20		25
M1	E	1.9	0.055	0.075	0.095	0.11	0.14	0.16	0.18	145 (93 — 150)
		1,9	0,0022	0,0030	0,0038	0,0044	0,0055	0,0065	0,0070	475 (310 — 490)
M2	E	2.2	0.042	0.055	0.070	0.085	0.10	0.12	0.13	125 (78 — 130)
		2,2	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	410 (260 — 420)
M3	E	1.9	0.055	0.075	0.095	0.11	0.14	0.16	0.18	90 (58 — 100)
		1,9	0,0022	0,0030	0,0038	0,0044	0,0055	0,0065	0,0070	295 (200 — 320)
M4	E	1.9	0.050	0.065	0.080	0.095	0.12	0.14	0.16	95 (59 — 100)
		1,9	0,0020	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	310 (200 — 320)
M5	E	1.9	0.050	0.065	0.080	0.095	0.12	0.14	0.16	80 (50 — 89)
		1,9	0,0020	0,0026	0,0032	0,0038	0,0048	0,0055	0,0065	260 (170 — 290)
S1	E	2.2	0.046	0.060	0.075	0.090	0.11	0.13	0.15	47 (32 — 79)
		2,2	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0060	155 (110 — 250)
S2	E	2.2	0.046	0.060	0.075	0.090	0.11	0.13	0.15	38 (26 — 63)
		2,2	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0060	125 (86 — 200)
S3	E	2.2	0.042	0.055	0.070	0.085	0.10	0.12	0.13	33 (23 — 55)
		2,2	0,0017	0,0022	0,0028	0,0034	0,0040	0,0048	0,0050	110 (76 — 180)
S11	E	1.9	0.050	0.070	0.085	0.10	0.13	0.15	0.17	150 (94 — 150)
		1,9	0,0020	0,0028	0,0034	0,0040	0,0050	0,0060	0,0065	490 (310 — 490)
S12	E	1.9	0.050	0.070	0.085	0.10	0.13	0.15	0.17	115 (72 — 110)
		1,9	0,0020	0,0028	0,0034	0,0040	0,0050	0,0060	0,0065	375 (240 — 360)
S13	E	1.9	0.046	0.060	0.075	0.090	0.11	0.13	0.15	120 (74 — 120)
		1,9	0,0018	0,0024	0,0030	0,0036	0,0044	0,0050	0,0060	395 (250 — 390)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

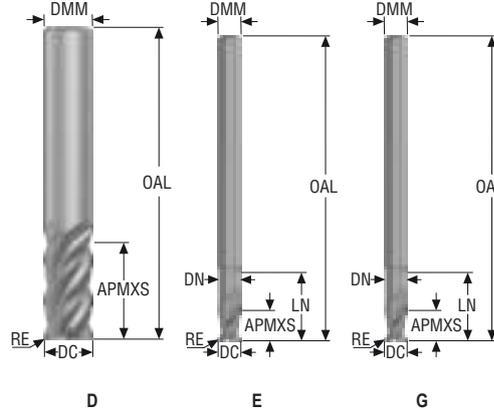
 a<sub>d</sub> = mm/DC (in/DC) = factor

All cutting data are target values

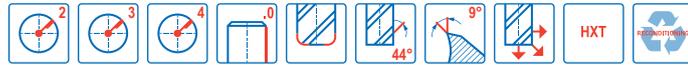
 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfpr  
 Graphite  
 X-Heads  
 Minimaxter

**JHP751**

High performance – Titanium – Square – 2-4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

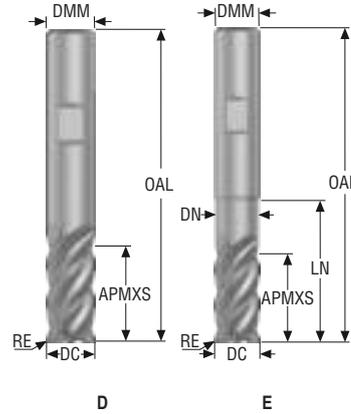


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP751080D1R040.0Z4	HXT	10105487	1	D	8,0	8,0	16,0	58,0	—	—	0,4	4	Cylindrical	■
JHP751100D1R040.0Z4	HXT	10105548	1	D	10,0	10,0	20,0	66,0	—	—	0,4	4	Cylindrical	■
JHP751100D1R150.0Z4	HXT	10105549	1	D	10,0	10,0	20,0	66,0	—	—	1,5	4	Cylindrical	■
JHP751120D1R040.0Z4	HXT	10105550	1	D	12,0	12,0	24,0	75,0	—	—	0,4	4	Cylindrical	■
JHP751120D1R150.0Z4	HXT	10105552	1	D	12,0	12,0	24,0	75,0	—	—	1,5	4	Cylindrical	■
JHP751160D1R040.0Z4	HXT	10105581	1	D	16,0	16,0	32,0	92,0	—	—	0,4	4	Cylindrical	■
JHP751160D1R150.0Z4	HXT	10105582	1	D	16,0	16,0	32,0	92,0	—	—	1,5	4	Cylindrical	■
JHP751200D1R080.0Z4	HXT	10105583	1	D	20,0	20,0	40,0	104,0	—	—	0,8	4	Cylindrical	■
JHP751020G2R020.0Z2	HXT	10105584	2	G	2,0	3,0	3,0	38,0	6,0	1,9	0,2	2	Cylindrical	■
JHP751030G2R020.0Z2	HXT	10105585	2	E	3,0	3,0	4,5	38,0	9,0	2,8	0,2	2	Cylindrical	■
JHP751040G2R020.0Z2	HXT	10105586	2	G	4,0	6,0	6,0	50,0	9,0	3,7	0,2	2	Cylindrical	■
JHP751050G2R030.0Z2	HXT	10105587	2	G	5,0	6,0	7,5	50,0	9,0	4,6	0,3	2	Cylindrical	■
JHP751060E2R030.0Z3	HXT	10105588	2	E	6,0	6,0	9,0	57,0	19,0	5,6	0,3	3	Cylindrical	■
JHP751080E2R040.0Z4	HXT	10105589	2	E	8,0	8,0	16,0	63,0	24,0	7,4	0,4	4	Cylindrical	■
JHP751100E2R040.0Z4	HXT	10105590	2	E	10,0	10,0	20,0	72,0	30,0	9,4	0,4	4	Cylindrical	■
JHP751100E2R080.0Z4	HXT	10105591	2	E	10,0	10,0	20,0	72,0	30,0	9,4	0,8	4	Cylindrical	■
JHP751100E2R200.0Z4	HXT	10105593	2	E	10,0	10,0	20,0	72,0	30,0	9,4	2,0	4	Cylindrical	■
JHP751120E2R040.0Z4	HXT	10105594	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,4	4	Cylindrical	■
JHP751120E2R080.0Z4	HXT	10105595	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,8	4	Cylindrical	■
JHP751120E2R310.0Z4	HXT	10105596	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,1	4	Cylindrical	■
JHP751140E2R080.0Z4	HXT	10105597	2	E	14,0	14,0	28,0	92,0	45,0	13,4	0,8	4	Cylindrical	■
JHP751160E2R040.0Z4	HXT	10105598	2	E	16,0	16,0	32,0	104,0	52,0	15,4	0,4	4	Cylindrical	■
JHP751160E2R080.0Z4	HXT	10105599	2	E	16,0	16,0	32,0	104,0	52,0	15,4	0,8	4	Cylindrical	■
JHP751160E2R200.0Z4	HXT	10105600	2	E	16,0	16,0	32,0	104,0	52,0	15,4	2,0	4	Cylindrical	■
JHP751200E2R080.0Z4	HXT	10105601	2	E	20,0	20,0	40,0	129,0	75,0	19,4	0,8	4	Cylindrical	■

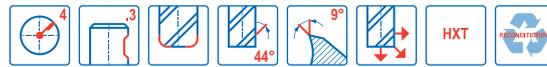
■ Stocked standard.

**JHP751**

High performance – Titanium – Square – 2-4 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
JHP751080D1R040.3Z4	HXT	10105739	1	D	8,0	8,0	16,0	58,0	–	–	0,4	4	Weldon	■
JHP751100D1R040.3Z4	HXT	10105740	1	D	10,0	10,0	20,0	66,0	–	–	0,4	4	Weldon	■
JHP751100D1R150.3Z4	HXT	10105742	1	D	10,0	10,0	20,0	66,0	–	–	1,5	4	Weldon	■
JHP751120D1R040.3Z4	HXT	10105743	1	D	12,0	12,0	24,0	75,0	–	–	0,4	4	Weldon	■
JHP751120D1R150.3Z4	HXT	10105744	1	D	12,0	12,0	24,0	75,0	–	–	1,5	4	Weldon	■
JHP751160D1R040.3Z4	HXT	10105745	1	D	16,0	16,0	32,0	92,0	–	–	0,4	4	Weldon	■
JHP751160D1R150.3Z4	HXT	10105746	1	D	16,0	16,0	32,0	92,0	–	–	1,5	4	Weldon	■
JHP751200D1R080.3Z4	HXT	10105747	1	D	20,0	20,0	40,0	104,0	–	–	0,8	4	Weldon	■
JHP751080E2R040.3Z4	HXT	10105748	2	E	8,0	8,0	16,0	63,0	24,0	7,4	0,4	4	Weldon	■
JHP751100E2R040.3Z4	HXT	10105749	2	E	10,0	10,0	20,0	72,0	30,0	9,4	0,4	4	Weldon	■
JHP751100E2R080.3Z4	HXT	10105750	2	E	10,0	10,0	20,0	72,0	30,0	9,4	0,8	4	Weldon	■
JHP751100E2R200.3Z4	HXT	10105751	2	E	10,0	10,0	20,0	72,0	30,0	9,4	2,0	4	Weldon	■
JHP751120E2R040.3Z4	HXT	10105752	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,4	4	Weldon	■
JHP751120E2R080.3Z4	HXT	10105753	2	E	12,0	12,0	24,0	83,0	35,0	11,4	0,8	4	Weldon	■
JHP751120E2R310.3Z4	HXT	10105754	2	E	12,0	12,0	24,0	83,0	35,0	11,4	3,1	4	Weldon	■
JHP751140E2R080.3Z4	HXT	10105755	2	E	14,0	14,0	28,0	92,0	45,0	13,4	0,8	4	Weldon	■
JHP751160E2R040.3Z4	HXT	10105756	2	E	16,0	16,0	32,0	104,0	52,0	15,4	0,4	4	Weldon	■
JHP751160E2R080.3Z4	HXT	10105757	2	E	16,0	16,0	32,0	104,0	52,0	15,4	0,8	4	Weldon	■
JHP751160E2R200.3Z4	HXT	10105758	2	E	16,0	16,0	32,0	104,0	52,0	15,4	2,0	4	Weldon	■
JHP751200E2R080.3Z4	HXT	10105759	2	E	20,0	20,0	40,0	129,0	75,0	19,4	0,8	4	Weldon	■

■ Stocked standard.

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – JHP751 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
				2	3	4	5	6	8	10	12	14	16	20	
S1	E/M/A	0.0600	1.2	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	48 (33 — 64)
		0,0600	1,2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	155 (110 — 200)
S2	E/M/A	0.0600	1.2	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	39 (26 — 51)
		0,0600	1,2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	130 (86 — 160)
S3	E/M/A	0.0400	1.2	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.080	0.090	0.10	33 (26 — 50)
		0,0400	1,2	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	110 (86 — 160)
S11	E/M/A	0.0800	1.2	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	145 (130 — 180)
		0,0800	1,2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	475 (430 — 590)
S12	E/M/A	0.0800	1.2	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.11	0.12	0.14	110 (95 — 140)
		0,0800	1,2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	360 (320 — 450)
S13	E/M/A	0.0800	1.2	0.014	0.020	0.028	0.034	0.042	0.055	0.070	0.085	0.095	0.10	0.12	90 (76 — 110)
		0,0800	1,2	0,00055	0,00080	0,0011	0,0013	0,0017	0,0022	0,0028	0,0034	0,0038	0,0040	0,0048	295 (250 — 360)

Cutting data – JHP751 Slot milling

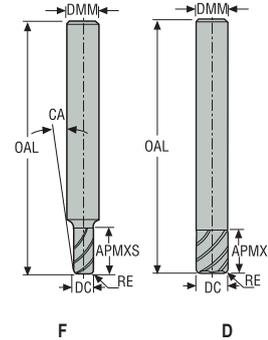
SMG		a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
			2	3	4	5	6	8	10	12	14	16	20	
S1	E/M/A	0.44	0.0075	0.011	0.015	0.019	0.022	0.030	0.038	0.044	0.050	0.055	0.065	30 (20 — 39)
		0,44	0,00030	0,00044	0,00060	0,00075	0,00085	0,0012	0,0015	0,0017	0,0020	0,0022	0,0026	100 (66 — 120)
S2	E/M/A	0.44	0.0075	0.011	0.015	0.019	0.022	0.030	0.038	0.044	0.050	0.055	0.065	24 (17 — 32)
		0,44	0,00030	0,00044	0,00060	0,00075	0,00085	0,0012	0,0015	0,0017	0,0020	0,0022	0,0026	80 (56 — 100)
S3	E/M/A	0.34	0.0046	0.0070	0.0095	0.012	0.014	0.019	0.024	0.028	0.032	0.034	0.040	20 (15 — 29)
		0,34	0,00018	0,00028	0,00038	0,00048	0,00055	0,00075	0,00095	0,0011	0,0013	0,0013	0,0016	65 (50 — 95)
S11	E/M/A	0.70	0.0085	0.013	0.017	0.022	0.026	0.034	0.044	0.050	0.055	0.065	0.075	90 (78 — 110)
		0,70	0,00034	0,00050	0,00065	0,00085	0,0010	0,0013	0,0017	0,0020	0,0022	0,0026	0,0030	295 (260 — 360)
S12	E/M/A	0.70	0.0085	0.013	0.017	0.022	0.026	0.034	0.044	0.050	0.055	0.065	0.075	70 (60 — 89)
		0,70	0,00034	0,00050	0,00065	0,00085	0,0010	0,0013	0,0017	0,0020	0,0022	0,0026	0,0030	230 (200 — 290)
S13	E/M/A	0.70	0.0075	0.011	0.015	0.019	0.022	0.030	0.038	0.044	0.050	0.055	0.065	55 (48 — 71)
		0,70	0,00030	0,00044	0,00060	0,00075	0,00085	0,0012	0,0015	0,0017	0,0020	0,0022	0,0026	180 (160 — 230)

For cutting data recalculations, see pages 687 – 695

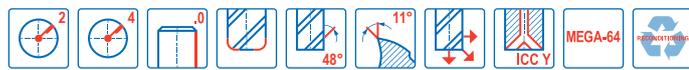
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JHP760

High performance – ISO-M – Square – 2-4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,03 mm
- Regrind possible if DC is ≥Ø6



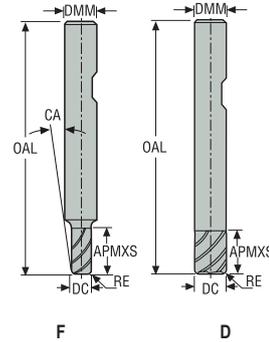
Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm				
760040R020Z2.0A-MEGA-64	02734051	2	F	■	4,0	6,0	8,0	50,0	8,95	4,0	0,2	4,0	2	Cylindrical	■
760040R040Z2.0A-MEGA-64	02623413	2	F	■	4,0	6,0	8,0	50,0	8,95	4,0	0,4	4,0	2	Cylindrical	■
760050R020Z2.0A-MEGA-64	02734052	2	F	■	5,0	6,0	10,0	50,0	10,95	5,0	0,2	2,0	2	Cylindrical	■
760050R040Z2.0A-MEGA-64	02623435	2	F	■	5,0	6,0	10,0	50,0	10,95	5,0	0,4	2,0	2	Cylindrical	■
760060R020Z4.0A-MEGA-64	02734053	2	D	■	6,0	6,0	12,0	50,0	-	-	0,2	-	4	Cylindrical	■
760060R040Z4.0A-MEGA-64	02623433	2	D	■	6,0	6,0	12,0	50,0	-	-	0,4	-	4	Cylindrical	■
760080R040Z4.0A-MEGA-64	02623436	2	D	■	8,0	8,0	16,0	55,0	-	-	0,4	-	4	Cylindrical	■
760080R100Z4.0A-MEGA-64	02623437	2	D	■	8,0	8,0	16,0	55,0	-	-	1,0	-	4	Cylindrical	■
760100R040Z4.0A-MEGA-64	02623460	2	D	■	10,0	10,0	20,0	65,0	-	-	0,4	-	4	Cylindrical	■
760100R100Z4.0A-MEGA-64	02623463	2	D	■	10,0	10,0	20,0	65,0	-	-	1,0	-	4	Cylindrical	■
760100R150Z4.0A-MEGA-64	02623466	2	D	■	10,0	10,0	20,0	65,0	-	-	1,5	-	4	Cylindrical	■
760120R040Z4.0A-MEGA-64	02623819	2	D	■	12,0	12,0	24,0	75,0	-	-	0,4	-	4	Cylindrical	■
760120R100Z4.0A-MEGA-64	02623825	2	D	■	12,0	12,0	24,0	75,0	-	-	1,0	-	4	Cylindrical	■
760120R150Z4.0A-MEGA-64	02623828	2	D	■	12,0	12,0	24,0	75,0	-	-	1,5	-	4	Cylindrical	■
760120R310Z4.0A-MEGA-64	02623833	2	D	■	12,0	12,0	24,0	75,0	-	-	3,1	-	4	Cylindrical	■
760200R040Z4.0A-MEGA-64	02734055	2	D	■	20,0	20,0	45,0	100,0	-	-	0,4	-	4	Cylindrical	■
760200R080Z4.0A-MEGA-64	02623852	2	D	■	20,0	20,0	45,0	100,0	-	-	0,8	-	4	Cylindrical	■
760L080R040Z4.0A-MEGA-64	02623438	3	D	■	8,0	8,0	28,0	65,0	-	-	0,4	-	4	Cylindrical	■
760L100R040Z4.0A-MEGA-64	02623461	3	D	■	10,0	10,0	36,0	75,0	-	-	0,4	-	4	Cylindrical	■
760L100R100Z4.0A-MEGA-64	02623464	3	D	■	10,0	10,0	36,0	75,0	-	-	1,0	-	4	Cylindrical	■
760L100R150Z4.0A-MEGA-64	02623467	3	D	■	10,0	10,0	36,0	75,0	-	-	1,5	-	4	Cylindrical	■
760L100R200Z4.0A-MEGA-64	02623472	3	D	■	10,0	10,0	36,0	75,0	-	-	2,0	-	4	Cylindrical	■
760L100R310Z4.0A-MEGA-64	02623807	3	D	■	10,0	10,0	36,0	75,0	-	-	3,1	-	4	Cylindrical	■
760L120R040Z4.0A-MEGA-64	02623821	3	D	■	12,0	12,0	42,0	90,0	-	-	0,4	-	4	Cylindrical	■
760L120R100Z4.0A-MEGA-64	02623826	3	D	■	12,0	12,0	42,0	90,0	-	-	1,0	-	4	Cylindrical	■
760L120R150Z4.0A-MEGA-64	02623829	3	D	■	12,0	12,0	42,0	90,0	-	-	1,5	-	4	Cylindrical	■
760L120R400Z4.0A-MEGA-64	02623838	3	D	■	12,0	12,0	42,0	90,0	-	-	4,0	-	4	Cylindrical	■
760L160R040Z4.0A-MEGA-64	02623840	3	D	■	16,0	16,0	50,0	100,0	-	-	0,4	-	4	Cylindrical	■
760L160R100Z4.0A-MEGA-64	02623842	3	D	■	16,0	16,0	50,0	100,0	-	-	1,0	-	4	Cylindrical	■
760L160R150Z4.0A-MEGA-64	02623844	3	D	■	16,0	16,0	50,0	100,0	-	-	1,5	-	4	Cylindrical	■

■ Stocked standard.

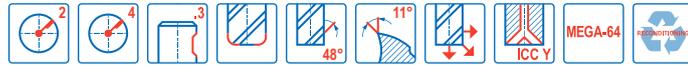
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

**JHP760**

High performance – ISO-M – Square – 2-4 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,03 mm
- Regrind possible if DC is ≥Ø6

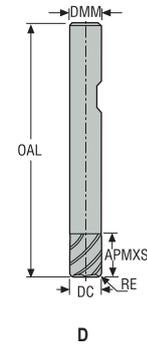


	Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Non ferrous	760040R020Z2.0A-MEGA-64W	02734065	2	F	■	4,0	6,0	8,0	50,0	8,95	4,0	0,2	4,0	2	Weldon	<input type="checkbox"/>
	760040R040Z2.0A-MEGA-64W	02669339	2	F	■	4,0	6,0	8,0	50,0	8,95	4,0	0,4	4,0	2	Weldon	<input type="checkbox"/>
Hard	760050R020Z2.0A-MEGA-64W	02734068	2	F	■	5,0	6,0	10,0	50,0	10,95	5,0	0,2	2,0	2	Weldon	<input type="checkbox"/>
	760050R040Z2.0A-MEGA-64W	02669340	2	F	■	5,0	6,0	10,0	50,0	10,95	5,0	0,4	2,0	2	Weldon	<input type="checkbox"/>
	760060R020Z4.0A-MEGA-64W	02734069	2	D	■	6,0	6,0	12,0	50,0	–	–	0,2	–	4	Weldon	<input type="checkbox"/>
	760060R040Z4.0A-MEGA-64W	02669341	2	D	■	6,0	6,0	12,0	50,0	–	–	0,4	–	4	Weldon	<input type="checkbox"/>
	760080R040Z4.0A-MEGA-64W	02669343	2	D	■	8,0	8,0	16,0	55,0	–	–	0,4	–	4	Weldon	<input checked="" type="checkbox"/>
	760080R100Z4.0A-MEGA-64W	02669344	2	D	■	8,0	8,0	16,0	55,0	–	–	1,0	–	4	Weldon	<input type="checkbox"/>
Plastic and CFRP	760100R040Z4A-MEGA-64	02623442	2	D	■	10,0	10,0	20,0	65,0	–	–	0,4	–	4	Weldon	<input checked="" type="checkbox"/>
	760100R100Z4A-MEGA-64	02623462	2	D	■	10,0	10,0	20,0	65,0	–	–	1,0	–	4	Weldon	<input checked="" type="checkbox"/>
	760100R150Z4A-MEGA-64	02623465	2	D	■	10,0	10,0	20,0	65,0	–	–	1,5	–	4	Weldon	<input checked="" type="checkbox"/>
	760120R040Z4A-MEGA-64	02623817	2	D	■	12,0	12,0	24,0	75,0	–	–	0,4	–	4	Weldon	<input checked="" type="checkbox"/>
	760120R100Z4A-MEGA-64	02623824	2	D	■	12,0	12,0	24,0	75,0	–	–	1,0	–	4	Weldon	<input checked="" type="checkbox"/>
	760120R150Z4A-MEGA-64	02623827	2	D	■	12,0	12,0	24,0	75,0	–	–	1,5	–	4	Weldon	<input checked="" type="checkbox"/>
Graphite	760120R400Z4A-MEGA-64	02623835	2	D	■	12,0	12,0	24,0	75,0	–	–	4,0	–	4	Weldon	<input checked="" type="checkbox"/>
	760160R040Z4A-MEGA-64	02623839	2	D	■	16,0	16,0	40,0	90,0	–	–	0,4	–	4	Weldon	<input checked="" type="checkbox"/>
	760160R100Z4A-MEGA-64	02623841	2	D	■	16,0	16,0	40,0	90,0	–	–	1,0	–	4	Weldon	<input checked="" type="checkbox"/>
	760160R150Z4A-MEGA-64	02623843	2	D	■	16,0	16,0	40,0	90,0	–	–	1,5	–	4	Weldon	<input checked="" type="checkbox"/>
	760160R200Z4A-MEGA-64	02623845	2	D	■	16,0	16,0	40,0	90,0	–	–	2,0	–	4	Weldon	<input checked="" type="checkbox"/>
	760200R040Z4A-MEGA-64	02734054	2	D	■	20,0	20,0	45,0	100,0	–	–	0,4	–	4	Weldon	<input checked="" type="checkbox"/>
X-Heads	760200R080Z4A-MEGA-64	02623851	2	D	■	20,0	20,0	45,0	100,0	–	–	0,8	–	4	Weldon	<input checked="" type="checkbox"/>

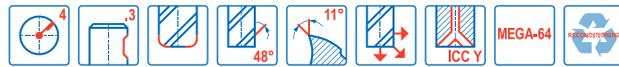
■ Stocked standard. □ Weldon available. Delivery time is 3 days.

**JHP760**

High performance – ISO-M – Square – 2-4 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,03 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
760L080R040Z4.0A-MEGA-64W	02720459	3	D	■	8,0	8,0	28,0	65,0	0,4	4	Weldon	<input type="checkbox"/>
760L100R040Z4.0A-MEGA-64W	02669345	3	D	■	10,0	10,0	36,0	75,0	0,4	4	Weldon	<input type="checkbox"/>
760L100R100Z4.0A-MEGA-64W	02669346	3	D	■	10,0	10,0	36,0	75,0	1,0	4	Weldon	<input type="checkbox"/>
760L100R150Z4.0A-MEGA-64W	02669347	3	D	■	10,0	10,0	36,0	75,0	1,5	4	Weldon	<input type="checkbox"/>
760L100R200Z4.0A-MEGA-64W	02669348	3	D	■	10,0	10,0	36,0	75,0	2,0	4	Weldon	<input type="checkbox"/>
760L120R040Z4.0A-MEGA-64W	02669350	3	D	■	12,0	12,0	42,0	90,0	0,4	4	Weldon	<input type="checkbox"/>
760L120R100Z4.0A-MEGA-64W	02669351	3	D	■	12,0	12,0	42,0	90,0	1,0	4	Weldon	<input type="checkbox"/>
760L120R150Z4.0A-MEGA-64W	02669352	3	D	■	12,0	12,0	42,0	90,0	1,5	4	Weldon	<input type="checkbox"/>
760L160R040Z4.0A-MEGA-64W	02669356	3	D	■	16,0	16,0	50,0	100,0	0,4	4	Weldon	<input type="checkbox"/>
760L160R100Z4.0A-MEGA-64W	02669357	3	D	■	16,0	16,0	50,0	100,0	1,0	4	Weldon	<input type="checkbox"/>
760L160R150Z4.0A-MEGA-64W	02669358	3	D	■	16,0	16,0	50,0	100,0	1,5	4	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfprp

Graphite

X-Heads

Minimaster

Cutting data – JHP760 Side milling

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>									v <sub>c</sub>
				4	5	6	8	10	12	16	20	25	
M1	E	0.300	1.5	0.036	0.044	0.055	0.070	0.090	0.10	0.13	0.15	0.17	120 (97 – 130)
		0,300	1,5	0,0014	0,0017	0,0022	0,0028	0,0036	0,0040	0,0050	0,0060	0,0065	395 (320 – 420)
M2	E	0.300	1.5	0.032	0.040	0.048	0.065	0.080	0.095	0.12	0.13	0.15	100 (81 – 110)
		0,300	1,5	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0048	0,0050	0,0060	330 (270 – 360)
M3	E	0.300	1.4	0.026	0.032	0.038	0.050	0.065	0.075	0.095	0.11	0.12	75 (58 – 91)
		0,300	1,4	0,0010	0,0013	0,0015	0,0020	0,0026	0,0030	0,0038	0,0044	0,0048	245 (200 – 290)
M4	E	0.300	1.4	0.022	0.028	0.034	0.046	0.055	0.065	0.085	0.095	0.11	60 (45 – 70)
		0,300	1,4	0,00085	0,0011	0,0013	0,0018	0,0022	0,0026	0,0034	0,0038	0,0044	195 (150 – 220)
M5	E	0.300	1.4	0.022	0.028	0.034	0.046	0.055	0.065	0.085	0.095	0.11	48 (37 – 59)
		0,300	1,4	0,00085	0,0011	0,0013	0,0018	0,0022	0,0026	0,0034	0,0038	0,0044	155 (130 – 190)

Cutting data – JHP760 Slot milling

SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>									v <sub>c</sub>
			4	5	6	8	10	12	16	20	25	
M1	E	1.0	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	110 (92 – 130)
		1,0	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0040	360 (310 – 420)
M2	E	1.0	0.016	0.020	0.024	0.032	0.040	0.048	0.065	0.080	0.10	90 (74 – 100)
		1,0	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0040	295 (250 – 320)
M3	E	0.80	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.060	0.075	70 (54 – 85)
		0,80	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	230 (180 – 270)
M4	E	0.80	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.060	0.075	50 (40 – 63)
		0,80	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	165 (140 – 200)
M5	E	0.80	0.012	0.015	0.018	0.024	0.030	0.036	0.048	0.060	0.075	43 (34 – 53)
		0,80	0,00048	0,00060	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	140 (120 – 170)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

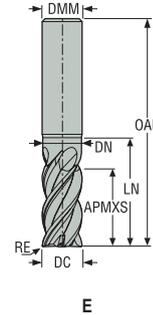
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

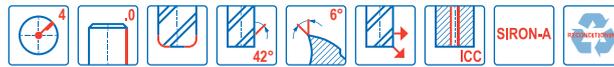
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

**JHP770**

High performance – Titanium – Square – 4-5 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP770060E2R030.0Z4A-SIRA	02760645	2	E	■	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	Cylindrical	■
JHP770080E2R040.0Z4A-SIRA	02760653	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	Cylindrical	■
JHP770080E2R050.0Z4A-SIRA	02823416	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,5	4	Cylindrical	■
JHP770100E2R040.0Z4A-SIRA	02760654	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	Cylindrical	■
JHP770100E2R050.0Z4A-SIRA	02823417	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,5	4	Cylindrical	■
JHP770120E2R040.0Z4A-SIRA	02760656	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	Cylindrical	■
JHP770120E2R050.0Z4A-SIRA	02823419	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,5	4	Cylindrical	■
JHP770120E2R100.0Z4A-SIRA	02823420	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	1,0	4	Cylindrical	■
JHP770120E2R250.0Z4A-SIRA	02760659	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	2,5	4	Cylindrical	■
JHP770140E2R050.0Z4A-SIRA	02823421	2	E	■	14,0	14,0	28,0	95,0	42,0	13,4	0,5	4	Cylindrical	■
JHP770160E2R040.0Z4A-SIRA	02760661	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	Cylindrical	■
JHP770160E2R050.0Z4A-SIRA	02823422	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,5	4	Cylindrical	■
JHP770160E2R080.0Z4A-SIRA	02760662	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	Cylindrical	■
JHP770160E2R100.0Z4A-SIRA	02823423	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	1,0	4	Cylindrical	■
JHP770160E2R250.0Z4A-SIRA	02760663	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	2,5	4	Cylindrical	■
JHP770160E2R310.0Z4A-SIRA	02760664	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	3,1	4	Cylindrical	■
JHP770160E2R400.0Z4A-SIRA	02760665	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	4,0	4	Cylindrical	■
JHP770200E2R050.0Z4A-SIRA	02823424	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	0,5	4	Cylindrical	■
JHP770200E2R100.0Z4A-SIRA	02823425	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	1,0	4	Cylindrical	■
JHP770200E2R250.0Z4A-SIRA	02760668	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	2,5	4	Cylindrical	■
JHP770200E2R310.0Z4A-SIRA	02760669	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	3,1	4	Cylindrical	■
JHP770200E2R400.0Z4A-SIRA	02760670	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	4,0	4	Cylindrical	■

■ Stocked standard.

 Remark: if cornerradius is >15% of DC →  $a_p = -30\%$ ,  $f_z = -20\%$ 

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

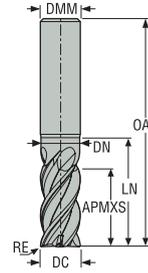
Graphite

X-Heads

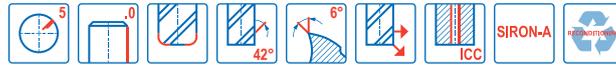
Minimaster

**JHP770**

High performance – Titanium – Square –4-5 Flutes – Cylindrical – Corner radius


**E**

–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP770160E2R050.0Z5A-SIRA	02810129	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,5	5	Cylindrical	■
JHP770160E2R100.0Z5A-SIRA	02810130	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	1,0	5	Cylindrical	■
JHP770160E2R250.0Z5A-SIRA	02810131	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	2,5	5	Cylindrical	■
JHP770160E2R310.0Z5A-SIRA	02810132	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	3,1	5	Cylindrical	■
JHP770160E2R400.0Z5A-SIRA	02810133	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	4,0	5	Cylindrical	■
JHP770200E2R050.0Z5A-SIRA	02810134	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	0,5	5	Cylindrical	■
JHP770200E2R100.0Z5A-SIRA	02810135	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	1,0	5	Cylindrical	■
JHP770200E2R250.0Z5A-SIRA	02810136	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	2,5	5	Cylindrical	■
JHP770200E2R310.0Z5A-SIRA	02810137	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	3,1	5	Cylindrical	■
JHP770200E2R400.0Z5A-SIRA	02810138	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	4,0	5	Cylindrical	■
JHP770250E2R050.0Z5A-SIRA	02810139	2	E	■	25,0	25,0	50,0	130,0	65,0	24,4	0,5	5	Cylindrical	■

■ Stocked standard.

Remark: if cornerradius is >15% of DC → a<sub>p</sub>=-30%, f<sub>z</sub>=-20%

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

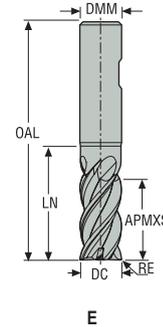
Graphite

X-Heads

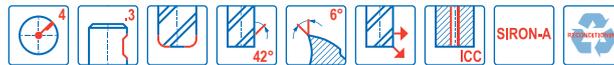
Minimaxter

**JHP770**

High performance – Titanium – Square – 4-5 Flutes – Weldon – Corner radius



–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP770060E2R030.3Z4A-SIRA	02760796	2	E	■	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	Weldon	■
JHP770080E2R040.3Z4A-SIRA	02760799	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	Weldon	□
JHP770080E2R050.3Z4A-SIRA	02823428	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,5	4	Weldon	■
JHP770100E2R040.3Z4A-SIRA	02760801	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	Weldon	□
JHP770100E2R050.3Z4A-SIRA	02823429	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,5	4	Weldon	■
JHP770120E2R040.3Z4A-SIRA	02760803	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	Weldon	□
JHP770120E2R050.3Z4A-SIRA	02823431	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,5	4	Weldon	■
JHP770120E2R100.3Z4A-SIRA	02823432	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	1,0	4	Weldon	■
JHP770120E2R250.3Z4A-SIRA	02760805	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	2,5	4	Weldon	□
JHP770140E2R050.3Z4A-SIRA	02823433	2	E	■	14,0	14,0	28,0	95,0	42,0	13,4	0,5	4	Weldon	■
JHP770160E2R040.3Z4A-SIRA	02760807	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	Weldon	□
JHP770160E2R050.3Z4A-SIRA	02823434	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,5	4	Weldon	■
JHP770160E2R080.3Z4A-SIRA	02760809	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	Weldon	□
JHP770160E2R100.3Z4A-SIRA	02823435	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	1,0	4	Weldon	■
JHP770160E2R250.3Z4A-SIRA	02760810	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	2,5	4	Weldon	■
JHP770160E2R310.3Z4A-SIRA	02760811	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	3,1	4	Weldon	□
JHP770160E2R400.3Z4A-SIRA	02760817	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	4,0	4	Weldon	□
JHP770200E2R050.3Z4A-SIRA	02823436	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	0,5	4	Weldon	■
JHP770200E2R100.3Z4A-SIRA	02823437	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	1,0	4	Weldon	■
JHP770200E2R250.3Z4A-SIRA	02760823	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	2,5	4	Weldon	□
JHP770200E2R310.3Z4A-SIRA	02760824	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	3,1	4	Weldon	□
JHP770200E2R400.3Z4A-SIRA	02760825	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	4,0	4	Weldon	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.  
 Remark: if cornerradius is >15% of DC →  $a_p = -30\%$ ,  $f_z = -20\%$

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

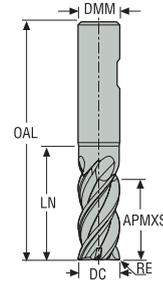
Graphite

X-Heads

Minimaster

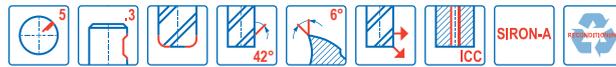
**JHP770**

High performance – Titanium – Square – 4-5 Flutes – Weldon – Corner radius



E

–Tolerances:  
 –DMM= h5  
 –DC= e7  
 –RE= ±0,02 mm  
 –Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP770160E2R050.3Z5A-SIRA	02810143	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,5	5	Weldon	■
JHP770160E2R100.3Z5A-SIRA	02810144	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	1,0	5	Weldon	■
JHP770160E2R250.3Z5A-SIRA	02810145	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	2,5	5	Weldon	□
JHP770160E2R310.3Z5A-SIRA	02810146	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	3,1	5	Weldon	■
JHP770160E2R400.3Z5A-SIRA	02810147	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	4,0	5	Weldon	□
JHP770200E2R050.3Z5A-SIRA	02810148	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	0,5	5	Weldon	■
JHP770200E2R100.3Z5A-SIRA	02810149	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	1,0	5	Weldon	■
JHP770200E2R250.3Z5A-SIRA	02810150	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	2,5	5	Weldon	□
JHP770200E2R310.3Z5A-SIRA	02810151	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	3,1	5	Weldon	■
JHP770200E2R400.3Z5A-SIRA	02810152	2	E	■	20,0	20,0	40,0	115,0	55,0	19,4	4,0	5	Weldon	■
JHP770250E2R050.3Z5A-SIRA	02810153	2	E	■	25,0	25,0	50,0	130,0	65,0	24,4	0,5	5	Weldon	■
JHP770250E2R100.3Z5A-SIRA	02810154	2	E	■	25,0	25,0	50,0	130,0	65,0	24,4	1,0	5	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.  
 Remark: if cornerradius is >15% of DC → a<sub>p</sub>=-30%, f<sub>z</sub>=-20%

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

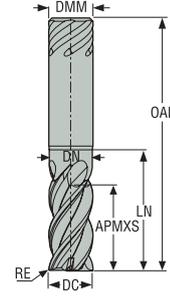
Graphite

X-Heads

Minimaxter

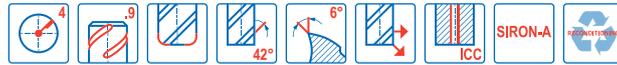
**JHP770**

High performance – Titanium – Square – 4-5 Flutes – Safelock – Corner radius



E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP770060E2R030.9Z4A-SIRA	02927936	2	E	■	6,0	6,0	12,0	60,0	18,0	6,0	0,3	4	Safe-lock	<input type="checkbox"/>
JHP770080E2R040.9Z4A-SIRA	02927937	2	E	■	8,0	8,0	16,0	65,0	24,0	7,0	0,4	4	Safe-lock	<input type="checkbox"/>
JHP770080E2R050.9Z4A-SIRA	02927938	2	E	■	8,0	8,0	16,0	65,0	24,0	7,0	0,5	4	Safe-lock	<input type="checkbox"/>
JHP770100E2R040.9Z4A-SIRA	02927939	2	E	■	10,0	10,0	20,0	75,0	30,0	9,0	0,4	4	Safe-lock	<input type="checkbox"/>
JHP770100E2R050.9Z4A-SIRA	02927940	2	E	■	10,0	10,0	20,0	75,0	30,0	9,0	0,5	4	Safe-lock	<input type="checkbox"/>
JHP770120E2R040.9Z4A-SIRA	02927943	2	E	■	12,0	12,0	24,0	90,0	36,0	11,0	0,4	4	Safe-lock	<input type="checkbox"/>
JHP770120E2R050.9Z4A-SIRA	02927944	2	E	■	12,0	12,0	24,0	90,0	36,0	11,0	0,5	4	Safe-lock	<input type="checkbox"/>
JHP770120E2R100.9Z4A-SIRA	02927946	2	E	■	12,0	12,0	24,0	90,0	36,0	11,0	1,0	4	Safe-lock	<input type="checkbox"/>
JHP770120E2R250.9Z4A-SIRA	02927947	2	E	■	12,0	12,0	24,0	90,0	36,0	11,0	2,5	4	Safe-lock	<input type="checkbox"/>
JHP770140E2R050.9Z4A-SIRA	02927950	2	E	■	14,0	14,0	28,0	95,0	42,0	13,0	0,5	4	Safe-lock	<input type="checkbox"/>
JHP770160E2R040.9Z4A-SIRA	02927948	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	0,4	4	Safe-lock	<input type="checkbox"/>
JHP770160E2R050.9Z4A-SIRA	02927978	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	0,5	4	Safe-lock	<input type="checkbox"/>
JHP770160E2R080.9Z4A-SIRA	02927951	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	0,8	4	Safe-lock	<input type="checkbox"/>
JHP770160E2R100.9Z4A-SIRA	02927952	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	1,0	4	Safe-lock	<input type="checkbox"/>
JHP770160E2R250.9Z4A-SIRA	02927954	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	2,5	4	Safe-lock	<input type="checkbox"/>
JHP770160E2R310.9Z4A-SIRA	02927956	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	3,1	4	Safe-lock	<input type="checkbox"/>
JHP770160E2R400.9Z4A-SIRA	02927958	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	4,0	4	Safe-lock	<input type="checkbox"/>
JHP770200E2R050.9Z4A-SIRA	02927960	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	0,5	4	Safe-lock	<input type="checkbox"/>
JHP770200E2R100.9Z4A-SIRA	02927962	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	1,0	4	Safe-lock	<input type="checkbox"/>
JHP770200E2R250.9Z4A-SIRA	02927964	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	2,5	4	Safe-lock	<input type="checkbox"/>
JHP770200E2R310.9Z4A-SIRA	02927966	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	3,1	4	Safe-lock	<input type="checkbox"/>
JHP770200E2R400.9Z4A-SIRA	02927968	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	4,0	4	Safe-lock	<input type="checkbox"/>

 Safelock available. Delivery time is 6 days.

 Remark: if cornerradius is >15% of DC →  $a_p = -30\%$ ,  $f_z = -20\%$ 

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

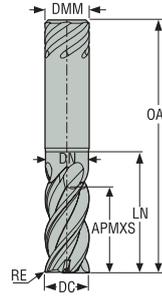
Graphite

X-Heads

Minimaster

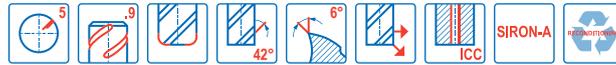
JHP770

High performance – Titanium – Square – 4-5 Flutes – Safelock – Corner radius



E

- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP770160E2R050.9Z5A-SIRA	02927949	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	0,5	5	Safe-lock	<input type="checkbox"/>
JHP770160E2R100.9Z5A-SIRA	02927953	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	1,0	5	Safe-lock	<input type="checkbox"/>
JHP770160E2R250.9Z5A-SIRA	02927955	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	2,5	5	Safe-lock	<input type="checkbox"/>
JHP770160E2R310.9Z5A-SIRA	02927957	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	3,1	5	Safe-lock	<input type="checkbox"/>
JHP770160E2R400.9Z5A-SIRA	02927959	2	E	■	16,0	16,0	32,0	100,0	45,0	15,0	4,0	5	Safe-lock	<input checked="" type="checkbox"/>
JHP770200E2R050.9Z5A-SIRA	02927961	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	0,5	5	Safe-lock	<input type="checkbox"/>
JHP770200E2R100.9Z5A-SIRA	02927963	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	1,0	5	Safe-lock	<input type="checkbox"/>
JHP770200E2R250.9Z5A-SIRA	02927965	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	2,5	5	Safe-lock	<input type="checkbox"/>
JHP770200E2R310.9Z5A-SIRA	02927967	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	3,1	5	Safe-lock	<input type="checkbox"/>
JHP770200E2R400.9Z5A-SIRA	02927969	2	E	■	20,0	20,0	40,0	115,0	55,0	19,0	4,0	5	Safe-lock	<input type="checkbox"/>
JHP770250E2R050.9Z5A-SIRA	02927971	2	E	■	25,0	25,0	50,0	130,0	65,0	24,0	0,5	5	Safe-lock	<input type="checkbox"/>

Safelock available. Delivery time is 6 days.  
 Remark: if cornerradius is >15% of DC → a<sub>p</sub>=-30%, f<sub>z</sub>=-20%

- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and CFRP
- Graphite
- X-Heads
- Minimaster

## Cutting data – JHP770 Side milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>								v <sub>c</sub>
				6	8	10	12	14	16	20	25	
S11	E	0.400	1.8	0.050	0.065	0.080	0.095	0.11	0.12	0.14	0.16	120 (110 – 130)
		0,400	1,6	0,0020	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0065	395 (370 – 420)
S12	E	0.400	1.8	0.050	0.065	0.080	0.095	0.11	0.12	0.14	0.16	90 (80 – 100)
		0,400	1,6	0,0020	0,0026	0,0032	0,0038	0,0044	0,0048	0,0055	0,0065	295 (270 – 320)
S13	E	0.400	1.8	0.042	0.055	0.070	0.085	0.095	0.11	0.12	0.14	75 (64 – 81)
		0,400	1,6	0,0017	0,0022	0,0028	0,0034	0,0038	0,0044	0,0048	0,0055	245 (210 – 260)

## Cutting data – JHP770 Slot milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>								v <sub>c</sub>
				6	8	10	12	14	16	20	25	
S11	E	1.6	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	105 (94 – 120)	
		1,6	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	345 (310 – 390)	
S12	E	1.6	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	80 (72 – 92)	
		1,6	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	260 (240 – 300)	
S13	E	1.6	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	65 (56 – 71)	
		1,6	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	215 (190 – 230)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

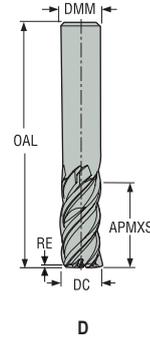
Graphite

X-Heads

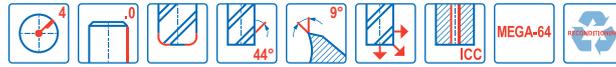
Minimax

JHP780

High performance – Superalloy – Square – 4-Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



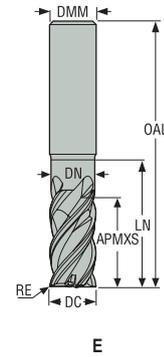
Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JHP780060D1R030.0Z4A-M64	03134984	1	D	■	6,0	6,0	7,5	47,0	0,3	4	Cylindrical	■
JHP780060D1R080.0Z4A-M64	03134985	1	D	■	6,0	6,0	7,5	47,0	0,8	4	Cylindrical	■
JHP780080D1R040.0Z4A-M64	03134986	1	D	■	8,0	8,0	10,0	50,0	0,4	4	Cylindrical	■
JHP780080D1R080.0Z4A-M64	03134987	1	D	■	8,0	8,0	10,0	50,0	0,8	4	Cylindrical	■
JHP780100D1R040.0Z4A-M64	03134988	1	D	■	10,0	10,0	12,5	57,0	0,4	4	Cylindrical	■
JHP780100D1R080.0Z4A-M64	03134989	1	D	■	10,0	10,0	12,5	57,0	0,8	4	Cylindrical	■

■ Stocked standard.

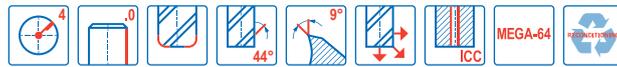
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

**JHP780**

High performance – Superalloy – Square – 4-Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP780060E2R030.0Z4A-M64	03134992	2	E	■	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	Cylindrical	■
JHP780060E2R030.0Z4-M64	02760834	2	E	–	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	Cylindrical	■
JHP780080E2R040.0Z4A-M64	03134993	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	Cylindrical	■
JHP780080E2R040.0Z4-M64	02760842	2	E	–	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	Cylindrical	■
JHP780100E2R040.0Z4A-M64	03134994	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	Cylindrical	■
JHP780100E2R040.0Z4-M64	02760846	2	E	–	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	Cylindrical	■
JHP780100E2R080.0Z4A-M64	03134995	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,8	4	Cylindrical	■
JHP780100E2R080.0Z4-M64	02760847	2	E	–	10,0	10,0	20,0	75,0	30,0	9,4	0,8	4	Cylindrical	■
JHP780120E2R040.0Z4A-M64	03134996	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	Cylindrical	■
JHP780120E2R040.0Z4-M64	02760848	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	Cylindrical	■
JHP780120E2R080.0Z4A-M64	03134997	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,8	4	Cylindrical	■
JHP780120E2R080.0Z4-M64	02760849	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	0,8	4	Cylindrical	■
JHP780120E2R150.0Z4-M64	02760850	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	1,5	4	Cylindrical	■
JHP780120E2R250.0Z4-M64	02760851	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	2,5	4	Cylindrical	■
JHP780140E2R040.0Z4-M64	02760852	2	E	–	14,0	14,0	28,0	95,0	42,0	13,4	0,4	4	Cylindrical	■
JHP780160E2R040.0Z4A-M64	03135000	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	Cylindrical	■
JHP780160E2R040.0Z4-M64	02760853	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	Cylindrical	■
JHP780160E2R080.0Z4A-M64	03135001	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	Cylindrical	■
JHP780160E2R080.0Z4-M64	02760861	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	Cylindrical	■
JHP780160E2R310.0Z4-M64	02760862	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	3,1	4	Cylindrical	■
JHP780160E2R400.0Z4-M64	02760863	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	4,0	4	Cylindrical	■
JHP780200E2R040.0Z4-M64	02760865	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	0,4	4	Cylindrical	■
JHP780200E2R080.0Z4-M64	02760866	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	0,8	4	Cylindrical	■
JHP780200E2R310.0Z4-M64	02760867	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	3,1	4	Cylindrical	■
JHP780200E2R400.0Z4-M64	02760868	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	4,0	4	Cylindrical	■
JHP780250E2R080.0Z4-M64	02760870	2	E	–	25,0	25,0	50,0	130,0	65,0	24,4	0,8	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

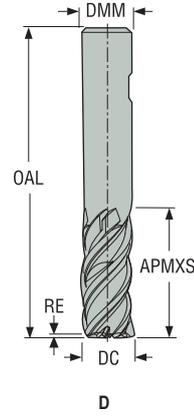
Graphite

X-Heads

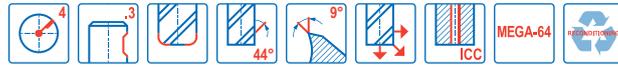
Minimaster

JHP780

High performance – Superalloy – Square – 4-Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



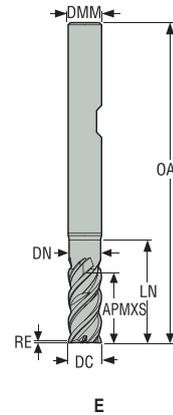
Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JHP780060D1R030.3Z4A-M64	03135445	1	D	■	6,0	6,0	7,5	47,0	0,3	4	Weldon	■
JHP780060D1R080.3Z4A-M64	03135446	1	D	■	6,0	6,0	7,5	47,0	0,8	4	Weldon	■
JHP780080D1R040.3Z4A-M64	03135447	1	D	■	8,0	8,0	10,0	50,0	0,4	4	Weldon	■
JHP780080D1R080.3Z4A-M64	03135449	1	D	■	8,0	8,0	10,0	50,0	0,8	4	Weldon	■
JHP780100D1R040.3Z4A-M64	03135450	1	D	■	10,0	10,0	12,5	57,0	0,4	4	Weldon	■
JHP780100D1R080.3Z4A-M64	03135451	1	D	■	10,0	10,0	12,5	57,0	0,8	4	Weldon	■

■ Stocked standard.

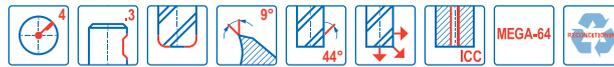
- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and CFRP
- Graphite
- X-Heads
- Minimaster

**JHP780**

High performance – Superalloy – Square – 4-Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP780060E2R030.3Z4-M64	02760878	2	E	–	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	Weldon	■
JHP780060E2R030.3Z4A-M64	03135454	2	E	■	6,0	6,0	12,0	60,0	18,0	5,6	0,3	4	Weldon	■
JHP780080E2R040.3Z4-M64	02760879	2	E	–	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	Weldon	■
JHP780080E2R040.3Z4A-M64	03135455	2	E	■	8,0	8,0	16,0	65,0	24,0	7,4	0,4	4	Weldon	■
JHP780100E2R040.3Z4-M64	02760880	2	E	–	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	Weldon	■
JHP780100E2R040.3Z4A-M64	03135456	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,4	4	Weldon	■
JHP780100E2R080.3Z4-M64	02760881	2	E	–	10,0	10,0	20,0	75,0	30,0	9,4	0,8	4	Weldon	■
JHP780100E2R080.3Z4A-M64	03135457	2	E	■	10,0	10,0	20,0	75,0	30,0	9,4	0,8	4	Weldon	■
JHP780120E2R040.3Z4-M64	02760883	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	Weldon	■
JHP780120E2R040.3Z4A-M64	03134998	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,4	4	Weldon	■
JHP780120E2R080.3Z4-M64	02760885	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	0,8	4	Weldon	■
JHP780120E2R080.3Z4A-M64	03134999	2	E	■	12,0	12,0	24,0	90,0	36,0	11,4	0,8	4	Weldon	■
JHP780120E2R150.3Z4-M64	02760887	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	1,5	4	Weldon	■
JHP780120E2R250.3Z4-M64	02766989	2	E	–	12,0	12,0	24,0	90,0	36,0	11,4	2,5	4	Weldon	■
JHP780140E2R040.3Z4-M64	02760888	2	E	–	14,0	14,0	28,0	95,0	42,0	13,4	0,4	4	Weldon	■
JHP780160E2R040.3Z4-M64	02760889	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	Weldon	■
JHP780160E2R040.3Z4A-M64	03135002	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,4	4	Weldon	■
JHP780160E2R080.3Z4-M64	02760890	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	Weldon	■
JHP780160E2R080.3Z4A-M64	03135003	2	E	■	16,0	16,0	32,0	100,0	45,0	15,4	0,8	4	Weldon	■
JHP780160E2R400.3Z4-M64	02760893	2	E	–	16,0	16,0	32,0	100,0	45,0	15,4	4,0	4	Weldon	■
JHP780200E2R040.3Z4-M64	02760894	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	0,4	4	Weldon	■
JHP780200E2R080.3Z4-M64	02760896	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	0,8	4	Weldon	■
JHP780200E2R310.3Z4-M64	02760897	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	3,1	4	Weldon	■
JHP780200E2R400.3Z4-M64	02760898	2	E	–	20,0	20,0	40,0	115,0	55,0	19,4	4,0	4	Weldon	■
JHP780250E2R080.3Z4-M64	02760901	2	E	–	25,0	25,0	50,0	130,0	65,0	24,4	0,8	4	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

Graphite

X-Heads

Minimaster

Cutting data – JHP780 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
				6	8	10	12	14	16	20	25	
S1	E	0.300	1.0	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.12	50 (45 – 59)
		0,300	1,0	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0048	165 (150 – 190)
S2	E	0.300	1.0	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.12	42 (36 – 47)
		0,300	1,0	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0048	140 (120 – 150)
S3	E	0.300	0.80	0.036	0.048	0.060	0.070	0.080	0.090	0.10	0.11	28 (23 – 33)
		0,300	0,80	0,0014	0,0019	0,0024	0,0028	0,0032	0,0036	0,0040	0,0044	90 (76 – 100)

Cutting data – JHP780 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
			6	8	10	12	14	16	20	25	
S1	E	0.80	0.020	0.028	0.034	0.042	0.048	0.055	0.070	0.085	43 (38 – 49)
		0,80	0,00080	0,0011	0,0013	0,0017	0,0019	0,0022	0,0028	0,0034	140 (130 – 160)
S2	E	0.80	0.020	0.028	0.034	0.042	0.048	0.055	0.070	0.085	35 (30 – 40)
		0,80	0,00080	0,0011	0,0013	0,0017	0,0019	0,0022	0,0028	0,0034	115 (99 – 130)
S3	E	0.60	0.012	0.016	0.020	0.025	0.028	0.032	0.040	0.050	26 (21 – 30)
		0,60	0,00048	0,00065	0,00080	0,0010	0,0011	0,0013	0,0016	0,0020	85 (69 – 98)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

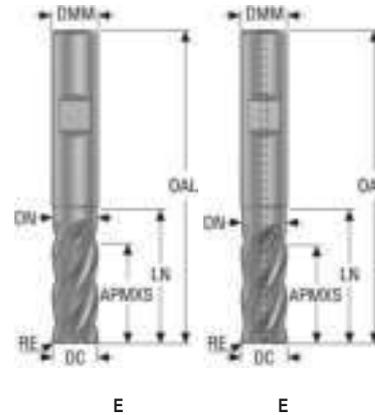
Graphite

X-Heads

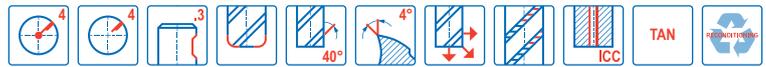
Minimaster

**JHP794**

High performance – ISO-M – Square – 4 Flutes – Weldon – Corner radius



- Tolerances:
- DMM= h6
- DC= h12
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø8



Designation	Grade	Item number	Length index	Tool shape	Chip splitters	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
							mm	mm	mm	mm	mm	mm	mm			
JHP794060E2R020.3Z4	TAN	10072338	2	E	■	–	6,0	6,0	13,0	57,0	18,5	2,0	0,2	4	Weldon	■
JHP794060E2R020.3Z4A	TAN	10072339	2	E	■	■	6,0	6,0	13,0	57,0	18,5	5,5	0,2	4	Weldon	■
JHP794080E2R020.3Z4	TAN	10072340	2	E	■	–	8,0	8,0	19,0	63,0	24,5	7,5	0,2	4	Weldon	■
JHP794080E2R020.3Z4A	TAN	10072341	2	E	■	■	8,0	8,0	19,0	63,0	24,5	7,5	0,2	4	Weldon	■
JHP794100E2R035.3Z4	TAN	10072342	2	E	■	–	10,0	10,0	22,0	72,0	29,5	9,5	0,35	4	Weldon	■
JHP794100E2R035.3Z4A	TAN	10072343	2	E	■	■	10,0	10,0	22,0	72,0	29,5	9,5	0,35	4	Weldon	■
JHP794120E2R035.3Z4	TAN	10072344	2	E	■	–	12,0	12,0	26,0	83,0	35,5	11,4	0,35	4	Weldon	■
JHP794120E2R035.3Z4A	TAN	10072345	2	E	■	■	12,0	12,0	26,0	92,0	35,5	11,4	0,35	4	Weldon	■
JHP794160E2R040.3Z4	TAN	10072346	2	E	■	–	16,0	16,0	32,0	92,0	41,5	15,2	0,4	4	Weldon	■
JHP794160E2R040.3Z4A	TAN	10072347	2	E	■	■	16,0	16,0	32,0	92,0	41,5	15,2	0,4	4	Weldon	■
JHP794200E2R040.3Z4	TAN	10072348	2	E	■	–	20,0	20,0	38,0	104,0	51,5	19,0	0,4	4	Weldon	■
JHP794200E2R040.3Z4A	TAN	10072349	2	E	■	■	20,0	20,0	38,0	104,0	51,5	19,0	0,4	4	Weldon	■
JHP794250E2R040.3Z4	TAN	10072350	2	E	■	–	25,0	25,0	45,0	121,0	62,5	23,8	0,4	4	Weldon	■
JHP794250E2R040.3Z4A	TAN	10072351	2	E	■	■	25,0	25,0	45,0	121,0	62,5	23,8	0,4	4	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JHP794 Side milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>						v <sub>c</sub>
				6	8	10	12	16	20	
M1	E	1.3	0.032	0.044	0.055	0.065	0.080	0.090	0.10	90 (61 — 120)
		1,3	0,0013	0,0017	0,0022	0,0026	0,0032	0,0036	0,0040	295 (210 — 390)
M2	E	1.3	0.030	0.040	0.048	0.060	0.070	0.085	0.095	75 (50 — 99)
		1,3	0,0012	0,0016	0,0019	0,0024	0,0028	0,0034	0,0038	245 (170 — 320)
M3	E	1.3	0.024	0.032	0.040	0.046	0.055	0.065	0.075	60 (40 — 78)
		1,3	0,00095	0,0013	0,0016	0,0018	0,0022	0,0026	0,0030	195 (140 — 250)
M4	E	1.3	0.020	0.028	0.034	0.040	0.050	0.060	0.065	45 (31 — 60)
		1,3	0,00080	0,0011	0,0013	0,0016	0,0020	0,0024	0,0026	150 (110 — 190)
M5	E	1.3	0.020	0.028	0.034	0.040	0.050	0.060	0.065	38 (26 — 50)
		1,3	0,00080	0,0011	0,0013	0,0016	0,0020	0,0024	0,0026	125 (86 — 160)

Cutting data – JHP794 Slot milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>						v <sub>c</sub>
				6	8	10	12	16	20	
M1	E	0.60	0.024	0.032	0.040	0.048	0.065	0.080	0.095	75 (50 — 99)
		0,60	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	245 (170 — 320)
M2	E	0.60	0.024	0.032	0.040	0.048	0.065	0.080	0.090	60 (40 — 79)
		0,60	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0036	195 (140 — 250)
M3	E	0.60	0.022	0.030	0.036	0.044	0.055	0.060	0.070	47 (32 — 62)
		0,60	0,00085	0,0012	0,0014	0,0017	0,0022	0,0024	0,0028	155 (110 — 200)
M4	E	0.60	0.019	0.026	0.032	0.038	0.048	0.055	0.060	36 (24 — 47)
		0,60	0,00075	0,0010	0,0013	0,0015	0,0019	0,0022	0,0024	120 (79 — 150)
M5	E	0.60	0.019	0.026	0.032	0.038	0.048	0.055	0.060	30 (20 — 39)
		0,60	0,00075	0,0010	0,0013	0,0015	0,0019	0,0022	0,0024	100 (66 — 120)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

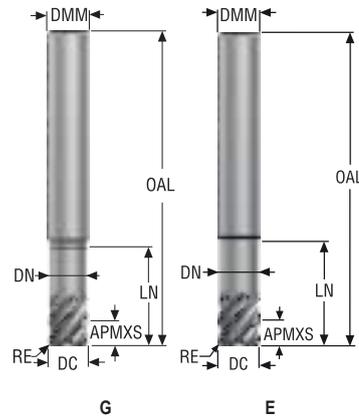
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

**JCG790**

High performance – Square – Superalloy – 5-6 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,1 mm
- RE= ±0,05 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JCG790060E2R050.0Z5	10010512	2	E	6,0	6,0	6,0	59,0	15,0	5,7	0,5	5	Cylindrical	■
JCG790080E2R050.0Z5	10010513	2	E	8,0	8,0	6,0	67,0	20,0	7,6	0,5	5	Cylindrical	■
JCG790094G2R100.0Z6	10010514	2	G	9,4	10,0	6,0	75,0	23,5	9,0	1,0	6	Cylindrical	■
JCG790100E2R100.0Z6	10010515	2	E	10,0	10,0	6,0	75,0	25,0	9,5	1,0	6	Cylindrical	■
JCG790114G2R150.0Z6	10010516	2	G	11,4	12,0	6,0	82,0	28,5	10,9	1,5	6	Cylindrical	■
JCG790120E2R150.0Z6	10010517	2	E	12,0	12,0	6,0	82,0	30,0	11,4	1,5	6	Cylindrical	■
JCG790160E2R200.0Z6	10010518	2	E	16,0	16,0	8,0	93,0	40,0	15,2	2,0	6	Cylindrical	■
JCG790200E2R300.0Z6	10010519	2	E	20,0	20,0	8,0	103,0	50,0	19,0	3,0	6	Cylindrical	■
JCG790250E2R400.0Z6	10010520	2	E	25,0	25,0	8,0	108,0	50,0	23,8	4,0	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JCG790 Side milling roughing

SMG		a <sub>e</sub> /DC	APMXS	f <sub>z</sub>						v <sub>c</sub>	
				6	8	10	12	16	20		25
S1	A/D	0.0500	1	0.018	0.024	0.030	0.036	0.048	0.060	0.075	830 (420 — 1300)
		0,0500	1	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	2725 (1400 — 4200)
S2	A/D	0.0500	1	0.018	0.024	0.030	0.036	0.048	0.060	0.075	670 (340 — 1100)
		0,0500	1	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	2200 (1200 — 3600)
S3	A/D	0.0500	1	0.018	0.024	0.030	0.036	0.048	0.060	0.075	570 (290 — 950)
		0,0500	1	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	1875 (960 — 3100)

## Cutting data – JCG790 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>	
			6	8	10	12	16	20		25
S1	A/D	0.05	0.018	0.024	0.030	0.036	0.048	0.060	0.075	830 (420 — 1300)
		0,05	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	2725 (1400 — 4200)
S2	A/D	0.05	0.018	0.024	0.030	0.036	0.048	0.060	0.075	670 (340 — 1100)
		0,05	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	2200 (1200 — 3600)
S3	A/D	0.05	0.018	0.024	0.030	0.036	0.048	0.060	0.075	570 (290 — 950)
		0,05	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0030	1875 (960 — 3100)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

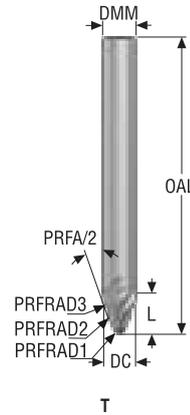
Graphite

X-Heads

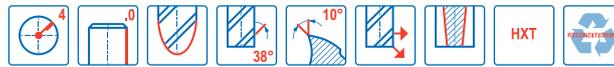
Minimaxter

**JH724**

High speed – ISO– M and ISO– S – Taper Shape – 4 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- PRFRAD1= ±0.03 mm
- Form tolerance PRFRAD2= 0.02 mm
- Regrind possible if PRFRAD is ≥1,5



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	L	APMXS	OAL	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	FCEDC	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
JH724100T2R2R030.0Z4	HXT	10106106	2	T	10,0	10,0	12,3	12,3	89,0	2,0	30,0	5,0	20,0	4	4	Cylindrical	■
JH724100T2R2R050.0Z4	HXT	10106107	2	T	10,0	10,0	12,5	12,5	89,0	2,0	50,0	5,0	20,0	4	4	Cylindrical	■
JH724100T2R3R100.0Z4	HXT	10106108	2	T	10,0	10,0	10,7	10,7	89,0	3,0	100,0	5,0	20,0	4	4	Cylindrical	■
JH724100T2R3R250.0Z4	HXT	10106109	2	T	10,0	10,0	10,8	10,8	89,0	3,0	250,0	5,0	20,0	4	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JH724 Copy milling finishing

SMG		a <sub>e</sub> /DC		f <sub>z</sub>	v <sub>c</sub>
				10	
P12	E	0,010 0.010		0,05 0.0022	120 (95 - 135) 400 (310 - 445)
M1	E	0,010 0.010		0,05 0.0022	150 (125 - 155) 490 (410 - 510)
M2	E	0,010 0.010		0,05 0.0022	145 (120 - 150) 475 (400 - 490)
M3	E	0,010 0.010		0,05 0.0022	130 (95 - 140) 425 (310 - 460)
S2	E	0,010 0.010		0,05 0.0022	65 (55 - 75) 215 (180 - 245)
S11	E	0,010 0.010		0,05 0.0022	130 (95 - 140) 425 (310 - 475)
S12	E	0,010 0.010		0,05 0.0022	120 (95 - 135) 400 (310 - 445)
S13	E	0,010 0.010		0,05 0.0022	95 (80 - 100) 310 (260 - 320)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

 Steel and cast  
iron

 Stainless steel  
and S-materials

Non ferrous

Hard

Plastic and cfrp

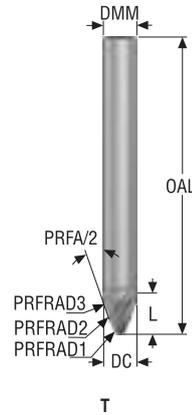
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X-Heads

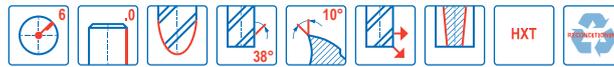
Minimaxter

JH726

High speed – ISO– M and ISO– S – Taper Shape – 6 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- PRFRAD1= ±0.03 mm
- Form tolerance PRFRAD2= 0.02 mm
- Regrind possible if PRFRAD is ≥1,5



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	L	APMXS	OAL	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
JH726100T2R2R030.0Z6	HXT	10106110	2	T	10,0	10,0	10,8	10,8	89,0	2,0	30,0	5,0	20,0	6	Cylindrical	■
JH726100T2R2R050.0Z6	HXT	10106111	2	T	10,0	10,0	10,7	10,7	89,0	2,0	50,0	5,0	20,0	6	Cylindrical	■
JH726100T2R3R100.0Z6	HXT	10106112	2	T	10,0	10,0	12,3	12,3	89,0	3,0	100,0	5,0	20,0	6	Cylindrical	■
JH726100T2R3R250.0Z6	HXT	10106113	2	T	10,0	10,0	12,5	12,5	89,0	3,0	250,0	5,0	20,0	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JH726 Copy milling finishing

SMG		a <sub>e</sub> /DC		f <sub>z</sub>	v <sub>c</sub>
				10	
P12	E	0,010 0.010		0,05 0.0022	120 (95 - 135) 400 (310 - 445)
M1	E	0,010 0.010		0,05 0.0022	150 (125 - 155) 490 (410 - 510)
M2	E	0,010 0.010		0,05 0.0022	145 (120 - 150) 475 (400 - 490)
M3	E	0,010 0.010		0,05 0.0022	130 (95 - 140) 425 (310 - 460)
S2	E	0,010 0.010		0,05 0.0022	65 (55 - 75) 215 (180 - 245)
S11	E	0,010 0.010		0,05 0.0022	130 (95 - 140) 425 (310 - 475)
S12	E	0,010 0.010		0,05 0.0022	120 (95 - 135) 400 (310 - 445)
S13	E	0,010 0.010		0,05 0.0022	95 (80 - 100) 310 (260 - 320)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

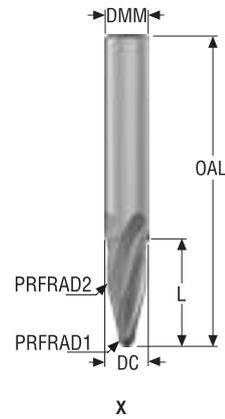
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X-Heads

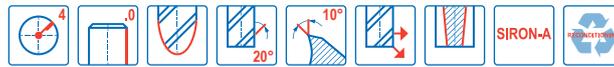
Minimax

**JH734**

High speed – ISO– M and ISO– S – Drop Shape – 4 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- PRFRAD1= ±0.03mm
- Form tolerance PRFRAD2= 0.02mm
- Regrind possible if PRFRAD is ≥1,5



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	L	APMXS	OAL	PRFRAD1	PRFRAD2	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JH734060X2R1R95.0Z4	SIRA	10044783	2	X	6,0	6,0	20,8	18,39	62,0	1,0	95,0	4	Cylindrical	■
JH734080X2R1R90.0Z4	SIRA	10044784	2	X	8,0	8,0	24,5	22,05	68,0	1,0	90,0	4	Cylindrical	■
JH734100X2R2R85.0Z4	SIRA	10044785	2	X	10,0	10,0	24,7	22,29	72,0	2,0	85,0	4	Cylindrical	■
JH734120X2R2R80.0Z4	SIRA	10044786	2	X	12,0	12,0	27,3	24,87	83,0	2,0	80,0	4	Cylindrical	■
JH734160X2R3R75.0Z4	SIRA	10044787	2	X	16,0	16,0	30,1	27,61	92,0	3,0	75,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH734 Copy milling finishing

SMG	🔧	a <sub>g</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
			6	8	10	12	16	
P8	E	0,010	0,03	0,04	0,05	0,06	0,08	170 (150 - 195)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	560 (490 - 640)
P12	E	0,010	0,03	0,04	0,05	0,06	0,08	120 (95 - 135)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	400 (310 - 445)
M1	E	0,010	0,03	0,04	0,05	0,06	0,08	150 (125 - 155)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	490 (410 - 510)
M2	E	0,010	0,03	0,04	0,05	0,06	0,08	145 (120 - 150)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	475 (400 - 490)
M3	E	0,010	0,03	0,04	0,05	0,06	0,08	130 (90 - 140)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	425 (295 - 460)
S2	E	0,010	0,03	0,04	0,05	0,06	0,08	60 (50 - 70)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	195 (165 - 230)
S11	E	0,010	0,03	0,04	0,05	0,06	0,08	100 (85 - 105)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	320 (280 - 345)
S12	E	0,010	0,03	0,04	0,05	0,06	0,08	95 (80 - 100)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	310 (260 - 320)
S13	E	0,010	0,03	0,04	0,05	0,06	0,08	90 (75 - 95)
		0.010	0.0012	0.0016	0.0022	0.0024	0.0032	295 (245 - 310)

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

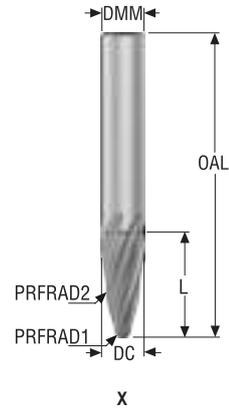
Graphite

X-Heads

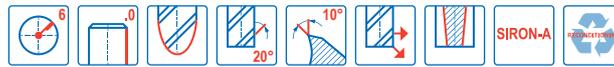
Minimaster

**JH736**

High speed – ISO– M and ISO– S – Drop Shape – 6 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- PRFRAD1= ±0.03mm
- Form tolerance PRFRAD2= 0.02mm
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	L	APMXS	OAL	PRFRAD1	PRFRAD2	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JH736100X2R2R85.0Z6	SIRA	10044834	2	X	10,0	10,0	24,7	22,29	72,0	2,0	85,0	6	Cylindrical	■
JH736120X2R2R80.0Z6	SIRA	10044835	2	X	12,0	12,0	27,3	24,87	83,0	2,0	80,0	6	Cylindrical	■
JH736160X2R3R75.0Z6	SIRA	10044836	2	X	16,0	16,0	30,1	27,61	92,0	3,0	75,0	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH736 Copy milling finishing

SMG	Coolant	a <sub>e</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			10	12	16	
P8	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	170 (150 - 195) 560 (490 - 640)
P12	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	120 (95 - 135) 400 (310 - 445)
M1	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	150 (125 - 155) 490 (410 - 510)
M2	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	145 (120 - 150) 475 (400 - 490)
M3	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	130 (90 - 140) 425 (295 - 460)
S2	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	60 (50 - 70) 195 (165 - 230)
S11	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	100 (85 - 105) 320 (280 - 345)
S12	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	95 (80 - 100) 310 (260 - 320)
S13	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	90 (75 - 95) 295 (245 - 310)

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

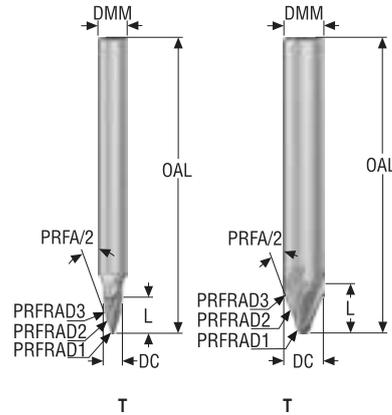
Graphite

X-Heads

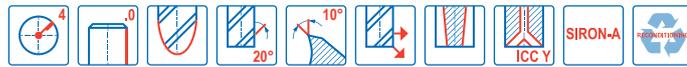
Minimaster

**JH744**

High speed – ISO– M and ISO– S – Taper Shape – 4 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- PRFRAD1= ±0.03mm
- Form tolerance PRFRAD2= 0.02mm
- Regrind possible if PRFRAD1 is ≥1,5



Designation	Grade	Item number	Length index	Tool shape	CSP	DC	DMM	L	APMXS	OAL	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
JH744100T1R1.5R250.0Z4	SIRA	10044920	1	T	–	10,0	10,0	5,4	1,62	72,0	1,5	250,0	2,0	65,0	4	Cylindrical	■
JH744120T1R3R250.0Z4	SIRA	10044921	1	T	–	12,0	12,0	10,5	5,33	89,0	3,0	250,0	6,0	32,5	4	Cylindrical	■
JH744160T1R4R500.0Z4	SIRA	10044922	1	T	–	16,0	16,0	14,6	8,95	108,0	4,0	500,0	8,0	27,5	4	Cylindrical	■
JH744040T2R0.5R250.0Z4	SIRA	10044923	2	T	–	4,0	6,0	7,6	4,7	62,0	0,5	250,0	3,0	17,5	4	Cylindrical	■
JH744060T2R1R250.0Z4	SIRA	10044924	2	T	–	6,0	6,0	9,6	6,71	62,0	1,0	250,0	3,0	17,5	4	Cylindrical	■
JH744080T2R1.5R250.0Z4	SIRA	10044925	2	T	–	8,0	8,0	10,7	7,42	68,0	1,5	250,0	4,0	20,0	4	Cylindrical	■
JH744100T2R2R250.0Z4	SIRA	10044926	2	T	–	10,0	10,0	12,7	9,04	75,0	2,0	250,0	5,0	20,0	4	Cylindrical	■
JH744120T2R3R250.0Z4	SIRA	10044927	2	T	–	12,0	12,0	13,7	9,71	89,0	3,0	250,0	6,0	20,0	4	Cylindrical	■
JH744160T2R4R500.0Z4	SIRA	10044928	2	T	–	16,0	16,0	17,6	12,94	108,0	4,0	500,0	8,0	20,0	4	Cylindrical	■
JH744160T2R2R1000.0Z4	SIRA	10044929	2	T	–	16,0	16,0	31,3	28,27	108,0	2,0	1000,0	5,0	12,5	4	Cylindrical	■
JH744160T2R4R1000.0Z4	SIRA	10044930	2	T	–	16,0	16,0	24,1	21,02	108,0	4,0	1000,0	5,0	12,5	4	Cylindrical	■
JH744160T4R4R1000.0Z4A	SIRA	10044931	4	T	■	16,0	16,0	24,1	21,02	150,0	4,0	1000,0	5,0	12,5	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH744 Copy milling finishing

SMG	Coolant	a <sub>e</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
			4	6	8	10	12	16	
P8	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	170 (150 - 195)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	560 (490 - 640)
P12	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	120 (95 - 135)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	400 (310 - 445)
M1	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	150 (125 - 155)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	490 (410 - 510)
M2	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	145 (120 - 150)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	475 (400 - 490)
M3	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	130 (90 - 140)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	425 (295 - 460)
S2	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	60 (50 - 70)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	195 (165 - 230)
S11	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	100 (85 - 105)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	320 (280 - 345)
S12	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	95 (80 - 100)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	310 (260 - 320)
S13	E	0,010	0,02	0,03	0,04	0,05	0,06	0,08	90 (75 - 95)
		0.010	0.0008	0.0012	0.0016	0.0022	0.0024	0.0032	295 (245 - 310)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

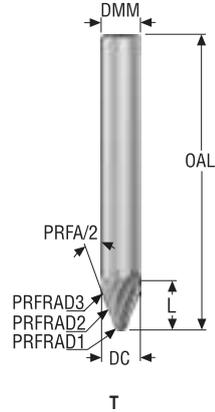
Graphite

X-Heads

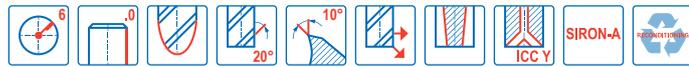
Minimaster

JH746

High speed – ISO– M and ISO– S – Taper Shape – 6 Flutes – Cylindrical



- Tolerances:
- DMM= h5
- PRFRAD1= ±0.03mm
- Form tolerance PRFRAD2= 0.02mm
- Regrind possible



Designation	Grade	Item number	Length index	Tool shape	CSP	DC	DMM	L	APMXS	OAL	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	FCEDC	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		
JH746100T2R2R250.0Z6	SIRA	10044958	2	T	-	10,0	10,0	12,7	9,04	75,0	2,0	250,0	5,0	20,0	6	6	Cylindrical	■
JH746120T2R3R250.0Z6	SIRA	10044959	2	T	-	12,0	12,0	13,7	9,71	89,0	3,0	250,0	6,0	20,0	6	6	Cylindrical	■
JH746160T2R4R500.0Z6	SIRA	10044960	2	T	-	16,0	16,0	17,6	12,94	108,0	4,0	500,0	8,0	20,0	6	6	Cylindrical	■
JH746160T4R4R500.0Z6A	SIRA	10044961	4	T	■	16,0	16,0	17,6	12,94	150,0	4,0	500,0	8,0	20,0	6	6	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – JH746 Copy milling finishing

SMG	Coolant	a <sub>e</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			10	12	16	
P8	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	170 (150 - 195) 560 (490 - 640)
P12	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	120 (95 - 135) 400 (310 - 445)
M1	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	150 (125 - 155) 490 (410 - 510)
M2	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	145 (120 - 150) 475 (400 - 490)
M3	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	130 (90 - 140) 425 (295 - 460)
S2	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	60 (50 - 70) 195 (165 - 230)
S11	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	100 (85 - 105) 320 (280 - 345)
S12	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	95 (80 - 100) 310 (260 - 320)
S13	E	0,010 0.010	0,05 0.0022	0,06 0.0024	0,08 0.0032	90 (75 - 95) 295 (245 - 310)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – JH746 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			10	12	16	
P12	E	0,025 0.025	0,03 0.0012	0,036 0.0014	0,048 0.0019	120 (95 - 135) 400 (310 - 445)
M1	E	0,025 0.025	0,03 0.0012	0,036 0.0014	0,048 0.0019	145 (120 - 150) 475 (400 - 490)
M2	E	0,025 0.025	0,03 0.0012	0,036 0.0014	0,048 0.0019	145 (120 - 150) 475 (400 - 490)
S12	E	0,025 0.025	0,03 0.0012	0,036 0.0014	0,048 0.0019	95 (80 - 100) 310 (270 - 320)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

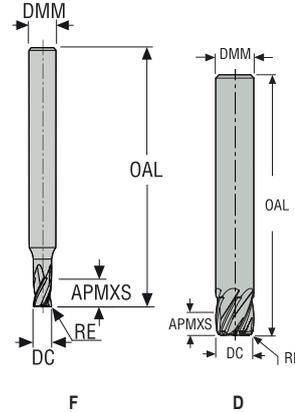
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

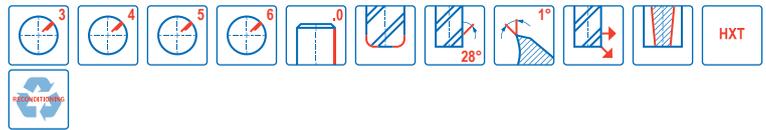
All cutting data are target values

**JH770**

High speed – CoCr/Titanium – Square – 3-4-5-6 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm	
JH770030F2R020.0Z3-HXT	03320783	2	F	3,0	6,0	5,0	58,0	6,0	3,05	0,2	3	Cylindrical	■
JH770040F2R020.0Z4-HXT	03320784	2	F	4,0	6,0	6,0	58,0	7,0	4,05	0,2	4	Cylindrical	■
JH770050F2R020.0Z4-HXT	10000170	2	F	5,0	6,0	7,0	58,0	8,0	5,05	0,2	4	Cylindrical	■
JH770060D2R050.0Z4-HXT	03127351	2	D	6,0	6,0	8,0	50,0	-	-	0,5	4	Cylindrical	■
JH770080D2R050.0Z4-HXT	03127352	2	D	8,0	8,0	10,0	58,0	-	-	0,5	4	Cylindrical	■
JH770080D2R050.0Z5-HXT	03127354	2	D	8,0	8,0	10,0	58,0	-	-	0,5	5	Cylindrical	■
JH770080D2R100.0Z4-HXT	03127353	2	D	8,0	8,0	10,0	58,0	-	-	1,0	4	Cylindrical	■
JH770080D2R100.0Z5-HXT	03127355	2	D	8,0	8,0	10,0	58,0	-	-	1,0	5	Cylindrical	■
JH770080D2R100.0Z6-HXT	03127356	2	D	8,0	8,0	10,0	58,0	-	-	1,0	6	Cylindrical	■
JH770100D2R100.0Z5-HXT	03127357	2	D	10,0	10,0	12,0	66,0	-	-	1,0	5	Cylindrical	■
JH770100D2R100.0Z6-HXT	03127358	2	D	10,0	10,0	12,0	66,0	-	-	1,0	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JH770 Side milling roughing PCEDC 3 and 4

SMG		a <sub>e</sub> /DC		f <sub>z</sub>				v <sub>c</sub>
				3	4	6	8	
S2	E	0.750	0.12	0.015	0.020	0.030	0.040	50 (42 – 62)
		0,750	0,12	0,00060	0,00080	0,0012	0,0016	165 (140 – 200)
S11	E	0.250	0.32	0.0075	0.010	0.015	0.020	65 (53 – 91)
		0,250	0,32	0,00030	0,00040	0,00060	0,00080	215 (180 – 290)
S12	E	0.250	0.32	0.0075	0.010	0.015	0.020	50 (41 – 70)
		0,250	0,32	0,00030	0,00040	0,00060	0,00080	165 (140 – 220)

## Cutting data – JH770 Side milling roughing PCEDC 6

SMG		a <sub>e</sub> /DC		f <sub>z</sub>		v <sub>c</sub>
				8	10	
S2	E	0.750	0.12	0.050	0.060	55 (43 – 64)
		0,750	0,12	0,0020	0,0024	180 (150 – 200)
S11	E	0.250	0.32	0.022	0.026	65 (54 – 93)
		0,250	0,32	0,00085	0,0010	215 (180 – 300)
S12	E	0.250	0.32	0.022	0.026	50 (42 – 71)
		0,250	0,32	0,00085	0,0010	165 (140 – 230)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

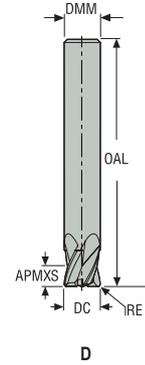
 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

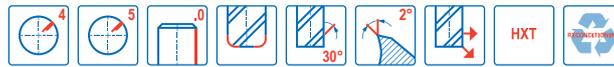
All cutting data are target values

**JH740**

High speed – CoCr/Titanium – Bottom finisher – 4-5 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JH740060D2R025.0Z4-HXT	03127359	2	D	6,0	6,0	6,0	50,0	0,25	4	Cylindrical	■
JH740060D2R050.0Z4-HXT	03127360	2	D	6,0	6,0	6,0	50,0	0,5	4	Cylindrical	■
JH740080D2R025.0Z4-HXT	03127361	2	D	8,0	8,0	8,0	58,0	0,25	4	Cylindrical	■
JH740080D2R050.0Z4-HXT	03127362	2	D	8,0	8,0	8,0	58,0	0,5	4	Cylindrical	■
JH740100D2R025.0Z5-HXT	03127363	2	D	10,0	10,0	10,0	66,0	0,25	5	Cylindrical	■
JH740100D2R050.0Z5-HXT	03127364	2	D	10,0	10,0	10,0	66,0	0,5	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JH740 Face finishing PCEDC 4

SMG		$a_e/DC$	$a_p/DC$	$f_z$		$v_c$
				6	8	
S2	E	0.500	0.0060	0.044	0.060	50 (40 — 59)
		0,500	0,0060	0,0017	0,0024	165 (140 — 190)
S11	E	0.500	0.0060	0.044	0.060	65 (52 — 77)
		0,500	0,0060	0,0017	0,0024	215 (180 — 250)
S12	E	0.500	0.0060	0.044	0.060	50 (40 — 59)
		0,500	0,0060	0,0017	0,0024	165 (140 — 190)

## Cutting data – JH740 Face finishing PCEDC 5

SMG		$a_e/DC$	$a_p/DC$	$f_z$		$v_c$
				10		
S2	E	0.500	0.0065	0.046		48 (39 — 58)
		0,500	0,0065	0,0018		155 (130 — 190)
S11	E	0.500	0.0065	0.046		65 (51 — 75)
		0,500	0,0065	0,0018		215 (170 — 240)
S12	E	0.500	0.0065	0.046		48 (39 — 58)
		0,500	0,0065	0,0018		155 (130 — 190)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 $v_c$  = m/min (sf/min)

 $f_z$  = mm (in/tooth)

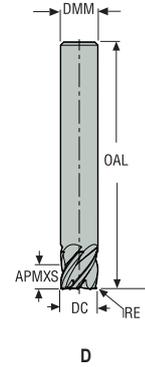
 $a_p$  = mm/DC (in/DC) = factor

 $a_e$  = mm/DC (in/DC) = factor

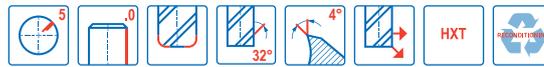
All cutting data are target values

**JH710**

High speed – CoCr/Titanium – Square – 5 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JH710060D2R025.0Z5-HXT	03127365	2	D	6,0	6,0	6,0	57,0	0,25	5	Cylindrical	■
JH710060D2R050.0Z5-HXT	03127366	2	D	6,0	6,0	6,0	57,0	0,5	5	Cylindrical	■
JH710080D2R025.0Z5-HXT	03127367	2	D	8,0	8,0	8,0	63,0	0,25	5	Cylindrical	■
JH710080D2R050.0Z5-HXT	03127368	2	D	8,0	8,0	8,0	63,0	0,5	5	Cylindrical	■
JH710080D2R100.0Z5-HXT	03127369	2	D	8,0	8,0	8,0	63,0	1,0	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JH710 Side milling finishing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>		v <sub>c</sub>
				6	8	
S1	E	0.00800 <i>0,00800</i>	0.65 <i>0,65</i>	0.034 <i>0,0013</i>	0.044 <i>0,0017</i>	100 (79 – 110) 330 (260 – 360)
S2	E	0.00800 <i>0,00800</i>	0.65 <i>0,65</i>	0.034 <i>0,0013</i>	0.044 <i>0,0017</i>	100 (79 – 110) 330 (260 – 360)
S3	E	0.00800 <i>0,00800</i>	0.65 <i>0,65</i>	0.034 <i>0,0013</i>	0.044 <i>0,0017</i>	100 (79 – 110) 330 (260 – 360)
S11	E	0.00800 <i>0,00800</i>	0.65 <i>0,65</i>	0.036 <i>0,0014</i>	0.046 <i>0,0018</i>	180 (160 – 200) 590 (530 – 650)
S12	E	0.00800 <i>0,00800</i>	0.65 <i>0,65</i>	0.036 <i>0,0014</i>	0.046 <i>0,0018</i>	135 (120 – 150) 445 (400 – 490)
S13	E	0.00800 <i>0,00800</i>	0.65 <i>0,65</i>	0.032 <i>0,0013</i>	0.040 <i>0,0016</i>	105 (92 – 120) 345 (310 – 390)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

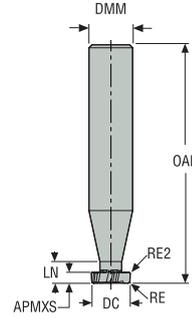
Graphite

X-Heads

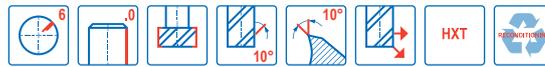
Minimaxter

**JH790**

High speed – CoCr/Titanium – T Cutter – 6 Flutes – Cylindrical


**G**

- Tolerances:
- DMM=h5
- DC= ±0,02 mm
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	RE2	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm				
JH790095G2R025.0Z6-HXT	03127370	2	G	9,5	10,0	2,0	66,0	5,0	5,0	0,25	0,25	0,94	6	Cylindrical	■
JH790095G2R050.0Z6-HXT	03127371	2	G	9,5	10,0	2,0	66,0	5,0	5,0	0,5	0,5	0,96	6	Cylindrical	■
JH790095G3R025.0Z6-HXT	03127372	3	G	9,5	10,0	2,54	66,0	5,0	5,0	0,25	0,25	0,94	6	Cylindrical	■
JH790095G3R050.0Z6-HXT	03127373	3	G	9,5	10,0	2,54	66,0	5,0	5,0	0,5	0,5	0,96	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JH790 (T) Side milling roughing

SMG		$a_p/DC$		$f_z$	$v_c$
				9.5	
S2	E	0.189 <i>0,189</i>	0.19 <i>0,19</i>	0.030 <i>0,0012</i>	39 (31 – 50) <i>130 (110 – 160)</i>
S11	E	0.189 <i>0,189</i>	0.19 <i>0,19</i>	0.022 <i>0,00085</i>	85 (66 – 100) <i>280 (220 – 320)</i>
S12	E	0.189 <i>0,189</i>	0.19 <i>0,19</i>	0.022 <i>0,00085</i>	65 (51 – 80) <i>215 (170 – 260)</i>

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

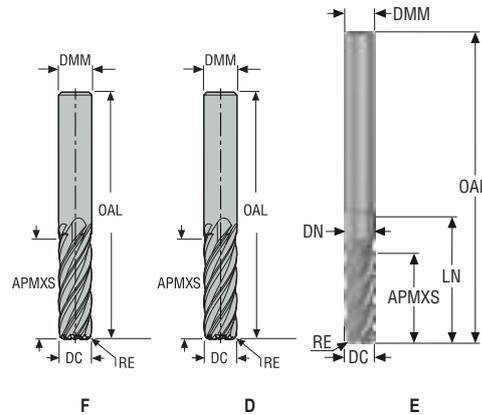
 $v_c = m/min (sf/min)$ 
 $f_z = mm (in/tooth)$ 
 $a_p = mm/DC (in/DC) = factor$ 
 $a_e = mm/DC (in/DC) = factor$ 

All cutting data are target values

 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaxter

**JH730**

High speed – CoCr/Titanium – Square – 5-6-7 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JH730060E2R050.0Z5-HXT	10217826	2	E	6,0	6,0	19,0	65,0	25,0	5,7	0,5	5	Cylindrical	■
JH730060E2R100.0Z5-HXT	10217827	2	E	6,0	6,0	19,0	65,0	25,0	5,7	1,0	5	Cylindrical	■
JH730060E2R150.0Z5-HXT	10217828	2	E	6,0	6,0	19,0	65,0	25,0	5,7	1,5	5	Cylindrical	■
JH730075F2R050.0Z6-HXT	10217829	2	F	7,5	8,0	24,0	63,0	–	–	0,5	6	Cylindrical	■
JH730075F2R100.0Z6-HXT	10217830	2	F	7,5	8,0	24,0	63,0	–	–	1,0	6	Cylindrical	■
JH730075F2R150.0Z6-HXT	10217831	2	F	7,5	8,0	24,0	63,0	–	–	1,5	6	Cylindrical	■
JH730080D2R050.0Z6-HXT	03127375	2	D	8,0	8,0	25,0	63,0	–	–	0,5	6	Cylindrical	■
JH730080D2R100.0Z6-HXT	03127377	2	D	8,0	8,0	25,0	63,0	–	–	1,0	6	Cylindrical	■
JH730080D2R150.0Z6-HXT	03127378	2	D	8,0	8,0	25,0	63,0	–	–	1,5	6	Cylindrical	■
JH730080D2R200.0Z6-HXT	03127379	2	D	8,0	8,0	25,0	63,0	–	–	2,0	6	Cylindrical	■
JH730100D2R100.0Z7-HXT	03127380	2	D	10,0	10,0	31,0	72,0	–	–	1,0	7	Cylindrical	■
JH730100D2R250.0Z7-HXT	03127381	2	D	10,0	10,0	31,0	72,0	–	–	2,5	7	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH730 Side milling finishing

SMG	Icon	a <sub>e</sub> /DC		f <sub>z</sub>				v <sub>c</sub>
		a <sub>e</sub> /DC	a <sub>p</sub> /DC	6	7.5	8	10	
S2	E	0,065	1,3	0,015	0,019	0,020	0,025	80 (63 — 94)
		0,065	1,3	0,00060	0,00075	0,00080	0,0010	260 (210 — 300)
S11	E	0,065	1,3	0,012	0,015	0,017	0,020	135 (110 — 160)
		0,065	1,3	0,00048	0,00060	0,00065	0,00080	445 (370 — 520)
S12	E	0,065	1,3	0,012	0,015	0,017	0,020	105 (84 — 120)
		0,065	1,3	0,00048	0,00060	0,00065	0,00080	345 (280 — 390)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

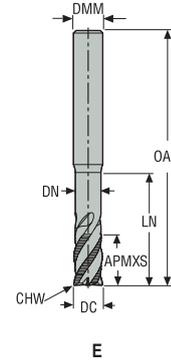
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

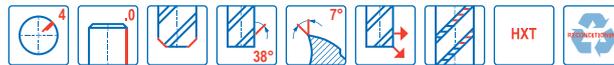
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

**JHP994**

High performance – CoCr/Titanium – Square – 4 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- CHW=0/-0,1 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JHP994060E3C.0Z4-HXT	03127382	3	E	■	6,0	6,0	14,0	63,0	24,0	5,6	0,2	4	Cylindrical	■
JHP994080E3C.0Z4-HXT	03127383	3	E	■	8,0	8,0	18,0	69,0	32,0	7,4	0,2	4	Cylindrical	■
JHP994100E3C.0Z4-HXT	03127384	3	E	■	10,0	10,0	22,0	88,0	40,0	9,4	0,2	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JHP994 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				6	8	10	
S2	E	0.0480	2.0	0.025	0.032	0.042	55 (40 – 69)
		0,0480	2,0	0,0010	0,0013	0,0017	180 (140 – 220)
S11	E	0.450	0.60	0.025	0.034	0.042	50 (39 – 77)
		0,450	0,60	0,0010	0,0013	0,0017	165 (130 – 250)
S12	E	0.450	0.60	0.025	0.034	0.042	40 (30 – 59)
		0,450	0,60	0,0010	0,0013	0,0017	130 (99 – 190)

## Cutting data – JHP994 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			6	8	10	
S2	E	2.0	0.011	0.014	0.018	33 (24 – 41)
		2,0	0,00044	0,00055	0,00070	110 (79 – 130)
S11	E	0.60	0.025	0.034	0.042	42 (32 – 63)
		0,60	0,0010	0,0013	0,0017	140 (110 – 200)
S12	E	0.60	0.025	0.034	0.042	33 (25 – 48)
		0,60	0,0010	0,0013	0,0017	110 (83 – 150)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

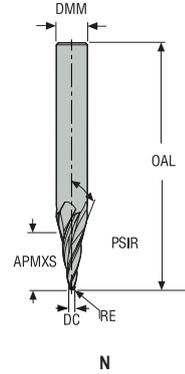
Graphite

X-Heads

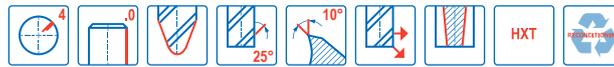
Minimax

**JH780**

High speed – CoCr/Titanium – Tapered ball nose – 4 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC= ±0,04 mm
- RE= ±0,01 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	RE	PSIR°	SIG°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
JH780018N2R100.0Z4-HXT	03127386	2	N	8,0	1,827	8,0	23,5	63,0	1,0	5,1838	10,3676	4	Cylindrical	■
JH780028N2R150.0Z4-HXT	03127387	2	N	8,0	2,803	8,0	23,5	63,0	1,5	3,8915	7,783	4	Cylindrical	■
JH780038N2R200.0Z4-HXT	03127388	2	N	8,0	3,823	8,0	23,5	63,0	2,0	2,5972	5,1944	4	Cylindrical	■
JH780049N2R250.0Z4-HXT	03127389	2	N	8,0	4,888	8,0	23,5	63,0	2,5	1,3003	2,6006	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – JH780 Copy milling roughing

SMG		$a_p/DC$		$f_z$				$v_c$
				1.8	2.8	3.8	4.9	
S2	E	0.0510	4.2	0.0080	0.012	0.017	0.022	70 (54 – 86)
		<i>0,0510</i>	4,2	<i>0,00032</i>	<i>0,00048</i>	<i>0,00065</i>	<i>0,00085</i>	230 (180 – 280)
S12	E	0.0510	4.2	0.0060	0.0090	0.013	0.016	95 (76 – 110)
		<i>0,0510</i>	4,2	<i>0,00024</i>	<i>0,00036</i>	<i>0,00050</i>	<i>0,00065</i>	310 (250 – 360)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 $v_c$  = m/min (sf/min)

 $f_z$  = mm (in/tooth)

 $a_p$  = mm/DC (in/DC) = factor

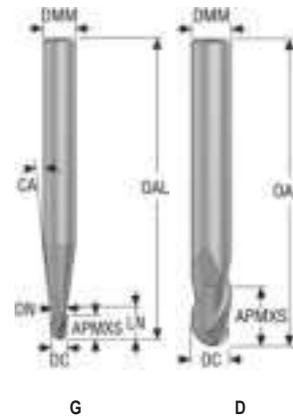
 $a_e$  = mm/DC (in/DC) = factor

All cutting data are target values

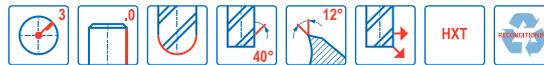
 Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaxter

**JHB720**

High speed – Titanium – Ball nose – 3 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
JHB720020G2B.0Z3	HXT	10072323	2	G	2,0	6,0	3,0	60,0	6,0	1,9	1,0	7,0	3	Cylindrical	■
JHB720030G2B.0Z3	HXT	10072324	2	G	3,0	6,0	4,5	60,0	6,5	2,8	1,5	5,0	3	Cylindrical	■
JHB720035G2B.0Z3	HXT	10072325	2	G	3,5	6,0	5,0	65,0	7,0	3,2	1,75	3,5	3	Cylindrical	■
JHB720040G2B.0Z3	HXT	10072326	2	G	4,0	6,0	6,0	65,0	8,0	3,7	2,0	3,0	3	Cylindrical	■
JHB720060D2B.0Z3	HXT	10072327	2	D	6,0	6,0	9,0	75,0	–	–	3,0	–	3	Cylindrical	■
JHB720080D2B.0Z3	HXT	10072328	2	D	8,0	8,0	12,0	75,0	–	–	4,0	–	3	Cylindrical	■
JHB720100D2B.0Z3	HXT	10072329	2	D	10,0	10,0	15,0	80,0	–	–	5,0	–	3	Cylindrical	■
JHB720120D2B.0Z3	HXT	10072330	2	D	12,0	12,0	18,0	90,0	–	–	6,0	–	3	Cylindrical	■
JHB720160D2B.0Z3	HXT	10072331	2	D	16,0	16,0	24,0	100,0	–	–	8,0	–	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JHB720 Side milling

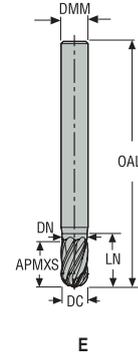
SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>									v <sub>c</sub>
				2	3	3.5	4	6	8	10	12	16	
M1	E	0.200	1.2	0.0080	0.012	0.014	0.016	0.024	0.032	0.040	0.048	0.060	85 (62 — 110)
		0,200	1,2	0,00032	0,00048	0,00055	0,00065	0,00095	0,0013	0,0016	0,0019	0,0024	280 (210 — 360)
		0.200	1.2	0.0080	0.012	0.014	0.016	0.024	0.032	0.040	0.048	0.060	70 (51 — 90)
		0,200	1,2	0,00032	0,00048	0,00055	0,00065	0,00095	0,0013	0,0016	0,0019	0,0024	230 (170 — 290)
		0.200	1.2	0.0080	0.012	0.014	0.016	0.024	0.032	0.040	0.048	0.060	65 (46 — 84)
M2	E	0.200	1.2	0.0070	0.011	0.012	0.014	0.022	0.028	0.034	0.042	0.050	50 (35 — 65)
		0,200	1,2	0,00028	0,00044	0,00048	0,00055	0,00085	0,0011	0,0013	0,0017	0,0020	165 (120 — 210)
		0.200	1.2	0.0070	0.011	0.012	0.014	0.022	0.028	0.034	0.042	0.050	42 (29 — 54)
		0,200	1,2	0,00028	0,00044	0,00048	0,00055	0,00085	0,0011	0,0013	0,0017	0,0020	140 (96 — 170)
		0.400	1.2	0.020	0.030	0.036	0.040	0.060	0.080	0.10	0.12	0.15	600 (500 — 690)
N1	E/M/A	0.400	1.2	0.0065	0.0095	0.011	0.013	0.019	0.026	0.032	0.038	0.048	43 (29 — 57)
		0,400	1,2	0,00080	0,0012	0,0014	0,0016	0,0024	0,0032	0,0040	0,0048	0,0060	1975 (1700 — 2200)
		0.400	1.2	0.016	0.024	0.028	0.032	0.048	0.065	0.080	0.095	0.12	500 (400 — 600)
		0,400	1,2	0,00065	0,00095	0,0011	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	1650 (1400 — 1900)
		0.400	1.2	0.016	0.024	0.028	0.032	0.048	0.065	0.080	0.095	0.12	335 (270 — 400)
N2	E/M/A	0.400	1.2	0.0065	0.0095	0.011	0.013	0.019	0.026	0.032	0.038	0.048	43 (29 — 57)
		0,400	1,2	0,00080	0,0012	0,0014	0,0016	0,0024	0,0032	0,0040	0,0048	0,0060	1975 (1700 — 2200)
		0.400	1.2	0.016	0.024	0.028	0.032	0.048	0.065	0.080	0.095	0.12	500 (400 — 600)
		0,400	1,2	0,00065	0,00095	0,0011	0,0013	0,0019	0,0026	0,0032	0,0038	0,0048	1650 (1400 — 1900)
		0.400	1.2	0.016	0.024	0.028	0.032	0.048	0.065	0.080	0.095	0.12	335 (270 — 400)
N3	E/M/A	0.400	1.2	0.012	0.018	0.022	0.024	0.036	0.048	0.060	0.070	0.090	300 (260 — 340)
		0,400	1,2	0,00048	0,00070	0,00085	0,00095	0,0014	0,0019	0,0024	0,0028	0,0036	980 (860 — 1100)
		0.300	1.2	0.010	0.015	0.018	0.020	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
		0,300	1,2	0,00040	0,00060	0,00070	0,00080	0,0012	0,0016	0,0020	0,0024	0,0030	230 (210 — 260)
		0.300	1.2	0.010	0.015	0.018	0.020	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
S1	E	0.300	1.2	0.0085	0.013	0.015	0.017	0.026	0.034	0.044	0.050	0.065	55 (48 — 63)
		0,300	1,2	0,00034	0,00050	0,00060	0,00065	0,0010	0,0013	0,0017	0,0020	0,0026	180 (160 — 200)
		0.400	1.2	0.020	0.030	0.036	0.040	0.060	0.080	0.10	0.12	0.15	500 (400 — 600)
		0,400	1,2	0,00080	0,0012	0,0014	0,0016	0,0024	0,0032	0,0040	0,0048	0,0060	1650 (1400 — 1900)
		0.400	1.2	0.020	0.030	0.036	0.040	0.060	0.080	0.10	0.12	0.15	500 (400 — 600)
S2	E	0.400	1.2	0.0080	0.012	0.014	0.016	0.024	0.032	0.040	0.048	0.060	85 (62 — 110)
		0,400	1,2	0,00032	0,00048	0,00055	0,00065	0,00095	0,0013	0,0016	0,0019	0,0024	280 (210 — 360)
		0.400	1.2	0.0080	0.012	0.014	0.016	0.024	0.032	0.040	0.048	0.060	70 (51 — 90)
		0,400	1,2	0,00032	0,00048	0,00055	0,00065	0,00095	0,0013	0,0016	0,0019	0,0024	230 (170 — 290)
		0.400	1.2	0.0080	0.012	0.014	0.016	0.024	0.032	0.040	0.048	0.060	65 (46 — 84)
S3	E	0.200	1.2	0.0070	0.011	0.012	0.014	0.022	0.028	0.034	0.042	0.050	42 (29 — 54)
		0,200	1,2	0,00028	0,00044	0,00048	0,00055	0,00085	0,0011	0,0013	0,0017	0,0020	165 (120 — 210)
		0.200	1.2	0.0070	0.011	0.012	0.014	0.022	0.028	0.034	0.042	0.050	42 (29 — 54)
		0,200	1,2	0,00028	0,00044	0,00048	0,00055	0,00085	0,0011	0,0013	0,0017	0,0020	140 (96 — 170)
		0.200	1.2	0.0070	0.011	0.012	0.014	0.022	0.028	0.034	0.042	0.050	42 (29 — 54)
S11	E	0.300	1.2	0.010	0.015	0.018	0.020	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
		0,300	1,2	0,00040	0,00060	0,00070	0,00080	0,0012	0,0016	0,0020	0,0024	0,0030	230 (210 — 260)
		0.300	1.2	0.010	0.015	0.018	0.020	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
		0,300	1,2	0,00040	0,00060	0,00070	0,00080	0,0012	0,0016	0,0020	0,0024	0,0030	230 (210 — 260)
		0.300	1.2	0.010	0.015	0.018	0.020	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
S12	E	0.300	1.2	0.0085	0.013	0.015	0.017	0.026	0.034	0.044	0.050	0.065	55 (48 — 63)
		0,300	1,2	0,00034	0,00050	0,00060	0,00065	0,0010	0,0013	0,0017	0,0020	0,0026	180 (160 — 200)
		0.300	1.2	0.0085	0.013	0.015	0.017	0.026	0.034	0.044	0.050	0.065	55 (48 — 63)
		0,300	1,2	0,00034	0,00050	0,00060	0,00065	0,0010	0,0013	0,0017	0,0020	0,0026	180 (160 — 200)
		0.300	1.2	0.0085	0.013	0.015	0.017	0.026	0.034	0.044	0.050	0.065	55 (48 — 63)
S13	E	0.300	1.2	0.010	0.015	0.018	0.020	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
		0,300	1,2	0,00040	0,00060	0,00070	0,00080	0,0012	0,0016	0,0020	0,0024	0,0030	230 (210 — 260)
		0.300	1.2	0.010	0.015	0.018	0.020	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
		0,300	1,2	0,00040	0,00060	0,00070	0,00080	0,0012	0,0016	0,0020	0,0024	0,0030	230 (210 — 260)
		0.300	1.2	0.010	0.015	0.018	0.020	0.030	0.040	0.050	0.060	0.075	70 (61 — 80)
TS1	A	0.400	1.2	0.020	0.030	0.036	0.040	0.060	0.080	0.10	0.12	0.15	500 (400 — 600)
		0,400	1,2	0,00080	0,0012	0,0014	0,0016	0,0024	0,0032	0,0040	0,0048	0,0060	1650 (1400 — 1900)
TP1	M	0.400	1.2	0.020	0.030	0.036	0.040	0.060	0.080	0.10	0.12	0.15	500 (400 — 600)
		0,400	1,2	0,00080	0,0012	0,0014	0,0016	0,0024	0,0032	0,0040	0,0048	0,0060	1650 (1400 — 1900)

For cutting data recalculations, see pages 687 – 695

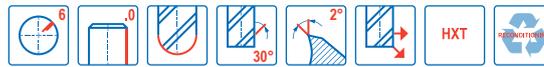
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JH721

High speed – CoCr/Titanium – Ball nose – 6 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,02 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JH721060E2B.0Z6-HXT	03127390	2	E	6,0	6,0	10,0	57,0	12,0	5,6	2,987	6	Cylindrical	■
JH721080E2B.0Z6-HXT	03127391	2	E	8,0	8,0	13,0	58,0	16,0	7,4	3,98375	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH721 Copy milling finishing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>		v <sub>c</sub>
				6	8	
S2	E	0.0424	0.040	0.032	0.042	120 (110 – 140)
		0,0424	0,040	0,0013	0,0017	395 (370 – 450)
S11	E	0.0424	0.040	0.032	0.042	210 (140 – 230)
		0,0424	0,040	0,0013	0,0017	690 (460 – 750)
S12	E	0.0424	0.040	0.032	0.042	160 (110 – 180)
		0,0424	0,040	0,0013	0,0017	520 (370 – 590)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

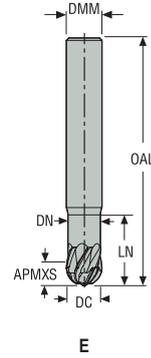
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

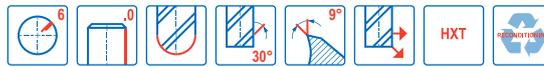
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

JH722

High speed – CoCr/Titanium – Ball nose – 6 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=e7
- RE= ±0,01 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
JH722100E2B.0Z6-HXT	03127392	2	E	10,0	10,0	10,0	72,0	20,0	9,4	4,98375	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH722 Copy milling finishing

SMG		$a_e/DC$	$a_p/DC$	$f_z$	$v_c$
				10	
S2	E	0.0500 <i>0,0500</i>	0.15 <i>0,15</i>	0.065 <i>0,0026</i>	125 (110 – 150) 410 (370 – 490)
S11	E	0.0500 <i>0,0500</i>	0.15 <i>0,15</i>	0.048 <i>0,0019</i>	210 (190 – 230) 690 (630 – 750)
S12	E	0.0500 <i>0,0500</i>	0.15 <i>0,15</i>	0.048 <i>0,0019</i>	160 (150 – 180) 520 (500 – 590)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

$v_c$  = m/min (*sf/min*)

$f_z$  = mm (*in/tooth*)

$a_p$  = mm/DC (*in/DC*) = factor

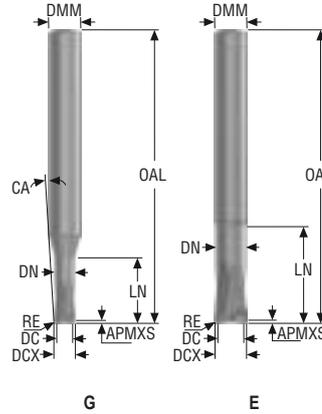
$a_e$  = mm/DC (*in/DC*) = factor

All cutting data are target values

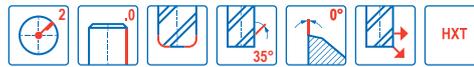
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

SHF712

High feed – ISO- S – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC G- Shape = 0/-0,01 mm
- DC E- Shape = 0,005/-0,015 mm
- RE = ±0,005 mm



Designation	Grade	Item number	Length index	Tool shape	DCX	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PSIR°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm			
SHF712040G2R050.0Z2	HXT	10106493	2	G	4,0	3,0	6,0	0,5	55,0	12,0	3,8	0,5	3,9	1,5	2	Cylindrical	■
SHF712060E2R050.0Z2	HXT	10106494	2	E	6,0	5,0	6,0	0,5	55,0	18,0	5,7	0,5	-	1,5	2	Cylindrical	■
SHF712030G3R050.0Z2	HXT	10106495	3	G	3,0	2,0	6,0	0,5	55,0	12,0	2,85	0,5	5,65	1,5	2	Cylindrical	■
SHF712040G3R050.0Z2	HXT	10106496	3	G	4,0	3,0	6,0	0,5	55,0	16,0	3,8	0,5	3,07	1,5	2	Cylindrical	■
SHF712060E3R050.0Z2	HXT	10106497	3	E	6,0	5,0	6,0	0,5	55,0	25,0	5,7	0,5	-	1,5	2	Cylindrical	■
SHF712030G4R050.0Z2	HXT	10106498	4	G	3,0	2,0	6,0	0,5	55,0	16,0	2,85	0,5	4,47	1,5	2	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

## Cutting data – SFH712 Side milling

SMG		a <sub>e</sub> /DCX		f <sub>z</sub>			v <sub>c</sub>
				3	4	6	
S2	E	0,30	0,050	0,055	0,075	0,11	65 (51 – 76)
		0,30	0,050	0,0022	0,0030	0,0044	215 (170 – 240)
S12	E	0,30	0,050	0,085	0,12	0,17	170 (150 – 190)
		0,30	0,050	0,0034	0,0048	0,0065	560 (500 – 620)

## Cutting data – SFH712 Slot milling

SMG		a <sub>p</sub> /DCX		f <sub>z</sub>			v <sub>c</sub>
				3	4	6	
S2	E	0,050	0,046	0,060	0,090	50 (41 – 60)	
		0,050	0,0018	0,0024	0,0036	165 (140 – 190)	
S12	E	0,050	0,046	0,060	0,090	145 (130 – 160)	
		0,050	0,0018	0,0024	0,0036	475 (430 – 520)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

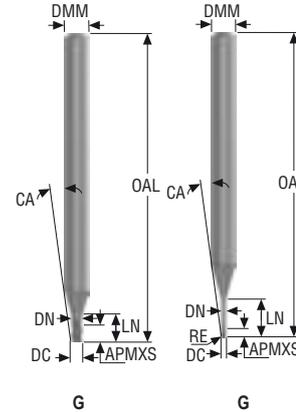
Graphite

X-Heads

Minimaxter

## SME714/716

Miniature – ISO– S – Square – 2-3 Flutes – Cylindrical – Sharp or corner radius



- Tolerances:
- Run-out = <math><0,005\text{ mm}</math>
- DMM = h5
- DC = 0/-0,01 mm
- RE =  $\pm 0,005\text{ mm}$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm			
SME714020G1S.0Z3	HXT	10107349	1	G	2,0	4,0	2,0	50,0	4,0	1,9	–	6,86	3	Cylindrical	■
SME716020G1S.0Z3	HXT	10107360	1	G	2,0	6,0	2,0	50,0	4,0	1,9	–	9,42	3	Cylindrical	■
SME714020G3R010.0Z3	HXT	10107350	3	G	2,0	4,0	2,5	50,0	8,0	1,9	0,1	4,68	3	Cylindrical	■
SME716020G3R010.0Z3	HXT	10107361	3	G	2,0	6,0	2,5	50,0	8,0	1,9	0,1	7,14	3	Cylindrical	■
SME716010G4R010.0Z3	HXT	10107362	4	G	1,0	6,0	1,2	50,0	6,0	0,95	0,1	9,03	3	Cylindrical	■
SME716015G4R010.0Z3	HXT	10107363	4	G	1,5	6,0	1,8	50,0	10,0	1,4	0,1	6,79	3	Cylindrical	■
SME714010G4R010.0Z3	HXT	10107351	4	G	2,0	4,0	1,2	50,0	6,0	0,95	0,1	7,13	3	Cylindrical	■
SME714015G4R010.0Z3	HXT	10107352	4	G	2,0	4,0	1,8	50,0	10,0	1,4	0,1	4,72	3	Cylindrical	■
SME714020G4R010.0Z3	HXT	10107353	4	G	2,0	4,0	2,5	50,0	12,0	1,9	0,1	3,53	3	Cylindrical	■
SME716020G4R010.0Z3	HXT	10107364	4	G	2,0	6,0	2,5	50,0	12,0	1,9	0,1	5,72	3	Cylindrical	■
SME714015G5R010.0Z3	HXT	10107354	5	G	1,5	4,0	1,8	50,0	12,0	1,4	0,1	3,38	3	Cylindrical	■
SME716015G5R010.0Z3	HXT	10107365	5	G	1,5	6,0	1,8	50,0	12,0	1,4	0,1	6,15	3	Cylindrical	■
SME714020G5R010.0Z3	HXT	10107355	5	G	2,0	4,0	2,5	50,0	16,0	1,9	0,1	2,83	3	Cylindrical	■
SME716020G5R010.0Z3	HXT	10107366	5	G	2,0	6,0	2,5	50,0	16,0	1,9	0,1	4,77	3	Cylindrical	■
SME714005G6R005.0Z2	HXT	10107356	6	G	0,5	4,0	0,6	50,0	5,0	0,45	0,05	8,31	2	Cylindrical	■
SME716005G6R005.0Z2	HXT	10107367	6	G	0,5	6,0	0,6	50,0	5,0	0,45	0,05	9,93	2	Cylindrical	■
SME714010G6R010.0Z3	HXT	10107357	6	G	1,0	4,0	1,2	50,0	12,0	0,95	0,1	4,77	3	Cylindrical	■
SME716010G6R010.0Z3	HXT	10107368	6	G	1,0	6,0	1,6	50,0	12,0	0,95	0,1	6,56	3	Cylindrical	■
SME714015G6R010.0Z3	HXT	10107358	6	G	1,5	4,0	1,8	50,0	16,0	1,4	0,1	3,38	3	Cylindrical	■
SME716015G6R010.0Z3	HXT	10107369	6	G	1,5	6,0	1,8	50,0	16,0	1,4	0,1	5,16	3	Cylindrical	■
SME714010G7R010.0Z3	HXT	10107359	7	G	1,0	4,0	1,2	50,0	16,0	0,95	0,1	3,9	3	Cylindrical	■
SME716010G7R010.0Z3	HXT	10107370	7	G	1,0	6,0	1,2	50,0	16,0	0,95	0,1	5,55	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

## Cutting data – SME714 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				0.5	1	1.5	2	
S2	E	0,0800	0,070	0,0036	0,0070	0,010	0,014	60 (31 – 120)
		0.0800	0.070	0.00014	0.00028	0.00040	0.00055	195 (110 – 390)
S12	E	0,0800	0,070	0,0036	0,0070	0,010	0,014	65 (33 – 130)
		0.0800	0.070	0.00014	0.00028	0.00040	0.00055	215 (110 – 420)

## Cutting data – SME714 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
			0.5	1	1.5	2	
S2	E	0,070	0,0036	0,0070	0,010	0,014	41 (21 – 82)
		0.070	0.00014	0.00028	0.00040	0.00055	135 (69 – 260)
S12	E	0,070	0,0036	0,0070	0,010	0,014	45 (23 – 89)
		0.070	0.00014	0.00028	0.00040	0.00055	150 (76 – 290)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

## Cutting data – SME716 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				0.5	1	1.5	2	
S2	E	0,0800	0,070	0,0036	0,0070	0,010	0,014	60 (31 – 120)
		0.0800	0.070	0.00014	0.00028	0.00040	0.00055	195 (110 – 390)
S12	E	0,0800	0,070	0,0036	0,0070	0,010	0,014	65 (33 – 130)
		0.0800	0.070	0.00014	0.00028	0.00040	0.00055	215 (110 – 420)

## Cutting data – SME716 Slot milling

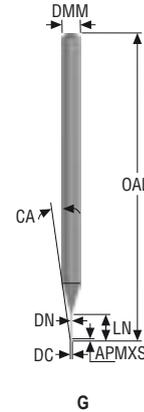
SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
			0.5	1	1.5	2	
S2	E	0,070	0,0036	0,0070	0,010	0,014	41 (21 – 82)
		0.070	0.00014	0.00028	0.00040	0.00055	135 (69 – 260)
S12	E	0,070	0,0036	0,0070	0,010	0,014	45 (23 – 89)
		0.070	0.00014	0.00028	0.00040	0.00055	150 (76 – 290)

For cutting data recalculations, see pages 687 – 695

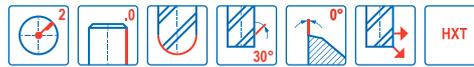
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

**SMB713/714/716**

Miniature – ISO– S – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out = <0,005 mm
- DMM = h5
- DC = 0/-0,01 mm
- RE = ±0,005 mm



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
SMB714020G2B.022	HXT	10109582	2	G	2,0	4,0	2,0	50,0	6,0	1,9	1,0	6,13	2	Cylindrical	■
SMB716020G2B.022	HXT	10109596	2	G	2,0	6,0	2,0	50,0	6,0	1,9	1,0	8,72	2	Cylindrical	■
SMB714030G2B.022	HXT	10109583	2	G	3,0	4,0	3,0	50,0	9,0	2,85	1,5	2,85	2	Cylindrical	■
SMB716030G2B.022	HXT	10109597	2	G	3,0	6,0	3,0	50,0	9,0	2,85	1,5	6,22	2	Cylindrical	■
SMB714030G3B.022	HXT	10109584	3	G	3,0	4,0	3,0	50,0	12,0	2,85	1,5	2,2	2	Cylindrical	■
SMB716030G3B.022	HXT	10109598	3	G	3,0	6,0	3,0	50,0	12,0	2,85	1,5	5,11	2	Cylindrical	■
SMB714015G4B.022	HXT	10109585	4	G	1,5	4,0	1,5	50,0	9,0	1,4	0,75	5,29	2	Cylindrical	■
SMB716015G4B.022	HXT	10109599	4	G	1,5	6,0	1,5	50,0	9,0	1,4	0,75	7,44	2	Cylindrical	■
SMB714020G4B.022	HXT	10109586	4	G	2,0	4,0	2,0	50,0	10,0	1,9	1,0	4,3	2	Cylindrical	■
SMB716020G4B.022	HXT	10109600	4	G	2,0	6,0	2,0	50,0	10,0	1,9	1,0	6,69	2	Cylindrical	■
SMB714005G5B.022	HXT	10109587	5	G	0,5	4,0	0,5	50,0	4,0	0,45	0,25	9,23	2	Cylindrical	■
SMB716005G5B.022	HXT	10109601	5	G	0,5	6,0	0,5	50,0	4,0	0,45	0,25	10,73	2	Cylindrical	■
SMB714010G5B.022	HXT	10109588	5	G	1,0	4,0	1,0	50,0	10,0	0,95	0,5	5,5	2	Cylindrical	■
SMB716010G5B.022	HXT	10109602	5	G	1,0	6,0	1,0	50,0	10,0	0,95	0,5	7,37	2	Cylindrical	■
SMB714015G5B.022	HXT	10109589	5	G	1,5	4,0	1,5	50,0	12,0	1,4	0,75	4,41	2	Cylindrical	■
SMB716015G5B.022	HXT	10109603	5	G	1,5	6,0	1,5	50,0	12,0	1,4	0,75	6,35	2	Cylindrical	■
SMB714020G5B.022	HXT	10109590	5	G	2,0	4,0	2,0	50,0	16,0	1,9	1,0	2,96	2	Cylindrical	■
SMB716020G5B.022	HXT	10109604	5	G	2,0	6,0	2,0	50,0	16,0	1,9	1,0	4,96	2	Cylindrical	■
SMB713003G6B.022	HXT	10109581	6	G	0,3	3,0	0,3	50,0	4,0	0,28	0,15	8,24	2	Cylindrical	■
SMB714005G6B.022	HXT	10109591	6	G	0,5	4,0	0,5	50,0	6,0	0,45	0,25	7,8	2	Cylindrical	■
SMB716005G6B.022	HXT	10109605	6	G	0,5	6,0	0,5	50,0	6,0	0,45	0,25	9,46	2	Cylindrical	■
SMB714010G6B.022	HXT	10109592	6	G	1,0	4,0	1,0	50,0	12,0	0,95	0,5	4,97	2	Cylindrical	■
SMB716010G6B.022	HXT	10109606	6	G	1,0	6,0	1,0	50,0	12,0	0,95	0,5	6,69	2	Cylindrical	■
SMB714015G6B.022	HXT	10109593	6	G	1,5	4,0	1,5	50,0	16,0	1,4	0,75	3,49	2	Cylindrical	■
SMB716015G6B.022	HXT	10109607	6	G	1,5	6,0	1,5	55,0	16,0	1,4	0,75	5,31	2	Cylindrical	■
SMB714005G7B.022	HXT	10109594	7	G	0,5	4,0	0,5	50,0	9,0	0,45	0,25	6,33	2	Cylindrical	■
SMB716005G7B.022	HXT	10109608	7	G	0,5	6,0	0,5	50,0	9,0	0,45	0,25	8,03	2	Cylindrical	■
SMB714010G7B.022	HXT	10109595	7	G	1,0	4,0	1,0	50,0	16,0	0,95	0,5	3,98	2	Cylindrical	■
SMB716010G7B.022	HXT	10109609	7	G	1,0	6,0	1,0	55,0	16,0	0,95	0,5	5,64	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaxter

## Cutting data – SMB713 Copy milling roughing

SMG		a <sub>e</sub> /DC		a <sub>p</sub> /DC	f <sub>z</sub>	v <sub>c</sub>
					0.3	
S2	E	0,0600		0,050	0,0020	47 (26 – 64)
		<i>0.0600</i>		<i>0.050</i>	<i>0.000080</i>	<i>155 (86 – 200)</i>
S12	E	0,0600		0,050	0,0020	47 (26 – 64)
		<i>0.0600</i>		<i>0.050</i>	<i>0.000080</i>	<i>155 (86 – 200)</i>

## Cutting data – SMB714 Copy milling roughing

SMG		a <sub>e</sub> /DC		f <sub>z</sub>					v <sub>c</sub>
				0.5	1	1.5	2	3	
S2	E	0,0600	0,050	0,0036	0,0070	0,010	0,014	0,020	60 (33 – 81)
		<i>0.0600</i>	<i>0.050</i>	<i>0.00014</i>	<i>0.00028</i>	<i>0.00040</i>	<i>0.00055</i>	<i>0.00080</i>	<i>195 (110 – 260)</i>
S12	E	0,0600	0,050	0,0036	0,0070	0,010	0,014	0,020	60 (33 – 81)
		<i>0.0600</i>	<i>0.050</i>	<i>0.00014</i>	<i>0.00028</i>	<i>0.00040</i>	<i>0.00055</i>	<i>0.00080</i>	<i>195 (110 – 260)</i>

## Cutting data – SMB716 Copy milling roughing

SMG		a <sub>e</sub> /DC		f <sub>z</sub>					v <sub>c</sub>
				0.5	1	1.5	2	3	
S2	E	0,0600	0,050	0,0036	0,0070	0,010	0,014	0,020	60 (33 – 81)
		<i>0.0600</i>	<i>0.050</i>	<i>0.00014</i>	<i>0.00028</i>	<i>0.00040</i>	<i>0.00055</i>	<i>0.00080</i>	<i>195 (110 – 260)</i>
S12	E	0,0600	0,050	0,0036	0,0070	0,010	0,014	0,020	60 (33 – 81)
		<i>0.0600</i>	<i>0.050</i>	<i>0.00014</i>	<i>0.00028</i>	<i>0.00040</i>	<i>0.00055</i>	<i>0.00080</i>	<i>195 (110 – 260)</i>

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values



## NON FERROUS

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity for non ferrous materials.

- JS412 and JS413 for sharp corner type.
- JS452, JS453, S4521, S4531 and S4651 with 45° chamfer type.
- JS452, JS453, S4521, S4531, S4651, JHP490, JH40, JH421, JM403, JM404, JM406, JH410 and JH440 for radius type.
- S4321, JH450, JH460, SMB413, SMB414, SMB416, JM413 and JM416 for ball-nose type.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Tool selection Non ferrous

Universal								
								
Steel and cast iron	Name	JS412	JS413	S4521	S4531	S4651	JHP490	
	Page(s)	443	446	449	454	463	466	
Stainless steel and S-materials	Family name	SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	SOLID <sup>2</sup>	HPM	
	Type of mill							
Non ferrous	Shank	Cylindrical	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
		Weldon	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Safelock						<input type="checkbox"/>
Hard	Number of Flutes	2	3	2	3	5	2-3	
	CSP					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Plastic and cfrp	Diameter range	Metric	2-20	2-20	2-20	2-20	6-20	10-25
		Inch						
Graphite	Length availability		2	2,3	2,3	2,3	2,4	2,3,4
		Operation						
								
X-Heads	SMG							
	N1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	N2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	N3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	N11					<input checked="" type="checkbox"/>		
	TS1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
TP1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Stock standard 
  Weldon available, delivery time is 3 days. 
  Safe-Lock available, delivery time is 6 days  
 Preferred choice 
  Alternative choice

Tool selection Non ferrous

					
Name		JH40	JH421	JH410	JH440
Page(s)		470	473	477	479
Family name		HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon				
	Safelock				
Number of Flutes		2	2-3	1	2
CSP			■		
Diameter range	Metric	2-20	2-25	2-17	6-8
	Inch				
Length availability		1,2	2,3	2,3	2
Operation					
					
SMG					
N1		●	●	●	●
N2					●
N3					●
N11		●	●	●	●
TS1		●	●	●	●
TP1			●		●

■ Stock standard □ Weldon available, delivery time is 3 days.  
● Preferred choice ○ Alternative choice

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

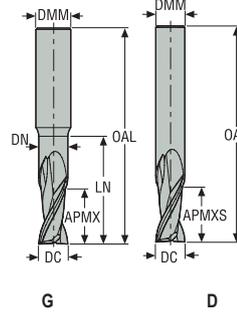
Tool selection Non ferrous

Universal									
									
Steel and cast iron	Name	S4321	JH450	JH460	SMB413/414/416	JM403/404/406	JM413/416		
Stainless steel and S-materials	Page(s)	481	484	486	492	490	492		
	Family name	SOLID <sup>2</sup>	HSM/TORNADO	HSM/TORNADO	MINI	MINI	MINI		
Non ferrous	Type of mill								
	Shank	Cylindrical	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
		Weldon	<input type="checkbox"/>						
Safelock									
Hard	Number of Flutes	2	2	2	2	1	2		
	CSP								
Plastic and cfrp	Diameter range	Metric	2-20	2-20	3-12	1-3	0,5-2	0,5-2	
		Inch							
Graphite	Length availability		2	2,3	2	2,3,5	1,2,5	2,3,5	
		Operation							
									
X-Heads	SMG								
	N1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	N2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	N3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	N11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Minimaster	TS1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
	TP1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		

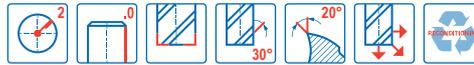
Stock standard 
  Weldon available, delivery time is 3 days.
   
 Preferred choice 
  Alternative choice

JS412

General purpose – Aluminium – Square – 2 Flutes – Cylindrical – Sharp



- Tolerances:
- DMM= h5
- DC= e8
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm			
JS412020G2SZ2.0	02881760	2	G	2,0	6,0	4,0	57,0	7,0	1,9	2	Cylindrical	■
JS412030G2SZ2.0	02881761	2	G	3,0	6,0	6,0	57,0	10,0	2,8	2	Cylindrical	■
JS412040G2SZ2.0	02881762	2	G	4,0	6,0	8,0	57,0	14,0	3,8	2	Cylindrical	■
JS412050G2SZ2.0	02881763	2	G	5,0	6,0	10,0	57,0	17,0	4,7	2	Cylindrical	■
JS412060D2SZ2.0	02881764	2	D	6,0	6,0	12,0	57,0	–	–	2	Cylindrical	■
JS412080D2SZ2.0	02881765	2	D	8,0	8,0	16,0	63,0	–	–	2	Cylindrical	■
JS412100D2SZ2.0	02881766	2	D	10,0	10,0	20,0	75,0	–	–	2	Cylindrical	■
JS412120D2SZ2.0	02881767	2	D	12,0	12,0	24,0	88,0	–	–	2	Cylindrical	■
JS412160D2SZ2.0	02881769	2	D	16,0	16,0	32,0	100,0	–	–	2	Cylindrical	■
JS412200D2SZ2.0	02881770	2	D	20,0	20,0	40,0	124,0	–	–	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

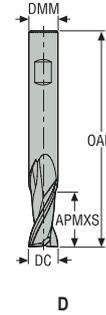
Graphite

X-Heads

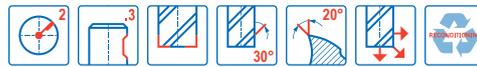
Minimaster

JS412

General purpose – Aluminium – Square – 2 Flutes – Weldon – Sharp



—Tolerances:  
—DMM= h5  
—DC= e8  
—Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
				mm	mm	mm	mm			
JS412060D2SZ2.3	02881771	2	D	6,0	6,0	12,0	57,0	2	Weldon	■
JS412080D2SZ2.3	02881772	2	D	8,0	8,0	16,0	63,0	2	Weldon	■
JS412100D2SZ2.3	02881773	2	D	10,0	10,0	20,0	75,0	2	Weldon	■
JS412120D2SZ2.3	02881774	2	D	12,0	12,0	24,0	88,0	2	Weldon	■
JS412160D2SZ2.3	02881776	2	D	16,0	16,0	32,0	100,0	2	Weldon	■
JS412200D2SZ2.3	02881777	2	D	20,0	20,0	40,0	124,0	2	Weldon	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JS412 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.400	1.5	0.026	0.038	0.050	0.065	0.080	0.10	0.13	0.15	0.19	0.22	590 (470 – 700)
		0,400	1,5	0,0010	0,0015	0,0020	0,0026	0,0032	0,0040	0,0050	0,0060	0,0075	0,0085	1925 (1600 – 2200)
N2	E/M/A	0.300	1.4	0.026	0.040	0.050	0.065	0.080	0.10	0.13	0.16	0.19	0.22	475 (360 – 590)
		0,300	1,4	0,0010	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	0,0075	0,0085	1550 (1200 – 1900)
TS1	A/D	0.400	1.5	0.024	0.036	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	600 (480 – 710)
		0,400	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	1975 (1600 – 2300)
TP1	A/D	0.400	1.5	0.024	0.036	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	500 (380 – 630)
		0,400	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	1650 (1300 – 2000)

Cutting data – JS412 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			2	3	4	5	6	8	10	12	16	20	
N1	E	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.16	0.20	500 (410 – 590)
		1,2	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0065	0,0080	1650 (1400 – 1900)
N2	E	1.0	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	400 (310 – 500)
		1,0	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	1300 (1100 – 1600)
TS1	A	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.16	0.20	500 (410 – 590)
		1,2	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0065	0,0080	1650 (1400 – 1900)
TP1	A	1.2	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.16	0.20	420 (320 – 520)
		1,2	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0065	0,0080	1375 (1100 – 1700)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

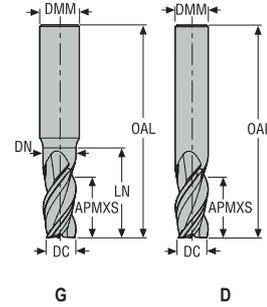
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

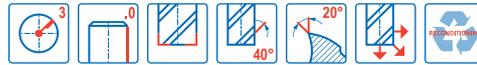
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JS413

General purpose – Aluminium – Square – 3 Flutes – Cylindrical – Sharp



- Tolerances:
- DMM= h5
- DC= e8
- Regrind possible if DC is  $\geq \phi 6$

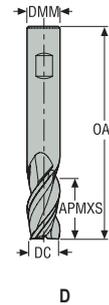


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm			
JS413020G2SZ3.0	02881797	2	G	2,0	6,0	4,0	57,0	7,0	1,9	3	Cylindrical	■
JS413030G2SZ3.0	02881798	2	G	3,0	6,0	6,0	57,0	10,0	2,8	3	Cylindrical	■
JS413040G2SZ3.0	02881799	2	G	4,0	6,0	8,0	57,0	14,0	3,8	3	Cylindrical	■
JS413050G2SZ3.0	02881800	2	G	5,0	6,0	10,0	57,0	17,0	4,7	3	Cylindrical	■
JS413060D2SZ3.0	02881801	2	D	6,0	6,0	12,0	57,0	–	–	3	Cylindrical	■
JS413080D2SZ3.0	02881802	2	D	8,0	8,0	16,0	63,0	–	–	3	Cylindrical	■
JS413100D2SZ3.0	02881803	2	D	10,0	10,0	20,0	72,0	–	–	3	Cylindrical	■
JS413120D2SZ3.0	02881804	2	D	12,0	12,0	24,0	88,0	–	–	3	Cylindrical	■
JS413160D2SZ3.0	02881806	2	D	16,0	16,0	32,0	100,0	–	–	3	Cylindrical	■
JS413200D2SZ3.0	02881807	2	D	20,0	20,0	40,0	124,0	–	–	3	Cylindrical	■
JS413060D3SZ3.0	02881815	3	D	6,0	6,0	24,0	70,0	–	–	3	Cylindrical	■
JS413080D3SZ3.0	02881816	3	D	8,0	8,0	32,0	85,0	–	–	3	Cylindrical	■
JS413100D3SZ3.0	02881817	3	D	10,0	10,0	40,0	100,0	–	–	3	Cylindrical	■
JS413120D3SZ3.0	02881818	3	D	12,0	12,0	50,0	115,0	–	–	3	Cylindrical	■
JS413160D3SZ3.0	02881820	3	D	16,0	16,0	55,0	125,0	–	–	3	Cylindrical	■
JS413200D3SZ3.0	02881821	3	D	20,0	20,0	75,0	150,0	–	–	3	Cylindrical	■

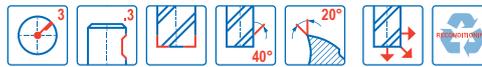
■ Stocked standard.

JS413

General purpose – Aluminium – Square – 3 Flutes – Weldon – Sharp



- Tolerances:
- DMM= h5
- DC= e8
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
				mm	mm	mm	mm			
JS413060D2SZ3.3	02881808	2	D	6,0	6,0	12,0	57,0	3	Weldon	■
JS413080D2SZ3.3	02881809	2	D	8,0	8,0	16,0	63,0	3	Weldon	■
JS413100D2SZ3.3	02881810	2	D	10,0	10,0	20,0	72,0	3	Weldon	■
JS413120D2SZ3.3	02881811	2	D	12,0	12,0	24,0	88,0	3	Weldon	■
JS413160D2SZ3.3	02881813	2	D	16,0	16,0	32,0	100,0	3	Weldon	■
JS413200D2SZ3.3	02881814	2	D	20,0	20,0	40,0	124,0	3	Weldon	■
JS413060D3SZ3.3	02881955	3	D	6,0	6,0	24,0	70,0	3	Weldon	□
JS413080D3SZ3.3	02881956	3	D	8,0	8,0	32,0	85,0	3	Weldon	□
JS413100D3SZ3.3	02881957	3	D	10,0	10,0	40,0	100,0	3	Weldon	□
JS413120D3SZ3.3	02881958	3	D	12,0	12,0	50,0	115,0	3	Weldon	□
JS413160D3SZ3.3	02881960	3	D	16,0	16,0	55,0	125,0	3	Weldon	■
JS413200D3SZ3.3	02881961	3	D	20,0	20,0	75,0	150,0	3	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JS413 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.400	1.5	0.024	0.036	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	600 (480 — 710)
		0,400	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	1975 (1600 — 2300)
N2	E/M/A	0.300	1.5	0.024	0.036	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	470 (360 — 580)
		0,300	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	1550 (1200 — 1900)
N3	E/M/A	0.300	1.5	0.024	0.036	0.048	0.060	0.070	0.095	0.12	0.14	0.18	0.20	315 (240 — 390)
		0,300	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0070	0,0080	1025 (790 — 1200)
TS1	A/D	0.400	1.5	0.022	0.034	0.044	0.055	0.065	0.090	0.11	0.13	0.17	0.19	610 (500 — 730)
		0,400	1,5	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	2000 (1700 — 2300)
TP1	A/D	0.400	1.5	0.022	0.034	0.044	0.055	0.065	0.090	0.11	0.13	0.17	0.19	330 (250 — 410)
		0,400	1,5	0,00085	0,0013	0,0017	0,0022	0,0026	0,0036	0,0044	0,0050	0,0065	0,0075	1075 (830 — 1300)

Cutting data – JS413 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			2	3	4	5	6	8	10	12	16	20	
N1	E	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.16	0.20	500 (400 — 600)
		1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0065	0,0080	1650 (1400 — 1900)
N2	E	1.0	0.014	0.022	0.028	0.036	0.042	0.055	0.070	0.085	0.11	0.14	400 (300 — 490)
		1,0	0,00055	0,00085	0,0011	0,0014	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	1300 (990 — 1600)
N3	E	1.0	0.014	0.022	0.028	0.036	0.042	0.055	0.070	0.085	0.11	0.14	265 (200 — 330)
		1,0	0,00055	0,00085	0,0011	0,0014	0,0017	0,0022	0,0028	0,0034	0,0044	0,0055	870 (660 — 1000)
TS1	A	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.16	0.19	500 (400 — 600)
		1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0065	0,0075	1650 (1400 — 1900)
TP1	A	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.16	0.19	270 (210 — 330)
		1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0065	0,0075	890 (690 — 1000)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

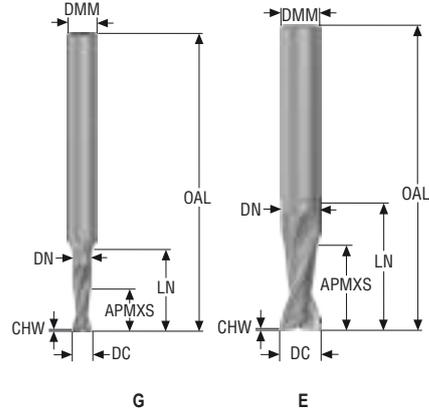
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

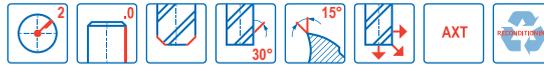
All cutting data are target values

S4521

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC= e7
- CHW= +0,04 mm
- Regrind possible if DC is ≥Ø6



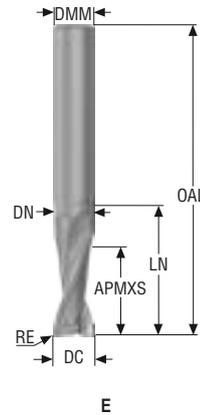
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4521-020G2C.0Z2	AXT	10228022	2	G	2,0	6,0	4,0	57,0	8,0	1,9	0,1	2	Cylindrical	■
S4521-030G2C.0Z2	AXT	10228023	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,1	2	Cylindrical	■
S4521-040G2C.0Z2	AXT	10228024	2	G	4,0	6,0	8,0	57,0	14,0	3,8	0,1	2	Cylindrical	■
S4521-050G2C.0Z2	AXT	10228025	2	G	5,0	6,0	10,0	57,0	17,0	4,75	0,1	2	Cylindrical	■
S4521-060E2C.0Z2	AXT	10228026	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,1	2	Cylindrical	■
S4521-080E2C.0Z2	AXT	10228029	2	E	8,0	8,0	16,0	63,0	24,0	7,6	0,1	2	Cylindrical	■
S4521-100E2C.0Z2	AXT	10228033	2	E	10,0	10,0	20,0	72,0	31,0	9,5	0,1	2	Cylindrical	■
S4521-120E2C.0Z2	AXT	10228037	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,1	2	Cylindrical	■
S4521-140E2C.0Z2	AXT	10228043	2	E	14,0	14,0	28,0	89,0	41,0	13,3	0,1	2	Cylindrical	■
S4521-160E2C.0Z2	AXT	10228044	2	E	16,0	16,0	32,0	100,0	48,0	15,2	0,1	2	Cylindrical	■
S4521-200E2C.0Z2	AXT	10228051	2	E	20,0	20,0	40,0	114,0	60,0	19,0	0,1	2	Cylindrical	■

■ Stocked standard.

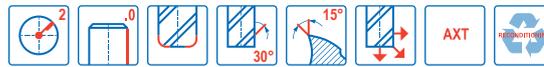
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

S4521

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

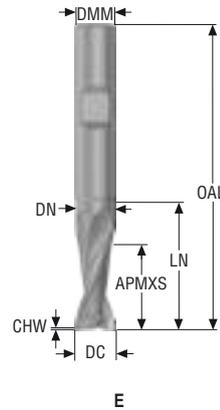


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4521-060E2R050.0Z2	AXT	10228027	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,5	2	Cylindrical	■
S4521-060E2R100.0Z2	AXT	10228028	2	E	6,0	6,0	12,0	57,0	19,0	5,7	1,0	2	Cylindrical	■
S4521-080E2R050.0Z2	AXT	10228030	2	E	8,0	8,0	16,0	63,0	24,0	7,6	0,5	2	Cylindrical	■
S4521-080E2R100.0Z2	AXT	10228031	2	E	8,0	8,0	16,0	63,0	24,0	7,6	1,0	2	Cylindrical	■
S4521-100E2R050.0Z2	AXT	10228034	2	E	10,0	10,0	20,0	72,0	31,0	9,5	0,5	2	Cylindrical	■
S4521-100E2R100.0Z2	AXT	10228035	2	E	10,0	10,0	20,0	72,0	31,0	9,5	1,0	2	Cylindrical	■
S4521-120E2R050.0Z2	AXT	10228038	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,5	2	Cylindrical	■
S4521-120E2R100.0Z2	AXT	10228039	2	E	12,0	12,0	24,0	88,0	37,0	11,4	1,0	2	Cylindrical	■
S4521-120E2R200.0Z2	AXT	10228040	2	E	12,0	12,0	24,0	88,0	37,0	11,4	2,0	2	Cylindrical	■
S4521-120E2R300.0Z2	AXT	10228041	2	E	12,0	12,0	24,0	88,0	37,0	11,4	3,0	2	Cylindrical	■
S4521-160E2R050.0Z2	AXT	10228045	2	E	16,0	16,0	32,0	100,0	48,0	15,2	0,5	2	Cylindrical	■
S4521-160E2R100.0Z2	AXT	10228046	2	E	16,0	16,0	32,0	100,0	48,0	15,2	1,0	2	Cylindrical	■
S4521-160E2R200.0Z2	AXT	10228047	2	E	16,0	16,0	32,0	100,0	48,0	15,2	2,0	2	Cylindrical	■
S4521-160E2R300.0Z2	AXT	10228048	2	E	16,0	16,0	32,0	100,0	48,0	15,2	3,0	2	Cylindrical	■
S4521-160E2R400.0Z2	AXT	10228049	2	E	16,0	16,0	32,0	100,0	48,0	15,2	4,0	2	Cylindrical	■
S4521-200E2R050.0Z2	AXT	10228052	2	E	20,0	20,0	40,0	114,0	60,0	19,0	0,5	2	Cylindrical	■
S4521-200E2R100.0Z2	AXT	10228053	2	E	20,0	20,0	40,0	114,0	60,0	19,0	1,0	2	Cylindrical	■
S4521-200E2R200.0Z2	AXT	10228054	2	E	20,0	20,0	40,0	114,0	60,0	19,0	2,0	2	Cylindrical	■
S4521-200E2R300.0Z2	AXT	10228055	2	E	20,0	20,0	40,0	114,0	60,0	19,0	3,0	2	Cylindrical	■
S4521-200E2R400.0Z2	AXT	10228056	2	E	20,0	20,0	40,0	114,0	60,0	19,0	4,0	2	Cylindrical	■
S4521-080E3R020.0Z2	AXT	10228032	3	E	8,0	8,0	12,0	79,0	41,0	7,6	0,2	2	Cylindrical	■
S4521-100E3R050.0Z2	AXT	10228036	3	E	10,0	10,0	15,0	99,0	57,0	9,5	0,5	2	Cylindrical	■
S4521-120E3R050.0Z2	AXT	10228042	3	E	12,0	12,0	18,0	119,0	72,0	11,4	0,5	2	Cylindrical	■
S4521-160E3R050.0Z2	AXT	10228050	3	E	16,0	16,0	24,0	129,0	79,0	15,2	0,5	2	Cylindrical	■
S4521-200E3R050.0Z2	AXT	10228057	3	E	20,0	20,0	30,0	164,0	111,0	19,0	0,5	2	Cylindrical	■

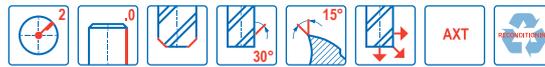
■ Stocked standard.

S4521

High performance – Aluminium – Square – 2 Flutes – Weldon – Chamfer



- Tolerances:
- DMM=h5
- DC= e7
- CHW= +0,04 mm
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4521-060E2C.3Z2	AXT	10286908	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,1	2	Weldon	<input type="checkbox"/>
S4521-080E2C.3Z2	AXT	10286911	2	E	8,0	8,0	16,0	63,0	24,0	7,6	0,1	2	Weldon	<input type="checkbox"/>
S4521-100E2C.3Z2	AXT	10286915	2	E	10,0	10,0	20,0	72,0	31,0	9,5	0,1	2	Weldon	<input type="checkbox"/>
S4521-120E2C.3Z2	AXT	10286919	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,1	2	Weldon	<input type="checkbox"/>
S4521-140E2C.3Z2	AXT	10286925	2	E	14,0	14,0	28,0	89,0	41,0	13,3	0,1	2	Weldon	<input type="checkbox"/>
S4521-160E2C.3Z2	AXT	10286926	2	E	16,0	16,0	32,0	100,0	48,0	15,2	0,1	2	Weldon	<input type="checkbox"/>
S4521-200E2C.3Z2	AXT	10286933	2	E	20,0	20,0	40,0	114,0	60,0	19,0	0,1	2	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

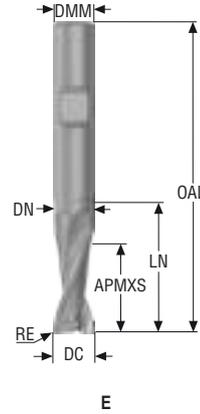
Graphite

X-Heads

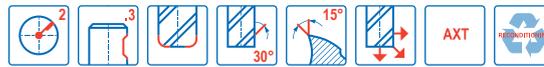
Minimaster

S4521

High performance – Aluminium – Square – 2 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4521-060E2R050.3Z2	AXT	10286909	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,5	2	Weldon	<input type="checkbox"/>
S4521-060E2R100.3Z2	AXT	10286910	2	E	6,0	6,0	12,0	57,0	19,0	5,7	1,0	2	Weldon	<input type="checkbox"/>
S4521-080E3R020.3Z2	AXT	10286914	2	E	8,0	8,0	12,0	79,0	41,0	7,6	0,2	2	Weldon	<input type="checkbox"/>
S4521-080E2R050.3Z2	AXT	10286912	2	E	8,0	8,0	16,0	63,0	24,0	7,6	0,5	2	Weldon	<input type="checkbox"/>
S4521-080E2R100.3Z2	AXT	10286913	2	E	8,0	8,0	16,0	63,0	24,0	7,6	1,0	2	Weldon	<input type="checkbox"/>
S4521-100E2R050.3Z2	AXT	10286916	2	E	10,0	10,0	20,0	72,0	31,0	9,5	0,5	2	Weldon	<input type="checkbox"/>
S4521-100E3R050.3Z2	AXT	10286918	2	E	10,0	10,0	15,0	99,0	57,0	9,5	0,5	2	Weldon	<input type="checkbox"/>
S4521-100E2R100.3Z2	AXT	10286917	2	E	10,0	10,0	20,0	72,0	31,0	9,5	1,0	2	Weldon	<input type="checkbox"/>
S4521-120E2R050.3Z2	AXT	10286920	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,5	2	Weldon	<input type="checkbox"/>
S4521-120E2R100.3Z2	AXT	10286921	2	E	12,0	12,0	24,0	88,0	37,0	11,4	1,0	2	Weldon	<input type="checkbox"/>
S4521-120E2R200.3Z2	AXT	10286922	2	E	12,0	12,0	24,0	88,0	37,0	11,4	2,0	2	Weldon	<input type="checkbox"/>
S4521-120E2R300.3Z2	AXT	10286923	2	E	12,0	12,0	24,0	88,0	37,0	11,4	3,0	2	Weldon	<input type="checkbox"/>
S4521-160E2R050.3Z2	AXT	10286927	2	E	16,0	16,0	32,0	100,0	48,0	15,2	0,5	2	Weldon	<input type="checkbox"/>
S4521-160E2R100.3Z2	AXT	10286928	2	E	16,0	16,0	32,0	100,0	48,0	15,2	1,0	2	Weldon	<input type="checkbox"/>
S4521-160E2R200.3Z2	AXT	10286929	2	E	16,0	16,0	32,0	100,0	48,0	15,2	2,0	2	Weldon	<input type="checkbox"/>
S4521-160E2R300.3Z2	AXT	10286930	2	E	16,0	16,0	32,0	100,0	48,0	15,2	3,0	2	Weldon	<input type="checkbox"/>
S4521-160E2R400.3Z2	AXT	10286931	2	E	16,0	16,0	32,0	100,0	48,0	15,2	4,0	2	Weldon	<input type="checkbox"/>
S4521-200E2R050.3Z2	AXT	10286934	2	E	20,0	20,0	40,0	114,0	60,0	19,0	0,5	2	Weldon	<input type="checkbox"/>
S4521-200E2R100.3Z2	AXT	10286935	2	E	20,0	20,0	40,0	114,0	60,0	19,0	1,0	2	Weldon	<input type="checkbox"/>
S4521-200E2R200.3Z2	AXT	10286936	2	E	20,0	20,0	40,0	114,0	60,0	19,0	2,0	2	Weldon	<input type="checkbox"/>
S4521-200E2R300.3Z2	AXT	10286937	2	E	20,0	20,0	40,0	114,0	60,0	19,0	3,0	2	Weldon	<input type="checkbox"/>
S4521-200E2R400.3Z2	AXT	10286938	2	E	20,0	20,0	40,0	114,0	60,0	19,0	4,0	2	Weldon	<input type="checkbox"/>
S4521-120E3R050.3Z2	AXT	10286924	3	E	12,0	12,0	18,0	119,0	72,0	11,4	0,5	2	Weldon	<input type="checkbox"/>
S4521-160E3R050.3Z2	AXT	10286932	3	E	16,0	16,0	24,0	129,0	79,0	15,2	0,5	2	Weldon	<input type="checkbox"/>
S4521-200E3R050.3Z2	AXT	10286939	3	E	20,0	20,0	30,0	164,0	111,0	19,0	0,5	2	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Cutting data – S4521 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
				2	3	4	5	6	8	10	12	14	16	20	
N1	E/M/A	0,40	1,5	0,030	0,046	0,060	0,075	0,090	0,12	0,15	0,18	0,20	0,22	0,25	560 (450 — 660)
		0,40	1,5	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0080	0,0085	0,010	1825 (1500 — 2100)
N2	E/M/A	0,30	1,5	0,024	0,036	0,048	0,060	0,070	0,095	0,12	0,14	0,16	0,18	0,20	480 (370 — 600)
		0,30	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0070	0,0080	1575 (1300 — 1900)
N3	E/M/A	0,30	1,5	0,024	0,036	0,048	0,060	0,070	0,095	0,12	0,14	0,16	0,18	0,20	320 (250 — 400)
		0,30	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0070	0,0080	1050 (830 — 1300)
N11	E/M/A	0,30	1,2	0,024	0,036	0,048	0,060	0,070	0,095	0,12	0,14	0,16	0,18	0,20	295 (240 — 350)
		0,30	1,2	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0070	0,0080	970 (790 — 1100)
TS1	A/D	0,40	1,5	0,030	0,046	0,060	0,075	0,090	0,12	0,15	0,18	0,20	0,22	0,25	560 (450 — 660)
		0,40	1,5	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0080	0,0085	0,010	1825 (1500 — 2100)
TP1	A/D	0,40	1,5	0,030	0,046	0,060	0,075	0,090	0,12	0,15	0,18	0,20	0,22	0,25	445 (340 — 550)
		0,40	1,5	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0080	0,0085	0,010	1450 (1200 — 1800)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – S4521 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
			2	3	4	5	6	8	10	12	14	16	20	
N1	E	1,5	0,020	0,030	0,040	0,050	0,060	0,080	0,10	0,12	0,14	0,16	0,20	495 (400 — 590)
		1,5	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0065	0,0080	1625 (1400 — 1900)
N2	E	1,2	0,016	0,024	0,032	0,040	0,048	0,065	0,080	0,095	0,11	0,13	0,16	395 (300 — 490)
		1,2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	1300 (990 — 1600)
N3	E	1,2	0,016	0,024	0,032	0,040	0,048	0,065	0,080	0,095	0,11	0,13	0,16	265 (200 — 320)
		1,2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	870 (660 — 1000)
N11	E	0,60	0,015	0,022	0,030	0,038	0,046	0,060	0,075	0,090	0,11	0,12	0,15	250 (200 — 290)
		0,60	0,00060	0,00085	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0044	0,0048	0,0060	820 (660 — 950)
TS1	A	1,5	0,020	0,030	0,040	0,050	0,060	0,080	0,10	0,12	0,14	0,16	0,20	495 (400 — 590)
		1,5	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0065	0,0080	1625 (1400 — 1900)
TP1	A	1,5	0,020	0,030	0,040	0,050	0,060	0,080	0,10	0,12	0,14	0,16	0,20	395 (300 — 490)
		1,5	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0065	0,0080	1300 (990 — 1600)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

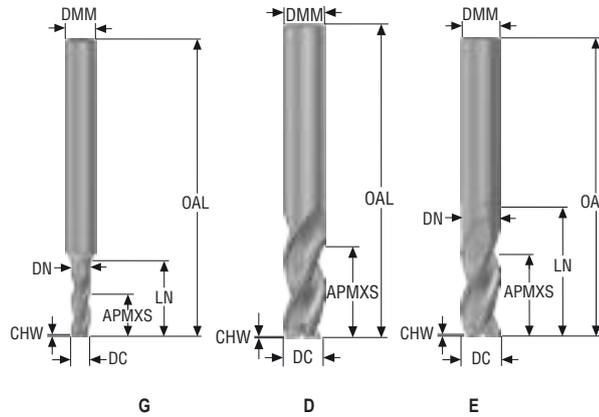
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

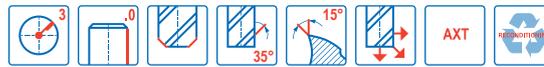
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cf/rp  
Graphite  
X-Heads  
Minimaster

S4531

High performance – Aluminium – Square – 3 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC= e7
- CHW= +0,04 mm
- Regrind possible if DC is ≥06

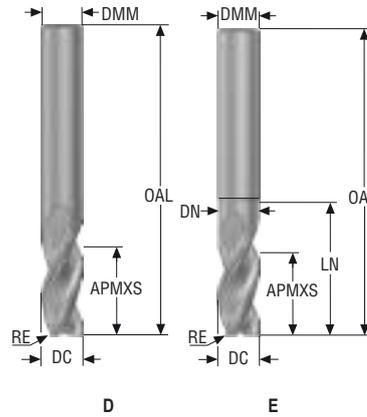


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4531-020G2C.0Z3	AXT	10228067	2	G	2,0	6,0	4,0	57,0	7,0	1,9	0,1	3	Cylindrical	■
S4531-030G2C.0Z3	AXT	10228068	2	G	3,0	6,0	6,0	57,0	10,0	2,85	0,1	3	Cylindrical	■
S4531-040G2C.0Z3	AXT	10228069	2	G	4,0	6,0	8,0	57,0	13,0	3,8	0,1	3	Cylindrical	■
S4531-050G2C.0Z3	AXT	10228070	2	G	5,0	6,0	10,0	57,0	15,0	4,75	0,1	3	Cylindrical	■
S4531-060D2C.0Z3	AXT	10228071	2	D	6,0	6,0	12,0	57,0	–	–	0,1	3	Cylindrical	■
S4531-060E2C.0Z3	AXT	10228074	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,1	3	Cylindrical	■
S4531-080D2C.0Z3	AXT	10228077	2	D	8,0	8,0	16,0	63,0	–	–	0,1	3	Cylindrical	■
S4531-080E2C.0Z3	AXT	10228080	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	3	Cylindrical	■
S4531-100D2C.0Z3	AXT	10228083	2	D	10,0	10,0	20,0	72,0	–	–	0,1	3	Cylindrical	■
S4531-100E2C.0Z3	AXT	10228087	2	E	10,0	10,0	20,0	72,0	31,0	9,5	0,1	3	Cylindrical	■
S4531-120D2C.0Z3	AXT	10228091	2	D	12,0	12,0	24,0	88,0	–	–	0,1	3	Cylindrical	■
S4531-120E2C.0Z3	AXT	10228096	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,1	3	Cylindrical	■
S4531-140D2C.0Z3	AXT	10228102	2	D	14,0	14,0	28,0	89,0	–	–	0,1	3	Cylindrical	■
S4531-160D2C.0Z3	AXT	10228103	2	D	16,0	16,0	32,0	100,0	–	–	0,1	3	Cylindrical	■
S4531-200E2C.0Z3	AXT	10228114	2	E	20,0	20,0	40,0	114,0	60,0	19,0	0,1	3	Cylindrical	■
S4531-030G3C.0Z3	AXT	10228058	3	G	3,0	6,0	10,0	63,0	14,0	2,85	0,1	3	Cylindrical	■
S4531-040G3C.0Z3	AXT	10228059	3	G	4,0	6,0	13,0	63,0	18,0	3,8	0,1	3	Cylindrical	■
S4531-050G3C.0Z3	AXT	10228060	3	G	5,0	6,0	16,0	63,0	20,0	4,75	0,1	3	Cylindrical	■
S4531-060D3C.0Z3	AXT	10228061	3	D	6,0	6,0	19,0	63,0	–	–	0,1	3	Cylindrical	■
S4531-080D3C.0Z3	AXT	10228062	3	D	8,0	8,0	26,0	74,0	–	–	0,1	3	Cylindrical	■
S4531-100D3C.0Z3	AXT	10228063	3	D	10,0	10,0	32,0	84,0	–	–	0,1	3	Cylindrical	■
S4531-120D3C.0Z3	AXT	10228064	3	D	12,0	12,0	38,0	99,0	–	–	0,1	3	Cylindrical	■
S4531-160D3C.0Z3	AXT	10228065	3	D	16,0	16,0	50,0	114,0	–	–	0,1	3	Cylindrical	■
S4531-200D3C.0Z3	AXT	10228066	3	D	20,0	20,0	62,0	150,0	–	–	0,1	3	Cylindrical	■
S4531-200E3C.0Z3	AXT	10228120	3	E	20,0	20,0	40,0	150,0	90,0	19,0	0,1	3	Cylindrical	■

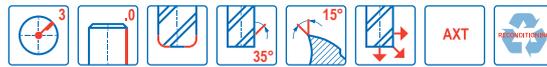
■ Stocked standard.

S4531

High performance – Aluminium – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



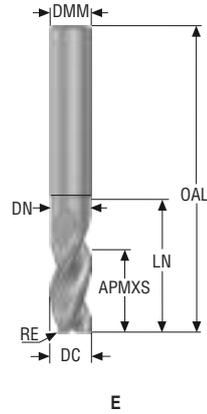
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4531-060D2R050.0Z3	AXT	10228072	2	D	6,0	6,0	12,0	57,0	–	–	0,5	3	Cylindrical	■
S4531-060E2R050.0Z3	AXT	10228075	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,5	3	Cylindrical	■
S4531-060D2R100.0Z3	AXT	10228073	2	D	6,0	6,0	12,0	57,0	–	–	1,0	3	Cylindrical	■
S4531-060E2R100.0Z3	AXT	10228076	2	E	6,0	6,0	12,0	57,0	19,0	5,7	1,0	3	Cylindrical	■
S4531-080D2R050.0Z3	AXT	10228078	2	D	8,0	8,0	16,0	63,0	–	–	0,5	3	Cylindrical	■
S4531-080E2R050.0Z3	AXT	10228081	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	3	Cylindrical	■
S4531-080D2R100.0Z3	AXT	10228079	2	D	8,0	8,0	16,0	63,0	–	–	1,0	3	Cylindrical	■
S4531-080E2R100.0Z3	AXT	10228082	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	3	Cylindrical	■
S4531-100D2R050.0Z3	AXT	10228084	2	D	10,0	10,0	20,0	72,0	–	–	0,5	3	Cylindrical	■
S4531-100E2R050.0Z3	AXT	10228088	2	E	10,0	10,0	20,0	72,0	31,0	9,5	0,5	3	Cylindrical	■
S4531-100D2R100.0Z3	AXT	10228085	2	D	10,0	10,0	20,0	72,0	–	–	1,0	3	Cylindrical	■
S4531-100E2R100.0Z3	AXT	10228089	2	E	10,0	10,0	20,0	72,0	31,0	9,5	1,0	3	Cylindrical	■
S4531-100D2R200.0Z3	AXT	10228086	2	D	10,0	10,0	20,0	72,0	–	–	2,0	3	Cylindrical	■
S4531-100E2R200.0Z3	AXT	10228090	2	E	10,0	10,0	20,0	72,0	31,0	9,5	2,0	3	Cylindrical	■
S4531-120D2R050.0Z3	AXT	10228092	2	D	12,0	12,0	24,0	88,0	–	–	0,5	3	Cylindrical	■
S4531-120E2R050.0Z3	AXT	10228097	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,5	3	Cylindrical	■
S4531-120D2R100.0Z3	AXT	10228093	2	D	12,0	12,0	24,0	88,0	–	–	1,0	3	Cylindrical	■
S4531-120E2R100.0Z3	AXT	10228098	2	E	12,0	12,0	24,0	88,0	37,0	11,4	1,0	3	Cylindrical	■
S4531-120D2R200.0Z3	AXT	10228094	2	D	12,0	12,0	24,0	88,0	–	–	2,0	3	Cylindrical	■
S4531-120E2R200.0Z3	AXT	10228099	2	E	12,0	12,0	24,0	88,0	37,0	11,4	2,0	3	Cylindrical	■
S4531-120D2R300.0Z3	AXT	10228095	2	D	12,0	12,0	24,0	88,0	–	–	3,0	3	Cylindrical	■
S4531-120E2R300.0Z3	AXT	10228100	2	E	12,0	12,0	24,0	88,0	37,0	11,4	3,0	3	Cylindrical	■
S4531-160D2R050.0Z3	AXT	10228104	2	D	16,0	16,0	32,0	100,0	–	–	0,5	3	Cylindrical	■
S4531-160E2R100.0Z3	AXT	10228105	2	E	16,0	16,0	32,0	100,0	48,0	15,2	1,0	3	Cylindrical	■
S4531-160E2R200.0Z3	AXT	10228106	2	E	16,0	16,0	32,0	100,0	48,0	15,2	2,0	3	Cylindrical	■
S4531-160E2R250.0Z3	AXT	10228107	2	E	16,0	16,0	32,0	100,0	48,0	15,2	2,5	3	Cylindrical	■
S4531-160E2R300.0Z3	AXT	10228108	2	E	16,0	16,0	32,0	100,0	48,0	15,2	3,0	3	Cylindrical	■
S4531-160E2R400.0Z3	AXT	10228109	2	E	16,0	16,0	32,0	100,0	48,0	15,2	4,0	3	Cylindrical	■
S4531-200E2R050.0Z3	AXT	10228115	2	E	20,0	20,0	40,0	114,0	60,0	19,0	0,5	3	Cylindrical	■
S4531-200E2R100.0Z3	AXT	10228116	2	E	20,0	20,0	40,0	114,0	60,0	19,0	1,0	3	Cylindrical	■
S4531-200E2R200.0Z3	AXT	10228117	2	E	20,0	20,0	40,0	114,0	60,0	19,0	2,0	3	Cylindrical	■
S4531-200E2R300.0Z3	AXT	10228118	2	E	20,0	20,0	40,0	114,0	60,0	19,0	3,0	3	Cylindrical	■
S4531-200E2R400.0Z3	AXT	10228119	2	E	20,0	20,0	40,0	114,0	60,0	19,0	4,0	3	Cylindrical	■

■ Stocked standard.

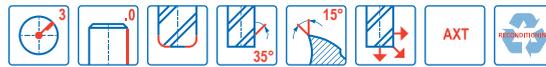
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

S4531

High performance – Aluminium – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4531-120E3R300.0Z3	AXT	10228101	3	E	12,0	12,0	24,0	110,0	54,0	11,4	3,0	3	Cylindrical	■
S4531-160E3R100.0Z3	AXT	10228110	3	E	16,0	16,0	32,0	129,0	77,0	15,2	1,0	3	Cylindrical	■
S4531-160E3R200.0Z3	AXT	10228111	3	E	16,0	16,0	32,0	129,0	77,0	15,2	2,0	3	Cylindrical	■
S4531-160E3R300.0Z3	AXT	10228112	3	E	16,0	16,0	32,0	129,0	77,0	15,2	3,0	3	Cylindrical	■
S4531-160E3R400.0Z3	AXT	10228113	3	E	16,0	16,0	32,0	129,0	77,0	15,2	4,0	3	Cylindrical	■
S4531-200E3R050.0Z3	AXT	10228121	3	E	20,0	20,0	40,0	150,0	90,0	19,0	0,5	3	Cylindrical	■
S4531-200E3R100.0Z3	AXT	10228122	3	E	20,0	20,0	40,0	150,0	90,0	19,0	1,0	3	Cylindrical	■
S4531-200E3R200.0Z3	AXT	10228123	3	E	20,0	20,0	40,0	150,0	90,0	19,0	2,0	3	Cylindrical	■
S4531-200E3R300.0Z3	AXT	10228124	3	E	20,0	20,0	40,0	150,0	90,0	19,0	3,0	3	Cylindrical	■
S4531-200E3R400.0Z3	AXT	10228125	3	E	20,0	20,0	40,0	150,0	90,0	19,0	4,0	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

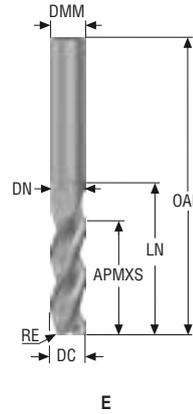
Graphite

X-Heads

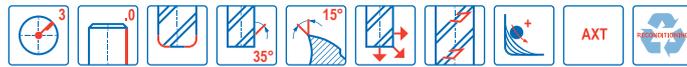
Minimaster

S4531

High performance – Aluminium – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm			
S4531-060E3R050.0Z3C	AXT	10228126	3	E	■	6,0	6,0	19,0	63,0	25,0	5,7	0,5	3	Cylindrical	■
S4531-060E3R100.0Z3C	AXT	10228127	3	E	■	6,0	6,0	19,0	63,0	25,0	5,7	1,0	3	Cylindrical	■
S4531-080E3R050.0Z3C	AXT	10228128	3	E	■	8,0	8,0	26,0	74,0	34,0	7,6	0,5	3	Cylindrical	■
S4531-080E3R100.0Z3C	AXT	10228129	3	E	■	8,0	8,0	26,0	74,0	34,0	7,6	1,0	3	Cylindrical	■
S4531-080E3R200.0Z3C	AXT	10228130	3	E	■	8,0	8,0	26,0	74,0	34,0	7,6	2,0	3	Cylindrical	■
S4531-100E3R050.0Z3C	AXT	10228131	3	E	■	10,0	10,0	32,0	84,0	42,0	9,5	0,5	3	Cylindrical	■
S4531-100E3R100.0Z3C	AXT	10228132	3	E	■	10,0	10,0	32,0	84,0	42,0	9,5	1,0	3	Cylindrical	■
S4531-100E3R200.0Z3C	AXT	10228133	3	E	■	10,0	10,0	32,0	84,0	42,0	9,5	2,0	3	Cylindrical	■
S4531-120E3R050.0Z3C	AXT	10228134	3	E	■	12,0	12,0	39,0	99,0	51,0	11,4	0,5	3	Cylindrical	■
S4531-120E3R100.0Z3C	AXT	10228135	3	E	■	12,0	12,0	39,0	99,0	51,0	11,4	1,0	3	Cylindrical	■
S4531-120E3R200.0Z3C	AXT	10228136	3	E	■	12,0	12,0	39,0	99,0	51,0	11,4	2,0	3	Cylindrical	■
S4531-120E3R300.0Z3C	AXT	10228137	3	E	■	12,0	12,0	39,0	99,0	51,0	11,4	3,0	3	Cylindrical	■
S4531-160E3R050.0Z3C	AXT	10228138	3	E	■	16,0	16,0	52,0	125,0	68,0	15,2	0,5	3	Cylindrical	■
S4531-160E3R100.0Z3C	AXT	10228139	3	E	■	16,0	16,0	52,0	125,0	68,0	15,2	1,0	3	Cylindrical	■
S4531-160E3R200.0Z3C	AXT	10228140	3	E	■	16,0	16,0	52,0	125,0	68,0	15,2	2,0	3	Cylindrical	■
S4531-160E3R300.0Z3C	AXT	10228141	3	E	■	16,0	16,0	52,0	125,0	68,0	15,2	3,0	3	Cylindrical	■
S4531-200E3R050.0Z3C	AXT	10228142	3	E	■	20,0	20,0	65,0	150,0	85,0	19,0	0,5	3	Cylindrical	■
S4531-200E3R100.0Z3C	AXT	10228143	3	E	■	20,0	20,0	65,0	150,0	85,0	19,0	1,0	3	Cylindrical	■
S4531-200E3R200.0Z3C	AXT	10228144	3	E	■	20,0	20,0	65,0	150,0	85,0	19,0	2,0	3	Cylindrical	■
S4531-200E3R300.0Z3C	AXT	10228145	3	E	■	20,0	20,0	65,0	150,0	85,0	19,0	3,0	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

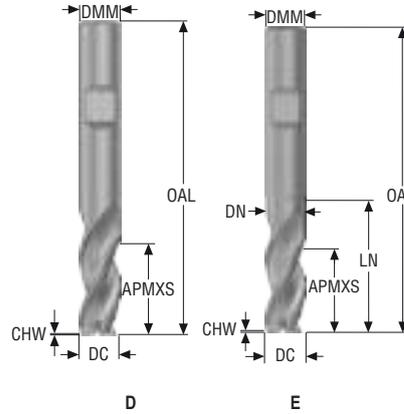
Graphite

X-Heads

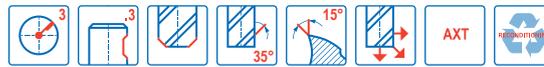
Minimaster

S4531

High performance – Aluminium – Square – 3 Flutes – Weldon – Chamfer



- Tolerances:
- DMM=h5
- DC= e7
- CHW= +0,04 mm
- Regrind possible if DC is  $\geq \phi 6$

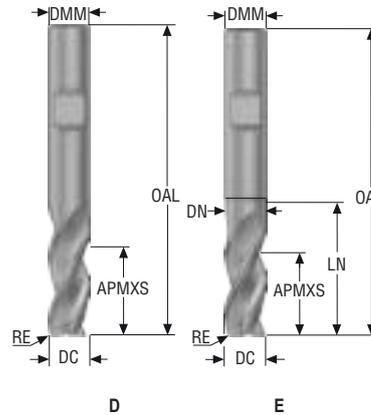


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4531-060D2C.3Z3	AXT	10286946	2	D	6,0	6,0	12,0	57,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-060E2C.3Z3	AXT	10286949	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,1	3	Weldon	<input type="checkbox"/>
S4531-080D2C.3Z3	AXT	10286952	2	D	8,0	8,0	16,0	63,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-080E2C.3Z3	AXT	10286955	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,1	3	Weldon	<input type="checkbox"/>
S4531-100D2C.3Z3	AXT	10286958	2	D	10,0	10,0	20,0	72,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-100E2C.3Z3	AXT	10286962	2	E	10,0	10,0	20,0	72,0	31,0	9,5	0,1	3	Weldon	<input type="checkbox"/>
S4531-120D2C.3Z3	AXT	10286966	2	D	12,0	12,0	24,0	88,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-120E2C.3Z3	AXT	10286971	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,1	3	Weldon	<input type="checkbox"/>
S4531-140D2C.3Z3	AXT	10286977	2	D	14,0	14,0	28,0	89,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-160D2C.3Z3	AXT	10286978	2	D	16,0	16,0	32,0	100,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-200E2C.3Z3	AXT	10286989	2	E	20,0	20,0	40,0	114,0	60,0	19,0	0,1	3	Weldon	<input type="checkbox"/>
S4531-060D3C.3Z3	AXT	10286940	3	D	6,0	6,0	19,0	63,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-080D3C.3Z3	AXT	10286941	3	D	8,0	8,0	26,0	74,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-100D3C.3Z3	AXT	10286942	3	D	10,0	10,0	32,0	84,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-120D3C.3Z3	AXT	10286943	3	D	12,0	12,0	38,0	99,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-160D3C.3Z3	AXT	10286944	3	D	16,0	16,0	50,0	114,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-200D3C.3Z3	AXT	10286945	3	D	20,0	20,0	62,0	150,0	–	–	0,1	3	Weldon	<input type="checkbox"/>
S4531-200E3C.3Z3	AXT	10286995	3	E	20,0	20,0	40,0	150,0	90,0	19,0	0,1	3	Weldon	<input type="checkbox"/>

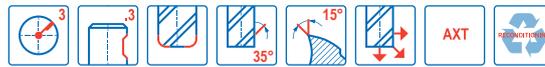
Weldon available. Delivery time is 3 days.

S4531

High performance – Aluminium – Square – 3 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



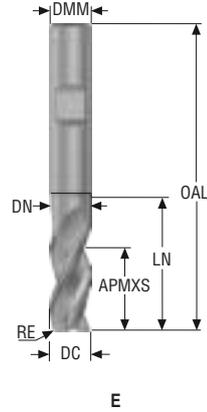
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4531-060D2R050.3Z3	AXT	10286947	2	D	6,0	6,0	12,0	57,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
S4531-060E2R050.3Z3	AXT	10286950	2	E	6,0	6,0	12,0	57,0	19,0	5,7	0,5	3	Weldon	<input type="checkbox"/>
S4531-060D2R100.3Z3	AXT	10286948	2	D	6,0	6,0	12,0	57,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
S4531-060E2R100.3Z3	AXT	10286951	2	E	6,0	6,0	12,0	57,0	19,0	5,7	1,0	3	Weldon	<input type="checkbox"/>
S4531-080D2R050.3Z3	AXT	10286953	2	D	8,0	8,0	16,0	63,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
S4531-080E2R050.3Z3	AXT	10286956	2	E	8,0	8,0	16,0	63,0	25,0	7,6	0,5	3	Weldon	<input type="checkbox"/>
S4531-080D2R100.3Z3	AXT	10286954	2	D	8,0	8,0	16,0	63,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
S4531-080E2R100.3Z3	AXT	10286957	2	E	8,0	8,0	16,0	63,0	25,0	7,6	1,0	3	Weldon	<input type="checkbox"/>
S4531-100D2R050.3Z3	AXT	10286959	2	D	10,0	10,0	20,0	72,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
S4531-100E2R050.3Z3	AXT	10286963	2	E	10,0	10,0	20,0	72,0	31,0	9,5	0,5	3	Weldon	<input type="checkbox"/>
S4531-100D2R100.3Z3	AXT	10286960	2	D	10,0	10,0	20,0	72,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
S4531-100E2R100.3Z3	AXT	10286964	2	E	10,0	10,0	20,0	72,0	31,0	9,5	1,0	3	Weldon	<input type="checkbox"/>
S4531-100D2R200.3Z3	AXT	10286961	2	D	10,0	10,0	20,0	72,0	–	–	2,0	3	Weldon	<input type="checkbox"/>
S4531-100E2R200.3Z3	AXT	10286965	2	E	10,0	10,0	20,0	72,0	31,0	9,5	2,0	3	Weldon	<input type="checkbox"/>
S4531-120D2R050.3Z3	AXT	10286967	2	D	12,0	12,0	24,0	88,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
S4531-120E2R050.3Z3	AXT	10286972	2	E	12,0	12,0	24,0	88,0	37,0	11,4	0,5	3	Weldon	<input type="checkbox"/>
S4531-120D2R100.3Z3	AXT	10286968	2	D	12,0	12,0	24,0	88,0	–	–	1,0	3	Weldon	<input type="checkbox"/>
S4531-120E2R100.3Z3	AXT	10286973	2	E	12,0	12,0	24,0	88,0	37,0	11,4	1,0	3	Weldon	<input type="checkbox"/>
S4531-120D2R200.3Z3	AXT	10286969	2	D	12,0	12,0	24,0	88,0	–	–	2,0	3	Weldon	<input type="checkbox"/>
S4531-120E2R200.3Z3	AXT	10286974	2	E	12,0	12,0	24,0	88,0	37,0	11,4	2,0	3	Weldon	<input type="checkbox"/>
S4531-120D2R300.3Z3	AXT	10286970	2	D	12,0	12,0	24,0	88,0	–	–	3,0	3	Weldon	<input type="checkbox"/>
S4531-120E2R300.3Z3	AXT	10286975	2	E	12,0	12,0	24,0	88,0	37,0	11,4	3,0	3	Weldon	<input type="checkbox"/>
S4531-160D2R050.3Z3	AXT	10286979	2	D	16,0	16,0	32,0	100,0	–	–	0,5	3	Weldon	<input type="checkbox"/>
S4531-160E2R100.3Z3	AXT	10286980	2	E	16,0	16,0	32,0	100,0	48,0	15,2	1,0	3	Weldon	<input type="checkbox"/>
S4531-160E2R200.3Z3	AXT	10286981	2	E	16,0	16,0	32,0	100,0	48,0	15,2	2,0	3	Weldon	<input type="checkbox"/>
S4531-160E2R250.3Z3	AXT	10286982	2	E	16,0	16,0	32,0	100,0	48,0	15,2	2,5	3	Weldon	<input type="checkbox"/>
S4531-160E2R300.3Z3	AXT	10286983	2	E	16,0	16,0	32,0	100,0	48,0	15,2	3,0	3	Weldon	<input type="checkbox"/>
S4531-160E2R400.3Z3	AXT	10286984	2	E	16,0	16,0	32,0	100,0	48,0	15,2	4,0	3	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

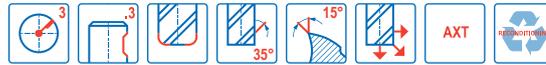
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

S4531

High performance – Aluminium – Square – 3 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6

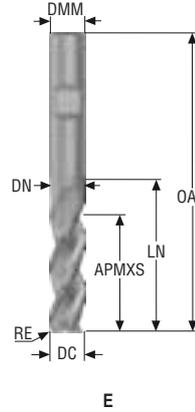


Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm		
S4531-200E2R050.3Z3	AXT	10286990	2	E	20,0	20,0	40,0	114,0	60,0	19,0	0,5	3	Weldon	<input type="checkbox"/>
S4531-200E2R100.3Z3	AXT	10286991	2	E	20,0	20,0	40,0	114,0	60,0	19,0	1,0	3	Weldon	<input type="checkbox"/>
S4531-200E2R200.3Z3	AXT	10286992	2	E	20,0	20,0	40,0	114,0	60,0	19,0	2,0	3	Weldon	<input type="checkbox"/>
S4531-200E2R300.3Z3	AXT	10286993	2	E	20,0	20,0	40,0	114,0	60,0	19,0	3,0	3	Weldon	<input type="checkbox"/>
S4531-200E2R400.3Z3	AXT	10286994	2	E	20,0	20,0	40,0	114,0	60,0	19,0	4,0	3	Weldon	<input type="checkbox"/>
S4531-120E3R300.3Z3	AXT	10286976	3	E	12,0	12,0	24,0	110,0	54,0	11,4	3,0	3	Weldon	<input type="checkbox"/>
S4531-160E3R100.3Z3	AXT	10286985	3	E	16,0	16,0	32,0	129,0	77,0	15,2	1,0	3	Weldon	<input type="checkbox"/>
S4531-160E3R200.3Z3	AXT	10286986	3	E	16,0	16,0	32,0	129,0	77,0	15,2	2,0	3	Weldon	<input type="checkbox"/>
S4531-160E3R300.3Z3	AXT	10286987	3	E	16,0	16,0	32,0	129,0	77,0	15,2	3,0	3	Weldon	<input type="checkbox"/>
S4531-160E3R400.3Z3	AXT	10286988	3	E	16,0	16,0	32,0	129,0	77,0	15,2	4,0	3	Weldon	<input type="checkbox"/>
S4531-200E3R050.3Z3	AXT	10286996	3	E	20,0	20,0	40,0	150,0	90,0	19,0	0,5	3	Weldon	<input type="checkbox"/>
S4531-200E3R100.3Z3	AXT	10286997	3	E	20,0	20,0	40,0	150,0	90,0	19,0	1,0	3	Weldon	<input type="checkbox"/>
S4531-200E3R200.3Z3	AXT	10286998	3	E	20,0	20,0	40,0	150,0	90,0	19,0	2,0	3	Weldon	<input type="checkbox"/>
S4531-200E3R300.3Z3	AXT	10286999	3	E	20,0	20,0	40,0	150,0	90,0	19,0	3,0	3	Weldon	<input type="checkbox"/>
S4531-200E3R400.3Z3	AXT	10287000	3	E	20,0	20,0	40,0	150,0	90,0	19,0	4,0	3	Weldon	<input type="checkbox"/>

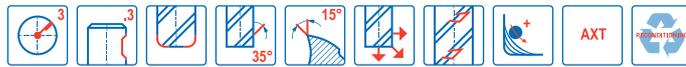
Weldon available. Delivery time is 3 days.

S4531

High performance – Aluminium – Square – 3 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm			
S4531-060E3R050.3Z3C	AXT	10287001	3	E	■	6,0	6,0	19,0	63,0	25,0	5,7	0,5	3	Weldon	<input type="checkbox"/>
S4531-060E3R100.3Z3C	AXT	10287002	3	E	■	6,0	6,0	19,0	63,0	25,0	5,7	1,0	3	Weldon	<input type="checkbox"/>
S4531-080E3R050.3Z3C	AXT	10287004	3	E	■	8,0	8,0	26,0	74,0	34,0	7,6	0,5	3	Weldon	<input type="checkbox"/>
S4531-080E3R100.3Z3C	AXT	10287005	3	E	■	8,0	8,0	26,0	74,0	34,0	7,6	1,0	3	Weldon	<input type="checkbox"/>
S4531-080E3R200.3Z3C	AXT	10287006	3	E	■	8,0	8,0	26,0	74,0	34,0	7,6	2,0	3	Weldon	<input type="checkbox"/>
S4531-100E3R050.3Z3C	AXT	10287007	3	E	■	10,0	10,0	32,0	84,0	42,0	9,5	0,5	3	Weldon	<input type="checkbox"/>
S4531-100E3R100.3Z3C	AXT	10287008	3	E	■	10,0	10,0	32,0	84,0	42,0	9,5	1,0	3	Weldon	<input type="checkbox"/>
S4531-100E3R200.3Z3C	AXT	10287009	3	E	■	10,0	10,0	32,0	84,0	42,0	9,5	2,0	3	Weldon	<input type="checkbox"/>
S4531-120E3R050.3Z3C	AXT	10287010	3	E	■	12,0	12,0	39,0	99,0	51,0	11,4	0,5	3	Weldon	<input type="checkbox"/>
S4531-120E3R100.3Z3C	AXT	10287011	3	E	■	12,0	12,0	39,0	99,0	51,0	11,4	1,0	3	Weldon	<input type="checkbox"/>
S4531-120E3R200.3Z3C	AXT	10287012	3	E	■	12,0	12,0	39,0	99,0	51,0	11,4	2,0	3	Weldon	<input type="checkbox"/>
S4531-120E3R300.3Z3C	AXT	10287013	3	E	■	12,0	12,0	39,0	99,0	51,0	11,4	3,0	3	Weldon	<input type="checkbox"/>
S4531-160E3R050.3Z3C	AXT	10287014	3	E	■	16,0	16,0	52,0	125,0	68,0	15,2	0,5	3	Weldon	<input type="checkbox"/>
S4531-160E3R100.3Z3C	AXT	10287015	3	E	■	16,0	16,0	52,0	125,0	68,0	15,2	1,0	3	Weldon	<input type="checkbox"/>
S4531-160E3R200.3Z3C	AXT	10287016	3	E	■	16,0	16,0	52,0	125,0	68,0	15,2	2,0	3	Weldon	<input type="checkbox"/>
S4531-160E3R300.3Z3C	AXT	10287017	3	E	■	16,0	16,0	52,0	125,0	68,0	15,2	3,0	3	Weldon	<input type="checkbox"/>
S4531-200E3R050.3Z3C	AXT	10287018	3	E	■	20,0	20,0	65,0	150,0	85,0	19,0	0,5	3	Weldon	<input type="checkbox"/>
S4531-200E3R100.3Z3C	AXT	10287019	3	E	■	20,0	20,0	65,0	150,0	85,0	19,0	1,0	3	Weldon	<input type="checkbox"/>
S4531-200E3R200.3Z3C	AXT	10287020	3	E	■	20,0	20,0	65,0	150,0	85,0	19,0	2,0	3	Weldon	<input type="checkbox"/>
S4531-200E3R300.3Z3C	AXT	10287021	3	E	■	20,0	20,0	65,0	150,0	85,0	19,0	3,0	3	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – S4531 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				2	3	4	5	6	8	10	12	14	16	20		
N1	E/M/A	0,40	1,5	0,030	0,046	0,060	0,075	0,090	0,12	0,15	0,18	0,20	0,22	0,25	560 (450 — 660)	
		0,40	1,5	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0080	0,0085	0,010	1825 (1500 — 2100)	
N2	E/M/A	0,30	1,5	0,024	0,036	0,048	0,060	0,070	0,095	0,12	0,14	0,16	0,18	0,20	480 (370 — 600)	
		0,30	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0070	0,0080	1575 (1300 — 1900)	
N3	E/M/A	0,30	1,5	0,024	0,036	0,048	0,060	0,070	0,095	0,12	0,14	0,16	0,18	0,20	320 (250 — 400)	
		0,30	1,5	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0070	0,0080	1050 (830 — 1300)	
N11	E/M/A	0,40	1,5	0,022	0,034	0,046	0,055	0,070	0,090	0,11	0,13	0,15	0,17	0,19	280 (230 — 330)	
		0,40	1,5	0,00085	0,0013	0,0018	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	0,0065	0,0075	920 (760 — 1000)	
TS1	A/D	0,40	1,5	0,030	0,046	0,060	0,075	0,090	0,12	0,15	0,18	0,20	0,22	0,25	560 (450 — 660)	
		0,40	1,5	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0080	0,0085	0,010	1825 (1500 — 2100)	
TP1	A/D	0,40	1,5	0,030	0,046	0,060	0,075	0,090	0,12	0,15	0,18	0,20	0,22	0,25	445 (340 — 550)	
		0,40	1,5	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0080	0,0085	0,010	1450 (1200 — 1800)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – S4531 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
			2	3	4	5	6	8	10	12	14	16	20		
N1	E	1,5	0,020	0,030	0,040	0,050	0,060	0,080	0,10	0,12	0,14	0,16	0,20	495 (400 — 590)	
		1,5	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0065	0,0080	1625 (1400 — 1900)	
N2	E	1,2	0,016	0,024	0,032	0,040	0,048	0,065	0,080	0,095	0,11	0,13	0,16	395 (300 — 490)	
		1,2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	1300 (990 — 1600)	
N3	E	1,2	0,016	0,024	0,032	0,040	0,048	0,065	0,080	0,095	0,11	0,13	0,16	265 (200 — 320)	
		1,2	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0044	0,0050	0,0065	870 (660 — 1000)	
N11	E	1,5	0,015	0,022	0,030	0,038	0,046	0,060	0,075	0,090	0,11	0,12	0,15	245 (200 — 290)	
		1,5	0,00060	0,00085	0,0012	0,0015	0,0018	0,0024	0,0030	0,0036	0,0044	0,0048	0,0060	800 (660 — 950)	
TS1	A	1,5	0,020	0,030	0,040	0,050	0,060	0,080	0,10	0,12	0,14	0,16	0,20	495 (400 — 590)	
		1,5	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0065	0,0080	1625 (1400 — 1900)	
TP1	A	1,5	0,020	0,030	0,040	0,050	0,060	0,080	0,10	0,12	0,14	0,16	0,20	395 (300 — 490)	
		1,5	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0055	0,0065	0,0080	1300 (990 — 1600)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

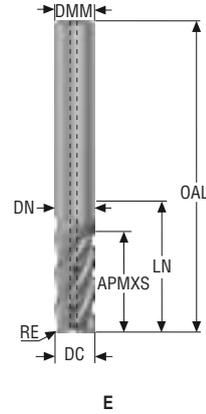
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

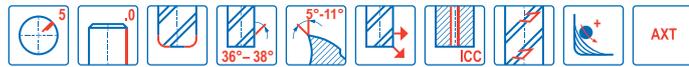
All cutting data are target values

S4651

High performance – Aluminium – Square – 5 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,02 mm



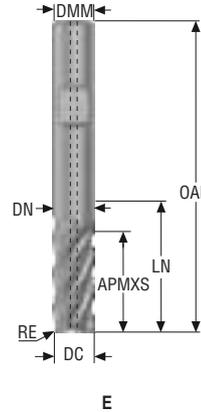
Designation	Grade	Item number	Length index	Tool shape	Chip splitters	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
S4651-060E2R050.0Z5AC	AXT	10228163	2	E	■	■	6,0	6,0	14,0	57,0	20,0	5,7	0,5	5	Cylindrical	■
S4651-060E2R100.0Z5AC	AXT	10228164	2	E	■	■	6,0	6,0	14,0	57,0	20,0	5,7	1,0	5	Cylindrical	■
S4651-080E2R050.0Z5AC	AXT	10228167	2	E	■	■	8,0	8,0	18,0	63,0	26,0	7,6	0,5	5	Cylindrical	■
S4651-080E2R100.0Z5AC	AXT	10228168	2	E	■	■	8,0	8,0	18,0	63,0	26,0	7,6	1,0	5	Cylindrical	■
S4651-100E2R050.0Z5AC	AXT	10228171	2	E	■	■	10,0	10,0	23,0	75,0	33,0	9,5	0,5	5	Cylindrical	■
S4651-100E2R100.0Z5AC	AXT	10228172	2	E	■	■	10,0	10,0	23,0	75,0	33,0	9,5	1,0	5	Cylindrical	■
S4651-120E2R050.0Z5AC	AXT	10228175	2	E	■	■	12,0	12,0	27,0	88,0	39,0	11,4	0,5	5	Cylindrical	■
S4651-120E2R100.0Z5AC	AXT	10228176	2	E	■	■	12,0	12,0	27,0	88,0	39,0	11,4	1,0	5	Cylindrical	■
S4651-120E2R200.0Z5AC	AXT	10228177	2	E	■	■	12,0	12,0	27,0	88,0	39,0	11,4	2,0	5	Cylindrical	■
S4651-120E2R300.0Z5AC	AXT	10228178	2	E	■	■	12,0	12,0	27,0	88,0	39,0	11,4	3,0	5	Cylindrical	■
S4651-160E2R050.0Z5AC	AXT	10228183	2	E	■	■	16,0	16,0	36,0	105,0	52,0	15,2	0,5	5	Cylindrical	■
S4651-160E2R100.0Z5AC	AXT	10228184	2	E	■	■	16,0	16,0	36,0	105,0	52,0	15,2	1,0	5	Cylindrical	■
S4651-160E2R200.0Z5AC	AXT	10228185	2	E	■	■	16,0	16,0	36,0	105,0	52,0	15,2	2,0	5	Cylindrical	■
S4651-160E2R300.0Z5AC	AXT	10228186	2	E	■	■	16,0	16,0	36,0	105,0	52,0	15,2	3,0	5	Cylindrical	■
S4651-200E2R050.0Z5AC	AXT	10228191	2	E	■	■	20,0	20,0	45,0	120,0	65,0	19,0	0,5	5	Cylindrical	■
S4651-200E2R100.0Z5AC	AXT	10228193	2	E	■	■	20,0	20,0	45,0	120,0	65,0	19,0	1,0	5	Cylindrical	■
S4651-200E2R200.0Z5AC	AXT	10228194	2	E	■	■	20,0	20,0	45,0	120,0	65,0	19,0	2,0	5	Cylindrical	■
S4651-200E2R300.0Z5AC	AXT	10228195	2	E	■	■	20,0	20,0	45,0	120,0	65,0	19,0	3,0	5	Cylindrical	■
S4651-060E4R050.0Z5AC	AXT	10228165	4	E	■	■	6,0	6,0	26,0	70,0	32,0	5,7	0,5	5	Cylindrical	■
S4651-060E4R100.0Z5AC	AXT	10228166	4	E	■	■	6,0	6,0	26,0	70,0	32,0	5,7	1,0	5	Cylindrical	■
S4651-080E4R050.0Z5AC	AXT	10228169	4	E	■	■	8,0	8,0	34,0	80,0	42,0	7,6	0,5	5	Cylindrical	■
S4651-080E4R100.0Z5AC	AXT	10228170	4	E	■	■	8,0	8,0	34,0	80,0	42,0	7,6	1,0	5	Cylindrical	■
S4651-100E4R050.0Z5AC	AXT	10228173	4	E	■	■	10,0	10,0	43,0	95,0	53,0	9,5	0,5	5	Cylindrical	■
S4651-100E4R100.0Z5AC	AXT	10228174	4	E	■	■	10,0	10,0	43,0	95,0	53,0	9,5	1,0	5	Cylindrical	■
S4651-120E4R050.0Z5AC	AXT	10228179	4	E	■	■	12,0	12,0	51,0	110,0	63,0	11,4	0,5	5	Cylindrical	■
S4651-120E4R100.0Z5AC	AXT	10228180	4	E	■	■	12,0	12,0	51,0	110,0	63,0	11,4	1,0	5	Cylindrical	■
S4651-120E4R200.0Z5AC	AXT	10228181	4	E	■	■	12,0	12,0	51,0	110,0	63,0	11,4	2,0	5	Cylindrical	■
S4651-120E4R300.0Z5AC	AXT	10228182	4	E	■	■	12,0	12,0	51,0	110,0	63,0	11,4	3,0	5	Cylindrical	■
S4651-160E4R050.0Z5AC	AXT	10228187	4	E	■	■	16,0	16,0	68,0	135,0	84,0	15,2	0,5	5	Cylindrical	■
S4651-160E4R100.0Z5AC	AXT	10228188	4	E	■	■	16,0	16,0	68,0	135,0	84,0	15,2	1,0	5	Cylindrical	■
S4651-160E4R200.0Z5AC	AXT	10228189	4	E	■	■	16,0	16,0	68,0	135,0	84,0	15,2	2,0	5	Cylindrical	■
S4651-160E4R300.0Z5AC	AXT	10228190	4	E	■	■	16,0	16,0	68,0	135,0	84,0	15,8	3,0	5	Cylindrical	■
S4651-200E4R050.0Z5AC	AXT	10228196	4	E	■	■	20,0	20,0	85,0	160,0	105,0	19,0	0,5	5	Cylindrical	■
S4651-200E4R100.0Z5AC	AXT	10228197	4	E	■	■	20,0	20,0	85,0	160,0	105,0	19,0	1,0	5	Cylindrical	■
S4651-200E4R200.0Z5AC	AXT	10228198	4	E	■	■	20,0	20,0	85,0	160,0	105,0	19,0	2,0	5	Cylindrical	■
S4651-200E4R300.0Z5AC	AXT	10228199	4	E	■	■	20,0	20,0	85,0	160,0	105,0	19,0	3,0	5	Cylindrical	■

■ Stocked standard.

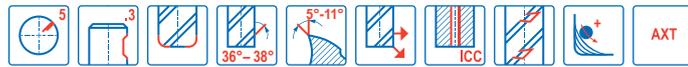
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

S4651

High performance – Aluminium – Square – 5 Flutes – Weldon



—Tolerances:  
—DMM=h5  
—DC= e7  
—RE= ±0,02 mm



Designation	Grade	Item number	Length index	Tool shape	Chip splitters	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
							mm	mm	mm	mm	mm	mm	mm			
S4651-060E2R050.3Z5AC	AXT	10287053	2	E	■	■	6,0	6,0	14,0	57,0	20,0	5,7	0,5	5	Weldon	<input type="checkbox"/>
S4651-060E2R100.3Z5AC	AXT	10287054	2	E	■	■	6,0	6,0	14,0	57,0	20,0	5,7	1,0	5	Weldon	<input type="checkbox"/>
S4651-080E2R050.3Z5AC	AXT	10287057	2	E	■	■	8,0	8,0	18,0	63,0	26,0	7,6	0,5	5	Weldon	<input type="checkbox"/>
S4651-080E2R100.3Z5AC	AXT	10287058	2	E	■	■	8,0	8,0	18,0	63,0	26,0	7,6	1,0	5	Weldon	<input type="checkbox"/>
S4651-100E2R050.3Z5AC	AXT	10287061	2	E	■	■	10,0	10,0	23,0	75,0	33,0	9,5	0,5	5	Weldon	<input type="checkbox"/>
S4651-100E2R100.3Z5AC	AXT	10287062	2	E	■	■	10,0	10,0	23,0	75,0	33,0	9,5	1,0	5	Weldon	<input type="checkbox"/>
S4651-120E2R050.3Z5AC	AXT	10287065	2	E	■	■	12,0	12,0	27,0	88,0	39,0	11,4	0,5	5	Weldon	<input type="checkbox"/>
S4651-120E2R100.3Z5AC	AXT	10287066	2	E	■	■	12,0	12,0	27,0	88,0	39,0	11,4	1,0	5	Weldon	<input type="checkbox"/>
S4651-120E2R200.3Z5AC	AXT	10287067	2	E	■	■	12,0	12,0	27,0	88,0	39,0	11,4	2,0	5	Weldon	<input type="checkbox"/>
S4651-120E2R300.3Z5AC	AXT	10287068	2	E	■	■	12,0	12,0	27,0	88,0	39,0	11,4	3,0	5	Weldon	<input type="checkbox"/>
S4651-160E2R050.3Z5AC	AXT	10287073	2	E	■	■	16,0	16,0	36,0	105,0	52,0	15,2	0,5	5	Weldon	<input type="checkbox"/>
S4651-160E2R100.3Z5AC	AXT	10287074	2	E	■	■	16,0	16,0	36,0	105,0	52,0	15,2	1,0	5	Weldon	<input type="checkbox"/>
S4651-160E2R200.3Z5AC	AXT	10287075	2	E	■	■	16,0	16,0	36,0	105,0	52,0	15,2	2,0	5	Weldon	<input type="checkbox"/>
S4651-160E2R300.3Z5AC	AXT	10287076	2	E	■	■	16,0	16,0	36,0	105,0	52,0	15,2	3,0	5	Weldon	<input type="checkbox"/>
S4651-200E2R050.3Z5AC	AXT	10287081	2	E	■	■	20,0	20,0	45,0	120,0	65,0	19,0	0,5	5	Weldon	<input type="checkbox"/>
S4651-200E2R100.3Z5AC	AXT	10287082	2	E	■	■	20,0	20,0	45,0	120,0	65,0	19,0	1,0	5	Weldon	<input type="checkbox"/>
S4651-200E2R200.3Z5AC	AXT	10287083	2	E	■	■	20,0	20,0	45,0	120,0	65,0	19,0	2,0	5	Weldon	<input type="checkbox"/>
S4651-200E2R300.3Z5AC	AXT	10287084	2	E	■	■	20,0	20,0	45,0	120,0	65,0	19,0	3,0	5	Weldon	<input type="checkbox"/>
S4651-060E4R050.3Z5AC	AXT	10287055	4	E	■	■	6,0	6,0	26,0	70,0	32,0	5,7	0,5	5	Weldon	<input type="checkbox"/>
S4651-060E4R100.3Z5AC	AXT	10287056	4	E	■	■	6,0	6,0	26,0	70,0	32,0	5,7	1,0	5	Weldon	<input type="checkbox"/>
S4651-080E4R050.3Z5AC	AXT	10287059	4	E	■	■	8,0	8,0	34,0	80,0	42,0	7,6	0,5	5	Weldon	<input type="checkbox"/>
S4651-080E4R100.3Z5AC	AXT	10287060	4	E	■	■	8,0	8,0	34,0	80,0	42,0	7,6	1,0	5	Weldon	<input type="checkbox"/>
S4651-100E4R050.3Z5AC	AXT	10287063	4	E	■	■	10,0	10,0	43,0	95,0	53,0	9,5	0,5	5	Weldon	<input type="checkbox"/>
S4651-100E4R100.3Z5AC	AXT	10287064	4	E	■	■	10,0	10,0	43,0	95,0	53,0	9,5	1,0	5	Weldon	<input type="checkbox"/>
S4651-120E4R050.3Z5AC	AXT	10287069	4	E	■	■	12,0	12,0	51,0	110,0	63,0	11,4	0,5	5	Weldon	<input type="checkbox"/>
S4651-120E4R100.3Z5AC	AXT	10287070	4	E	■	■	12,0	12,0	51,0	110,0	63,0	11,4	1,0	5	Weldon	<input type="checkbox"/>
S4651-120E4R200.3Z5AC	AXT	10287071	4	E	■	■	12,0	12,0	51,0	110,0	63,0	11,4	2,0	5	Weldon	<input type="checkbox"/>
S4651-120E4R300.3Z5AC	AXT	10287072	4	E	■	■	12,0	12,0	51,0	110,0	63,0	11,4	3,0	5	Weldon	<input type="checkbox"/>
S4651-160E4R050.3Z5AC	AXT	10287077	4	E	■	■	16,0	16,0	68,0	135,0	84,0	15,2	0,5	5	Weldon	<input type="checkbox"/>
S4651-160E4R100.3Z5AC	AXT	10287078	4	E	■	■	16,0	16,0	68,0	135,0	84,0	15,2	1,0	5	Weldon	<input type="checkbox"/>
S4651-160E4R200.3Z5AC	AXT	10287079	4	E	■	■	16,0	16,0	68,0	135,0	84,0	15,2	2,0	5	Weldon	<input type="checkbox"/>
S4651-160E4R300.3Z5AC	AXT	10287080	4	E	■	■	16,0	16,0	68,0	135,0	84,0	15,2	3,0	5	Weldon	<input type="checkbox"/>
S4651-200E4R050.3Z5AC	AXT	10287085	4	E	■	■	20,0	20,0	85,0	160,0	105,0	19,0	0,5	5	Weldon	<input type="checkbox"/>
S4651-200E4R100.3Z5AC	AXT	10287086	4	E	■	■	20,0	20,0	85,0	160,0	105,0	19,0	1,0	5	Weldon	<input type="checkbox"/>
S4651-200E4R200.3Z5AC	AXT	10287087	4	E	■	■	20,0	20,0	85,0	160,0	105,0	19,0	2,0	5	Weldon	<input type="checkbox"/>
S4651-200E4R300.3Z5AC	AXT	10287088	4	E	■	■	20,0	20,0	85,0	160,0	105,0	19,0	3,0	5	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Cutting data – S4651 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				6	8	10	12	16	20	
N1	E	0,40	2,0	0,055	0,075	0,095	0,11	0,14	0,16	330 (260 — 410)
		0.40	2.0	0.0022	0.0030	0.0038	0.0044	0.0055	0.0065	1075 (860 — 1300)
N2	E	0,40	2,0	0,046	0,060	0,075	0,090	0,11	0,13	280 (220 — 350)
		0.40	2.0	0.0018	0.0024	0.0030	0.0036	0.0044	0.0050	920 (730 — 1100)
N3	E	0,40	2,0	0,046	0,060	0,075	0,090	0,11	0,13	185 (150 — 230)
		0.40	2.0	0.0018	0.0024	0.0030	0.0036	0.0044	0.0050	610 (500 — 750)
N11	E	0,40	2,0	0,046	0,060	0,075	0,090	0,11	0,13	250 (190 — 310)
		0.40	2.0	0.0018	0.0024	0.0030	0.0036	0.0044	0.0050	820 (630 — 1000)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – S4651 Side milling advanced roughing a<sub>e</sub>/DC=0,07

SMG		a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
			6	8	10	12	16	20	
N1	E	2,0	0,070	0,095	0,12	0,14	0,19	0,24	475 (370 — 600)
		2.0	0.0028	0.0038	0.0048	0.0055	0.0075	0.0095	1550 (1300 — 1900)
N2	E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	410 (320 — 520)
		2.0	0.0019	0.0026	0.0032	0.0038	0.0050	0.0065	1350 (1100 — 1700)
N3	E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	275 (210 — 350)
		2.0	0.0019	0.0026	0.0032	0.0038	0.0050	0.0065	900 (690 — 1100)
N11	E	2,0	0,048	0,065	0,080	0,095	0,13	0,16	365 (280 — 460)
		2.0	0.0019	0.0026	0.0032	0.0038	0.0050	0.0065	1200 (920 — 1500)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

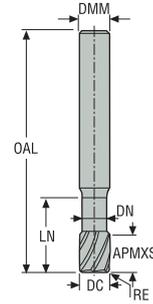
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JHP490

High performance – Aluminium – Square – 2-3 Flutes – Cylindrical – Corner radius



E

- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- RE= ±0,05 mm
- Regrind possible



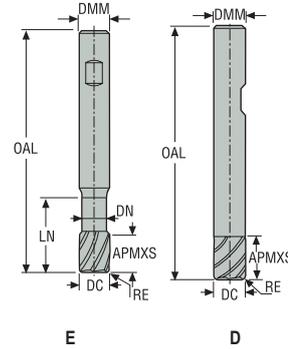
Designation	Item number	Length index	Tool shape	Chip splitters	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm			
490V100R050Z2.0A-MEGA-T	02623870	2	E	■	■	10,0	10,0	12,0	65,0	20,0	9,0	0,5	2	Cylindrical	■
490V120R200Z2.0A-MEGA-T	02623883	2	E	■	■	12,0	12,0	14,0	75,0	24,0	11,0	2,0	2	Cylindrical	■
490V160R050Z3.0A-MEGA-T	02623889	2	E	■	■	16,0	16,0	18,0	85,0	32,0	14,5	0,5	3	Cylindrical	■
490V200R050Z3.0A-MEGA-T	02623908	2	E	■	■	20,0	20,0	22,0	100,0	40,0	18,0	0,5	3	Cylindrical	■
490V250R050Z3.0A-MEGA-T	02623926	2	E	■	■	25,0	25,0	27,0	125,0	50,0	23,0	0,5	3	Cylindrical	■
490VL100R100Z2.0A-MEGA-T	02623876	3	E	■	■	10,0	10,0	22,0	85,0	42,0	9,0	1,0	2	Cylindrical	■
490VL120R050Z3.0A-MEGA-T	02623880	3	E	■	■	12,0	12,0	14,0	95,0	40,0	11,0	0,5	3	Cylindrical	■
490VL120R100Z2.0A-MEGA-T	02623886	3	E	■	■	12,0	12,0	26,0	95,0	50,0	11,0	1,0	2	Cylindrical	■
490VL160R050Z3.0A-MEGA-T	02623891	3	E	■	■	16,0	16,0	18,0	95,0	45,0	14,5	0,5	3	Cylindrical	■
490VL200R200Z3.0A-MEGA-T	02623916	3	E	■	■	20,0	20,0	42,0	125,0	65,0	18,0	2,0	3	Cylindrical	■
490VXL250R050Z3.0A-MEGA-T	02623927	4	E	■	■	25,0	25,0	50,0	125,0	75,0	23,0	0,5	3	Cylindrical	■

■ Stocked standard.

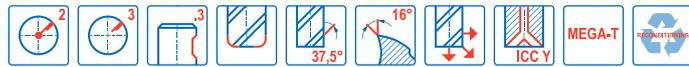
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JHP490

High performance – Aluminium – Square – 2-3 Flutes – Weldon – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm			
490V120R200Z2.0A-MEGA-TW	02669371	2	E	■	■	12,0	12,0	14,0	75,0	24,0	11,0	2,0	2	Weldon	□
490V160R050Z3A-MEGA-T	02623888	2	E	■	■	16,0	16,0	18,0	85,0	32,0	14,5	0,5	3	Weldon	■
490160R200Z3A-MEGA-T	02623898	2	D	■	■	16,0	16,0	34,0	95,0	-	-	2,0	3	Weldon	■
490V200R050Z3A-MEGA-T	02623907	2	E	■	■	20,0	20,0	22,0	100,0	40,0	18,0	0,5	3	Weldon	■
490V250R050Z3A-MEGA-T	02623925	2	E	■	■	25,0	25,0	27,0	125,0	50,0	23,0	0,5	3	Weldon	■
490VL100R100Z2.0A-MEGA-TW	02669368	3	E	■	■	10,0	10,0	22,0	85,0	42,0	9,0	1,0	2	Weldon	□
490VL120R050Z3.0A-MEGA-TW	02669374	3	E	■	■	12,0	12,0	14,0	95,0	40,0	11,0	0,5	3	Weldon	□
490VL120R100Z2.0A-MEGA-TW	02669375	3	E	■	■	12,0	12,0	26,0	95,0	50,0	11,0	1,0	2	Weldon	□
490VL160R050Z3.0A-MEGA-TW	02669382	3	E	■	■	16,0	16,0	18,0	95,0	45,0	14,5	0,5	3	Weldon	□
490VL200R200Z3.0A-MEGA-TW	02669388	3	E	■	■	20,0	20,0	42,0	125,0	65,0	18,0	2,0	3	Weldon	□
490VXL250R050Z3.0A-MEGA-TW	02669397	4	E	■	■	25,0	25,0	50,0	125,0	75,0	23,0	0,5	3	Weldon	□

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

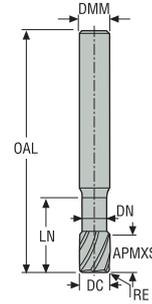
Graphite

X-Heads

Minimaster

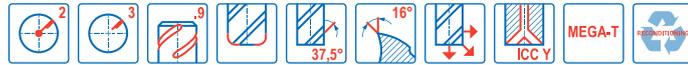
JHP490

High performance – Aluminium – Square – 2-3 Flutes – Safelock – Corner radius



E

- Tolerances:
- DMM=h5
- DC=-0,02/-0,1 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	Chip splitters	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
						mm	mm	mm	mm	mm	mm	mm			
490V100R050Z2.9A-MEGA-T	02927984	2	E	■	■	10,0	10,0	12,0	65,0	20,0	9,0	0,5	2	Safe-lock	<input type="checkbox"/>
490V120R200Z2.9A-MEGA-T	02927988	2	E	■	■	12,0	12,0	14,0	75,0	24,0	11,0	2,0	2	Safe-lock	<input type="checkbox"/>
490V160R050Z3.9A-MEGA-T	02927990	2	E	■	■	16,0	16,0	18,0	85,0	32,0	14,0	0,5	3	Safe-lock	<input type="checkbox"/>
490V200R050Z3.9A-MEGA-T	02927992	2	E	■	■	20,0	20,0	22,0	100,0	40,0	18,0	0,5	3	Safe-lock	<input type="checkbox"/>
490V250R050Z3.9A-MEGA-T	02927993	2	E	■	■	25,0	25,0	27,0	125,0	50,0	23,0	0,5	3	Safe-lock	<input type="checkbox"/>
490VL100R100Z2.9A-MEGA-T	02927994	3	E	■	■	10,0	10,0	22,0	85,0	42,0	9,0	1,0	2	Safe-lock	<input type="checkbox"/>
490VL120R050Z3.9A-MEGA-T	02927995	3	E	■	■	12,0	12,0	14,0	95,0	40,0	11,0	0,5	3	Safe-lock	<input type="checkbox"/>
490VL120R100Z2.9A-MEGA-T	02927996	3	E	■	■	12,0	12,0	26,0	95,0	50,0	11,0	1,0	2	Safe-lock	<input type="checkbox"/>
490VL160R050Z3.9A-MEGA-T	02927997	3	E	■	■	16,0	16,0	18,0	95,0	32,0	14,0	0,5	3	Safe-lock	<input type="checkbox"/>
490VL200R200Z3.9A-MEGA-T	02927998	3	E	■	■	20,0	20,0	42,0	125,0	65,0	18,0	2,0	3	Safe-lock	<input type="checkbox"/>
490VXL250R050Z3.9A-MEGA-T	02927999	4	E	■	■	25,0	25,0	50,0	125,0	75,0	23,0	0,5	3	Safe-lock	<input type="checkbox"/>

Safelock available. Subject to change, refer to current Price and Stock List.

- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and CFRP
- Graphite
- X-Heads
- Minimaster

Cutting data – JHP490 Side milling roughing

SMG		a <sub>p</sub> /DC		f <sub>z</sub>					v <sub>c</sub>
				10	12	16	20	25	
N1	E/M/A	0.500	1.1	0.20	0.24	0.30	0.34	0.38	700 (550 — 860)
		0,500	1,0	0,0080	0,0095	0,012	0,013	0,015	2325 (1900 — 2800)
N2	E/M/A	0.500	1.1	0.20	0.24	0.30	0.34	0.38	455 (350 — 550)
		0,500	1,0	0,0080	0,0095	0,012	0,013	0,015	1500 (1200 — 1800)
N3	E/M/A	0.500	1.1	0.20	0.24	0.30	0.34	0.38	540 (440 — 650)
		0,500	1,0	0,0080	0,0095	0,012	0,013	0,015	1775 (1500 — 2100)

Universal

Steel and cast iron

Cutting data – JHP490 Slot milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>					v <sub>c</sub>
				10	12	16	20	25	
N1	E/M/A	1.0	0.15	0.18	0.24	0.30	0.38	650 (500 — 790)	
		1,0	0,0060	0,0070	0,0095	0,012	0,015	2125 (1700 — 2500)	
N2	E/M/A	1.0	0.15	0.18	0.24	0.30	0.38	420 (330 — 510)	
		1,0	0,0060	0,0070	0,0095	0,012	0,015	1375 (1100 — 1600)	
N3	E/M/A	1.0	0.15	0.18	0.24	0.30	0.38	500 (400 — 590)	
		1,0	0,0060	0,0070	0,0095	0,012	0,015	1650 (1400 — 1900)	

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

JH40

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

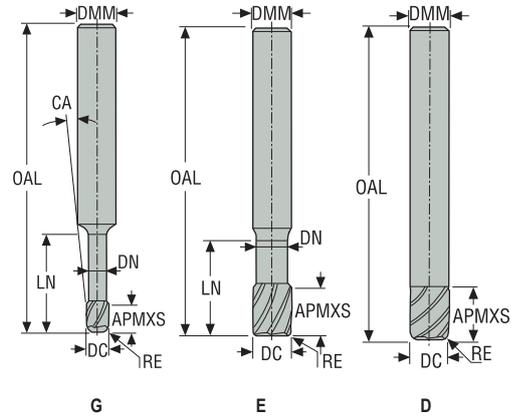
Hard

Plastic and CFRP

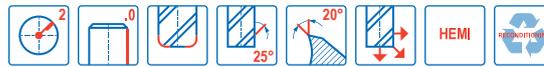
Graphite

X-Heads

Minimaster



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,1 mm
- Regrind possible if DC is ≥Ø6

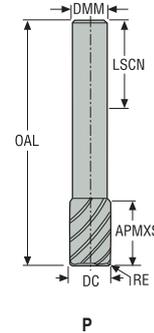


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
40K060-HEMI	00022089	1	D	6,0	6,0	13,0	50,0	—	—	0,1	—	2	Cylindrical	■
40K080-HEMI	00022090	1	D	8,0	8,0	13,0	50,0	—	—	0,1	—	2	Cylindrical	■
40K100-HEMI	00022091	1	D	10,0	10,0	16,0	50,0	—	—	0,1	—	2	Cylindrical	■
40K120-HEMI	00022092	1	D	12,0	12,0	16,0	65,0	—	—	0,1	—	2	Cylindrical	■
40020-HEMI	00022093	2	G	2,0	3,0	3,0	40,0	6,0	1,9	0,1	3,5	2	Cylindrical	■
40030-HEMI	00022094	2	E	3,0	3,0	4,0	40,0	8,0	2,9	0,1	—	2	Cylindrical	■
40040-HEMI	00022095	2	E	4,0	4,0	5,0	50,0	12,0	3,8	0,1	—	2	Cylindrical	■
40050-HEMI	00022120	2	E	5,0	5,0	8,0	50,0	14,0	4,8	0,1	—	2	Cylindrical	■
40060-HEMI	00022250	2	E	6,0	6,0	8,0	65,0	18,0	5,7	0,1	—	2	Cylindrical	■
40080-HEMI	00022580	2	E	8,0	8,0	10,0	70,0	22,0	7,7	0,1	—	2	Cylindrical	■
40100-HEMI	00022663	2	E	10,0	10,0	14,0	80,0	28,0	9,7	0,1	—	2	Cylindrical	■
40120-HEMI	00022667	2	E	12,0	12,0	16,0	90,0	35,0	11,5	0,1	—	2	Cylindrical	■
40160-HEMI	00022668	2	E	16,0	16,0	20,0	90,0	40,0	15,5	0,1	—	2	Cylindrical	■
40200-HEMI	00022701	2	E	20,0	20,0	25,0	100,0	50,0	19,5	0,1	—	2	Cylindrical	■

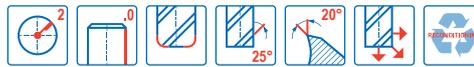
■ Stocked standard.

JH40

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,1 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
40020-RS	02479642	2	P	2,0	1,9	3,0	40,0	0,1	2	Cylindrical	■
40030-RS	02479643	2	P	3,0	2,9	4,0	60,0	0,1	2	Cylindrical	■
40040-RS	02479644	2	P	4,0	3,8	5,0	60,0	0,1	2	Cylindrical	■
40050-RS	02479645	2	P	5,0	4,8	8,0	70,0	0,1	2	Cylindrical	■
40060-RS	02479646	2	P	6,0	5,8	8,0	65,0	0,1	2	Cylindrical	■
40080-RS	02479647	2	P	8,0	7,8	10,0	70,0	0,1	2	Cylindrical	■
40100-RS	02479648	2	P	10,0	9,7	14,0	100,0	0,1	2	Cylindrical	■
40120-RS	02479649	2	P	12,0	11,7	16,0	90,0	0,1	2	Cylindrical	■
40L060-RS	02479650	3	P	6,0	5,8	8,0	100,0	0,1	2	Cylindrical	■
40L080-RS	02479651	3	P	8,0	7,8	10,0	100,0	0,1	2	Cylindrical	■
40L120-RS	02479652	3	P	12,0	11,7	16,0	125,0	0,1	2	Cylindrical	■
40L160-RS	02479653	3	P	16,0	15,7	20,0	125,0	0,1	2	Cylindrical	■
40L200-RS	02479654	3	P	20,0	19,7	25,0	125,0	0,1	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH40 Side milling

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.400	1.2	0.030	0.046	0.060	0.075	0.090	0.12	0.15	0.18	0.22	0.25	730 (610 – 840)
		0,400	1,2	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0085	0,010	2400 (2100 – 2700)
N11	E/M/A	0.400	1.0	0.030	0.046	0.060	0.075	0.090	0.12	0.15	0.18	0.22	0.26	425 (320 – 520)
		0,400	1,0	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0085	0,010	1400 (1100 – 1700)
TS1	A	0.400	1.2	0.030	0.046	0.060	0.075	0.090	0.12	0.15	0.18	0.22	0.25	730 (610 – 840)
		0,400	1,2	0,0012	0,0018	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0085	0,010	2400 (2100 – 2700)

Cutting data – JH40 Slot milling

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.60	0.026	0.040	0.050	0.065	0.080	0.10	0.13	0.16	0.20	0.25	600 (510 – 700)
		0,60	0,0010	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	0,0080	0,010	1975 (1700 – 2200)
N11	E/M/A	0.40	0.016	0.024	0.032	0.040	0.048	0.065	0.080	0.095	0.13	0.16	400 (310 – 500)
		0,40	0,00065	0,00095	0,0013	0,0016	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	1300 (1100 – 1600)
TS1	A	1.0	0.026	0.040	0.050	0.065	0.080	0.10	0.13	0.16	0.20	0.25	600 (510 – 700)
		1,0	0,0010	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	0,0080	0,010	1975 (1700 – 2200)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

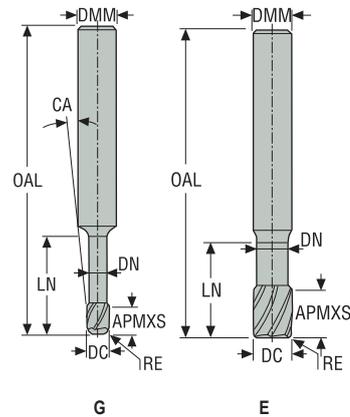
Graphite

X-Heads

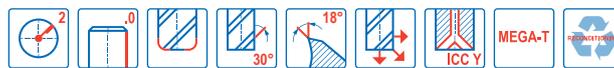
Minimaster

JH421

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø6



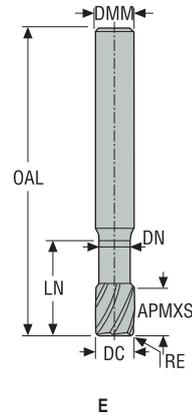
Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm				
421020R020Z2-MEGA-T	02434927	2	G	–	2,0	3,0	3,0	40,0	8,0	1,8	0,2	3,0	2	Cylindrical	■
421030R020Z2-MEGA-T	02434939	2	E	–	3,0	3,0	4,0	40,0	12,0	2,7	0,2	–	2	Cylindrical	■
421040R020Z2-MEGA-T	02434940	2	G	–	4,0	6,0	5,0	50,0	16,0	3,6	0,2	3,0	2	Cylindrical	■
421040R030Z2-MEGA-T	02434941	2	G	–	4,0	6,0	5,0	50,0	16,0	3,6	0,3	3,0	2	Cylindrical	■
421050R100Z2-MEGA-T	02434942	2	G	–	5,0	6,0	6,0	50,0	18,0	4,5	1,0	1,5	2	Cylindrical	■
421060R025Z2-MEGA-T	02434946	2	E	–	6,0	6,0	8,0	50,0	20,0	5,4	0,25	–	2	Cylindrical	■
421060R050Z2-MEGA-T	02434947	2	E	–	6,0	6,0	8,0	50,0	20,0	5,4	0,5	–	2	Cylindrical	■
421060R100Z2-MEGA-T	02434958	2	E	–	6,0	6,0	8,0	50,0	20,0	5,4	1,0	–	2	Cylindrical	■
421080R030Z2-MEGA-T	02434960	2	E	–	8,0	8,0	10,0	65,0	30,0	7,2	0,3	–	2	Cylindrical	■
421080R060Z2-MEGA-T	02434964	2	E	–	8,0	8,0	10,0	65,0	30,0	7,2	0,6	–	2	Cylindrical	■
421080R100Z2-MEGA-T	02434967	2	E	–	8,0	8,0	10,0	65,0	30,0	7,2	1,0	–	2	Cylindrical	■
421100R030Z2-MEGA-T	02434968	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	0,3	–	2	Cylindrical	■
421100R080Z2-MEGA-T	02434970	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	0,8	–	2	Cylindrical	■
421100R150Z2-MEGA-T	02434971	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	1,5	–	2	Cylindrical	■
421100R250Z2-MEGA-T	02438614	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	2,5	–	2	Cylindrical	■
421100R310Z2-MEGA-T	02438683	2	E	–	10,0	10,0	12,0	80,0	36,0	9,0	3,1	–	2	Cylindrical	■
421120R030Z2-MEGA-T	02434983	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	0,3	–	2	Cylindrical	■
421120R050Z2-MEGA-T	02434986	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	0,5	–	2	Cylindrical	■
421120R100Z2-MEGA-T	02434988	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	1,0	–	2	Cylindrical	■
421120R150Z2-MEGA-T	02434989	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	1,5	–	2	Cylindrical	■
421120R200Z2-MEGA-T	02434990	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	2,0	–	2	Cylindrical	■
421120R250Z2AMEGA-T	02435008	2	E	■	12,0	12,0	14,0	90,0	40,0	11,0	2,5	–	2	Cylindrical	■
421120R250Z2-MEGA-T	02435007	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	2,5	–	2	Cylindrical	■
421120R310Z2-MEGA-T	02435009	2	E	–	12,0	12,0	14,0	90,0	40,0	11,0	3,1	–	2	Cylindrical	■

■ Stocked standard.

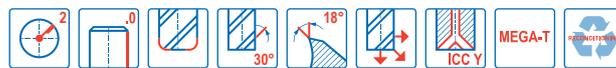
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JH421

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
421160R050Z2-MEGA-T	02435010	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	0,5	2	Cylindrical	■
421160R200Z2-MEGA-T	02435014	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	2,0	2	Cylindrical	■
421160R250Z2AMEGA-T	02435020	2	E	■	16,0	16,0	18,0	100,0	45,0	14,5	2,5	2	Cylindrical	■
421160R250Z2-MEGA-T	02435012	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	2,5	2	Cylindrical	■
421160R310Z2-MEGA-T	02435036	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	3,1	2	Cylindrical	■
421160R400Z2AMEGA-T	02438684	2	E	■	16,0	16,0	18,0	100,0	45,0	14,5	4,0	2	Cylindrical	■
421160R400Z2-MEGA-T	02435039	2	E	–	16,0	16,0	18,0	100,0	45,0	14,5	4,0	2	Cylindrical	■
421200R160Z2-MEGA-T	02435042	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	1,6	2	Cylindrical	■
421200R200Z2-MEGA-T	02435044	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	2,0	2	Cylindrical	■
421200R250Z2AMEGA-T	02438685	2	E	■	20,0	20,0	24,0	100,0	45,0	18,0	2,5	2	Cylindrical	■
421200R250Z2-MEGA-T	02435046	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	2,5	2	Cylindrical	■
421200R310Z2-MEGA-T	02435049	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	3,1	2	Cylindrical	■
421200R400Z2-MEGA-T	02435051	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	4,0	2	Cylindrical	■
421200R500Z2-MEGA-T	02435055	2	E	–	20,0	20,0	24,0	100,0	45,0	18,0	5,0	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

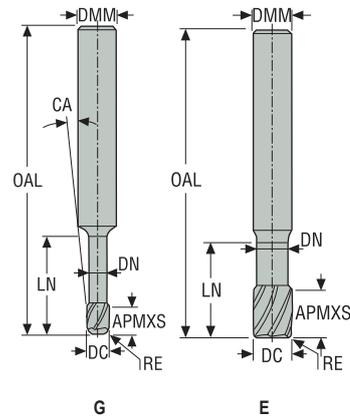
Graphite

X-Heads

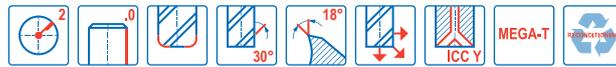
Minimaster

JH421

High performance – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
421L080R020Z2-MEGA-T	02435068	3	E	–	8,0	8,0	6,0	75,0	40,0	7,2	0,2	2	Cylindrical	■
421L100R050Z2-MEGA-T	02435070	3	E	–	10,0	10,0	8,0	90,0	50,0	9,0	0,5	2	Cylindrical	■
421L100R250Z2-MEGA-T	02435074	3	E	–	10,0	10,0	8,0	90,0	50,0	9,0	2,5	2	Cylindrical	■
421L100R310Z2-MEGA-T	02438690	3	E	–	10,0	10,0	8,0	90,0	50,0	9,0	3,1	2	Cylindrical	■
421L120R050Z2-MEGA-T	02435340	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	0,5	2	Cylindrical	■
421L120R100Z2-MEGA-T	02435343	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	1,0	2	Cylindrical	■
421L120R200Z2-MEGA-T	02435373	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	2,0	2	Cylindrical	■
421L120R250Z2-MEGA-T	02435374	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	2,5	2	Cylindrical	■
421L120R310Z2-MEGA-T	02438692	3	E	–	12,0	12,0	10,0	110,0	70,0	11,0	3,1	2	Cylindrical	■
421L160R050Z2-MEGA-T	02435375	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	0,5	2	Cylindrical	■
421L160R100Z2-MEGA-T	02435380	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	1,0	2	Cylindrical	■
421L160R200Z2-MEGA-T	02435381	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	2,0	2	Cylindrical	■
421L160R250Z2AMEGA-T	02435383	3	E	■	16,0	16,0	13,0	125,0	80,0	14,5	2,5	2	Cylindrical	■
421L160R250Z2-MEGA-T	02435382	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	2,5	2	Cylindrical	■
421L160R310Z2-MEGA-T	02435384	3	E	–	16,0	16,0	13,0	125,0	80,0	14,5	3,1	2	Cylindrical	■
421L160R400Z2AMEGA-T	02435386	3	E	■	16,0	16,0	13,0	125,0	80,0	14,5	4,0	2	Cylindrical	■
421L200R050Z2-MEGA-T	02435387	3	E	–	20,0	20,0	16,0	150,0	100,0	18,0	0,5	2	Cylindrical	■
421L200R200Z2-MEGA-T	02435391	3	E	–	20,0	20,0	16,0	150,0	100,0	18,0	2,0	2	Cylindrical	■
421L200R310Z2-MEGA-T	02435398	3	E	–	20,0	20,0	16,0	150,0	100,0	18,0	3,1	2	Cylindrical	■
421L200R500Z2-MEGA-T	02435401	3	E	–	20,0	20,0	16,0	150,0	100,0	18,0	5,0	2	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaxter

Cutting data – JH421 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
				2	3	4	5	6	8	10	12	14	16	20	25	
N1	E/M/A	0.400	1.0	0.030	0.044	0.060	0.075	0.090	0.12	0.15	0.18	0.20	0.22	0.25	0.28	620 (520 – 720)
		0,400	1,0	0,0012	0,0017	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0080	0,0085	0,010	0,011	2025 (1800 – 2300)
N11	E/M/A	0.400	1.0	0.020	0.030	0.040	0.050	0.060	0.080	0.10	0.12	0.13	0.15	0.17	0.19	410 (310 – 510)
		0,400	1,0	0,00080	0,0012	0,0016	0,0020	0,0024	0,0032	0,0040	0,0048	0,0050	0,0060	0,0065	0,0075	1350 (1100 – 1600)
TS1	A	0.400	1.0	0.030	0.044	0.060	0.075	0.090	0.12	0.15	0.18	0.20	0.22	0.25	0.28	620 (520 – 720)
		0,400	1,0	0,0012	0,0017	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	0,0080	0,0085	0,010	0,011	2025 (1800 – 2300)
TP1	M	0.400	1.0	0.024	0.036	0.048	0.060	0.070	0.095	0.12	0.14	0.16	0.18	0.20	0.24	410 (310 – 500)
		0,400	1,0	0,00095	0,0014	0,0019	0,0024	0,0028	0,0038	0,0048	0,0055	0,0065	0,0070	0,0080	0,0095	1350 (1100 – 1600)

Cutting data – JH421 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>												v <sub>c</sub>
			2	3	4	5	6	8	10	12	14	16	20	25	
N1	E/M/A	0.50	0.014	0.022	0.028	0.036	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.18	610 (510 – 700)
		0,50	0,00055	0,00085	0,0011	0,0014	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0070	2000 (1700 – 2200)
N11	E/M/A	0.50	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.055	0.065	0.080	0.10	405 (310 – 500)
		0,50	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0022	0,0026	0,0032	0,0040	1325 (1100 – 1600)
TS1	A	0.50	0.014	0.022	0.028	0.036	0.042	0.055	0.070	0.085	0.10	0.11	0.14	0.18	610 (510 – 700)
		0,50	0,00055	0,00085	0,0011	0,0014	0,0017	0,0022	0,0028	0,0034	0,0040	0,0044	0,0055	0,0070	2000 (1700 – 2200)
TP1	M	0.50	0.010	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.10	0.13	405 (310 – 500)
		0,50	0,00040	0,00060	0,00080	0,0010	0,0012	0,0016	0,0020	0,0024	0,0028	0,0032	0,0040	0,0050	1325 (1100 – 1600)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

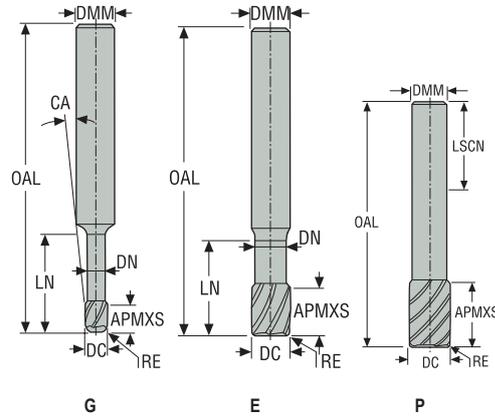
Graphite

X-Heads

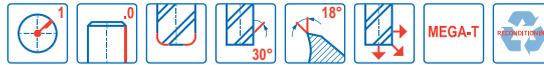
Minimaster

JH410

High performance – Aluminium – Square – 1 Flute – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	RE2	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm				
410020R050-MEGA-T	02451548	2	G	2,0	6,0	3,0	50,0	6,0	1,7	0,5	2,0	12,0	1	Cylindrical	■
410030R050-MEGA-T	02451578	2	G	3,0	6,0	4,0	50,0	8,0	2,7	0,5	2,0	7,5	1	Cylindrical	■
410ML030R050-MEGA-T	02451580	2	G	3,0	6,0	4,0	60,0	15,0	2,7	0,5	2,0	5,0	1	Cylindrical	■
410040R050-MEGA-T	02451581	2	G	4,0	6,0	5,0	60,0	8,0	3,6	0,5	2,0	5,5	1	Cylindrical	■
410ML040R050-MEGA-T	02451585	2	G	4,0	6,0	5,0	60,0	15,0	3,6	0,5	2,0	3,5	1	Cylindrical	■
410050R050-MEGA-T	02451586	2	G	5,0	6,0	7,0	65,0	11,0	4,5	0,5	2,0	2,5	1	Cylindrical	■
410ML050R050-MEGA-T	02451589	2	G	5,0	6,0	7,0	65,0	18,0	4,5	0,5	2,0	1,5	1	Cylindrical	■
410TL050R050-MEGA-T	02451587	2	G	5,0	6,0	7,0	65,0	26,0	4,5	0,5	2,0	1,5	1	Cylindrical	■
410060R050-MEGA-T	02451591	2	E	6,0	6,0	8,0	70,0	11,0	5,3	0,5	2,0	-	1	Cylindrical	■
410ML060R050-MEGA-T	02451593	2	E	6,0	6,0	8,0	70,0	18,0	5,3	0,5	2,0	-	1	Cylindrical	■
410TL060R050-MEGA-T	02451592	2	E	6,0	6,0	8,0	70,0	31,0	5,3	0,5	2,0	-	1	Cylindrical	■
410070RSR050-MEGA-T	02451594	2	P	7,0	6,0	9,0	65,0	-	-	0,5	3,0	-	1	Cylindrical	■
410090RSR050-MEGA-T	02451596	2	P	9,0	8,0	11,0	65,0	-	-	0,5	3,0	-	1	Cylindrical	■
410110RSR050-MEGA-T	02451598	2	P	11,0	10,0	13,0	70,0	-	-	0,5	3,0	-	1	Cylindrical	■
410130RSR100-MEGA-T	02451600	2	P	13,0	12,0	15,0	70,0	-	-	1,0	3,0	-	1	Cylindrical	■
410150RSR100-MEGA-T	02451603	2	P	15,0	14,0	17,0	80,0	-	-	1,0	3,0	-	1	Cylindrical	■
410170RSR100-MEGA-T	02451605	2	P	17,0	16,0	19,0	80,0	-	-	1,0	3,0	-	1	Cylindrical	■
410L070RSR200-MEGA-T	02451595	3	P	7,0	6,0	9,0	85,0	-	-	2,0	3,0	-	1	Cylindrical	■
410L090RSR200-MEGA-T	02451597	3	P	9,0	8,0	11,0	85,0	-	-	2,0	3,0	-	1	Cylindrical	■
410L110RSR200-MEGA-T	02451599	3	P	11,0	10,0	13,0	90,0	-	-	2,0	3,0	-	1	Cylindrical	■
410L130RSR200-MEGA-T	02451601	3	P	13,0	12,0	15,0	90,0	-	-	2,0	3,0	-	1	Cylindrical	■
410L150RSR200-MEGA-T	02451604	3	P	15,0	14,0	17,0	110,0	-	-	2,0	3,0	-	1	Cylindrical	■
410L170RSR200-MEGA-T	02451606	3	P	17,0	16,0	19,0	110,0	-	-	2,0	3,0	-	1	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – JH410 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
				2	3	4	5	6	7	9	11	13	15	17	
N1	E/M/A	0.410	1.0	0.070	0.11	0.14	0.18	0.22	0.25	0.32	0.40	0.46	0.50	0.55	710 (600 – 820)
		0.410	1.0	0,0028	0,0044	0,0055	0,0070	0,0085	0,010	0,013	0,016	0,018	0,020	0,022	2325 (2000 – 2600)
N11	E/M/A	0.318	0.65	0.026	0.040	0.055	0.065	0.080	0.095	0.12	0.15	0.17	0.19	0.22	495 (380 – 610)
		0.318	0.65	0,0010	0,0016	0,0022	0,0026	0,0032	0,0038	0,0048	0,0060	0,0065	0,0075	0,0085	1625 (1300 – 2000)
TS1	A	0.410	1.0	0.070	0.11	0.14	0.18	0.22	0.25	0.32	0.40	0.46	0.50	0.55	710 (600 – 820)
		0.410	1.0	0,0028	0,0044	0,0055	0,0070	0,0085	0,010	0,013	0,016	0,018	0,020	0,022	2325 (2000 – 2600)

Cutting data – JH410 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
			2	3	4	5	6	7	9	11	13	15	17	
N1	E/M/A	0.75	0.055	0.080	0.11	0.14	0.16	0.19	0.25	0.30	0.36	0.40	0.46	630 (530 – 730)
		0.75	0,0022	0,0032	0,0044	0,0055	0,0065	0,0075	0,010	0,012	0,014	0,016	0,018	2075 (1800 – 2300)
N11	E/M/A	0.36	0.018	0.028	0.036	0.046	0.055	0.065	0.080	0.10	0.12	0.14	0.15	420 (320 – 520)
		0.36	0,00070	0,0011	0,0014	0,0018	0,0022	0,0026	0,0032	0,0040	0,0048	0,0055	0,0060	1375 (1100 – 1700)
TS1	A	1.0	0.055	0.080	0.11	0.14	0.16	0.19	0.25	0.30	0.36	0.40	0.46	630 (530 – 730)
		1.0	0,0022	0,0032	0,0044	0,0055	0,0065	0,0075	0,010	0,012	0,014	0,016	0,018	2075 (1800 – 2300)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

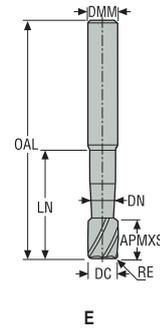
Graphite

X-Heads

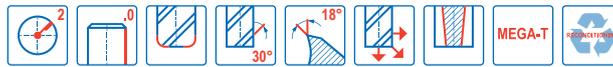
Minimaster

JH440

High speed – Aluminium – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	NA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
440060-MEGA-T	00022702	2	E	6,0	6,0	8,0	60,0	30,0	5,4	1,5	2,09	2	Cylindrical	■
440080-MEGA-T	00022865	2	E	8,0	8,0	10,0	60,0	30,0	7,2	2,0	3,12	2	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – JH440 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>		v <sub>c</sub>
				6	8	
N1	E/M/A	0.300 <i>0,300</i>	0.50 <i>0,50</i>	0.080 <i>0,0032</i>	0.10 <i>0,0040</i>	780 (650 – 900) 2550 (2200 – 2900)
N2	E/M/A	0.300 <i>0,300</i>	0.50 <i>0,50</i>	0.060 <i>0,0024</i>	0.080 <i>0,0032</i>	510 (390 – 640) 1675 (1300 – 2000)
N3	E/M/A	0.300 <i>0,300</i>	0.50 <i>0,50</i>	0.060 <i>0,0024</i>	0.080 <i>0,0032</i>	340 (260 – 420) 1125 (860 – 1300)
N11	E/M/A	0.300 <i>0,300</i>	0.50 <i>0,50</i>	0.060 <i>0,0024</i>	0.080 <i>0,0032</i>	255 (130 – 370) 840 (430 – 1200)
TS1	A	0.300 <i>0,300</i>	0.50 <i>0,50</i>	0.080 <i>0,0032</i>	0.10 <i>0,0040</i>	780 (650 – 900) 2550 (2200 – 2900)
TP1	A	0.300 <i>0,300</i>	0.60 <i>0,60</i>	0.060 <i>0,0024</i>	0.080 <i>0,0032</i>	510 (380 – 630) 1675 (1300 – 2000)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (*sf/min*)

f<sub>z</sub> = mm (*in/tooth*)

a<sub>p</sub> = mm/DC (*in/DC*) = factor

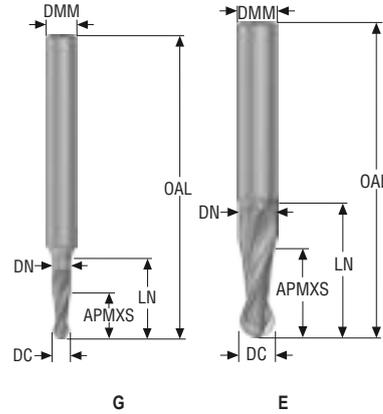
a<sub>e</sub> = mm/DC (*in/DC*) = factor

All cutting data are target values

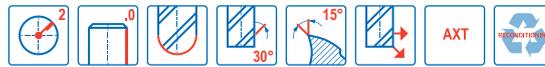
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

S4321

High performance – Aluminium – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



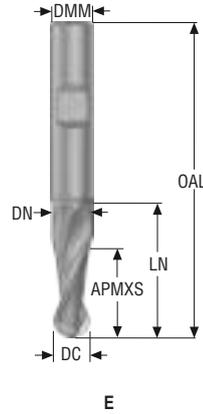
Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
S4321-020G2B.0Z2	AXT	10228152	2	G	2,0	6,0	4,0	57,0	8,0	1,9	1,0	2	Cylindrical	■
S4321-030G2B.0Z2	AXT	10228153	2	G	3,0	6,0	6,0	57,0	10,0	2,85	1,5	2	Cylindrical	■
S4321-040G2B.0Z2	AXT	10228154	2	G	4,0	6,0	8,0	57,0	14,0	3,8	2,0	2	Cylindrical	■
S4321-050G2B.0Z2	AXT	10228155	2	G	5,0	6,0	10,0	57,0	17,0	4,75	2,5	2	Cylindrical	■
S4321-060E2B.0Z2	AXT	10228156	2	E	6,0	6,0	12,0	57,0	19,0	5,7	3,0	2	Cylindrical	■
S4321-080E2B.0Z2	AXT	10228157	2	E	8,0	8,0	16,0	63,0	24,0	7,6	4,0	2	Cylindrical	■
S4321-100E2B.0Z2	AXT	10228158	2	E	10,0	10,0	20,0	72,0	31,0	9,5	5,0	2	Cylindrical	■
S4321-120E2B.0Z2	AXT	10228159	2	E	12,0	12,0	24,0	88,0	37,0	11,4	6,0	2	Cylindrical	■
S4321-160E2B.0Z2	AXT	10228160	2	E	16,0	16,0	32,0	100,0	48,0	15,2	8,0	2	Cylindrical	■
S4321-200E2B.0Z2	AXT	10228161	2	E	20,0	20,0	40,0	114,0	60,0	19,0	10,0	2	Cylindrical	■

■ Stocked standard.

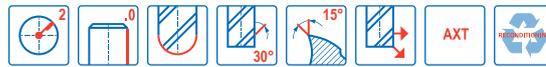
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

S4321

High performance – Aluminium – Ball nose – 2 Flutes – Weldon



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	
S4321-060E2B.3Z2	AXT	10287043	2	E	6,0	6,0	12,0	57,0	19,0	5,7	3,0	2	Weldon	<input type="checkbox"/>
S4321-080E2B.3Z2	AXT	10287044	2	E	8,0	8,0	16,0	63,0	24,0	7,6	4,0	2	Weldon	<input type="checkbox"/>
S4321-100E2B.3Z2	AXT	10287045	2	E	10,0	10,0	20,0	72,0	31,0	9,5	5,0	2	Weldon	<input type="checkbox"/>
S4321-120E2B.3Z2	AXT	10287046	2	E	12,0	12,0	24,0	88,0	37,0	11,4	6,0	2	Weldon	<input type="checkbox"/>
S4321-160E2B.3Z2	AXT	10287047	2	E	16,0	16,0	32,0	100,0	48,0	15,2	8,0	2	Weldon	<input type="checkbox"/>
S4321-200E2B.3Z2	AXT	10287048	2	E	20,0	20,0	40,0	114,0	60,0	19,0	10,0	2	Weldon	<input type="checkbox"/>

Weldon available. Delivery time is 3 days.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – S4321 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0,30	1,5	0,020	0,032	0,042	0,050	0,065	0,085	0,10	0,13	0,17	0,20	560 (510 — 680)
		0,30	1,5	0,00080	0,0013	0,0017	0,0020	0,0026	0,0034	0,0040	0,0050	0,0065	0,0080	1825 (1700 — 2200)
N2	E/M/A	0,30	1,5	0,018	0,026	0,036	0,044	0,055	0,070	0,090	0,11	0,13	0,15	355 (270 — 440)
		0,30	1,5	0,00070	0,0010	0,0014	0,0017	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	1175 (890 — 1400)
N3	E/M/A	0,30	1,5	0,018	0,026	0,036	0,044	0,055	0,070	0,090	0,11	0,13	0,15	235 (180 — 290)
		0,30	1,5	0,00070	0,0010	0,0014	0,0017	0,0022	0,0028	0,0036	0,0044	0,0050	0,0060	770 (600 — 950)
N11	E/M/A	0,30	1,5	0,015	0,022	0,030	0,036	0,044	0,060	0,075	0,085	0,11	0,12	330 (250 — 410)
		0,30	1,5	0,00060	0,00085	0,0012	0,0014	0,0017	0,0024	0,0030	0,0034	0,0044	0,0048	1075 (830 — 1300)
TS1	A/D	0,30	1,5	0,022	0,034	0,046	0,055	0,070	0,090	0,11	0,13	0,17	0,19	670 (560 — 770)
		0,30	1,5	0,00085	0,0013	0,0018	0,0022	0,0028	0,0036	0,0044	0,0050	0,0065	0,0075	2200 (1900 — 2500)
TP1	A/D	0,30	1,5	0,0036	0,0050	0,0070	0,0090	0,010	0,014	0,018	0,020	0,028	0,036	460 (350 — 570)
		0,30	1,5	0,00014	0,00020	0,00028	0,00036	0,00040	0,00055	0,00070	0,00080	0,0011	0,0014	1500 (1200 — 1800)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal
Steel and cast iron
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster

JH450

High speed – Aluminium – Ball nose – 2 Flutes – Cylindrical

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

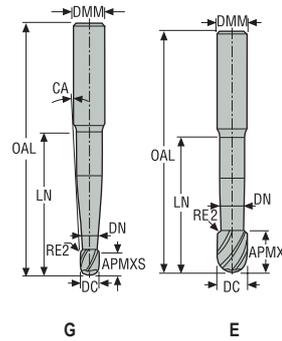
Hard

Plastic and CFRP

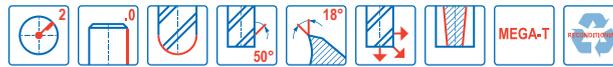
Graphite

X-Heads

Minimaster



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	RE2	CA°	NA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm					
450020-MEGA-T	00022977	2	G	2,0	3,0	1,75	40,0	10,0	1,8	1,0	1,0	3,0	2,24	2	Cylindrical	■
450030-MEGA-T	00022978	2	E	3,0	3,0	2,5	40,0	12,0	2,7	1,5	2,0	–	2,497	2	Cylindrical	■
450040-MEGA-T	00022979	2	G	4,0	6,0	3,5	50,0	21,0	3,6	2,0	2,0	3,0	5,053	2	Cylindrical	■
450050-MEGA-T	00022980	2	G	5,0	6,0	4,5	50,0	22,5	4,5	2,5	2,0	2,0	3,576	2	Cylindrical	■
450060-MEGA-T	00023020	2	E	6,0	6,0	5,5	55,0	25,0	5,4	3,0	2,0	–	2,465	2	Cylindrical	■
450080-MEGA-T	00023032	2	E	8,0	8,0	7,0	65,0	30,0	7,2	4,0	2,0	–	2,491	2	Cylindrical	■
450100-MEGA-T	00023040	2	E	10,0	10,0	8,5	75,0	35,0	9,0	5,0	3,0	–	3,086	2	Cylindrical	■
450120-MEGA-T	00029842	2	E	12,0	12,0	10,5	75,0	40,0	11,0	6,0	3,0	–	2,735	2	Cylindrical	■
450160-MEGA-T	00023050	2	E	16,0	16,0	14,0	90,0	50,0	14,5	8,0	4,0	–	3,45	2	Cylindrical	■
450200-MEGA-T	00023053	2	E	20,0	20,0	17,0	100,0	50,0	18,0	10,0	4,0	–	5,321	2	Cylindrical	■
450L100-MEGA-T	00023056	3	G	10,0	12,0	8,5	125,0	50,0	9,0	5,0	3,0	1,5	3,16	2	Cylindrical	■
450L120-MEGA-T	00023091	3	E	12,0	12,0	10,5	150,0	60,0	11,0	6,0	3,0	–	2,79	2	Cylindrical	■
450L160-MEGA-T	00023095	3	E	16,0	16,0	14,0	150,0	70,0	14,5	8,0	4,0	–	3,51	2	Cylindrical	■

■ Stocked standard.

Cutting data – JH450 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
N1	E/M/A	0.400	0.24	0.040	0.060	0.080	0.10	0.12	0.16	0.20	0.24	0.32	0.40	690 (670 — 930)
		<i>0.400</i>	<i>0.24</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0065</i>	<i>0,0080</i>	<i>0,0095</i>	<i>0,013</i>	<i>0,016</i>	2275 (2200 — 3000)
N2	E/M/A	0.300	0.24	0.040	0.060	0.080	0.10	0.12	0.16	0.20	0.24	0.32	0.40	470 (410 — 680)
		<i>0.300</i>	<i>0.24</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0065</i>	<i>0,0080</i>	<i>0,0095</i>	<i>0,013</i>	<i>0,016</i>	1550 (1400 — 2200)
N3	E/M/A	0.300	0.24	0.040	0.060	0.080	0.10	0.12	0.16	0.20	0.24	0.32	0.40	315 (280 — 450)
		<i>0.300</i>	<i>0.24</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0065</i>	<i>0,0080</i>	<i>0,0095</i>	<i>0,013</i>	<i>0,016</i>	1025 (920 — 1400)
N11	E/M/A	0.300	0.24	0.040	0.060	0.080	0.10	0.12	0.16	0.20	0.24	0.32	0.38	470 (420 — 680)
		<i>0.300</i>	<i>0.24</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0065</i>	<i>0,0080</i>	<i>0,0095</i>	<i>0,013</i>	<i>0,015</i>	1550 (1400 — 2200)
TS1	A	0.500	0.50	0.040	0.060	0.080	0.10	0.12	0.16	0.20	0.24	0.30	0.34	700 (630 — 860)
		<i>0.500</i>	<i>0.50</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0065</i>	<i>0,0080</i>	<i>0,0095</i>	<i>0,012</i>	<i>0,013</i>	2300 (2100 — 2800)
TP1	M	0.300	0.24	0.040	0.060	0.080	0.10	0.12	0.16	0.20	0.24	0.32	0.38	470 (410 — 680)
		<i>0.300</i>	<i>0.24</i>	<i>0,0016</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>0,0048</i>	<i>0,0065</i>	<i>0,0080</i>	<i>0,0095</i>	<i>0,013</i>	<i>0,015</i>	1550 (1400 — 2200)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster

JH460

High speed – Aluminium – Ball nose – 2 Flutes – Cylindrical

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

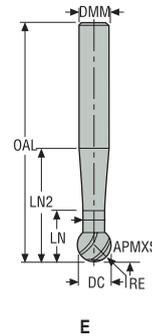
Hard

Plastic and CFRP

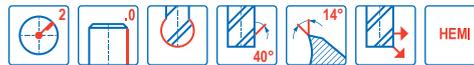
Graphite

X-Heads

Minimaster



- Tolerances:
- DMM=h5
- DC=-0,02/-0,06 mm
- RE= ±0.02 mm
- SA=250°



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
460030-HEMI	00040372	2	E	3,0	3,0	2,3	60,0	4,8	1,5	1,5	2	Cylindrical	■
460040-HEMI	00040373	2	E	4,0	4,0	3,1	60,0	5,6	2,0	2,0	2	Cylindrical	■
460050-HEMI	00040376	2	E	5,0	5,0	3,9	70,0	6,4	2,5	2,5	2	Cylindrical	■
460060-HEMI	00040377	2	E	6,0	6,0	4,7	80,0	9,7	3,0	3,0	2	Cylindrical	■
460080-HEMI	00040378	2	E	8,0	8,0	6,2	85,0	11,2	4,0	4,0	2	Cylindrical	■
460100-HEMI	00040379	2	E	10,0	10,0	7,8	100,0	15,6	5,0	5,0	2	Cylindrical	■
460120-HEMI	00040380	2	E	12,0	12,0	9,4	125,0	17,2	6,0	6,0	2	Cylindrical	■

■ Stocked standard.

Cutting data – JH460 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				3	4	5	6	8	10	12	
N1	E/M/A	0.500 <i>0,500</i>	0.20 <i>0,20</i>	0.055 <i>0,0022</i>	0.075 <i>0,0030</i>	0.095 <i>0,0038</i>	0.11 <i>0,0044</i>	0.15 <i>0,0060</i>	0.19 <i>0,0075</i>	0.22 <i>0,0085</i>	590 (500 – 680) 1925 (1700 – 2200)
N11	E/M/A	0.300 <i>0,300</i>	0.20 <i>0,20</i>	0.046 <i>0,0018</i>	0.065 <i>0,0026</i>	0.080 <i>0,0032</i>	0.095 <i>0,0038</i>	0.13 <i>0,0050</i>	0.16 <i>0,0065</i>	0.18 <i>0,0070</i>	610 (510 – 700) 2000 (1700 – 2200)
S11	E/M/A	0.300 <i>0,300</i>	0.20 <i>0,20</i>	0.034 <i>0,0013</i>	0.044 <i>0,0017</i>	0.055 <i>0,0022</i>	0.065 <i>0,0026</i>	0.090 <i>0,0036</i>	0.11 <i>0,0044</i>	0.13 <i>0,0050</i>	120 (110 – 130) 395 (370 – 420)
S12	E/M/A	0.300 <i>0,300</i>	0.20 <i>0,20</i>	0.034 <i>0,0013</i>	0.044 <i>0,0017</i>	0.055 <i>0,0022</i>	0.065 <i>0,0026</i>	0.090 <i>0,0036</i>	0.11 <i>0,0044</i>	0.13 <i>0,0050</i>	90 (82 – 100) 295 (270 – 320)
S13	E/M/A	0.300 <i>0,300</i>	0.20 <i>0,20</i>	0.030 <i>0,0012</i>	0.038 <i>0,0015</i>	0.048 <i>0,0019</i>	0.060 <i>0,0024</i>	0.075 <i>0,0030</i>	0.095 <i>0,0038</i>	0.11 <i>0,0044</i>	75 (65 – 81) 245 (220 – 260)
TS1	A	0.500 <i>0,500</i>	0.50 <i>0,50</i>	0.055 <i>0,0022</i>	0.070 <i>0,0028</i>	0.13 <i>0,0050</i>	0.15 <i>0,0060</i>	0.20 <i>0,0080</i>	0.25 <i>0,010</i>	0.30 <i>0,012</i>	620 (520 – 720) 2025 (1800 – 2300)
TP1	M	0.300 <i>0,300</i>	0.20 <i>0,20</i>	0.046 <i>0,0018</i>	0.065 <i>0,0026</i>	0.080 <i>0,0032</i>	0.095 <i>0,0038</i>	0.13 <i>0,0050</i>	0.16 <i>0,0065</i>	0.18 <i>0,0070</i>	405 (360 – 450) 1325 (1200 – 1400)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

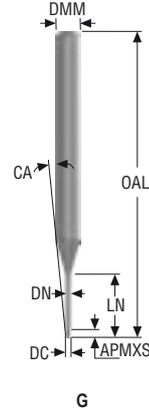
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

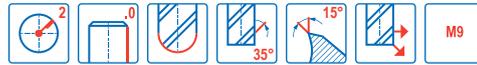
Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster

SMB413/414/416

Miniature – Aluminium – Ball nose – 2 Flutes – Cylindrical



—Tolerances:  
 —Run-out= <0,005 mm  
 —DMM = h5  
 —DC = 0/-0,01 mm  
 —RE = ±0,005 mm



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
SMB414020G4B.0Z2	—	10109385	4	G	2,0	4,0	2,0	50,0	12,0	1,9	1,0	3,75	2	Cylindrical	■
SMB414020G4B.0Z2	M9	10109139	4	G	2,0	4,0	2,0	50,0	12,0	1,9	1,0	3,75	2	Cylindrical	■
SMB414030G4B.0Z2	—	10109386	4	G	3,0	4,0	3,0	50,0	16,0	2,85	1,5	1,68	2	Cylindrical	■
SMB414030G4B.0Z2	M9	10109140	4	G	3,0	4,0	3,0	50,0	16,0	2,85	1,5	1,68	2	Cylindrical	■
SMB413025G5B.0Z2	—	10109133	5	G	2,5	3,0	2,5	50,0	20,0	2,4	1,25	0,71	2	Cylindrical	■
SMB413025G5B.0Z2	M9	10109136	5	G	2,5	3,0	2,5	50,0	20,0	2,4	1,25	0,71	2	Cylindrical	■
SMB414025G5B.0Z2	—	10109387	5	G	2,5	4,0	2,5	50,0	20,0	2,4	1,25	1,94	2	Cylindrical	■
SMB414025G5B.0Z2	M9	10109141	5	G	2,5	4,0	2,5	50,0	20,0	2,4	1,25	1,94	2	Cylindrical	■
SMB416025G5B.0Z2	—	10109390	5	G	2,5	6,0	2,5	55,0	20,0	2,4	1,25	3,87	2	Cylindrical	■
SMB416025G5B.0Z2	M9	10109145	5	G	2,5	6,0	1,0	55,0	20,0	0,95	1,25	3,87	2	Cylindrical	■
SMB414010G6B.0Z2	—	10109381	6	G	1,0	4,0	1,0	50,0	10,0	0,95	0,5	5,5	2	Cylindrical	■
SMB414010G6B.0Z2	M9	10109142	6	G	1,0	4,0	1,0	50,0	10,0	0,95	0,5	5,5	2	Cylindrical	■
SMB413015G6B.0Z2	—	10109134	6	G	1,5	3,0	1,5	50,0	20,0	1,4	0,75	1,9	2	Cylindrical	■
SMB413015G6B.0Z2	M9	10109137	6	G	1,5	3,0	1,5	50,0	20,0	1,4	0,75	1,9	2	Cylindrical	■
SMB414015G6B.0Z2	—	10109388	6	G	1,5	4,0	2,5	55,0	20,0	2,4	0,75	2,92	2	Cylindrical	■
SMB414015G6B.0Z2	M9	10109143	6	G	1,5	4,0	1,5	55,0	20,0	1,4	0,75	2,92	2	Cylindrical	■
SMB416015G6B.0Z2	—	10109391	6	G	1,5	6,0	1,5	55,0	20,0	1,4	0,75	4,56	2	Cylindrical	■
SMB416015G6B.0Z2	M9	10109146	6	G	1,5	6,0	1,5	55,0	20,0	1,4	0,75	4,56	2	Cylindrical	■
SMB413010G7B.0Z2	—	10109135	7	G	1,0	3,0	1,0	50,0	18,0	0,95	0,5	2,63	2	Cylindrical	■
SMB413010G7B.0Z2	M9	10109138	7	G	1,0	3,0	1,0	50,0	18,0	0,95	0,5	2,63	2	Cylindrical	■
SMB414010G7B.0Z2	—	10109389	7	G	1,0	4,0	1,0	50,0	18,0	0,95	0,5	3,64	2	Cylindrical	■
SMB414010G7B.0Z2	M9	10109144	7	G	1,0	4,0	1,0	50,0	18,0	0,95	0,5	3,64	2	Cylindrical	■
SMB416010G7B.0Z2	—	10109392	7	G	1,0	6,0	1,0	55,0	18,0	0,95	0,5	5,23	2	Cylindrical	■
SMB416010G7B.0Z2	M9	10109147	7	G	1,0	6,0	1,0	55,0	18,0	0,95	0,5	5,23	2	Cylindrical	■

■ Stocked standard.

Cutting data – SMB413 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				1	1.5	2.5	
N1	E	0,0500	0,080	0,013	0,020	0,032	135 (86 – 170)
		0.0500	0.080	0.00050	0.00080	0.0013	445 (290 – 550)
N2	E	0,0500	0,080	0,013	0,020	0,032	85 (55 – 100)
N3	E	0,0500	0,080	0,013	0,020	0,032	55 (37 – 73)
		0.0500	0.080	0.00050	0.00080	0.0013	180 (130 – 230)
TS1	A	0,0500	0,080	0,013	0,020	0,032	135 (86 – 170)
TP1	A	0,0500	0,080	0,013	0,020	0,032	445 (290 – 550)
		0.0500	0.080	0.00050	0.00080	0.0013	135 (86 – 170)
							445 (290 – 550)

Cutting data – SMB414 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				1	1.5	2	2.5	3	
N1	E	0,0500	0,080	0,013	0,020	0,026	0,032	0,040	135 (86 – 170)
		0.0500	0.080	0.00050	0.00080	0.0010	0.0013	0.0016	445 (290 – 550)
N2	E	0,0500	0,080	0,013	0,020	0,026	0,032	0,040	85 (55 – 100)
N3	E	0,0500	0,080	0,013	0,020	0,026	0,032	0,040	55 (37 – 73)
		0.0500	0.080	0.00050	0.00080	0.0010	0.0013	0.0016	180 (130 – 230)
TS1	A	0,0500	0,080	0,013	0,020	0,026	0,032	0,040	135 (86 – 170)
TP1	A	0,0500	0,080	0,013	0,020	0,026	0,032	0,040	445 (290 – 550)
		0.0500	0.080	0.00050	0.00080	0.0010	0.0013	0.0016	135 (86 – 170)
									445 (290 – 550)

Cutting data – SMB416 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				1	1.5	2.5	
N1	E	0,0500	0,080	0,013	0,020	0,032	135 (86 – 170)
		0.0500	0.080	0.00050	0.00080	0.0013	445 (290 – 550)
N2	E	0,0500	0,080	0,013	0,020	0,032	85 (55 – 100)
N3	E	0,0500	0,080	0,013	0,020	0,032	55 (37 – 73)
		0.0500	0.080	0.00050	0.00080	0.0013	180 (130 – 230)
TS1	A	0,0500	0,080	0,013	0,020	0,032	135 (86 – 170)
TP1	A	0,0500	0,080	0,013	0,020	0,032	445 (290 – 550)
		0.0500	0.080	0.00050	0.00080	0.0013	135 (86 – 170)
							445 (290 – 550)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

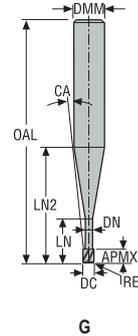
Graphite

X-Heads

Minimaster

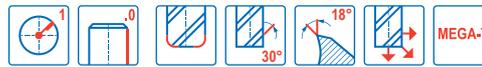
JM403/JM404/JM406

Miniature – Aluminium – Square – 1 Flute – Cylindrical – Corner radius



G

- Tolerances:
- Run-out=<0,005 mm
- DMM= h5
- DC= <math>\varnothing 0,6</math>= -0,005/-0,013 mm
- DC=  $\geq \varnothing 0,6</math>= -0,005/-0,015 mm$
- RE=  $\pm 0,01$  mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm		
403ML005R005-MEGA-T	02568434	2	G	0,5	3,0	0,5	40,0	1,5	0,45	0,05	11,0	1	Cylindrical	■
403ML008R005-MEGA-T	02568450	2	G	0,8	3,0	0,8	40,0	2,5	0,75	0,05	9,0	1	Cylindrical	■
403ML010R010-MEGA-T	02568456	2	G	1,0	3,0	1,0	40,0	4,0	0,95	0,1	7,5	1	Cylindrical	■
406ML015R010-MEGA-T	02568478	5	G	1,5	6,0	1,5	50,0	5,0	1,4	0,1	9,5	1	Cylindrical	■
404ML020R010-MEGA-T	02577246	5	G	2,0	4,0	2,0	40,0	6,0	1,9	0,1	6,0	1	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JM403/JM404/406 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				0.5	0.8	1	1.5	2	
N1	E	0.500	0.70	0.015	0.024	0.030	0.042	0.050	365 (310 – 420)
		0,500	0,70	0,00060	0,00095	0,0012	0,0017	0,0020	1200 (1100 – 1300)
N2	E	0.500	0.70	0.015	0.024	0.030	0.042	0.050	235 (200 – 270)
		0,500	0,70	0,00060	0,00095	0,0012	0,0017	0,0020	770 (660 – 880)
N3	E	0.500	0.70	0.015	0.024	0.030	0.042	0.050	155 (140 – 180)
		0,500	0,70	0,00060	0,00095	0,0012	0,0017	0,0020	510 (460 – 590)

Cutting data – JM403/JM404/406 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
			0.5	0.8	1	1.5	2	
N1	E	0.40	0.015	0.025	0.030	0.044	0.050	315 (270 – 360)
		0,40	0,00060	0,0010	0,0012	0,0017	0,0020	1025 (890 – 1100)
N2	E	0.40	0.015	0.025	0.030	0.044	0.050	200 (170 – 230)
		0,40	0,00060	0,0010	0,0012	0,0017	0,0020	660 (560 – 750)
N3	E	0.40	0.015	0.025	0.030	0.044	0.050	135 (120 – 150)
		0,40	0,00060	0,0010	0,0012	0,0017	0,0020	445 (400 – 490)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

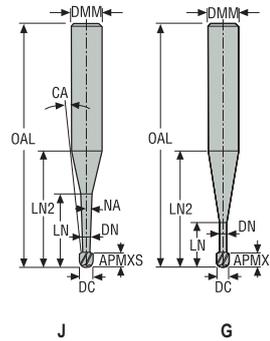
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

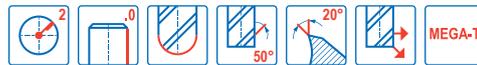
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JM413/JM416

Miniature – Aluminium – Ball nose – 2 Flute – Cylindrical



- Tolerances:
- Run-out=<0,005 mm
- DMM=h5
- DC= <math>\varnothing 0,6 = -0,005/-0,013 \text{ mm}</math>
- DC=  $\geq \varnothing 0,6 = -0,005/-0,015 \text{ mm}</math>$
- RE=  $\pm 0,005 \text{ mm}</math>$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
413ML005TN-MEGA-T	02568709	2	J	0,5	3,0	0,375	40,0	1,5	0,45	0,25	11,5	0,9	2	Cylindrical	■
413L005-MEGA-T	02568711	3	G	0,5	3,0	0,375	40,0	2,5	0,45	0,25	10,0	–	2	Cylindrical	■
413L008-MEGA-T	02568727	3	G	0,8	3,0	0,6	40,0	4,0	0,75	0,4	8,0	–	2	Cylindrical	■
413L010-MEGA-T	02568736	3	G	1,0	3,0	0,75	40,0	5,0	0,95	0,5	7,0	–	2	Cylindrical	■
416L015-MEGA-T	02568772	3	G	1,5	6,0	1,125	50,0	7,5	1,4	0,75	8,5	–	2	Cylindrical	■
416L020-MEGA-T	02568779	3	G	2,0	6,0	1,5	50,0	10,0	1,9	1,0	7,0	–	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JM413/416 Copy milling roughing

SMG		a <sub>p</sub> /DC	a <sub>e</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				0,5	0,8	1	1,5	2	
N1	E	0.300	0.30	0.030	0.048	0.060	0.085	0.10	385 (370 — 510)
		0,300	0,30	0,0012	0,0019	0,0024	0,0034	0,0040	1275 (1300 — 1600)
N2	E	0.300	0.30	0.030	0.048	0.060	0.085	0.10	245 (240 — 320)
		0,300	0,30	0,0012	0,0019	0,0024	0,0034	0,0040	800 (790 — 1000)
N3	E	0.300	0.30	0.030	0.048	0.060	0.085	0.10	165 (160 — 210)
		0,300	0,30	0,0012	0,0019	0,0024	0,0034	0,0040	540 (530 — 680)
N11	E	0.300	0.30	0.030	0.048	0.060	0.085	0.10	320 (300 — 430)
		0,300	0,30	0,0012	0,0019	0,0024	0,0034	0,0040	1050 (990 — 1400)
TS1	A	0.300	0.30	0.030	0.048	0.060	0.085	0.10	385 (370 — 510)
		0,300	0,30	0,0012	0,0019	0,0024	0,0034	0,0040	1275 (1300 — 1600)
TP1	A	0.300	0.30	0.030	0.048	0.060	0.085	0.10	385 (370 — 510)
		0,300	0,30	0,0012	0,0019	0,0024	0,0034	0,0040	1275 (1300 — 1600)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster

- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard**
- Plastic and CFRP
- Graphite
- X-Heads
- Minimaster



## HARD

Seco offers a complete range of high performance solid carbide square shoulder end mills, ballnose cutters and finish end mills for high productivity for hardened steel.

- JHP170, JHF181, JH120, JH130, JH930, JH142, JME142 and JME144 for radius type.
- JH112, JH150, JH160 and JMB112 for ball-nose type.

Tool Selection Hard

							
Name		JHP170	JHF181	JH120	JH130	JH930	JH142
Page(s)		497	500	503	505	225, 507	302, 510
Family name		HPM	HFM	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO
Type of mill							
Shank	Cylindrical	■	■	■	■	■	■
	Weldon	■					
Number of Flutes		3-4	3-4-5	4	5-6, 8	5-6, 8	2-4-5-6
CSP			■				
Diameter range	Metric	2-20	1-10	2-16	6-20	6-20	2-12
	Inch						
Length availability		2	1,2,3,4	2	2	2	2,3,6
Operation							
							
							
SMG							
H3		●	●	●	●	●	●
H5		●	●	●	●	●	●
H7		●	●	●	●	●	●
H8		●	●	●	●	●	●
H11		●	●	●	●	●	●
H12		●	●	●	●	●	●
H21		●	●	●	●	●	●
H31		●	●	●	●	●	●

■ Stock standard □ Weldon available, delivery time is 3 days.  
 ● Preferred choice ○ Alternative choice

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaster

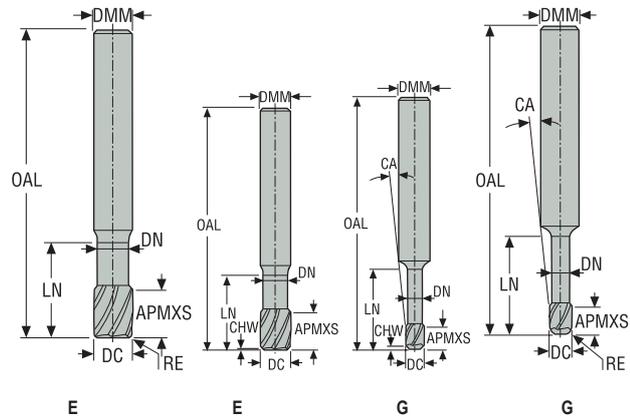
Tool Selection Hard

Universal							
							
Steel and cast iron	Name	JH112	JH150	JH160	JME142	JME144	JMB112
Stainless steel and S-materials	Page(s)	313, 513	516	518	520	525	527
	Family name	HSM/TORNADO	HSM/TORNADO	HSM/TORNADO	MINI	MINI	MINI
Non ferrous	Type of mill						
	Shank	Cylindrical	■	■	■	■	■
Hard	Weldon						
	Number of Flutes	2	4	4	2	4	2
Plastic and CFRP	CSP						
	Diameter range	Metric	2-12	6-12	3-12	0,2-3,0	1,0-3,0
Graphite	Inch						
	Length availability	1,2,3,4,5,6	2	2	1,2,3,4,5,6	2,3,4	1,2,3,4,5,6
X-Heads	Operation						
							
							
Minimaster	SMG						
	H3	●	●	●	●	●	●
	H5	●	●	●	●	●	●
	H7	●	●	●	●	●	●
	H8	●	●	●	●	●	●
	H11		●	●	●	●	●
H12		●	●	●	●	●	
	H21	●	●	●	●	●	●
	H31	●	●	●	●	●	●

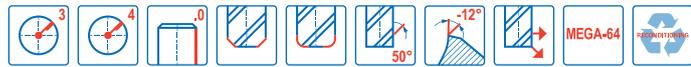
■ Stock standard □ Weldon available, delivery time is 3 days.  
 ● Preferred choice ○ Alternative choice

JHP170

High performance – Hardened steel – Square – 3-4 Flutes – Cylindrical – Corner radius or chamfer



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- CHW= Ø2- Ø4=+0,05 mm
- CHW= Ø5-Ø16=+0,1 mm
- RE= ±0,05 mm
- Regrind possible if DC is ≥Ø6



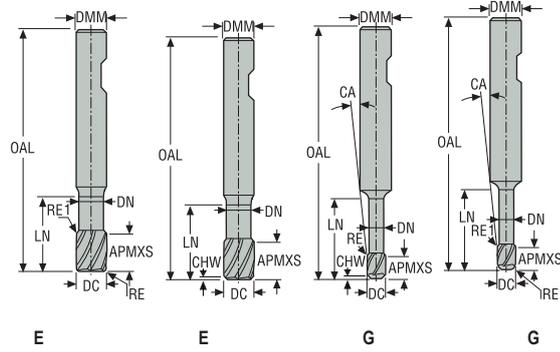
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm				
170020.0-MEGA-64	02462685	2	G	2,0	6,0	2,0	50,0	4,0	1,9	0,08	–	14,5	3	Cylindrical	■
170020R020.0-MEGA-64	02587615	2	G	2,0	6,0	2,0	50,0	4,0	1,9	–	0,2	14,5	3	Cylindrical	■
170020R050.0-MEGA-64	02587617	2	G	2,0	6,0	2,0	50,0	4,0	1,9	–	0,5	15,0	3	Cylindrical	■
170030.0-MEGA-64	02462686	2	G	3,0	6,0	3,0	50,0	6,0	2,8	0,08	–	9,0	3	Cylindrical	■
170030R020.0-MEGA-64	02587618	2	G	3,0	6,0	3,0	50,0	6,0	2,8	–	0,2	9,5	3	Cylindrical	■
170030R050.0-MEGA-64	02587619	2	G	3,0	6,0	3,0	50,0	6,0	2,8	–	0,5	9,5	3	Cylindrical	■
170040.0-MEGA-64	02462687	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,1	–	5,5	4	Cylindrical	■
170040R020.0-MEGA-64	02587620	2	G	4,0	6,0	4,0	50,0	8,0	3,7	–	0,2	5,5	4	Cylindrical	■
170040R050.0-MEGA-64	02587621	2	G	4,0	6,0	4,0	50,0	8,0	3,7	–	0,5	5,5	4	Cylindrical	■
170050.0-MEGA-64	02462688	2	G	5,0	6,0	5,0	50,0	10,0	4,6	0,12	–	2,5	4	Cylindrical	■
170050R020.0-MEGA-64	02587622	2	G	5,0	6,0	5,0	50,0	10,0	4,6	–	0,2	2,5	4	Cylindrical	■
170050R050.0-MEGA-64	02587623	2	G	5,0	6,0	5,0	50,0	10,0	4,6	–	0,5	2,5	4	Cylindrical	■
170060.0-MEGA-64	02462689	2	E	6,0	6,0	6,0	50,0	11,5	5,6	0,14	–	–	4	Cylindrical	■
170060R020.0-MEGA-64	02587624	2	E	6,0	6,0	6,0	50,0	11,5	5,6	–	0,2	–	4	Cylindrical	■
170060R050.0-MEGA-64	02587625	2	E	6,0	6,0	6,0	50,0	11,5	5,6	–	0,5	–	4	Cylindrical	■
170080.0-MEGA-64	02462690	2	E	8,0	8,0	8,0	55,0	16,0	7,4	0,16	–	–	4	Cylindrical	■
170080R020.0-MEGA-64	02587626	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	0,2	–	4	Cylindrical	■
170080R050.0-MEGA-64	02587627	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	0,5	–	4	Cylindrical	■
170080R100.0-MEGA-64	02587628	2	E	8,0	8,0	8,0	55,0	16,0	7,4	–	1,0	–	4	Cylindrical	■
170100.0-MEGA-64	02462691	2	E	10,0	10,0	10,0	65,0	22,0	9,4	0,18	–	–	4	Cylindrical	■
170100R050.0-MEGA-64	02587629	2	E	10,0	10,0	10,0	65,0	22,0	9,4	–	0,5	–	4	Cylindrical	■
170100R100.0-MEGA-64	02587630	2	E	10,0	10,0	10,0	65,0	22,0	9,4	–	1,0	–	4	Cylindrical	■
170120.0-MEGA-64	02462692	2	E	12,0	12,0	12,0	75,0	27,0	11,4	0,2	–	–	4	Cylindrical	■
170120R050.0-MEGA-64	02587631	2	E	12,0	12,0	12,0	75,0	27,0	11,4	–	0,5	–	4	Cylindrical	■
170120R100.0-MEGA-64	02587632	2	E	12,0	12,0	12,0	75,0	27,0	11,4	–	1,0	–	4	Cylindrical	■
170160.0-MEGA-64	02462693	2	E	16,0	16,0	16,0	80,0	29,0	15,4	0,3	–	–	4	Cylindrical	■
170160R050.0-MEGA-64	02587633	2	E	16,0	16,0	16,0	80,0	29,0	15,4	–	0,5	–	4	Cylindrical	■

■ Stocked standard.

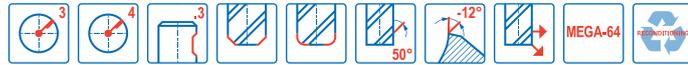
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JHP170

High performance – Hardened steel – Square – 3-4 Flutes – Weldon – Corner radius or chamfer



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- CHW=  $\varnothing 2\text{-}\varnothing 4 = +0,05$  mm
- CHW=  $\varnothing 5\text{-}\varnothing 16 = +0,1$  mm
- RE=  $\pm 0,05$  mm
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CHW	RE	CA°	PCEDC	Shank	Stock standard
170020-MEGA-64	02452924	2	G	2,0	6,0	2,0	50,0	4,0	1,9	0,08	—	14,5	3	Weldon	■
170020R020.0-MEGA-64W	02669319	2	G	2,0	6,0	2,0	50,0	4,0	1,9	—	0,2	—	3	Weldon	□
170020R050.0-MEGA-64W	02669320	2	G	2,0	6,0	2,0	50,0	4,0	1,9	—	0,5	—	3	Weldon	□
170030-MEGA-64	02452925	2	G	3,0	6,0	3,0	50,0	6,0	2,8	0,08	—	9,0	3	Weldon	■
170030R020.0-MEGA-64W	02669321	2	G	3,0	6,0	3,0	50,0	6,0	2,8	—	0,2	—	3	Weldon	□
170030R050.0-MEGA-64W	02669322	2	G	3,0	6,0	3,0	50,0	6,0	2,8	—	0,5	—	3	Weldon	□
170040-MEGA-64	02452927	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,1	—	5,5	4	Weldon	■
170040R020.0-MEGA-64W	02669323	2	G	4,0	6,0	4,0	50,0	8,0	3,7	—	0,2	—	4	Weldon	□
170040R050.0-MEGA-64W	02669324	2	G	4,0	6,0	4,0	50,0	8,0	3,7	—	0,5	—	4	Weldon	□
170050-MEGA-64	02452928	2	G	5,0	6,0	5,0	50,0	10,0	4,6	0,12	—	2,5	4	Weldon	■
170050R020.0-MEGA-64W	02669325	2	G	5,0	6,0	5,0	50,0	10,0	4,6	—	0,2	—	4	Weldon	□
170050R050.0-MEGA-64W	02669326	2	G	5,0	6,0	5,0	50,0	10,0	4,6	—	0,5	—	4	Weldon	□
170060-MEGA-64	02452929	2	E	6,0	6,0	6,0	50,0	11,5	5,6	0,14	—	—	4	Weldon	■
170060R020.0-MEGA-64W	02669327	2	E	6,0	6,0	6,0	50,0	11,5	5,6	—	0,2	—	4	Weldon	□
170060R050.0-MEGA-64W	02669328	2	E	6,0	6,0	6,0	50,0	11,5	5,6	—	0,5	—	4	Weldon	□
170080-MEGA-64	02452930	2	E	8,0	8,0	8,0	55,0	16,0	7,4	0,16	—	—	4	Weldon	■
170080R020.0-MEGA-64W	02669329	2	E	8,0	8,0	8,0	55,0	16,0	7,4	—	0,2	—	4	Weldon	□
170080R050.0-MEGA-64W	02669331	2	E	8,0	8,0	8,0	55,0	16,0	7,4	—	0,5	—	4	Weldon	□
170080R100.0-MEGA-64W	02669332	2	E	8,0	8,0	8,0	55,0	16,0	7,4	—	1,0	—	4	Weldon	□
170100-MEGA-64	02452931	2	E	10,0	10,0	10,0	65,0	22,0	9,4	0,18	—	—	4	Weldon	■
170100R050.0-MEGA-64W	02669333	2	E	10,0	10,0	10,0	65,0	22,0	9,4	—	0,5	—	4	Weldon	□
170100R100.0-MEGA-64W	02669334	2	E	10,0	10,0	10,0	65,0	22,0	9,4	—	1,0	—	4	Weldon	□
170120-MEGA-64	02452932	2	E	12,0	12,0	12,0	75,0	27,0	11,4	0,2	—	—	4	Weldon	■
170120R050.0-MEGA-64W	02669335	2	E	12,0	12,0	12,0	75,0	27,0	11,4	—	0,5	—	4	Weldon	□
170120R100.0-MEGA-64W	02669336	2	E	12,0	12,0	12,0	75,0	27,0	11,4	—	1,0	—	4	Weldon	□
170160-MEGA-64	02452933	2	E	16,0	16,0	16,0	80,0	29,0	15,4	0,3	—	—	4	Weldon	■
170160R050.0-MEGA-64W	02669337	2	E	16,0	16,0	16,0	80,0	29,0	15,4	—	0,5	—	4	Weldon	□
170200R050-MEGA-64	02611637	2	E	20,0	20,0	20,0	100,0	40,0	19,2	—	0,5	—	4	Weldon	■

■ Stocked standard. □ Weldon available. Delivery time is 3 days.

Cutting data – JHP170 Side milling

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				2	3	4	5	6	8	10	12	16	20	
H3	M	0.150	0.60	0.0055	0.0085	0.011	0.014	0.017	0.022	0.028	0.034	0.042	0.048	29 (22 – 35)
		0,150	0,60	0,00022	0,00034	0,00044	0,00055	0,00065	0,00085	0,0011	0,0013	0,0017	0,0019	95 (73 – 110)
H5	M	0.300	0.80	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	60 (56 – 68)
		0,300	0,80	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	195 (190 – 220)
H7	M	0.150	0.60	0.0055	0.0085	0.011	0.014	0.017	0.022	0.028	0.034	0.042	0.048	29 (22 – 35)
		0,150	0,60	0,00022	0,00034	0,00044	0,00055	0,00065	0,00085	0,0011	0,0013	0,0017	0,0019	95 (73 – 110)
H8	M	0.300	0.80	0.0090	0.014	0.018	0.022	0.028	0.036	0.046	0.055	0.065	0.080	65 (59 – 71)
		0,300	0,80	0,00036	0,00055	0,00070	0,00085	0,0011	0,0014	0,0018	0,0022	0,0026	0,0032	215 (200 – 230)
H11	M	0.300	0.80	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	80 (71 – 86)
		0,300	0,80	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	260 (240 – 280)
H12	M	0.300	0.80	0.0090	0.014	0.018	0.022	0.028	0.036	0.046	0.055	0.065	0.080	75 (69 – 83)
		0,300	0,80	0,00036	0,00055	0,00070	0,00085	0,0011	0,0014	0,0018	0,0022	0,0026	0,0032	245 (230 – 270)
H21	M	0.300	0.80	0.0090	0.014	0.018	0.022	0.028	0.036	0.046	0.055	0.065	0.080	65 (59 – 71)
		0,300	0,80	0,00036	0,00055	0,00070	0,00085	0,0011	0,0014	0,0018	0,0022	0,0026	0,0032	215 (200 – 230)
H31	M	0.300	0.80	0.012	0.018	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	60 (56 – 68)
		0,300	0,80	0,00048	0,00070	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	195 (190 – 220)

Universal  
Steel and cast iron  
Stainless steel and S-materials

Cutting data – JHP170 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			2	3	4	5	6	8	10	12	16	20	
H3	M	0.40	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.034	20 (16 – 25)
		0,40	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0013	65 (53 – 82)
H5	M	0.60	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.065	0.080	50 (46 – 55)
		0,60	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	165 (160 – 180)
H7	M	0.40	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.034	20 (16 – 25)
		0,40	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0013	65 (53 – 82)
H8	M	0.60	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.060	0.070	50 (46 – 55)
		0,60	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0024	0,0028	165 (160 – 180)
H11	M	0.60	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.065	0.080	65 (58 – 70)
		0,60	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	215 (200 – 220)
H12	M	0.60	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.060	0.070	60 (53 – 64)
		0,60	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0024	0,0028	195 (180 – 200)
H21	M	0.60	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.060	0.070	50 (46 – 55)
		0,60	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0024	0,0028	165 (160 – 180)
H31	M	0.60	0.0080	0.012	0.016	0.020	0.025	0.032	0.040	0.050	0.065	0.080	50 (46 – 55)
		0,60	0,00032	0,00048	0,00065	0,00080	0,0010	0,0013	0,0016	0,0020	0,0026	0,0032	165 (160 – 180)

Non ferrous  
Hard  
Plastic and CFRP

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Graphite  
X-Heads  
Minimaster

JHF181

High feed – Hardened steel – Square – 3-5 Flutes – Cylindrical – Corner radius

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

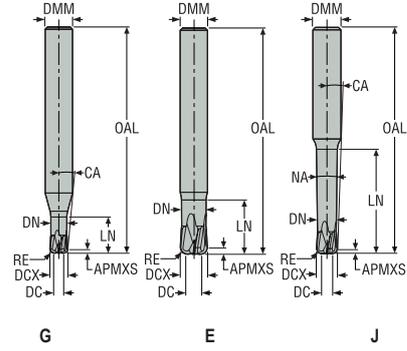
Hard

Plastic and CFRP

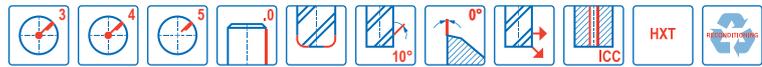
Graphite

X-Heads

Minimaster



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	CSP	DCX	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm					
JHF181020G1R050.0Z4-HXT	03067297	1	G	-	2,0	1,0	6,0	0,5	50,0	4,0	1,8	0,5	10,0	-	4	Cylindrical	■
JHF181030G1R075.0Z4-HXT	03067298	1	G	-	3,0	1,5	6,0	0,75	50,0	6,0	2,7	0,75	7,5	-	4	Cylindrical	■
JHF181040G1R100.0Z4-HXT	03067299	1	G	-	4,0	2,0	6,0	1,0	50,0	8,0	3,6	1,0	5,0	-	4	Cylindrical	■
JHF181060E1R150.0Z4-HXT	03067300	1	E	-	6,0	3,0	6,0	1,5	50,0	12,0	5,4	1,5	-	-	4	Cylindrical	■
JHF181080E1R200.0Z4-HXT	03067301	1	E	-	8,0	4,0	8,0	2,0	55,0	16,0	7,3	2,0	-	-	4	Cylindrical	■
JHF181100E1R200.0Z4-HXT	03067302	1	E	-	10,0	6,0	10,0	2,0	65,0	20,0	9,2	2,0	-	-	4	Cylindrical	■
JHF181100E1R200.0Z5-HXT	03067303	1	E	-	10,0	6,0	10,0	2,0	65,0	20,0	9,2	2,0	-	-	5	Cylindrical	■
JHF181120E1R300.0Z4-HXT	03067304	1	E	-	12,0	6,0	12,0	3,0	75,0	24,0	11,0	3,0	-	-	4	Cylindrical	■
JHF181120E1R300.0Z5-HXT	03067305	1	E	-	12,0	6,0	12,0	3,0	75,0	24,0	11,0	3,0	-	-	5	Cylindrical	■
JHF181160E1R300.0Z4-HXT	03067306	1	E	-	16,0	10,0	16,0	3,0	80,0	32,0	14,8	3,0	-	-	4	Cylindrical	■
JHF181020G2R050.0Z4-HXT	03067307	2	G	-	2,0	1,0	6,0	0,5	50,0	8,0	1,8	0,5	7,5	-	4	Cylindrical	■
JHF181030G2R075.0Z4-HXT	03067308	2	G	-	3,0	1,5	6,0	0,75	50,0	12,0	2,7	0,75	5,0	-	4	Cylindrical	■
JHF181040G2R100.0Z4-HXT	03067309	2	G	-	4,0	2,0	6,0	1,0	50,0	16,0	3,6	1,0	3,0	-	4	Cylindrical	■
JHF181060E2R150.0Z4A-HXT	03067311	2	E	■	6,0	3,0	6,0	1,5	65,0	24,0	5,4	1,5	-	-	4	Cylindrical	■
JHF181060E2R150.0Z4-HXT	03067310	2	E	-	6,0	3,0	6,0	1,5	65,0	24,0	5,4	1,5	-	-	4	Cylindrical	■
JHF181080E2R200.0Z4A-HXT	03067313	2	E	■	8,0	4,0	8,0	2,0	70,0	32,0	7,3	2,0	-	-	4	Cylindrical	■
JHF181080E2R200.0Z4-HXT	03067312	2	E	-	8,0	4,0	8,0	2,0	70,0	32,0	7,3	2,0	-	-	4	Cylindrical	■
JHF181100E2R200.0Z4A-HXT	03067315	2	E	■	10,0	6,0	10,0	2,0	85,0	40,0	9,2	2,0	-	-	4	Cylindrical	■
JHF181100E2R200.0Z4-HXT	03067314	2	E	-	10,0	6,0	10,0	2,0	85,0	40,0	9,2	2,0	-	-	4	Cylindrical	■
JHF181120E2R300.0Z4A-HXT	03067317	2	E	■	12,0	6,0	12,0	3,0	100,0	48,0	11,0	3,0	-	-	4	Cylindrical	■
JHF181120E2R300.0Z4-HXT	03067316	2	E	-	12,0	6,0	12,0	3,0	100,0	48,0	11,0	3,0	-	-	4	Cylindrical	■
JHF181020J3R050.0Z4-HXT	03067318	3	J	-	2,0	1,0	6,0	0,5	50,0	10,0	1,8	0,5	6,8	0,9	4	Cylindrical	■
JHF181030J3R075.0Z4-HXT	03067319	3	J	-	3,0	1,5	6,0	0,75	50,0	15,0	2,7	0,75	4,4	0,9	4	Cylindrical	■
JHF181040J3R100.0Z4-HXT	03067320	3	J	-	4,0	2,0	6,0	1,0	60,0	20,0	3,6	1,0	2,6	0,9	4	Cylindrical	■
JHF181060J3R150.0Z4-HXT	03067321	3	J	-	6,0	3,0	8,0	1,5	65,0	30,0	5,4	1,5	1,9	0,9	4	Cylindrical	■
JHF181080J3R200.0Z4-HXT	03067325	3	J	-	8,0	4,0	10,0	2,0	85,0	40,0	7,3	2,0	1,5	0,9	4	Cylindrical	■
JHF181100J3R200.0Z4-HXT	03067327	3	J	-	10,0	6,0	12,0	2,0	100,0	50,0	9,2	2,0	1,2	0,9	4	Cylindrical	■
JHF181020J4R050.0Z3-HXT	03067329	4	J	-	2,0	1,0	6,0	0,5	50,0	14,0	1,8	0,5	5,6	0,9	3	Cylindrical	■
JHF181030J4R075.0Z3-HXT	03067330	4	J	-	3,0	1,5	6,0	0,75	60,0	21,0	2,7	0,75	3,4	0,9	3	Cylindrical	■
JHF181040J4R100.0Z3-HXT	03067331	4	J	-	4,0	2,0	6,0	1,0	65,0	28,0	3,6	1,0	2,0	0,9	3	Cylindrical	■
JHF181060J4R150.0Z3-HXT	03067332	4	J	-	6,0	3,0	8,0	1,5	80,0	42,0	5,4	1,5	1,4	0,9	3	Cylindrical	■
JHF181080J4R200.0Z3-HXT	03067333	4	J	-	8,0	4,0	10,0	2,0	100,0	56,0	7,3	2,0	1,1	0,9	3	Cylindrical	■
JHF181100J4R200.0Z3-HXT	03067334	4	J	-	10,0	6,0	12,0	2,0	125,0	70,0	9,2	2,0	0,9	0,9	3	Cylindrical	■

■ Stocked standard.

Cutting data – JHF181 Side milling roughing

SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>								v <sub>c</sub>	
				2	3	4	6	8	10	12	16		
P6	E/MA	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	305 (290 — 320) 1000 (960 — 1000)	Universal
P7	E/MA	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	290 (270 — 300) 950 (890 — 980)	
P8	E/MA	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	270 (260 — 290) 890 (860 — 950)	Steel and cast iron
P11	E/MA	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	280 (270 — 290) 920 (890 — 950)	
K1	E/MA	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	210 (190 — 240) 690 (630 — 780)	Steel and cast iron
K2	E/MA	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	185 (160 — 200) 610 (530 — 650)	
K3	E/MA	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	155 (140 — 170) 510 (460 — 550)	Stainless steel and S-materials
K4	E/MA	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	150 (120 — 170) 490 (430 — 520)	
K5	E/MA	0.30 0,30	0.040 0,040	0.050 0,0020	0.080 0,0032	0.10 0,0040	0.16 0,0065	0.20 0,0080	0.26 0,010	0.32 0,013	0.42 0,017	150 (120 — 170) 490 (400 — 550)	Stainless steel and S-materials
K6	E/MA	0.30 0,30	0.040 0,040	0.050 0,0020	0.080 0,0032	0.10 0,0040	0.16 0,0065	0.20 0,0080	0.26 0,010	0.32 0,013	0.42 0,017	220 (180 — 260) 720 (600 — 850)	
K7	E/MA	0.30 0,30	0.040 0,040	0.050 0,0020	0.080 0,0032	0.10 0,0040	0.16 0,0065	0.20 0,0080	0.26 0,010	0.32 0,013	0.42 0,017	190 (160 — 220) 620 (530 — 720)	Non ferrous
S1	E	0.18 0,18	0.014 0,014	0.025 0,0010	0.038 0,0015	0.050 0,0020	0.075 0,0030	0.10 0,0040	0.13 0,0050	0.15 0,0060	0.19 0,0075	60 (40 — 79) 195 (140 — 250)	
S2	E	0.18 0,18	0.014 0,014	0.025 0,0010	0.038 0,0015	0.050 0,0020	0.075 0,0030	0.10 0,0040	0.13 0,0050	0.15 0,0060	0.19 0,0075	48 (33 — 64) 155 (110 — 200)	Non ferrous
S3	E	0.18 0,18	0.014 0,014	0.024 0,00095	0.036 0,0014	0.048 0,0019	0.070 0,0028	0.095 0,0038	0.12 0,0048	0.14 0,0055	0.17 0,0065	42 (28 — 55) 140 (92 — 180)	
S11	E	0.18 0,18	0.034 0,034	0.036 0,0014	0.055 0,0022	0.070 0,0028	0.11 0,0044	0.14 0,0055	0.18 0,0070	0.22 0,0085	0.26 0,010	200 (180 — 220) 660 (600 — 720)	Hard
S12	E	0.18 0,18	0.034 0,034	0.036 0,0014	0.055 0,0022	0.070 0,0028	0.11 0,0044	0.14 0,0055	0.18 0,0070	0.22 0,0085	0.26 0,010	155 (140 — 170) 510 (460 — 550)	
S13	E	0.18 0,18	0.034 0,034	0.032 0,0013	0.046 0,0018	0.065 0,0026	0.095 0,0038	0.13 0,0050	0.16 0,0065	0.18 0,0070	0.24 0,0095	125 (110 — 130) 410 (370 — 420)	Hard
H3	M/A/D	0.30 0,30	0.020 0,020	0.050 0,0020	0.080 0,0032	0.10 0,0040	0.16 0,0065	0.20 0,0080	0.26 0,010	0.32 0,013	0.42 0,017	85 (73 — 96) 280 (240 — 310)	
H5	M/A/D	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	165 (150 — 180) 540 (500 — 590)	Plastic and CFRP
H7	M/A/D	0.30 0,30	0.020 0,020	0.050 0,0020	0.080 0,0032	0.10 0,0040	0.16 0,0065	0.20 0,0080	0.26 0,010	0.32 0,013	0.42 0,017	85 (73 — 96) 280 (240 — 310)	
H8	M/A/D	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	165 (150 — 180) 540 (500 — 590)	Plastic and CFRP
H11	M/A/D	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	210 (190 — 230) 690 (630 — 750)	
H12	M/A/D	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	190 (180 — 210) 620 (600 — 680)	Graphite
H21	M/A/D	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	165 (150 — 180) 540 (500 — 590)	
H31	M/A/D	0.30 0,30	0.040 0,040	0.070 0,0028	0.10 0,0040	0.14 0,0055	0.20 0,0080	0.28 0,011	0.34 0,013	0.40 0,016	0.55 0,022	125 (120 — 130) 410 (400 — 420)	Graphite

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – JHF181 Slot milling

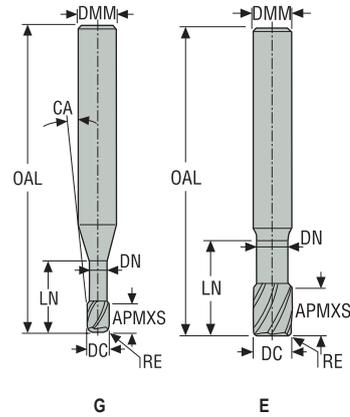
SMG	Icon	a <sub>p</sub> /DCX	f <sub>z</sub>									v <sub>c</sub>
			2	3	4	6	8	10	12	16		
P6	E/M/A	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	270 (260 – 280)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	890 (860 – 910)	
P7	E/M/A	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	255 (240 – 270)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	840 (790 – 880)	
P8	E/M/A	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	240 (230 – 250)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	790 (760 – 820)	
P11	E/M/A	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	250 (240 – 260)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	820 (790 – 850)	
K1	E/M/A	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	185 (170 – 210)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	610 (560 – 680)	
K2	E/M/A	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	160 (140 – 180)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	520 (460 – 590)	
K3	E/M/A	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	135 (120 – 150)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	445 (400 – 490)	
K4	E/M/A	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	130 (120 – 140)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	425 (400 – 450)	
K5	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	130 (110 – 150)	
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	425 (370 – 490)	
K6	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	195 (160 – 230)	
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	640 (530 – 750)	
K7	E/M/A	0.040	0.030	0.046	0.060	0.090	0.12	0.15	0.18	0.24	170 (140 – 200)	
		0,040	0,0012	0,0018	0,0024	0,0036	0,0048	0,0060	0,0070	0,0095	560 (460 – 650)	
S1	E	0.014	0.0090	0.014	0.018	0.028	0.036	0.046	0.055	0.070	48 (33 – 64)	
		0,014	0,00036	0,00055	0,00070	0,0011	0,0014	0,0018	0,0022	0,0028	155 (110 – 200)	
S2	E	0.014	0.0090	0.014	0.018	0.028	0.036	0.046	0.055	0.070	39 (26 – 51)	
		0,014	0,00036	0,00055	0,00070	0,0011	0,0014	0,0018	0,0022	0,0028	130 (86 – 160)	
S3	E	0.014	0.0090	0.014	0.018	0.028	0.036	0.046	0.055	0.070	33 (23 – 44)	
		0,014	0,00036	0,00055	0,00070	0,0011	0,0014	0,0018	0,0022	0,0028	110 (76 – 140)	
S11	E	0.034	0.011	0.017	0.022	0.034	0.046	0.055	0.070	0.090	170 (150 – 190)	
		0,034	0,00044	0,00065	0,00085	0,0013	0,0018	0,0022	0,0028	0,0036	560 (500 – 620)	
S12	E	0.034	0.011	0.017	0.022	0.034	0.046	0.055	0.070	0.090	130 (120 – 140)	
		0,034	0,00044	0,00065	0,00085	0,0013	0,0018	0,0022	0,0028	0,0036	425 (400 – 450)	
S13	E	0.034	0.011	0.017	0.022	0.034	0.046	0.055	0.070	0.090	100 (89 – 110)	
		0,034	0,00044	0,00065	0,00085	0,0013	0,0018	0,0022	0,0028	0,0036	330 (300 – 360)	
H3	M/A/D	0.020	0.034	0.050	0.070	0.10	0.14	0.17	0.20	0.28	75 (63 – 83)	
		0,020	0,0013	0,0020	0,0028	0,0040	0,0055	0,0065	0,0080	0,011	245 (210 – 270)	
H5	M/A/D	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	145 (130 – 160)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	475 (430 – 520)	
H7	M/A/D	0.020	0.034	0.050	0.070	0.10	0.14	0.17	0.20	0.28	75 (63 – 83)	
		0,020	0,0013	0,0020	0,0028	0,0040	0,0055	0,0065	0,0080	0,011	245 (210 – 270)	
H8	M/A/D	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	145 (130 – 160)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	475 (430 – 520)	
H11	M/A/D	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	185 (170 – 200)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	610 (560 – 650)	
H12	M/A/D	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	170 (160 – 180)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	560 (530 – 590)	
H21	M/A/D	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	145 (130 – 160)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	475 (430 – 520)	
H31	M/A/D	0.040	0.042	0.065	0.085	0.13	0.17	0.20	0.25	0.34	110 (98 – 120)	
		0,040	0,0017	0,0026	0,0034	0,0050	0,0065	0,0080	0,010	0,013	360 (330 – 390)	

For cutting data recalculations, see pages 687 – 695

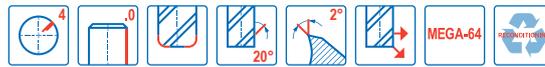
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JH120

High speed – Hardened steel – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,03 mm
- RE= ±0,01 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
120020-MEGA-64	00019437	2	G	2,0	6,0	2,5	50,0	5,0	1,9	0,2	10,5	4	Cylindrical	■
120025-MEGA-64	00019448	2	G	2,5	6,0	3,0	50,0	6,0	2,4	0,25	8,5	4	Cylindrical	■
120030-MEGA-64	00019450	2	G	3,0	6,0	4,0	50,0	7,0	2,8	0,3	7,0	4	Cylindrical	■
120035-MEGA-64	00019460	2	G	3,5	6,0	4,5	50,0	8,0	3,2	0,35	5,5	4	Cylindrical	■
120040-MEGA-64	00019462	2	G	4,0	6,0	5,0	50,0	9,0	3,7	0,4	4,5	4	Cylindrical	■
120050-MEGA-64	00019476	2	G	5,0	6,0	6,0	50,0	12,0	4,6	0,5	2,5	4	Cylindrical	■
120060-MEGA-64	00019479	2	E	6,0	6,0	7,0	55,0	14,0	5,6	0,6	–	4	Cylindrical	■
120080-MEGA-64	00019481	2	E	8,0	8,0	10,0	60,0	18,0	7,4	0,8	–	4	Cylindrical	■
120100-MEGA-64	00019494	2	E	10,0	10,0	12,0	70,0	25,0	9,4	1,0	–	4	Cylindrical	■
120120-MEGA-64	00019501	2	E	12,0	12,0	15,0	80,0	30,0	11,4	1,2	–	4	Cylindrical	■
120160-MEGA-64	00019503	2	E	16,0	16,0	18,0	90,0	35,0	15,4	1,6	–	4	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – JH120 Side milling

SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
				2	2.5	3	3.5	4	5	6	8	10	12	16	
H3	M	0.0150	0.50	0.0095	0.012	0.014	0.016	0.019	0.024	0.028	0.038	0.048	0.055	0.070	90 (57 – 130)
		0,0150	0,50	0,00038	0,00048	0,00055	0,00065	0,00075	0,00095	0,0011	0,0015	0,0019	0,0022	0,0028	295 (190 – 420)
H5	M	0.0300	1.0	0.012	0.015	0.018	0.020	0.024	0.030	0.036	0.048	0.060	0.070	0.095	215 (180 – 250)
		0,0300	1,0	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	710 (600 – 820)
H7	M	0.0150	0.50	0.0095	0.012	0.014	0.016	0.019	0.024	0.028	0.038	0.048	0.055	0.070	90 (57 – 130)
		0,0150	0,50	0,00038	0,00048	0,00055	0,00065	0,00075	0,00095	0,0011	0,0015	0,0019	0,0022	0,0028	295 (190 – 420)
H8	M	0.0300	1.0	0.012	0.015	0.018	0.020	0.024	0.030	0.036	0.048	0.060	0.070	0.095	215 (180 – 250)
		0,0300	1,0	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	710 (600 – 820)
H11	M	0.0300	1.0	0.012	0.015	0.018	0.020	0.024	0.030	0.036	0.048	0.060	0.070	0.095	275 (230 – 320)
		0,0300	1,0	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	900 (760 – 1000)
H12	M	0.0300	1.0	0.012	0.015	0.018	0.020	0.024	0.030	0.036	0.048	0.060	0.070	0.095	250 (210 – 290)
		0,0300	1,0	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	820 (690 – 950)
H21	M	0.0300	1.0	0.012	0.015	0.018	0.020	0.024	0.030	0.036	0.048	0.060	0.070	0.095	215 (180 – 250)
		0,0300	1,0	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	710 (600 – 820)
H31	M	0.0300	1.0	0.012	0.015	0.018	0.020	0.024	0.030	0.036	0.048	0.060	0.070	0.095	135 (120 – 150)
		0,0300	1,0	0,00048	0,00060	0,00070	0,00080	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0038	445 (400 – 490)

Cutting data – JH120 Slot milling

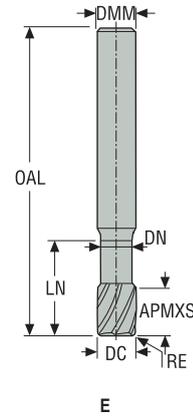
SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>											v <sub>c</sub>
			2	2.5	3	3.5	4	5	6	8	10	12	16	
H3	M	0.050	0.0050	0.0065	0.0075	0.0090	0.010	0.013	0.015	0.020	0.025	0.030	0.038	55 (34 – 78)
		0,050	0,00020	0,00026	0,00030	0,00036	0,00040	0,00050	0,00060	0,00080	0,0010	0,0012	0,0015	180 (120 – 250)
H5	M	0.18	0.0080	0.010	0.012	0.014	0.016	0.020	0.024	0.032	0.040	0.048	0.060	120 (98 – 140)
		0,18	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	395 (330 – 450)
H7	M	0.050	0.0050	0.0065	0.0075	0.0090	0.010	0.013	0.015	0.020	0.025	0.030	0.038	55 (34 – 78)
		0,050	0,00020	0,00026	0,00030	0,00036	0,00040	0,00050	0,00060	0,00080	0,0010	0,0012	0,0015	180 (120 – 250)
H8	M	0.18	0.0060	0.0075	0.0090	0.011	0.012	0.015	0.018	0.025	0.030	0.036	0.044	125 (110 – 140)
		0,18	0,00024	0,00030	0,00036	0,00044	0,00048	0,00060	0,00070	0,0010	0,0012	0,0014	0,0017	410 (370 – 450)
H11	M	0.18	0.0080	0.010	0.012	0.014	0.016	0.020	0.024	0.032	0.040	0.048	0.060	150 (130 – 170)
		0,18	0,00032	0,00040	0,00048	0,00055	0,00065	0,00080	0,00095	0,0013	0,0016	0,0019	0,0024	490 (430 – 550)
H12	M	0.18	0.0060	0.0075	0.0090	0.011	0.012	0.015	0.018	0.025	0.030	0.036	0.044	145 (120 – 170)
		0,18	0,00024	0,00030	0,00036	0,00044	0,00048	0,00060	0,00070	0,0010	0,0012	0,0014	0,0017	475 (400 – 550)
H21	M	0.18	0.0060	0.0075	0.0090	0.011	0.012	0.015	0.018	0.025	0.030	0.036	0.044	125 (110 – 140)
		0,18	0,00024	0,00030	0,00036	0,00044	0,00048	0,00060	0,00070	0,0010	0,0012	0,0014	0,0017	410 (370 – 450)
H31	M	0.18	0.0055	0.0065	0.0080	0.0090	0.011	0.013	0.016	0.022	0.026	0.032	0.038	80 (70 – 92)
		0,18	0,00022	0,00026	0,00032	0,00036	0,00044	0,00050	0,00065	0,00085	0,0010	0,0013	0,0015	260 (230 – 300)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

JH130

High speed – Hardened steel – Square – 5-8 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
130060-MEGA-64	00019504	2	E	6,0	6,0	6,0	55,0	12,0	5,6	0,2	5	Cylindrical	■
130080-MEGA-64	00019507	2	E	8,0	8,0	8,0	60,0	16,0	7,4	0,2	5	Cylindrical	■
130100-MEGA-64	00019511	2	E	10,0	10,0	10,0	70,0	20,0	9,4	0,3	6	Cylindrical	■
130120-MEGA-64	00019512	2	E	12,0	12,0	12,0	80,0	24,0	11,4	0,5	6	Cylindrical	■
130160-MEGA-64	00019514	2	E	16,0	16,0	16,0	90,0	30,0	15,4	0,5	8	Cylindrical	■
130200-MEGA-64	00019542	2	E	20,0	20,0	20,0	100,0	35,0	19,2	0,5	8	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH130 Side milling finishing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				6	8	10	12	16	20	
H3	M	0.0300	0.50	0.013	0.018	0.022	0.026	0.032	0.038	85 (73 — 93)
		0,0300	0,50	0,00050	0,00070	0,00085	0,0010	0,0013	0,0015	280 (240 — 300)
H5	M	0.0300	1.0	0.032	0.042	0.050	0.060	0.075	0.090	255 (240 — 270)
		0,0300	1,0	0,0013	0,0017	0,0020	0,0024	0,0030	0,0036	840 (790 — 880)
H7	M	0.0300	0.50	0.013	0.018	0.022	0.026	0.032	0.038	85 (73 — 93)
		0,0300	0,50	0,00050	0,00070	0,00085	0,0010	0,0013	0,0015	280 (240 — 300)
H8	M	0.0300	1.0	0.024	0.032	0.040	0.046	0.060	0.065	260 (240 — 270)
		0,0300	1,0	0,00095	0,0013	0,0016	0,0018	0,0024	0,0026	850 (790 — 880)
H11	M	0.0300	1.0	0.032	0.042	0.050	0.060	0.075	0.090	320 (300 — 340)
		0,0300	1,0	0,0013	0,0017	0,0020	0,0024	0,0030	0,0036	1050 (990 — 1100)
H12	M	0.0300	1.0	0.024	0.032	0.040	0.046	0.060	0.065	300 (280 — 320)
		0,0300	1,0	0,00095	0,0013	0,0016	0,0018	0,0024	0,0026	980 (920 — 1000)
H21	M	0.0300	1.0	0.024	0.032	0.040	0.046	0.060	0.065	260 (240 — 270)
		0,0300	1,0	0,00095	0,0013	0,0016	0,0018	0,0024	0,0026	850 (790 — 880)
H31	M	0.0300	1.0	0.030	0.040	0.050	0.060	0.075	0.085	155 (140 — 170)
		0,0300	1,0	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	510 (460 — 550)

Cutting data – JH130 Side milling roughing

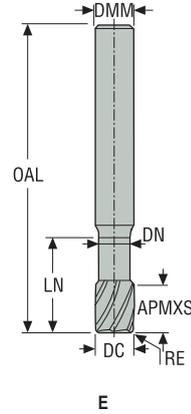
SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				6	8	10	12	16	20	
H3	M	0.0300	0.50	0.013	0.018	0.022	0.026	0.032	0.038	85 (73 — 93)
		0,0300	0,50	0,00050	0,00070	0,00085	0,0010	0,0013	0,0015	280 (240 — 300)
H5	M	0.0300	1.0	0.032	0.042	0.050	0.060	0.075	0.090	255 (240 — 270)
		0,0300	1,0	0,0013	0,0017	0,0020	0,0024	0,0030	0,0036	840 (790 — 880)
H7	M	0.0300	0.50	0.013	0.018	0.022	0.026	0.032	0.038	85 (73 — 93)
		0,0300	0,50	0,00050	0,00070	0,00085	0,0010	0,0013	0,0015	280 (240 — 300)
H8	M	0.0300	1.0	0.024	0.032	0.040	0.046	0.060	0.065	260 (240 — 270)
		0,0300	1,0	0,00095	0,0013	0,0016	0,0018	0,0024	0,0026	850 (790 — 880)
H11	M	0.0300	1.0	0.032	0.042	0.050	0.060	0.075	0.090	320 (300 — 340)
		0,0300	1,0	0,0013	0,0017	0,0020	0,0024	0,0030	0,0036	1050 (990 — 1100)
H12	M	0.0300	1.0	0.024	0.032	0.040	0.046	0.060	0.065	300 (280 — 320)
		0,0300	1,0	0,00095	0,0013	0,0016	0,0018	0,0024	0,0026	980 (920 — 1000)
H21	M	0.0300	1.0	0.024	0.032	0.040	0.046	0.060	0.065	260 (240 — 270)
		0,0300	1,0	0,00095	0,0013	0,0016	0,0018	0,0024	0,0026	850 (790 — 880)
H31	M	0.0300	1.0	0.030	0.040	0.050	0.060	0.075	0.085	155 (140 — 170)
		0,0300	1,0	0,0012	0,0016	0,0020	0,0024	0,0030	0,0034	510 (460 — 550)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

JH930

High speed – Universal – Square – 5-8 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
930060R020-MEGA	00022026	2	E	6,0	6,0	9,0	55,0	15,0	5,6	0,2	5	Cylindrical	■
930060R050-MEGA	00022027	2	E	6,0	6,0	9,0	55,0	15,0	5,6	0,5	5	Cylindrical	■
930080R020-MEGA	00022028	2	E	8,0	8,0	12,0	60,0	18,0	7,4	0,2	5	Cylindrical	■
930080R050-MEGA	00022029	2	E	8,0	8,0	12,0	60,0	18,0	7,4	0,5	5	Cylindrical	■
930100R030-MEGA	00022030	2	E	10,0	10,0	15,0	70,0	25,0	9,4	0,3	6	Cylindrical	■
930100R100-MEGA	00022031	2	E	10,0	10,0	15,0	70,0	25,0	9,4	1,0	6	Cylindrical	■
930120R050-MEGA	00022033	2	E	12,0	12,0	18,0	80,0	30,0	11,4	0,5	6	Cylindrical	■
930120R100-MEGA	00022034	2	E	12,0	12,0	18,0	80,0	30,0	11,4	1,0	6	Cylindrical	■
930160R050-MEGA	00022035	2	E	16,0	16,0	24,0	90,0	35,0	15,4	0,5	8	Cylindrical	■
930160R100-MEGA	00022040	2	E	16,0	16,0	24,0	90,0	35,0	15,4	1,0	8	Cylindrical	■
930200R050-MEGA	00022044	2	E	20,0	20,0	30,0	100,0	38,0	19,2	0,5	8	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfprp

Graphite

X-Heads

Minimaster

Cutting data – JH930 Side milling

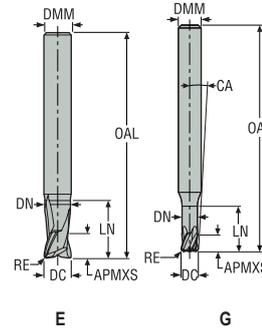
SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>	
				6	8	10	12	16	20		
Universal	P1	M/E/A 0,0400	0.70 0,70	0.065 0,0026	0.085 0,0034	0.11 0,0044	0.13 0,0050	0.16 0,0065	0.18 0,0070	440 (370 – 490) 1450 (1300 – 1600)	
	P2	M/E/A 0,0400	0.70 0,70	0.065 0,0026	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.16 0,0065	0.19 0,0075	430 (360 – 480) 1400 (1200 – 1500)	
	P3	M/E/A 0,0400	0.70 0,70	0.060 0,0024	0.085 0,0034	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.18 0,0070	375 (320 – 420) 1225 (1100 – 1300)	
	P4	M/E/A 0,0400	0.70 0,70	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	330 (280 – 370) 1075 (920 – 1200)	
	P5	M/E/A 0,0400	0.70 0,70	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	315 (270 – 350) 1025 (890 – 1100)	
	P6	M/E/A 0,0400	0.70 0,70	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	355 (300 – 390) 1175 (990 – 1200)	
	P7	M/E/A 0,0400	0.70 0,70	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	335 (280 – 370) 1100 (920 – 1200)	
	P8	M/E/A 0,0400	0.70 0,70	0.060 0,0024	0.085 0,0034	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.18 0,0070	315 (270 – 350) 1025 (890 – 1100)	
	P11	M/E/A 0,0400	0.70 0,70	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	325 (280 – 360) 1075 (920 – 1100)	
	P12	M/E/A 0,0400	0.70 0,70	0.040 0,0016	0.055 0,0022	0.070 0,0028	0.080 0,0032	0.10 0,0040	0.11 0,0044	200 (170 – 220) 660 (560 – 720)	
	Steel and cast iron	K1	E/M/A 0,0400	0.70 0,70	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	255 (210 – 300) 840 (690 – 980)
		K2	E/M/A 0,0400	0.70 0,70	0.055 0,0022	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.15 0,0060	225 (180 – 260) 740 (600 – 850)
K3		E/M/A 0,0400	0.70 0,70	0.055 0,0022	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.15 0,0060	190 (160 – 220) 620 (530 – 720)	
K4		E/M/A 0,0400	0.70 0,70	0.055 0,0022	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.15 0,0060	180 (150 – 210) 590 (500 – 680)	
K5		E/M/A 0,0300	0.50 0,50	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	205 (160 – 250) 670 (530 – 820)	
K6		E/M/A 0,0300	0.50 0,50	0.065 0,0026	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.16 0,0065	0.19 0,0075	300 (230 – 370) 980 (760 – 1200)	
K7		E/M/A 0,0300	0.50 0,50	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	260 (200 – 320) 850 (660 – 1000)	
Stainless steel and S-materials	S1	E/M/A 0,0300	0.44 0,44	0.055 0,0022	0.070 0,0028	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.15 0,0060	80 (62 – 100) 260 (210 – 320)	
	S2	E/M/A 0,0300	0.44 0,44	0.055 0,0022	0.070 0,0028	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.15 0,0060	65 (50 – 82) 215 (170 – 260)	
	S3	E/M/A 0,0200	0.70 0,70	0.055 0,0022	0.070 0,0028	0.090 0,0036	0.11 0,0044	0.13 0,0050	0.15 0,0060	41 (31 – 50) 135 (110 – 160)	
	S11	E/M/A 0,0400	0.70 0,70	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	160 (140 – 180) 520 (460 – 590)	
	S12	E/M/A 0,0400	0.70 0,70	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	0.17 0,0065	120 (110 – 140) 395 (370 – 450)	
	S13	E/M/A 0,0400	0.70 0,70	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.13 0,0050	0.15 0,0060	95 (81 – 110) 310 (270 – 360)	
	Non ferrous	H3	M/A 0,0200	0.50 0,50	0.018 0,00070	0.024 0,00095	0.030 0,0012	0.036 0,0014	0.044 0,0017	0.050 0,0020	55 (41 – 71) 180 (140 – 230)
H5		M/A 0,0300	0.50 0,50	0.024 0,00095	0.032 0,0013	0.040 0,0016	0.048 0,0019	0.060 0,0024	0.070 0,0028	250 (210 – 300) 820 (690 – 980)	
H7		M/A 0,0200	0.50 0,50	0.018 0,00070	0.024 0,00095	0.030 0,0012	0.036 0,0014	0.044 0,0017	0.050 0,0020	55 (41 – 71) 180 (140 – 230)	
H8		M/A 0,0300	0.50 0,50	0.018 0,00070	0.024 0,00095	0.030 0,0012	0.036 0,0014	0.044 0,0017	0.050 0,0020	255 (210 – 300) 840 (690 – 980)	
H11		M/A 0,0300	0.50 0,50	0.024 0,00095	0.032 0,0013	0.040 0,0016	0.048 0,0019	0.060 0,0024	0.070 0,0028	320 (260 – 380) 1050 (860 – 1200)	
H12		M/A 0,0400	0.70 0,70	0.030 0,0012	0.042 0,0017	0.050 0,0020	0.060 0,0024	0.075 0,0030	0.085 0,0034	270 (220 – 320) 890 (730 – 1000)	
H21		M/A 0,0300	0.50 0,50	0.018 0,00070	0.024 0,00095	0.030 0,0012	0.036 0,0014	0.044 0,0017	0.050 0,0020	255 (210 – 300) 840 (690 – 980)	
Hard	H31	M/A 0,0300	0.50 0,50	0.024 0,00095	0.032 0,0013	0.040 0,0016	0.048 0,0019	0.060 0,0024	0.070 0,0028	155 (130 – 180) 510 (430 – 590)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

JH142

High speed – High precision – Torical – Hardened steel – 2-6 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JH142020G2R030.0Z2-HXT	02968223	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	2	Cylindrical	■
JH142020G2R030.0Z4-HXT	02968224	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,3	6,64	4	Cylindrical	■
JH142020G2R050.0Z2-HXT	02968225	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	2	Cylindrical	■
JH142020G2R050.0Z4-HXT	02968226	2	G	2,0	4,0	2,0	40,0	6,0	1,9	0,5	6,79	4	Cylindrical	■
JH142030G2R050.0Z2-HXT	02968227	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	2	Cylindrical	■
JH142030G2R050.0Z4-HXT	02968228	2	G	3,0	4,0	3,0	40,0	8,0	2,8	0,5	2,95	4	Cylindrical	■
JH142030G2R100.0Z2-HXT	02968229	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	2	Cylindrical	■
JH142030G2R100.0Z4-HXT	02968230	2	G	3,0	4,0	3,0	40,0	8,0	2,8	1,0	3,1	4	Cylindrical	■
JH142040G2R030.0Z2-HXT	02968231	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	2	Cylindrical	■
JH142040G2R030.0Z4-HXT	02970110	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,3	5,34	4	Cylindrical	■
JH142040G2R050.0Z4-HXT	02968232	2	G	4,0	6,0	4,0	50,0	8,0	3,7	0,5	5,44	4	Cylindrical	■
JH142040G2R100.0Z4-HXT	02968233	2	G	4,0	6,0	4,0	50,0	8,0	3,7	1,0	5,69	4	Cylindrical	■
JH142060E2R050.0Z4-HXT	02968235	2	E	6,0	6,0	6,0	50,0	12,0	5,6	0,5	–	4	Cylindrical	■
JH142060E2R100.0Z4-HXT	02968237	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	–	4	Cylindrical	■
JH142060E2R100.0Z5-HXT	02968238	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,0	–	5	Cylindrical	■
JH142060E2R150.0Z5-HXT	02968240	2	E	6,0	6,0	6,0	50,0	12,0	5,6	1,5	–	5	Cylindrical	■
JH142060E2R200.0Z5-HXT	02968241	2	E	6,0	6,0	6,0	50,0	12,0	5,6	2,0	–	5	Cylindrical	■
JH142080E2R050.0Z5-HXT	02968242	2	E	8,0	8,0	8,0	60,0	16,0	7,4	0,5	–	5	Cylindrical	■
JH142080E2R100.0Z5-HXT	02968243	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,0	–	5	Cylindrical	■
JH142080E2R150.0Z5-HXT	02968244	2	E	8,0	8,0	8,0	60,0	16,0	7,4	1,5	–	5	Cylindrical	■
JH142080E2R200.0Z5-HXT	02968245	2	E	8,0	8,0	8,0	60,0	16,0	7,4	2,0	–	5	Cylindrical	■
JH142080E2R300.0Z5-HXT	02968246	2	E	8,0	8,0	8,0	60,0	16,0	7,4	3,0	–	5	Cylindrical	■
JH142100E2R050.0Z5-HXT	02968247	2	E	10,0	10,0	10,0	70,0	20,0	9,4	0,5	–	5	Cylindrical	■
JH142100E2R100.0Z5-HXT	02968248	2	E	10,0	10,0	10,0	70,0	20,0	9,4	1,0	–	5	Cylindrical	■
JH142100E2R200.0Z5-HXT	02968249	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,0	–	5	Cylindrical	■
JH142100E2R250.0Z5-HXT	02968250	2	E	10,0	10,0	10,0	70,0	20,0	9,4	2,5	–	5	Cylindrical	■
JH142120E2R100.0Z6-HXT	02968251	2	E	12,0	12,0	12,0	75,0	24,0	11,4	1,0	–	6	Cylindrical	■
JH142120E2R200.0Z6-HXT	02968252	2	E	12,0	12,0	12,0	75,0	24,0	11,4	2,0	–	6	Cylindrical	■
JH142120E2R300.0Z6-HXT	02968253	2	E	12,0	12,0	12,0	75,0	24,0	11,4	3,0	–	6	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

JH142

High speed – High precision – Torical – Hardened steel – 2-5 Flutes – Cylindrical – Corner radius

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

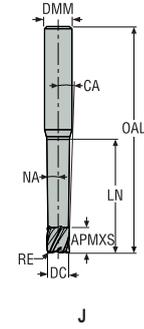
Hard

Plastic and cfrp

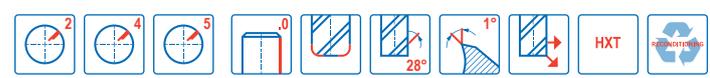
Graphite

X-Heads

Minimaster



- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Reground possible if DC is ≥Ø6



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm					
JH142020J3R030.02Z-HXT	02968255	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	0,9	2	Cylindrical	■
JH142020J3R030.024-HXT	02968256	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,3	6,72	0,9	4	Cylindrical	■
JH142020J3R050.02Z-HXT	02968257	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	0,9	2	Cylindrical	■
JH142020J3R050.024-HXT	02968258	3	J	2,0	6,0	2,0	60,0	10,0	1,9	0,5	6,79	0,9	4	Cylindrical	■
JH142030J3R050.02Z-HXT	02968259	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	0,9	2	Cylindrical	■
JH142030J3R050.024-HXT	02968260	3	J	3,0	6,0	3,0	60,0	15,0	2,8	0,5	4,3	0,9	4	Cylindrical	■
JH142030J3R100.02Z-HXT	02968261	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	0,9	2	Cylindrical	■
JH142030J3R100.024-HXT	02968262	3	J	3,0	6,0	3,0	60,0	15,0	2,8	1,0	4,4	0,9	4	Cylindrical	■
JH142040J3R030.02Z-HXT	02968263	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	0,9	2	Cylindrical	■
JH142040J3R030.024-HXT	02970111	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,3	2,45	0,9	4	Cylindrical	■
JH142040J3R050.02Z-HXT	02968265	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	0,9	2	Cylindrical	■
JH142040J3R050.024-HXT	02968264	3	J	4,0	6,0	4,0	60,0	20,0	3,7	0,5	2,48	0,9	4	Cylindrical	■
JH142040J3R100.02Z-HXT	02968266	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	0,9	2	Cylindrical	■
JH142040J3R100.024-HXT	02968267	3	J	4,0	6,0	4,0	60,0	20,0	3,7	1,0	2,53	0,9	4	Cylindrical	■
JH142060J3R050.024-HXT	02968268	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	0,9	4	Cylindrical	■
JH142060J3R050.025-HXT	02968269	3	J	6,0	8,0	6,0	75,0	30,0	5,6	0,5	1,75	0,9	5	Cylindrical	■
JH142060J3R100.024-HXT	02968270	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	0,9	4	Cylindrical	■
JH142060J3R100.025-HXT	02968271	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,0	1,77	0,9	5	Cylindrical	■
JH142060J3R150.025-HXT	02968272	3	J	6,0	8,0	6,0	75,0	30,0	5,6	1,5	1,8	0,9	5	Cylindrical	■
JH142060J3R200.025-HXT	02968273	3	J	6,0	8,0	6,0	75,0	30,0	5,6	2,0	1,83	0,9	5	Cylindrical	■
JH142080J3R050.025-HXT	02968274	3	J	8,0	10,0	8,0	85,0	40,0	7,4	0,5	1,34	0,9	5	Cylindrical	■
JH142080J3R100.025-HXT	02968275	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,0	1,36	0,9	5	Cylindrical	■
JH142080J3R150.025-HXT	02968276	3	J	8,0	10,0	8,0	85,0	40,0	7,4	1,5	1,37	0,9	5	Cylindrical	■
JH142080J3R200.025-HXT	02968277	3	J	8,0	10,0	8,0	85,0	40,0	7,4	2,0	1,39	0,9	5	Cylindrical	■
JH142100J3R050.025-HXT	02968278	3	J	10,0	12,0	10,0	100,0	50,0	9,4	0,5	1,1	0,9	5	Cylindrical	■
JH142100J3R100.025-HXT	02968279	3	J	10,0	12,0	10,0	100,0	50,0	9,4	1,0	1,11	0,9	5	Cylindrical	■
JH142100J3R200.025-HXT	02968280	3	J	10,0	12,0	10,0	100,0	50,0	9,4	2,0	1,13	0,9	5	Cylindrical	■
JH142020J6R030.024-HXT	02968282	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,3	4,33	0,9	4	Cylindrical	■
JH142020J6R050.024-HXT	02968283	6	J	2,0	6,0	2,0	75,0	20,0	1,9	0,5	4,36	0,9	4	Cylindrical	■
JH142030J6R050.024-HXT	02968284	6	J	3,0	6,0	3,0	75,0	30,0	2,8	0,5	2,52	0,9	4	Cylindrical	■
JH142030J6R100.024-HXT	02968285	6	J	3,0	6,0	3,0	75,0	30,0	2,8	1,0	2,56	0,9	4	Cylindrical	■
JH142040J6R030.024-HXT	02968286	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,3	1,36	0,9	4	Cylindrical	■
JH142040J6R050.024-HXT	02968287	6	J	4,0	6,0	4,0	80,0	40,0	3,7	0,5	1,37	0,9	4	Cylindrical	■
JH142040J6R100.024-HXT	02968288	6	J	4,0	6,0	4,0	80,0	40,0	3,7	1,0	1,38	0,9	4	Cylindrical	■

■ Stocked standard.

Cutting data – JH142 Copy milling roughing

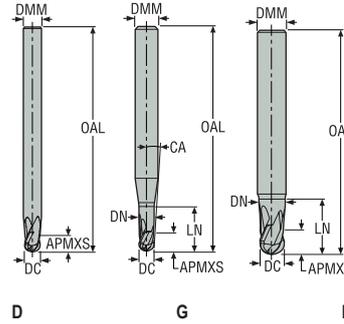
SMG		a <sub>g</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>	
				2	3	4	6	8	10	12	16		
P1	M/E	0.0500 0,0500	0.050 0,050	0.020 0,00080	0.030 0,0012	0.040 0,0016	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.14 0,0055	485 (460 — 530) 1600 (1600 — 1700)	Universal
P2	M/E	0.0500 0,0500	0.050 0,050	0.020 0,00080	0.030 0,0012	0.040 0,0016	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	470 (450 — 520) 1550 (1500 — 1700)	
P3	M/E	0.0500 0,0500	0.050 0,050	0.019 0,00075	0.028 0,0011	0.038 0,0015	0.055 0,0022	0.075 0,0030	0.095 0,0038	0.11 0,0044	0.14 0,0055	405 (390 — 450) 1325 (1300 — 1400)	Steel and cast iron
P4	M/E	0.0500 0,0500	0.050 0,050	0.019 0,00075	0.028 0,0011	0.038 0,0015	0.055 0,0022	0.075 0,0030	0.095 0,0038	0.11 0,0044	0.14 0,0055	360 (340 — 390) 1175 (1200 — 1200)	
P5	M/E	0.0500 0,0500	0.050 0,050	0.018 0,00070	0.028 0,0011	0.036 0,0014	0.055 0,0022	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	345 (330 — 380) 1125 (1100 — 1200)	Stainless steel and S-materials
P6	M/E	0.0500 0,0500	0.050 0,050	0.018 0,00070	0.028 0,0011	0.036 0,0014	0.055 0,0022	0.070 0,0028	0.090 0,0036	0.11 0,0044	0.13 0,0050	385 (370 — 420) 1275 (1300 — 1300)	
P7	M/E	0.0500 0,0500	0.050 0,050	0.018 0,00070	0.028 0,0011	0.036 0,0014	0.055 0,0022	0.070 0,0028	0.090 0,0036	0.11 0,0044	0.13 0,0050	365 (350 — 400) 1200 (1200 — 1300)	Steel and cast iron
P8	M/E	0.0500 0,0500	0.050 0,050	0.019 0,00075	0.028 0,0011	0.038 0,0015	0.055 0,0022	0.075 0,0030	0.095 0,0038	0.11 0,0044	0.14 0,0055	340 (330 — 380) 1125 (1100 — 1200)	
P11	M/E	0.0500 0,0500	0.050 0,050	0.018 0,00070	0.028 0,0011	0.036 0,0014	0.055 0,0022	0.070 0,0028	0.090 0,0036	0.11 0,0044	0.13 0,0050	355 (340 — 390) 1175 (1200 — 1200)	Stainless steel and S-materials
K1	A/E	0.0500 0,0500	0.050 0,050	0.018 0,00070	0.028 0,0011	0.036 0,0014	0.055 0,0022	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	345 (330 — 380) 1125 (1100 — 1200)	
K2	A/E	0.0500 0,0500	0.050 0,050	0.017 0,00065	0.025 0,0010	0.034 0,0013	0.050 0,0020	0.065 0,0026	0.085 0,0034	0.10 0,0040	0.12 0,0048	300 (290 — 330) 980 (960 — 1000)	Non ferrous
K3	A/E	0.0500 0,0500	0.050 0,050	0.017 0,00065	0.025 0,0010	0.034 0,0013	0.050 0,0020	0.065 0,0026	0.085 0,0034	0.10 0,0040	0.12 0,0048	255 (240 — 280) 840 (790 — 910)	
K4	A/E	0.0500 0,0500	0.050 0,050	0.017 0,00065	0.025 0,0010	0.034 0,0013	0.050 0,0020	0.065 0,0026	0.085 0,0034	0.10 0,0040	0.12 0,0048	245 (230 — 260) 800 (760 — 850)	Non ferrous
K5	A/E	0.0500 0,0500	0.050 0,050	0.018 0,00070	0.028 0,0011	0.036 0,0014	0.055 0,0022	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	345 (330 — 380) 1125 (1100 — 1200)	
K6	A/E	0.0500 0,0500	0.050 0,050	0.020 0,00080	0.030 0,0012	0.040 0,0016	0.060 0,0024	0.080 0,0032	0.10 0,0040	0.12 0,0048	0.15 0,0060	500 (480 — 550) 1650 (1600 — 1800)	Hard
K7	A/E	0.0500 0,0500	0.050 0,050	0.018 0,00070	0.028 0,0011	0.036 0,0014	0.055 0,0022	0.075 0,0030	0.090 0,0036	0.11 0,0044	0.13 0,0050	440 (420 — 490) 1450 (1400 — 1600)	
H3	M/A	0.0200 0,0200	0.020 0,020	0.014 0,00055	0.020 0,00080	0.028 0,0011	0.042 0,0017	0.055 0,0022	0.070 0,0028	0.080 0,0032	0.10 0,0040	95 (72 — 110) 310 (240 — 360)	Plastic and CFRP
H5	M/A	0.0400 0,0400	0.040 0,040	0.014 0,00055	0.022 0,00085	0.028 0,0011	0.042 0,0017	0.055 0,0022	0.070 0,0028	0.085 0,0034	0.10 0,0040	305 (290 — 330) 1000 (960 — 1000)	
H7	M/A	0.0200 0,0200	0.020 0,020	0.014 0,00055	0.020 0,00080	0.028 0,0011	0.042 0,0017	0.055 0,0022	0.070 0,0028	0.080 0,0032	0.10 0,0040	95 (72 — 110) 310 (240 — 360)	Plastic and CFRP
H8	M/A	0.0400 0,0400	0.040 0,040	0.011 0,00044	0.016 0,00065	0.022 0,00085	0.032 0,0013	0.042 0,0017	0.055 0,0022	0.065 0,0026	0.080 0,0032	310 (290 — 330) 1025 (960 — 1000)	
H11	M/A	0.0400 0,0400	0.040 0,040	0.014 0,00055	0.022 0,00085	0.028 0,0011	0.042 0,0017	0.055 0,0022	0.070 0,0028	0.085 0,0034	0.10 0,0040	390 (360 — 420) 1275 (1200 — 1300)	Plastic and CFRP
H12	M/A	0.0500 0,0500	0.050 0,050	0.0095 0,00038	0.014 0,00055	0.019 0,00075	0.028 0,0011	0.038 0,0015	0.046 0,0018	0.055 0,0022	0.070 0,0028	345 (320 — 370) 1125 (1100 — 1200)	
H21	M/A	0.0400 0,0400	0.040 0,040	0.011 0,00044	0.016 0,00065	0.022 0,00085	0.032 0,0013	0.042 0,0017	0.055 0,0022	0.065 0,0026	0.080 0,0032	310 (290 — 330) 1025 (960 — 1000)	Graphite
H31	M/A	0.0300 0,0300	0.030 0,030	0.013 0,00050	0.019 0,00075	0.025 0,0010	0.038 0,0015	0.050 0,0020	0.065 0,0026	0.075 0,0030	0.090 0,0036	140 (120 — 160) 460 (400 — 520)	

For cutting data recalculations, see pages 687 – 695

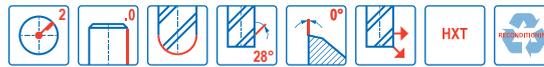
SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>g</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JH112  
High speed – High precision – Hardened steel – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0-0,01 mm
- RE= ±0,005 mm
- Regrind possible if DC is ≥Ø6

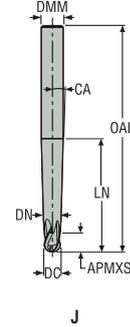


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm		
JH112020G1B.0Z2-HXT	02970112	1	G	2,0	4,0	2,0	40,0	4,0	1,9	1,0	6,45	2	Cylindrical	■
JH112030G1B.0Z2-HXT	02970113	1	G	3,0	4,0	3,0	40,0	6,0	2,8	1,5	3,3	2	Cylindrical	■
JH112040D1B.0Z2-HXT	02970114	1	D	4,0	4,0	4,0	40,0	—	—	2,0	—	2	Cylindrical	■
JH112050G1B.0Z2-HXT	02970115	1	G	5,0	6,0	5,0	50,0	10,0	4,6	2,5	2,0	2	Cylindrical	■
JH112060D1B.0Z2-HXT	02970116	1	D	6,0	6,0	6,0	50,0	—	—	3,0	—	2	Cylindrical	■
JH112080D1B.0Z2-HXT	02970117	1	D	8,0	8,0	8,0	65,0	—	—	4,0	—	2	Cylindrical	■
JH112100D1B.0Z2-HXT	02970118	1	D	10,0	10,0	10,0	65,0	—	—	5,0	—	2	Cylindrical	■
JH112020G2B.0Z2-HXT	02970119	2	G	2,0	3,0	2,0	50,0	10,0	1,9	1,0	2,5	2	Cylindrical	■
JH112030D2B.0Z2-HXT	02970120	2	D	3,0	3,0	3,0	50,0	—	—	1,5	—	2	Cylindrical	■
JH112040D2B.0Z2-HXT	02970121	2	D	4,0	4,0	4,0	60,0	—	—	2,0	—	2	Cylindrical	■
JH112050D2B.0Z2-HXT	02970122	2	D	5,0	5,0	5,0	60,0	—	—	2,5	—	2	Cylindrical	■
JH112060D2B.0Z2-HXT	02970123	2	D	6,0	6,0	6,0	75,0	—	—	3,0	—	2	Cylindrical	■
JH112020G3B.0Z2-HXT	02970124	3	G	2,0	6,0	2,0	60,0	4,0	1,9	1,0	8,12	2	Cylindrical	■
JH112025G3B.0Z2-HXT	02970125	3	G	2,5	6,0	2,5	60,0	5,0	2,4	1,25	7,39	2	Cylindrical	■
JH112030G3B.0Z2-HXT	02970126	3	G	3,0	6,0	3,0	60,0	6,0	2,8	1,5	5,5	2	Cylindrical	■
JH112035G3B.0Z2-HXT	02968289	3	G	3,5	6,0	3,5	65,0	7,0	3,2	1,75	3,81	2	Cylindrical	■
JH112040G3B.0Z2-HXT	02970127	3	G	4,0	6,0	4,0	65,0	8,0	3,7	2,0	3,34	2	Cylindrical	■
JH112050G3B.0Z2-HXT	02970128	3	G	5,0	6,0	5,0	65,0	10,0	4,6	2,5	2,0	2	Cylindrical	■
JH112060G3B.0Z2-HXT	02970129	3	G	6,0	8,0	6,0	75,0	12,0	5,6	3,0	2,78	2	Cylindrical	■
JH112080E3B.0Z2-HXT	02968290	3	E	8,0	8,0	8,0	75,0	16,0	7,4	4,0	—	2	Cylindrical	■
JH112100E3B.0Z2-HXT	02968291	3	E	10,0	10,0	10,0	80,0	20,0	9,4	5,0	—	2	Cylindrical	■
JH112120E3B.0Z2-HXT	02968292	3	E	12,0	12,0	12,0	90,0	24,0	11,4	6,0	—	2	Cylindrical	■
JH112020G4B.0Z2-HXT	02970130	4	G	2,0	6,0	2,0	80,0	20,0	1,9	1,0	3,82	2	Cylindrical	■
JH112030G4B.0Z2-HXT	02970131	4	G	3,0	6,0	3,0	80,0	20,0	2,8	1,5	2,91	2	Cylindrical	■
JH112040G4B.0Z2-HXT	02970132	4	G	4,0	6,0	4,0	80,0	20,0	3,7	2,0	1,97	2	Cylindrical	■
JH112050G4B.0Z2-HXT	02970133	4	G	5,0	6,0	5,0	100,0	50,0	4,6	2,5	0,53	2	Cylindrical	■
JH112060D4B.0Z2-HXT	02968293	4	D	6,0	6,0	6,0	100,0	—	—	3,0	—	2	Cylindrical	■
JH112080D4B.0Z2-HXT	02968294	4	D	8,0	8,0	8,0	110,0	—	—	4,0	—	2	Cylindrical	■
JH112100D4B.0Z2-HXT	02968295	4	D	10,0	10,0	10,0	125,0	—	—	5,0	—	2	Cylindrical	■
JH112120D4B.0Z2-HXT	02968296	4	D	12,0	12,0	12,0	125,0	—	—	6,0	—	2	Cylindrical	■

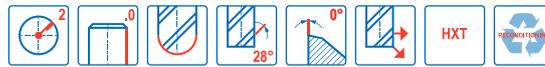
■ Stocked standard.

JH112

High speed – High precision – Hardened steel – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out < 0,005 mm
- DMM = h5
- DC = <math>\lt; \varnothing 0,6 = 0 / -0,008 \text{ mm}</math>
- DC = <math>\geq \varnothing 0,6 = 0 / -0,01 \text{ mm}</math>
- RE = <math>\lt; \varnothing 0,5 = \pm 0,004 \text{ mm}</math>
- RE = <math>\geq \varnothing 1,5 = \pm 0,005 \text{ mm}</math>
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm					
JH112020J5B.0Z2-HXT	02970134	5	J	2,0	6,0	2,0	80,0	35,0	1,9	1,0	3,3	3,55	2	Cylindrical	■
JH112030J5B.0Z2-HXT	02970135	5	J	3,0	6,0	3,0	80,0	40,0	2,8	1,5	2,2	2,5	2	Cylindrical	■
JH112040J5B.0Z2-HXT	02970136	5	J	4,0	6,0	4,0	80,0	52,0	3,7	2,0	1,2	1,4	2	Cylindrical	■
JH112050J5B.0Z2-HXT	02970137	5	J	5,0	8,0	5,0	100,0	56,0	4,6	2,5	1,6	1,95	2	Cylindrical	■
JH112060J5B.0Z2-HXT	02970138	5	J	6,0	8,0	6,0	100,0	56,0	5,6	3,0	1,1	1,4	2	Cylindrical	■
JH112080J5B.0Z2-HXT	02970139	5	J	8,0	10,0	8,0	125,0	62,0	7,4	4,0	1,0	1,43	2	Cylindrical	■
JH112100J5B.0Z2-HXT	02970140	5	J	10,0	12,0	10,0	125,0	61,0	9,4	5,0	1,0	1,5	2	Cylindrical	■
JH112060J6B.0Z2-HXT	02970141	6	J	6,0	10,0	6,0	125,0	62,0	5,6	3,0	2,0	2,3	2	Cylindrical	■
JH112080J6B.0Z2-HXT	02970142	6	J	8,0	12,0	8,0	150,0	67,0	7,4	4,0	1,8	2,3	2	Cylindrical	■
JH112100J6B.0Z2-HXT	02970143	6	J	10,0	12,0	10,0	150,0	79,0	9,4	5,0	0,8	1,1	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JH112 Copy milling finishing

SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			2	2.5	3	3.5	4	5	6	8	10	12	
K1	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	520 (500 – 730)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1700 (1700 – 2300)
K2	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	445 (430 – 630)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1450 (1500 – 2000)
K3	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	380 (360 – 530)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1250 (1200 – 1700)
K4	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	360 (350 – 510)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1175 (1200 – 1600)
K5	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	415 (370 – 610)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1350 (1300 – 2000)
K6	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	610 (550 – 900)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	2000 (1900 – 2900)
K7	E	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	680 (560 – 790)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	2225 (1900 – 2500)
H3	M	0.16	0.028	0.036	0.042	0.048	0.055	0.070	0.085	0.11	0.14	0.17	155 (150 – 230)
		0,16	0,0011	0,0014	0,0017	0,0019	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	510 (500 – 750)
H5	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	285 (240 – 330)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	940 (790 – 1000)
H7	M	0.16	0.028	0.036	0.042	0.048	0.055	0.070	0.085	0.11	0.14	0.17	155 (150 – 230)
		0,16	0,0011	0,0014	0,0017	0,0019	0,0022	0,0028	0,0034	0,0044	0,0055	0,0065	510 (500 – 750)
H8	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	285 (240 – 330)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	940 (790 – 1000)
H11	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	360 (300 – 420)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1175 (990 – 1300)
H12	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	330 (280 – 380)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	1075 (920 – 1200)
H21	M	0.30	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	285 (240 – 330)
		0,30	0,0012	0,0015	0,0017	0,0020	0,0024	0,0030	0,0036	0,0048	0,0060	0,0070	940 (790 – 1000)
H31	M	0.30	0.026	0.032	0.040	0.046	0.050	0.065	0.080	0.10	0.13	0.16	300 (290 – 430)
		0,30	0,0010	0,0013	0,0016	0,0018	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	980 (960 – 1400)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – JH112 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>	
				2	2.5	3	3.5	4	5	6	8	10	12		
K1	E	0.250	0.15	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	315 (310 — 450)	Universal
		0.250	0.15	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	1025 (1100 — 1400)	
K2	E	0.250	0.15	0.028	0.036	0.044	0.050	0.060	0.070	0.085	0.12	0.14	0.17	280 (270 — 390)	Steel and cast iron
		0.250	0.15	0.0011	0.0014	0.0017	0.0020	0.0024	0.0028	0.0034	0.0048	0.0055	0.0065	920 (890 — 1200)	
K3	E	0.250	0.15	0.028	0.036	0.044	0.050	0.060	0.070	0.085	0.12	0.14	0.17	235 (230 — 330)	Steel and cast iron
		0.250	0.15	0.0011	0.0014	0.0017	0.0020	0.0024	0.0028	0.0034	0.0048	0.0055	0.0065	770 (760 — 1000)	
K4	E	0.250	0.15	0.028	0.036	0.044	0.050	0.060	0.070	0.085	0.12	0.14	0.17	225 (220 — 320)	Steel and cast iron
		0.250	0.15	0.0011	0.0014	0.0017	0.0020	0.0024	0.0028	0.0034	0.0048	0.0055	0.0065	740 (730 — 1000)	
K5	E	0.160	0.15	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	280 (250 — 410)	Steel and cast iron
		0.160	0.15	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	920 (830 — 1300)	
K6	E	0.160	0.15	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	415 (370 — 610)	Steel and cast iron
		0.160	0.15	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	1350 (1300 — 2000)	
K7	E	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	420 (350 — 490)	Stainless steel and S-materials
		0.250	0.10	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	1375 (1200 — 1600)	
H3	M	0.120	0.040	0.028	0.036	0.042	0.048	0.055	0.070	0.085	0.11	0.14	0.17	110 (100 — 160)	Stainless steel and S-materials
		0.120	0.040	0.0011	0.0014	0.0017	0.0019	0.0022	0.0028	0.0034	0.0044	0.0055	0.0065	360 (330 — 520)	
H5	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	175 (150 — 200)	Stainless steel and S-materials
		0.250	0.10	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	570 (500 — 650)	
H7	M	0.120	0.040	0.028	0.036	0.042	0.048	0.055	0.070	0.085	0.11	0.14	0.17	110 (100 — 160)	Stainless steel and S-materials
		0.120	0.040	0.0011	0.0014	0.0017	0.0019	0.0022	0.0028	0.0034	0.0044	0.0055	0.0065	360 (330 — 520)	
H8	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	175 (150 — 200)	Non ferrous
		0.250	0.10	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	570 (500 — 650)	
H11	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	225 (190 — 260)	Non ferrous
		0.250	0.10	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	740 (630 — 850)	
H12	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	205 (170 — 240)	Non ferrous
		0.250	0.10	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	670 (560 — 780)	
H21	M	0.250	0.10	0.030	0.038	0.044	0.050	0.060	0.075	0.090	0.12	0.15	0.18	175 (150 — 200)	Non ferrous
		0.250	0.10	0.0012	0.0015	0.0017	0.0020	0.0024	0.0030	0.0036	0.0048	0.0060	0.0070	570 (500 — 650)	
H31	M	0.200	0.10	0.026	0.032	0.040	0.046	0.050	0.065	0.080	0.10	0.13	0.16	200 (200 — 280)	Hard
		0.200	0.10	0.0010	0.0013	0.0016	0.0018	0.0020	0.0026	0.0032	0.0040	0.0050	0.0065	660 (660 — 910)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JH150

High speed – Hardened steel – Ball nose – 4 Flutes – Cylindrical

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

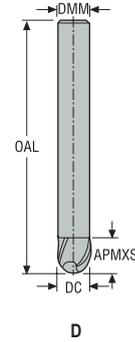
Hard

Plastic and cfrp

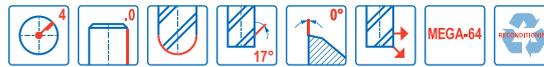
Graphite

X-Heads

Minimaster



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- Regrind possible



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
150060-MEGA-64	00019198	2	D	6,0	6,0	6,0	80,0	3,0	4	Cylindrical	■
150080-MEGA-64	00019208	2	D	8,0	8,0	8,0	85,0	4,0	4	Cylindrical	■
150100-MEGA-64	00019219	2	D	10,0	10,0	10,0	100,0	5,0	4	Cylindrical	■
150120-MEGA-64	00019254	2	D	12,0	12,0	12,0	100,0	6,0	4	Cylindrical	■

■ Stocked standard.

Cutting data – JH150 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
K1	A	0.300	0.15	0.10	0.14	0.17	0.20	290 (310 – 370)
		<i>0,300</i>	<i>0,15</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>950 (1100 – 1200)</i>
K2	A	0.300	0.15	0.10	0.14	0.17	0.20	250 (270 – 320)
		<i>0,300</i>	<i>0,15</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>820 (890 – 1000)</i>
K3	A	0.300	0.15	0.10	0.14	0.17	0.20	210 (230 – 270)
		<i>0,300</i>	<i>0,15</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>690 (760 – 880)</i>
K5	A	0.200	0.15	0.10	0.14	0.17	0.20	255 (270 – 330)
		<i>0,200</i>	<i>0,15</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>840 (890 – 1000)</i>
K6	A	0.200	0.15	0.10	0.14	0.17	0.20	375 (390 – 500)
		<i>0,200</i>	<i>0,15</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>1225 (1300 – 1600)</i>
K7	A	0.200	0.15	0.10	0.14	0.17	0.20	325 (340 – 430)
		<i>0,200</i>	<i>0,15</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>1075 (1200 – 1400)</i>
H3	M	0.0500	0.020	0.085	0.11	0.14	0.17	85 (88 – 120)
		<i>0,0500</i>	<i>0,020</i>	<i>0,0034</i>	<i>0,0044</i>	<i>0,0055</i>	<i>0,0065</i>	<i>280 (290 – 390)</i>
H5	M	0.200	0.060	0.10	0.14	0.17	0.20	180 (160 – 200)
		<i>0,200</i>	<i>0,060</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>590 (530 – 650)</i>
H7	M	0.0500	0.020	0.085	0.11	0.14	0.17	85 (88 – 120)
		<i>0,0500</i>	<i>0,020</i>	<i>0,0034</i>	<i>0,0044</i>	<i>0,0055</i>	<i>0,0065</i>	<i>280 (290 – 390)</i>
H8	M	0.200	0.060	0.10	0.14	0.17	0.20	180 (160 – 200)
		<i>0,200</i>	<i>0,060</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>590 (530 – 650)</i>
H11	M	0.200	0.060	0.10	0.14	0.17	0.20	230 (210 – 250)
		<i>0,200</i>	<i>0,060</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>750 (690 – 820)</i>
H12	M	0.200	0.060	0.10	0.14	0.17	0.20	210 (190 – 230)
		<i>0,200</i>	<i>0,060</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>690 (630 – 750)</i>
H21	M	0.200	0.060	0.10	0.14	0.17	0.20	180 (160 – 200)
		<i>0,200</i>	<i>0,060</i>	<i>0,0040</i>	<i>0,0055</i>	<i>0,0065</i>	<i>0,0080</i>	<i>590 (530 – 650)</i>
H31	M	0.150	0.060	0.090	0.12	0.15	0.18	125 (130 – 180)
		<i>0,150</i>	<i>0,060</i>	<i>0,0036</i>	<i>0,0048</i>	<i>0,0060</i>	<i>0,0070</i>	<i>410 (430 – 590)</i>

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

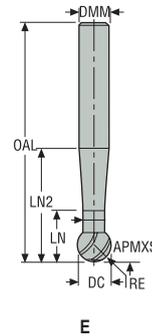
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

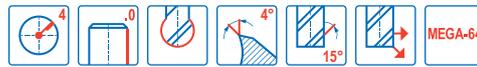
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JH160

High speed – Hardened steel – Ball nose – 4 Flutes – Cylindrical



—Tolerances:  
—DMM= h5  
—DC= 0,02/-0,06 mm  
—SA=250°



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm		
160030-MEGA-64	00040365	2	E	3,0	3,0	2,3	60,0	4,5	1,8	1,5	4	Cylindrical	■
160040-MEGA-64	00040366	2	E	4,0	4,0	3,1	60,0	5,6	2,4	2,0	4	Cylindrical	■
160050-MEGA-64	00040367	2	E	5,0	5,0	3,9	70,0	6,4	3,0	2,5	4	Cylindrical	■
160060-MEGA-64	00040368	2	E	6,0	6,0	4,7	80,0	9,7	3,6	3,0	4	Cylindrical	■
160080-MEGA-64	00040369	2	E	8,0	8,0	6,2	85,0	11,2	4,8	4,0	4	Cylindrical	■
160100-MEGA-64	00040370	2	E	10,0	10,0	7,8	100,0	15,6	6,0	5,0	4	Cylindrical	■
160120-MEGA-64	00040371	2	E	12,0	12,0	9,4	125,0	17,2	7,2	6,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JH160 Copy milling finishing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>		
				3	4	5	6	8	10	12			
P1	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	550 (450 — 700) 1800 (1500 — 2200)	Universal Steel and cast iron	
P2	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	530 (440 — 680) 1750 (1500 — 2200)		
P3	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	460 (380 — 590) 1500 (1300 — 1900)		
P4	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	405 (340 — 520) 1325 (1200 — 1700)		
P5	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	385 (320 — 490) 1275 (1100 — 1600)		
P6	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	430 (360 — 560) 1400 (1200 — 1800)		
P7	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	410 (340 — 520) 1350 (1200 — 1700)		
P8	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	385 (320 — 490) 1275 (1100 — 1600)		
P11	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	395 (330 — 510) 1300 (1100 — 1600)		
P12	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	235 (200 — 300) 770 (660 — 980)		
H3	M/E/A	0.0100 0,0100	0.0075 0,0075	0.040 0,0016	0.050 0,0020	0.065 0,0026	0.080 0,0032	0.10 0,0040	0.13 0,0050	0.16 0,0065	85 (91 — 110) 280 (300 — 360)		Non ferrous
H5	M/E/A	0.0100 0,0100	0.016 0,016	0.040 0,0016	0.050 0,0020	0.065 0,0026	0.080 0,0032	0.10 0,0040	0.13 0,0050	0.16 0,0065	340 (320 — 360) 1125 (1100 — 1100)		
H7	M/E/A	0.0100 0,0100	0.0075 0,0075	0.040 0,0016	0.050 0,0020	0.065 0,0026	0.080 0,0032	0.10 0,0040	0.13 0,0050	0.16 0,0065	85 (91 — 110) 280 (300 — 360)		
H8	M/E/A	0.0100 0,0100	0.016 0,016	0.040 0,0016	0.050 0,0020	0.065 0,0026	0.080 0,0032	0.10 0,0040	0.13 0,0050	0.16 0,0065	340 (320 — 360) 1125 (1100 — 1100)		
H11	M/E/A	0.0100 0,0100	0.016 0,016	0.040 0,0016	0.050 0,0020	0.065 0,0026	0.080 0,0032	0.10 0,0040	0.13 0,0050	0.16 0,0065	430 (400 — 460) 1400 (1400 — 1500)		
H12	M/E/A	0.0200 0,0200	0.024 0,024	0.050 0,0020	0.070 0,0028	0.085 0,0034	0.10 0,0040	0.14 0,0055	0.17 0,0065	0.20 0,0080	355 (340 — 380) 1175 (1200 — 1200)		
H21	M/E/A	0.0100 0,0100	0.016 0,016	0.040 0,0016	0.050 0,0020	0.065 0,0026	0.080 0,0032	0.10 0,0040	0.13 0,0050	0.16 0,0065	340 (320 — 360) 1125 (1100 — 1100)		
H31	M/E/A	0.0100 0,0100	0.016 0,016	0.040 0,0016	0.050 0,0020	0.065 0,0026	0.080 0,0032	0.10 0,0040	0.13 0,0050	0.16 0,0065	165 (180 — 210) 540 (600 — 680)		

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

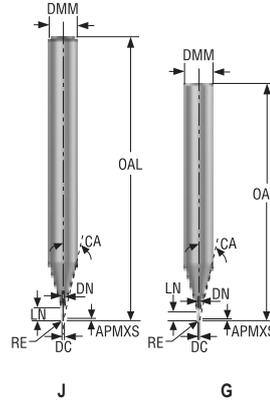
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

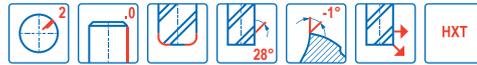
Universal  
Steel and cast  
iron  
Stainless steel  
and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

JME142

Miniature – Hardened steel – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC= <math>\lt; \varnothing 0,6 = 0/-0,008 \text{ mm}</math>
- DC=  $\geq \varnothing 0,6 = 0/-0,01 \text{ mm}</math>$
- RE =  $\pm 0,005 \text{ mm}</math>$

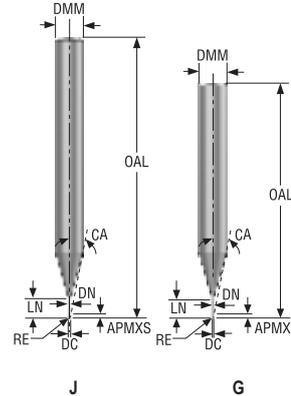


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PSIR°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm				
JME142002G1R005Z2.0-HXT	03205080	1	G	0,2	4,0	0,15	40,0	0,4	0,18	0,05	15,12	–	-1,0	2	Cylindrical	■
JME142003G1R005Z2.0-HXT	03205082	1	G	0,3	4,0	0,225	40,0	0,6	0,28	0,05	14,77	–	-1,0	2	Cylindrical	■
JME142004G1R005Z2.0-HXT	03205084	1	G	0,4	4,0	0,3	40,0	0,8	0,37	0,05	14,39	–	-1,0	2	Cylindrical	■
JME142005G1R005Z2.0-HXT	03205086	1	G	0,5	4,0	0,375	40,0	0,75	0,46	0,05	14,01	–	-1,0	2	Cylindrical	■
JME142006G1R005Z2.0-HXT	03205099	1	G	0,6	4,0	0,45	40,0	0,9	0,56	0,05	13,67	–	-1,0	2	Cylindrical	■
JME142008G1R005Z2.0-HXT	03205121	1	G	0,8	6,0	0,6	50,0	1,2	0,76	0,05	13,98	–	-1,0	2	Cylindrical	■
JME142010G1R005Z2.0-HXT	03205139	1	G	1,0	6,0	0,75	50,0	1,5	0,95	0,05	13,49	–	-1,0	2	Cylindrical	■
JME142012G1R005Z2.0-HXT	03205151	1	G	1,2	6,0	0,9	50,0	1,8	1,15	0,05	13,02	–	-1,0	2	Cylindrical	■
JME142015G1R005Z2.0-HXT	03205161	1	G	1,5	6,0	1,125	50,0	2,25	1,45	0,05	12,3	–	-1,0	2	Cylindrical	■
JME142002J2R005Z2.0-HXT	03205081	2	J	0,2	4,0	0,15	40,0	0,6	0,18	0,05	14,23	0,9	-1,0	2	Cylindrical	■
JME142003J2R005Z2.0-HXT	03205083	2	J	0,3	4,0	0,225	40,0	0,9	0,28	0,05	13,67	0,9	-1,0	2	Cylindrical	■
JME142004J2R005Z2.0-HXT	03205085	2	J	0,4	4,0	0,3	40,0	1,2	0,37	0,05	13,1	0,9	-1,0	2	Cylindrical	■
JME142005J2R005Z2.0-HXT	03205087	2	J	0,5	4,0	0,375	40,0	1,5	0,46	0,05	12,54	0,9	-1,0	2	Cylindrical	■
JME142005J2R010Z2.0-HXT	03205093	2	J	0,5	4,0	0,375	40,0	1,5	0,46	0,1	12,61	0,9	-1,0	2	Cylindrical	■
JME142005G2R005Z2.0-HXT	03205088	2	G	0,5	6,0	0,375	50,0	1,5	0,46	0,05	13,5	–	-1,0	2	Cylindrical	■
JME142005G2R010Z2.0-HXT	03205094	2	G	0,5	6,0	0,375	50,0	1,5	0,46	0,1	13,55	–	-1,0	2	Cylindrical	■
JME142006J2R005Z2.0-HXT	03205100	2	J	0,6	4,0	0,45	40,0	2,0	0,56	0,05	11,76	0,9	-1,0	2	Cylindrical	■
JME142006J2R010Z2.0-HXT	03205107	2	J	0,6	4,0	0,45	40,0	2,0	0,56	0,1	11,83	0,9	-1,0	2	Cylindrical	■
JME142006G2R005Z2.0-HXT	03205101	2	G	0,6	6,0	0,45	50,0	2,0	0,56	0,05	9,48	–	-1,0	2	Cylindrical	■
JME142006G2R010Z2.0-HXT	03205108	2	G	0,6	6,0	0,45	50,0	2,0	0,56	0,1	9,51	–	-1,0	2	Cylindrical	■
JME142008J2R005Z2.0-HXT	03205122	2	J	0,8	4,0	0,6	40,0	2,5	0,76	0,05	10,92	0,9	-1,0	2	Cylindrical	■
JME142008J2R010Z2.0-HXT	03205129	2	J	0,8	4,0	0,6	40,0	2,5	0,76	0,1	10,98	0,9	-1,0	2	Cylindrical	■
JME142008J2R020Z2.0-HXT	03205135	2	J	0,8	4,0	0,6	40,0	2,5	0,76	0,2	11,1	0,9	-1,0	2	Cylindrical	■
JME142008G2R005Z2.0-HXT	03205123	2	G	0,8	6,0	0,6	50,0	2,5	0,76	0,05	9,15	–	-1,0	2	Cylindrical	■
JME142008G2R010Z2.0-HXT	03205130	2	G	0,8	6,0	0,6	50,0	2,5	0,76	0,1	9,17	–	-1,0	2	Cylindrical	■
JME142008G2R020Z2.0-HXT	03205136	2	G	0,8	6,0	0,6	50,0	2,5	0,76	0,2	9,22	–	-1,0	2	Cylindrical	■
JME142010G2R005Z2.0-HXT	03205140	2	G	1,0	6,0	0,75	50,0	4,0	0,95	0,05	8,29	–	-1,0	2	Cylindrical	■
JME142010G2R010Z2.0-HXT	03205145	2	G	1,0	6,0	0,75	50,0	4,0	0,95	0,1	8,31	–	-1,0	2	Cylindrical	■
JME142010G2R020Z2.0-HXT	03205148	2	G	1,0	6,0	0,75	50,0	4,0	0,95	0,2	8,36	–	-1,0	2	Cylindrical	■
JME142012G2R005Z2.0-HXT	03205152	2	G	1,2	6,0	0,9	50,0	4,5	1,15	0,05	7,97	–	-1,0	2	Cylindrical	■
JME142012G2R010Z2.0-HXT	03205155	2	G	1,2	6,0	0,9	50,0	4,5	1,15	0,1	7,99	–	-1,0	2	Cylindrical	■
JME142012G2R020Z2.0-HXT	03205158	2	G	1,2	6,0	0,9	50,0	4,5	1,15	0,2	8,04	–	-1,0	2	Cylindrical	■
JME142015G2R005Z2.0-HXT	03205162	2	G	1,5	6,0	1,125	50,0	5,0	1,45	0,05	7,6	–	-1,0	2	Cylindrical	■
JME142015G2R010Z2.0-HXT	03205167	2	G	1,5	6,0	1,125	50,0	5,0	1,45	0,1	9,7	–	-1,0	2	Cylindrical	■
JME142015G2R020Z2.0-HXT	03205171	2	G	1,5	6,0	1,125	50,0	5,0	1,45	0,2	9,76	–	-1,0	2	Cylindrical	■

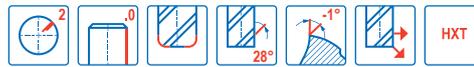
■ Stocked standard.

JME142

Miniature – Hardened steel – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out = <0,005 mm
- DMM = h5
- DC = <math>\varnothing 0,6 = 0/-0,008\text{ mm}</math>
- DC = <math>\varnothing 0,6 = 0/-0,01\text{ mm}</math>
- RE =  $\pm 0,005\text{ mm}$



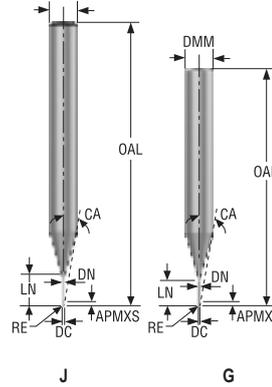
Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PSIR°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm						
JME142020G2R005Z2.0-HXT	03205180	2	G	2,0	6,0	1,5	50,0	6,0	1,94	0,05	8,52	–	-1,0	2	Cylindrical	■
JME142020G2R010Z2.0-HXT	03205185	2	G	2,0	6,0	1,5	50,0	6,0	1,94	0,1	8,55	–	-1,0	2	Cylindrical	■
JME142020G2R020Z2.0-HXT	03205188	2	G	2,0	6,0	1,5	50,0	6,0	1,94	0,2	8,6	–	-1,0	2	Cylindrical	■
JME142020G2R030Z2.0-HXT	03205191	2	G	2,0	6,0	1,5	50,0	6,0	1,94	0,3	8,66	–	-1,0	2	Cylindrical	■
JME142030G2R005Z2.0-HXT	03205201	2	G	3,0	6,0	2,25	50,0	9,0	2,85	0,05	5,81	–	-1,0	2	Cylindrical	■
JME142005J3R005Z2.0-HXT	03205089	3	J	0,5	4,0	0,375	40,0	2,5	0,46	0,05	11,24	0,9	-1,0	2	Cylindrical	■
JME142005J3R010Z2.0-HXT	03205095	3	J	0,5	4,0	0,375	40,0	2,5	0,46	0,1	11,29	0,9	-1,0	2	Cylindrical	■
JME142005G3R005Z2.0-HXT	03205090	3	G	0,5	6,0	0,375	50,0	3,5	0,46	0,05	11,55	–	-1,0	2	Cylindrical	■
JME142005G3R010Z2.0-HXT	03205096	3	G	0,5	6,0	0,375	50,0	3,5	0,46	0,1	11,59	–	-1,0	2	Cylindrical	■
JME142006J3R005Z2.0-HXT	03205103	3	J	0,6	4,0	0,45	40,0	3,0	0,56	0,05	10,58	0,9	-1,0	2	Cylindrical	■
JME142006J3R010Z2.0-HXT	03205109	3	J	0,6	4,0	0,45	40,0	3,0	0,56	0,1	10,63	0,9	-1,0	2	Cylindrical	■
JME142006G3R005Z2.0-HXT	03205104	3	G	0,6	6,0	0,45	50,0	4,0	0,56	0,05	8,46	–	-1,0	2	Cylindrical	■
JME142006G3R010Z2.0-HXT	03205110	3	G	0,6	6,0	0,45	50,0	4,0	0,56	0,1	8,48	–	-1,0	2	Cylindrical	■
JME142008J3R005Z2.0-HXT	03205124	3	J	0,8	4,0	0,6	40,0	4,0	0,76	0,05	9,36	0,9	-1,0	2	Cylindrical	■
JME142008G3R005Z2.0-HXT	03205126	3	G	0,8	6,0	0,6	50,0	5,5	0,76	0,05	9,89	–	-1,0	2	Cylindrical	■
JME142010G3R005Z2.0-HXT	03205141	3	G	1,0	6,0	0,75	50,0	7,0	0,95	0,05	8,84	–	-1,0	2	Cylindrical	■
JME142010G3R010Z2.0-HXT	03205146	3	G	1,0	6,0	0,75	50,0	7,0	0,95	0,1	8,86	–	-1,0	2	Cylindrical	■
JME142010G3R020Z2.0-HXT	03205149	3	G	1,0	6,0	0,75	50,0	7,0	0,95	0,2	8,91	–	-1,0	2	Cylindrical	■
JME142015G3R005Z2.0-HXT	03205163	3	G	1,5	6,0	1,125	50,0	10,0	1,45	0,05	7,05	–	-1,0	2	Cylindrical	■
JME142015G3R010Z2.0-HXT	03205169	3	G	1,5	6,0	1,125	50,0	10,0	1,45	0,1	7,06	–	-1,0	2	Cylindrical	■
JME142015G3R020Z2.0-HXT	03205172	3	G	1,5	6,0	1,125	50,0	10,0	1,45	0,2	7,1	–	-1,0	2	Cylindrical	■

■ Stocked standard.

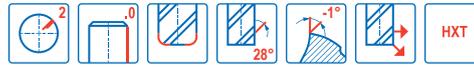
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JME142

Miniature – Hardened steel – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC= <math>\lt; \varnothing 0,6= 0/-0,008 \text{ mm}</math>
- DC=  $\geq \varnothing 0,6= 0/-0,01 \text{ mm}</math>$
- RE =  $\pm 0,005 \text{ mm}</math>$

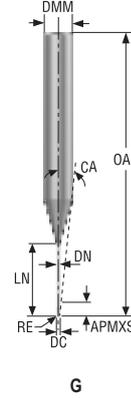


Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PSIR°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
JME142020G3R005Z2.0-HXT	03205181	3	G	2,0	6,0	1,5	50,0	12,0	1,94	0,05	5,9	–	-1,0	2	Cylindrical	■
JME142020G3R010Z2.0-HXT	03205186	3	G	2,0	6,0	1,5	50,0	12,0	1,94	0,1	5,92	–	-1,0	2	Cylindrical	■
JME142020G3R020Z2.0-HXT	03205189	3	G	2,0	6,0	1,5	50,0	12,0	1,94	0,2	5,95	–	-1,0	2	Cylindrical	■
JME142030G3R010Z2.0-HXT	03205206	3	G	3,0	6,0	2,25	60,0	15,0	2,85	0,1	4,15	–	-1,0	2	Cylindrical	■
JME142005J4R010Z2.0-HXT	03205097	4	J	0,5	4,0	0,375	40,0	4,0	0,46	0,1	9,76	0,9	-1,0	2	Cylindrical	■
JME142005G4R005Z2.0-HXT	03205092	4	G	0,5	6,0	0,375	50,0	5,0	0,46	0,05	10,42	–	-1,0	2	Cylindrical	■
JME142005G4R010Z2.0-HXT	03205098	4	G	0,5	6,0	0,375	50,0	5,0	0,46	0,1	10,45	–	-1,0	2	Cylindrical	■
JME142006J4R005Z2.0-HXT	03205105	4	J	0,6	4,0	0,45	40,0	5,0	0,56	0,05	8,79	0,9	-1,0	2	Cylindrical	■
JME142008G4R005Z2.0-HXT	03205128	4	G	0,8	6,0	0,6	50,0	8,0	0,76	0,05	8,49	–	-1,0	2	Cylindrical	■
JME142010G4R010Z2.0-HXT	03205147	4	G	1,0	6,0	0,75	50,0	10,0	0,95	0,1	7,48	–	-1,0	2	Cylindrical	■
JME142010G4R020Z2.0-HXT	03205150	4	G	1,0	6,0	0,75	50,0	10,0	0,95	0,2	7,52	–	-1,0	2	Cylindrical	■
JME142012G4R010Z2.0-HXT	03205157	4	G	1,2	6,0	0,9	50,0	12,0	1,15	0,1	6,62	–	-1,0	2	Cylindrical	■
JME142012G4R020Z2.0-HXT	03205160	4	G	1,2	6,0	0,9	50,0	12,0	1,15	0,2	6,65	–	-1,0	2	Cylindrical	■
JME142015G4R010Z2.0-HXT	03205170	4	G	1,5	6,0	1,125	60,0	15,0	1,45	0,1	5,55	–	-1,0	2	Cylindrical	■
JME142015G4R020Z2.0-HXT	03205173	4	G	1,5	6,0	1,125	60,0	15,0	1,45	0,2	5,58	–	-1,0	2	Cylindrical	■

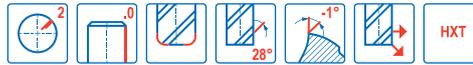
■ Stocked standard.

JME142

Miniature – Hardened steel – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,005 mm
- DMM = h5
- DC= <math>\varnothing 0,6= 0/-0,008\text{ mm}</math>
- DC=  $\geq \varnothing 0,6= 0/-0,01\text{ mm}</math>$
- RE =  $\pm 0,005\text{ mm}</math>$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PSIR°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm					
JME142020G4R010Z2.0-HXT	03205187	4	G	2,0	6,0	1,5	60,0	20,0	1,94	0,1	4,19	-1,0	2	Cylindrical	■
JME142020G4R020Z2.0-HXT	03205190	4	G	2,0	6,0	1,5	60,0	20,0	1,94	0,2	4,21	-1,0	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JME142 Side milling roughing

SMG	Coolant	a <sub>p</sub> /DC	a <sub>e</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	1.8	2	2.5	3	
H3	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.026	0.032	0.036	0.044	0.055	90 (59 — 110)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0010	0,0013	0,0014	0,0017	0,0022	295 (200 — 360)
H5	M/A	0.0500	0.46	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	160 (140 — 190)
		0,0500	0,46	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	520 (460 — 620)
H7	M/A	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.026	0.032	0.036	0.044	0.055	90 (59 — 110)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0010	0,0013	0,0014	0,0017	0,0022	295 (200 — 360)
H8	M/A	0.0500	0.46	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	160 (140 — 190)
		0,0500	0,46	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	520 (460 — 620)
H11	M/A	0.0500	0.46	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	205 (170 — 240)
		0,0500	0,46	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	670 (560 — 780)
H12	M/A	0.0500	0.46	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	190 (160 — 220)
		0,0500	0,46	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	620 (530 — 720)
H21	M/A	0.0500	0.46	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	160 (140 — 190)
		0,0500	0,46	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	520 (460 — 620)
H31	M/A	0.0500	0.46	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	120 (110 — 140)
		0,0500	0,46	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	395 (370 — 450)

Cutting data – JME142 Slot milling

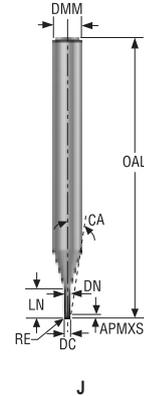
SMG	Coolant	a <sub>p</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
			0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	1.8	2	2.5	3	
H3	M/A	0.012	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.018	0.022	0.024	0.030	0.036	65 (43 — 85)
		0,012	0,000095	0,00014	0,00019	0,00024	0,00028	0,00038	0,00048	0,00055	0,00070	0,00085	0,00095	0,0012	0,0014	215 (150 — 270)
H5	M/A	0.020	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	120 (97 — 130)
		0,020	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	395 (320 — 420)
H7	M/A	0.012	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.018	0.022	0.024	0.030	0.036	65 (43 — 85)
		0,012	0,000095	0,00014	0,00019	0,00024	0,00028	0,00038	0,00048	0,00055	0,00070	0,00085	0,00095	0,0012	0,0014	215 (150 — 270)
H8	M/A	0.020	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	120 (97 — 130)
		0,020	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	395 (320 — 420)
H11	M/A	0.020	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	150 (130 — 170)
		0,020	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	490 (430 — 550)
H12	M/A	0.020	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	135 (120 — 160)
		0,020	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	445 (400 — 520)
H21	M/A	0.012	0.0024	0.0036	0.0048	0.0060	0.0070	0.0095	0.012	0.014	0.018	0.022	0.024	0.030	0.036	120 (98 — 140)
		0,012	0,000095	0,00014	0,00019	0,00024	0,00028	0,00038	0,00048	0,00055	0,00070	0,00085	0,00095	0,0012	0,0014	395 (330 — 450)
H31	M/A	0.020	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	90 (73 — 100)
		0,020	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	295 (240 — 320)

For cutting data recalculations, see pages 687 – 695

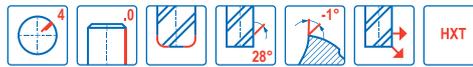
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JME144

Miniature – Hardened steel – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out = <0,005 mm
- DMM = h5
- DC = 0-0,01 mm
- RE = ±0,005 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PSIR°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm						
JME144010J2R005Z4.0-HXT	03205214	2	J	1,0	4,0	0,75	40,0	4,0	0,95	0,05	9,08	0,9	-1,0	4	Cylindrical	■
JME144010J2R010Z4.0-HXT	03205217	2	J	1,0	4,0	0,75	40,0	4,0	0,95	0,1	9,13	0,9	-1,0	4	Cylindrical	■
JME144010J2R020Z4.0-HXT	03205220	2	J	1,0	4,0	0,75	40,0	4,0	0,95	0,2	9,22	0,9	-1,0	4	Cylindrical	■
JME144015J2R005Z4.0-HXT	03205227	2	J	1,5	4,0	1,125	50,0	5,0	1,45	0,05	7,52	0,9	-1,0	4	Cylindrical	■
JME144015J2R010Z4.0-HXT	03205229	2	J	1,5	4,0	1,125	50,0	5,0	1,45	0,1	7,56	0,9	-1,0	4	Cylindrical	■
JME144015J2R020Z4.0-HXT	03205232	2	J	1,5	4,0	1,125	50,0	5,0	1,45	0,2	7,63	0,9	-1,0	4	Cylindrical	■
JME144020J2R005Z4.0-HXT	03205234	2	J	2,0	4,0	1,5	50,0	6,0	1,94	0,05	5,97	0,9	-1,0	4	Cylindrical	■
JME144020J2R010Z4.0-HXT	03205236	2	J	2,0	4,0	1,5	50,0	6,0	1,94	0,1	6,0	0,9	-1,0	4	Cylindrical	■
JME144020J2R020Z4.0-HXT	03205239	2	J	2,0	4,0	1,5	50,0	6,0	1,94	0,2	6,06	0,9	-1,0	4	Cylindrical	■
JME144020J2R030Z4.0-HXT	03205241	2	J	2,0	4,0	1,5	50,0	6,0	1,94	0,3	6,12	0,9	-1,0	4	Cylindrical	■
JME144030J2R010Z4.0-HXT	03205243	2	J	3,0	4,0	2,25	50,0	9,0	2,85	0,1	2,66	0,9	-1,0	4	Cylindrical	■
JME144030J2R020Z4.0-HXT	03205246	2	J	3,0	4,0	2,25	50,0	9,0	2,85	0,2	2,69	0,9	-1,0	4	Cylindrical	■
JME144010J3R010Z4.0-HXT	03205218	3	J	1,0	4,0	0,75	40,0	5,0	0,95	0,1	8,3	0,9	-1,0	4	Cylindrical	■
JME144015J3R010Z4.0-HXT	03205230	3	J	1,5	4,0	1,125	50,0	7,5	1,45	0,1	6,06	0,9	-1,0	4	Cylindrical	■
JME144020J3R005Z4.0-HXT	03205235	3	J	2,0	4,0	1,5	50,0	10,0	1,94	0,05	4,29	0,9	-1,0	4	Cylindrical	■
JME144020J3R010Z4.0-HXT	03205237	3	J	2,0	4,0	1,5	50,0	10,0	1,94	0,1	4,31	0,9	-1,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JME144 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				1.0	1.2	1.5	2.0	3	
H3	M/A	0.0500 <i>0,0500</i>	0.095 <i>0,095</i>	0.013 <i>0,00050</i>	0.016 <i>0,00065</i>	0.020 <i>0,00080</i>	0.026 <i>0,0010</i>	0.040 <i>0,0016</i>	95 (65 – 120) 310 (220 – 390)
H5	M/A	0.0500 <i>0,0500</i>	0.22 <i>0,22</i>	0.014 <i>0,00055</i>	0.017 <i>0,00065</i>	0.020 <i>0,00080</i>	0.028 <i>0,0011</i>	0.042 <i>0,0017</i>	165 (140 – 190) 540 (460 – 620)
H7	M/A	0.0500 <i>0,0500</i>	0.095 <i>0,095</i>	0.013 <i>0,00050</i>	0.016 <i>0,00065</i>	0.020 <i>0,00080</i>	0.026 <i>0,0010</i>	0.040 <i>0,0016</i>	95 (65 – 120) 310 (220 – 390)
H8	M/A	0.0500 <i>0,0500</i>	0.22 <i>0,22</i>	0.014 <i>0,00055</i>	0.017 <i>0,00065</i>	0.020 <i>0,00080</i>	0.028 <i>0,0011</i>	0.042 <i>0,0017</i>	165 (140 – 190) 540 (460 – 620)
H11	M/A	0.0500 <i>0,0500</i>	0.22 <i>0,22</i>	0.014 <i>0,00055</i>	0.017 <i>0,00065</i>	0.020 <i>0,00080</i>	0.028 <i>0,0011</i>	0.042 <i>0,0017</i>	210 (180 – 240) 690 (600 – 780)
H12	M/A	0.0500 <i>0,0500</i>	0.22 <i>0,22</i>	0.014 <i>0,00055</i>	0.017 <i>0,00065</i>	0.020 <i>0,00080</i>	0.028 <i>0,0011</i>	0.042 <i>0,0017</i>	190 (160 – 220) 620 (530 – 720)
H21	M/A	0.0500 <i>0,0500</i>	0.22 <i>0,22</i>	0.014 <i>0,00055</i>	0.017 <i>0,00065</i>	0.020 <i>0,00080</i>	0.028 <i>0,0011</i>	0.042 <i>0,0017</i>	165 (140 – 190) 540 (460 – 620)
H31	M/A	0.0500 <i>0,0500</i>	0.22 <i>0,22</i>	0.014 <i>0,00055</i>	0.017 <i>0,00065</i>	0.020 <i>0,00080</i>	0.028 <i>0,0011</i>	0.042 <i>0,0017</i>	125 (110 – 140) 410 (370 – 450)

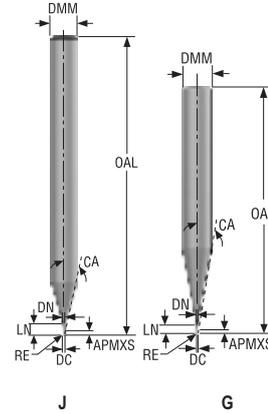
Cutting data – JME144 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
			1.0	1.2	1.5	2.0	3,0	
H3	M/A	0.0090 <i>0,0090</i>	0.0065 <i>0,00026</i>	0.0075 <i>0,00030</i>	0.0095 <i>0,00038</i>	0.013 <i>0,00050</i>	0.019 <i>0,00075</i>	65 (43 – 84) 215 (150 – 270)
H5	M/A	0.019 <i>0,019</i>	0.012 <i>0,00048</i>	0.014 <i>0,00055</i>	0.018 <i>0,00070</i>	0.024 <i>0,00095</i>	0.036 <i>0,0014</i>	115 (96 – 130) 375 (320 – 420)
H7	M/A	0.0090 <i>0,0090</i>	0.0065 <i>0,00026</i>	0.0075 <i>0,00030</i>	0.0095 <i>0,00038</i>	0.013 <i>0,00050</i>	0.019 <i>0,00075</i>	65 (43 – 84) 215 (150 – 270)
H8	M/A	0.019 <i>0,019</i>	0.012 <i>0,00048</i>	0.014 <i>0,00055</i>	0.018 <i>0,00070</i>	0.024 <i>0,00095</i>	0.036 <i>0,0014</i>	115 (96 – 130) 375 (320 – 420)
H11	M/A	0.019 <i>0,019</i>	0.012 <i>0,00048</i>	0.014 <i>0,00055</i>	0.018 <i>0,00070</i>	0.024 <i>0,00095</i>	0.036 <i>0,0014</i>	150 (130 – 170) 490 (430 – 550)
H12	M/A	0.019 <i>0,019</i>	0.012 <i>0,00048</i>	0.014 <i>0,00055</i>	0.018 <i>0,00070</i>	0.024 <i>0,00095</i>	0.036 <i>0,0014</i>	135 (120 – 160) 445 (400 – 520)
H21	M/A	0.019 <i>0,019</i>	0.012 <i>0,00048</i>	0.014 <i>0,00055</i>	0.018 <i>0,00070</i>	0.024 <i>0,00095</i>	0.036 <i>0,0014</i>	115 (96 – 130) 375 (320 – 420)
H31	M/A	0.019 <i>0,019</i>	0.012 <i>0,00048</i>	0.014 <i>0,00055</i>	0.018 <i>0,00070</i>	0.024 <i>0,00095</i>	0.036 <i>0,0014</i>	90 (73 – 100) 295 (240 – 320)

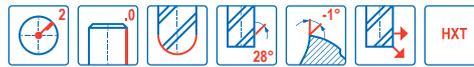
For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (*sf/min*)  
f<sub>z</sub> = mm (*in/tooth*)  
a<sub>p</sub> = mm/DC (*in/DC*) = factor  
a<sub>e</sub> = mm/DC (*in/DC*) = factor  
All cutting data are target values

JMB112  
Miniature – Hardened steel – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out = <math>< 0,005\text{ mm}</math>
- DMM = h5
- DC = <math>< \varnothing 0,6 = 0/-0,008\text{ mm}</math>
- DC = <math>\geq \varnothing 0,6 = 0/-0,01\text{ mm}</math>
- RE = DC <math>< \varnothing 1,5 = \pm 0,004\text{ mm}</math>
- RE = DC <math>\geq \varnothing 1,5 = \pm 0,005\text{ mm}</math>



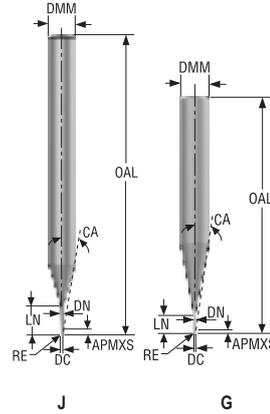
Designation	Item number	Length index	Tool shape	Dimensions (mm)											Shank	Stock standard
				DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PSIR°	PCEDC		
JMB112002G1BZ2.0-HXT	03204964	1	G	0,2	4,0	0,15	40,0	0,4	0,18	0,1	15,11	–	-1,0	2	Cylindrical	■
JMB112003G1BZ2.0-HXT	03204966	1	G	0,3	4,0	0,225	40,0	0,6	0,28	0,15	14,77	–	-1,0	2	Cylindrical	■
JMB112004G1BZ2.0-HXT	03204968	1	G	0,4	4,0	0,3	40,0	0,8	0,37	0,2	14,32	–	-1,0	2	Cylindrical	■
JMB112005G1BZ2.0-HXT	03204970	1	G	0,5	4,0	0,5	40,0	1,0	0,46	0,25	13,97	–	-1,0	2	Cylindrical	■
JMB112006G1BZ2.0-HXT	03204977	1	G	0,6	4,0	0,6	40,0	1,2	0,56	0,3	13,64	–	-1,0	2	Cylindrical	■
JMB112008G1BZ2.0-HXT	03204984	1	G	0,8	6,0	0,8	50,0	1,6	0,76	0,4	13,96	–	-1,0	2	Cylindrical	■
JMB112010G1BZ2.0-HXT	03204991	1	G	1,0	6,0	1,0	50,0	2,0	0,95	0,5	13,49	–	-1,0	2	Cylindrical	■
JMB112012G1BZ2.0-HXT	03205000	1	G	1,2	6,0	1,2	50,0	2,4	1,15	0,6	13,02	–	-1,0	2	Cylindrical	■
JMB112015G1BZ2.0-HXT	03205009	1	G	1,5	6,0	1,5	50,0	3,0	1,45	0,75	12,2	–	-1,0	2	Cylindrical	■
JMB112002J2BZ2.0-HXT	03204965	2	J	0,2	4,0	0,15	40,0	0,6	0,18	0,1	14,33	0,9	-1,0	2	Cylindrical	■
JMB112003J2BZ2.0-HXT	03204967	2	J	0,3	4,0	0,225	40,0	0,9	0,28	0,15	13,85	0,9	-1,0	2	Cylindrical	■
JMB112004J2BZ2.0-HXT	03204969	2	J	0,4	4,0	0,3	40,0	1,2	0,37	0,2	13,3	0,9	-1,0	2	Cylindrical	■
JMB112005J2BZ2.0-HXT	03204971	2	J	0,5	4,0	0,5	40,0	1,5	0,46	0,25	12,85	0,9	-1,0	2	Cylindrical	■
JMB112005G2BZ2.0-HXT	03204972	2	G	0,5	6,0	0,5	50,0	1,5	0,46	0,25	9,91	–	-1,0	2	Cylindrical	■
JMB112006J2BZ2.0-HXT	03204978	2	J	0,6	4,0	0,6	50,0	2,0	0,56	0,3	12,09	0,9	-1,0	2	Cylindrical	■
JMB112006G2BZ2.0-HXT	03204979	2	G	0,6	6,0	0,6	50,0	2,0	0,56	0,3	9,62	–	-1,0	2	Cylindrical	■
JMB112008J2BZ2.0-HXT	03204985	2	J	0,8	4,0	0,8	50,0	2,5	0,76	0,4	11,34	0,9	-1,0	2	Cylindrical	■
JMB112008G2BZ2.0-HXT	03204986	2	G	0,8	6,0	0,8	50,0	2,5	0,76	0,4	9,33	–	-1,0	2	Cylindrical	■
JMB112010J2BZ2.0-HXT	03204992	2	J	1,0	4,0	1,0	40,0	4,0	0,95	0,5	9,49	0,9	-1,0	2	Cylindrical	■
JMB112010G2BZ2.0-HXT	03204993	2	G	1,0	6,0	1,0	50,0	4,0	0,95	0,5	8,49	–	-1,0	2	Cylindrical	■
JMB112012J2BZ2.0-HXT	03205001	2	J	1,2	4,0	1,2	50,0	4,5	1,15	0,6	8,83	0,9	-1,0	2	Cylindrical	■
JMB112012G2BZ2.0-HXT	03205002	2	G	1,2	6,0	1,2	50,0	4,5	1,15	0,6	8,21	–	-1,0	2	Cylindrical	■
JMB112015J2BZ2.0-HXT	03205010	2	J	1,5	4,0	1,5	50,0	5,0	1,45	0,75	8,1	0,9	-1,0	2	Cylindrical	■
JMB112015G2BZ2.0-HXT	03205011	2	G	1,5	6,0	1,5	50,0	5,0	1,45	0,75	10,14	–	-1,0	2	Cylindrical	■
JMB112020J2BZ2.0-HXT	03205024	2	J	2,0	4,0	2,0	50,0	6,0	1,94	1,0	6,6	0,9	-1,0	2	Cylindrical	■
JMB112020G2BZ2.0-HXT	03205025	2	G	2,0	6,0	2,0	50,0	6,0	1,94	1,0	9,1	–	-1,0	2	Cylindrical	■
JMB112030J2BZ2.0-HXT	03205037	2	J	3,0	4,0	3,0	50,0	9,0	2,85	1,5	3,04	0,9	-1,0	2	Cylindrical	■
JMB112030G2BZ2.0-HXT	03205038	2	G	3,0	6,0	3,0	50,0	9,0	2,85	1,5	6,35	–	-1,0	2	Cylindrical	■

■ Stocked standard.

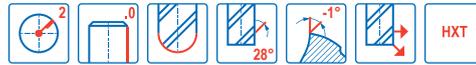
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JMB112

Miniature – Hardened steel – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out= <math>\lt;0,005\text{ mm}</math>
- DMM= h5
- DC= <math>\lt;0,6= 0/-0,008\text{ mm}</math>
- DC= <math>\geq 0,6= 0/-0,01\text{ mm}</math>
- RE=DC <math>\lt;01,5= \pm 0,004\text{ mm}</math>
- RE=DC <math>\geq 01,5= \pm 0,005\text{ mm}</math>

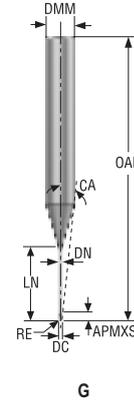


	Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	NA°	PSIR°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Universal	JMB112005J3BZ2.0-HXT	03204973	3	J	0,5	4,0	0,5	40,0	2,5	0,46	0,25	11,49	0,9	-1,0	2	Cylindrical	■
	JMB112005G3BZ2.0-HXT	03204974	3	G	0,5	6,0	0,5	50,0	3,5	0,46	0,25	8,81	-	-1,0	2	Cylindrical	■
Steel and cast iron	JMB112006J3BZ2.0-HXT	03204980	3	J	0,6	4,0	0,6	40,0	3,0	0,56	0,3	10,83	0,9	-1,0	2	Cylindrical	■
	JMB112006G3BZ2.0-HXT	03204981	3	G	0,6	6,0	0,6	50,0	4,0	0,56	0,3	8,56	-	-1,0	2	Cylindrical	■
Stainless steel and S-materials	JMB112008J3BZ2.0-HXT	03204987	3	J	0,8	4,0	0,8	40,0	4,0	0,76	0,4	9,67	0,9	-1,0	2	Cylindrical	■
	JMB112008G3BZ2.0-HXT	03204988	3	G	0,8	6,0	0,8	50,0	5,5	0,76	0,4	10,1	-	-1,0	2	Cylindrical	■
Non ferrous	JMB112010J3BZ2.0-HXT	03204994	3	J	1,0	4,0	1,0	40,0	5,0	0,95	0,5	8,6	0,9	-1,0	2	Cylindrical	■
	JMB112010G3BZ2.0-HXT	03204995	3	G	1,0	6,0	1,0	50,0	7,0	0,95	0,5	9,06	-	-1,0	2	Cylindrical	■
Hard	JMB112012J3BZ2.0-HXT	03205003	3	J	1,2	4,0	1,2	50,0	6,0	1,15	0,6	7,65	0,9	-1,0	2	Cylindrical	■
	JMB112012G3BZ2.0-HXT	03205004	3	G	1,2	6,0	1,2	50,0	8,0	1,15	0,6	8,42	-	-1,0	2	Cylindrical	■
Plastic and CFRP	JMB112015J3BZ2.0-HXT	03205012	3	J	1,5	4,0	1,5	40,0	7,5	1,45	0,75	6,4	0,9	-1,0	2	Cylindrical	■
	JMB112015G3BZ2.0-HXT	03205013	3	G	1,5	6,0	1,5	50,0	10,0	1,45	0,75	7,31	-	-1,0	2	Cylindrical	■
Graphite	JMB112020J3BZ2.0-HXT	03205026	3	J	2,0	4,0	2,0	50,0	10,0	1,94	1,0	4,61	0,9	-1,0	2	Cylindrical	■
	JMB112020G3BZ2.0-HXT	03205027	3	G	2,0	6,0	2,0	50,0	12,0	1,94	1,0	6,19	-	-1,0	2	Cylindrical	■
X-Heads	JMB112030J3BZ2.0-HXT	03205039	3	J	3,0	4,0	3,0	50,0	15,0	2,85	1,5	1,91	0,9	-1,0	2	Cylindrical	■
	JMB112030G3BZ2.0-HXT	03205040	3	G	3,0	6,0	3,0	60,0	15,0	2,85	1,5	4,41	-	-1,0	2	Cylindrical	■

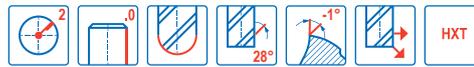
■ Stocked standard.

JMB112

Miniature – Hardened steel – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out= <math><0,005\text{ mm}</math>
- DMM= h5
- DC= <math><0,6 = 0/-0,008\text{ mm}</math>
- DC= <math>\geq 0,6 = 0/-0,01\text{ mm}</math>
- RE=DC <math><0,5 = \pm 0,004\text{ mm}</math>
- RE=DC <math>\geq 0,5 = \pm 0,005\text{ mm}</math>



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PSIR°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm					
JMB112006G4BZ2.0-HXT	03204983	4	G	0,6	6,0	0,6	50,0	6,0	0,56	0,3	9,86	-1,0	2	Cylindrical	■
JMB112008G4BZ2.0-HXT	03204990	4	G	0,8	6,0	0,8	50,0	8,0	0,76	0,4	8,65	-1,0	2	Cylindrical	■
JMB112010G4BZ2.0-HXT	03204998	4	G	1,0	6,0	1,0	50,0	10,0	0,95	0,5	7,63	-1,0	2	Cylindrical	■
JMB112015G4BZ2.0-HXT	03205015	4	G	1,5	6,0	1,5	70,0	15,0	1,45	0,75	5,7	-1,0	2	Cylindrical	■
JMB112020G4BZ2.0-HXT	03205029	4	G	2,0	6,0	2,0	60,0	18,0	1,94	1,0	4,68	-1,0	2	Cylindrical	■
JMB112030G4BZ2.0-HXT	03205042	4	G	3,0	6,0	3,0	80,0	30,0	2,85	1,5	2,51	-1,0	2	Cylindrical	■
JMB112010G6BZ2.0-HXT	03205054	6	G	1,0	6,0	1,0	60,0	20,0	0,95	0,5	4,99	-1,0	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – JMB112 Copy milling roughing

SMG	Coolant	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>													v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	1.8	2	2.5	3	
H3	M	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.026	0.032	0.036	0.044	0.048	150 (130 – 170)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0010	0,0013	0,0014	0,0017	0,0019	490 (430 – 550)
H5	M	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	220 (200 – 240)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	720 (660 – 780)
H7	M	0.0500	0.30	0.0036	0.0055	0.0070	0.0090	0.011	0.014	0.018	0.022	0.026	0.032	0.036	0.044	0.048	150 (130 – 170)
		0,0500	0,30	0,00014	0,00022	0,00028	0,00036	0,00044	0,00055	0,00070	0,00085	0,0010	0,0013	0,0014	0,0017	0,0019	490 (430 – 550)
H8	M	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.048	0.050	220 (200 – 240)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0019	0,0020	720 (660 – 780)
H11	M	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.050	0.060	280 (250 – 310)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0020	0,0024	920 (830 – 1000)
H12	M	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.048	0.050	255 (230 – 280)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0019	0,0020	840 (760 – 910)
H21	M	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.036	0.040	0.048	0.050	220 (200 – 240)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0014	0,0016	0,0019	0,0020	720 (660 – 780)
H31	M	0.0500	0.44	0.0040	0.0060	0.0080	0.010	0.012	0.016	0.020	0.024	0.030	0.034	0.036	0.042	0.044	165 (150 – 180)
		0,0500	0,44	0,00016	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,00095	0,0012	0,0013	0,0014	0,0017	0,0017	540 (500 – 590)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster



## PLASTIC AND CFRP

Seco presents a complete solid carbide end mill product range for the machining of glass and carbon fiber reinforced plastics. It consists of diamond-coated and uncoated solid carbide and PCD end mills incorporating different geometries as well as with PCD-brazed cutting edges. This is a product range offering optimized tools for difficult cutting conditions on challenging workpiece materials.

- JC860, JC870, JC871, JC899, JPD890, J93F and J28 for sharp corner type.
- JC845, JC880, JC885 and JC898 for radius type.
- JC875, JC876, JC877 and JPD880 with 45° chamfer type.
- JC850 and JPD850 for ball-nose type.

Universal

 Steel and cast  
iron

 Stainless steel  
and S-materials

Non ferrous

Hard

**Plastic and cfrp**

Graphite

X-Heads

Minimaster

Tool Selection Plastic and CFRP

Universal						
						
Steel and cast iron	Name	JC845	JC850	JC860	JC870	JC871
Stainless steel and S-materials	Page(s)	535	537	539	541	547
	Family name	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE
Non ferrous	Type of mill					
	Shank	Cylindrical	■	■	■	■
Hard		Weldon				
	Number of Flutes	3	4	5,6,8,9		
Plastic and cfrp	CSP					
	Diameter range	Metric	6-8	3-12	6-12	3-12
Graphite		Inch			1/4 -1/2	1/4 -1/2
	Length availability	2	2	2	2	2
X-Heads	Operation					
						
Minimaster						
	SMG					
	TS1					
	TS2	●	●	●	●	●
	TS3	●	●	●	●	●
	TP1					
	TP2	●	●	●	●	●
	TP3	●	●	●	●	●
	Honeycomb*			●	●	●

■ Stock standard □ Weldon available, delivery time is 3 days.  
 ● Preferred choice ○ Alternative choice

## Tool Selection Plastic and CFRP

								
Name		JC875	JC876	JC877	JC880	JC885	JC898	JC899
Page(s)		553	557	561	565	567	569	571
Family name		COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE	COMPOSITE
Type of mill								
Shank	Cylindrical	■	■	■	■	■	■	■
	Weldon							
Number of Flutes		5,6,10	6,8,10,12,14	6,8,10,12,14	4	4	4	4
CSP							■	
Diameter range	Metric	3-10	3-12	3-12	4-20	4-10	8-15	8,5-14,8
	Inch	1/4	1/4-3/8	1/4				3/8
Length availability		2	2	2	2	2	2	2
Operation								
								
SMG								
TS1								
TS2		●	●	●	●	●		
TS3		●	●	●	●	●		
TP1								
TP2		●	●	●	●	●		
TP3		●	●	●	●	●		
Honeycomb*								

■ Stock standard □ Weldon available, delivery time is 3 days.

● Preferred choice ○ Alternative choice

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaxter

## Tool Selection Plastic and CFRP

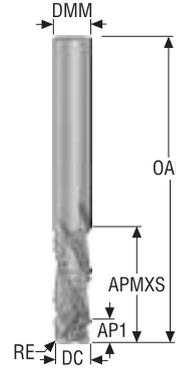
						
Name		JPD850	JPD880	JPD890	J93F	J28
Page(s)		574	576	578	580	582
Family name		PCD	PCD	PCD	VHM	VHM
Type of mill						
Shank	Cylindrical	■	■	■	■	■
	Weldon					
Number of Flutes		2	2	2	2	1
CSP		■	■	■		
Diameter range	Metric	4-10	6-16	6-12	1,5-20	3-12
	Inch					
Length availability		2	2,3	2,3	1,2,3,4	2
Operation						
SMG						
TS1					●	●
TS2		●	●	●		
TS3		●	●	●		
TP1					●	
TP2		●	●	●		
TP3		●	●	●		
Honeycomb*						

■ Stock standard □ Weldon available, delivery time is 3 days.

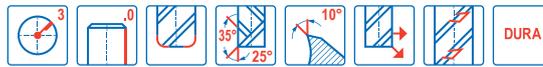
● Preferred choice ○ Alternative choice

JC845

Composite – Compression – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	AP1	OAL	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm			
JC845060D2R050.0Z3-DURA	02843006	2	D	■	6,0	6,0	18,0	4,2	65,0	0,5	3	Cylindrical	■
JC845080D2R050.0Z3-DURA	02843007	2	D	■	8,0	8,0	24,0	5,2	75,0	0,5	3	Cylindrical	■
JC845100D2R050.0Z3-DURA	02843008	2	D	■	10,0	10,0	30,0	6,3	85,0	0,5	3	Cylindrical	■
JC845120D2R050.0Z5-DURA	02843009	2	D	■	12,0	12,0	36,0	8,3	100,0	0,5	5	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JC845 Side milling roughing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
TS2	E/A/D	0.376	1.5	0.038	0.050	0.060	0.075	185 (130 – 240)
		0,376	1,5	0,0015	0,0020	0,0024	0,0030	610 (430 – 780)
TS3	E/A/D	0.376	1.4	0.038	0.050	0.060	0.075	125 (87 – 160)
		0,376	1,4	0,0015	0,0020	0,0024	0,0030	410 (290 – 520)
TP2	E/A/D	0.376	1.5	0.038	0.050	0.060	0.075	125 (87 – 180)
		0,376	1,5	0,0015	0,0020	0,0024	0,0030	410 (290 – 590)
TP3	E/A/D	0.376	1.4	0.038	0.050	0.060	0.075	85 (62 – 110)
		0,376	1,4	0,0015	0,0020	0,0024	0,0030	280 (210 – 360)

Cutting data – JC845 Slot milling

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
TS2	E/A/D	1.0	0.025	0.032	0.040	0.050	160 (110 – 210)	
		1,0	0,0010	0,0013	0,0016	0,0020	520 (370 – 680)	
TS3	E/A/D	0.75	0.025	0.032	0.040	0.050	105 (76 – 130)	
		0,75	0,0010	0,0013	0,0016	0,0020	345 (250 – 420)	
TP2	E/A/D	1.0	0.025	0.032	0.040	0.050	105 (75 – 160)	
		1,0	0,0010	0,0013	0,0016	0,0020	345 (250 – 520)	
TP3	E/A/D	0.75	0.025	0.032	0.040	0.050	75 (54 – 96)	
		0,75	0,0010	0,0013	0,0016	0,0020	245 (180 – 310)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

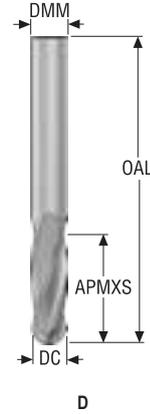
Plastic and CFRP

Graphite

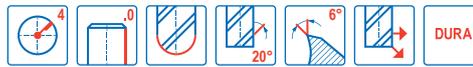
X-Heads

Minimaster

JC850  
Composite – Ball nose – 4 Flutes – Cylindrical



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE= ±0,02 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
850030Z4.0-DURA	02719949	2	D	3,0	3,0	9,0	50,0	1,5	4	Cylindrical	■
850040Z4.0-DURA	02719952	2	D	4,0	4,0	12,0	50,0	2,0	4	Cylindrical	■
850060Z4.0-DURA	02719953	2	D	6,0	6,0	18,0	65,0	3,0	4	Cylindrical	■
850080Z4.0-DURA	02719954	2	D	8,0	8,0	24,0	70,0	4,0	4	Cylindrical	■
850100Z4.0-DURA	02719955	2	D	10,0	10,0	30,0	85,0	5,0	4	Cylindrical	■
850120Z4.0-DURA	02719956	2	D	12,0	12,0	36,0	100,0	6,0	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JC850 Copy milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
TS2	E/AD	0.200	2.0	0.030	0.040	0.060	0.080	0.10	0.12	265 (220 – 320)
		0,200	2,0	0,0012	0,0016	0,0024	0,0032	0,0040	0,0048	870 (730 – 1000)
TS3	E/AD	0.200	2.0	0.024	0.032	0.048	0.065	0.080	0.095	160 (110 – 210)
		0,200	2,0	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	520 (370 – 680)
TP2	E/AD	0.200	2.0	0.030	0.040	0.060	0.080	0.10	0.12	215 (110 – 320)
		0,200	2,0	0,0012	0,0016	0,0024	0,0032	0,0040	0,0048	710 (370 – 1000)
TP3	E/AD	0.200	2.0	0.024	0.032	0.048	0.065	0.080	0.095	105 (54 – 150)
		0,200	2,0	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	345 (180 – 490)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

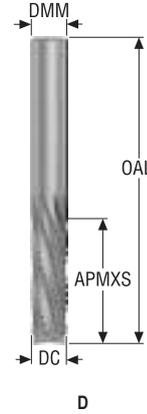
Graphite

X-Heads

Minimaster

JC860

Honeycomb – Square – 5-9 Flutes – Cylindrical – Sharp



- Tolerances:
- DMM=h5
- DC= -0.02-0.08 mm
- FCEDC=frontal teeth



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	L	APMXS	OAL	FCEDC	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm				
860060Z5.0-DURA	02720211	2	D	■	6,0	6,0	18,0	18,0	70,0	2	5	Cylindrical	■
860080Z6.0-DURA	02720212	2	D	■	8,0	8,0	24,0	24,0	80,0	2	6	Cylindrical	■
860100Z8.0-DURA	02720216	2	D	■	10,0	10,0	30,0	30,0	90,0	2	8	Cylindrical	■
860120Z9.0-DURA	02720217	2	D	■	12,0	12,0	36,0	36,0	110,0	2	9	Cylindrical	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – JC860 Side milling roughing

SMG		a <sub>p</sub> /DC		f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
TS2	E/A/D	0.100	1.0	0.024	0.032	0.040	0.048	235 (200 – 270)
		0,100	1,0	0,00095	0,0013	0,0016	0,0019	770 (660 – 880)
TS3	E/A/D	0.100	1.0	0.024	0.032	0.040	0.048	160 (130 – 180)
		0,100	1,0	0,00095	0,0013	0,0016	0,0019	520 (430 – 590)
TP2	E/A/D	0.100	1.0	0.024	0.032	0.040	0.048	165 (130 – 200)
		0,100	1,0	0,00095	0,0013	0,0016	0,0019	540 (430 – 650)
TP3	E/A/D	0.100	1.0	0.024	0.032	0.040	0.048	65 (50 – 110)
		0,100	1,0	0,00095	0,0013	0,0016	0,0019	215 (170 – 360)

Cutting data – JC860 Slot milling

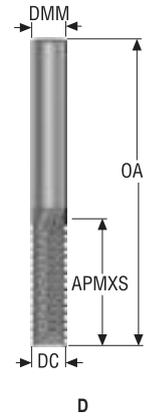
SMG		a <sub>p</sub> /DC		f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
TS2	E/A/D	0.50	0.012	0.016	0.020	0.025	160 (140 – 180)	
		0,50	0,00048	0,00065	0,00080	0,0010	520 (460 – 590)	
TS3	E/A/D	0.50	0.012	0.016	0.020	0.025	105 (85 – 120)	
		0,50	0,00048	0,00065	0,00080	0,0010	345 (280 – 390)	
TP2	E/A/D	0.50	0.012	0.016	0.020	0.025	110 (84 – 130)	
		0,50	0,00048	0,00065	0,00080	0,0010	360 (280 – 420)	
TP3	E/A/D	0.50	0.012	0.016	0.020	0.025	44 (34 – 78)	
		0,50	0,00048	0,00065	0,00080	0,0010	145 (120 – 250)	

For cutting data recalculations, see pages 687 – 695

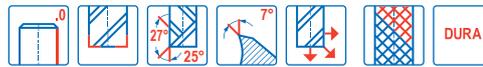
SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

JC870

Composite – Router – Square – Cylindrical – Sharp



- Tolerances:
- DMM=h5
- DC=-0,02/-0,08 mm
- Router (downcut)\*



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	L	APMXS	OAL	FCEDC	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm				
870030.0-DURA	02720219	2	D	■	3,0	3,0	9,0	9,0	50,0	2	8	Cylindrical	■
870040.0-DURA	02720226	2	D	■	4,0	4,0	12,0	12,0	50,0	2	8	Cylindrical	■
870060.0-DURA	02720228	2	D	■	6,0	6,0	18,0	18,0	65,0	2	10	Cylindrical	■
870080.0-DURA	02720229	2	D	■	8,0	8,0	24,0	24,0	75,0	2	12	Cylindrical	■
870100.0-DURA	02720231	2	D	■	10,0	10,0	30,0	30,0	85,0	2	12	Cylindrical	■
870120.0-DURA	02720232	2	D	■	12,0	12,0	36,0	36,0	100,0	2	14	Cylindrical	■

■ Stocked standard.

\*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

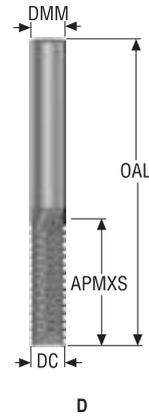
Graphite

X-Heads

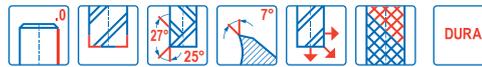
Minimaster

JC870

Composite – Router – Square – Cylindrical – Sharp – Inch



—Tolerances:  
—DMM= h5  
—DC= -.0008/- .0030 Inch  
—Router (downcut)\*



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	FCEDC	PCEDC	Shank	Stock standard
					inch	inch	inch	inch				
8700250.0-DURA	02720784	2	D	■	0.250	0.250	0.750	2.250	2	10	Cylindrical	■
8700375.0-DURA	02720785	2	D	■	0.375	0.375	1.250	3.500	2	12	Cylindrical	■

■ Stocked standard.

\*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

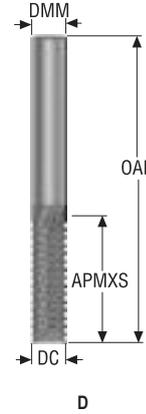
Graphite

X-Heads

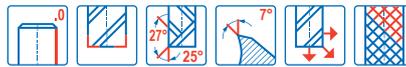
Minimaster

JC870

Composite – Router – Square – Cylindrical – Sharp



- Tolerances:
- DMM=h5
- DC=-0,02/-0,08 mm
- Router (downcut)\*



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	L	APMXS	OAL	FCEDC	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm				
870030.0	02742789	2	D	■	3,0	3,0	9,0	9,0	50,0	2	8	Cylindrical	■
870040.0	02742792	2	D	■	4,0	4,0	12,0	12,0	50,0	2	8	Cylindrical	■
870050.0	02742793	2	D	■	5,0	5,0	15,0	15,0	50,0	2	10	Cylindrical	■
870060.0	02742794	2	D	■	6,0	6,0	18,0	18,0	65,0	2	10	Cylindrical	■
870080.0	02742795	2	D	■	8,0	8,0	24,0	24,0	75,0	2	12	Cylindrical	■
870100.0	02742796	2	D	■	10,0	10,0	30,0	30,0	85,0	2	12	Cylindrical	■
870120.0	02742797	2	D	■	12,0	12,0	36,0	36,0	100,0	2	14	Cylindrical	■

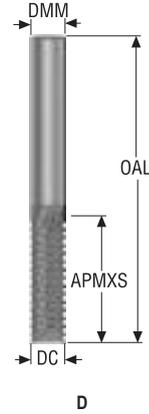
■ Stocked standard.

\*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

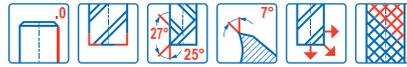
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaster

JC870

Composite – Router – Square – Cylindrical – Sharp – Inch



—Tolerances:  
—DMM= h5  
—DC= -.0008/-.0030 Inch  
—Router (downcut)\*



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	FCEDC	PCEDC	Shank	Stock standard
					inch	inch	inch	inch				
8700250.0	02742798	2	D	■	0.250	0.250	0.750	2.250	2	10	Cylindrical	■
8700500.0	02742800	2	D	■	0.500	0.500	1.500	4.250	2	14	Cylindrical	■

■ Stocked standard.

\*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JC870 Side milling roughing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				3	4	5	6	8	10	12	
TS2	E/A/D	0.350	2.0	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	175 (150 – 200)
		0,350	2,0	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	570 (500 – 650)
TS3	E/A/D	0.350	2.0	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	115 (94 – 130)
		0,350	2,0	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	375 (310 – 420)
TP2	E/A/D	0.350	2.0	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	115 (88 – 140)
		0,350	2,0	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	375 (290 – 450)
TP3	E/A/D	0.350	2.0	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	46 (36 – 81)
		0,350	2,0	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	150 (120 – 260)

Cutting data – JC870 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
			3	4	5	6	8	10	12	
TS2	E/A/D	1.0	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	145 (130 – 170)
		1,0	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	475 (430 – 550)
TS3	E/A/D	1.0	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	100 (79 – 110)
		1,0	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	330 (260 – 360)
TP2	E/A/D	1.0	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	100 (74 – 120)
		1,0	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	330 (250 – 390)
TP3	E/A/D	1.0	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	39 (30 – 68)
		1,0	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	130 (99 – 220)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JC870 Side milling roughing – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				1/4	3/8	1/2	
TS2	E/A/D	0.350	2.0	0.020	0.030	0.038	175 (150 – 200)
		0,350	2,0	0,00080	0,0012	0,0015	570 (500 – 650)
TS3	E/A/D	0.350	2.0	0.020	0.030	0.038	115 (94 – 130)
		0,350	2,0	0,00080	0,0012	0,0015	375 (310 – 420)
TP2	E/A/D	0.350	2.0	0.020	0.030	0.038	115 (88 – 140)
		0,350	2,0	0,00080	0,0012	0,0015	375 (290 – 450)
TP3	E/A/D	0.350	2.0	0.020	0.030	0.038	46 (36 – 81)
		0,350	2,0	0,00080	0,0012	0,0015	150 (120 – 260)

Cutting data – JC870 Slot milling – Inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			1/4	3/8	1/2	
TS2	E/A/D	1.0	0.013	0.019	0.026	145 (130 – 170)
		1,0	0,00050	0,00075	0,0010	475 (430 – 550)
TS3	E/A/D	1.0	0.013	0.019	0.026	100 (79 – 110)
		1,0	0,00050	0,00075	0,0010	330 (260 – 360)
TP2	E/A/D	1.0	0.013	0.019	0.026	100 (74 – 120)
		1,0	0,00050	0,00075	0,0010	330 (250 – 390)
TP3	E/A/D	1.0	0.013	0.019	0.026	39 (30 – 68)
		1,0	0,00050	0,00075	0,0010	130 (99 – 220)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

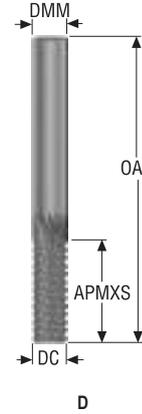
Plastic and CFRP

Graphite

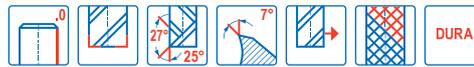
X-Heads

Minimaster

JC871  
Composite – Router – Square – Cylindrical – Sharp



- Tolerances:
- DMM= h5
- DC= -0,02/-0,08 mm
- Router (downcut)\*



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
					mm	mm	mm	mm			
871030.0-DURA	02720249	2	D	■	3,0	3,0	9,0	50,0	8	Cylindrical	■
871040.0-DURA	02720250	2	D	■	4,0	4,0	12,0	50,0	8	Cylindrical	■
871060.0-DURA	02720252	2	D	■	6,0	6,0	18,0	65,0	10	Cylindrical	■
871080.0-DURA	02720253	2	D	■	8,0	8,0	24,0	75,0	12	Cylindrical	■
871100.0-DURA	02720254	2	D	■	10,0	10,0	30,0	85,0	12	Cylindrical	■
871120.0-DURA	02720257	2	D	■	12,0	12,0	36,0	100,0	14	Cylindrical	■

■ Stocked standard.

\*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

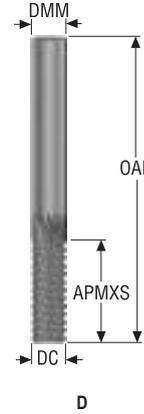
Plastic and cfrp

Graphite

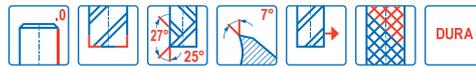
X-Heads

Minimaster

JC871  
Composite – Router – Square – Cylindrical – Sharp – Inch



—Tolerances:  
—DMM= h5  
—DC= -.0008/- .0030 Inch  
—Router (downcut)\*



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
					inch	inch	inch	inch			
8710250.0-DURA	02720788	2	D	■	0.250	0.250	0.750	2.250	10	Cylindrical	■
8710375.0-DURA	02720789	2	D	■	0.375	0.375	1.250	3.500	12	Cylindrical	■
8710500.0-DURA	02720790	2	D	■	0.500	0.500	1.500	4.250	14	Cylindrical	■

■ Stocked standard.  
\*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

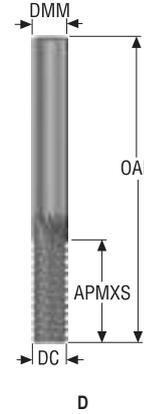
Plastic and cfrp

Graphite

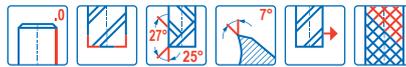
X-Heads

Minimaster

JC871  
Composite – Router – Square – Cylindrical – Sharp



- Tolerances:
- DMM= h5
- DC= -0,02/-0,08 mm
- Router (downcut)\*



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
					mm	mm	mm	mm			
871030.0	02742801	2	D	■	3,0	3,0	9,0	50,0	8	Cylindrical	■
871040.0	02742803	2	D	■	4,0	4,0	12,0	50,0	8	Cylindrical	■
871060.0	02742806	2	D	■	6,0	6,0	18,0	65,0	10	Cylindrical	■
871080.0	02742807	2	D	■	8,0	8,0	24,0	75,0	12	Cylindrical	■
871100.0	02742808	2	D	■	10,0	10,0	30,0	85,0	12	Cylindrical	■
871120.0	02742809	2	D	■	12,0	12,0	36,0	100,0	14	Cylindrical	■

■ Stocked standard.

\*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

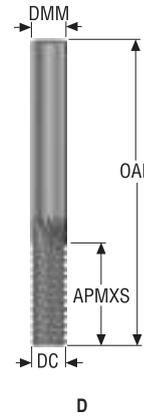
Graphite

X-Heads

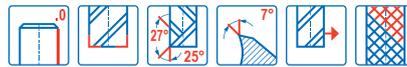
Minimaster

JC871

Composite – Router – Square – Cylindrical – Sharp – Inch



—Tolerances:  
—DMM=h5  
—DC= -.0008/-.0030 Inch  
—Router (downcut)\*



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
8710500.0	02742814	2	D	■	inch 0.500	inch 0.500	inch 1.500	inch 4.250	14	Cylindrical	■

■ Stocked standard.

\*Downcut indicates flute geometries that are combined to create small down forces that assist with maintaining component clamping, particularly where vacuum clamping is employed.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JC871 Side milling roughing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				3	4	5	6	8	10	12	
TS2	E/A/D	0.350	2.0	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	175 (150 – 200)
		0,350	2,0	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	570 (500 – 650)
TS3	E/A/D	0.350	2.0	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	115 (94 – 130)
		0,350	2,0	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	375 (310 – 420)
TP2	E/A/D	0.350	2.0	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	115 (88 – 140)
		0,350	2,0	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	375 (290 – 450)
TP3	E/A/D	0.350	2.0	0.0095	0.013	0.016	0.019	0.025	0.032	0.038	46 (36 – 81)
		0,350	2,0	0,00038	0,00050	0,00065	0,00075	0,0010	0,0013	0,0015	150 (120 – 260)

Cutting data – JC871 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
			3	4	5	6	8	10	12	
TS2	E/A/D	1.0	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	155 (140 – 180)
		1,0	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	510 (460 – 590)
TS3	E/A/D	1.0	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	105 (84 – 120)
		1,0	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	345 (280 – 390)
TP2	E/A/D	1.0	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	105 (79 – 130)
		1,0	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	345 (260 – 420)
TP3	E/A/D	1.0	0.0060	0.0080	0.010	0.012	0.016	0.020	0.025	40 (31 – 70)
		1,0	0,00024	0,00032	0,00040	0,00048	0,00065	0,00080	0,0010	130 (110 – 220)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JC871 Side milling roughing – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				1/4	3/8	1/2	
TS2	E/A/D	0.350	2.0	0.020	0.030	0.038	175 (150 – 200)
		0,350	2,0	0,00080	0,0012	0,0015	570 (500 – 650)
TS3	E/A/D	0.350	2.0	0.020	0.030	0.038	115 (94 – 130)
		0,350	2,0	0,00080	0,0012	0,0015	375 (310 – 420)
TP2	E/A/D	0.350	2.0	0.020	0.030	0.038	115 (88 – 140)
		0,350	2,0	0,00080	0,0012	0,0015	375 (290 – 450)
TP3	E/A/D	0.350	2.0	0.020	0.030	0.038	46 (36 – 81)
		0,350	2,0	0,00080	0,0012	0,0015	150 (120 – 260)

Cutting data – JC871 Slot milling – Inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			1/4	3/8	1/2	
TS2	E/A/D	1.0	0.013	0.019	0.026	145 (130 – 170)
		1,0	0,00050	0,00075	0,0010	475 (430 – 550)
TS3	E/A/D	1.0	0.013	0.019	0.026	100 (79 – 110)
		1,0	0,00050	0,00075	0,0010	330 (260 – 360)
TP2	E/A/D	1.0	0.013	0.019	0.026	100 (74 – 120)
		1,0	0,00050	0,00075	0,0010	330 (250 – 390)
TP3	E/A/D	1.0	0.013	0.019	0.026	39 (30 – 68)
		1,0	0,00050	0,00075	0,0010	130 (99 – 220)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

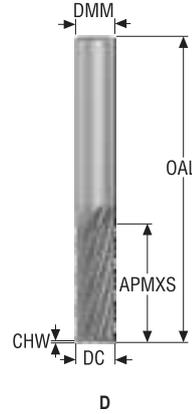
Plastic and cfrp

Graphite

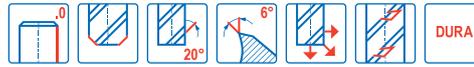
X-Heads

Minimaster

JC875  
Composite – Square – 5-10 Flutes – Cylindrical – Chamfer



—Tolerances:  
—DMM=h5  
—DC=-0,02/-0,08 mm



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm			
JC875030D2.0-DURA	02968155	2	D	■	3,0	3,0	9,0	50,0	0,05	5	Cylindrical	■
JC875050D2.0-DURA	02968157	2	D	■	5,0	5,0	15,0	50,0	0,05	6	Cylindrical	■
JC875060D2.0-DURA	02968158	2	D	■	6,0	6,0	18,0	65,0	0,06	6	Cylindrical	■
JC875080D2.0-DURA	02968159	2	D	■	8,0	8,0	24,0	70,0	0,08	10	Cylindrical	■
JC875100D2.0-DURA	02968160	2	D	■	10,0	10,0	30,0	80,0	0,1	10	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

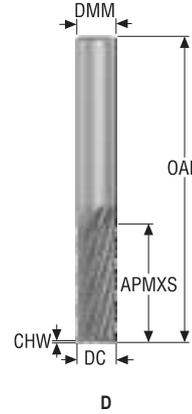
Graphite

X-Heads

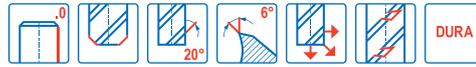
Minimaster

JC875

Composite – Square – 6-10 Flutes – Cylindrical – Chamfer – Inch



—Tolerances:  
—DMM=h5  
—DC= -.0008/--.0030 Inch



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	PCEDC	Shank	Stock standard
JC875.250D2.0-DURA	02968162	2	D	■	inch 0.250	inch 0.250	inch 0.750	inch 3.000	inch 0.002	6	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JC875 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				3	5	6	8	10	
TS2	E/A/D	0.350	2.0	0.0095	0.016	0.019	0.025	0.032	190 (160 – 220)
		0,350	2,0	0,00038	0,00065	0,00075	0,0010	0,0013	620 (530 – 720)
TS3	E/A/D	0.350	2.0	0.0095	0.016	0.019	0.025	0.032	130 (110 – 150)
		0,350	2,0	0,00038	0,00065	0,00075	0,0010	0,0013	425 (370 – 490)
TP2	E/A/D	0.350	2.0	0.0095	0.016	0.019	0.025	0.032	130 (96 – 150)
		0,350	2,0	0,00038	0,00065	0,00075	0,0010	0,0013	425 (320 – 490)
TP3	E/A/D	0.350	2.0	0.0095	0.016	0.019	0.025	0.032	50 (39 – 89)
		0,350	2,0	0,00038	0,00065	0,00075	0,0010	0,0013	165 (130 – 290)

Cutting data – JC875 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
			3	5	6	8	10	
TS2	E/A/D	1.0	0.0060	0.010	0.012	0.016	0.020	160 (140 – 180)
		1,0	0,00024	0,00040	0,00048	0,00065	0,00080	520 (460 – 590)
TS3	E/A/D	1.0	0.0060	0.010	0.012	0.016	0.020	105 (86 – 120)
		1,0	0,00024	0,00040	0,00048	0,00065	0,00080	345 (290 – 390)
TP2	E/A/D	1.0	0.0060	0.010	0.012	0.016	0.020	105 (81 – 130)
		1,0	0,00024	0,00040	0,00048	0,00065	0,00080	345 (270 – 420)
TP3	E/A/D	1.0	0.0060	0.010	0.012	0.016	0.020	42 (33 – 74)
		1,0	0,00024	0,00040	0,00048	0,00065	0,00080	140 (110 – 240)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JC875 Side milling – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				1/4	3/8	1/2	
TS2	E/A/D	0.350	2.0	0.020	0.030	0.038	190 (160 – 220)
		0.350	2.0	0.00080	0.0012	0.0015	620 (530 – 720)
TS3	E/A/D	0.350	2.0	0.020	0.030	0.038	130 (110 – 150)
		0.350	2.0	0.00080	0.0012	0.0015	425 (370 – 490)
TP2	E/A/D	0.350	2.0	0.020	0.030	0.038	130 (96 – 150)
		0.350	2.0	0.00080	0.0012	0.0015	425 (320 – 490)
TP3	E/A/D	0.350	2.0	0.020	0.030	0.038	50 (39 – 89)
		0.350	2.0	0.00080	0.0012	0.0015	165 (130 – 240)

Cutting data – JC875 Slot milling – Inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			1/4	3/8	1/2	
TS2	E/A/D	1.0	0.013	0.019	0.026	160 (140 – 180)
		1.0	0.00050	0.00075	0.0010	520 (460 – 590)
TS3	E/A/D	1.0	0.013	0.019	0.026	105 (86 – 120)
		1.0	0.00050	0.00075	0.0010	345 (290 – 390)
TP2	E/A/D	1.0	0.013	0.019	0.026	105 (81 – 130)
		1.0	0.00050	0.00075	0.0010	345 (270 – 420)
TP3	E/A/D	1.0	0.013	0.019	0.026	42 (33 – 74)
		1.0	0.00050	0.00075	0.0010	140 (110 – 240)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm/tooth (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

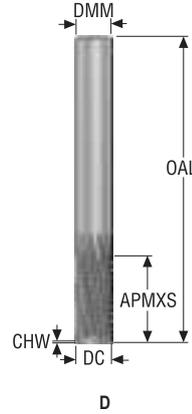
Plastic and cfrp

Graphite

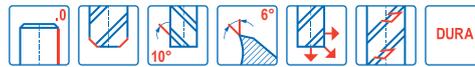
X-Heads

Minimaster

JC876  
Composite – Square – 6-14 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=-0,02 -0,08 mm
- Left hand helix



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	L	APMXS	OAL	CHW	FCEDC	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm				
JC876030D2C.0Z6-DURA	03135004	2	D	■	3,0	3,0	7,5	7,5	50,0	0,035	2	6	Cylindrical	■
JC876040D2C.0Z6-DURA	03135005	2	D	■	4,0	4,0	10,0	10,0	54,0	0,045	2	6	Cylindrical	■
JC876060D2C.0Z8-DURA	03135006	2	D	■	6,0	6,0	15,0	15,0	62,0	0,075	2	8	Cylindrical	■
JC876060D2C.0Z10-DURA	03135007	2	D	■	6,0	6,0	15,0	15,0	62,0	0,075	2	10	Cylindrical	■
JC876080D2C.0Z10-DURA	03135009	2	D	■	8,0	8,0	20,0	20,0	70,0	0,1	2	10	Cylindrical	■
JC876100D2C.0Z12-DURA	03135011	2	D	■	10,0	10,0	25,0	25,0	82,0	0,125	2	12	Cylindrical	■
JC876120D2C.0Z14-DURA	03135012	2	D	■	12,0	12,0	30,0	30,0	95,0	0,15	2	14	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

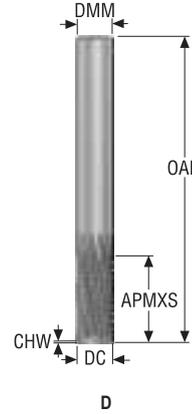
Plastic and cfrp

Graphite

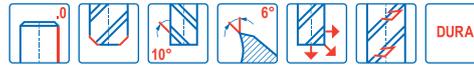
X-Heads

Minimaster

JC876  
Composite – Square – 8-14 Flutes – Cylindrical – Chamfer – Inch



—Tolerances:  
—DMM=h5  
—DC= -.0008/-.0030 Inch  
—Left hand helix



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	FCEDC	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch				
JC876.250D2C.0Z8-DURA	03135125	2	D	■	0.250	0.250	0.625	2.500	0.003	2	8	Cylindrical	■
JC876.375D2C.0Z12-DURA	03135127	2	D	■	0.375	0.375	1.000	3.000	0.005	2	12	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JC876 Side milling roughing

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
TS2	E/A/D	0.334	1.7	0.0095	0.013	0.019	0.026	0.032	0.038	220 (190 – 250)
		0.334	1.7	0.00038	0.00050	0.00075	0.0010	0.0013	0.0015	720 (630 – 820)
TS3	E/A/D	0.334	1.7	0.0095	0.013	0.019	0.026	0.032	0.038	145 (120 – 170)
		0.334	1.7	0.00038	0.00050	0.00075	0.0010	0.0013	0.0015	475 (400 – 550)
TP2	E/A/D	0.334	1.7	0.0095	0.013	0.019	0.026	0.032	0.038	145 (110 – 180)
		0.334	1.7	0.00038	0.00050	0.00075	0.0010	0.0013	0.0015	475 (370 – 590)
TP3	E/A/D	0.334	1.7	0.0095	0.013	0.019	0.026	0.032	0.038	75 (44 – 100)
		0.334	1.7	0.00038	0.00050	0.00075	0.0010	0.0013	0.0015	245 (150 – 320)

Cutting data – JC876 Slot milling

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
TS2	E/A/D	1.0	0.0060	0.0080	0.012	0.016	0.020	0.025	175 (150 – 200)	
		1.0	0.00024	0.00032	0.00048	0.00065	0.00080	0.0010	570 (500 – 650)	
TS3	E/A/D	1.0	0.0060	0.0080	0.012	0.016	0.020	0.025	115 (94 – 140)	
		1.0	0.00024	0.00032	0.00048	0.00065	0.00080	0.0010	375 (310 – 450)	
TP2	E/A/D	1.0	0.0060	0.0080	0.012	0.016	0.020	0.025	115 (88 – 140)	
		1.0	0.00024	0.00032	0.00048	0.00065	0.00080	0.0010	375 (290 – 450)	
TP3	E/A/D	1.0	0.0060	0.0080	0.012	0.016	0.020	0.025	60 (36 – 81)	
		1.0	0.00024	0.00032	0.00048	0.00065	0.00080	0.0010	195 (120 – 260)	

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

## Cutting data – JC876 Side milling roughing – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				1/4	3/8	1/2	
TS2	E/A/D	0.334	1.7	0.020	0.030	0.040	220 (190 – 250)
		0.334	1.7	0,00080	0,0012	0,0016	720 (630 – 820)
TS3	E/A/D	0.334	1.7	0.020	0.030	0.040	145 (120 – 170)
		0.334	1.7	0,00080	0,0012	0,0016	475 (400 – 550)
TP2	E/A/D	0.334	1.7	0.020	0.030	0.040	145 (110 – 180)
		0.334	1.7	0,00080	0,0012	0,0016	475 (370 – 590)
TP3	E/A/D	0.334	1.7	0.020	0.030	0.040	75 (44 – 100)
		0.334	1.7	0,00080	0,0012	0,0016	245 (150 – 320)

## Cutting data – JC876 Slot milling – Inch

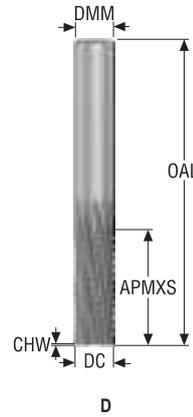
SMG		a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			1/4	3/8	1/2	
TS2	E/A/D	1.0	0.013	0.019	0.026	175 (150 – 200)
		1,0	0,00050	0,00075	0,0010	570 (500 – 650)
TS3	E/A/D	1.0	0.013	0.019	0.026	115 (94 – 140)
		1,0	0,00050	0,00075	0,0010	375 (310 – 450)
TP2	E/A/D	1.0	0.013	0.019	0.026	115 (88 – 140)
		1,0	0,00050	0,00075	0,0010	375 (290 – 450)
TP3	E/A/D	1.0	0.013	0.019	0.026	60 (36 – 81)
		1,0	0,00050	0,00075	0,0010	195 (120 – 260)

For cutting data recalculations, see pages 687 – 695

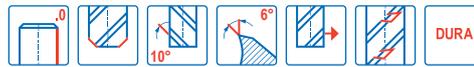
SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm/tooth (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

JC877

Composite – Square – 6-14 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=-0,02, -0,08 mm
- Left hand helix



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	L	APMXS	OAL	CHW	FCEDC	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm				
JC877030D2C.0Z6-DURA	03135013	2	D	■	3,0	3,0	9,0	9,0	50,0	0,035	3	6	Cylindrical	■
JC877040D2C.0Z6-DURA	03135014	2	D	■	4,0	4,0	12,0	12,0	54,0	0,045	3	6	Cylindrical	■
JC877060D2C.0Z8-DURA	03135015	2	D	■	6,0	6,0	18,0	18,0	62,0	0,075	4	8	Cylindrical	■
JC877060D2C.0Z10-DURA	03135016	2	D	■	6,0	6,0	18,0	18,0	62,0	0,075	5	10	Cylindrical	■
JC877080D2C.0Z10-DURA	03135018	2	D	■	8,0	8,0	24,0	24,0	70,0	0,1	5	10	Cylindrical	■
JC877100D2C.0Z12-DURA	03135020	2	D	■	10,0	10,0	30,0	30,0	82,0	0,125	6	12	Cylindrical	■
JC877120D2C.0Z14-DURA	03135021	2	D	■	12,0	12,0	36,0	36,0	95,0	0,15	7	14	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

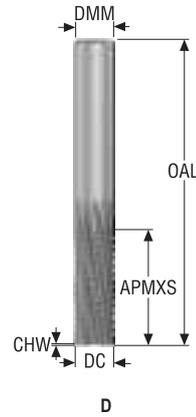
Graphite

X-Heads

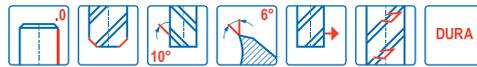
Minimaster

JC877

Composite – Square – 8-14 Flutes – Cylindrical – Chamfer – Inch



—Tolerances:  
—DMM=h5  
—DC= -.0008/-.0030 Inch  
—Left hand helix



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	CHW	FCEDC	PCEDC	Shank	Stock standard
					inch	inch	inch	inch	inch				
JC877.250D2C.0Z8-DURA	03135129	2	D	■	0.250	0.250	0.750	2.500	0.003	4	8	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

### Cutting data – JC877 Side milling roughing

SMG		a <sub>g</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
TS2	E/A/D	0.334	2.0	0.0095	0.013	0.019	0.026	0.032	0.038	195 (170 – 220)
		0.334	2.0	0.00038	0.00050	0.00075	0.0010	0.0013	0.0015	640 (560 – 720)
TS3	E/A/D	0.334	2.0	0.0095	0.013	0.019	0.026	0.032	0.038	130 (110 – 150)
		0.334	2.0	0.00038	0.00050	0.00075	0.0010	0.0013	0.0015	425 (370 – 490)
TP2	E/A/D	0.334	2.0	0.0095	0.013	0.019	0.026	0.032	0.038	130 (98 – 160)
		0.334	2.0	0.00038	0.00050	0.00075	0.0010	0.0013	0.0015	425 (330 – 520)
TP3	E/A/D	0.334	2.0	0.0095	0.013	0.019	0.026	0.032	0.038	65 (40 – 91)
		0.334	2.0	0.00038	0.00050	0.00075	0.0010	0.0013	0.0015	215 (140 – 290)

### Cutting data – JC877 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>						v <sub>c</sub>
			3	4	6	8	10	12	
TS2	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,025	170 (150 – 200)
		1,0	0,0060	0,0080	0,012	0,016	0,020	0,025	115 (92 – 130)
TP2	E/A/D	1,0	0,0060	0,0080	0,012	0,016	0,020	0,025	115 (86 – 140)
		1,0	0,0060	0,0080	0,012	0,016	0,020	0,025	55 (35 – 80)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>g</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JC877 Side milling roughing – Inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				1/4	3/8	1/2	
TS2	E/A/D	0.334	2.0	0.020	0.030	0.040	195 (170 – 220)
		0.334	2.0	0,00080	0,0012	0,0016	640 (560 – 720)
TS3	E/A/D	0.334	2.0	0.020	0.030	0.040	130 (110 – 150)
		0.334	2.0	0,00080	0,0012	0,0016	425 (370 – 490)
TP2	E/A/D	0.334	2.0	0.020	0.030	0.040	130 (98 – 160)
		0.334	2.0	0,00080	0,0012	0,0016	425 (330 – 520)
TP3	E/A/D	0.334	2.0	0.020	0.030	0.040	65 (40 – 91)
		0.334	2.0	0,00080	0,0012	0,0016	215 (140 – 290)

Cutting data – JC877 Slot milling – Inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			1/4	3/8	1/2	
TS2	E/A/D	1.0	0.013	0.019	0.026	160 (140 – 180)
		1,0	0,00050	0,00075	0,0010	520 (460 – 590)
TS3	E/A/D	1.0	0.013	0.019	0.026	105 (85 – 120)
		1,0	0,00050	0,00075	0,0010	345 (280 – 390)
TP2	E/A/D	1.0	0.013	0.019	0.026	105 (80 – 130)
		1,0	0,00050	0,00075	0,0010	345 (270 – 420)
TP3	E/A/D	1.0	0.013	0.019	0.026	55 (32 – 74)
		1,0	0,00050	0,00075	0,0010	180 (110 – 240)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm/tooth (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

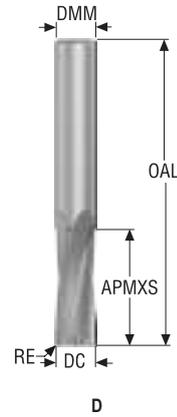
Graphite

X-Heads

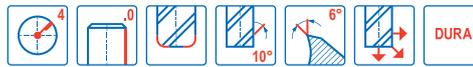
Minimaster

JC880

Composite – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE=±0,01 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
880040R020Z4.0-DURA	02843012	2	D	4,0	4,0	12,0	50,0	0,2	4	Cylindrical	■
880050R020Z4.0-DURA	02843013	2	D	5,0	5,0	15,0	50,0	0,2	4	Cylindrical	■
880060R020Z4.0-DURA	02720258	2	D	6,0	6,0	18,0	65,0	0,2	4	Cylindrical	■
880080R020Z4.0-DURA	02720259	2	D	8,0	8,0	24,0	70,0	0,2	4	Cylindrical	■
880100R020Z4.0-DURA	02720260	2	D	10,0	10,0	30,0	80,0	0,2	4	Cylindrical	■
880120R020Z4.0-DURA	02720261	2	D	12,0	12,0	36,0	100,0	0,2	4	Cylindrical	■
880160R020Z4.0-DURA	02720262	2	D	16,0	16,0	48,0	110,0	0,2	4	Cylindrical	■
880200R020Z4.0-DURA	02720263	2	D	20,0	20,0	60,0	130,0	0,2	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JC880 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>							v <sub>c</sub>
				4	6	8	10	12	16	20	
TS2	E/A/D	0.400	1.9	0.024	0.036	0.048	0.060	0.070	0.090	0.10	190 (160 – 210)
		0,400	1,9	0,00095	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	620 (530 – 680)
TS3	E/A/D	0.300	2.0	0.017	0.025	0.034	0.042	0.050	0.060	0.070	130 (93 – 170)
		0,300	2,0	0,00065	0,0010	0,0013	0,0017	0,0020	0,0024	0,0028	425 (310 – 550)
TP2	E/A/D	0.400	1.9	0.024	0.036	0.048	0.060	0.070	0.090	0.10	125 (95 – 150)
		0,400	1,9	0,00095	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	410 (320 – 490)
TP3	E/A/D	0.300	2.0	0.017	0.025	0.034	0.042	0.050	0.060	0.070	50 (40 – 92)
		0,300	2,0	0,00065	0,0010	0,0013	0,0017	0,0020	0,0024	0,0028	165 (140 – 300)

Cutting data – JC880 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>								v <sub>c</sub>
			4	5	6	8	10	12	16	20	
TS2	E/A/D	1.0	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	150 (130 – 170)
		1,0	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	490 (430 – 550)
TS3	E/A/D	1.0	0.015	0.019	0.022	0.030	0.038	0.044	0.055	0.065	100 (71 – 130)
		1,0	0,00060	0,00075	0,00085	0,0012	0,0015	0,0017	0,0022	0,0026	330 (240 – 420)
TP2	E/A/D	1.0	0.024	0.030	0.036	0.048	0.060	0.070	0.090	0.10	100 (76 – 120)
		1,0	0,00095	0,0012	0,0014	0,0019	0,0024	0,0028	0,0036	0,0040	330 (250 – 390)
TP3	E/A/D	1.0	0.015	0.019	0.022	0.030	0.038	0.044	0.055	0.065	40 (31 – 70)
		1,0	0,00060	0,00075	0,00085	0,0012	0,0015	0,0017	0,0022	0,0026	130 (110 – 220)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

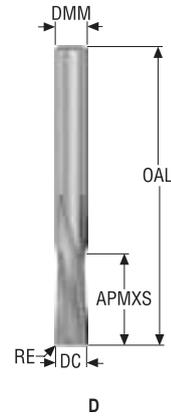
Plastic and CFRP

Graphite

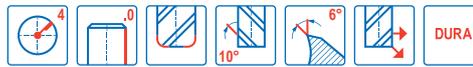
X-Heads

Minimaster

JC885  
Composite – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC=-0,02/-0,04 mm
- RE=±0,01 mm
- Left hand helix



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm			
JC885040D2R020.0Z4-DURA	02843014	2	D	4,0	4,0	12,0	50,0	0,2	4	Cylindrical	■
JC885060D2R020.0Z4-DURA	02843016	2	D	6,0	6,0	18,0	70,0	0,2	4	Cylindrical	■
JC885080D2R020.0Z4-DURA	02843017	2	D	8,0	8,0	24,0	80,0	0,2	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JC885 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				4	6	8	10	
TS2	E/A/D	0.400	2.0	0.024	0.036	0.048	0.060	190 (160 – 210)
		0,400	2,0	0,00095	0,0014	0,0019	0,0024	620 (530 – 680)
TS3	E/A/D	0.300	2.0	0.017	0.025	0.034	0.042	130 (99 – 170)
		0,300	2,0	0,00065	0,0010	0,0013	0,0017	425 (330 – 550)
TP2	E/A/D	0.400	2.0	0.024	0.036	0.048	0.060	125 (94 – 150)
		0,400	2,0	0,00095	0,0014	0,0019	0,0024	410 (310 – 490)
TP3	E/A/D	0.300	2.0	0.017	0.025	0.034	0.042	50 (33 – 92)
		0,300	2,0	0,00065	0,0010	0,0013	0,0017	165 (110 – 300)

Cutting data – JC885 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
			4	6	8	10	
TS2	E/A/D	1.0	0.024	0.036	0.048	0.060	150 (130 – 170)
		1,0	0,00095	0,0014	0,0019	0,0024	490 (430 – 550)
TS3	E/A/D	0.70	0.015	0.022	0.030	0.038	100 (76 – 130)
		0,70	0,00060	0,00085	0,0012	0,0015	330 (250 – 420)
TP2	E/A/D	1.0	0.024	0.036	0.048	0.060	100 (75 – 120)
		1,0	0,00095	0,0014	0,0019	0,0024	330 (250 – 390)
TP3	E/A/D	0.70	0.015	0.022	0.030	0.038	40 (26 – 70)
		0,70	0,00060	0,00085	0,0012	0,0015	130 (86 – 220)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

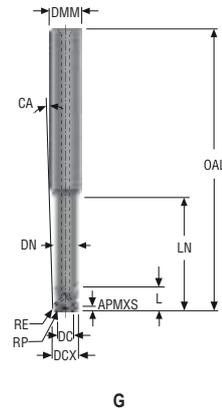
Graphite

X-Heads

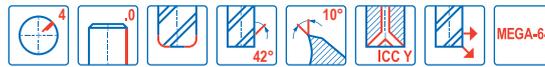
Minimaster

JC898

High feed – Stacked materials – Corner radius – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- DMM=h5
- DC= e7
- RE= ±0,1 mm



Designation	Item number	Length index	Tool shape	CSP	DCX	DC	DMM	L	APMXS	OAL	LN	DN	RE	RP	UTCN	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm				
JC898080G3HZ4A.0-M64	03245308	3	G	■	8,0	4,0	10,0	6,0	0,43	88,0	35,0	7,6	0,5	0,87	0,22	1,5	4	Cylindrical	■
JC898150G3HZ4A.0-M64	03245309	3	G	■	15,0	7,5	16,0	12,0	0,796	125,0	70,0	14,3	0,94	1,63	0,4	0,4	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – JC898 Side milling

SMG		$a_e/DCX$		$a_p/DCX$		$f_z$		$v_c$	
						8	15		
S12+TS2/TP2	D	0,30	0,020	0,1	0,15	90	(80-120)		
		0,30	0,020	0,0040	0,0060	300	(270-400)		
TP2+TS2/TP2	D	0,30	0,034	0,12	0,25	120	(90-150)		
		0,30	0,034	0,0048	0,0100	400	(300-490)		

Cutting data – JC898 Slot milling

SMG		$a_p/DCX$		$f_z$		$v_c$	
				8	15		
S12+TP2/TS2	D	0,020	0,08	0,10	90	(80-120)	
		0,020	0,0032	0,0040	300	(270-400)	
N1+TP2/TS2	D	0,034	0,1	0,10	120	(90-150)	
		0,034	0,0040	0,0040	400	(300-490)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 $v_c$  = m/min (sf/min)  
 $f_z$  = mm (in/tooth)  
 $a_p$  = mm/DC (in/DC) = factor  
 $a_e$  = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

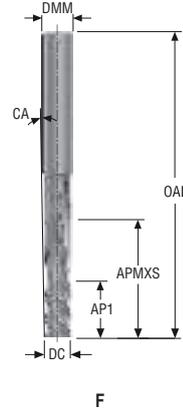
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X-Heads

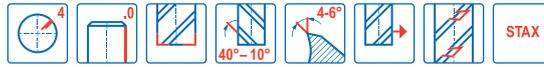
Minimaster

JC899

High performance – Stacked materials – Square – 4 Flutes – Cylindrical – Sharp



- Tolerances:
- DMM=h5
- DC= ±0,02 mm



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	OAL	LN	DN	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm				
JC899085F3S.0Z4-STAX	03245482	3	F	■	8,5	10,0	38,0	100,0	51,0	8,6	0,8	4	Cylindrical	■
JC899148F3S.0Z4-STAX	03245480	3	F	■	14,8	16,0	55,0	150,0	63,0	14,92	0,53	4	Cylindrical	■
JC899148F4S.0Z4-STAX	03245481	4	F	■	14,8	16,0	62,0	150,0	70,0	14,92	0,48	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

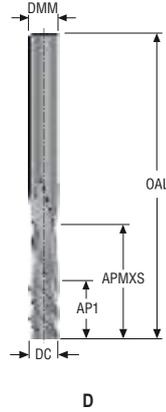
Graphite

X-Heads

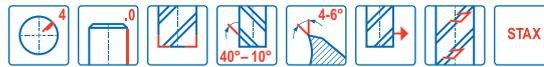
Minimaster

JC899

High performance – Stacked materials – Square – 4 Flutes – Cylindrical – Sharp – Inch



—Tolerances:  
—DMM=h5  
—DC= ±0,0008 Inch



Designation	Item number	Length index	Tool shape	Chip splitters	DC	DMM	APMXS	AP1	OAL	PCEDC	Shank	Stock standard
JC8990375D4S.0Z4-STAX	03245483	4	D	■	inch 0.373	inch 0.375	inch 1.500	inch 0.625	inch 4.000	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

### Cutting data – JC899 Finishing

SMG		$a_g/DC$		$a_p/DC$		$f_z$		$v_c$	
						8.5	14.8		
S12+TP2/TS2	D	0,025	4,0	0,04	0,075	40 (30 – 50)			
		0,025	4,0	0,0016	0,0030	140 (100 – 170)			
N1+TP2/TS2	D	0,025	4,0	0,06	0,09	60 (50 – 75)			
		0,025	4,0	0,0032	0,0036	200 (170 – 250)			

### Cutting data – JC899 Finishing – Inch

SMG		$a_g/DC$		$a_p/DC$		$f_z$		$v_c$	
						3/8			
S12+TP2/TS2	D	0,025	4,0	0,05	0,05	40 (30 – 50)			
		0,025	4,0	0,0022	0,0022	140 (100 – 170)			
N1+TP2/TS2	D	0,025	4,0	0,07	0,07	60 (50 – 75)			
		0,025	4,0	0,0028	0,0028	200 (170 – 250)			

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

$v_c$  = m/min (sf/min)

$f_z$  = mm (in/tooth)

$a_p$  = mm/DC (in/DC) = factor

$a_g$  = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

JPD850

Composite – Ball nose – 2 Flutes – Cylindrical

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

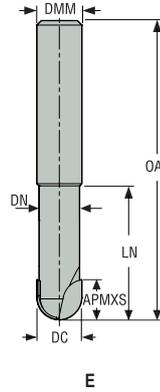
Hard

Plastic and cfrp

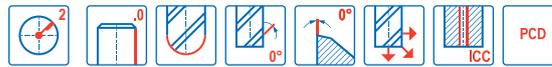
Graphite

X-Heads

Minimaster



- Tolerances:
- DMM=h5
- DC= h10
- CSP= 2 straight channels



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JPD850060E2B.0Z2A	02968184	2	E	■	6,0	6,0	7,0	58,0	18,0	5,4	3,0	2	Cylindrical	■
JPD850080E2B.0Z2A	02968185	2	E	■	8,0	8,0	8,0	64,0	24,0	7,2	4,0	2	Cylindrical	■
JPD850100E2B.0Z2A	02968186	2	E	■	10,0	10,0	10,0	73,0	30,0	9,0	5,0	2	Cylindrical	■

■ Stocked standard.

## Cutting data – JPD850 Copy milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				4	5	6	8	10	
TS2	E/AD	0.200	0.50	0.040	0.048	0.060	0.080	0.10	550 (470 – 820)
		<i>0,200</i>	<i>0,50</i>	<i>0,0016</i>	<i>0,0019</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>1800 (1600 – 2600)</i>
TS3	E/AD	0.200	0.50	0.040	0.048	0.060	0.080	0.10	310 (270 – 460)
		<i>0,200</i>	<i>0,50</i>	<i>0,0016</i>	<i>0,0019</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>1025 (890 – 1500)</i>
TP2	E/AD	0.200	0.50	0.040	0.048	0.060	0.080	0.10	890 (750 – 1300)
		<i>0,200</i>	<i>0,50</i>	<i>0,0016</i>	<i>0,0019</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>2925 (2500 – 4200)</i>
TP3	E/AD	0.200	0.50	0.040	0.048	0.060	0.080	0.10	580 (500 – 870)
		<i>0,200</i>	<i>0,50</i>	<i>0,0016</i>	<i>0,0019</i>	<i>0,0024</i>	<i>0,0032</i>	<i>0,0040</i>	<i>1900 (1700 – 2800)</i>

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

 Steel and cast  
iron

 Stainless steel  
and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster



## Cutting data – JPD880 Side milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>					v <sub>c</sub>
				6	8	10	12	16	
TS2	E/A/D	0.300	1.2	0.060	0.080	0.10	0.12	0.15	510 (430—750)
		0,300	1,2	0,0024	0,0032	0,0040	0,0048	0,0060	1675 (1500—2400)
TS3	E/A/D	0.300	1.2	0.060	0.080	0.10	0.12	0.15	275 (230—410)
		0,300	1,2	0,0024	0,0032	0,0040	0,0048	0,0060	900 (760—1300)
TP2	E/A/D	0.300	1.2	0.060	0.080	0.10	0.12	0.15	810 (680—940)
		0,300	1,2	0,0024	0,0032	0,0040	0,0048	0,0060	2650 (2300—3000)
TP3	E/A/D	0.300	1.2	0.060	0.080	0.10	0.12	0.15	520 (440—780)
		0,300	1,2	0,0024	0,0032	0,0040	0,0048	0,0060	1700 (1500—2500)

## Cutting data – JPD880 Slot milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>					v <sub>c</sub>
				6	8	10	12	16	
TS2	E/A/D	1.0	0.055	0.075	0.090	0.11	0.14	385 (330—570)	
		1,0	0,0022	0,0030	0,0036	0,0044	0,0055	1275 (1100—1800)	
TS3	E/A/D	1.0	0.055	0.075	0.090	0.11	0.14	210 (180—310)	
		1,0	0,0022	0,0030	0,0036	0,0044	0,0055	690 (600—1000)	
TP2	E/A/D	1.0	0.055	0.075	0.090	0.11	0.14	620 (520—710)	
		1,0	0,0022	0,0030	0,0036	0,0044	0,0055	2025 (1800—2300)	
TP3	E/A/D	1.0	0.055	0.075	0.090	0.11	0.14	395 (340—590)	
		1,0	0,0022	0,0030	0,0036	0,0044	0,0055	1300 (1200—1900)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

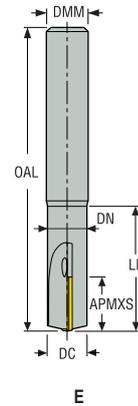
Graphite

X-Heads

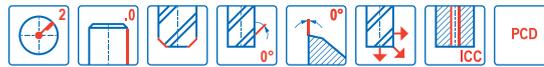
Minimaster

JPD890

Composite – Square – 2 Flutes – Cylindrical – Chamfer



- Tolerances:
- DMM=h5
- DC=h10
- CSP=2 straight channels



Designation	Item number	Length index	Tool shape	CSP	DC	DMM	APMXS	OAL	LN	DN	CHW	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm			
JPD890060G2S.0Z2A	02791382	2	G	■	6,0	8,0	13,0	64,0	20,0	5,4	0,1	2	Cylindrical	■
JPD890080E2S.0Z2A	02791383	2	E	■	8,0	8,0	15,0	64,0	20,0	7,4	0,1	2	Cylindrical	■
JPD890100E2S.0Z2A	02791384	2	E	■	10,0	10,0	13,0	73,0	30,0	9,4	0,1	2	Cylindrical	■
JPD890120E2S.0Z2A	02791386	2	E	■	12,0	12,0	13,0	83,0	30,0	11,4	0,1	2	Cylindrical	■
JPD890100E3S.0Z2A	02791385	3	E	■	10,0	10,0	20,0	73,0	30,0	9,4	0,1	2	Cylindrical	■
JPD890120E3S.0Z2A	02791387	3	E	■	12,0	12,0	20,0	83,0	30,0	11,4	0,1	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

## Cutting data – JPD890 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
TS2	E/A/D	0.300	1.2	0.12	0.16	0.20	0.24	415 (360—620)
		0,300	1,2	0,0048	0,0065	0,0080	0,0095	1350 (1200—2000)
TS3	E/A/D	0.200	1.2	0.060	0.080	0.10	0.12	305 (260—450)
		0,200	1,2	0,0024	0,0032	0,0040	0,0048	1000 (860—1400)
TP2	E/A/D	0.300	1.2	0.12	0.16	0.20	0.24	670 (560—770)
		0,300	1,2	0,0048	0,0065	0,0080	0,0095	2200 (1900—2500)
TP3	E/A/D	0.200	1.2	0.060	0.080	0.10	0.12	580 (490—860)
		0,200	1,2	0,0024	0,0032	0,0040	0,0048	1900 (1700—2800)

## Cutting data – JPD890 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
			6	8	10	12	
TS2	E/A/D	1.0	0.060	0.080	0.10	0.12	375 (320—550)
		1,0	0,0024	0,0032	0,0040	0,0048	1225 (1100—1800)
TS3	E/A/D	1.0	0.042	0.055	0.070	0.085	225 (190—330)
		1,0	0,0017	0,0022	0,0028	0,0034	740 (630—1000)
TP2	E/A/D	1.0	0.060	0.080	0.10	0.12	600 (500—690)
		1,0	0,0024	0,0032	0,0040	0,0048	1975 (1700—2200)
TP3	E/A/D	1.0	0.042	0.055	0.070	0.085	420 (360—630)
		1,0	0,0017	0,0022	0,0028	0,0034	1375 (1200—2000)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

 Universal  
iron

 Steel and cast  
iron

 Stainless steel  
and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimax

**J93F**

General purpose – Plastic – Square – 2 Flutes – Cylindrical – Sharp

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

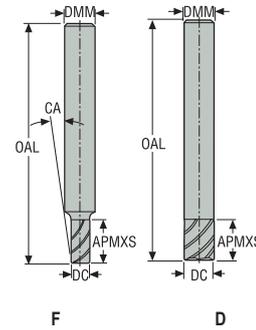
Hard

Plastic and cfrp

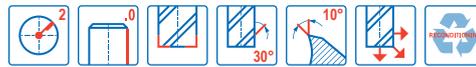
Graphite

X-Heads

Minimaster



–Tolerances:  
 –DMM= h5  
 –DC=  $\varnothing 1\text{-}\varnothing 6 = -0,02/-0,034$  mm  
 –DC=  $\varnothing 8\text{-}\varnothing 20 = -0,02/-0,044$  mm  
 –Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm				
93015-F	02605874	2	F	1,5	3,0	6,0	40,0	7,0	1,5	4,0	2	Cylindrical	■
93020-F	02605888	2	F	2,0	3,0	9,0	40,0	10,0	2,0	2,5	2	Cylindrical	■
93030-F	02606060	2	D	3,0	3,0	12,0	40,0	–	–	–	2	Cylindrical	■
93040-F	02606061	2	D	4,0	4,0	14,0	50,0	–	–	–	2	Cylindrical	■
93060-F	02606063	2	D	6,0	6,0	20,0	65,0	–	–	–	2	Cylindrical	■
93080-F	02606064	2	D	8,0	8,0	20,0	70,0	–	–	–	2	Cylindrical	■
93100-F	02606065	2	D	10,0	10,0	25,0	80,0	–	–	–	2	Cylindrical	■
93120-F	02606066	2	D	12,0	12,0	25,0	90,0	–	–	–	2	Cylindrical	■
93160-F	02606068	2	D	16,0	16,0	30,0	90,0	–	–	–	2	Cylindrical	■
93L060-F	02606071	3	D	6,0	6,0	40,0	100,0	–	–	–	2	Cylindrical	■
93L080-F	02606072	3	D	8,0	8,0	40,0	100,0	–	–	–	2	Cylindrical	■
93L100-F	02606073	3	D	10,0	10,0	40,0	100,0	–	–	–	2	Cylindrical	■
93L120-F	02606074	3	D	12,0	12,0	45,0	100,0	–	–	–	2	Cylindrical	■
93L160-F	02606077	3	D	16,0	16,0	45,0	100,0	–	–	–	2	Cylindrical	■
93L200-F	02606078	3	D	20,0	20,0	55,0	125,0	–	–	–	2	Cylindrical	■
93XL120-F	02606079	4	D	12,0	12,0	30,0	150,0	–	–	–	2	Cylindrical	■
93XL160-F	02606080	4	D	16,0	16,0	65,0	150,0	–	–	–	2	Cylindrical	■
93XL200-F	02606081	4	D	20,0	20,0	65,0	150,0	–	–	–	2	Cylindrical	■

■ Stocked standard.

## Cutting data – J93F Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				1.5	2	3	4	6	8	10	12	16	20	
TS1	A	0.400	1.4	0.015	0.020	0.030	0.040	0.060	0.080	0.10	0.12	0.15	0.17	590 (480 — 710)
		0,400	1,4	0,00060	0,00080	0,0012	0,0016	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1925 (1600 — 2300)
TP1	A	0.400	1.4	0.015	0.020	0.030	0.040	0.060	0.080	0.10	0.12	0.15	0.17	570 (460 — 680)
		0,400	1,4	0,00060	0,00080	0,0012	0,0016	0,0024	0,0032	0,0040	0,0048	0,0060	0,0065	1875 (1600 — 2200)

## Cutting data – J93F Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			1.5	2	3	4	6	8	10	12	16	20	
TS1	A	0.50	0.012	0.016	0.024	0.032	0.048	0.065	0.080	0.095	0.13	0.16	500 (400 — 590)
		0,50	0,00048	0,00065	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	1650 (1400 — 1900)
TP1	A	0.50	0.012	0.016	0.024	0.032	0.048	0.065	0.080	0.095	0.13	0.16	485 (390 — 580)
		0,50	0,00048	0,00065	0,00095	0,0013	0,0019	0,0026	0,0032	0,0038	0,0050	0,0065	1600 (1300 — 1900)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 v<sub>c</sub> = m/min (sf/min)

 f<sub>z</sub> = mm (in/tooth)

 a<sub>p</sub> = mm/DC (in/DC) = factor

 a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

J28

General purpose – Plastic – Square – 1 Flute – Cylindrical – Sharp

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

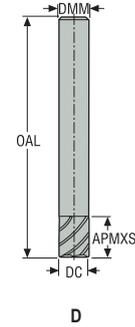
Hard

Plastic and cfrp

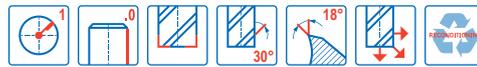
Graphite

X-Heads

Minimaster



- Tolerances:
- DMM= h5
- DC=  $\varnothing 2\text{-}\varnothing 6 = -0,02/-0,034$  mm
- DC=  $\varnothing 8\text{-}\varnothing 12 = -0,02/-0,044$  mm
- Regrind possible if DC is  $\geq \varnothing 6$



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	PCEDC	Shank	Stock standard
				mm	mm	mm	mm			
28030	00029353	2	D	3,0	3,0	10,0	40,0	1	Cylindrical	■
28040	00029361	2	D	4,0	4,0	14,0	50,0	1	Cylindrical	■
28050	00029363	2	D	5,0	5,0	16,0	60,0	1	Cylindrical	■
28060	00029366	2	D	6,0	6,0	20,0	65,0	1	Cylindrical	■
28080	00029369	2	D	8,0	8,0	25,0	75,0	1	Cylindrical	■
28100	00029370	2	D	10,0	10,0	25,0	75,0	1	Cylindrical	■
28120	00029372	2	D	12,0	12,0	25,0	75,0	1	Cylindrical	■

■ Stocked standard.

Cutting data – J28 Side milling  $a_e/DC=0,4$ 

SMG		$a_e/DC$	$a_p/DC$	$f_z$							$v_c$
				3	4	5	6	8	10	12	
TS1	A/D	0.300	1.5	0.040	0.050	0.065	0.080	0.10	0.13	0.16	490 (370—610)
		0,300	1,5	0,0016	0,0020	0,0026	0,0032	0,0040	0,0050	0,0065	1600 (1300—2000)

## Cutting data – J28 Slot milling

SMG		$a_p/DC$	$f_z$							$v_c$
			3	4	5	6	8	10	12	
TS1	A/D	1.0	0.026	0.036	0.044	0.055	0.070	0.090	0.11	400 (310—490)
		1,0	0,0010	0,0014	0,0017	0,0022	0,0028	0,0036	0,0044	1300 (1100—1600)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

 $v_c =$  m/min (sf/min)

 $f_z =$  mm (in/tooth)

 $a_p =$  mm/DC (in/DC) = factor

 $a_e =$  mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Universal

 Steel and cast  
iron

 Stainless steel  
and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaxter



## GRAPHITE

Seco diamond-coated solid carbide end mills are designed specifically for machining graphite. They offer up to 10 times more tool life than milling cutters with conventional coatings. Available in a variety of geometries and an extensive diameter range, these tools feature the best possible substrate to ensure the perfect adhesion of the diamond coating across a range of cutting parameters.

- JD620, JD630, JD640 and JME642 for radius type.
- JD660, SMB614, SMB616 and JMB642 for ball-nose type.

### Tool Selection Graphite

					
Name		JD620	JD630	JD640	JD660
Page(s)		587	589	591	593
Family name		DIAMOND	DIAMOND	DIAMOND	DIAMOND
Type of mill					
Shank	Cylindrical	■	■	■	■
	Weldon				
Number of Flutes		2	3	4	2
CSP					
Diameter range	Metric	3-12	3-8	6-12	3-6
	Inch				
Length availability		2,3,4	2,3,4	2,3,4	1,2,3,4,5
Operation					
					
					
SMG					
GR		●	●	●	●

■ Stock standard □ Weldon available, delivery time is 3 days.

● Preferred choice ○ Alternative choice

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

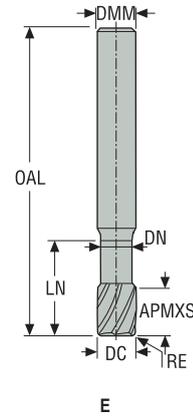
Tool Selection Graphite

Universal				
Steel and cast iron				
Stainless steel and S-materials				
Non ferrous				
Hard				
Plastic and CFRP				
Graphite				
X-Heads				
Minimaster				
Name		SMB614/616	JME642	JMB642/JMB662
Page(s)		597	597	599
Family name		MINI DIAMOND	MINI DIAMOND	MINI DIAMOND
Type of mill				
Shank	Cylindrical	■	■	■
	Weldon			
Number of Flutes		2	2	2
CSP				
Diameter range	Metric	0,6-3	0,2-2,0	0,2-3,0
	Inch			
Length availability		1,3,5,6,7	1,3,5,6,7	1,3,5,6,7
Operation				
				
				
SMG				
GR		●	●	●

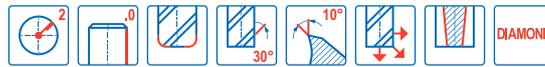
■ Stock standard □ Weldon available, delivery time is 3 days.  
 ● Preferred choice ○ Alternative choice

JD620

Diamond – Graphite – Square – 2 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,01 mm
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,05 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
620V030R050-DIAMOND	00023425	2	E	3,0	3,0	5,0	60,0	30,0	2,85	0,5	2	Cylindrical	■
620V040R050-DIAMOND	00023427	2	E	4,0	4,0	5,0	60,0	30,0	3,85	0,5	2	Cylindrical	■
620V060R050-DIAMOND	00023429	2	E	6,0	6,0	10,0	80,0	40,0	5,8	0,5	2	Cylindrical	■
620V080R050-DIAMOND	00023431	2	E	8,0	8,0	10,0	80,0	40,0	7,7	0,5	2	Cylindrical	■
620V100R050-DIAMOND	00023435	2	E	10,0	10,0	10,0	80,0	40,0	9,7	0,5	2	Cylindrical	■
620V120R050-DIAMOND	00023437	2	E	12,0	12,0	10,0	80,0	40,0	11,7	0,5	2	Cylindrical	■
620VL060R050-DIAMOND	00023444	3	E	6,0	6,0	10,0	100,0	70,0	5,8	0,5	2	Cylindrical	■
620VL080R050-DIAMOND	00023446	3	E	8,0	8,0	10,0	100,0	70,0	7,8	0,5	2	Cylindrical	■
620VL080R100-DIAMOND	00023447	3	E	8,0	8,0	10,0	100,0	70,0	7,8	1,0	2	Cylindrical	■
620VL100R050-DIAMOND	00023448	3	E	10,0	10,0	10,0	100,0	70,0	9,8	0,5	2	Cylindrical	■
620VL100R100-DIAMOND	00023449	3	E	10,0	10,0	10,0	100,0	70,0	9,8	1,0	2	Cylindrical	■
620VL120R050-DIAMOND	00023450	3	E	12,0	12,0	10,0	100,0	70,0	11,8	0,5	2	Cylindrical	■
620VL120R100-DIAMOND	00023451	3	E	12,0	12,0	10,0	100,0	70,0	11,7	1,0	2	Cylindrical	■
620VSL100R100-DIAMOND	00023452	4	E	10,0	10,0	10,0	150,0	100,0	9,8	1,0	2	Cylindrical	■
620VSL120R100-DIAMOND	00023453	4	E	12,0	12,0	10,0	150,0	100,0	11,8	1,0	2	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

Graphite

X-Heads

Minimaster

Cutting data – JD620 Side milling

SMG		a <sub>e</sub> /DC		f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
GR1	D	0.500	0.50	0.030	0.040	0.060	0.080	0.10	0.12	690 (580 — 800) 2275 (2000 — 2600)
		0.500	0.50	0.0012	0.0016	0.0024	0.0032	0.0040	0.0048	

Cutting data – JD620 Slot milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>						v <sub>c</sub>
				3	4	6	8	10	12	
GR1	D	0.50	0.024	0.032	0.048	0.065	0.080	0.095	610 (520 — 710) 2000 (1800 — 2300)	
		0.50	0.00095	0.0013	0.0019	0.0026	0.0032	0.0038		

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

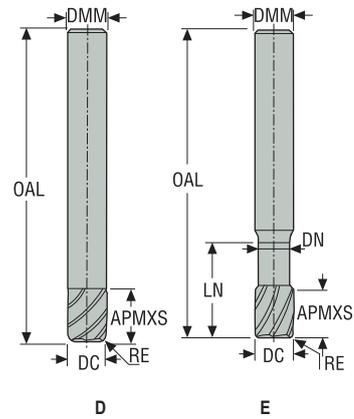
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

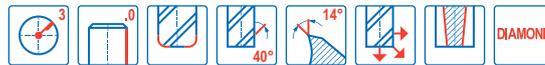
- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and CFRP
- Graphite
- X-Heads
- Minimaster

JD630

Diamond – Graphite – Square – 3 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,01 mm
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,05 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
630030R015-DIAMOND	00023454	2	D	3,0	3,0	12,0	40,0	—	—	0,15	3	Cylindrical	■
630040R020-DIAMOND	00023456	2	D	4,0	4,0	14,0	50,0	—	—	0,2	3	Cylindrical	■
630050R030-DIAMOND	00023457	2	D	5,0	5,0	16,0	50,0	—	—	0,3	3	Cylindrical	■
630060R030-DIAMOND	00023458	2	D	6,0	6,0	20,0	65,0	—	—	0,3	3	Cylindrical	■
630080R050-DIAMOND	00023459	2	D	8,0	8,0	20,0	65,0	—	—	0,5	3	Cylindrical	■
630V030R030-DIAMOND	00023464	3	E	3,0	3,0	5,0	40,0	15,0	2,9	0,3	3	Cylindrical	■
630V040R030-DIAMOND	00023465	3	E	4,0	4,0	5,0	50,0	20,0	3,9	0,3	3	Cylindrical	■
630VL030R020-DIAMOND	00023467	4	E	3,0	3,0	5,0	60,0	25,0	2,9	0,2	3	Cylindrical	■
630VL040R020-DIAMOND	00023470	4	E	4,0	4,0	5,0	60,0	30,0	3,9	0,2	3	Cylindrical	■
630VL050R020-DIAMOND	00023471	4	E	5,0	5,0	6,0	70,0	40,0	4,9	0,2	3	Cylindrical	■
630VL060R050-DIAMOND	00023472	4	E	6,0	6,0	10,0	100,0	60,0	5,9	0,5	3	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfprp

Graphite

X-Heads

Minimaster

Cutting data – JD630 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				3	4	5	6	8	
GR1	D	0.500	1.0	0.030	0.040	0.050	0.060	0.080	680 (580 — 790) 2225 (2000 — 2500)
		0,500	1,0	0,0012	0,0016	0,0020	0,0024	0,0032	

Cutting data – JD630 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
			3	4	5	6	8	
GR1	D	0.50	0.024	0.032	0.040	0.048	0.065	620 (520 — 720) 2025 (1800 — 2300)
		0,50	0,00095	0,0013	0,0016	0,0019	0,0026	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

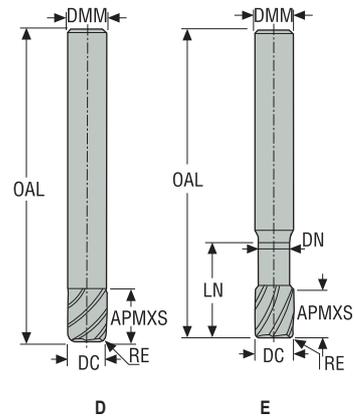
Graphite

X-Heads

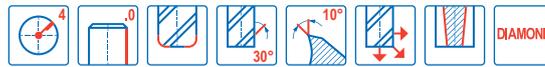
Minimaster

JD640

Diamond – Graphite – Square – 4 Flutes – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,01 mm
- DMM= h5
- DC= -0,02/-0,04 mm
- RE= ±0,05 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
640100R050-DIAMOND	00023474	2	D	10,0	10,0	25,0	75,0	-	-	0,5	4	Cylindrical	■
640120R050-DIAMOND	00023475	2	D	12,0	12,0	25,0	80,0	-	-	0,5	4	Cylindrical	■
640V060R050-DIAMOND	00023479	3	E	6,0	6,0	10,0	80,0	40,0	5,9	0,5	4	Cylindrical	■
640V080R050-DIAMOND	00023480	3	E	8,0	8,0	10,0	80,0	40,0	7,8	0,5	4	Cylindrical	■
640V100R050-DIAMOND	00023481	3	E	10,0	10,0	12,0	80,0	40,0	9,8	0,5	4	Cylindrical	■
640V120R050-DIAMOND	00023483	3	E	12,0	12,0	15,0	80,0	40,0	11,8	0,5	4	Cylindrical	■
640VL100R050-DIAMOND	00023486	4	E	10,0	10,0	12,0	125,0	80,0	9,8	0,5	4	Cylindrical	■
640VL120R050-DIAMOND	02462698	4	E	12,0	12,0	15,0	125,0	80,0	11,7	0,5	4	Cylindrical	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – JD640 Side milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
GR1	D	0.500 0.500	1.0 1.0	0.060 0.0024	0.080 0.0032	0.10 0.0040	0.12 0.0048	680 (570 – 780) 2225 (1900 – 2500)

Cutting data – JD640 Slot milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>				v <sub>c</sub>
				6	8	10	12	
GR1	D	0.50 0.50	0.048 0.0019	0.065 0.0026	0.080 0.0032	0.095 0.0038	610 (520 – 710) 2000 (1800 – 2300)	

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

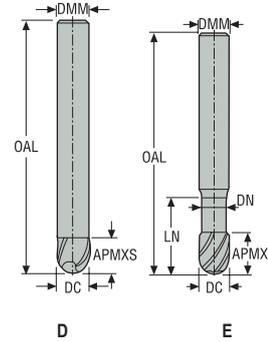
Graphite

X-Heads

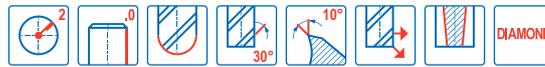
Minimaster

JD660

Diamond – Graphite – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out=<0,01 mm
- DMM=h5
- DC= -0,02/-0,04 mm
- RE= ±0,01 mm
- B=0,9°



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm			
660030-DIAMOND	00023488	1	D	3,0	3,0	8,0	40,0	-	-	1,5	2	Cylindrical	■
660040-DIAMOND	00023489	1	D	4,0	4,0	14,0	50,0	-	-	2,0	2	Cylindrical	■
660060-DIAMOND	00023491	1	D	6,0	6,0	20,0	65,0	-	-	3,0	2	Cylindrical	■
660V030-DIAMOND	00023501	2	E	3,0	3,0	6,0	40,0	15,0	2,9	1,5	2	Cylindrical	■
660V040-DIAMOND	00023502	2	E	4,0	4,0	6,0	40,0	15,0	3,9	2,0	2	Cylindrical	■
660V060-DIAMOND	00023505	2	E	6,0	6,0	10,0	65,0	35,0	5,9	3,0	2	Cylindrical	■
660L030-DIAMOND	00023494	3	D	3,0	3,0	20,0	60,0	-	-	1,5	2	Cylindrical	■
660L040-DIAMOND	00023496	3	D	4,0	4,0	30,0	60,0	-	-	2,0	2	Cylindrical	■
660L060-DIAMOND	00023498	3	D	6,0	6,0	40,0	100,0	-	-	3,0	2	Cylindrical	■
660VL030-DIAMOND	00023511	4	E	3,0	3,0	6,0	60,0	30,0	2,9	1,5	2	Cylindrical	■
660VL040-DIAMOND	00023512	4	E	4,0	4,0	6,0	60,0	30,0	3,9	2,0	2	Cylindrical	■
660VL060-DIAMOND	00023516	4	E	6,0	6,0	10,0	100,0	70,0	5,8	3,0	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JD660 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				3	4	6	
GR1	D	0.400 0,400	2.4 2,4	0.024 0,00095	0.032 0,0013	0.046 0,0018	920 (780 – 1000) 3025 (2600 – 3200)

For cutting data recalculations, see pages 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

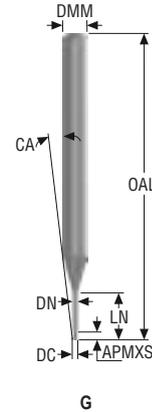
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

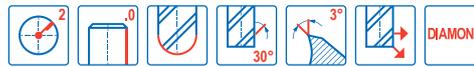
- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and cfrp
- Graphite**
- X-Heads
- Minimaster

SMB614/616

Miniature – Graphite – Ball nose – 2 Flutes – Cylindrical



- Tolerances:
- Run-out = <math><0,005\text{ mm}</math>
- DMM = h5
- DC Coated = <math>-0,01/-0,025\text{ mm}</math>
- DC Coated = <math>0/-0,015\text{ mm}</math>
- RE = <math>\pm 0,01\text{ mm}</math>



Designation	Grade	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
					mm	mm	mm	mm	mm	mm	mm	mm			
SMB614010G4B.022	–	10108702	4	G	1,0	4,0	1,0	50,0	7,5	0,95	0,5	6,54	2	Cylindrical	■
SMB614010G4B.022	DIA	10108776	4	G	1,0	4,0	1,0	50,0	7,5	0,95	0,5	6,54	2	Cylindrical	■
SMB614020G4B.022	–	10108703	4	G	2,0	4,0	2,0	50,0	12,0	1,9	1,0	3,74	2	Cylindrical	■
SMB614020G4B.022	DIA	10108777	4	G	2,0	4,0	2,0	50,0	12,0	1,9	1,0	3,74	2	Cylindrical	■
SMB616020G4B.022	–	10108768	4	G	2,0	6,0	2,0	50,0	12,0	1,9	1,0	5,99	2	Cylindrical	■
SMB614030G4B.022	–	10108704	4	G	3,0	4,0	3,0	50,0	20,0	2,85	1,5	1,36	2	Cylindrical	■
SMB614030G4B.022	DIA	10108778	4	G	3,0	4,0	3,0	50,0	20,0	2,85	1,5	1,36	2	Cylindrical	■
SMB616030G4B.022	–	10108769	4	G	3,0	6,0	3,0	55,0	20,0	2,85	1,5	3,47	2	Cylindrical	■
SMB614020G5B.022	–	10108705	5	G	2,0	4,0	2,0	50,0	16,0	1,9	1,0	2,96	2	Cylindrical	■
SMB614020G5B.022	DIA	10108779	5	G	2,0	4,0	2,0	50,0	16,0	1,9	1,0	3,13	2	Cylindrical	■
SMB616020G5B.022	–	10108770	5	G	2,0	6,0	2,0	50,0	16,0	1,9	1,0	4,96	2	Cylindrical	■
SMB614006G6B.022	–	10108706	6	G	0,6	4,0	0,6	50,0	6,0	0,55	0,3	7,72	2	Cylindrical	■
SMB614006G6B.022	DIA	10108780	6	G	0,6	4,0	0,6	50,0	6,0	0,55	0,3	7,72	2	Cylindrical	■
SMB616006G6B.022	–	10108771	6	G	0,6	6,0	0,6	50,0	6,0	0,55	0,3	9,43	2	Cylindrical	■
SMB614008G6B.022	–	10108707	6	G	0,8	4,0	0,8	50,0	10,0	0,75	0,4	5,69	2	Cylindrical	■
SMB614008G6B.022	DIA	10108781	6	G	0,8	4,0	0,8	50,0	10,0	0,75	0,4	5,69	2	Cylindrical	■
SMB614010G6B.022	–	10108708	6	G	1,0	4,0	0,5	50,0	12,0	0,95	0,5	4,88	2	Cylindrical	■
SMB614010G6B.022	DIA	10108782	6	G	1,0	4,0	0,5	50,0	12,0	0,95	0,5	4,88	2	Cylindrical	■
SMB616010G6B.022	–	10108772	6	G	1,0	6,0	1,0	50,0	12,0	0,95	0,5	6,69	2	Cylindrical	■
SMB614020G6B.022	–	10108709	6	G	2,0	4,0	2,0	50,0	20,0	1,9	1,0	2,46	2	Cylindrical	■
SMB614020G6B.022	DIA	10108783	6	G	2,0	4,0	2,0	50,0	20,0	1,9	1,0	2,46	2	Cylindrical	■
SMB616020G6B.022	–	10108773	6	G	2,0	6,0	2,0	55,0	20,0	1,9	1,0	4,23	2	Cylindrical	■
SMB614006G7B.022	–	10108710	7	G	0,6	4,0	0,6	50,0	10,0	0,55	0,3	5,87	2	Cylindrical	■
SMB614006G7B.022	DIA	10108784	7	G	0,6	4,0	0,6	50,0	10,0	0,55	0,3	5,87	2	Cylindrical	■
SMB616006G7B.022	–	10108774	7	G	0,6	6,0	0,6	50,0	10,0	0,55	0,3	7,59	2	Cylindrical	■
SMB614010G7B.022	–	10108711	7	G	1,0	4,0	1,0	50,0	18,0	0,95	0,5	3,64	2	Cylindrical	■
SMB614010G7B.022	DIA	10108785	7	G	1,0	4,0	1,0	50,0	18,0	0,95	0,5	3,64	2	Cylindrical	■
SMB616010G7B.022	–	10108775	7	G	1,0	6,0	1,0	55,0	18,0	0,95	0,5	5,23	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – SMB614 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				0.6	0.8	1	2	3	
GR1	D	0,0700 0.0700	0,10 0.10	0,018 0.00070	0,024 0.00095	0,030 0.0012	0,060 0.0024	0,090 0.0036	95 (54 – 120) 310 (180 – 390)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Cutting data – SMB616 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
				0.6	1	2	
GR1	D	0,0700 0.0700	0,10 0.10	0,018 0.00070	0,030 0.0012	0,060 0.0024	95 (54 – 120) 310 (180 – 390)

For cutting data recalculations, see pages 687 – 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

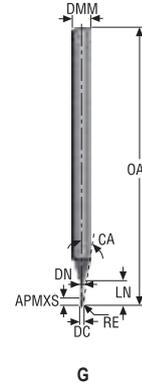
Graphite

X-Heads

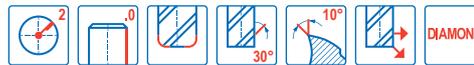
Minimaster

JME642

Miniature – Graphite – Square – Diamond – 2 Flutes – DMM 4 – Cylindrical – Corner radius



- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0/-0,015 mm
- RE= ±0,007 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JME642002G1R002.0Z2-DIA	03215524	1	G	0,2	4,0	0,3	40,0	0,4	0,18	0,02	14,32	2	Cylindrical	■
JME642003G1R002.0Z2-DIA	03215525	1	G	0,3	4,0	0,5	40,0	0,5	0,28	0,02	14,1	2	Cylindrical	■
JME642004G1R004.0Z2-DIA	03215526	1	G	0,4	4,0	0,6	40,0	2,0	0,37	0,04	11,67	2	Cylindrical	■
JME642005G3R005.0Z2-DIA	03215527	3	G	0,5	4,0	0,7	40,0	2,5	0,45	0,05	10,97	2	Cylindrical	■
JME642006G3R006.0Z2-DIA	03215528	3	G	0,6	4,0	1,0	60,0	3,0	0,55	0,06	10,31	2	Cylindrical	■
JME642008G3R008.0Z2-DIA	03215529	3	G	0,8	4,0	1,2	60,0	4,0	0,75	0,08	9,31	2	Cylindrical	■
JME642010G3R010.0Z2-DIA	03215530	3	G	1,0	4,0	1,6	60,0	5,0	0,95	0,1	8,04	2	Cylindrical	■
JME642012G3R012.0Z2-DIA	03215531	3	G	1,2	4,0	1,6	60,0	6,0	1,15	0,12	7,09	2	Cylindrical	■
JME642015G3R015.0Z2-DIA	03215532	3	G	1,5	4,0	2,4	60,0	7,5	1,4	0,15	5,8	2	Cylindrical	■
JME642020G3R015.0Z2-DIA	03236441	3	G	2,0	4,0	2,2	60,0	10,0	1,9	0,15	4,11	2	Cylindrical	■
JME642020G3R020.0Z2-DIA	03215533	3	G	2,0	4,0	3,0	60,0	10,0	1,9	0,2	4,11	2	Cylindrical	■
JME642005G5R005.0Z2-DIA	03215534	5	G	0,5	4,0	0,7	40,0	4,0	0,45	0,05	9,43	2	Cylindrical	■
JME642006G5R006.0Z2-DIA	03215535	5	G	0,6	4,0	1,0	60,0	5,0	0,55	0,06	8,5	2	Cylindrical	■
JME642008G5R008.0Z2-DIA	03215536	5	G	0,8	4,0	1,2	60,0	7,0	0,75	0,08	7,02	2	Cylindrical	■
JME642010G5R010.0Z2-DIA	03215537	5	G	1,0	4,0	1,6	60,0	8,5	0,95	0,1	6,06	2	Cylindrical	■
JME642012G5R012.0Z2-DIA	03215538	5	G	1,2	4,0	1,6	60,0	10,0	1,15	0,12	5,23	2	Cylindrical	■
JME642015G5R015.0Z2-DIA	03215539	5	G	1,5	4,0	2,4	60,0	12,0	1,4	0,15	4,25	2	Cylindrical	■
JME642020G5R015.0Z2-DIA	03236442	5	G	2,0	4,0	2,2	60,0	16,0	1,9	0,15	2,87	2	Cylindrical	■
JME642020G5R020.0Z2-DIA	03215540	5	G	2,0	4,0	3,0	60,0	16,0	1,9	0,2	2,87	2	Cylindrical	■
JME642010G6R010.0Z2-DIA	03215541	6	G	1,0	4,0	1,6	60,0	12,0	0,95	0,1	4,86	2	Cylindrical	■
JME642015G6R015.0Z2-DIA	03215542	6	G	1,5	4,0	2,4	50,0	18,0	1,4	0,15	3,13	2	Cylindrical	■
JME642020G6R020.0Z2-DIA	03215543	6	G	2,0	4,0	3,0	60,0	25,0	1,9	0,2	1,97	2	Cylindrical	■
JME642020G7R020.0Z2-DIA	03215544	7	G	2,0	4,0	3,0	60,0	30,0	1,9	0,2	1,68	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – JME642 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	
GR1	D	0.300	0.80	0.024	0.036	0.044	0.048	0.055	0.060	0.065	0.070	0.075	0.085	175 (130 — 370) 570 (430 — 1200)
		0,300	0,80	0,00095	0,0014	0,0017	0,0019	0,0022	0,0024	0,0026	0,0028	0,0030	0,0034	

Cutting data – JME642 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
			0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	
GR1	D	0.30	0.022	0.032	0.040	0.046	0.050	0.055	0.065	0.065	0.075	0.080	140 (110 — 300) 460 (370 — 980)
		0,30	0,00085	0,0013	0,0016	0,0018	0,0020	0,0022	0,0026	0,0026	0,0030	0,0032	

Table based on LV3, please recalc based on length version chosen. See page(s). 687 - 695

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

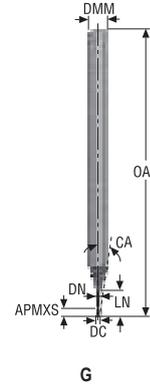
a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

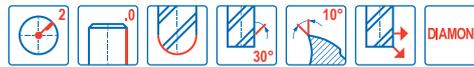
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

JMB642/JMB662

Miniature – Graphite – Ball nose – Diamond – 2 Flutes – DMM 4-6 – Cylindrical



- Tolerances:
- Run-out= <0,005 mm
- DMM= h5
- DC= 0/-0,015 mm
- RE= ±0,007 mm



Designation	Item number	Length index	Tool shape	DC	DMM	APMXS	OAL	LN	DN	RE	CA°	PCEDC	Shank	Stock standard
				mm	mm	mm	mm	mm	mm	mm				
JMB642002G1B.0Z2-DIA	03215373	1	G	0,2	4,0	0,3	40,0	0,4	0,18	0,1	14,5	2	Cylindrical	■
JMB642003G1B.0Z2-DIA	03215374	1	G	0,3	4,0	0,5	40,0	0,6	0,28	0,15	14,17	2	Cylindrical	■
JMB642004G1B.0Z2-DIA	03215375	1	G	0,4	4,0	2,0	40,0	0,8	0,37	0,2	13,8	2	Cylindrical	■
JMB642005G3B.0Z2-DIA	03215376	3	G	0,5	4,0	0,7	40,0	2,5	0,45	0,25	11,19	2	Cylindrical	■
JMB642006G3B.0Z2-DIA	03215377	3	G	0,6	4,0	1,0	60,0	3,0	0,55	0,3	10,55	2	Cylindrical	■
JMB642008G3B.0Z2-DIA	03215378	3	G	0,8	4,0	1,2	60,0	4,0	0,75	0,4	9,38	2	Cylindrical	■
JMB642010G3B.0Z2-DIA	03215379	3	G	1,0	4,0	1,6	60,0	5,0	0,95	0,5	8,33	2	Cylindrical	■
JMB642012G3B.0Z2-DIA	03215380	3	G	1,2	4,0	1,6	60,0	6,0	1,15	0,6	7,38	2	Cylindrical	■
JMB642015G3B.0Z2-DIA	03215381	3	G	1,5	4,0	2,4	60,0	7,5	1,4	0,75	6,08	2	Cylindrical	■
JMB642020G3B.0Z2-DIA	03215382	3	G	2,0	4,0	3,0	60,0	10,0	1,9	1,0	4,35	2	Cylindrical	■
JMB662030G3B.0Z2-DIA	03215384	3	G	3,0	6,0	3,0	60,0	15,0	2,8	1,5	4,38	2	Cylindrical	■
JMB642005G5B.0Z2-DIA	03215387	5	G	0,5	4,0	0,7	40,0	4,0	0,45	0,25	9,6	2	Cylindrical	■
JMB642006G5B.0Z2-DIA	03215388	5	G	0,6	4,0	1,0	60,0	5,0	0,55	0,3	8,68	2	Cylindrical	■
JMB642008G5B.0Z2-DIA	03215389	5	G	0,8	4,0	1,2	60,0	7,0	0,75	0,4	7,18	2	Cylindrical	■
JMB642010G5B.0Z2-DIA	03215390	5	G	1,0	4,0	1,6	60,0	8,5	0,95	0,5	6,22	2	Cylindrical	■
JMB642012G5B.0Z2-DIA	03215391	5	G	1,2	4,0	1,6	60,0	10,0	1,15	0,6	5,4	2	Cylindrical	■
JMB642015G5B.0Z2-DIA	03215392	5	G	1,5	4,0	2,4	60,0	12,0	1,4	0,75	4,4	2	Cylindrical	■
JMB642020G5B.0Z2-DIA	03215393	5	G	2,0	4,0	3,0	60,0	16,0	1,9	1,0	2,99	2	Cylindrical	■
JMB662030G5B.0Z2-DIA	03215395	5	G	3,0	6,0	3,0	60,0	24,0	2,8	1,5	3,0	2	Cylindrical	■
JMB642010G6B.0Z2-DIA	03215396	6	G	1,0	4,0	1,6	60,0	12,0	0,95	0,5	4,96	2	Cylindrical	■
JMB642015G6B.0Z2-DIA	03215397	6	G	1,5	4,0	2,4	60,0	18,0	1,4	0,75	3,21	2	Cylindrical	■
JMB642020G6B.0Z2-DIA	03215398	6	G	2,0	4,0	3,0	60,0	25,0	1,9	1,0	2,03	2	Cylindrical	■
JMB642020G7B.0Z2-DIA	03215399	7	G	2,0	4,0	3,0	60,0	30,0	1,9	1,0	1,72	2	Cylindrical	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – JMB642/662 Side milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	
GR1	D	0.300 0,300	0.50 0,50	0.0024 0,000095	0.0036 0,00014	0.0048 0,00019	0.0060 0,00024	0.0070 0,00028	0.0095 0,00038	0.012 0,00048	0.014 0,00055	0.017 0,00065	0.020 0,00080	250 (200 — 300) 820 (660 — 980)

Cutting data – JMB642/662 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>										v <sub>c</sub>
				0.2	0.3	0.4	0.5	0.6	0.8	1	1.2	1.5	2	
GR1	D	0.300 0,300	0.50 0,50	0.0024 0,000095	0.0036 0,00014	0.0048 0,00019	0.0060 0,00024	0.0070 0,00028	0.0095 0,00038	0.012 0,00048	0.014 0,00055	0.017 0,00065	0.020 0,00080	250 (200 — 300) 820 (660 — 980)

Table based on LV3, please recalc based on length version chosen. See page(s) N/A-N/A

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster



## SECO X-HEADS

The new Seco Tools Exchangeable Head range is a comprehensive offering to meet most customer demands. Utilizing our proven solid carbide geometries, we offer various types to machine most materials and complete various machining operations. The connection is a proven exchangeable head design to give high process security and reliability. The shanks offer many types for short reach up to long reach applications. Straight necking and tapered necks to give the best combination of stability depending on the needs for your machining operation.

- XSE550, XSE720, XSE450, XHF580, XHF780 XVE540 and XVE510 for chamfer or radius type.
- XSB540, XSB720 and XVB510 for ball-nose type.
- XVC506, XVC509 and XVC512 for conical type.
- XHT740 for barrel type.

Universal

 Steel and cast  
iron

 Stainless steel  
and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Tool selection X-Heads

						
Name	XSE550	XSB540	XSE720	XSB720	XSE450	XHT740
Page(s)	612-620	629	631-632	637	643-644	409
Family name	X-HEADS SOLID <sup>2</sup>	X-HEADS SOLID <sup>2</sup>	X-HEADS SOLID <sup>2</sup>	X-HEADS SOLID <sup>2</sup>	X-HEADS SOLID <sup>2</sup>	X-HEADS HSM/TORNADO
Type of mill						
Number of Flutes	3,4,5	4	6	6	3	4,6
CSP		■				
Diameter range	Metric	10-25	10-16	10-25	10-20	10-16
	Inch	3/8-1		3/8-1	3/8-1	
Length availability	1,2	1	3	3	2	2,3
Operation						
						
						
						
						
X-Heads	SMG					
	P1-8	●	●	○	○	○
	P11-12	●	○	●	●	●
	M1-3	●	●	●	●	●
	M4-5	●	●	●	●	
	K1-7	●	●			
	S1-3	●	○	●	●	○
	S11-13	●	●	●	●	●
	H3 H5 H7 H8 H11 H12 H21 H31	●	○			
	N1	●	●			●
N2-3	●	●			●	
N11	●	●			●	
TS1	●	●			●	
TP1	●	●			●	
GR	○	○				

■ Stocked standard.

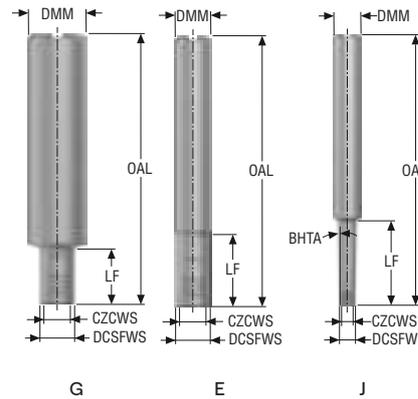
● Preferred choice, ○ Alternative choice

Tool selection X-Heads

								Universal
Name	XHF580	XHF780	XVE540	XVE510	XVB510	XVC506/509/512	XVK310	Steel and cast iron
Page(s)	650	655	668	673	676-677	680	684	Stainless steel and S-materials
Family name	X-HEADS HFM	X-HEADS HFM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM	Non ferrous
Type of mill								Hard
Number of Flutes	4	4	3,4	2	2	2	4	Plastic and CFRP
CSP	■		■					Graphite
Diameter range	Metric	10-16	10-16	10-20	10-12	10-16	10-16	X-Heads
	Inch	3/8-5/8	3/8-5/8	3/8-3/4		3/8-5/8		
Length availability	1	1	1	1	1	1	1	Minimaster
Operation								Minimaster
								
								
								
SMG								
P1-8	●	○	●	●	●	●	●	
P11-12	●	○	●	●	●	●	●	
M1-3	●	●	●	●	●	●	●	
M4-5	●	●	●	●	●	●	●	
K1-7	●	●	●	●	●	●	●	
S1-3	○	●	○	○	○	○	○	
S11-13	○	●	○	○	○	○	○	
H3 H5 H7 H8 H11 H12 H21 H31	○	○	○				○	
N1			●	○	○	○	●	
N2-3			●	○	○	○	●	
N11			●	○	○	○	●	
TS1			●	●	●	●	●	
TP1			●	●	●	●	●	
GR			○	○	○	○	○	

■ Stocked standard.  
● Preferred choice, ○ Alternative choice

Steel - Metric



—Tolerances:  
 —DMM= h6  
 —DCSFWS= ±0,05 mm  
 —BHTA= ±20'

	Designation	Item number	Length index	Tool shape	DCSFWS	CZCWS	DMM	LF	OAL	BHTA°	Shank	Stock standard
Non ferrous	XE10160G1-065-00.0S	10138083	1	G	9,6	E10	16,0	5,0	65,0	0,0	Cylindrical	■
	XE12160G1-065-00.0S	10138084	1	G	11,6	E12	16,0	5,0	65,0	0,0	Cylindrical	■
	XE16200G1-070-00.0S	10138085	1	G	15,4	E16	20,0	5,0	70,0	0,0	Cylindrical	■
Hard	XE20250G1-080-00.0S	10138086	1	G	19,2	E20	25,0	5,0	80,0	0,0	Cylindrical	■
	XE25320G1-080-00.0S	10138087	1	G	24,1	E25	32,0	5,0	80,0	0,0	Cylindrical	■
	XE10100E2-055-00.0S	10138092	2	E	9,6	E10	10,0	10,0	55,0	0,0	Cylindrical	■
	XE10100E2-075-00.0S	10138093	2	E	9,6	E10	10,0	20,0	75,0	0,0	Cylindrical	■
	XE12120E2-065-00.0S	10138094	2	E	11,6	E12	12,0	12,0	65,0	0,0	Cylindrical	■
Plastic and cfrp	XE12120E2-100-00.0S	10138095	2	E	11,6	E12	12,0	22,0	100,0	0,0	Cylindrical	■
	XE10160G2-075-00.0S	10138088	2	G	9,6	E10	16,0	15,0	75,0	0,0	Cylindrical	■
	XE12160G2-080-00.0S	10138089	2	G	11,6	E12	16,0	18,0	80,0	0,0	Cylindrical	■
	XE12160J2-140-05.0S	10138107	2	J	11,6	E12	16,0	25,1	140,0	5,0	Cylindrical	■
	XE16160E2-070-00.0S	10138096	2	E	15,4	E16	16,0	16,0	70,0	0,0	Cylindrical	■
	XE16200G2-090-00.0S	10138090	2	G	15,4	E16	20,0	24,0	90,0	0,0	Cylindrical	■
	XE16200G2-110-00.0S	10138091	2	G	15,4	E16	20,0	25,0	110,0	0,0	Cylindrical	■
Graphite	XE20200E2-120-00.0S	10138097	2	E	19,2	E20	20,0	30,0	120,0	0,0	Cylindrical	■
	XE25250E2-140-00.0S	10138098	2	E	24,1	E25	25,0	40,0	140,0	0,0	Cylindrical	■
	XE25320J2-200-05.0S	10138112	2	J	24,1	E25	32,0	45,1	200,0	5,0	Cylindrical	■
	XE10160J3-120-01.0S	10138099	3	J	9,6	E10	16,0	35,0	120,0	1,0	Cylindrical	■
	XE10160J3-140-05.0S	10138106	3	J	9,6	E10	16,0	36,6	140,0	5,0	Cylindrical	■
	XE12160J3-155-01.0S	10138101	3	J	11,6	E12	16,0	42,0	155,0	1,0	Cylindrical	■
X-Heads	XE16200J3-190-01.0S	10138103	3	J	15,4	E16	20,0	56,0	190,0	1,0	Cylindrical	■
	XE16250J3-170-05.0S	10138110	3	J	15,4	E16	25,0	54,9	170,0	5,0	Cylindrical	■
	XE20320J3-180-05.0S	10138111	3	J	19,2	E20	32,0	73,2	180,0	5,0	Cylindrical	■
	XE12200J4-155-05.0S	10138109	4	J	11,6	E12	20,0	48,0	155,0	5,0	Cylindrical	■
	XE16200J4-190-01.0S	10138104	4	J	15,4	E16	20,0	75,0	190,0	1,0	Cylindrical	■
	XE20250J4-200-01.0S	10138105	4	J	19,2	E20	25,0	80,0	200,0	1,0	Cylindrical	■
	XE12320J4-250-10.0S	10138114	4	J	11,6	E12	32,0	57,8	250,0	10,0	Cylindrical	■
Minimaster	XE10160J5-160-01.0S	10138100	5	J	9,6	E10	16,0	50,0	160,0	1,0	Cylindrical	■
	XE12160J5-170-01.0S	10138102	5	J	11,6	E12	16,0	60,0	170,0	1,0	Cylindrical	■
	XE10200J5-140-05.0S	10138108	5	J	9,6	E10	20,0	59,4	140,0	5,0	Cylindrical	■
	XE10320J6-250-10.0S	10138113	6	J	9,6	E10	32,0	63,5	250,0	10,0	Cylindrical	■

Spare Parts, included in delivery

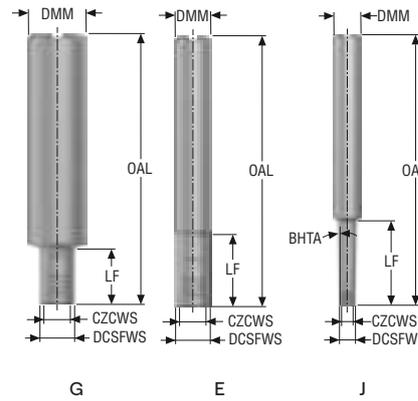
Accessories

For cutter	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	-	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	-	XTW-E16.E25

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Steel - Inch



—Tolerances:  
 —DMM= h6  
 —DCSFWS= ±.002 inch  
 —BHTA= ±20'

	Designation	Item number	Length index	Tool shape	DCSFWS	CZCWS	DMM	LF	OAL	BHTA°	Shank	Stock standard
					inch		inch	inch	inch			
Non ferrous	XE10.500G1-2.50-00.0S	10138050	1	G	0.360	E10	0.500	0.250	2.500	0,0	Cylindrical	■
	XE12.500E1-3.00-00.0S	10138054	1	E	0.480	E12	0.500	0.250	3.000	0,0	Cylindrical	■
	XE16.625E1-3.00-00.0S	10138057	1	E	0.606	E16	0.625	0.250	3.000	0,0	Cylindrical	■
Hard	XE20.750E1-3.00-00.0S	10138060	1	E	0.724	E20	0.750	0.250	3.000	0,0	Cylindrical	■
	XE251.00E1-3.50-00.0S	10138062	1	E	0.961	E25	1.000	0.250	3.500	0,0	Cylindrical	■
	XE10.375E2-2.50-00.0S	10138053	2	E	0.360	E10	0.375	0.402	2.500	0,0	Cylindrical	■
	XE10.500G2-3.00-00.0S	10138051	2	G	0.360	E10	0.500	1.000	3.000	0,0	Cylindrical	■
	XE12.500E2-2.50-00.0S	10138055	2	E	0.480	E12	0.500	0.500	2.500	0,0	Cylindrical	■
	XE12.500E2-4.50-00.0S	10138056	2	E	0.480	E12	0.500	1.000	4.500	0,0	Cylindrical	■
Plastic and cfrp	XE12.625J2-6.50-05.0S	10138075	2	J	0.480	E12	0.625	0.827	6.500	5,0	Cylindrical	■
	XE16.625E2-3.00-00.0S	10138058	2	E	0.606	E16	0.625	0.650	3.000	0,0	Cylindrical	■
	XE16.625E2-4.50-00.0S	10138059	2	E	0.606	E16	0.625	1.000	4.500	0,0	Cylindrical	■
	XE16.750J2-6.50-05.0S	10138076	2	J	0.606	E16	0.750	0.821	6.500	5,0	Cylindrical	■
	XE20.750E2-4.50-00.0S	10138061	2	E	0.724	E20	0.750	1.000	4.500	0,0	Cylindrical	■
	XE251.00E2-4.50-00.0S	10218129	2	E	0.961	E25	1.000	1.500	4.500	0,0	CYLINDRICAL	■
Graphite	XE251.25G2-6.50-00.0S	10138052	2	G	0.961	E25	1.250	2.500	6.500	0,0	Cylindrical	■
	XE251.25J2-7.50-05.0S	10218130	2	J	0.961	E25	1.250	1.654	7.500	5,0	CYLINDRICAL	■
	XE10.625J3-4.50-01.0S	10138063	3	J	0.360	E10	0.625	1.402	4.500	1,0	Cylindrical	■
	XE12.625J3-6.00-01.0S	10138065	3	J	0.480	E12	0.625	1.650	6.000	1,0	Cylindrical	■
	XE16.750J3-7.50-01.0S	10138068	3	J	0.606	E16	0.750	2.252	7.500	1,0	Cylindrical	■
	XE161.00J3-7.00-05.0S	10138077	3	J	0.606	E16	1.000	2.250	7.000	5,0	Cylindrical	■
X-Heads	XE10.625J4-4.00-03.0S	10138071	4	J	0.360	E10	0.625	1.799	4.000	3,0	Cylindrical	■
	XE12.625J4-7.50-01.0S	10138066	4	J	0.480	E12	0.625	2.400	7.500	1,0	Cylindrical	■
	XE12.750J4-4.50-03.0S	10138073	4	J	0.480	E12	0.750	2.201	4.500	3,0	Cylindrical	■
	XE16.750J4-7.50-01.0S	10138070	4	J	0.606	E16	0.750	3.000	7.500	1,0	Cylindrical	■
	XE10.625J5-6.50-01.0S	10138064	5	J	0.360	E10	0.625	2.000	6.500	1,0	Cylindrical	■
	XE12.750J5-6.00-03.0S	10138074	5	J	0.480	E12	0.750	2.575	6.000	3,0	Cylindrical	■
Minimaster	XE12.750J5-6.50-01.0S	10138067	5	J	0.480	E12	0.750	2.850	6.500	1,0	Cylindrical	■
	XE16.750J6-7.50-01.0S	10138069	6	J	0.606	E16	0.750	3.748	7.500	1,0	Cylindrical	■
	XE10.750J9-6.00-03.0S	10138072	9	J	0.360	E10	0.750	3.720	6.000	3,0	Cylindrical	■

Spare Parts, included in delivery

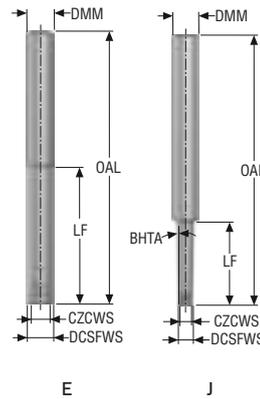
Accessories

For cutter	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	-	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	-	XTW-E16.E25

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Solid carbide - Metric



- Tolerances:
- DMM= h6
- DCSFWS= ±0,05 mm
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	DCSFWS	CZCWS	DMM	LF	OAL	BHTA°	Shank	Stock standard
				mm	mm	mm	mm	mm	mm		
XE20200E2-095-00.0E	10138123	2	E	19,2	E20	20,0	38,0	95,0	0,0	Cylindrical	■
XE25320J2-190-05.0E	10218127	2	J	24,1	E25	32,0	45,1	190,0	5,0	CYLINDRICAL	■
XE25320J2-215-05.0E	10218128	2	J	24,1	E25	32,0	45,1	215,0	5,0	CYLINDRICAL	■
XE12120E4-100-00.0E	10138121	4	E	11,6	E12	12,0	48,0	100,0	0,0	Cylindrical	■
XE20250J4-200-02.0E	10138129	4	J	19,2	E20	25,0	83,0	200,0	2,0	Cylindrical	■
XE25250E4-200-00.0E	10138125	4	E	24,1	E25	25,0	120,0	200,0	0,0	Cylindrical	■
XE10100E5-100-00.0E	10138120	5	E	9,6	E10	10,0	50,0	100,0	0,0	Cylindrical	■
XE16160E5-135-00.0E	10138122	5	E	15,4	E16	16,0	80,0	135,0	0,0	Cylindrical	■
XE20200E5-180-00.0E	10138124	5	E	19,2	E20	20,0	110,0	180,0	0,0	Cylindrical	■
XE12160J7-150-01.0E	10138127	7	J	11,6	E12	16,0	90,0	150,0	1,0	Cylindrical	■
XE16200J7-175-01.0E	10138128	7	J	15,4	E16	20,0	118,0	175,0	1,0	Cylindrical	■
XE10160J9-155-01.0E	10138126	9	J	9,6	E10	16,0	100,0	155,0	1,0	Cylindrical	■

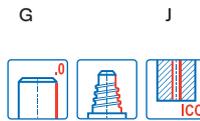
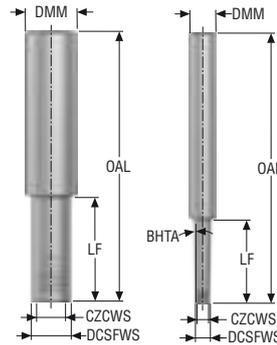
Spare Parts, included in delivery

Accessories

For cutter	Spanner	Replacement blade	Replacement blade 1	Torque key
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	-	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	-	XTW-E16.E25

■ Stocked standard.

Solid carbide – inch



- Tolerances:
- DMM= h6
- DCSFWS= ±.002 inch
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	DCSFWS	CZCWS	DMM	LF	OAL	BHTA°	Shank	Stock standard
				inch		inch	inch	inch			
XE251.25G2-6.50-00.0E	10138078	2	G	0.961	E25	1.250	2.500	6.500	0,0	Cylindrical	■
XE251.25J2-8.50-05.0E	10218131	2	J	0.961	E25	1.250	1.654	8.500	5,0	CYLINDRICAL	■
XE12.625J4-7.50-01.0E	10138080	4	J	0.480	E12	0.625	2.400	7.500	1,0	Cylindrical	■
XE16.750J4-7.50-01.0E	10138081	4	J	0.606	E16	0.750	3.000	7.500	1,0	Cylindrical	■
XE201.00J4-8.00-01.0E	10138082	4	J	0.724	E20	1.000	3.150	8.000	1,0	Cylindrical	■
XE10.625J5-6.50-01.0E	10138079	5	J	0.360	E10	0.625	2.000	6.500	1,0	Cylindrical	■

Spare Parts, included in delivery

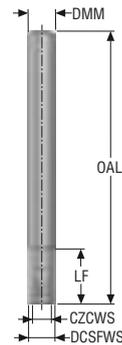
Accessories

For cutter	Spanner	Replacement blade	Replacement blade 1	Torque key
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	-	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	-	XTW-E16.E25

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Densimet - Metric



E



- Tolerances:
- DMM= h6
- DCSFWS= ±0,05 mm
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	DCSFWS	CZCWS	DMM	LF	OAL	BHTA°	Shank	Stock standard
				mm	mm	mm	mm	mm			
XE10100E2-100-00.0DM	10138115	2	E	9,6	E10	10,0	20,0	100,0	0,0	Cylindrical	■
XE12120E2-110-00.0DM	10138116	2	E	11,6	E12	12,0	25,0	110,0	0,0	Cylindrical	■
XE16160E2-130-00.0DM	10138117	2	E	15,4	E16	16,0	35,0	130,0	0,0	Cylindrical	■
XE20200E2-160-00.0DM	10138118	2	E	19,2	E20	20,0	45,0	160,0	0,0	Cylindrical	■
XE25250E2-185-00.0DM	10138119	2	E	24,1	E25	25,0	65,0	185,0	0,0	Cylindrical	■

Spare Parts, included in delivery

Accessories

For cutter	Spanner	Replacement blade	Replacement blade 1	Torque key
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	-	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	-	XTW-E16.E25

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

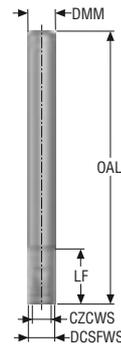
Plastic and cfrp

Graphite

X-Heads

Minimaster

Densimet - Inch



E



- Tolerances:
- DMM= h6
- DCSFWS= ±.002 Inch

Designation	Item number	Length index	Tool shape	DCSFWS	DMM	LF	OAL	BHTA°	Shank	Stock standard
				inch	inch	inch	inch			
XE251.00E2-7.28-00.0DM	10218132	2	E	0.961 E25	1.000	2.559	7.283	0,0	CYLINDRICAL	■

Spare Parts, included in delivery

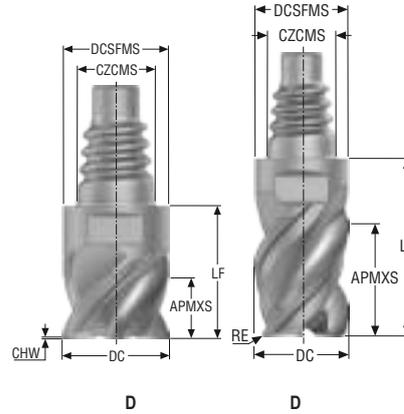
Accessories

For cutter	Spanner	Replacement blade	Torque key
			
E25	XW-E25	XTWH-E25.20	XTW-E16.E25

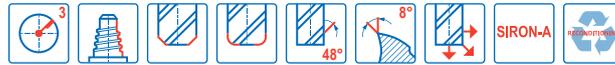
■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

**XSE550**  
High performance – Universal – Square – 3 Flutes – Corner radius or chamfer



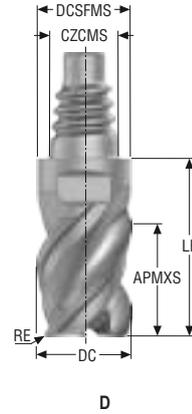
- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm



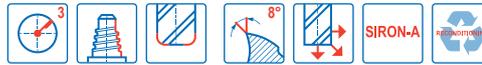
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	CHW	RE	PCEDC	SW	Grade
													SIRA
XSE550E10100D1R050Z3	10138138	1	D	E10	10,0	9,7	5,5	12,3	–	0,5	3	8	■
XSE550E10100D1R100Z3	10219210	1	D	E10	10,0	9,7	5,5	12,3	–	1,0	3	8	■
XSE550E10100D1R200Z3	10219211	1	D	E10	10,0	9,7	5,5	12,3	–	2,0	3	8	■
XSE550E10100D2R050Z3	10138142	2	D	E10	10,0	9,7	12,0	18,7	–	0,5	3	8	■
XSE550E10100D2R100Z3	10219218	2	D	E10	10,0	9,7	12,0	18,7	–	1,0	3	8	■
XSE550E10100D2R200Z3	10219219	2	D	E10	10,0	9,7	12,0	18,7	–	2,0	3	8	■
XSE550E12120D1R050Z3	10138139	1	D	E12	12,0	11,7	6,6	14,4	–	0,5	3	10	■
XSE550E12120D1R100Z3	10219212	1	D	E12	12,0	11,7	6,6	14,4	–	1,0	3	10	■
XSE550E12120D1R200Z3	10219213	1	D	E12	12,0	11,7	6,6	14,4	–	2,0	3	10	■
XSE550E12120D2R050Z3	10138143	2	D	E12	12,0	11,7	14,4	22,1	–	0,5	3	10	■
XSE550E12120D2R100Z3	10219220	2	D	E12	12,0	11,7	14,4	22,1	–	1,0	3	10	■
XSE550E12120D2R200Z3	10219221	2	D	E12	12,0	11,7	14,4	22,1	–	2,0	3	10	■
XSE550E16160D1R050Z3	10138140	1	D	E16	16,0	15,5	8,8	18,6	–	0,5	3	12	■
XSE550E16160D1R100Z3	10219214	1	D	E16	16,0	15,5	8,8	18,6	–	1,0	3	12	■
XSE550E16160D1R200Z3	10219215	1	D	E16	16,0	15,5	8,8	18,6	–	2,0	3	12	■
XSE550E16160D2R050Z3	10138144	2	D	E16	16,0	15,5	19,2	29,2	–	0,5	3	12	■
XSE550E16160D2R100Z3	10219222	2	D	E16	16,0	15,5	19,2	29,2	–	1,0	3	12	■
XSE550E16160D2R200Z3	10219223	2	D	E16	16,0	15,5	19,2	29,2	–	2,0	3	12	■
XSE550E20200D1R050Z3	10138141	1	D	E20	20,0	19,3	11,0	21,2	–	0,5	3	16	■
XSE550E20200D2R050Z3	10138145	2	D	E20	20,0	19,3	24,0	34,3	–	0,5	3	16	■
XSE550E20200D1R100Z3	10219216	1	D	E20	20,0	19,7	11,0	21,2	–	1,0	3	16	■
XSE550E20200D1R200Z3	10219217	1	D	E20	20,0	19,7	11,0	21,2	–	2,0	3	16	■
XSE550E20200D2R100Z3	10219224	2	D	E20	20,0	19,7	24,0	34,3	–	1,0	3	16	■
XSE550E20200D2R200Z3	10219225	2	D	E20	20,0	19,7	24,0	34,3	–	2,0	3	16	■
XSE550E25250D1CZ3	10219207	1	D	E25	25,0	24,2	13,75	25,5	0,3125	–	3	20	■
XSE550E25250D1R050Z3	10219208	1	D	E25	25,0	24,2	13,75	25,5	–	0,5	3	20	■
XSE550E25250D1R100Z3	10219209	1	D	E25	25,0	24,2	13,75	25,5	–	1,0	3	20	■

■ Stocked standard.

XSE550 – Inch  
High performance – Universal – Square – 3 Flutes – Corner radius – Inch



- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	Inch	Inch	Inch	Inch			SIRA
XSE550E10.375D1R030Z3	10138146	1	D	E10	0.375	0.364	0.206	0.484	0.030	3	8	■
XSE550E10.375D2R030Z3	10138149	2	D	E10	0.375	0.364	0.450	0.720	0.030	3	8	■
XSE550E12.500D1R030Z3	10138147	1	D	E12	0.500	0.484	0.275	0.567	0.030	3	10	■
XSE550E12.500D2R030Z3	10138150	2	D	E12	0.500	0.484	0.600	0.906	0.030	3	10	■
XSE550E20.750D1R030Z3	10138148	1	D	E20	0.750	0.728	0.413	0.835	0.030	3	16	■
XSE550E20.750D2R030Z3	10138151	2	D	E20	0.750	0.728	0.900	1.295	0.030	3	16	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and cfrp  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – XSE550 – Side milling PCEDC 3

SMG	Icon	a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				10	12	16	20	25	
P1	E/M/A/D	0,40	1,1	0,095	0,12	0,14	0,16	0,19	185 (140 – 220)
		0,40	1,1	0,0038	0,0048	0,0055	0,0065	0,0075	610 (460 – 720)
P2	E/M/A/D	0,40	1,1	0,10	0,12	0,15	0,17	0,19	175 (140 – 210)
		0,40	1,1	0,0040	0,0048	0,0060	0,0065	0,0075	570 (460 – 680)
P3	E/M/A/D	0,40	1,1	0,095	0,11	0,14	0,16	0,18	155 (120 – 190)
		0,40	1,1	0,0038	0,0044	0,0055	0,0065	0,0070	510 (400 – 620)
P4	E/M/A/D	0,40	1,1	0,090	0,11	0,14	0,16	0,18	135 (110 – 170)
		0,40	1,1	0,0036	0,0044	0,0055	0,0065	0,0070	445 (370 – 550)
P5	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	0,17	130 (98 – 160)
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	0,0065	425 (330 – 520)
P6	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	0,17	145 (110 – 180)
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	0,0065	475 (370 – 590)
P7	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	0,17	140 (110 – 170)
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	0,0065	460 (370 – 550)
P8	E/M/A/D	0,40	1,1	0,095	0,11	0,14	0,16	0,18	130 (97 – 160)
		0,40	1,1	0,0038	0,0044	0,0055	0,0065	0,0070	425 (320 – 520)
P11	E/M/A/D	0,30	1,1	0,065	0,075	0,095	0,11	0,12	95 (80 – 100)
		0,30	1,1	0,0026	0,0030	0,0038	0,0044	0,0048	310 (270 – 320)
P12	E/M/A/D	0,30	1,1	0,044	0,055	0,065	0,075	0,085	60 (51 – 67)
		0,30	1,1	0,0017	0,0022	0,0026	0,0030	0,0034	195 (170 – 210)
M1	E/M/A	0,30	1,1	0,070	0,085	0,11	0,12	0,14	105 (92 – 120)
		0,30	1,1	0,0028	0,0034	0,0044	0,0048	0,0055	345 (310 – 390)
M2	E/M/A	0,30	1,1	0,065	0,075	0,095	0,11	0,13	90 (76 – 100)
		0,30	1,1	0,0026	0,0030	0,0038	0,0044	0,0050	295 (250 – 320)
M3	E/M/A	0,30	0,95	0,055	0,065	0,080	0,090	0,10	55 (44 – 68)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	180 (150 – 220)
M4	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	0,090	43 (34 – 52)
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	0,0036	140 (120 – 170)
M5	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	0,090	36 (28 – 43)
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	0,0036	120 (92 – 140)
K1	E/M/A/D	0,40	1,1	0,090	0,11	0,14	0,16	0,18	160 (140 – 180)
		0,40	1,1	0,0036	0,0044	0,0055	0,0065	0,0070	520 (460 – 590)
K2	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	0,16	140 (130 – 160)
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	0,0065	460 (430 – 520)
K3	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	0,16	120 (110 – 130)
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	0,0065	395 (370 – 420)
K4	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	0,16	115 (97 – 120)
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	0,0065	375 (320 – 390)
K5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	140 (120 – 150)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	460 (400 – 490)
K6	E/M/A/D	0,40	0,95	0,090	0,11	0,13	0,15	0,17	200 (170 – 220)
		0,40	0,95	0,0036	0,0044	0,0050	0,0060	0,0065	660 (560 – 720)
K7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	180 (150 – 200)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	590 (500 – 650)
N1	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	0,16	600 (560 – 780)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	1975 (1900 – 2500)
N2	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	0,16	390 (360 – 500)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	1275 (1200 – 1600)
N3	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	0,16	260 (240 – 330)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	850 (790 – 1000)
N11	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	0,16	335 (280 – 380)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	1100 (920 – 1200)
S1	E	0,15	0,95	0,090	0,11	0,13	0,15	0,17	32 (26 – 40)
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	0,0065	105 (86 – 130)
S2	E	0,15	0,95	0,090	0,11	0,13	0,15	0,17	28 (21 – 34)
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	0,0065	90 (69 – 110)
S3	E	0,15	0,95	0,085	0,10	0,12	0,14	0,16	24 (19 – 30)
		0,15	0,95	0,0034	0,0040	0,0048	0,0055	0,0065	80 (63 – 98)
S11	E	0,40	0,95	0,060	0,070	0,090	0,10	0,12	105 (77 – 130)
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	345 (260 – 420)
S12	E	0,40	0,95	0,060	0,070	0,090	0,10	0,12	80 (59 – 100)
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	260 (200 – 320)
S13	E	0,40	0,95	0,055	0,065	0,080	0,090	0,10	65 (47 – 83)
		0,40	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	215 (160 – 270)
H5	M/A	0,050	0,95	0,090	0,11	0,14	0,16	0,18	75 (62 – 92)
		0,050	0,95	0,0036	0,0044	0,0055	0,0065	0,0070	245 (210 – 300)
H8	M/A	0,050	0,95	0,070	0,085	0,10	0,12	0,13	80 (64 – 95)
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	0,0050	260 (210 – 310)
H21	M/A	0,050	0,95	0,070	0,085	0,10	0,12	0,13	80 (64 – 95)
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	0,0050	260 (210 – 310)
H31	M/A	0,050	0,95	0,060	0,070	0,090	0,10	0,12	60 (50 – 74)
		0,050	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	195 (170 – 240)
TS1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	280 (170 – 390)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	920 (560 – 1200)
TP1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	280 (170 – 390)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	920 (560 – 1200)

Cutting data – XSE550 – Slot milling PCEDC 3

SMG		a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>	
			10	12	16	20	25		
P1	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	165 (130 – 200)	Universal
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	540 (430 – 650)	
P2	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	160 (120 – 190)	Steel and cast iron
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	520 (400 – 620)	
P3	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	135 (110 – 170)	Steel and cast iron
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	445 (370 – 550)	
P4	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	120 (90 – 140)	Steel and cast iron
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	395 (300 – 450)	
P5	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	115 (86 – 140)	Steel and cast iron
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	375 (290 – 450)	
P6	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	130 (97 – 160)	Stainless steel and S-materials
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	425 (320 – 520)	
P7	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	120 (92 – 150)	Stainless steel and S-materials
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	395 (310 – 490)	
P8	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	115 (86 – 140)	Stainless steel and S-materials
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	375 (290 – 450)	
P11	E/M/A/D	0,80	0,050	0,060	0,080	0,10	0,11	75 (64 – 84)	Stainless steel and S-materials
		0,80	0,0020	0,0024	0,0032	0,0040	0,0044	245 (210 – 270)	
P12	E/M/A/D	0,80	0,040	0,048	0,060	0,070	0,080	45 (39 – 51)	Stainless steel and S-materials
		0,80	0,0016	0,0019	0,0024	0,0028	0,0032	150 (130 – 160)	
M1	E/M/A	0,80	0,050	0,060	0,080	0,10	0,13	85 (75 – 99)	Non ferrous
		0,80	0,0020	0,0024	0,0032	0,0040	0,0050	280 (250 – 320)	
M2	E/M/A	0,80	0,050	0,060	0,080	0,10	0,11	70 (60 – 79)	Non ferrous
		0,80	0,0020	0,0024	0,0032	0,0040	0,0044	230 (200 – 250)	
M3	E/M/A	0,70	0,040	0,048	0,065	0,080	0,095	45 (35 – 54)	Non ferrous
		0,70	0,0016	0,0019	0,0026	0,0032	0,0038	150 (120 – 170)	
M4	E/M/A	0,70	0,040	0,048	0,065	0,075	0,085	34 (27 – 41)	Non ferrous
		0,70	0,0016	0,0019	0,0026	0,0030	0,0034	110 (89 – 130)	
M5	E/M/A	0,70	0,040	0,048	0,065	0,075	0,085	28 (22 – 34)	Non ferrous
		0,70	0,0016	0,0019	0,0026	0,0030	0,0034	90 (73 – 110)	
K1	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	140 (120 – 160)	Hard
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	460 (400 – 520)	
K2	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	120 (110 – 130)	Hard
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	395 (370 – 420)	
K3	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	105 (88 – 110)	Hard
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	345 (290 – 360)	
K4	E/M/A/D	1,0	0,060	0,070	0,095	0,12	0,15	100 (84 – 110)	Hard
		1,0	0,0024	0,0028	0,0038	0,0048	0,0060	330 (280 – 360)	
K5	E/M/A/D	0,80	0,050	0,060	0,080	0,10	0,13	125 (100 – 130)	Plastic and CFRP
		0,80	0,0020	0,0024	0,0032	0,0040	0,0050	410 (330 – 420)	
K6	E/M/A/D	0,80	0,050	0,060	0,080	0,10	0,13	185 (150 – 200)	Plastic and CFRP
		0,80	0,0020	0,0024	0,0032	0,0040	0,0050	610 (500 – 650)	
K7	E/M/A/D	0,80	0,050	0,060	0,080	0,10	0,13	160 (130 – 170)	Plastic and CFRP
		0,80	0,0020	0,0024	0,0032	0,0040	0,0050	520 (430 – 550)	
N1	E/M/A	0,70	0,050	0,060	0,080	0,10	0,13	540 (500 – 690)	Graphite
		0,70	0,0020	0,0024	0,0032	0,0040	0,0050	1775 (1700 – 2200)	
N2	E/M/A	0,70	0,050	0,060	0,080	0,10	0,13	345 (330 – 440)	Graphite
		0,70	0,0020	0,0024	0,0032	0,0040	0,0050	1125 (1100 – 1400)	
N3	E/M/A	0,70	0,050	0,060	0,080	0,10	0,13	230 (220 – 290)	Graphite
		0,70	0,0020	0,0024	0,0032	0,0040	0,0050	750 (730 – 950)	
N11	E/M/A	0,60	0,050	0,060	0,080	0,10	0,13	300 (250 – 340)	Graphite
		0,60	0,0020	0,0024	0,0032	0,0040	0,0050	980 (830 – 1100)	
S1	E	0,30	0,030	0,036	0,048	0,060	0,075	27 (21 – 33)	X-Heads
		0,30	0,0012	0,0014	0,0019	0,0024	0,0030	90 (69 – 100)	
S2	E	0,30	0,030	0,036	0,048	0,060	0,075	23 (17 – 28)	X-Heads
		0,30	0,0012	0,0014	0,0019	0,0024	0,0030	75 (56 – 91)	
S3	E	0,30	0,030	0,036	0,048	0,060	0,075	20 (15 – 25)	X-Heads
		0,30	0,0012	0,0014	0,0019	0,0024	0,0030	65 (50 – 82)	
S11	E	0,50	0,050	0,060	0,080	0,10	0,12	90 (66 – 110)	X-Heads
		0,50	0,0020	0,0024	0,0032	0,0040	0,0048	295 (220 – 360)	
S12	E	0,50	0,050	0,060	0,080	0,10	0,12	70 (50 – 89)	X-Heads
		0,50	0,0020	0,0024	0,0032	0,0040	0,0048	230 (170 – 290)	
S13	E	0,50	0,050	0,060	0,075	0,090	0,10	55 (39 – 69)	X-Heads
		0,50	0,0020	0,0024	0,0030	0,0036	0,0040	180 (130 – 220)	
H5	M/A	0,30	0,030	0,036	0,048	0,060	0,075	50 (41 – 60)	Minimaster
		0,30	0,0012	0,0014	0,0019	0,0024	0,0030	165 (140 – 190)	
H8	M/A	0,30	0,030	0,036	0,044	0,050	0,060	50 (41 – 60)	Minimaster
		0,30	0,0012	0,0014	0,0017	0,0020	0,0024	165 (140 – 190)	
H21	M/A	0,30	0,030	0,036	0,044	0,050	0,060	50 (41 – 60)	Minimaster
		0,30	0,0012	0,0014	0,0017	0,0020	0,0024	165 (140 – 190)	
H31	M/A	0,30	0,026	0,032	0,038	0,044	0,050	39 (32 – 46)	Minimaster
		0,30	0,0010	0,0013	0,0015	0,0017	0,0020	130 (110 – 150)	
TS1	A/D	0,70	0,050	0,060	0,080	0,10	0,13	250 (150 – 340)	Minimaster
		0,70	0,0020	0,0024	0,0032	0,0040	0,0050	820 (500 – 1100)	
TP1	A/D	0,70	0,050	0,060	0,080	0,10	0,13	250 (150 – 340)	Minimaster
		0,70	0,0020	0,0024	0,0032	0,0040	0,0050	820 (500 – 1100)	

Cutting data – XSE550 – Side milling PCEDC 3 – inch

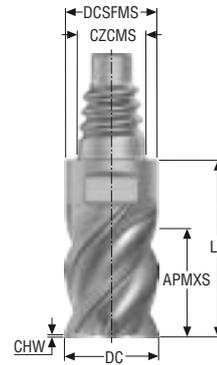
SMG	Icon	a <sub>g</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				3/8	1/2	5/8	3/4		
Universal	P1	E/M/A/D	0,40	1,1	0,095	0,12	0,14	0,16	215 (190 – 240)
			0,40	1,1	0,0038	0,0048	0,0055	0,0065	710 (630 – 780)
	P2	E/M/A/D	0,40	1,1	0,10	0,12	0,15	0,17	205 (180 – 230)
			0,40	1,1	0,0040	0,0048	0,0060	0,0065	670 (600 – 750)
	P3	E/M/A/D	0,40	1,1	0,095	0,11	0,14	0,16	180 (160 – 200)
			0,40	1,1	0,0038	0,0044	0,0055	0,0065	590 (530 – 650)
	P4	E/M/A/D	0,40	1,1	0,090	0,11	0,14	0,16	160 (140 – 180)
			0,40	1,1	0,0036	0,0044	0,0055	0,0065	520 (460 – 590)
	P5	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	150 (140 – 170)
			0,40	1,1	0,0036	0,0044	0,0050	0,0060	490 (460 – 550)
	P6	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	170 (150 – 190)
			0,40	1,1	0,0036	0,0044	0,0050	0,0060	560 (500 – 620)
P7	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	160 (140 – 180)	
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	520 (460 – 590)	
P8	E/M/A/D	0,40	1,1	0,095	0,11	0,14	0,16	150 (130 – 170)	
		0,40	1,1	0,0038	0,0044	0,0055	0,0065	490 (430 – 550)	
P11	E/M/A/D	0,30	1,1	0,065	0,075	0,095	0,11	105 (93 – 110)	
		0,30	1,1	0,0026	0,0030	0,0038	0,0044	345 (310 – 360)	
P12	E/M/A/D	0,30	1,1	0,044	0,055	0,065	0,075	65 (60 – 75)	
		0,30	1,1	0,0017	0,0022	0,0026	0,0030	215 (200 – 240)	
Steel and cast iron	M1	E/M/A	0,30	1,1	0,070	0,085	0,11	0,12	120 (110 – 130)
			0,30	1,1	0,0028	0,0034	0,0044	0,0048	395 (370 – 420)
	M2	E/M/A	0,30	1,1	0,065	0,075	0,095	0,11	100 (88 – 110)
			0,30	1,1	0,0026	0,0030	0,0038	0,0044	330 (290 – 360)
	M3	E/M/A	0,30	0,95	0,055	0,065	0,080	0,090	60 (50 – 74)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	195 (170 – 240)	
M4	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	48 (39 – 57)	
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	155 (130 – 180)	
M5	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	40 (32 – 47)	
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	130 (110 – 150)	
Stainless steel and S-materials	K1	E/M/A/D	0,40	1,1	0,090	0,11	0,14	0,16	170 (160 – 200)
			0,40	1,1	0,0036	0,0044	0,0055	0,0065	560 (530 – 650)
	K2	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	150 (150 – 180)
			0,40	1,1	0,0034	0,0040	0,0048	0,0055	490 (500 – 590)
	K3	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	125 (120 – 150)
			0,40	1,1	0,0034	0,0040	0,0048	0,0055	410 (400 – 490)
	K4	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	120 (120 – 140)
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	395 (400 – 450)	
K5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	155 (140 – 170)	
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	510 (460 – 550)	
K6	E/M/A/D	0,40	0,95	0,090	0,11	0,13	0,15	225 (200 – 250)	
		0,40	0,95	0,0036	0,0044	0,0050	0,0060	740 (660 – 820)	
K7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	200 (180 – 220)	
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	660 (600 – 720)	
Non ferrous	N1	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 780)
			0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)
	N2	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	430 (360 – 500)
			0,40	0,95	0,0032	0,0038	0,0048	0,0055	1400 (1200 – 1600)
N3	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	285 (240 – 330)	
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	940 (790 – 1000)	
N11	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	335 (280 – 380)	
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1100 (920 – 1200)	
Hard	S1	E	0,15	0,95	0,090	0,11	0,13	0,15	43 (26 – 60)
			0,15	0,95	0,0036	0,0044	0,0050	0,0060	140 (86 – 190)
	S2	E	0,15	0,95	0,090	0,11	0,13	0,15	35 (21 – 48)
			0,15	0,95	0,0036	0,0044	0,0050	0,0060	115 (69 – 150)
	S3	E	0,15	0,95	0,085	0,10	0,12	0,14	30 (19 – 42)
			0,15	0,95	0,0034	0,0040	0,0048	0,0055	100 (63 – 130)
	S11	E	0,40	0,95	0,060	0,070	0,090	0,10	105 (77 – 130)
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	345 (260 – 420)	
S12	E	0,40	0,95	0,060	0,070	0,090	0,10	80 (59 – 100)	
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	260 (200 – 320)	
S13	E	0,40	0,95	0,055	0,065	0,080	0,090	65 (47 – 83)	
		0,40	0,95	0,0022	0,0026	0,0032	0,0036	215 (160 – 270)	
Plastic and cfrp	H5	M/A	0,050	0,95	0,090	0,11	0,14	0,16	75 (62 – 92)
			0,050	0,95	0,0036	0,0044	0,0055	0,0065	245 (210 – 300)
	H8	M/A	0,050	0,95	0,070	0,085	0,10	0,12	80 (64 – 95)
			0,050	0,95	0,0028	0,0034	0,0040	0,0048	260 (210 – 310)
	H21	M/A	0,050	0,95	0,070	0,085	0,10	0,12	80 (64 – 95)
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	260 (210 – 310)	
H31	M/A	0,050	0,95	0,060	0,070	0,090	0,10	60 (50 – 74)	
		0,050	0,95	0,0024	0,0028	0,0036	0,0040	195 (170 – 240)	
X-Heads	TS1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	280 (170 – 390)
			0,40	0,95	0,0032	0,0038	0,0048	0,0055	920 (560 – 1200)
Minimaster	TP1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	280 (170 – 390)
			0,40	0,95	0,0032	0,0038	0,0048	0,0055	920 (560 – 1200)

Cutting data – XSE550 – Slot milling PCEDC 3 inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
			3/8	1/2	5/8	3/4		
P1	E/M/A/D	1,0	0,060	0,070	0,095	0,12	190 (170 – 210)	Universal
		1.0	0.0024	0.0028	0.0038	0.0048	620 (560 – 680)	
P2	E/M/A/D	1,0	0,060	0,070	0,095	0,12	185 (160 – 210)	Steel and cast iron
		1.0	0.0024	0.0028	0.0038	0.0048	610 (530 – 680)	
P3	E/M/A/D	1,0	0,060	0,070	0,095	0,12	160 (140 – 180)	Steel and cast iron
		1.0	0.0024	0.0028	0.0038	0.0048	520 (460 – 590)	
P4	E/M/A/D	1,0	0,060	0,070	0,095	0,12	140 (120 – 150)	Steel and cast iron
		1.0	0.0024	0.0028	0.0038	0.0048	460 (400 – 490)	
P5	E/M/A/D	1,0	0,060	0,070	0,095	0,12	135 (120 – 150)	Steel and cast iron
		1.0	0.0024	0.0028	0.0038	0.0048	445 (400 – 490)	
P6	E/M/A/D	1,0	0,060	0,070	0,095	0,12	150 (130 – 170)	Stainless steel and S-materials
		1.0	0.0024	0.0028	0.0038	0.0048	490 (430 – 550)	
P7	E/M/A/D	1,0	0,060	0,070	0,095	0,12	140 (130 – 160)	Stainless steel and S-materials
		1.0	0.0024	0.0028	0.0038	0.0048	460 (430 – 520)	
P8	E/M/A/D	1,0	0,060	0,070	0,095	0,12	135 (120 – 150)	Stainless steel and S-materials
		1.0	0.0024	0.0028	0.0038	0.0048	445 (400 – 490)	
P11	E/M/A/D	0,80	0,050	0,060	0,080	0,10	85 (74 – 94)	Stainless steel and S-materials
		0.80	0.0020	0.0024	0.0032	0.0040	280 (250 – 300)	
P12	E/M/A/D	0,80	0,040	0,048	0,060	0,070	50 (46 – 58)	Stainless steel and S-materials
		0.80	0.0016	0.0019	0.0024	0.0028	165 (160 – 190)	
M1	E/M/A	0,80	0,050	0,060	0,080	0,10	100 (87 – 110)	Non ferrous
		0.80	0.0020	0.0024	0.0032	0.0040	330 (290 – 360)	
M2	E/M/A	0,80	0,050	0,060	0,080	0,10	80 (70 – 89)	Non ferrous
		0.80	0.0020	0.0024	0.0032	0.0040	260 (230 – 290)	
M3	E/M/A	0,70	0,040	0,048	0,065	0,080	50 (41 – 60)	Non ferrous
		0.70	0.0016	0.0019	0.0026	0.0032	165 (140 – 190)	
M4	E/M/A	0,70	0,040	0,048	0,065	0,075	37 (30 – 45)	Non ferrous
		0.70	0.0016	0.0019	0.0026	0.0030	120 (99 – 140)	
M5	E/M/A	0,70	0,040	0,048	0,065	0,075	31 (25 – 37)	Non ferrous
		0.70	0.0016	0.0019	0.0026	0.0030	100 (83 – 120)	
K1	E/M/A/D	1,0	0,060	0,070	0,095	0,12	150 (140 – 180)	Hard
		1.0	0.0024	0.0028	0.0038	0.0048	490 (460 – 590)	
K2	E/M/A/D	1,0	0,060	0,070	0,095	0,12	130 (130 – 150)	Hard
		1.0	0.0024	0.0028	0.0038	0.0048	425 (430 – 490)	
K3	E/M/A/D	1,0	0,060	0,070	0,095	0,12	110 (110 – 130)	Hard
		1.0	0.0024	0.0028	0.0038	0.0048	360 (370 – 420)	
K4	E/M/A/D	1,0	0,060	0,070	0,095	0,12	105 (99 – 120)	Hard
		1.0	0.0024	0.0028	0.0038	0.0048	345 (330 – 390)	
K5	E/M/A/D	0,80	0,050	0,060	0,080	0,10	140 (120 – 150)	Plastic and cf/tp
		0.80	0.0020	0.0024	0.0032	0.0040	460 (400 – 490)	
K6	E/M/A/D	0,80	0,050	0,060	0,080	0,10	205 (180 – 230)	Plastic and cf/tp
		0.80	0.0020	0.0024	0.0032	0.0040	670 (600 – 750)	
K7	E/M/A/D	0,80	0,050	0,060	0,080	0,10	180 (160 – 200)	Plastic and cf/tp
		0.80	0.0020	0.0024	0.0032	0.0040	590 (530 – 650)	
N1	E/M/A	0,70	0,050	0,060	0,080	0,10	600 (510 – 690)	Graphite
		0.70	0.0020	0.0024	0.0032	0.0040	1975 (1700 – 2200)	
N2	E/M/A	0,70	0,050	0,060	0,080	0,10	385 (330 – 440)	Graphite
		0.70	0.0020	0.0024	0.0032	0.0040	1275 (1100 – 1400)	
N3	E/M/A	0,70	0,050	0,060	0,080	0,10	255 (220 – 290)	Graphite
		0.70	0.0020	0.0024	0.0032	0.0040	840 (730 – 950)	
N11	E/M/A	0,60	0,050	0,060	0,080	0,10	300 (250 – 340)	Graphite
		0.60	0.0020	0.0024	0.0032	0.0040	980 (830 – 1100)	
S1	E	0,30	0,030	0,036	0,048	0,060	36 (22 – 50)	X-Heads
		0.30	0.0012	0.0014	0.0019	0.0024	120 (73 – 160)	
S2	E	0,30	0,030	0,036	0,048	0,060	29 (18 – 40)	X-Heads
		0.30	0.0012	0.0014	0.0019	0.0024	95 (60 – 130)	
S3	E	0,30	0,030	0,036	0,048	0,060	25 (15 – 34)	X-Heads
		0.30	0.0012	0.0014	0.0019	0.0024	80 (50 – 110)	
S11	E	0,50	0,050	0,060	0,080	0,10	90 (66 – 110)	X-Heads
		0.50	0.0020	0.0024	0.0032	0.0040	295 (220 – 360)	
S12	E	0,50	0,050	0,060	0,080	0,10	70 (50 – 89)	X-Heads
		0.50	0.0020	0.0024	0.0032	0.0040	230 (170 – 290)	
S13	E	0,50	0,050	0,060	0,075	0,090	55 (39 – 69)	X-Heads
		0.50	0.0020	0.0024	0.0030	0.0036	180 (130 – 220)	
H5	M/A	0,30	0,030	0,036	0,048	0,060	50 (41 – 60)	Minimaster
		0.30	0.0012	0.0014	0.0019	0.0024	165 (140 – 190)	
H8	M/A	0,30	0,030	0,036	0,044	0,050	50 (41 – 60)	Minimaster
		0.30	0.0012	0.0014	0.0017	0.0020	165 (140 – 190)	
H21	M/A	0,30	0,030	0,036	0,044	0,050	50 (41 – 60)	Minimaster
		0.30	0.0012	0.0014	0.0017	0.0020	165 (140 – 190)	
H31	M/A	0,30	0,026	0,032	0,038	0,044	39 (32 – 46)	Minimaster
		0.30	0.0010	0.0013	0.0015	0.0017	130 (110 – 150)	
TS1	A/D	0,70	0,050	0,060	0,080	0,10	250 (150 – 340)	Minimaster
		0.70	0.0020	0.0024	0.0032	0.0040	820 (500 – 1100)	
TP1	A/D	0,70	0,050	0,060	0,080	0,10	250 (150 – 340)	Minimaster
		0.70	0.0020	0.0024	0.0032	0.0040	820 (500 – 1100)	

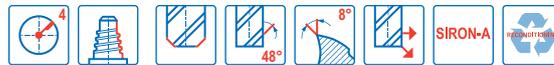
XSE550

High performance – Universal – Square – 4 Flutes – Chamfer



D

—Tolerances:  
—DC= e7  
—Regrind possible if DC is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	CHW	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			
XSE550E10100D1CZ4	10219229	1	D	E10	10,0	9,7	5,5	12,3	0,125	4	8	■
XSE550E10100D2CZ4	10138152	2	D	E10	10,0	9,7	12,0	18,7	0,125	4	8	■
XSE550E12120D1CZ4	10219230	1	D	E12	12,0	11,7	6,6	14,4	0,15	4	10	■
XSE550E12120D2CZ4	10138153	2	D	E12	12,0	11,7	14,4	22,1	0,15	4	10	■
XSE550E16160D1CZ4	10219231	1	D	E16	16,0	15,5	8,8	18,6	0,2	4	12	■
XSE550E16160D2CZ4	10138154	2	D	E16	16,0	15,5	19,2	29,2	0,2	4	12	■
XSE550E20200D2CZ4	10138155	2	D	E20	20,0	19,3	24,0	34,3	0,25	4	16	■
XSE550E20200D1CZ4	10219232	1	D	E20	20,0	19,7	11,0	21,2	0,25	4	16	■
XSE550E25250D1CZ4	10219226	1	D	E25	25,0	24,2	13,75	25,5	0,3125	4	20	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

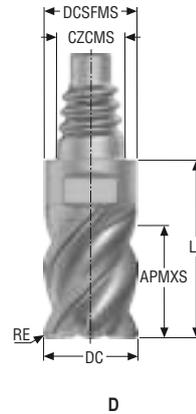
Graphite

X-Heads

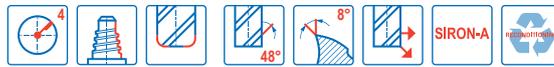
Minimaster

XSE550

High performance – Universal – Square – 4 Flutes – Corner radius



- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm



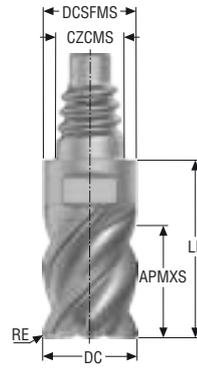
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XSE550E10100D1R100Z4	10219233	1	D	E10	10,0	9,7	5,5	12,3	1,0	4	8	■
XSE550E10100D1R200Z4	10219234	1	D	E10	10,0	9,7	5,5	12,3	2,0	4	8	■
XSE550E10100D1R050Z4	10138156	1	D	E10	10,0	9,7	5,5	12,3	0,5	4	8	■
XSE550E10100D2R100Z4	10138161	2	D	E10	10,0	9,7	12,0	18,7	1,0	4	8	■
XSE550E10100D2R050Z4	10138160	2	D	E10	10,0	9,7	12,0	18,7	0,5	4	8	■
XSE550E10100D2R200Z4	10138162	2	D	E10	10,0	9,7	12,0	18,7	2,0	4	8	■
XSE550E10100D2R250Z4	10138163	2	D	E10	10,0	9,7	12,0	18,7	2,5	4	8	■
XSE550E12120D1R100Z4	10219235	1	D	E12	12,0	11,7	6,6	14,4	1,0	4	10	■
XSE550E12120D1R200Z4	10219236	1	D	E12	12,0	11,7	6,6	14,4	2,0	4	10	■
XSE550E12120D1R050Z4	10138157	1	D	E12	12,0	11,7	6,6	14,4	0,5	4	10	■
XSE550E12120D2R100Z4	10138165	2	D	E12	12,0	11,7	14,4	22,1	1,0	4	10	■
XSE550E12120D2R050Z4	10138164	2	D	E12	12,0	11,7	14,4	22,1	0,5	4	10	■
XSE550E12120D2R200Z4	10138166	2	D	E12	12,0	11,7	14,4	22,1	2,0	4	10	■
XSE550E12120D2R300Z4	10138167	2	D	E12	12,0	11,7	14,4	22,1	3,0	4	10	■
XSE550E16160D1R100Z4	10219237	1	D	E16	16,0	15,5	8,8	18,6	1,0	4	12	■
XSE550E16160D1R200Z4	10219238	1	D	E16	16,0	15,5	8,8	18,6	2,0	4	12	■
XSE550E16160D1R050Z4	10138158	1	D	E16	16,0	15,5	8,8	18,6	0,5	4	12	■
XSE550E16160D2R100Z4	10138169	2	D	E16	16,0	15,5	19,2	29,2	1,0	4	12	■
XSE550E16160D2R050Z4	10138168	2	D	E16	16,0	15,5	19,2	29,2	0,5	4	12	■
XSE550E16160D2R200Z4	10138170	2	D	E16	16,0	15,5	19,2	29,2	2,0	4	12	■
XSE550E16160D2R300Z4	10138171	2	D	E16	16,0	15,5	19,2	29,2	3,0	4	12	■
XSE550E20200D1R100Z4	10138159	1	D	E20	20,0	19,3	11,0	21,2	1,0	4	16	■
XSE550E20200D2R100Z4	10138172	2	D	E20	20,0	19,3	24,0	34,3	1,0	4	16	■
XSE550E20200D2R200Z4	10138173	2	D	E20	20,0	19,3	24,0	34,3	2,0	4	16	■
XSE550E20200D2R300Z4	10138174	2	D	E20	20,0	19,3	24,0	34,3	3,0	4	16	■
XSE550E20200D2R400Z4	10138175	2	D	E20	20,0	19,3	24,0	34,3	4,0	4	16	■
XSE550E20200D1R200Z4	10219239	1	D	E20	20,0	19,7	11,0	21,2	2,0	4	16	■
XSE550E25250D1R100Z4	10219227	1	D	E25	25,0	24,2	13,75	25,5	1,0	4	20	■
XSE550E25250D1R200Z4	10219228	1	D	E25	25,0	24,2	13,75	25,5	2,0	4	20	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

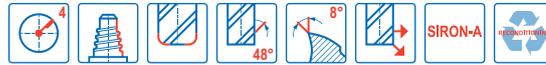
XSE550 – Inch

High performance – Universal – Square – 4 Flutes – Corner radius – Inch



D

- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	Inch	Inch	Inch	Inch			
XSE550E10.375D1R030Z4	10138176	1	D	E10	0.375	0.364	0.206	0.484	0.030	4	8	■
XSE550E10.375D2R030Z4	10138179	2	D	E10	0.375	0.364	0.450	0.720	0.030	4	8	■
XSE550E12.500D1R030Z4	10138177	1	D	E12	0.500	0.484	0.275	0.567	0.030	4	10	■
XSE550E12.500D2R030Z4	10138180	2	D	E12	0.500	0.484	0.600	0.906	0.030	4	10	■
XSE550E20.750D1R030Z4	10138178	1	D	E20	0.750	0.728	0.413	0.835	0.030	4	16	■
XSE550E20.750D2R030Z4	10138181	2	D	E20	0.750	0.728	0.900	1.295	0.030	4	16	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – XSE550 – Side milling PCEDC 4

SMG		a <sub>g</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>	
				10	12	16	20	25		
P1	E/M/A/D	0,40	0,95	0,085	0,10	0,13	0,15	0,17	170 (130 – 210)	Universal
		0,40	0,95	0,0034	0,0040	0,0050	0,0060	0,0065	560 (430 – 680)	
P2	E/M/A/D	0,40	0,95	0,090	0,10	0,13	0,15	0,17	165 (130 – 200)	Steel and cast iron
		0,40	0,95	0,0036	0,0040	0,0050	0,0060	0,0065	540 (430 – 650)	
P3	E/M/A/D	0,40	0,95	0,085	0,10	0,12	0,14	0,16	145 (110 – 180)	Steel and cast iron
		0,40	0,95	0,0034	0,0040	0,0048	0,0055	0,0065	475 (370 – 590)	
P4	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	130 (97 – 160)	Steel and cast iron
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	425 (320 – 520)	
P5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,15	125 (93 – 150)	Steel and cast iron
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0060	410 (310 – 490)	
P6	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,13	0,15	140 (110 – 170)	Stainless steel and S-materials
		0,40	0,95	0,0032	0,0038	0,0048	0,0050	0,0060	460 (370 – 550)	
P7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,13	0,15	130 (98 – 160)	Stainless steel and S-materials
		0,40	0,95	0,0032	0,0038	0,0048	0,0050	0,0060	425 (330 – 520)	
P8	E/M/A/D	0,40	0,95	0,085	0,10	0,12	0,14	0,16	120 (91 – 150)	Stainless steel and S-materials
		0,40	0,95	0,0034	0,0040	0,0048	0,0055	0,0065	395 (300 – 490)	
P11	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	85 (72 – 100)	Stainless steel and S-materials
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	280 (240 – 320)	
P12	E/M/A/D	0,30	0,95	0,044	0,055	0,065	0,075	0,085	55 (46 – 68)	Stainless steel and S-materials
		0,30	0,95	0,0017	0,0022	0,0026	0,0030	0,0034	180 (160 – 220)	
M1	E/M/A	0,30	0,95	0,070	0,085	0,11	0,12	0,14	95 (83 – 120)	Non ferrous
		0,30	0,95	0,0028	0,0034	0,0044	0,0048	0,0055	310 (280 – 390)	
M2	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,13	80 (69 – 100)	Non ferrous
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0050	260 (230 – 320)	
M3	E/M/A	0,30	0,95	0,055	0,065	0,080	0,090	0,10	47 (36 – 58)	Non ferrous
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	155 (120 – 190)	
M4	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	0,090	36 (28 – 45)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	0,0036	120 (92 – 140)	
M5	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	0,090	30 (23 – 37)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	0,0036	100 (76 – 120)	
K1	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	150 (130 – 170)	Hard
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	490 (430 – 550)	
K2	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	0,14	130 (120 – 150)	Hard
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	425 (400 – 490)	
K3	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	0,14	110 (96 – 120)	Hard
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	360 (320 – 390)	
K4	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	0,14	105 (92 – 120)	Hard
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	345 (310 – 390)	
K5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	150 (130 – 170)	Plastic and CFRP
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	490 (430 – 550)	
K6	E/M/A/D	0,40	0,95	0,090	0,11	0,13	0,15	0,17	215 (190 – 240)	Plastic and CFRP
		0,40	0,95	0,0036	0,0044	0,0050	0,0060	0,0065	710 (630 – 780)	
K7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	190 (170 – 210)	Plastic and CFRP
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	620 (560 – 680)	
N1	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	0,16	550 (450 – 660)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	1800 (1500 – 2100)	
N2	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	0,16	355 (290 – 420)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	1175 (960 – 1300)	
N3	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	0,16	240 (200 – 280)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	790 (660 – 910)	
N11	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	0,16	310 (280 – 380)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	1025 (920 – 1200)	
S1	E	0,15	0,95	0,090	0,11	0,13	0,15	0,17	32 (26 – 40)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	0,0065	105 (86 – 130)	
S2	E	0,15	0,95	0,090	0,11	0,13	0,15	0,17	28 (21 – 34)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	0,0065	90 (69 – 110)	
S3	E	0,15	0,95	0,085	0,10	0,12	0,14	0,16	24 (19 – 30)	X-Heads
		0,15	0,95	0,0034	0,0040	0,0048	0,0055	0,0065	80 (63 – 98)	
S11	E	0,40	0,95	0,060	0,070	0,090	0,10	0,12	90 (77 – 120)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	295 (260 – 390)	
S12	E	0,40	0,95	0,060	0,070	0,090	0,10	0,12	70 (59 – 93)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	230 (200 – 300)	
S13	E	0,40	0,95	0,055	0,065	0,080	0,090	0,10	55 (47 – 74)	X-Heads
		0,40	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	180 (160 – 240)	
H5	M/A	0,050	0,95	0,090	0,11	0,13	0,15	0,17	75 (59 – 73)	Minimaster
		0,050	0,95	0,0036	0,0044	0,0050	0,0060	0,0065	245 (200 – 230)	
H8	M/A	0,050	0,95	0,070	0,085	0,10	0,12	0,13	75 (62 – 76)	Minimaster
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	0,0050	245 (210 – 240)	
H21	M/A	0,050	0,95	0,070	0,085	0,10	0,12	0,13	75 (62 – 76)	Minimaster
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	0,0050	245 (210 – 240)	
H31	M/A	0,050	0,95	0,060	0,070	0,090	0,10	0,12	60 (48 – 59)	Minimaster
		0,050	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	195 (160 – 190)	
TS1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	275 (170 – 380)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	900 (560 – 1200)	
TP1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	0,16	275 (170 – 380)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	900 (560 – 1200)	

Cutting data – XSE550 – Slot milling PCEDC 4

	SMG	🔧	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				10	12	16	20	25	
Universal	P1	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	165 (130 – 200)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	540 (430 – 650)
	P2	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	160 (120 – 190)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	520 (400 – 620)
	P3	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	135 (110 – 170)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	445 (370 – 550)
	P4	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	120 (90 – 140)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	395 (300 – 450)
	P5	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	115 (86 – 140)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	375 (290 – 450)
	P6	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	130 (97 – 160)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	425 (320 – 520)
P7	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	120 (92 – 150)	
		0,80	0,0016	0,0019	0,0026	0,0032	0,0040	395 (310 – 490)	
P8	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	115 (86 – 140)	
		0,80	0,0016	0,0019	0,0026	0,0032	0,0040	375 (290 – 450)	
P11	E/M/A/D	0,60	0,030	0,036	0,048	0,060	0,075	75 (64 – 94)	
		0,60	0,0012	0,0014	0,0019	0,0024	0,0030	245 (210 – 300)	
P12	E/M/A/D	0,60	0,030	0,036	0,048	0,060	0,075	44 (38 – 55)	
		0,60	0,0012	0,0014	0,0019	0,0024	0,0030	145 (130 – 180)	
Steel and cast iron	M1	E/M/A	0,60	0,030	0,036	0,048	0,060	0,075	85 (75 – 110)
			0,60	0,0012	0,0014	0,0019	0,0024	0,0030	280 (250 – 360)
	M2	E/M/A	0,60	0,030	0,036	0,048	0,060	0,075	70 (60 – 90)
			0,60	0,0012	0,0014	0,0019	0,0024	0,0030	230 (200 – 290)
	M3	E/M/A	0,60	0,030	0,036	0,048	0,060	0,075	40 (30 – 50)
0,60			0,0012	0,0014	0,0019	0,0024	0,0030	130 (99 – 160)	
M4	E/M/A	0,60	0,030	0,036	0,048	0,060	0,075	30 (23 – 37)	
		0,60	0,0012	0,0014	0,0019	0,0024	0,0030	100 (76 – 120)	
M5	E/M/A	0,60	0,030	0,036	0,048	0,060	0,075	25 (19 – 31)	
		0,60	0,0012	0,0014	0,0019	0,0024	0,0030	80 (63 – 100)	
Stainless steel and S-materials	K1	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	140 (120 – 160)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	460 (400 – 520)
	K2	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	120 (110 – 130)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	395 (370 – 420)
	K3	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	105 (88 – 110)
			0,80	0,0016	0,0019	0,0026	0,0032	0,0040	345 (290 – 360)
	K4	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	100 (84 – 110)
0,80			0,0016	0,0019	0,0026	0,0032	0,0040	330 (280 – 360)	
K5	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	140 (120 – 160)	
		0,80	0,0016	0,0019	0,0026	0,0032	0,0040	460 (400 – 520)	
K6	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	205 (180 – 230)	
		0,80	0,0016	0,0019	0,0026	0,0032	0,0040	670 (600 – 750)	
K7	E/M/A/D	0,80	0,040	0,048	0,065	0,080	0,10	180 (160 – 200)	
		0,80	0,0016	0,0019	0,0026	0,0032	0,0040	590 (530 – 650)	
Non ferrous	N1	E/M/A	0,60	0,050	0,060	0,080	0,10	0,13	500 (410 – 590)
			0,60	0,0020	0,0024	0,0032	0,0040	0,0050	1650 (1400 – 1900)
	N2	E/M/A	0,60	0,050	0,060	0,080	0,10	0,13	320 (260 – 380)
			0,60	0,0020	0,0024	0,0032	0,0040	0,0050	1050 (860 – 1200)
N3	E/M/A	0,60	0,050	0,060	0,080	0,10	0,13	215 (180 – 250)	
		0,60	0,0020	0,0024	0,0032	0,0040	0,0050	710 (600 – 820)	
N11	E/M/A	0,60	0,050	0,060	0,080	0,10	0,13	280 (250 – 340)	
		0,60	0,0020	0,0024	0,0032	0,0040	0,0050	920 (830 – 1100)	
Hard	S1	E	0,30	0,030	0,036	0,048	0,060	0,075	27 (21 – 33)
			0,30	0,0012	0,0014	0,0019	0,0024	0,0030	90 (69 – 100)
	S2	E	0,30	0,030	0,036	0,048	0,060	0,075	23 (17 – 28)
			0,30	0,0012	0,0014	0,0019	0,0024	0,0030	75 (56 – 91)
	S3	E	0,30	0,030	0,036	0,048	0,060	0,075	20 (15 – 24)
			0,30	0,0012	0,0014	0,0019	0,0024	0,0030	65 (50 – 78)
	S11	E	0,50	0,050	0,060	0,080	0,10	0,12	80 (65 – 100)
0,50			0,0020	0,0024	0,0032	0,0040	0,0048	260 (220 – 320)	
S12	E	0,50	0,050	0,060	0,080	0,10	0,12	60 (50 – 79)	
		0,50	0,0020	0,0024	0,0032	0,0040	0,0048	195 (170 – 250)	
S13	E	0,50	0,050	0,060	0,075	0,090	0,10	46 (39 – 61)	
		0,50	0,0020	0,0024	0,0030	0,0036	0,0040	150 (130 – 200)	
Plastic and cfrp	H5	M/A	0,26	0,025	0,030	0,040	0,050	0,065	50 (41 – 50)
			0,26	0,0010	0,0012	0,0016	0,0020	0,0026	165 (140 – 160)
	H8	M/A	0,26	0,025	0,030	0,040	0,050	0,060	50 (41 – 50)
			0,26	0,0010	0,0012	0,0016	0,0020	0,0024	165 (140 – 160)
	H21	M/A	0,26	0,025	0,030	0,040	0,050	0,060	50 (41 – 50)
0,26			0,0010	0,0012	0,0016	0,0020	0,0024	165 (140 – 160)	
H31	M/A	0,26	0,025	0,030	0,038	0,044	0,050	38 (31 – 38)	
		0,26	0,0010	0,0012	0,0015	0,0017	0,0020	125 (110 – 120)	
X-Heads	TS1	A/D	0,60	0,050	0,060	0,080	0,10	0,13	250 (150 – 340)
			0,60	0,0020	0,0024	0,0032	0,0040	0,0050	820 (500 – 1100)
Minimaster	TP1	A/D	0,60	0,050	0,060	0,080	0,10	0,13	250 (150 – 340)
			0,60	0,0020	0,0024	0,0032	0,0040	0,0050	820 (500 – 1100)

Cutting data – XSE550 – Side milling PCEDC 4 inch

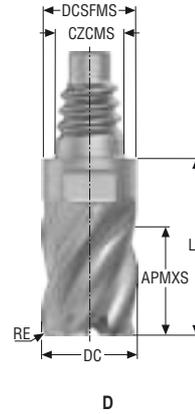
SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				3/8	1/2	5/8	3/4		
P1	E/M/A/D	0,40	0,95	0,085	0,10	0,13	0,15	200 (180 – 220)	Universal
		0,40	0,95	0,0034	0,0040	0,0050	0,0060	660 (600 – 720)	
P2	E/M/A/D	0,40	0,95	0,090	0,10	0,13	0,15	195 (170 – 220)	Steel and cast iron
		0,40	0,95	0,0036	0,0040	0,0050	0,0060	640 (560 – 720)	
P3	E/M/A/D	0,40	0,95	0,085	0,10	0,12	0,14	170 (150 – 190)	Steel and cast iron
		0,40	0,95	0,0034	0,0040	0,0048	0,0055	560 (500 – 620)	
P4	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	150 (130 – 170)	Steel and cast iron
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	490 (430 – 550)	
P5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	145 (130 – 160)	Steel and cast iron
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	475 (430 – 520)	
P6	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,13	160 (140 – 180)	Stainless steel and S-materials
		0,40	0,95	0,0032	0,0038	0,0048	0,0050	520 (460 – 590)	
P7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,13	150 (140 – 170)	Stainless steel and S-materials
		0,40	0,95	0,0032	0,0038	0,0048	0,0050	490 (460 – 550)	
P8	E/M/A/D	0,40	0,95	0,085	0,10	0,12	0,14	140 (130 – 160)	Stainless steel and S-materials
		0,40	0,95	0,0034	0,0040	0,0048	0,0055	460 (430 – 520)	
P11	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	95 (84 – 100)	Stainless steel and S-materials
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	310 (280 – 320)	
P12	E/M/A/D	0,30	0,95	0,044	0,055	0,065	0,075	60 (54 – 68)	Stainless steel and S-materials
		0,30	0,95	0,0017	0,0022	0,0026	0,0030	195 (180 – 220)	
M1	E/M/A	0,30	0,95	0,070	0,085	0,11	0,12	110 (97 – 120)	Non ferrous
		0,30	0,95	0,0028	0,0034	0,0044	0,0048	360 (320 – 390)	
M2	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	90 (80 – 100)	Non ferrous
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	295 (270 – 320)	
M3	E/M/A	0,30	0,95	0,055	0,065	0,080	0,090	60 (47 – 70)	Non ferrous
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	195 (160 – 220)	
M4	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	45 (37 – 54)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	150 (130 – 170)	
M5	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	38 (31 – 45)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	125 (110 – 140)	
K1	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	160 (160 – 190)	Hard
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	520 (530 – 620)	
K2	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	140 (140 – 170)	Hard
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	460 (460 – 550)	
K3	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	120 (120 – 140)	Hard
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	395 (400 – 450)	
K4	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	115 (110 – 130)	Plastic and CFRP
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	375 (370 – 420)	
K5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	150 (130 – 170)	Plastic and CFRP
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	490 (430 – 550)	
K6	E/M/A/D	0,40	0,95	0,090	0,11	0,13	0,15	215 (190 – 240)	Plastic and CFRP
		0,40	0,95	0,0036	0,0044	0,0050	0,0060	710 (630 – 780)	
K7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	190 (170 – 210)	Plastic and CFRP
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	620 (560 – 680)	
N1	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 770)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)	
N2	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	430 (360 – 490)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1400 (1200 – 1600)	
N3	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	285 (240 – 330)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	940 (790 – 1000)	
N11	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	335 (280 – 380)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1100 (920 – 1200)	
S1	E	0,15	0,95	0,090	0,11	0,13	0,15	43 (26 – 60)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	140 (86 – 190)	
S2	E	0,15	0,95	0,090	0,11	0,13	0,15	35 (21 – 48)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	115 (69 – 150)	
S3	E	0,15	0,95	0,085	0,10	0,12	0,14	30 (19 – 42)	X-Heads
		0,15	0,95	0,0034	0,0040	0,0048	0,0055	100 (63 – 130)	
S11	E	0,40	0,95	0,060	0,070	0,090	0,10	105 (77 – 130)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	345 (260 – 420)	
S12	E	0,40	0,95	0,060	0,070	0,090	0,10	80 (59 – 100)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	260 (200 – 320)	
S13	E	0,40	0,95	0,055	0,065	0,080	0,090	65 (47 – 83)	X-Heads
		0,40	0,95	0,0022	0,0026	0,0032	0,0036	215 (160 – 270)	
H5	M/A	0,050	0,95	0,090	0,11	0,13	0,15	75 (59 – 73)	Minimaster
		0,050	0,95	0,0036	0,0044	0,0050	0,0060	245 (200 – 230)	
H8	M/A	0,050	0,95	0,070	0,085	0,10	0,12	75 (62 – 76)	Minimaster
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	245 (210 – 240)	
H21	M/A	0,050	0,95	0,070	0,085	0,10	0,12	75 (62 – 76)	Minimaster
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	245 (210 – 240)	
H31	M/A	0,050	0,95	0,060	0,070	0,090	0,10	60 (48 – 59)	Minimaster
		0,050	0,95	0,0024	0,0028	0,0036	0,0040	195 (160 – 190)	
TS1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	275 (170 – 380)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	900 (560 – 1200)	
TP1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	275 (170 – 380)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	900 (560 – 1200)	

Cutting data – XSE550 – Slot milling PCEDC 4 inch

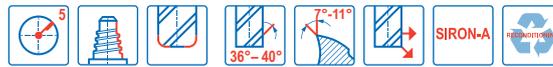
SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
			3/8	1/2	5/8	3/4		
Universal	P1	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	190 (170 – 210) 620 (560 – 680)	
	P2	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	185 (160 – 210) 610 (530 – 680)	
	P3	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	160 (140 – 180) 520 (460 – 590)	
	P4	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	140 (120 – 150) 460 (400 – 490)	
	P5	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	135 (120 – 150) 445 (400 – 490)	
	P6	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	150 (130 – 170) 490 (430 – 550)	
	P7	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	140 (130 – 160) 460 (430 – 520)	
	P8	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	135 (120 – 150) 445 (400 – 490)	
	P11	E/M/A/D 0,60 0.60	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	85 (74 – 94) 280 (250 – 300)	
	P12	E/M/A/D 0,60 0.60	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	50 (44 – 55) 165 (150 – 180)	
	Steel and cast iron	M1	E/M/A 0,60 0.60	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	100 (87 – 110) 330 (290 – 360)
		M2	E/M/A 0,60 0.60	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	80 (70 – 90) 260 (230 – 290)
M3		E/M/A 0,60 0.60	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	50 (40 – 60) 165 (140 – 190)	
M4		E/M/A 0,60 0.60	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	37 (30 – 45) 120 (99 – 140)	
M5		E/M/A 0,60 0.60	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	31 (25 – 37) 100 (83 – 120)	
Stainless steel and S-materials	K1	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	150 (150 – 180) 490 (500 – 590)	
	K2	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	130 (130 – 150) 425 (430 – 490)	
	K3	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	110 (110 – 130) 360 (370 – 420)	
	K4	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	105 (99 – 120) 345 (330 – 390)	
	K5	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	140 (120 – 160) 460 (400 – 520)	
	K6	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	205 (180 – 230) 670 (600 – 750)	
	K7	E/M/A/D 0,80 0.80	0,040 0.0016	0,048 0.0019	0,065 0.0026	0,080 0.0032	180 (160 – 200) 590 (530 – 650)	
Non ferrous	N1	E/M/A 0,60 0.60	0,050 0.0020	0,060 0.0024	0,080 0.0032	0,10 0.0040	600 (510 – 700) 1975 (1700 – 2200)	
	N2	E/M/A 0,60 0.60	0,050 0.0020	0,060 0.0024	0,080 0.0032	0,10 0.0040	385 (330 – 450) 1275 (1100 – 1400)	
	N3	E/M/A 0,60 0.60	0,050 0.0020	0,060 0.0024	0,080 0.0032	0,10 0.0040	255 (220 – 300) 840 (730 – 980)	
	N11	E/M/A 0,60 0.60	0,050 0.0020	0,060 0.0024	0,080 0.0032	0,10 0.0040	300 (250 – 350) 980 (830 – 1100)	
Hard	S1	E 0,30 0.30	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	36 (22 – 50) 120 (73 – 160)	
	S2	E 0,30 0.30	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	29 (18 – 40) 95 (60 – 130)	
	S3	E 0,30 0.30	0,030 0.0012	0,036 0.0014	0,048 0.0019	0,060 0.0024	25 (15 – 34) 80 (50 – 110)	
	S11	E 0,50 0.50	0,050 0.0020	0,060 0.0024	0,080 0.0032	0,10 0.0040	90 (65 – 110) 295 (220 – 360)	
	S12	E 0,50 0.50	0,050 0.0020	0,060 0.0024	0,080 0.0032	0,10 0.0040	70 (50 – 90) 230 (170 – 290)	
	S13	E 0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	0,090 0.0036	55 (39 – 69) 180 (130 – 220)	
	Plastic and cfrp	H5	M/A 0,26 0.26	0,025 0.0010	0,030 0.0012	0,040 0.0016	0,050 0.0020	50 (41 – 50) 165 (140 – 160)
H8		M/A 0,26 0.26	0,025 0.0010	0,030 0.0012	0,040 0.0016	0,050 0.0020	50 (41 – 50) 165 (140 – 160)	
H21		M/A 0,26 0.26	0,025 0.0010	0,030 0.0012	0,040 0.0016	0,050 0.0020	50 (41 – 50) 165 (140 – 160)	
H31		M/A 0,26 0.26	0,025 0.0010	0,030 0.0012	0,038 0.0015	0,044 0.0017	38 (31 – 38) 125 (110 – 120)	
TS1		A/D 0,60 0.60	0,050 0.0020	0,060 0.0024	0,080 0.0032	0,10 0.0040	250 (150 – 340) 820 (500 – 1100)	
X-Heads	TP1	A/D 0,60 0.60	0,050 0.0020	0,060 0.0024	0,080 0.0032	0,10 0.0040	250 (150 – 340) 820 (500 – 1100)	
Minimaster								

XSE550

High performance – Universal – Square – 5 Flutes – Corner radius



- Tolerances:
- DC= 0/-0,0508 mm
- RE= ±0,0254 mm
- Regrind possible if DC is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
												SIRA
					mm	mm	mm	mm	mm			
XSE550E10100D2R050Z5	10138337	2	D	E10	10,0	9,7	12,0	18,7	0,5	5	8	■
XSE550E10100D2R100Z5	10138338	2	D	E10	10,0	9,7	12,0	18,7	1,0	5	8	■
XSE550E12120D2R050Z5	10138339	2	D	E12	12,0	11,7	14,4	22,1	0,5	5	10	■
XSE550E12120D2R100Z5	10138340	2	D	E12	12,0	11,7	14,4	22,1	1,0	5	10	■
XSE550E16160D2R050Z5	10138341	2	D	E16	16,0	15,5	19,2	29,2	0,5	5	12	■
XSE550E16160D2R100Z5	10138342	2	D	E16	16,0	15,5	19,2	29,2	1,0	5	12	■
XSE550E20200D2R050Z5	10138343	2	D	E20	20,0	19,3	24,0	34,3	0,5	5	16	■
XSE550E20200D2R100Z5	10138344	2	D	E20	20,0	19,3	24,0	34,3	1,0	5	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

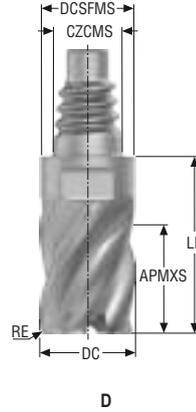
Graphite

X-Heads

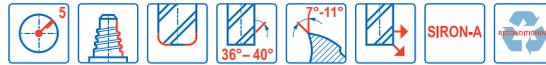
Minimaster

XSE550

High performance – Universal – Square – 5 Flutes – Corner radius – Inch



- Tolerances:
- DC= 0/-0.02 Inch
- RE= ±0.01 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
												SIRA
XSE550E10.375D2R015Z5	10138345	2	D	E10	0.375	0.364	0.450	0.720	0.015	5	8	■
XSE550E10.375D2R030Z5	10138346	2	D	E10	0.375	0.364	0.450	0.720	0.030	5	8	■
XSE550E10.375D2R045Z5	10138347	2	D	E10	0.375	0.364	0.450	0.720	0.044	5	8	■
XSE550E12.500D2R030Z5	10138348	2	D	E12	0.500	0.484	0.600	0.906	0.030	5	10	■
XSE550E12.500D2R060Z5	10138349	2	D	E12	0.500	0.484	0.600	0.906	0.060	5	10	■
XSE550E12.500D2R120Z5	10138350	2	D	E12	0.500	0.484	0.600	0.906	0.120	5	10	■
XSE550E16.625D2R030Z5	10138351	2	D	E16	0.625	0.610	0.750	1.150	0.030	5	12	■
XSE550E16.625D2R060Z5	10138352	2	D	E16	0.625	0.610	0.750	1.150	0.060	5	12	■
XSE550E16.625D2R120Z5	10138353	2	D	E16	0.625	0.610	0.750	1.150	0.120	5	12	■
XSE550E20.750D2R030Z5	10138354	2	D	E20	0.750	0.728	0.900	1.295	0.030	5	16	■
XSE550E20.750D2R060Z5	10138355	2	D	E20	0.750	0.728	0.900	1.295	0.060	5	16	■
XSE550E20.750D2R120Z5	10138356	2	D	E20	0.750	0.728	0.900	1.295	0.120	5	16	■
XSE550E251.00D2R030Z5	10138357	2	D	E25	1.000	0.965	1.200	1.673	0.030	5	20	■
XSE550E251.00D2R060Z5	10138358	2	D	E25	1.000	0.965	1.200	1.673	0.060	5	20	■
XSE550E251.00D2R120Z5	10138359	2	D	E25	1.000	0.965	1.200	1.673	0.120	5	20	■

■ Stocked standard.

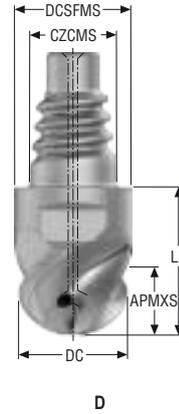
Cutting data – XSE550 – Side milling PCEDC 5

SMG		a <sub>g</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>	
				10	12	16	20	25		
P1	E/M/A/D	0,30	0,95	0,080	0,095	0,12	0,14	0,15	165 (130 – 190)	Universal
		0,30	0,95	0,0032	0,0038	0,0048	0,0055	0,0060	540 (430 – 620)	
P2	E/M/A/D	0,30	0,95	0,080	0,095	0,12	0,14	0,16	160 (130 – 190)	Steel and cast iron
		0,30	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	520 (430 – 620)	
P3	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,15	140 (110 – 160)	Steel and cast iron
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0060	460 (370 – 520)	
P4	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,14	125 (97 – 140)	Steel and cast iron
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	410 (320 – 450)	
P5	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,14	110 (97 – 130)	Steel and cast iron
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	360 (320 – 420)	
P6	E/M/A/D	0,30	0,95	0,075	0,085	0,11	0,12	0,14	125 (110 – 150)	Stainless steel and S-materials
		0,30	0,95	0,0030	0,0034	0,0044	0,0048	0,0055	410 (370 – 490)	
P7	E/M/A/D	0,30	0,95	0,075	0,085	0,11	0,12	0,14	120 (110 – 140)	Stainless steel and S-materials
		0,30	0,95	0,0030	0,0034	0,0044	0,0048	0,0055	395 (370 – 450)	
P8	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,15	110 (97 – 130)	Stainless steel and S-materials
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0060	360 (320 – 420)	
P11	E/M/A/D	0,20	0,95	0,060	0,070	0,090	0,10	0,12	100 (89 – 110)	Stainless steel and S-materials
		0,20	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	330 (300 – 360)	
P12	E/M/A/D	0,20	0,95	0,042	0,050	0,060	0,070	0,080	65 (56 – 71)	Stainless steel and S-materials
		0,20	0,95	0,0017	0,0020	0,0024	0,0028	0,0032	215 (190 – 230)	
M1	E/M/A	0,20	0,95	0,070	0,080	0,10	0,12	0,13	115 (110 – 120)	Non ferrous
		0,20	0,95	0,0028	0,0032	0,0040	0,0048	0,0050	375 (370 – 390)	
M2	E/M/A	0,20	0,95	0,060	0,075	0,090	0,10	0,12	95 (84 – 100)	Non ferrous
		0,20	0,95	0,0024	0,0030	0,0036	0,0040	0,0048	310 (280 – 320)	
M3	E/M/A	0,20	0,95	0,060	0,075	0,090	0,10	0,12	60 (47 – 69)	Non ferrous
		0,20	0,95	0,0024	0,0030	0,0036	0,0040	0,0048	195 (160 – 220)	
M4	E/M/A	0,20	0,95	0,055	0,065	0,080	0,090	0,10	44 (36 – 53)	Non ferrous
		0,20	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	145 (120 – 170)	
M5	E/M/A	0,20	0,95	0,055	0,065	0,080	0,090	0,10	37 (30 – 44)	Non ferrous
		0,20	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	120 (99 – 140)	
K1	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	130 (120 – 150)	Hard
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	425 (400 – 490)	
K2	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	115 (98 – 130)	Hard
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	375 (330 – 420)	
K3	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	100 (83 – 110)	Hard
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	330 (280 – 360)	
K4	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	95 (79 – 100)	Hard
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	310 (260 – 320)	
K5	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	105 (89 – 130)	Plastic and cfrp
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	345 (300 – 420)	
K6	E/M/A/D	0,30	0,95	0,070	0,085	0,11	0,12	0,14	155 (130 – 190)	Plastic and cfrp
		0,30	0,95	0,0028	0,0034	0,0044	0,0048	0,0055	510 (430 – 620)	
K7	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	135 (120 – 160)	Plastic and cfrp
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	445 (400 – 520)	
N1	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	690 (580 – 800)	Graphite
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	2275 (2000 – 2600)	
N2	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	445 (380 – 520)	Graphite
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	1450 (1300 – 1700)	
N3	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	300 (250 – 340)	Graphite
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	980 (830 – 1100)	
N11	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	345 (290 – 400)	Graphite
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	1125 (960 – 1300)	
S1	E	0,15	0,95	0,075	0,090	0,11	0,13	0,14	27 (24 – 41)	X-Heads
		0,15	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	90 (79 – 130)	
S2	E	0,15	0,95	0,075	0,090	0,11	0,13	0,14	26 (21 – 35)	X-Heads
		0,15	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	85 (69 – 110)	
S3	E	0,15	0,95	0,070	0,080	0,10	0,12	0,13	25 (19 – 30)	X-Heads
		0,15	0,95	0,0028	0,0032	0,0040	0,0048	0,0050	80 (63 – 98)	
S11	E	0,30	0,95	0,055	0,065	0,080	0,090	0,10	65 (52 – 88)	X-Heads
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	215 (180 – 280)	
S12	E	0,30	0,95	0,055	0,065	0,080	0,090	0,10	50 (40 – 68)	X-Heads
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	165 (140 – 220)	
S13	E	0,30	0,95	0,048	0,055	0,070	0,080	0,090	41 (32 – 54)	X-Heads
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	0,0036	135 (110 – 170)	
H5	M/A	0,050	0,95	0,090	0,10	0,13	0,15	0,17	70 (56 – 83)	Minimaster
		0,050	0,95	0,0036	0,0040	0,0050	0,0060	0,0065	230 (190 – 270)	
H8	M/A	0,050	0,95	0,070	0,080	0,10	0,11	0,13	70 (58 – 86)	Minimaster
		0,050	0,95	0,0028	0,0032	0,0040	0,0044	0,0050	230 (200 – 280)	
H21	M/A	0,050	0,95	0,070	0,080	0,10	0,11	0,13	70 (58 – 86)	Minimaster
		0,050	0,95	0,0028	0,0032	0,0040	0,0044	0,0050	230 (200 – 280)	
H31	M/A	0,050	0,95	0,060	0,070	0,085	0,10	0,11	55 (45 – 67)	Minimaster
		0,050	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	180 (150 – 210)	
TS1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	290 (180 – 400)	Minimaster
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	950 (600 – 1300)	
TP1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	290 (180 – 400)	Minimaster
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	950 (600 – 1300)	

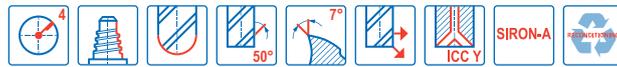
Cutting data – XSE550 – Side milling PCEDC 5 inch

SMG		a <sub>p</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				3/8	1/2	5/8	3/4	1	
P1	E/M/A/D	0,30	0,95	0,080	0,095	0,12	0,14	0,15	200 (180 – 220)
		0,30	0,95	0,0032	0,0038	0,0048	0,0055	0,0060	660 (600 – 720)
P2	E/M/A/D	0,30	0,95	0,080	0,095	0,12	0,14	0,16	195 (170 – 220)
		0,30	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	640 (560 – 720)
P3	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,15	170 (150 – 190)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0060	560 (500 – 620)
P4	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,14	150 (130 – 170)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	490 (430 – 550)
P5	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,14	145 (130 – 160)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	475 (430 – 520)
P6	E/M/A/D	0,30	0,95	0,075	0,085	0,11	0,12	0,14	160 (140 – 180)
		0,30	0,95	0,0030	0,0034	0,0044	0,0048	0,0055	520 (460 – 590)
P7	E/M/A/D	0,30	0,95	0,075	0,085	0,11	0,12	0,14	150 (130 – 170)
		0,30	0,95	0,0030	0,0034	0,0044	0,0048	0,0055	490 (430 – 550)
P8	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,15	145 (130 – 160)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0060	475 (430 – 520)
P11	E/M/A/D	0,20	0,95	0,060	0,070	0,090	0,10	0,12	100 (89 – 110)
		0,20	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	330 (300 – 360)
P12	E/M/A/D	0,20	0,95	0,042	0,050	0,060	0,070	0,080	65 (56 – 71)
		0,20	0,95	0,0017	0,0020	0,0024	0,0028	0,0032	215 (190 – 230)
M1	E/M/A	0,20	0,95	0,070	0,080	0,10	0,12	0,13	115 (110 – 120)
		0,20	0,95	0,0028	0,0032	0,0040	0,0048	0,0050	375 (370 – 390)
M2	E/M/A	0,20	0,95	0,060	0,075	0,090	0,10	0,12	95 (84 – 100)
		0,20	0,95	0,0024	0,0030	0,0036	0,0040	0,0048	310 (280 – 320)
M3	E/M/A	0,20	0,95	0,060	0,075	0,090	0,10	0,12	60 (47 – 69)
		0,20	0,95	0,0024	0,0030	0,0036	0,0040	0,0048	195 (160 – 220)
M4	E/M/A	0,20	0,95	0,055	0,065	0,080	0,090	0,10	44 (36 – 53)
		0,20	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	145 (120 – 170)
M5	E/M/A	0,20	0,95	0,055	0,065	0,080	0,090	0,10	37 (30 – 44)
		0,20	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	120 (99 – 140)
K1	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	165 (160 – 190)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	540 (530 – 620)
K2	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	145 (140 – 170)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	475 (460 – 550)
K3	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	125 (120 – 140)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	410 (400 – 450)
K4	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	120 (110 – 140)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	395 (370 – 450)
K5	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	155 (140 – 170)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	510 (460 – 550)
K6	E/M/A/D	0,30	0,95	0,070	0,085	0,11	0,12	0,14	225 (200 – 250)
		0,30	0,95	0,0028	0,0034	0,0044	0,0048	0,0055	740 (660 – 820)
K7	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	200 (170 – 220)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	660 (560 – 720)
N1	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	690 (580 – 800)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	2275 (2000 – 2600)
N2	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	445 (380 – 520)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	1450 (1300 – 1700)
N3	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	300 (250 – 340)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	980 (830 – 1100)
N11	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	345 (290 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	1125 (960 – 1300)
S1	E	0,15	0,95	0,075	0,090	0,11	0,13	0,14	44 (27 – 61)
		0,15	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	145 (89 – 200)
S2	E	0,15	0,95	0,075	0,090	0,11	0,13	0,14	35 (22 – 49)
		0,15	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	115 (73 – 160)
S3	E	0,15	0,95	0,070	0,080	0,10	0,12	0,13	31 (19 – 43)
		0,15	0,95	0,0028	0,0032	0,0040	0,0048	0,0050	100 (63 – 140)
S11	E	0,30	0,95	0,055	0,065	0,080	0,090	0,10	105 (75 – 130)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	345 (250 – 420)
S12	E	0,30	0,95	0,055	0,065	0,080	0,090	0,10	80 (58 – 100)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	260 (200 – 320)
S13	E	0,30	0,95	0,048	0,055	0,070	0,080	0,090	65 (46 – 81)
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	0,0036	215 (160 – 260)
H5	M/A	0,050	0,95	0,090	0,10	0,13	0,15	0,17	70 (56 – 83)
		0,050	0,95	0,0036	0,0040	0,0050	0,0060	0,0065	230 (190 – 270)
H8	M/A	0,050	0,95	0,070	0,080	0,10	0,11	0,13	70 (58 – 86)
		0,050	0,95	0,0028	0,0032	0,0040	0,0044	0,0050	230 (200 – 280)
H21	M/A	0,050	0,95	0,070	0,080	0,10	0,11	0,13	70 (58 – 86)
		0,050	0,95	0,0028	0,0032	0,0040	0,0044	0,0050	230 (200 – 280)
H31	M/A	0,050	0,95	0,060	0,070	0,085	0,10	0,11	55 (45 – 67)
		0,050	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	180 (150 – 210)
TS1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	290 (180 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	950 (600 – 1300)
TP1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	290 (180 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	950 (600 – 1300)

**XSB540**  
High performance – Universal – Ball nose – 4 Flutes



- Tolerances:
- DC= e8
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
						mm	mm	mm	mm	mm			SIRA
XSB540E10100D1BZ4A	10138334	1	D	■	E10	10,0	9,7	5,5	12,3	5,0	4	8	■
XSB540E12120D1BZ4A	10138335	1	D	■	E12	12,0	11,7	6,6	14,4	6,0	4	10	■
XSB540E16160D1BZ4A	10138336	1	D	■	E16	16,0	15,5	8,8	18,6	8,0	4	12	■

■ Stocked standard.

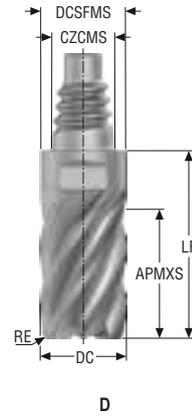
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

Cutting data – XSB540 Copy milling roughing

Material	SMG	Image	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>	
					10	12	16		
Universal	P1	E/M/A/D	0,10 0.10	0,50 0.50	0,055 0.0022	0,065 0.0026	0,080 0.0032	210 (190 – 240) 690 (630 – 780)	
	P2	E/M/A/D	0,10 0.10	0,50 0.50	0,055 0.0022	0,065 0.0026	0,080 0.0032	205 (180 – 230) 670 (600 – 750)	
	P3	E/M/A/D	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	180 (160 – 200) 590 (530 – 650)	
	P4	E/M/A/D	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	155 (140 – 170) 510 (460 – 550)	
	P5	E/M/A/D	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	150 (130 – 170) 490 (430 – 550)	
	P6	E/M/A/D	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	170 (150 – 190) 560 (500 – 620)	
	P7	E/M/A/D	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	160 (140 – 180) 520 (460 – 590)	
	P8	E/M/A/D	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	150 (130 – 170) 490 (430 – 550)	
	P11	E/M/A/D	0,10 0.10	0,50 0.50	0,070 0.0028	0,085 0.0034	0,11 0.0044	190 (160 – 220) 620 (530 – 720)	
	P12	E/M/A/D	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	115 (97 – 130) 375 (320 – 420)	
	Steel and cast iron	M1	E/M/A	0,10 0.10	0,50 0.50	0,055 0.0022	0,065 0.0026	0,080 0.0032	145 (120 – 170) 475 (400 – 550)
		M2	E/M/A	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	115 (97 – 130) 375 (320 – 420)
M3		E/M/A	0,10 0.10	0,50 0.50	0,040 0.0016	0,048 0.0019	0,060 0.0024	95 (75 – 110) 310 (250 – 360)	
M4		E/M/A	0,10 0.10	0,50 0.50	0,036 0.0014	0,042 0.0017	0,050 0.0020	75 (57 – 88) 245 (190 – 280)	
M5		E/M/A	0,10 0.10	0,50 0.50	0,036 0.0014	0,042 0.0017	0,050 0.0020	60 (48 – 74) 195 (160 – 240)	
Stainless steel and S-materials	K1	E/M/A/D	0,15 0.15	0,50 0.50	0,040 0.0016	0,048 0.0019	0,060 0.0024	205 (190 – 220) 670 (630 – 720)	
	K2	E/M/A/D	0,15 0.15	0,50 0.50	0,036 0.0014	0,044 0.0017	0,055 0.0022	180 (160 – 190) 590 (530 – 620)	
	K3	E/M/A/D	0,15 0.15	0,50 0.50	0,036 0.0014	0,044 0.0017	0,055 0.0022	150 (140 – 160) 490 (460 – 520)	
	K4	E/M/A/D	0,10 0.10	0,50 0.50	0,040 0.0016	0,048 0.0019	0,060 0.0024	170 (150 – 190) 560 (500 – 620)	
	K5	E/M/A/D	0,10 0.10	0,50 0.50	0,036 0.0014	0,042 0.0017	0,055 0.0022	105 (90 – 110) 345 (300 – 360)	
	K6	E/M/A/D	0,10 0.10	0,50 0.50	0,040 0.0016	0,048 0.0019	0,060 0.0024	150 (140 – 160) 490 (460 – 520)	
	K7	E/M/A/D	0,10 0.10	0,50 0.50	0,036 0.0014	0,042 0.0017	0,055 0.0022	130 (120 – 140) 425 (400 – 450)	
Non ferrous	N1	E/M/A	0,20 0.20	0,50 0.50	0,070 0.0028	0,085 0.0034	0,10 0.0040	640 (540 – 740) 2100 (1800 – 2400)	
	N2	E/M/A	0,20 0.20	0,50 0.50	0,070 0.0028	0,085 0.0034	0,10 0.0040	415 (350 – 480) 1350 (1200 – 1500)	
	N3	E/M/A	0,20 0.20	0,50 0.50	0,070 0.0028	0,085 0.0034	0,10 0.0040	275 (230 – 320) 900 (760 – 1000)	
	N11	E/M/A	0,15 0.15	0,50 0.50	0,070 0.0028	0,085 0.0034	0,10 0.0040	430 (380 – 480) 1400 (1300 – 1500)	
Hard	S1	E	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	65 (54 – 74) 215 (180 – 240)	
	S2	E	0,10 0.10	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	65 (59 – 75) 215 (200 – 240)	
	S3	E	0,10 0.10	0,50 0.50	0,020 0.00080	0,024 0.00095	0,030 0.0012	32 (22 – 42) 105 (73 – 130)	
	S11	E	0,15 0.15	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	110 (98 – 120) 360 (330 – 390)	
	S12	E	0,15 0.15	0,50 0.50	0,050 0.0020	0,060 0.0024	0,075 0.0030	85 (75 – 96) 280 (250 – 310)	
	S13	E	0,15 0.15	0,50 0.50	0,044 0.0017	0,050 0.0020	0,065 0.0026	65 (59 – 75) 215 (200 – 240)	
	Plastic and cfrp	H5	M/A	0,030 0.030	0,44 0.44	0,050 0.0020	0,060 0.0024	0,075 0.0030	135 (120 – 150) 445 (400 – 490)
H8		M/A	0,030 0.030	0,44 0.44	0,038 0.0015	0,046 0.0018	0,055 0.0022	135 (120 – 150) 445 (400 – 490)	
H21		M/A	0,030 0.030	0,44 0.44	0,038 0.0015	0,046 0.0018	0,055 0.0022	135 (120 – 150) 445 (400 – 490)	
H31		M/A	0,030 0.030	0,44 0.44	0,034 0.0013	0,040 0.0016	0,048 0.0019	100 (86 – 110) 330 (290 – 360)	
TS1		A/D	0,15 0.15	0,50 0.50	0,10 0.0040	0,12 0.0048	0,15 0.0060	270 (170 – 370) 890 (560 – 1200)	
X-Heads	TP1	A/D	0,15 0.15	0,50 0.50	0,10 0.0040	0,12 0.0048	0,15 0.0060	270 (170 – 370) 890 (560 – 1200)	

XSE720

High performance – Superalloy – Square – 6 Flutes – Corner radius



- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm



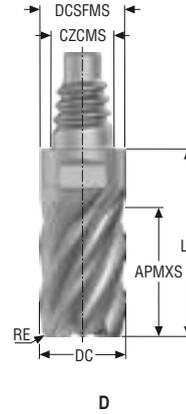
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			HXT
XSE720E10100D3R050Z6	10138187	3	D	E10	10,0	9,7	15,0	21,8	0,5	6	8	■
XSE720E10100D3R100Z6	10138188	3	D	E10	10,0	9,7	15,0	21,8	1,0	6	8	■
XSE720E12120D3R050Z6	10138189	3	D	E12	12,0	11,7	18,0	25,9	0,5	6	10	■
XSE720E12120D3R100Z6	10138190	3	D	E12	12,0	11,7	18,0	25,9	1,0	6	10	■
XSE720E12120D3R200Z6	10138191	3	D	E12	12,0	11,7	18,0	25,9	2,0	6	10	■
XSE720E12120D3R300Z6	10138192	3	D	E12	12,0	11,7	18,0	25,9	3,0	6	10	■
XSE720E16160D3R050Z6	10138193	3	D	E16	16,0	15,5	24,0	34,1	0,5	6	12	■
XSE720E16160D3R100Z6	10138194	3	D	E16	16,0	15,5	24,0	34,1	1,0	6	12	■
XSE720E16160D3R200Z6	10138195	3	D	E16	16,0	15,5	24,0	34,1	2,0	6	12	■
XSE720E16160D3R300Z6	10138196	3	D	E16	16,0	15,5	24,0	34,1	3,0	6	12	■
XSE720E20200D3R050Z6	10138197	3	D	E20	20,0	19,3	30,0	40,2	0,5	6	16	■
XSE720E20200D3R100Z6	10138198	3	D	E20	20,0	19,3	30,0	40,2	1,0	6	16	■
XSE720E20200D3R200Z6	10138199	3	D	E20	20,0	19,3	30,0	40,2	2,0	6	16	■
XSE720E20200D3R300Z6	10138200	3	D	E20	20,0	19,3	30,0	40,2	3,0	6	16	■
XSE720E25250D3R200Z6	10138201	3	D	E25	25,0	24,2	37,5	49,5	2,0	6	20	■
XSE720E25250D3R300Z6	10138202	3	D	E25	25,0	24,2	37,5	49,5	3,0	6	20	■
XSE720E25250D3R400Z6	10138203	3	D	E25	25,0	24,2	37,5	49,5	4,0	6	20	■

■ Stocked standard.

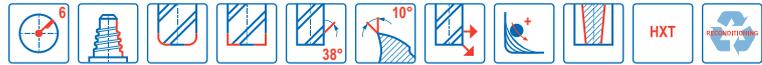
Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaster

XSE720

High performance – Superalloy – Square – 6 Flutes – Corner radius or sharp – Inch



- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
												HXT
XSE720E10.375D3SZ6	10138204	3	D	E10	0.375	0.364	0.563	0.827	–	6	8	■
XSE720E10.375D3R030Z6	10138209	3	D	E10	0.375	0.364	0.563	0.827	0.030	6	8	■
XSE720E12.500D3SZ6	10138205	3	D	E12	0.500	0.484	0.750	1.055	–	6	10	■
XSE720E12.500D3R030Z6	10138210	3	D	E12	0.500	0.484	0.750	1.055	0.030	6	10	■
XSE720E12.500D3R060Z6	10138211	3	D	E12	0.500	0.484	0.750	1.055	0.060	6	10	■
XSE720E12.500D3R120Z6	10138212	3	D	E12	0.500	0.484	0.750	1.055	0.120	6	10	■
XSE720E16.625D3SZ6	10138206	3	D	E16	0.625	0.610	0.938	1.343	–	6	12	■
XSE720E16.625D3R030Z6	10138213	3	D	E16	0.625	0.610	0.938	1.343	0.030	6	12	■
XSE720E16.625D3R060Z6	10138214	3	D	E16	0.625	0.610	0.938	1.343	0.060	6	12	■
XSE720E16.625D3R120Z6	10138215	3	D	E16	0.625	0.610	0.938	1.343	0.120	6	12	■
XSE720E20.750D3SZ6	10138207	3	D	E20	0.750	0.728	1.125	1.524	–	6	16	■
XSE720E20.750D3R030Z6	10138216	3	D	E20	0.750	0.728	1.125	1.524	0.030	6	16	■
XSE720E20.750D3R060Z6	10138217	3	D	E20	0.750	0.728	1.125	1.524	0.060	6	16	■
XSE720E20.750D3R120Z6	10138218	3	D	E20	0.750	0.728	1.125	1.524	0.120	6	16	■
XSE720E251.00D3SZ6	10138208	3	D	E25	1.000	0.965	1.500	1.980	–	6	20	■
XSE720E251.00D3R030Z6	10138219	3	D	E25	1.000	0.965	1.500	1.980	0.030	6	20	■
XSE720E251.00D3R060Z6	10138220	3	D	E25	1.000	0.965	1.500	1.980	0.060	6	20	■
XSE720E251.00D3R120Z6	10138221	3	D	E25	1.000	0.965	1.500	1.980	0.120	6	20	■

■ Stocked standard.

Cutting data – XSE720 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>	
				10	12	16	20	25		
P1	E/M/A/D	0,12 0,12	1,4 1,4	0,080 0.0032	0,095 0.0038	0,12 0.0048	0,13 0.0050	0,15 0.0060	230 (180 – 280) 750 (600 – 910)	Universal
P2	E/M/A/D	0,12 0,12	1,4 1,4	0,080 0.0032	0,095 0.0038	0,12 0.0048	0,14 0.0055	0,15 0.0060	220 (170 – 270) 720 (560 – 880)	
P3	E/M/A/D	0,12 0,12	1,4 1,4	0,075 0.0030	0,090 0.0036	0,11 0.0044	0,13 0.0050	0,15 0.0060	195 (150 – 230) 640 (500 – 750)	Steel and cast iron
P4	E/M/A/D	0,12 0,12	1,4 1,4	0,075 0.0030	0,090 0.0036	0,11 0.0044	0,13 0.0050	0,14 0.0055	170 (130 – 200) 560 (430 – 650)	
P5	E/M/A/D	0,12 0,12	1,4 1,4	0,060 0.0024	0,070 0.0028	0,090 0.0036	0,10 0.0040	0,11 0.0044	130 (100 – 160) 425 (330 – 520)	Steel and stainless steel
P6	E/M/A/D	0,12 0,12	1,4 1,4	0,060 0.0024	0,070 0.0028	0,085 0.0034	0,10 0.0040	0,11 0.0044	145 (120 – 190) 475 (400 – 620)	
P7	E/M/A/D	0,12 0,12	1,4 1,4	0,060 0.0024	0,070 0.0028	0,085 0.0034	0,10 0.0040	0,11 0.0044	140 (110 – 180) 460 (370 – 590)	Stainless steel and S-materials
P8	E/M/A/D	0,12 0,12	1,4 1,4	0,060 0.0024	0,075 0.0030	0,090 0.0036	0,11 0.0044	0,12 0.0048	130 (100 – 160) 425 (330 – 520)	
P11	E/M/A/D	0,12 0,12	1,4 1,4	0,070 0.0028	0,080 0.0032	0,10 0.0040	0,12 0.0048	0,13 0.0050	130 (110 – 170) 425 (370 – 550)	Non ferrous
P12	E/M/A/D	0,12 0,12	1,4 1,4	0,048 0.0019	0,055 0.0022	0,070 0.0028	0,080 0.0032	0,090 0.0036	95 (80 – 100) 310 (270 – 320)	
M1	E/M/A	0,12 0,12	1,4 1,4	0,075 0.0030	0,090 0.0036	0,11 0.0044	0,13 0.0050	0,15 0.0060	170 (150 – 190) 560 (500 – 620)	Non ferrous
M2	E/M/A	0,12 0,12	1,4 1,4	0,070 0.0028	0,085 0.0034	0,10 0.0040	0,12 0.0048	0,13 0.0050	140 (120 – 150) 460 (400 – 490)	
M3	E/M/A	0,10 0,10	1,4 1,4	0,060 0.0024	0,075 0.0030	0,090 0.0036	0,10 0.0040	0,12 0.0048	120 (100 – 130) 395 (330 – 420)	Hard
M4	E/M/A	0,10 0,10	1,4 1,4	0,055 0.0022	0,065 0.0026	0,080 0.0032	0,090 0.0036	0,10 0.0040	90 (77 – 100) 295 (260 – 320)	
M5	E/M/A	0,10 0,10	1,4 1,4	0,055 0.0022	0,065 0.0026	0,080 0.0032	0,090 0.0036	0,10 0.0040	75 (64 – 88) 245 (210 – 280)	Hard
S1	E	0,060 0.060	1,4 1,4	0,046 0.0018	0,055 0.0022	0,070 0.0028	0,080 0.0032	0,090 0.0036	45 (35 – 54) 150 (120 – 170)	
S2	E	0,060 0.060	1,4 1,4	0,042 0.0017	0,050 0.0020	0,065 0.0026	0,075 0.0030	0,080 0.0032	35 (25 – 44) 115 (83 – 140)	Plastic and CFRP
S3	E	0,060 0.060	1,4 1,4	0,042 0.0017	0,050 0.0020	0,065 0.0026	0,075 0.0030	0,080 0.0032	30 (20 – 39) 100 (66 – 120)	
S11	E	0,10 0,10	1,4 1,4	0,060 0.0024	0,070 0.0028	0,090 0.0036	0,10 0.0040	0,11 0.0044	105 (78 – 120) 345 (260 – 390)	Plastic and CFRP
S12	E	0,10 0,10	1,4 1,4	0,060 0.0024	0,070 0.0028	0,090 0.0036	0,10 0.0040	0,11 0.0044	80 (60 – 99) 260 (200 – 320)	
S13	E	0,10 0,10	1,4 1,4	0,050 0.0020	0,060 0.0024	0,075 0.0030	0,090 0.0036	0,10 0.0040	65 (48 – 79) 215 (160 – 250)	

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Universal  
 Steel and cast iron  
 Steel and stainless steel  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaxter

Cutting data – XSE720 advanced roughing

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
			10	12	16	20	25	
P1	E/M/A/D	1,4	0,10	0,12	0,15	0,17	0,19	245 (190 – 300)
		1,4	0,0040	0,0048	0,0060	0,0065	0,0075	800 (630 – 980)
P2	E/M/A/D	1,4	0,10	0,12	0,15	0,18	0,20	240 (190 – 290)
		1,4	0,0040	0,0048	0,0060	0,0070	0,0080	790 (630 – 950)
P3	E/M/A/D	1,4	0,10	0,12	0,14	0,17	0,19	205 (160 – 250)
		1,4	0,0040	0,0048	0,0055	0,0065	0,0075	670 (530 – 820)
P4	E/M/A/D	1,4	0,095	0,11	0,14	0,16	0,18	185 (140 – 220)
		1,4	0,0038	0,0044	0,0055	0,0065	0,0070	610 (460 – 720)
P5	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	140 (110 – 180)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	460 (370 – 590)
P6	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	155 (130 – 200)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	510 (430 – 650)
P7	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	150 (120 – 190)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	490 (400 – 620)
P8	E/M/A/D	1,4	0,080	0,095	0,12	0,14	0,15	140 (110 – 180)
		1,4	0,0032	0,0038	0,0048	0,0055	0,0060	460 (370 – 590)
P11	E/M/A/D	1,4	0,090	0,11	0,13	0,15	0,17	140 (110 – 180)
		1,4	0,0036	0,0044	0,0050	0,0060	0,0065	460 (370 – 590)
P12	E/M/A/D	1,4	0,060	0,070	0,090	0,10	0,12	100 (86 – 110)
		1,4	0,0024	0,0028	0,0036	0,0040	0,0048	330 (290 – 360)
M1	E/M/A	1,4	0,10	0,12	0,15	0,17	0,19	180 (160 – 200)
		1,4	0,0040	0,0048	0,0060	0,0065	0,0075	590 (530 – 650)
M2	E/M/A	1,4	0,090	0,11	0,13	0,15	0,17	150 (130 – 170)
		1,4	0,0036	0,0044	0,0050	0,0060	0,0065	490 (430 – 550)
M3	E/M/A	1,4	0,075	0,085	0,11	0,12	0,14	125 (110 – 140)
		1,4	0,0030	0,0034	0,0044	0,0048	0,0055	410 (370 – 450)
M4	E/M/A	1,4	0,065	0,075	0,095	0,11	0,12	95 (80 – 110)
		1,4	0,0026	0,0030	0,0038	0,0044	0,0048	310 (270 – 360)
M5	E/M/A	1,4	0,065	0,075	0,095	0,11	0,12	80 (67 – 92)
		1,4	0,0026	0,0030	0,0038	0,0044	0,0048	260 (220 – 300)
S1	E	1,4	0,044	0,050	0,065	0,075	0,085	44 (35 – 53)
		1,4	0,0017	0,0020	0,0026	0,0030	0,0034	145 (120 – 170)
S2	E	1,4	0,040	0,048	0,060	0,070	0,075	34 (25 – 43)
		1,4	0,0016	0,0019	0,0024	0,0028	0,0030	110 (83 – 140)
S3	E	1,4	0,040	0,048	0,060	0,070	0,075	29 (20 – 39)
		1,4	0,0016	0,0019	0,0024	0,0028	0,0030	95 (66 – 120)
S11	E	1,4	0,070	0,085	0,10	0,12	0,14	110 (82 – 130)
		1,4	0,0028	0,0034	0,0040	0,0048	0,0055	360 (270 – 420)
S12	E	1,4	0,070	0,085	0,10	0,12	0,14	85 (63 – 100)
		1,4	0,0028	0,0034	0,0040	0,0048	0,0055	280 (210 – 320)
S13	E	1,4	0,060	0,075	0,090	0,10	0,12	65 (50 – 83)
		1,4	0,0024	0,0030	0,0036	0,0040	0,0048	215 (170 – 270)

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – XSE720 Side milling inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>	
				3/8	1/2	5/8	3/4	1		
P1	E/M/A/D	0,12	1,4	0,080	0,095	0,12	0,13	0,15	265 (200 – 320)	Universal
		0.12	1.4	0.0032	0.0038	0.0048	0.0050	0.0060	870 (660 – 1000)	
P2	E/M/A/D	0,12	1,4	0,080	0,095	0,12	0,14	0,15	255 (200 – 320)	Steel and cast iron
		0.12	1.4	0.0032	0.0038	0.0048	0.0055	0.0060	840 (660 – 1000)	
P3	E/M/A/D	0,12	1,4	0,075	0,090	0,11	0,13	0,15	225 (170 – 270)	Steel and cast iron
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0060	740 (560 – 880)	
P4	E/M/A/D	0,12	1,4	0,075	0,090	0,11	0,13	0,14	195 (150 – 240)	Steel and cast iron
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0055	640 (500 – 780)	
P5	E/M/A/D	0,12	1,4	0,060	0,070	0,090	0,10	0,11	160 (120 – 190)	Steel and cast iron
		0.12	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	520 (400 – 620)	
P6	E/M/A/D	0,12	1,4	0,060	0,070	0,085	0,10	0,11	180 (140 – 220)	Stainless steel and S-materials
		0.12	1.4	0.0024	0.0028	0.0034	0.0040	0.0044	590 (460 – 720)	
P7	E/M/A/D	0,12	1,4	0,060	0,070	0,085	0,10	0,11	170 (130 – 210)	Stainless steel and S-materials
		0.12	1.4	0.0024	0.0028	0.0034	0.0040	0.0044	560 (430 – 680)	
P8	E/M/A/D	0,12	1,4	0,060	0,075	0,090	0,11	0,12	160 (120 – 190)	Stainless steel and S-materials
		0.12	1.4	0.0024	0.0030	0.0036	0.0044	0.0048	520 (400 – 620)	
P11	E/M/A/D	0,12	1,4	0,070	0,080	0,10	0,12	0,13	160 (130 – 200)	Stainless steel and S-materials
		0.12	1.4	0.0028	0.0032	0.0040	0.0048	0.0050	520 (430 – 650)	
P12	E/M/A/D	0,12	1,4	0,048	0,055	0,070	0,080	0,090	95 (80 – 100)	Non ferrous
		0.12	1.4	0.0019	0.0022	0.0028	0.0032	0.0036	310 (270 – 320)	
M1	E/M/A	0,12	1,4	0,075	0,090	0,11	0,13	0,15	170 (150 – 190)	Non ferrous
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0060	560 (500 – 620)	
M2	E/M/A	0,12	1,4	0,070	0,085	0,10	0,12	0,13	140 (120 – 150)	Non ferrous
		0.12	1.4	0.0028	0.0034	0.0040	0.0048	0.0050	460 (400 – 490)	
M3	E/M/A	0,10	1,4	0,060	0,075	0,090	0,10	0,12	120 (100 – 110)	Non ferrous
		0.10	1.4	0.0024	0.0030	0.0036	0.0040	0.0048	395 (330 – 360)	
M4	E/M/A	0,10	1,4	0,055	0,065	0,080	0,090	0,10	90 (77 – 91)	Hard
		0.10	1.4	0.0022	0.0026	0.0032	0.0036	0.0040	295 (260 – 290)	
M5	E/M/A	0,10	1,4	0,055	0,065	0,080	0,090	0,10	75 (64 – 76)	Hard
		0.10	1.4	0.0022	0.0026	0.0032	0.0036	0.0040	245 (210 – 240)	
S1	E	0,060	1,4	0,046	0,055	0,070	0,080	0,090	45 (35 – 54)	Hard
		0.060	1.4	0.0018	0.0022	0.0028	0.0032	0.0036	150 (120 – 170)	
S2	E	0,060	1,4	0,042	0,050	0,065	0,075	0,080	35 (25 – 44)	Hard
		0.060	1.4	0.0017	0.0020	0.0026	0.0030	0.0032	115 (83 – 140)	
S3	E	0,060	1,4	0,042	0,050	0,065	0,075	0,080	30 (20 – 39)	Hard
		0.060	1.4	0.0017	0.0020	0.0026	0.0030	0.0032	100 (66 – 120)	
S11	E	0,10	1,4	0,060	0,070	0,090	0,10	0,11	105 (78 – 120)	Plastic and CFRP
		0.10	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	345 (260 – 390)	
S12	E	0,10	1,4	0,060	0,070	0,090	0,10	0,11	80 (60 – 99)	Plastic and CFRP
		0.10	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	260 (200 – 320)	
S13	E	0,10	1,4	0,050	0,060	0,075	0,090	0,10	65 (48 – 79)	Plastic and CFRP
		0.10	1.4	0.0020	0.0024	0.0030	0.0036	0.0040	215 (160 – 250)	

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

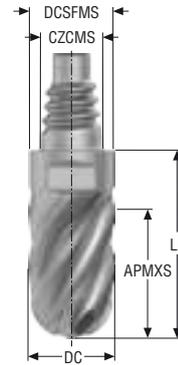
Cutting data – XSE720 advanced roughing inch

SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
			3/8	1/2	5/8	3/4	1	
P1	E/M/A/D	1,4	0,10	0,12	0,15	0,17	0,19	285 (220 – 350)
		1,4	0,0040	0,0048	0,0060	0,0065	0,0075	940 (730 – 1100)
P2	E/M/A/D	1,4	0,10	0,12	0,15	0,18	0,20	275 (210 – 340)
		1,4	0,0040	0,0048	0,0060	0,0070	0,0080	900 (690 – 1100)
P3	E/M/A/D	1,4	0,10	0,12	0,14	0,17	0,19	240 (180 – 290)
		1,4	0,0040	0,0048	0,0055	0,0065	0,0075	790 (600 – 950)
P4	E/M/A/D	1,4	0,095	0,11	0,14	0,16	0,18	210 (160 – 260)
		1,4	0,0038	0,0044	0,0055	0,0065	0,0070	690 (530 – 850)
P5	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	175 (130 – 210)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	570 (430 – 680)
P6	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	195 (150 – 240)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	640 (500 – 780)
P7	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	185 (140 – 220)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	610 (460 – 720)
P8	E/M/A/D	1,4	0,080	0,095	0,12	0,14	0,15	170 (130 – 210)
		1,4	0,0032	0,0038	0,0048	0,0055	0,0060	560 (430 – 680)
P11	E/M/A/D	1,4	0,090	0,11	0,13	0,15	0,17	170 (130 – 210)
		1,4	0,0036	0,0044	0,0050	0,0060	0,0065	560 (430 – 680)
P12	E/M/A/D	1,4	0,060	0,070	0,090	0,10	0,12	100 (86 – 110)
		1,4	0,0024	0,0028	0,0036	0,0040	0,0048	330 (290 – 360)
M1	E/M/A	1,4	0,10	0,12	0,15	0,17	0,19	180 (160 – 200)
		1,4	0,0040	0,0048	0,0060	0,0065	0,0075	590 (530 – 650)
M2	E/M/A	1,4	0,090	0,11	0,13	0,15	0,17	150 (130 – 170)
		1,4	0,0036	0,0044	0,0050	0,0060	0,0065	490 (430 – 550)
M3	E/M/A	1,4	0,075	0,085	0,11	0,12	0,14	125 (110 – 120)
		1,4	0,0030	0,0034	0,0044	0,0048	0,0055	410 (370 – 390)
M4	E/M/A	1,4	0,065	0,075	0,095	0,11	0,12	95 (80 – 95)
		1,4	0,0026	0,0030	0,0038	0,0044	0,0048	310 (270 – 310)
M5	E/M/A	1,4	0,065	0,075	0,095	0,11	0,12	80 (67 – 79)
		1,4	0,0026	0,0030	0,0038	0,0044	0,0048	260 (220 – 250)
S1	E	1,4	0,044	0,050	0,065	0,075	0,085	44 (35 – 53)
		1,4	0,0017	0,0020	0,0026	0,0030	0,0034	145 (120 – 170)
S2	E	1,4	0,040	0,048	0,060	0,070	0,075	34 (25 – 43)
		1,4	0,0016	0,0019	0,0024	0,0028	0,0030	110 (83 – 140)
S3	E	1,4	0,040	0,048	0,060	0,070	0,075	29 (20 – 39)
		1,4	0,0016	0,0019	0,0024	0,0028	0,0030	95 (66 – 120)
S11	E	1,4	0,070	0,085	0,10	0,12	0,14	110 (82 – 130)
		1,4	0,0028	0,0034	0,0040	0,0048	0,0055	360 (270 – 420)
S12	E	1,4	0,070	0,085	0,10	0,12	0,14	85 (63 – 100)
		1,4	0,0028	0,0034	0,0040	0,0048	0,0055	280 (210 – 320)
S13	E	1,4	0,060	0,075	0,090	0,10	0,12	65 (50 – 83)
		1,4	0,0024	0,0030	0,0036	0,0040	0,0048	215 (170 – 270)

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

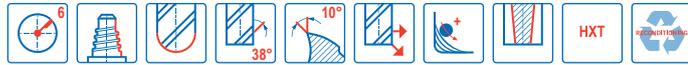
XSB720

High performance – Superalloy – Ball nose – 6 Flutes



D

- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			HXT
XSB720E10100D3BZ6	10138222	3	D	E10	10,0	9,7	15,0	21,8	5,0	6	8	■
XSB720E12120D3BZ6	10138223	3	D	E12	12,0	11,7	18,0	25,9	6,0	6	10	■
XSB720E16160D3BZ6	10138224	3	D	E16	16,0	15,5	24,0	34,1	8,0	6	12	■
XSB720E20200D3BZ6	10138225	3	D	E20	20,0	19,3	30,0	40,2	10,0	6	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

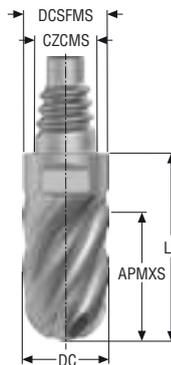
Graphite

X-Heads

Minimaster

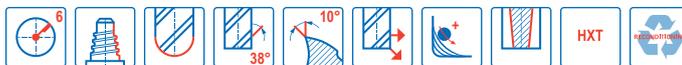
XSB720

High performance – Superalloy – Ball nose – 6 Flutes – Inch



D

- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	Inch	Inch	Inch	Inch			
XSB720E10.375D3BZ6	10138226	3	D	E10	0.375	0.364	0.563	0.827	0.188	6	8	■
XSB720E12.500D3BZ6	10138227	3	D	E12	0.500	0.484	0.750	1.055	0.250	6	10	■
XSB720E16.625D3BZ6	10138228	3	D	E16	0.625	0.610	0.938	1.343	0.313	6	12	■
XSB720E20.750D3BZ6	10138229	3	D	E20	0.750	0.728	1.125	1.524	0.375	6	16	■
XSB720E25.100D3BZ6	10138230	3	D	E25	1.000	0.965	1.500	1.980	0.500	6	20	■

■ Stocked standard.

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Plastic and CFRP  
 Graphite  
 X-Heads  
 Minimaxter

Cutting data – XSB720 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				10	12	16	20		
P1	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	185 (150 – 140)	Universal
		0.12	1.2	0.0038	0.0044	0.0055	0.0065	610 (500 – 450)	
P2	E/M/A/D	0,12	1,2	0,10	0,12	0,15	0,17	175 (140 – 130)	Steel and cast iron
		0.12	1.2	0.0040	0.0048	0.0060	0.0065	570 (460 – 420)	
P3	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	155 (120 – 110)	Steel and cast iron
		0.12	1.2	0.0038	0.0044	0.0055	0.0065	510 (400 – 360)	
P4	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,16	135 (110 – 100)	Steel and cast iron
		0.12	1.2	0.0036	0.0044	0.0050	0.0065	445 (370 – 320)	
P5	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	130 (110 – 100)	Steel and cast iron
		0.12	1.2	0.0036	0.0044	0.0050	0.0060	425 (370 – 320)	
P6	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	145 (120 – 110)	Stainless steel and S-materials
		0.12	1.2	0.0036	0.0044	0.0050	0.0060	475 (400 – 360)	
P7	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	140 (110 – 100)	Stainless steel and S-materials
		0.12	1.2	0.0036	0.0044	0.0050	0.0060	460 (370 – 320)	
P8	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	130 (99 – 98)	Stainless steel and S-materials
		0.12	1.2	0.0038	0.0044	0.0055	0.0065	425 (330 – 320)	
P11	E/M/A/D	0,12	1,2	0,070	0,080	0,10	0,12	140 (110 – 100)	Stainless steel and S-materials
		0.12	1.2	0.0028	0.0032	0.0040	0.0048	460 (370 – 320)	
P12	E/M/A/D	0,12	1,2	0,048	0,055	0,070	0,080	85 (68 – 67)	Non ferrous
		0.12	1.2	0.0019	0.0022	0.0028	0.0032	280 (230 – 210)	
M1	E/M/A	0,12	1,2	0,075	0,090	0,11	0,13	170 (150 – 190)	Non ferrous
		0.12	1.2	0.0030	0.0036	0.0044	0.0050	560 (500 – 620)	
M2	E/M/A	0,12	1,2	0,070	0,085	0,10	0,12	140 (120 – 160)	Non ferrous
		0.12	1.2	0.0028	0.0034	0.0040	0.0048	460 (400 – 520)	
M3	E/M/A	0,10	1,2	0,060	0,070	0,090	0,10	120 (110 – 140)	Non ferrous
		0.10	1.2	0.0024	0.0028	0.0036	0.0040	395 (370 – 450)	
M4	E/M/A	0,10	1,2	0,050	0,060	0,075	0,090	90 (77 – 100)	Hard
		0.10	1.2	0.0020	0.0024	0.0030	0.0036	295 (260 – 320)	
M5	E/M/A	0,10	1,2	0,050	0,060	0,075	0,090	75 (65 – 89)	Hard
		0.10	1.2	0.0020	0.0024	0.0030	0.0036	245 (220 – 290)	
S1	E	0,070	1,2	0,048	0,055	0,070	0,080	45 (35 – 54)	Hard
		0.070	1.2	0.0019	0.0022	0.0028	0.0032	150 (120 – 170)	
S2	E	0,070	1,2	0,048	0,055	0,070	0,080	35 (5 – 45)	Hard
		0.070	1.2	0.0019	0.0022	0.0028	0.0032	115 (17 – 140)	
S3	E	0,070	1,2	0,048	0,055	0,070	0,080	30 (20 – 40)	Hard
		0.070	1.2	0.0019	0.0022	0.0028	0.0032	100 (66 – 130)	
S11	E	0,10	1,2	0,060	0,070	0,090	0,10	105 (79 – 130)	Plastic and CFRP
		0.10	1.2	0.0024	0.0028	0.0036	0.0040	345 (260 – 420)	
S12	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)	Plastic and CFRP
		0.10	1.2	0.0024	0.0028	0.0036	0.0040	260 (210 – 320)	
S13	E	0,10	1,2	0,060	0,070	0,090	0,10	60 (47 – 77)	Plastic and CFRP
		0.10	1.2	0.0024	0.0028	0.0036	0.0040	195 (160 – 250)	

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – XSB720 Side milling advanced roughing  $a_e/DC=0,07$

SMG		$a_p/DC$	$f_z$				$v_c$
			10	12	16	20	
P1	E/M/A/D	1,2	0,12	0,14	0,18	0,22	195 (160 – 150)
		1,2	0,0048	0,0055	0,0070	0,0085	640 (530 – 490)
P2	E/M/A/D	1,2	0,12	0,14	0,19	0,22	190 (150 – 140)
		1,2	0,0048	0,0055	0,0075	0,0085	620 (500 – 450)
P3	E/M/A/D	1,2	0,12	0,14	0,18	0,20	165 (130 – 120)
		1,2	0,0048	0,0055	0,0070	0,0080	540 (430 – 390)
P4	E/M/A/D	1,2	0,12	0,14	0,17	0,20	145 (120 – 110)
		1,2	0,0048	0,0055	0,0065	0,0080	475 (400 – 360)
P5	E/M/A/D	1,2	0,12	0,14	0,17	0,20	140 (110 – 100)
		1,2	0,0048	0,0055	0,0065	0,0080	460 (370 – 320)
P6	E/M/A/D	1,2	0,11	0,14	0,17	0,19	160 (130 – 120)
		1,2	0,0044	0,0055	0,0065	0,0075	520 (430 – 390)
P7	E/M/A/D	1,2	0,11	0,14	0,17	0,19	150 (120 – 110)
		1,2	0,0044	0,0055	0,0065	0,0075	490 (400 – 360)
P8	E/M/A/D	1,2	0,12	0,14	0,18	0,20	140 (110 – 100)
		1,2	0,0048	0,0055	0,0070	0,0080	460 (370 – 320)
P11	E/M/A/D	1,2	0,090	0,11	0,13	0,15	150 (120 – 110)
		1,2	0,0036	0,0044	0,0050	0,0060	490 (400 – 360)
P12	E/M/A/D	1,2	0,060	0,070	0,090	0,10	95 (73 – 72)
		1,2	0,0024	0,0028	0,0036	0,0040	310 (240 – 230)
M1	E/M/A	1,2	0,10	0,12	0,15	0,17	185 (160 – 200)
		1,2	0,0040	0,0048	0,0060	0,0065	610 (530 – 650)
M2	E/M/A	1,2	0,090	0,11	0,13	0,15	150 (130 – 170)
		1,2	0,0036	0,0044	0,0050	0,0060	490 (430 – 550)
M3	E/M/A	1,2	0,070	0,085	0,10	0,12	125 (110 – 140)
		1,2	0,0028	0,0034	0,0040	0,0048	410 (370 – 450)
M4	E/M/A	1,2	0,060	0,075	0,090	0,10	95 (81 – 110)
		1,2	0,0024	0,0030	0,0036	0,0040	310 (270 – 360)
M5	E/M/A	1,2	0,060	0,075	0,090	0,10	80 (68 – 93)
		1,2	0,0024	0,0030	0,0036	0,0040	260 (230 – 300)
S1	E	1,2	0,048	0,055	0,070	0,080	45 (35 – 54)
		1,2	0,0019	0,0022	0,0028	0,0032	150 (120 – 170)
S2	E	1,2	0,048	0,055	0,070	0,080	35 (5 – 45)
		1,2	0,0019	0,0022	0,0028	0,0032	115 (17 – 140)
S3	E	1,2	0,048	0,055	0,070	0,080	30 (20 – 40)
		1,2	0,0019	0,0022	0,0028	0,0032	100 (66 – 130)
S11	E	1,2	0,070	0,085	0,10	0,12	110 (82 – 130)
		1,2	0,0028	0,0034	0,0040	0,0048	360 (270 – 420)
S12	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)
S13	E	1,2	0,070	0,085	0,10	0,12	65 (49 – 81)
		1,2	0,0028	0,0034	0,0040	0,0048	215 (170 – 260)

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 $v_c = m/min (sf/min)$   
 $f_z = mm (in/tooth)$   
 $a_p = mm/DC (in/DC) = factor$   
 $a_e = mm/DC (in/DC) = factor$   
 All cutting data are target values

Cutting data – XSB720 Side milling inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				3/8	1/2	5/8	3/4		
P1	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	195 (170 – 220)	Universal
		0.12	1.2	0.0038	0.0044	0.0055	0.0065	640 (560 – 720)	
P2	E/M/A/D	0,12	1,2	0,10	0,12	0,15	0,17	190 (170 – 210)	Steel and cast iron
		0.12	1.2	0.0040	0.0048	0.0060	0.0065	620 (560 – 680)	
P3	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	165 (150 – 180)	Steel and cast iron
		0.12	1.2	0.0038	0.0044	0.0055	0.0065	540 (500 – 590)	
P4	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,16	145 (130 – 160)	Steel and cast iron
		0.12	1.2	0.0036	0.0044	0.0050	0.0065	475 (430 – 520)	
P5	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	140 (130 – 160)	Steel and cast iron
		0.12	1.2	0.0036	0.0044	0.0050	0.0060	460 (430 – 520)	
P6	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	155 (140 – 170)	Stainless steel and S-materials
		0.12	1.2	0.0036	0.0044	0.0050	0.0060	510 (460 – 550)	
P7	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	150 (130 – 160)	Stainless steel and S-materials
		0.12	1.2	0.0036	0.0044	0.0050	0.0060	490 (430 – 520)	
P8	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	140 (120 – 150)	Stainless steel and S-materials
		0.12	1.2	0.0038	0.0044	0.0055	0.0065	460 (400 – 490)	
P11	E/M/A/D	0,12	1,2	0,070	0,080	0,10	0,12	150 (130 – 170)	Stainless steel and S-materials
		0.12	1.2	0.0028	0.0032	0.0040	0.0048	490 (430 – 550)	
P12	E/M/A/D	0,12	1,2	0,048	0,055	0,070	0,080	95 (81 – 100)	Non ferrous
		0.12	1.2	0.0019	0.0022	0.0028	0.0032	310 (270 – 320)	
M1	E/M/A	0,12	1,2	0,075	0,090	0,11	0,13	220 (180 – 260)	Non ferrous
		0.12	1.2	0.0030	0.0036	0.0044	0.0050	720 (600 – 850)	
M2	E/M/A	0,12	1,2	0,070	0,085	0,10	0,12	180 (140 – 220)	Non ferrous
		0.12	1.2	0.0028	0.0034	0.0040	0.0048	590 (460 – 720)	
M3	E/M/A	0,10	1,2	0,060	0,070	0,090	0,10	160 (120 – 200)	Non ferrous
		0.10	1.2	0.0024	0.0028	0.0036	0.0040	520 (400 – 650)	
M4	E/M/A	0,10	1,2	0,050	0,060	0,075	0,090	125 (93 – 150)	Hard
		0.10	1.2	0.0020	0.0024	0.0030	0.0036	410 (310 – 490)	
M5	E/M/A	0,10	1,2	0,050	0,060	0,075	0,090	105 (77 – 120)	Hard
		0.10	1.2	0.0020	0.0024	0.0030	0.0036	345 (260 – 390)	
S1	E	0,070	1,2	0,048	0,055	0,070	0,080	45 (35 – 54)	Hard
		0.070	1.2	0.0019	0.0022	0.0028	0.0032	150 (120 – 170)	
S2	E	0,070	1,2	0,048	0,055	0,070	0,080	37 (27 – 47)	Hard
		0.070	1.2	0.0019	0.0022	0.0028	0.0032	120 (89 – 150)	
S3	E	0,070	1,2	0,048	0,055	0,070	0,080	30 (20 – 40)	Hard
		0.070	1.2	0.0019	0.0022	0.0028	0.0032	100 (66 – 130)	
S11	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)	Plastic and CFRP
		0.10	1.2	0.0024	0.0028	0.0036	0.0040	260 (210 – 320)	
S12	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)	Plastic and CFRP
		0.10	1.2	0.0024	0.0028	0.0036	0.0040	260 (210 – 320)	
S13	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)	Plastic and CFRP
		0.10	1.2	0.0024	0.0028	0.0036	0.0040	260 (210 – 320)	

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

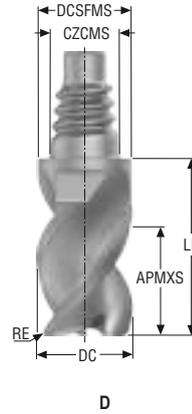
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – XSB720 Side milling advanced roughing  $a_e/DC=0,07$  inch

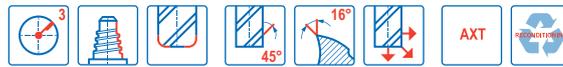
SMG		$a_p/DC$	$f_z$				$v_c$
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	1,2	0,12	0,14	0,18	0,22	210 (190 – 240)
		1,2	0,0048	0,0055	0,0070	0,0085	690 (630 – 780)
P2	E/M/A/D	1,2	0,12	0,14	0,19	0,22	205 (180 – 230)
		1,2	0,0048	0,0055	0,0075	0,0085	670 (600 – 750)
P3	E/M/A/D	1,2	0,12	0,14	0,18	0,20	180 (160 – 200)
		1,2	0,0048	0,0055	0,0070	0,0080	590 (530 – 650)
P4	E/M/A/D	1,2	0,12	0,14	0,17	0,20	155 (140 – 170)
		1,2	0,0048	0,0055	0,0065	0,0080	510 (460 – 550)
P5	E/M/A/D	1,2	0,12	0,14	0,17	0,20	150 (130 – 170)
		1,2	0,0048	0,0055	0,0065	0,0080	490 (430 – 550)
P6	E/M/A/D	1,2	0,11	0,14	0,17	0,19	170 (150 – 190)
		1,2	0,0044	0,0055	0,0065	0,0075	560 (500 – 620)
P7	E/M/A/D	1,2	0,11	0,14	0,17	0,19	160 (140 – 180)
		1,2	0,0044	0,0055	0,0065	0,0075	520 (460 – 590)
P8	E/M/A/D	1,2	0,12	0,14	0,18	0,20	150 (130 – 170)
		1,2	0,0048	0,0055	0,0070	0,0080	490 (430 – 550)
P11	E/M/A/D	1,2	0,090	0,11	0,13	0,15	160 (140 – 180)
		1,2	0,0036	0,0044	0,0050	0,0060	520 (460 – 590)
P12	E/M/A/D	1,2	0,060	0,070	0,090	0,10	100 (87 – 110)
		1,2	0,0024	0,0028	0,0036	0,0040	330 (290 – 360)
M1	E/M/A	1,2	0,10	0,12	0,15	0,17	235 (190 – 280)
		1,2	0,0040	0,0048	0,0060	0,0065	770 (630 – 910)
M2	E/M/A	1,2	0,090	0,11	0,13	0,15	195 (160 – 230)
		1,2	0,0036	0,0044	0,0050	0,0060	640 (530 – 750)
M3	E/M/A	1,2	0,070	0,085	0,10	0,12	170 (130 – 200)
		1,2	0,0028	0,0034	0,0040	0,0048	560 (430 – 650)
M4	E/M/A	1,2	0,060	0,075	0,090	0,10	130 (97 – 160)
		1,2	0,0024	0,0030	0,0036	0,0040	425 (320 – 520)
M5	E/M/A	1,2	0,060	0,075	0,090	0,10	105 (81 – 130)
		1,2	0,0024	0,0030	0,0036	0,0040	345 (270 – 420)
S1	E	1,2	0,048	0,055	0,070	0,080	45 (35 – 54)
		1,2	0,0019	0,0022	0,0028	0,0032	150 (120 – 170)
S2	E	1,2	0,048	0,055	0,070	0,080	37 (27 – 47)
		1,2	0,0019	0,0022	0,0028	0,0032	120 (89 – 150)
S3	E	1,2	0,048	0,055	0,070	0,080	30 (20 – 40)
		1,2	0,0019	0,0022	0,0028	0,0032	100 (66 – 130)
S11	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)
S12	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)
S13	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 $v_c = m/min (sf/min)$   
 $f_z = mm (in/tooth)$   
 $a_p = mm/DC (in/DC) = factor$   
 $a_e = mm/DC (in/DC) = factor$   
 All cutting data are target values

**XSE450**  
High performance – Aluminium – Square – 3 Flutes – Corner radius



- Tolerances:
- DC= 0/-0,0508 mm
- RE= ±0,0254 mm
- Re grind possible if DC is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			AXT
XSE450E10100D2R050Z3	10138362	2	D	E10	10,0	9,7	12,0	18,7	0,5	3	8	■
XSE450E12120D2R050Z3	10138363	2	D	E12	12,0	11,7	14,4	22,1	0,5	3	10	■
XSE450E12120D2R100Z3	10138364	2	D	E12	12,0	11,7	14,4	22,1	1,0	3	10	■
XSE450E16160D2R050Z3	10138365	2	D	E16	16,0	15,5	19,2	29,2	0,5	3	12	■
XSE450E16160D2R100Z3	10138366	2	D	E16	16,0	15,5	19,2	29,2	1,0	3	12	■
XSE450E20200D2R050Z3	10138367	2	D	E20	20,0	19,3	24,0	34,3	0,5	3	16	■
XSE450E20200D2R100Z3	10138369	2	D	E20	20,0	19,3	24,0	34,3	1,0	3	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

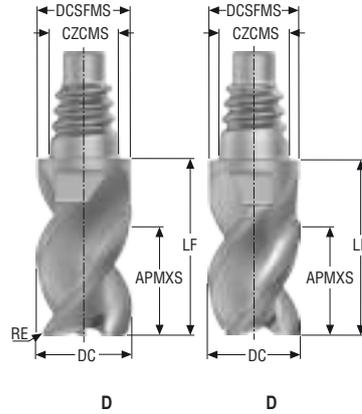
Plastic and CFRP

Graphite

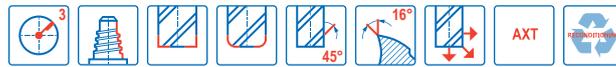
X-Heads

Minimaster

**XSE450**  
High performance – Aluminium – Square – 3 Flutes – Corner radius – Inch



- Tolerances:
- DC= 0/-0.002 Inch
- RE= ±0.001 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
												AXT
XSE450E10.375D2SZ3	10138370	2	D	E10	0.375	0.364	0.450	0.720	–	3	8	■
XSE450E10.375D2R030Z3	10138375	2	D	E10	0.375	0.364	0.450	0.720	0.030	3	8	■
XSE450E12.500D2SZ3	10138371	2	D	E12	0.500	0.484	0.600	0.906	–	3	10	■
XSE450E12.500D2R030Z3	10138376	2	D	E12	0.500	0.484	0.600	0.906	0.030	3	10	■
XSE450E12.500D2R060Z3	10138377	2	D	E12	0.500	0.484	0.600	0.906	0.060	3	10	■
XSE450E16.625D2SZ3	10138372	2	D	E16	0.625	0.610	0.750	1.150	–	3	12	■
XSE450E16.625D2R030Z3	10138378	2	D	E16	0.625	0.610	0.750	1.150	0.030	3	12	■
XSE450E16.625D2R060Z3	10138379	2	D	E16	0.625	0.610	0.750	1.150	0.060	3	12	■
XSE450E20.750D2SZ3	10138380	2	D	E16	0.625	0.610	0.750	1.150	0.120	3	12	■
XSE450E20.750D2R030Z3	10138373	2	D	E20	0.750	0.728	0.900	1.295	–	3	16	■
XSE450E20.750D2R060Z3	10138381	2	D	E20	0.750	0.728	0.900	1.295	0.030	3	16	■
XSE450E20.750D2R120Z3	10138382	2	D	E20	0.750	0.728	0.900	1.295	0.060	3	16	■
XSE450E20.750D2R120Z3	10138383	2	D	E20	0.750	0.728	0.900	1.295	0.120	3	16	■
XSE450E251.00D2SZ3	10138374	2	D	E25	1.000	0.965	1.200	1.673	–	3	20	■
XSE450E251.00D2R030Z3	10138384	2	D	E25	1.000	0.965	1.200	1.673	0.030	3	20	■
XSE450E251.00D2R060Z3	10138385	2	D	E25	1.000	0.965	1.200	1.673	0.060	3	20	■
XSE450E251.00D2R120Z3	10138386	2	D	E25	1.000	0.965	1.200	1.673	0.120	3	20	■

■ Stocked standard.

Cutting data – XSE450 Side milling

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				10	12	16	20		
N1	E/M/A	0,40 0,40	1,1 1,1	0,15 0,0060	0,18 0,0070	0,22 0,0085	0,26 0,010	0,30 0,012	405 (340 – 450) 1325 (1200 – 1400)
N2	E/M/A	0,40 0,40	1,1 1,1	0,13 0,0050	0,16 0,0065	0,20 0,0080	0,22 0,0085	0,25 0,010	275 (230 – 330) 900 (760 – 1000)
N3	E/M/A	0,40 0,40	1,1 1,1	0,13 0,0050	0,16 0,0065	0,20 0,0080	0,22 0,0085	0,25 0,010	185 (150 – 220) 610 (500 – 720)
N11	E/M/A	0,40 0,40	1,1 1,1	0,13 0,0050	0,16 0,0065	0,20 0,0080	0,22 0,0085	0,25 0,010	245 (200 – 290) 800 (660 – 950)
TS1	A/D	0,40 0,40	1,1 1,1	0,15 0,0060	0,18 0,0070	0,22 0,0085	0,26 0,010	0,30 0,012	280 (170 – 390) 920 (560 – 1200)
TP1	A/D	0,40 0,40	1,1 1,1	0,15 0,0060	0,18 0,0070	0,22 0,0085	0,26 0,010	0,30 0,012	280 (170 – 390) 920 (560 – 1200)

Cutting data – XSE450 Slot milling

SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
			10	12	16	20		
N1	E/M/A	0,90 0,90	0,10 0,0040	0,12 0,0048	0,16 0,0065	0,20 0,0080	0,25 0,010	360 (310 – 410) 1175 (1100 – 1300)
N2	E/M/A	0,90 0,90	0,080 0,0032	0,095 0,0038	0,13 0,0050	0,16 0,0065	0,20 0,0080	250 (200 – 300) 820 (660 – 980)
N3	E/M/A	0,90 0,90	0,080 0,0032	0,095 0,0038	0,13 0,0050	0,16 0,0065	0,20 0,0080	165 (140 – 200) 540 (460 – 650)
N11	E/M/A	0,90 0,90	0,080 0,0032	0,095 0,0038	0,13 0,0050	0,16 0,0065	0,20 0,0080	220 (180 – 260) 720 (600 – 850)
TS1	A/D	0,90 0,90	0,10 0,0040	0,12 0,0048	0,16 0,0065	0,20 0,0080	0,25 0,010	250 (150 – 340) 820 (500 – 1100)
TP1	A/D	0,90 0,90	0,10 0,0040	0,12 0,0048	0,16 0,0065	0,20 0,0080	0,25 0,010	250 (150 – 340) 820 (500 – 1100)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – XSE450 Side milling inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
				3/8	1/2	5/8	3/4	1	
N1	E/M/A	0,40	1,1	0,15	0,18	0,22	0,26	0,30	560 (450 — 670)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	1825 (1500 — 2100)
N2	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	445 (340 — 550)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	1450 (1200 — 1800)
N3	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	295 (230 — 360)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	970 (760 — 1100)
N11	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	395 (300 — 490)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	1300 (990 — 1600)
TS1	A/D	0,40	1,1	0,15	0,18	0,22	0,26	0,30	280 (170 — 390)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	920 (560 — 1200)
TP1	A/D	0,40	1,1	0,15	0,18	0,22	0,26	0,30	280 (170 — 390)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	920 (560 — 1200)

Cutting data – XSE450 Slot milling inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>					v <sub>c</sub>
			3/8	1/2	5/8	3/4	1	
N1	E/M/A	1,1	0,10	0,12	0,16	0,20	0,25	500 (400 — 590)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	1650 (1400 — 1900)
N2	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	400 (300 — 490)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	1300 (990 — 1600)
N3	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	265 (200 — 330)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	870 (660 — 1000)
N11	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	355 (270 — 440)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	1175 (890 — 1400)
TS1	A/D	1,1	0,10	0,12	0,16	0,20	0,25	250 (150 — 340)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	820 (500 — 1100)
TP1	A/D	1,1	0,10	0,12	0,16	0,20	0,25	250 (150 — 340)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	820 (500 — 1100)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v<sub>c</sub> = m/min (sf/min)

f<sub>z</sub> = mm (in/tooth)

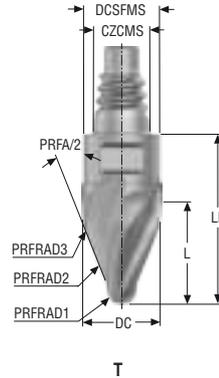
a<sub>p</sub> = mm/DC (in/DC) = factor

a<sub>e</sub> = mm/DC (in/DC) = factor

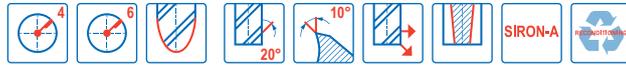
All cutting data are target values

XHT740

High speed – ISO– M and ISO– S – Taper Shape – 4-6 Flutes



- Tolerances:
- PRFRAD1= ±0,03 mm
- Form tolerance PRFRAD2= 0,02 mm
- Regrind possible if DC is ≥Ø12 mm and PRFRAD1 is ≥1,5 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	L	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	SW	Grade
					mm	mm	mm	mm	mm	mm	mm	mm				SIRA
XHT740E10100T2R1.5R250Z4	10138388	2	T	E10	10,0	9,7	1,62	18,7	5,4	1,5	250,0	2,0	65,0	4	8	■
XHT740E10100T3R2R250Z4	10138391	3	T	E10	10,0	9,7	9,04	21,8	12,7	2,0	250,0	5,0	20,0	4	8	■
XHT740E10100T3R2R250Z6	10138395	3	T	E10	10,0	9,7	9,04	21,8	12,7	2,0	250,0	5,0	20,0	6	8	■
XHT740E12120T2R3R250Z4	10138389	2	T	E12	12,0	11,7	5,33	22,1	10,5	3,0	250,0	6,0	32,5	4	10	■
XHT740E12120T3R3R250Z4	10138392	3	T	E12	12,0	11,7	9,71	25,9	13,7	3,0	250,0	6,0	20,0	4	10	■
XHT740E12120T3R3R250Z6	10138396	3	T	E12	12,0	11,7	9,71	25,9	13,7	3,0	250,0	6,0	20,0	6	10	■
XHT740E16160T2R4R500Z4	10138390	2	T	E16	16,0	15,5	8,95	29,2	14,6	4,0	500,0	8,0	27,5	4	12	■
XHT740E16160T3R4R1000Z4	10138394	3	T	E16	16,0	15,5	21,02	34,1	24,0	4,0	1000,0	5,0	20,0	4	12	■
XHT740E16160T3R4R500Z4	10138393	3	T	E16	16,0	15,5	12,94	34,1	17,6	4,0	500,0	8,0	20,0	4	12	■
XHT740E16160T3R4R500Z6	10138397	3	T	E16	16,0	15,5	12,94	34,1	17,6	4,0	500,0	8,0	20,0	6	12	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – XHT740 – Copy milling PCEDC 4

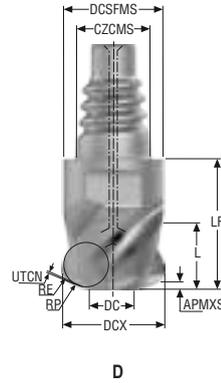
SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			10	12	16	
P8	E/M/A/D	0,010	0,05	0,06	0,08	170 (150 - 195)
		0.010	0.0022	0.0024	0.0032	560 (490 - 640)
P12	E/M/A/D	0,010	0,05	0,06	0,08	120 (95 - 135)
		0.010	0.0022	0.0024	0.0032	400 (310 - 445)
M1	E/M/A	0,010	0,05	0,06	0,08	150 (125 - 155)
		0.010	0.0022	0.0024	0.0032	490 (410 - 510)
M2	E/M/A	0,010	0,05	0,06	0,08	145 (120 - 150)
		0.010	0.0022	0.0024	0.0032	475 (400 - 490)
M3	E/M/A	0,010	0,05	0,06	0,08	130 (90 - 140)
		0.010	0.0022	0.0024	0.0032	425 (295 - 460)
S2	E	0,010	0,05	0,06	0,08	60 (50 - 70)
		0.010	0.0022	0.0024	0.0032	195 (165 - 230)
S11	E	0,010	0,05	0,06	0,08	100 (85 - 105)
		0.010	0.0022	0.0024	0.0032	320 (280 - 345)
S12	E	0,010	0,05	0,06	0,08	95 (80 - 100)
		0.010	0.0022	0.0024	0.0032	310 (260 - 320)
S13	E	0,010	0,05	0,06	0,08	90 (75 - 95)
		0.010	0.0022	0.0024	0.0032	295 (245 - 310)

Cutting data – XHT740 – Copy milling PCEDC 6

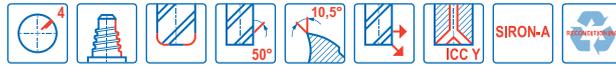
SMG	Icon	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>
			10	12	16	
P8	E/M/A/D	0,010	0,05	0,06	0,08	170 (150 - 195)
		0.010	0.0022	0.0024	0.0032	560 (490 - 640)
P12	E/M/A/D	0,010	0,05	0,06	0,08	120 (95 - 135)
		0.010	0.0022	0.0024	0.0032	400 (310 - 445)
M1	E/M/A	0,010	0,05	0,06	0,08	150 (125 - 155)
		0.010	0.0022	0.0024	0.0032	490 (410 - 510)
M2	E/M/A	0,010	0,05	0,06	0,08	145 (120 - 150)
		0.010	0.0022	0.0024	0.0032	475 (400 - 490)
M3	E/M/A	0,010	0,05	0,06	0,08	130 (90 - 140)
		0.010	0.0022	0.0024	0.0032	425 (295 - 460)
S2	E	0,010	0,05	0,06	0,08	60 (50 - 70)
		0.010	0.0022	0.0024	0.0032	195 (165 - 230)
S11	E	0,010	0,05	0,06	0,08	100 (85 - 105)
		0.010	0.0022	0.0024	0.0032	320 (280 - 345)
S12	E	0,010	0,05	0,06	0,08	95 (80 - 100)
		0.010	0.0022	0.0024	0.0032	310 (260 - 320)
S13	E	0,010	0,05	0,06	0,08	90 (75 - 95)
		0.010	0.0022	0.0024	0.0032	295 (245 - 310)

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

XHF580  
High feed – Universal – 4 Flutes – Corner radius



- Tolerances:
- DCX= h9
- RE= ±0,03 mm
- Regrind possible if DCX is ≥Ø12 mm



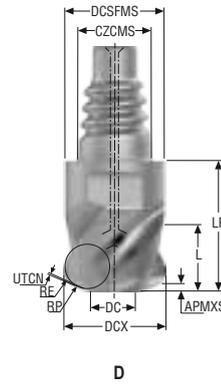
Designation	Item number	Length index	Tool shape	CSP	CZCMS	DCX	DC	DCSFMS	APMXS	L	LF	RE	RP	UTCN	PCEDC	SW	Grades
						mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
XHF580E10100D1HZ4A	10137971	1	D	■	E10	10,0	3,4	9,7	0,7	6,0	12,4	1,5	1,99	0,27	4	8	■
XHF580E12120D1HZ4A	10137972	1	D	■	E12	12,0	4,5	11,7	0,8	7,5	14,5	1,5	2,1	0,323	4	10	■
XHF580E16160D1HZ4A	10137973	1	D	■	E16	16,0	6,2	15,5	1,0	10,0	18,7	2,0	2,747	0,426	4	12	■

■ Stocked standard.

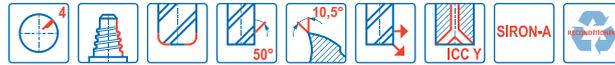
Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

XHF580

High feed – Universal – 4 Flutes – Corner radius – Inch



—Tolerances:  
—DCX= h9  
—RE= ±.0012 Inch  
—Regrind possible if DCX is ≥∅.500 Inch



Designation	Item number	Length index	Tool shape	CSP	CZCMS	DCX	DC	DCSFMS	APMXS	L	LF	RE	RP	UTCN	PCEDC	SW	Grades
XHF580E10.375D1HZ4A	10137974	1	D	■	E10	0.375	0.134	0.364	0.024	0.236	0.488	0.060	0.076	0.008	4	8	■
XHF580E12.500D1HZ4A	10137975	1	D	■	E12	0.500	0.197	0.484	0.033	0.315	0.571	0.060	0.086	0.014	4	10	■
XHF580E16.625D1HZ4A	10137976	1	D	■	E16	0.614	0.236	0.610	0.039	0.394	0.736	0.080	0.110	0.016	4	12	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – XHF580 Side milling

SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>			v <sub>c</sub>	
				10	12	16		
P1	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	350 (330 – 400) 1150 (1100 – 1300)	Universal Steel and cast iron
P2	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	340 (320 – 390) 1125 (1100 – 1200)	
P3	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	295 (280 – 340) 970 (920 – 1100)	
P4	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	260 (250 – 300) 850 (830 – 980)	
P5	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	260 (250 – 300) 850 (830 – 980)	
P6	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	190 (180 – 230) 620 (600 – 750)	
P7	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	180 (170 – 220) 590 (560 – 720)	
P8	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	170 (160 – 200) 560 (530 – 650)	
P11	E/M/A/D	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	145 (150 – 170) 475 (500 – 550)	
P12	E/M/A/D	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	85 (83 – 100) 280 (280 – 320)	
M1	E/M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	170 (170 – 200) 560 (560 – 650)	
M2	E/M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	140 (140 – 160) 460 (460 – 520)	
M3	E/M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	105 (97 – 130) 345 (320 – 420)	
M4	E/M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	75 (73 – 99) 245 (240 – 320)	
M5	E/M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	65 (61 – 83) 215 (210 – 270)	
K1	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	345 (330 – 400) 1125 (1100 – 1300)	
K2	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	300 (280 – 340) 980 (920 – 1100)	
K3	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	250 (240 – 290) 820 (790 – 950)	
K4	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	240 (230 – 280) 790 (760 – 910)	
K5	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	145 (140 – 160) 475 (460 – 520)	
K6	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	210 (200 – 240) 690 (660 – 780)	
K7	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	185 (180 – 210) 610 (600 – 680)	
S1	E	0,30 0,30	0,034 0,034	0,24 0,0095	0,28 0,011	0,38 0,015	45 (36 – 71) 150 (120 – 230)	
S2	E	0,30 0,30	0,034 0,034	0,24 0,0095	0,28 0,011	0,38 0,015	36 (29 – 57) 120 (96 – 180)	
S3	E	0,30 0,30	0,034 0,034	0,24 0,0095	0,28 0,011	0,38 0,015	31 (25 – 49) 100 (83 – 160)	
S11	E	0,30 0,30	0,060 0,060	0,36 0,014	0,42 0,017	0,55 0,022	160 (160 – 190) 520 (530 – 620)	
S12	E	0,30 0,30	0,060 0,060	0,36 0,014	0,42 0,017	0,55 0,022	125 (120 – 150) 410 (400 – 490)	
S13	E	0,30 0,30	0,060 0,060	0,36 0,014	0,42 0,017	0,55 0,022	95 (91 – 110) 310 (300 – 360)	
H5	M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	105 (98 – 130) 345 (330 – 420)	
H8	M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	105 (98 – 130) 345 (330 – 420)	
H21	M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	105 (98 – 130) 345 (330 – 420)	
H31	M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	80 (74 – 100) 260 (250 – 320)	

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and CFRP  
Graphite  
X-Heads  
Minimaster

Cutting data – XHF580 Slot milling

Material Group	SMG	Coolant	a <sub>p</sub> /DCX	f <sub>z</sub>			v <sub>c</sub>
				10	12	16	
Universal	P1	E/M/A/D	0,060	0,30	0,36	0,48	320 (300 – 360)
			0.060	0.012	0.014	0.019	1050 (990 – 1100)
	P2	E/M/A/D	0,060	0,30	0,36	0,48	310 (290 – 350)
			0.060	0.012	0.014	0.019	1025 (960 – 1100)
	P3	E/M/A/D	0,060	0,30	0,36	0,48	265 (250 – 300)
			0.060	0.012	0.014	0.019	870 (830 – 980)
	P4	E/M/A/D	0,060	0,30	0,36	0,48	235 (220 – 270)
			0.060	0.012	0.014	0.019	770 (730 – 880)
	P5	E/M/A/D	0,060	0,30	0,36	0,48	235 (220 – 270)
			0.060	0.012	0.014	0.019	770 (730 – 880)
	P6	E/M/A/D	0,060	0,30	0,36	0,48	175 (160 – 210)
			0.060	0.012	0.014	0.019	570 (530 – 680)
P7	E/M/A/D	0,060	0,30	0,36	0,48	165 (150 – 200)	
		0.060	0.012	0.014	0.019	540 (500 – 650)	
P8	E/M/A/D	0,060	0,30	0,36	0,48	155 (150 – 180)	
		0.060	0.012	0.014	0.019	510 (500 – 590)	
P11	E/M/A/D	0,060	0,24	0,28	0,38	130 (130 – 160)	
		0.060	0.0095	0.011	0.015	425 (430 – 520)	
P12	E/M/A/D	0,060	0,24	0,28	0,38	80 (75 – 94)	
		0.060	0.0095	0.011	0.015	260 (250 – 300)	
Non ferrous	M1	E/M/A	0,060	0,24	0,28	0,38	155 (150 – 180)
			0.060	0.0095	0.011	0.015	510 (500 – 590)
	M2	E/M/A	0,060	0,24	0,28	0,38	125 (120 – 150)
			0.060	0.0095	0.011	0.015	410 (400 – 490)
	M3	E/M/A	0,060	0,24	0,28	0,38	95 (88 – 110)
		0.060	0.0095	0.011	0.015	310 (290 – 360)	
Hard	M4	E/M/A	0,060	0,24	0,28	0,38	70 (66 – 89)
			0.060	0.0095	0.011	0.015	230 (220 – 290)
	M5	E/M/A	0,060	0,24	0,28	0,38	60 (55 – 74)
Plastic and cfrp	K1	E/M/A/D	0,060	0,30	0,36	0,48	310 (300 – 360)
			0.060	0.012	0.014	0.019	1025 (990 – 1100)
	K2	E/M/A/D	0,060	0,30	0,36	0,48	270 (260 – 310)
			0.060	0.012	0.014	0.019	890 (860 – 1000)
	K3	E/M/A/D	0,060	0,30	0,36	0,48	230 (220 – 260)
			0.060	0.012	0.014	0.019	750 (730 – 850)
	K4	E/M/A/D	0,060	0,30	0,36	0,48	220 (210 – 250)
			0.060	0.012	0.014	0.019	720 (690 – 820)
	K5	E/M/A/D	0,060	0,30	0,36	0,48	130 (130 – 150)
			0.060	0.012	0.014	0.019	425 (430 – 490)
	K6	E/M/A/D	0,060	0,30	0,36	0,48	190 (180 – 220)
			0.060	0.012	0.014	0.019	620 (600 – 720)
K7	E/M/A/D	0,060	0,30	0,36	0,48	165 (160 – 190)	
		0.060	0.012	0.014	0.019	540 (530 – 620)	
Graphite	S1	E	0,034	0,18	0,22	0,28	39 (32 – 62)
			0.034	0.0070	0.0085	0.011	130 (110 – 200)
	S2	E	0,034	0,18	0,22	0,28	31 (26 – 50)
			0.034	0.0070	0.0085	0.011	100 (86 – 160)
S3	E	0,034	0,18	0,22	0,28	27 (22 – 43)	
		0.034	0.0070	0.0085	0.011	90 (73 – 140)	
X-Heads	S11	E	0,060	0,18	0,22	0,28	150 (150 – 180)
			0.060	0.0070	0.0085	0.011	490 (500 – 590)
	S12	E	0,060	0,18	0,22	0,28	115 (110 – 140)
			0.060	0.0070	0.0085	0.011	375 (370 – 450)
	S13	E	0,060	0,18	0,22	0,28	90 (85 – 100)
Minimaster	H5	M/A	0,060	0,24	0,28	0,38	95 (88 – 120)
			0.060	0.0095	0.011	0.015	310 (290 – 390)
	H8	M/A	0,060	0,24	0,28	0,38	95 (88 – 120)
			0.060	0.0095	0.011	0.015	310 (290 – 390)
H21	M/A	0,060	0,24	0,28	0,38	95 (88 – 120)	
		0.060	0.0095	0.011	0.015	310 (290 – 390)	
H31	M/A	0,060	0,24	0,28	0,38	70 (67 – 91)	
		0.060	0.0095	0.011	0.015	230 (220 – 290)	

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – XHF580 Side milling inch

SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>			v <sub>c</sub>	
				3/8	1/2	5/8		
P1	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	485 (440 – 530) 1600 (1500 – 1700)	Universal
P2	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	475 (430 – 520) 1550 (1500 – 1700)	
P3	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	405 (370 – 450) 1325 (1300 – 1400)	Steel and cast iron
P4	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	360 (320 – 390) 1175 (1100 – 1200)	
P5	E/M/A/D	0,34 0,34	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	260 (240 – 290) 850 (790 – 950)	Steel and stainless steel
P6	E/M/A/D	0,34 0,34	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	295 (270 – 320) 970 (890 – 1000)	
P7	E/M/A/D	0,34 0,34	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	280 (250 – 300) 920 (830 – 980)	Stainless steel and S-materials
P8	E/M/A/D	0,34 0,34	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	260 (240 – 290) 850 (790 – 950)	
P11	E/M/A/D	0,30 0,30	0,055 0,055	0,40 0,016	0,48 0,019	0,65 0,026	160 (140 – 170) 520 (460 – 550)	Non ferrous
P12	E/M/A/D	0,30 0,30	0,055 0,055	0,40 0,016	0,48 0,019	0,65 0,026	95 (83 – 100) 310 (280 – 320)	
M1	E/M/A	0,30 0,30	0,055 0,055	0,40 0,016	0,48 0,019	0,65 0,026	185 (170 – 200) 610 (560 – 650)	Non ferrous
M2	E/M/A	0,30 0,30	0,055 0,055	0,40 0,016	0,48 0,019	0,65 0,026	150 (140 – 160) 490 (460 – 520)	
M3	E/M/A	0,30 0,30	0,055 0,055	0,40 0,016	0,48 0,019	0,65 0,026	115 (97 – 130) 375 (320 – 420)	Hard
M4	E/M/A	0,30 0,30	0,055 0,055	0,40 0,016	0,48 0,019	0,65 0,026	85 (73 – 99) 280 (240 – 320)	
M5	E/M/A	0,30 0,30	0,055 0,055	0,40 0,016	0,48 0,019	0,65 0,026	70 (61 – 82) 230 (210 – 260)	Hard
K1	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	475 (430 – 520) 1550 (1500 – 1700)	
K2	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	415 (370 – 450) 1350 (1300 – 1400)	Plastic and cfrp
K3	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	350 (320 – 380) 1150 (1100 – 1200)	
K4	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	335 (300 – 370) 1100 (990 – 1200)	Plastic and cfrp
K5	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	200 (180 – 220) 660 (600 – 720)	
K6	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	295 (270 – 320) 970 (890 – 1000)	Graphite
K7	E/M/A/D	0,30 0,30	0,060 0,060	0,50 0,020	0,60 0,024	0,80 0,032	255 (230 – 280) 840 (760 – 910)	
S1	E	0,30 0,30	0,034 0,034	0,24 0,0095	0,28 0,011	0,38 0,015	55 (36 – 71) 180 (120 – 230)	Graphite
S2	E	0,30 0,30	0,034 0,034	0,24 0,0095	0,28 0,011	0,38 0,015	43 (29 – 57) 140 (96 – 180)	
S3	E	0,30 0,30	0,034 0,034	0,24 0,0095	0,28 0,011	0,38 0,015	37 (25 – 49) 120 (83 – 160)	X-Heads
S11	E	0,30 0,30	0,034 0,034	0,36 0,014	0,42 0,017	0,55 0,022	170 (150 – 190) 560 (500 – 620)	
S12	E	0,30 0,30	0,034 0,034	0,36 0,014	0,42 0,017	0,55 0,022	130 (120 – 140) 425 (400 – 450)	X-Heads
S13	E	0,30 0,30	0,034 0,034	0,36 0,014	0,42 0,017	0,55 0,022	100 (89 – 110) 330 (300 – 360)	
H5	M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	115 (98 – 130) 375 (330 – 420)	X-Heads
H8	M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	115 (98 – 130) 375 (330 – 420)	
H21	M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	115 (98 – 130) 375 (330 – 420)	Minimaster
H31	M/A	0,30 0,30	0,060 0,060	0,40 0,016	0,48 0,019	0,65 0,026	90 (74 – 100) 295 (250 – 320)	

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

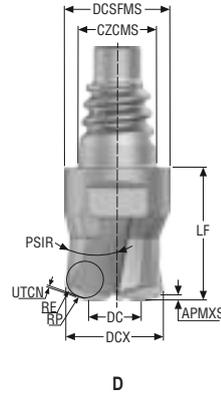
Cutting data – XHF580 Slot milling inch

Material Group	SMG	Coolant	ap/DCX			fz			vc													
				3/8	1/2	5/8																
Universal	P1	E/M/A/D	0,060	0,30	0,36	0,48	440 (400 – 480)															
			0.060	0.012	0.014	0.019	1450 (1400 – 1500)															
			Steel and cast iron	P2	E/M/A/D	0,060	0,30	0,36	0,48	430 (390 – 470)												
						0.060	0.012	0.014	0.019	1400 (1300 – 1500)												
						Stainless steel and S-materials	P3	E/M/A/D	0,060	0,30	0,36	0,48	370 (330 – 400)									
									0.060	0.012	0.014	0.019	1225 (1100 – 1300)									
									Non ferrous	P4	E/M/A/D	0,060	0,30	0,36	0,48	325 (290 – 360)						
												0.060	0.012	0.014	0.019	1075 (960 – 1100)						
												Hard	P5	E/M/A/D	0,060	0,30	0,36	0,48	245 (220 – 270)			
															0.060	0.012	0.014	0.019	800 (730 – 880)			
															Plastic and cfrp	P6	E/M/A/D	0,060	0,30	0,36	0,48	275 (250 – 300)
																		0.060	0.012	0.014	0.019	900 (830 – 980)
Graphite	P7	E/M/A/D																0,060	0,30	0,36	0,48	260 (240 – 280)
																		0.060	0.012	0.014	0.019	850 (790 – 910)
			X-Heads	P8	E/M/A/D													0,060	0,30	0,36	0,48	245 (220 – 270)
																		0.060	0.012	0.014	0.019	800 (730 – 880)
						Minimaster	P11	E/M/A/D										0,055	0,24	0,28	0,38	145 (130 – 160)
																		0.055	0.0095	0.011	0.015	475 (430 – 520)
									Universal	P12	E/M/A/D							0,055	0,24	0,28	0,38	85 (75 – 94)
																		0.055	0.0095	0.011	0.015	280 (250 – 300)
												Steel and cast iron	M1	E/M/A				0,055	0,24	0,28	0,38	170 (150 – 180)
																		0.055	0.0095	0.011	0.015	560 (500 – 590)
															Stainless steel and S-materials	M2	E/M/A	0,055	0,24	0,28	0,38	135 (120 – 150)
																		0.055	0.0095	0.011	0.015	445 (400 – 490)
Non ferrous	M3	E/M/A																0,055	0,24	0,28	0,38	105 (88 – 110)
																		0.055	0.0095	0.011	0.015	345 (290 – 360)
			Hard	M4	E/M/A													0,055	0,24	0,28	0,38	80 (66 – 89)
																		0.055	0.0095	0.011	0.015	260 (220 – 290)
						Plastic and cfrp	M5	E/M/A										0,055	0,24	0,28	0,38	65 (55 – 74)
																		0.055	0.0095	0.011	0.015	215 (190 – 240)
									Graphite	K1	E/M/A/D							0,060	0,30	0,36	0,48	430 (390 – 480)
																		0.060	0.012	0.014	0.019	1400 (1300 – 1500)
												X-Heads	K2	E/M/A/D				0,060	0,30	0,36	0,48	375 (340 – 410)
																		0.060	0.012	0.014	0.019	1225 (1200 – 1300)
															Minimaster	K3	E/M/A/D	0,060	0,30	0,36	0,48	315 (290 – 350)
																		0.060	0.012	0.014	0.019	1025 (960 – 1100)
Universal	K4	E/M/A/D																0,060	0,30	0,36	0,48	305 (270 – 330)
																		0.060	0.012	0.014	0.019	1000 (890 – 1000)
			Steel and cast iron	K5	E/M/A/D													0,060	0,30	0,36	0,48	180 (170 – 200)
																		0.060	0.012	0.014	0.019	590 (560 – 650)
						Stainless steel and S-materials	K6	E/M/A/D										0,060	0,30	0,36	0,48	265 (240 – 290)
																		0.060	0.012	0.014	0.019	870 (790 – 950)
									Non ferrous	K7	E/M/A/D							0,060	0,30	0,36	0,48	230 (210 – 250)
																		0.060	0.012	0.014	0.019	750 (690 – 820)
												Hard	S1	E				0,034	0,18	0,22	0,28	47 (32 – 62)
																		0.034	0.0070	0.0085	0.011	155 (110 – 200)
															Plastic and cfrp	S2	E	0,034	0,18	0,22	0,28	38 (26 – 50)
																		0.034	0.0070	0.0085	0.011	125 (86 – 160)
Graphite	S3	E																0,034	0,18	0,22	0,28	32 (22 – 43)
																		0.034	0.0070	0.0085	0.011	105 (73 – 140)
			X-Heads	S11	E													0,034	0,18	0,22	0,28	160 (150 – 180)
																		0.034	0.0070	0.0085	0.011	520 (500 – 590)
						Minimaster	S12	E										0,034	0,18	0,22	0,28	125 (110 – 140)
																		0.034	0.0070	0.0085	0.011	410 (370 – 450)
									Universal	S13	E							0,034	0,18	0,22	0,28	95 (84 – 100)
																		0.034	0.0070	0.0085	0.011	310 (280 – 320)
												Steel and cast iron	H5	M/A				0,060	0,24	0,28	0,38	105 (88 – 120)
																		0.060	0.0095	0.011	0.015	345 (290 – 390)
															Stainless steel and S-materials	H8	M/A	0,060	0,24	0,28	0,38	105 (88 – 120)
																		0.060	0.0095	0.011	0.015	345 (290 – 390)
Non ferrous	H21	M/A																0,060	0,24	0,28	0,38	105 (88 – 120)
																		0.060	0.0095	0.011	0.015	345 (290 – 390)
			Hard	H31	M/A													0,060	0,24	0,28	0,38	80 (67 – 91)
																		0.060	0.0095	0.011	0.015	260 (220 – 290)

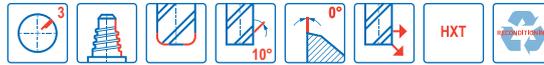
SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
vc = m/min (sf/min)  
fz = mm (in/tooth)  
ap = mm/DC (in/DC) = factor  
ae = mm/DC (in/DC) = factor  
All cutting data are target values

XHF780

High feed – ISO– M and ISO– S – 3 Flutes – Corner radius



- Tolerances:
- DCX= -0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible if DCX is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	L	LF	RE	RP	UTCN	PCEDC	SW	Grades
					mm	mm	mm	mm	mm	mm	mm	mm	mm			HXT
XHF780E10100D1HZ3	10137957	1	D	E10	10,0	5,0	9,7	0,45	5,5	12,3	0,8	1,175	0,232	3	8	■
XHF780E12120D1HZ3	10137958	1	D	E12	12,0	6,0	11,7	0,5	6,6	14,4	1,0	1,416	0,262	3	10	■
XHF780E16160D1HZ3	10137959	1	D	E16	16,0	8,0	15,5	0,6	8,8	18,6	1,5	1,989	0,32	3	12	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

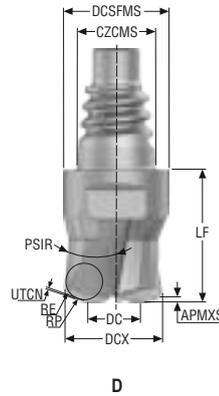
Graphite

X-Heads

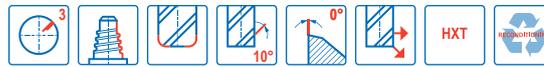
Minimaster

XHF780

High feed – ISO- M and ISO- S – 3 Flutes – Corner radius – Inch



—Tolerances:  
—DCX= -.0008/-0.0016 Inch  
—RE= ±.002 Inch  
—Regrind possible if DCX is ≥∅.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	L	LF	RE	RP	UTCN	PCEDC	SW	Grades
																HXT
XHF780E10.375D1HZ3	10137960	1	D	E10	0.375	0.188	0.364	0.018	0.206	0.484	0.028	0.043	0.009	3	8	■
XHF780E12.500D1HZ3	10137961	1	D	E12	0.500	0.250	0.484	0.020	0.276	0.567	0.045	0.061	0.010	3	10	■
XHF780E16.625D1HZ3	10137962	1	D	E16	0.625	0.313	0.610	0.024	0.343	0.732	0.061	0.080	0.012	3	12	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – XHF780 Side milling

SMG		a <sub>e</sub> /DCX	a <sub>p</sub> /DCX	f <sub>z</sub>			v <sub>c</sub>	
				10	12	16		
P1	E/M/A/D	0,30	0,040	0,50	0,60	0,80	355 (330 – 410)	Universal
		0,30	0,040	0,020	0,024	0,032	1175 (1100 – 1300)	
P2	E/M/A/D	0,30	0,040	0,50	0,60	0,80	345 (320 – 390)	Steel and cast iron
		0,30	0,040	0,020	0,024	0,032	1125 (1100 – 1200)	
P3	E/M/A/D	0,30	0,040	0,50	0,60	0,80	295 (280 – 340)	Steel and cast iron
		0,30	0,040	0,020	0,024	0,032	970 (920 – 1100)	
P4	E/M/A/D	0,30	0,040	0,50	0,60	0,80	260 (250 – 300)	Steel and cast iron
		0,30	0,040	0,020	0,024	0,032	850 (830 – 980)	
P5	E/M/A/D	0,30	0,040	0,50	0,60	0,80	260 (250 – 300)	Steel and cast iron
		0,30	0,040	0,020	0,024	0,032	850 (830 – 980)	
P6	E/M/A/D	0,30	0,040	0,50	0,60	0,80	195 (180 – 230)	Stainless steel and S-materials
		0,30	0,040	0,020	0,024	0,032	640 (600 – 750)	
P7	E/M/A/D	0,30	0,040	0,50	0,60	0,80	185 (170 – 220)	Stainless steel and S-materials
		0,30	0,040	0,020	0,024	0,032	610 (560 – 720)	
P8	E/M/A/D	0,30	0,040	0,50	0,60	0,80	175 (160 – 210)	Stainless steel and S-materials
		0,30	0,040	0,020	0,024	0,032	570 (530 – 680)	
P11	E/M/A/D	0,30	0,040	0,50	0,60	0,80	180 (170 – 210)	Stainless steel and S-materials
		0,30	0,040	0,020	0,024	0,032	590 (560 – 680)	
P12	E/M/A/D	0,30	0,036	0,40	0,48	0,65	85 (83 – 100)	Non ferrous
		0,30	0,036	0,016	0,019	0,026	280 (280 – 320)	
M1	E/M/A	0,30	0,036	0,40	0,48	0,65	175 (170 – 210)	Non ferrous
		0,30	0,036	0,016	0,019	0,026	570 (560 – 680)	
M2	E/M/A	0,30	0,036	0,40	0,48	0,65	140 (140 – 160)	Non ferrous
		0,30	0,036	0,016	0,019	0,026	460 (460 – 520)	
M3	E/M/A	0,30	0,036	0,40	0,48	0,65	105 (97 – 130)	Non ferrous
		0,30	0,036	0,016	0,019	0,026	345 (320 – 420)	
M4	E/M/A	0,30	0,036	0,40	0,48	0,65	75 (73 – 100)	Non ferrous
		0,30	0,036	0,016	0,019	0,026	245 (240 – 320)	
M5	E/M/A	0,30	0,036	0,40	0,48	0,65	65 (61 – 83)	Non ferrous
		0,30	0,036	0,016	0,019	0,026	215 (210 – 270)	
S1	E	0,30	0,022	0,24	0,28	0,38	45 (36 – 71)	Hard
		0,30	0,022	0,0095	0,011	0,015	150 (120 – 230)	
S2	E	0,30	0,022	0,24	0,28	0,38	36 (29 – 57)	Hard
		0,30	0,022	0,0095	0,011	0,015	120 (96 – 180)	
S3	E	0,30	0,022	0,24	0,28	0,38	31 (25 – 49)	Hard
		0,30	0,022	0,0095	0,011	0,015	100 (83 – 160)	
S11	E	0,30	0,022	0,36	0,42	0,55	160 (160 – 190)	Plastic and cfrp
		0,30	0,022	0,014	0,017	0,022	520 (530 – 620)	
S12	E	0,30	0,022	0,36	0,42	0,55	120 (120 – 150)	Plastic and cfrp
		0,30	0,022	0,014	0,017	0,022	395 (400 – 490)	
S13	E	0,30	0,022	0,36	0,42	0,55	95 (90 – 110)	Plastic and cfrp
		0,30	0,022	0,014	0,017	0,022	310 (300 – 360)	
H5	M/A	0,30	0,040	0,40	0,48	0,65	105 (99 – 130)	Graphite
		0,30	0,040	0,016	0,019	0,026	345 (330 – 420)	
H8	M/A	0,30	0,040	0,40	0,48	0,65	105 (99 – 130)	Graphite
		0,30	0,040	0,016	0,019	0,026	345 (330 – 420)	
H11	M/A	0,30	0,040	0,40	0,48	0,65	135 (130 – 170)	Graphite
		0,30	0,040	0,016	0,019	0,026	445 (430 – 550)	
H21	M/A	0,30	0,040	0,40	0,48	0,65	105 (99 – 130)	Graphite
		0,30	0,040	0,016	0,019	0,026	345 (330 – 420)	
H31	M/A	0,30	0,040	0,40	0,48	0,65	80 (75 – 100)	Graphite
		0,30	0,040	0,016	0,019	0,026	260 (250 – 320)	

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – XHF780 Slot milling

SMG		a <sub>p</sub> /DCX	f <sub>z</sub>			v <sub>c</sub>	
			10	12	16		
Universal	P1	E/M/A/D	0,040	0,30	0,36	0,48	310 (290 — 350)
			0.040	0.012	0.014	0.019	1025 (960 — 1100)
	P2	E/M/A/D	0,040	0,30	0,36	0,48	300 (290 — 350)
			0.040	0.012	0.014	0.019	980 (960 — 1100)
	P3	E/M/A/D	0,040	0,30	0,36	0,48	260 (250 — 300)
			0.040	0.012	0.014	0.019	850 (830 — 980)
	P4	E/M/A/D	0,040	0,30	0,36	0,48	230 (220 — 260)
			0.040	0.012	0.014	0.019	750 (730 — 850)
	P5	E/M/A/D	0,040	0,30	0,36	0,48	230 (220 — 260)
			0.040	0.012	0.014	0.019	750 (730 — 850)
	P6	E/M/A/D	0,040	0,30	0,36	0,48	170 (160 — 200)
			0.040	0.012	0.014	0.019	560 (530 — 650)
P7	E/M/A/D	0,040	0,30	0,36	0,48	160 (150 — 190)	
		0.040	0.012	0.014	0.019	520 (500 — 620)	
P8	E/M/A/D	0,040	0,30	0,36	0,48	150 (140 — 180)	
		0.040	0.012	0.014	0.019	490 (460 — 590)	
P11	E/M/A/D	0,040	0,30	0,36	0,48	155 (150 — 180)	
		0.040	0.012	0.014	0.019	510 (500 — 590)	
P12	E/M/A/D	0,036	0,24	0,28	0,38	75 (73 — 92)	
		0.036	0.0095	0.011	0.015	245 (240 — 300)	
Steel and cast iron	M1	E/M/A	0,036	0,24	0,28	0,38	150 (150 — 180)
			0.036	0.0095	0.011	0.015	490 (500 — 590)
	M2	E/M/A	0,036	0,24	0,28	0,38	120 (120 — 140)
			0.036	0.0095	0.011	0.015	395 (400 — 450)
	M3	E/M/A	0,036	0,24	0,28	0,38	90 (85 — 110)
		0.036	0.0095	0.011	0.015	295 (280 — 360)	
Non ferrous	M4	E/M/A	0,036	0,24	0,28	0,38	65 (64 — 87)
			0.036	0.0095	0.011	0.015	215 (210 — 280)
	M5	E/M/A	0,036	0,24	0,28	0,38	55 (53 — 72)
		0.036	0.0095	0.011	0.015	180 (180 — 230)	
Stainless steel and S-materials	S1	E	0,022	0,18	0,22	0,28	38 (31 — 60)
			0.022	0.0070	0.0085	0.011	125 (110 — 190)
	S2	E	0,022	0,18	0,22	0,28	30 (25 — 48)
			0.022	0.0070	0.0085	0.011	100 (83 — 150)
	S3	E	0,022	0,18	0,22	0,28	26 (21 — 41)
			0.022	0.0070	0.0085	0.011	85 (69 — 130)
Hard	S11	E	0,022	0,18	0,22	0,28	145 (140 — 170)
			0.022	0.0070	0.0085	0.011	475 (460 — 550)
	S12	E	0,022	0,18	0,22	0,28	110 (110 — 130)
		0.022	0.0070	0.0085	0.011	360 (370 — 420)	
Plastic and CFRP	S13	E	0,022	0,18	0,22	0,28	85 (82 — 100)
			0.022	0.0070	0.0085	0.011	280 (270 — 320)
	H5	M/A	0,040	0,24	0,28	0,38	90 (86 — 110)
		0.040	0.0095	0.011	0.015	295 (290 — 360)	
Graphite	H8	M/A	0,040	0,24	0,28	0,38	90 (86 — 110)
			0.040	0.0095	0.011	0.015	295 (290 — 360)
	H11	M/A	0,040	0,24	0,28	0,38	115 (110 — 140)
			0.040	0.0095	0.011	0.015	375 (370 — 450)
	H21	M/A	0,040	0,24	0,28	0,38	90 (86 — 110)
		0.040	0.0095	0.011	0.015	295 (290 — 360)	
H31	M/A	0,040	0,24	0,28	0,38	70 (65 — 88)	
		0.040	0.0095	0.011	0.015	230 (220 — 280)	

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

Cutting data – XHF780 Side milling inch

SMG		a <sub>p</sub> /DCX		f <sub>z</sub>			v <sub>c</sub>	
				3/8	1/2	5/8		
P1	E/M/A/D	0,30 0,30	0,040 0,040	0,50 0,020	0,60 0,024	0,80 0,032	370 (330 – 410) 1225 (1100 – 1300)	Universal
P2	E/M/A/D	0,30 0,30	0,040 0,040	0,50 0,020	0,60 0,024	0,80 0,032	360 (320 – 390) 1175 (1100 – 1200)	
P3	E/M/A/D	0,30 0,30	0,040 0,040	0,50 0,020	0,60 0,024	0,80 0,032	310 (280 – 340) 1025 (920 – 1100)	Steel and cast iron
P4	E/M/A/D	0,30 0,30	0,040 0,040	0,50 0,020	0,60 0,024	0,80 0,032	270 (250 – 300) 890 (830 – 980)	
P5	E/M/A/D	0,30 0,30	0,040 0,040	0,50 0,020	0,60 0,024	0,80 0,032	270 (250 – 300) 890 (830 – 980)	Steel and stainless steel and S-materials
P6	E/M/A/D	0,30 0,30	0,040 0,040	0,50 0,020	0,60 0,024	0,80 0,032	305 (280 – 330) 1000 (920 – 1000)	
P7	E/M/A/D	0,30 0,30	0,040 0,040	0,50 0,020	0,60 0,024	0,80 0,032	290 (260 – 320) 950 (860 – 1000)	Stainless steel and S-materials
P8	E/M/A/D	0,30 0,30	0,040 0,040	0,50 0,020	0,60 0,024	0,80 0,032	270 (250 – 300) 890 (830 – 980)	
P11	E/M/A/D	0,30 0,30	0,036 0,036	0,40 0,016	0,48 0,019	0,65 0,026	160 (150 – 170) 520 (500 – 550)	Stainless steel and S-materials
P12	E/M/A/D	0,30 0,30	0,036 0,036	0,40 0,016	0,48 0,019	0,65 0,026	95 (83 – 100) 310 (280 – 320)	
M1	E/M/A	0,30 0,30	0,036 0,036	0,40 0,016	0,48 0,019	0,65 0,026	190 (170 – 210) 620 (560 – 680)	Non ferrous
M2	E/M/A	0,30 0,30	0,036 0,036	0,40 0,016	0,48 0,019	0,65 0,026	150 (140 – 160) 490 (460 – 520)	
M3	E/M/A	0,30 0,30	0,036 0,036	0,40 0,016	0,48 0,019	0,65 0,026	115 (97 – 130) 375 (320 – 420)	Non ferrous
M4	E/M/A	0,30 0,30	0,036 0,036	0,40 0,016	0,48 0,019	0,65 0,026	85 (73 – 100) 280 (240 – 320)	
M5	E/M/A	0,30 0,30	0,036 0,036	0,40 0,016	0,48 0,019	0,65 0,026	70 (61 – 83) 230 (210 – 270)	Hard
S1	E	0,30 0,30	0,022 0,022	0,24 0,0095	0,28 0,011	0,38 0,015	55 (36 – 71) 180 (120 – 230)	
S2	E	0,30 0,30	0,022 0,022	0,24 0,0095	0,28 0,011	0,38 0,015	43 (29 – 57) 140 (96 – 180)	Hard
S3	E	0,30 0,30	0,022 0,022	0,24 0,0095	0,28 0,011	0,38 0,015	37 (25 – 49) 120 (83 – 160)	
S11	E	0,30 0,30	0,022 0,022	0,36 0,014	0,42 0,017	0,55 0,022	175 (160 – 190) 570 (530 – 620)	Plastic and cfrp
S12	E	0,30 0,30	0,022 0,022	0,36 0,014	0,42 0,017	0,55 0,022	135 (120 – 150) 445 (400 – 490)	
S13	E	0,30 0,30	0,022 0,022	0,36 0,014	0,42 0,017	0,55 0,022	105 (90 – 110) 345 (300 – 360)	Plastic and cfrp
H5	M/A	0,30 0,30	0,040 0,040	0,40 0,016	0,48 0,019	0,65 0,026	115 (99 – 130) 375 (330 – 420)	
H8	M/A	0,30 0,30	0,040 0,040	0,40 0,016	0,48 0,019	0,65 0,026	115 (99 – 130) 375 (330 – 420)	Graphite
H11	M/A	0,30 0,30	0,040 0,040	0,40 0,016	0,48 0,019	0,65 0,026	150 (130 – 170) 490 (430 – 550)	
H21	M/A	0,30 0,30	0,040 0,040	0,40 0,016	0,48 0,019	0,65 0,026	115 (99 – 130) 375 (330 – 420)	Graphite
H31	M/A	0,30 0,30	0,040 0,040	0,40 0,016	0,48 0,019	0,65 0,026	90 (75 – 100) 295 (250 – 320)	

SMG = Seco material group  
Coolant = A=air D=dry E=emulsion M=mist spray  
v<sub>c</sub> = m/min (sf/min)  
f<sub>z</sub> = mm (in/tooth)  
a<sub>p</sub> = mm/DC (in/DC) = factor  
a<sub>e</sub> = mm/DC (in/DC) = factor  
All cutting data are target values

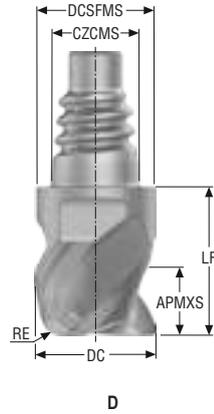
Universal  
Steel and cast iron  
Steel and stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – XHF780 Slot milling inch

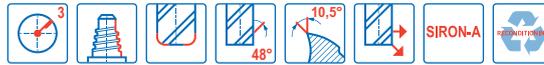
SMG		a <sub>p</sub> /DCX	f <sub>z</sub>			v <sub>c</sub>
			3/8	1/2	5/8	
P1	E/M/A/D	0,040	0,30	0,36	0,48	325 (290 – 350)
		0.040	0.012	0.014	0.019	1075 (960 – 1100)
P2	E/M/A/D	0,040	0,30	0,36	0,48	315 (290 – 350)
		0.040	0.012	0.014	0.019	1025 (960 – 1100)
P3	E/M/A/D	0,040	0,30	0,36	0,48	270 (250 – 300)
		0.040	0.012	0.014	0.019	890 (830 – 980)
P4	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P5	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P6	E/M/A/D	0,040	0,30	0,36	0,48	270 (240 – 290)
		0.040	0.012	0.014	0.019	890 (790 – 950)
P7	E/M/A/D	0,040	0,30	0,36	0,48	255 (230 – 280)
		0.040	0.012	0.014	0.019	840 (760 – 910)
P8	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P11	E/M/A/D	0,036	0,24	0,28	0,38	140 (130 – 150)
		0.036	0.0095	0.011	0.015	460 (430 – 490)
P12	E/M/A/D	0,036	0,24	0,28	0,38	80 (73 – 92)
		0.036	0.0095	0.011	0.015	260 (240 – 300)
M1	E/M/A	0,036	0,24	0,28	0,38	165 (150 – 180)
		0.036	0.0095	0.011	0.015	540 (500 – 590)
M2	E/M/A	0,036	0,24	0,28	0,38	130 (120 – 140)
		0.036	0.0095	0.011	0.015	425 (400 – 450)
M3	E/M/A	0,036	0,24	0,28	0,38	100 (85 – 110)
		0.036	0.0095	0.011	0.015	330 (280 – 360)
M4	E/M/A	0,036	0,24	0,28	0,38	75 (64 – 87)
		0.036	0.0095	0.011	0.015	245 (210 – 280)
M5	E/M/A	0,036	0,24	0,28	0,38	65 (53 – 72)
		0.036	0.0095	0.011	0.015	215 (180 – 230)
S1	E	0,022	0,18	0,22	0,28	45 (31 – 60)
		0.022	0.0070	0.0085	0.011	150 (110 – 190)
S2	E	0,022	0,18	0,22	0,28	36 (25 – 48)
		0.022	0.0070	0.0085	0.011	120 (83 – 150)
S3	E	0,022	0,18	0,22	0,28	31 (21 – 41)
		0.022	0.0070	0.0085	0.011	100 (69 – 130)
S11	E	0,022	0,18	0,22	0,28	155 (140 – 170)
		0.022	0.0070	0.0085	0.011	510 (460 – 550)
S12	E	0,022	0,18	0,22	0,28	120 (110 – 130)
		0.022	0.0070	0.0085	0.011	395 (370 – 420)
S13	E	0,022	0,18	0,22	0,28	95 (82 – 100)
		0.022	0.0070	0.0085	0.011	310 (270 – 320)
H5	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H8	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H11	M/A	0,040	0,24	0,28	0,38	130 (110 – 140)
		0.040	0.0095	0.011	0.015	425 (370 – 450)
H21	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H31	M/A	0,040	0,24	0,28	0,38	75 (65 – 88)
		0.040	0.0095	0.011	0.015	245 (220 – 280)

SMG = Seco material group  
 Coolant = A=air D=dry E=emulsion M=mist spray  
 v<sub>c</sub> = m/min (sf/min)  
 f<sub>z</sub> = mm (in/tooth)  
 a<sub>p</sub> = mm/DC (in/DC) = factor  
 a<sub>e</sub> = mm/DC (in/DC) = factor  
 All cutting data are target values

XVE540  
General purpose – Universal – Square – 3 Flutes – Corner radius



- Tolerances:
- DC= h9
- RE= ±0,015 mm
- Regrind possible if DC is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XVE540E10100D1R050Z3	10137981	1	D	E10	10,0	9,7	5,5	12,4	0,5	3	8	■
XVE540E12120D1R050Z3	10137982	1	D	E12	12,0	11,7	6,5	14,5	0,5	3	10	■
XVE540E16160D1R050Z3	10137983	1	D	E16	16,0	15,5	8,5	18,7	0,5	3	12	■
XVE540E20200D1R050Z3	10137984	1	D	E20	20,0	19,3	11,0	21,3	0,5	3	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

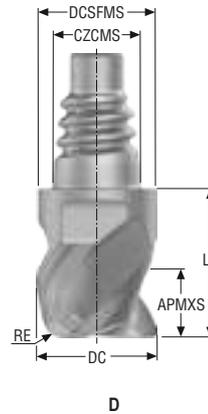
Graphite

X-Heads

Minimaster

XVE540

General purpose – Universal – Square – 3 Flutes – Corner radius



- Tolerances:
- DC= h9
- RE= .015 Inch= ±.0006 Inch
- RE= .031 Inch= ±.0012 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	Inch	Inch	Inch	Inch			
XVE540E10.375D1R015Z3	10137985	1	D	E10	0.375	0.364	0.209	0.488	0.015	3	8	■
XVE540E12.500D1R015Z3	10137986	1	D	E12	0.500	0.484	0.276	0.575	0.015	3	10	■
XVE540E16.625D1R015Z3	10137987	1	D	E16	0.625	0.610	0.335	0.736	0.015	3	12	■
XVE540E20.750D1R031Z3	10137988	1	D	E20	0.750	0.728	0.413	0.839	0.031	3	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – XVE540 – Side milling PCEDC 3

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				10	12	16	20		
P1	E/M/A/D	0,50	0,50	0,055	0,065	0,080	0,090	175 (140 – 220)	Universal
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	570 (460 – 720)	
P2	E/M/A/D	0,50	0,50	0,055	0,065	0,080	0,090	170 (130 – 210)	Steel and cast iron
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	560 (430 – 680)	
P3	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	150 (120 – 180)	Steel and cast iron
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	490 (400 – 590)	
P4	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	135 (100 – 160)	Steel and cast iron
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	445 (330 – 520)	
P5	E/M/A/D	0,50	0,50	0,050	0,060	0,070	0,085	125 (96 – 150)	Steel and cast iron
		0,50	0,50	0,0020	0,0024	0,0028	0,0034	410 (320 – 490)	
P6	E/M/A/D	0,50	0,50	0,048	0,055	0,070	0,080	145 (110 – 170)	Stainless steel and S-materials
		0,50	0,50	0,0019	0,0022	0,0028	0,0032	475 (370 – 550)	
P7	E/M/A/D	0,50	0,50	0,048	0,055	0,070	0,080	135 (110 – 160)	Stainless steel and S-materials
		0,50	0,50	0,0019	0,0022	0,0028	0,0032	445 (370 – 520)	
P8	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	125 (96 – 150)	Stainless steel and S-materials
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	410 (320 – 490)	
P11	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	80 (70 – 93)	Stainless steel and S-materials
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	260 (230 – 300)	
P12	E/M/A/D	0,50	0,50	0,034	0,040	0,050	0,060	50 (45 – 59)	Stainless steel and S-materials
		0,50	0,50	0,0013	0,0016	0,0020	0,0024	165 (150 – 190)	
M1	E/M/A	0,50	0,50	0,055	0,065	0,080	0,095	95 (81 – 100)	Non ferrous
		0,50	0,50	0,0022	0,0026	0,0032	0,0038	310 (270 – 320)	
M2	E/M/A	0,50	0,50	0,050	0,060	0,075	0,085	75 (67 – 88)	Non ferrous
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	245 (220 – 280)	
M3	E/M/A	0,50	0,50	0,050	0,060	0,075	0,085	50 (39 – 60)	Non ferrous
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	165 (130 – 190)	
M4	E/M/A	0,50	0,50	0,044	0,050	0,065	0,075	38 (30 – 46)	Non ferrous
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	125 (99 – 150)	
M5	E/M/A	0,50	0,50	0,044	0,050	0,065	0,075	32 (25 – 39)	Non ferrous
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	105 (83 – 120)	
K1	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	155 (140 – 170)	Hard
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	510 (460 – 550)	
K2	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	135 (120 – 150)	Hard
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	445 (400 – 490)	
K3	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	115 (99 – 130)	Hard
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	375 (330 – 420)	
K4	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	110 (95 – 120)	Hard
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	360 (320 – 390)	
K5	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	140 (120 – 150)	Plastic and cf/tp
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	460 (400 – 490)	
K6	E/M/A/D	0,50	0,50	0,055	0,065	0,080	0,095	200 (170 – 220)	Plastic and cf/tp
		0,50	0,50	0,0022	0,0026	0,0032	0,0038	660 (560 – 720)	
K7	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	175 (150 – 190)	Plastic and cf/tp
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	570 (500 – 620)	
N1	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	550 (510 – 710)	Graphite
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	1800 (1700 – 2300)	
N2	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	355 (330 – 450)	Graphite
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	1175 (1100 – 1400)	
N3	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	235 (220 – 300)	Graphite
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	770 (730 – 980)	
N11	E/M/A	0,50	0,50	0,070	0,080	0,11	0,13	300 (250 – 340)	Graphite
		0,50	0,50	0,0028	0,0032	0,0044	0,0050	980 (830 – 1100)	
S1	E	0,50	0,50	0,050	0,060	0,075	0,085	30 (24 – 37)	X-Heads
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	100 (79 – 120)	
S2	E	0,50	0,50	0,050	0,060	0,075	0,085	25 (19 – 32)	X-Heads
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	80 (63 – 100)	
S3	E	0,50	0,50	0,050	0,060	0,075	0,085	22 (17 – 27)	X-Heads
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	70 (56 – 88)	
S11	E	0,50	0,50	0,050	0,060	0,075	0,085	100 (72 – 120)	X-Heads
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	330 (240 – 390)	
S12	E	0,50	0,50	0,050	0,060	0,075	0,085	75 (56 – 99)	X-Heads
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	245 (190 – 320)	
S13	E	0,50	0,50	0,044	0,050	0,065	0,075	60 (44 – 79)	X-Heads
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	195 (150 – 250)	
TS1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	255 (160 – 350)	Minimaster
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	840 (530 – 1100)	
TP1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	255 (160 – 350)	Minimaster
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	840 (530 – 1100)	
GR1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	610 (510 – 710)	Minimaster
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2300)	

Cutting data – XVE540 – Slot milling PCEDC 3

SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
			10	12	16	20		
Universal	P1	E/M/A/D	0,50	0,034	0,042	0,055	0,070	165 (130 – 200)
			0,50	0,0013	0,0017	0,0022	0,0028	540 (430 – 650)
	P2	E/M/A/D	0,50	0,034	0,042	0,055	0,070	160 (120 – 190)
			0,50	0,0013	0,0017	0,0022	0,0028	520 (400 – 620)
	P3	E/M/A/D	0,50	0,034	0,042	0,055	0,070	135 (110 – 170)
			0,50	0,0013	0,0017	0,0022	0,0028	445 (370 – 550)
	P4	E/M/A/D	0,50	0,034	0,042	0,055	0,070	120 (90 – 140)
			0,50	0,0013	0,0017	0,0022	0,0028	395 (300 – 450)
	P5	E/M/A/D	0,50	0,034	0,042	0,055	0,070	115 (86 – 140)
			0,50	0,0013	0,0017	0,0022	0,0028	375 (290 – 450)
	P6	E/M/A/D	0,50	0,034	0,042	0,055	0,070	130 (97 – 160)
			0,50	0,0013	0,0017	0,0022	0,0028	425 (320 – 520)
P7	E/M/A/D	0,50	0,034	0,042	0,055	0,070	120 (92 – 150)	
		0,50	0,0013	0,0017	0,0022	0,0028	395 (310 – 490)	
P8	E/M/A/D	0,50	0,034	0,042	0,055	0,070	115 (86 – 140)	
		0,50	0,0013	0,0017	0,0022	0,0028	375 (290 – 450)	
P11	E/M/A/D	0,50	0,034	0,042	0,055	0,070	75 (64 – 84)	
		0,50	0,0013	0,0017	0,0022	0,0028	245 (210 – 270)	
P12	E/M/A/D	0,50	0,034	0,040	0,050	0,060	44 (38 – 49)	
		0,50	0,0013	0,0016	0,0020	0,0024	145 (130 – 160)	
Steel and cast iron	M1	E/M/A	0,50	0,034	0,042	0,055	0,070	85 (75 – 99)
			0,50	0,0013	0,0017	0,0022	0,0028	280 (250 – 320)
	M2	E/M/A	0,50	0,034	0,042	0,055	0,070	70 (60 – 79)
			0,50	0,0013	0,0017	0,0022	0,0028	230 (200 – 250)
	M3	E/M/A	0,50	0,034	0,042	0,055	0,070	45 (35 – 55)
		0,50	0,0013	0,0017	0,0022	0,0028	150 (120 – 180)	
M4	E/M/A	0,50	0,034	0,042	0,055	0,070	34 (27 – 41)	
		0,50	0,0013	0,0017	0,0022	0,0028	110 (89 – 130)	
M5	E/M/A	0,50	0,034	0,042	0,055	0,070	28 (22 – 34)	
		0,50	0,0013	0,0017	0,0022	0,0028	90 (73 – 110)	
Stainless steel and S-materials	K1	E/M/A/D	0,50	0,034	0,042	0,055	0,070	140 (120 – 150)
			0,50	0,0013	0,0017	0,0022	0,0028	460 (400 – 490)
	K2	E/M/A/D	0,50	0,034	0,042	0,055	0,070	120 (110 – 130)
			0,50	0,0013	0,0017	0,0022	0,0028	395 (370 – 420)
	K3	E/M/A/D	0,50	0,034	0,042	0,055	0,070	105 (89 – 110)
			0,50	0,0013	0,0017	0,0022	0,0028	345 (300 – 360)
	K4	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (85 – 110)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (280 – 360)	
K5	E/M/A/D	0,50	0,034	0,042	0,055	0,070	125 (110 – 140)	
		0,50	0,0013	0,0017	0,0022	0,0028	410 (370 – 450)	
K6	E/M/A/D	0,50	0,034	0,042	0,055	0,070	185 (150 – 200)	
		0,50	0,0013	0,0017	0,0022	0,0028	610 (500 – 650)	
K7	E/M/A/D	0,50	0,034	0,042	0,055	0,070	160 (130 – 170)	
		0,50	0,0013	0,0017	0,0022	0,0028	520 (430 – 550)	
Non ferrous	N1	E/M/A	0,30	0,034	0,042	0,055	0,070	540 (510 – 700)
			0,30	0,0013	0,0017	0,0022	0,0028	1775 (1700 – 2200)
	N2	E/M/A	0,30	0,034	0,042	0,055	0,070	345 (330 – 450)
			0,30	0,0013	0,0017	0,0022	0,0028	1125 (1100 – 1400)
N3	E/M/A	0,30	0,034	0,042	0,055	0,070	230 (220 – 300)	
		0,30	0,0013	0,0017	0,0022	0,0028	750 (730 – 980)	
N11	E/M/A	0,30	0,034	0,042	0,055	0,070	300 (260 – 350)	
		0,30	0,0013	0,0017	0,0022	0,0028	980 (860 – 1100)	
Hard	S1	E	0,50	0,034	0,042	0,055	0,070	27 (22 – 34)
			0,50	0,0013	0,0017	0,0022	0,0028	90 (73 – 110)
	S2	E	0,50	0,034	0,042	0,055	0,070	23 (18 – 29)
			0,50	0,0013	0,0017	0,0022	0,0028	75 (60 – 95)
	S3	E	0,50	0,034	0,042	0,055	0,070	20 (15 – 24)
			0,50	0,0013	0,0017	0,0022	0,0028	65 (50 – 78)
	S11	E	0,50	0,034	0,042	0,055	0,070	90 (66 – 110)
		0,50	0,0013	0,0017	0,0022	0,0028	295 (220 – 360)	
S12	E	0,50	0,034	0,042	0,055	0,070	70 (51 – 90)	
		0,50	0,0013	0,0017	0,0022	0,0028	230 (170 – 290)	
S13	E	0,50	0,034	0,042	0,055	0,070	55 (39 – 69)	
		0,50	0,0013	0,0017	0,0022	0,0028	180 (130 – 220)	
X-Heads	TS1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 350)
			0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
	TP1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 350)
Minimaster	GR1	A/D	0,30	0,034	0,042	0,055	0,070	820 (500 – 1100)
			0,30	0,0013	0,0017	0,0022	0,0028	600 (500 – 700)
			0,30	0,034	0,042	0,055	1975 (1700 – 2200)	

Cutting data – XVE540 – Side milling PCEDC 3 inch

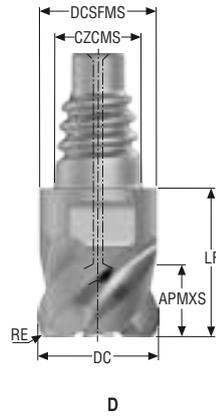
SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				3/8	1/2	5/8	3/4		
P1	E/M/A/D	0,50	0,50	0,055	0,065	0,080	0,090	185 (150 – 210)	Universal
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	610 (500 – 680)	
P2	E/M/A/D	0,50	0,50	0,055	0,065	0,080	0,090	180 (150 – 200)	Steel and cast iron
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	590 (500 – 650)	
P3	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	155 (130 – 180)	Steel and cast iron
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	510 (430 – 590)	
P4	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	140 (120 – 160)	Steel and cast iron
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	460 (400 – 520)	
P5	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	110 (89 – 130)	Steel and cast iron
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	360 (300 – 420)	
P6	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	125 (100 – 140)	Stainless steel and S-materials
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	410 (330 – 450)	
P7	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	115 (94 – 140)	Stainless steel and S-materials
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	375 (310 – 450)	
P8	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,090	110 (89 – 130)	Stainless steel and S-materials
		0,50	0,50	0,0020	0,0024	0,0030	0,0036	360 (300 – 420)	
P11	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	95 (70 – 110)	Stainless steel and S-materials
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	310 (230 – 360)	
P12	E/M/A/D	0,50	0,50	0,034	0,040	0,050	0,060	60 (45 – 73)	Stainless steel and S-materials
		0,50	0,50	0,0013	0,0016	0,0020	0,0024	195 (150 – 230)	
M1	E/M/A	0,50	0,50	0,055	0,065	0,080	0,095	105 (81 – 130)	Non ferrous
		0,50	0,50	0,0022	0,0026	0,0032	0,0038	345 (270 – 420)	
M2	E/M/A	0,50	0,50	0,050	0,060	0,075	0,085	90 (67 – 110)	Non ferrous
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	295 (220 – 360)	
M3	E/M/A	0,50	0,50	0,050	0,060	0,075	0,085	75 (56 – 99)	Non ferrous
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	245 (190 – 320)	
M4	E/M/A	0,50	0,50	0,044	0,050	0,065	0,075	60 (43 – 76)	Non ferrous
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	195 (150 – 240)	
M5	E/M/A	0,50	0,50	0,044	0,050	0,065	0,075	50 (36 – 63)	Non ferrous
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	165 (120 – 200)	
K1	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	140 (120 – 160)	Hard
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	460 (400 – 520)	
K2	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	120 (110 – 140)	Hard
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	395 (370 – 450)	
K3	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	105 (87 – 110)	Hard
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	345 (290 – 360)	
K4	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	110 (89 – 130)	Plastic and CFRP
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	360 (300 – 420)	
K5	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	65 (54 – 80)	Plastic and CFRP
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	215 (180 – 260)	
K6	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	95 (78 – 110)	Plastic and CFRP
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	310 (260 – 360)	
K7	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	85 (69 – 100)	Plastic and CFRP
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	280 (230 – 320)	
N1	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	610 (510 – 710)	Graphite
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2300)	
N2	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	395 (330 – 450)	Graphite
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	1300 (1100 – 1400)	
N3	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	260 (220 – 300)	Graphite
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	850 (730 – 980)	
N11	E/M/A	0,50	0,50	0,070	0,080	0,11	0,13	300 (250 – 340)	Graphite
		0,50	0,30	0,0028	0,0032	0,0044	0,0055	1025 (860 – 1100)	
S1	E	0,50	0,50	0,055	0,065	0,080	0,090	39 (32 – 46)	X-Heads
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	130 (110 – 150)	
S2	E	0,50	0,50	0,055	0,065	0,080	0,090	31 (26 – 37)	X-Heads
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	100 (86 – 120)	
S3	E	0,50	0,50	0,050	0,060	0,075	0,085	28 (23 – 33)	X-Heads
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	90 (76 – 100)	
S11	E	0,50	0,50	0,050	0,060	0,075	0,085	115 (87 – 140)	X-Heads
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	375 (290 – 450)	
S12	E	0,50	0,50	0,050	0,060	0,075	0,085	90 (67 – 110)	X-Heads
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	295 (220 – 360)	
S13	E	0,50	0,50	0,044	0,050	0,065	0,075	70 (53 – 87)	X-Heads
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	230 (180 – 280)	
TS1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	255 (160 – 350)	Minimaster
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	840 (530 – 1100)	
TP1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	255 (160 – 350)	Minimaster
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	840 (530 – 1100)	
GR1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	610 (510 – 710)	Minimaster
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2300)	

Cutting data – XVE540 – Slot milling PCEDC 3 inch

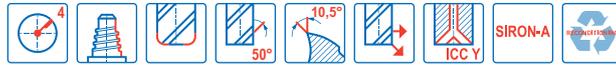
SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
			3/8	1/2	5/8	3/4		
Universal	P1	E/M/A/D	0,50	0,034	0,042	0,055	0,070	170 (140 – 190)
			0,50	0,0013	0,0017	0,0022	0,0028	560 (460 – 620)
	P2	E/M/A/D	0,50	0,034	0,042	0,055	0,070	165 (140 – 190)
			0,50	0,0013	0,0017	0,0022	0,0028	540 (460 – 620)
	P3	E/M/A/D	0,50	0,034	0,042	0,055	0,070	140 (120 – 160)
			0,50	0,0013	0,0017	0,0022	0,0028	460 (400 – 520)
	P4	E/M/A/D	0,50	0,034	0,042	0,055	0,070	125 (100 – 140)
			0,50	0,0013	0,0017	0,0022	0,0028	410 (330 – 450)
	P5	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)
			0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)
	P6	E/M/A/D	0,50	0,034	0,042	0,055	0,070	110 (90 – 130)
			0,50	0,0013	0,0017	0,0022	0,0028	360 (300 – 420)
P7	E/M/A/D	0,50	0,034	0,042	0,055	0,070	105 (85 – 120)	
		0,50	0,0013	0,0017	0,0022	0,0028	345 (280 – 390)	
P8	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)	
		0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)	
P11	E/M/A/D	0,50	0,034	0,042	0,055	0,070	85 (64 – 100)	
		0,50	0,0013	0,0017	0,0022	0,0028	280 (210 – 320)	
P12	E/M/A/D	0,50	0,034	0,040	0,050	0,060	50 (38 – 62)	
		0,50	0,0013	0,0016	0,0020	0,0024	165 (130 – 200)	
Steel and cast iron	M1	E/M/A	0,50	0,034	0,042	0,055	0,070	100 (75 – 120)
			0,50	0,0013	0,0017	0,0022	0,0028	330 (250 – 390)
	M2	E/M/A	0,50	0,034	0,042	0,055	0,070	80 (61 – 100)
			0,50	0,0013	0,0017	0,0022	0,0028	260 (210 – 320)
	M3	E/M/A	0,50	0,034	0,042	0,055	0,070	70 (50 – 89)
		0,50	0,0013	0,0017	0,0022	0,0028	230 (170 – 290)	
M4	E/M/A	0,50	0,034	0,042	0,055	0,070	50 (38 – 67)	
		0,50	0,0013	0,0017	0,0022	0,0028	165 (130 – 210)	
M5	E/M/A	0,50	0,034	0,042	0,055	0,070	44 (32 – 56)	
		0,50	0,0013	0,0017	0,0022	0,0028	145 (110 – 180)	
Stainless steel and S-materials	K1	E/M/A/D	0,50	0,034	0,042	0,055	0,070	125 (110 – 140)
			0,50	0,0013	0,0017	0,0022	0,0028	410 (370 – 450)
	K2	E/M/A/D	0,50	0,034	0,042	0,055	0,070	110 (92 – 120)
			0,50	0,0013	0,0017	0,0022	0,0028	360 (310 – 390)
	K3	E/M/A/D	0,50	0,034	0,042	0,055	0,070	90 (78 – 100)
			0,50	0,0013	0,0017	0,0022	0,0028	295 (260 – 320)
	K4	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)	
K5	E/M/A/D	0,50	0,034	0,042	0,055	0,070	60 (48 – 71)	
		0,50	0,0013	0,0017	0,0022	0,0028	195 (160 – 230)	
K6	E/M/A/D	0,50	0,034	0,042	0,055	0,070	90 (71 – 100)	
		0,50	0,0013	0,0017	0,0022	0,0028	295 (240 – 320)	
K7	E/M/A/D	0,50	0,034	0,042	0,055	0,070	75 (61 – 91)	
		0,50	0,0013	0,0017	0,0022	0,0028	245 (210 – 290)	
Non ferrous	N1	E/M/A	0,30	0,034	0,042	0,055	0,070	600 (500 – 700)
			0,30	0,0013	0,0017	0,0022	0,0028	1975 (1700 – 2200)
	N2	E/M/A	0,30	0,034	0,042	0,055	0,070	385 (330 – 450)
			0,30	0,0013	0,0017	0,0022	0,0028	1275 (1100 – 1400)
N3	E/M/A	0,30	0,034	0,042	0,055	0,070	255 (220 – 300)	
		0,30	0,0013	0,0017	0,0022	0,0028	840 (730 – 980)	
N11	E/M/A	0,30	0,034	0,042	0,055	0,070	300 (260 – 340)	
		0,30	0,0013	0,0017	0,0022	0,0028	980 (860 – 1100)	
Hard	S1	E	0,50	0,034	0,042	0,055	0,070	36 (29 – 43)
			0,50	0,0013	0,0017	0,0022	0,0028	120 (96 – 140)
	S2	E	0,50	0,034	0,042	0,055	0,070	29 (24 – 34)
			0,50	0,0013	0,0017	0,0022	0,0028	95 (79 – 110)
	S3	E	0,50	0,034	0,042	0,055	0,070	25 (20 – 30)
			0,50	0,0013	0,0017	0,0022	0,0028	80 (66 – 98)
	S11	E	0,50	0,034	0,042	0,055	0,070	105 (79 – 130)
		0,50	0,0013	0,0017	0,0022	0,0028	345 (260 – 420)	
S12	E	0,50	0,034	0,042	0,055	0,070	80 (61 – 100)	
		0,50	0,0013	0,0017	0,0022	0,0028	260 (210 – 320)	
S13	E	0,50	0,034	0,042	0,055	0,070	60 (47 – 77)	
		0,50	0,0013	0,0017	0,0022	0,0028	195 (160 – 250)	
Plastic and CFRP	TS1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 350)
			0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
	TP1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 350)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)	
Minimaster	GR1	A/D	0,30	0,034	0,042	0,055	0,070	600 (500 – 700)
			0,30	0,0013	0,0017	0,0022	0,0028	1975 (1700 – 2200)

XVE540

General purpose – Universal – Square – 4 Flutes – Corner radius



- Tolerances:
- DC= h9
- RE= ±0,015 mm
- Regrind possible if DC is ≥Ø12 mm



Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
						mm	mm	mm	mm	mm			SIRA
XVE540E10100D1R050Z4A	10137989	1	D	■	E10	10,0	9,7	6,0	12,4	0,5	4	8	■
XVE540E12120D1R050Z4A	10137990	1	D	■	E12	12,0	11,7	7,5	14,5	0,5	4	10	■
XVE540E16160D1R050Z4A	10137991	1	D	■	E16	16,0	15,5	10,0	18,7	0,5	4	12	■
XVE540E20200D1R050Z4A	10137992	1	D	■	E20	20,0	19,3	12,0	21,3	0,5	4	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

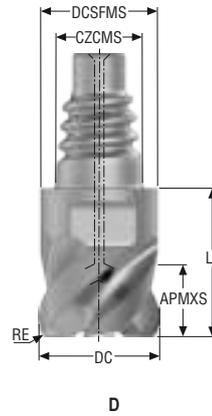
Graphite

X-Heads

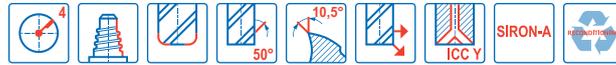
Minimaster

XVE540

General purpose – Universal – Square – 4 Flutes – Corner radius – Inch



- Tolerances:
- DC= h9
- RE= .015 Inch= ±.0006 Inch
- RE= .031 Inch= ±.0012 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
						Inch	Inch	Inch	Inch	Inch			
XVE540E10.375D1R015Z4A	10137993	1	D	■	E10	0.375	0.364	0.236	0.488	0.015	4	8	■
XVE540E12.500D1R031Z4A	10137994	1	D	■	E12	0.500	0.484	0.315	0.571	0.031	4	12	■
XVE540E16.625D1R031Z4A	10137995	1	D	■	E16	0.625	0.610	0.394	0.736	0.031	4	16	■
XVE540E20.750D1R031Z4A	10137996	1	D	■	E20	0.750	0.728	0.453	0.839	0.031	4	18	■

■ Stocked standard.

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

Cutting data – XVE540 – Side milling PCEDC 4

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				10	12	16	20		
P1	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,090	175 (140 – 210)	Universal
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	570 (460 – 680)	
P2	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,090	170 (130 – 210)	Steel and cast iron
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	560 (430 – 680)	
P3	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	150 (120 – 180)	Steel and cast iron
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	490 (400 – 590)	
P4	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	130 (99 – 160)	Steel and cast iron
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	425 (330 – 520)	
P5	E/M/A/D	0,50	0,55	0,050	0,060	0,070	0,085	125 (95 – 150)	Steel and cast iron
		0,50	0,55	0,0020	0,0024	0,0028	0,0034	410 (320 – 490)	
P6	E/M/A/D	0,50	0,55	0,048	0,055	0,070	0,080	140 (110 – 170)	Stainless steel and S-materials
		0,50	0,55	0,0019	0,0022	0,0028	0,0032	460 (370 – 550)	
P7	E/M/A/D	0,50	0,55	0,048	0,055	0,070	0,080	135 (110 – 160)	Stainless steel and S-materials
		0,50	0,55	0,0019	0,0022	0,0028	0,0032	445 (370 – 520)	
P8	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	125 (95 – 150)	Stainless steel and S-materials
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	410 (320 – 490)	
P11	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	80 (70 – 92)	Stainless steel and S-materials
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	260 (230 – 300)	
P12	E/M/A/D	0,50	0,55	0,034	0,040	0,050	0,060	50 (44 – 58)	Stainless steel and S-materials
		0,50	0,55	0,0013	0,0016	0,0020	0,0024	165 (150 – 190)	
M1	E/M/A	0,50	0,55	0,055	0,065	0,080	0,095	95 (80 – 100)	Non ferrous
		0,50	0,55	0,0022	0,0026	0,0032	0,0038	310 (270 – 320)	
M2	E/M/A	0,50	0,55	0,050	0,060	0,075	0,085	75 (66 – 87)	Non ferrous
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	245 (220 – 280)	
M3	E/M/A	0,50	0,55	0,050	0,060	0,075	0,085	49 (39 – 60)	Non ferrous
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	160 (130 – 190)	
M4	E/M/A	0,50	0,55	0,044	0,050	0,065	0,075	38 (30 – 46)	Non ferrous
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	125 (99 – 150)	
M5	E/M/A	0,50	0,55	0,044	0,050	0,065	0,075	32 (25 – 38)	Non ferrous
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	105 (83 – 120)	
K1	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	155 (140 – 170)	Hard
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	510 (460 – 550)	
K2	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	135 (120 – 150)	Hard
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	445 (400 – 490)	
K3	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	115 (99 – 130)	Hard
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	375 (330 – 420)	
K4	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	110 (94 – 120)	Plastic and cf/tp
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	360 (310 – 390)	
K5	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	135 (110 – 150)	Plastic and cf/tp
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	445 (370 – 490)	
K6	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,095	200 (160 – 220)	Plastic and cf/tp
		0,50	0,55	0,0022	0,0026	0,0032	0,0038	660 (530 – 720)	
K7	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	175 (150 – 190)	Plastic and cf/tp
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	570 (500 – 620)	
N1	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	540 (510 – 700)	Graphite
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	1775 (1700 – 2200)	
N2	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	350 (330 – 450)	Graphite
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	1150 (1100 – 1400)	
N3	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	235 (220 – 300)	Graphite
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	770 (730 – 980)	
N11	E/M/A	0,50	0,55	0,070	0,080	0,11	0,13	295 (250 – 340)	Graphite
		0,50	0,55	0,0028	0,0032	0,0044	0,0050	970 (830 – 1100)	
S1	E	0,50	0,55	0,050	0,060	0,075	0,085	30 (24 – 37)	X-Heads
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	100 (79 – 120)	
S2	E	0,50	0,55	0,050	0,060	0,075	0,085	25 (19 – 31)	X-Heads
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	80 (63 – 100)	
S3	E	0,50	0,55	0,050	0,060	0,075	0,085	22 (17 – 27)	X-Heads
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	70 (56 – 88)	
S11	E	0,50	0,55	0,050	0,060	0,075	0,085	100 (72 – 120)	X-Heads
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	330 (240 – 390)	
S12	E	0,50	0,55	0,050	0,060	0,075	0,085	75 (55 – 98)	X-Heads
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	245 (190 – 320)	
S13	E	0,50	0,55	0,044	0,050	0,065	0,075	60 (44 – 78)	X-Heads
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	195 (150 – 250)	
TS1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	250 (160 – 350)	Minimaster
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	820 (530 – 1100)	
TP1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	250 (160 – 350)	Minimaster
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	820 (530 – 1100)	
GR1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	610 (510 – 700)	Minimaster
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2200)	

Cutting data – XVE540 – Slot milling PCEDC 4

SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>
			10	12	16	20	
P1	E/M/A/D	0,55	0,034	0,042	0,055	0,070	160 (130 – 200)
		0,55	0,0013	0,0017	0,0022	0,0028	520 (430 – 650)
P2	E/M/A/D	0,55	0,034	0,042	0,055	0,070	155 (120 – 190)
		0,55	0,0013	0,0017	0,0022	0,0028	510 (400 – 620)
P3	E/M/A/D	0,55	0,034	0,042	0,055	0,070	135 (110 – 160)
		0,55	0,0013	0,0017	0,0022	0,0028	445 (370 – 520)
P4	E/M/A/D	0,55	0,034	0,042	0,055	0,070	120 (90 – 140)
		0,55	0,0013	0,0017	0,0022	0,0028	395 (300 – 450)
P5	E/M/A/D	0,55	0,034	0,042	0,055	0,070	115 (86 – 140)
		0,55	0,0013	0,0017	0,0022	0,0028	375 (290 – 450)
P6	E/M/A/D	0,55	0,034	0,042	0,055	0,070	125 (96 – 150)
		0,55	0,0013	0,0017	0,0022	0,0028	410 (320 – 490)
P7	E/M/A/D	0,55	0,034	0,042	0,055	0,070	120 (91 – 150)
		0,55	0,0013	0,0017	0,0022	0,0028	395 (300 – 490)
P8	E/M/A/D	0,55	0,034	0,042	0,055	0,070	115 (86 – 140)
		0,55	0,0013	0,0017	0,0022	0,0028	375 (290 – 450)
P11	E/M/A/D	0,55	0,034	0,042	0,055	0,070	75 (63 – 83)
		0,55	0,0013	0,0017	0,0022	0,0028	245 (210 – 270)
P12	E/M/A/D	0,55	0,034	0,040	0,050	0,060	43 (37 – 49)
		0,55	0,0013	0,0016	0,0020	0,0024	140 (130 – 160)
M1	E/M/A	0,55	0,034	0,042	0,055	0,070	85 (74 – 98)
		0,55	0,0013	0,0017	0,0022	0,0028	280 (250 – 320)
M2	E/M/A	0,55	0,034	0,042	0,055	0,070	70 (60 – 79)
		0,55	0,0013	0,0017	0,0022	0,0028	230 (200 – 250)
M3	E/M/A	0,55	0,034	0,042	0,055	0,070	45 (35 – 54)
		0,55	0,0013	0,0017	0,0022	0,0028	150 (120 – 170)
M4	E/M/A	0,55	0,034	0,042	0,055	0,070	33 (26 – 40)
		0,55	0,0013	0,0017	0,0022	0,0028	110 (86 – 130)
M5	E/M/A	0,55	0,034	0,042	0,055	0,070	28 (22 – 34)
		0,55	0,0013	0,0017	0,0022	0,0028	90 (73 – 110)
K1	E/M/A/D	0,55	0,034	0,042	0,055	0,070	140 (120 – 150)
		0,55	0,0013	0,0017	0,0022	0,0028	460 (400 – 490)
K2	E/M/A/D	0,55	0,034	0,042	0,055	0,070	120 (110 – 130)
		0,55	0,0013	0,0017	0,0022	0,0028	395 (370 – 420)
K3	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (88 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (290 – 360)
K4	E/M/A/D	0,55	0,034	0,042	0,055	0,070	95 (84 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	310 (280 – 360)
K5	E/M/A/D	0,55	0,034	0,042	0,055	0,070	125 (100 – 130)
		0,55	0,0013	0,0017	0,0022	0,0028	410 (330 – 420)
K6	E/M/A/D	0,55	0,034	0,042	0,055	0,070	185 (150 – 200)
		0,55	0,0013	0,0017	0,0022	0,0028	610 (500 – 650)
K7	E/M/A/D	0,55	0,034	0,042	0,055	0,070	160 (130 – 170)
		0,55	0,0013	0,0017	0,0022	0,0028	520 (430 – 550)
N1	E/M/A	0,30	0,034	0,042	0,055	0,070	530 (500 – 690)
		0,30	0,0013	0,0017	0,0022	0,0028	1750 (1700 – 2200)
N2	E/M/A	0,30	0,034	0,042	0,055	0,070	345 (320 – 440)
		0,30	0,0013	0,0017	0,0022	0,0028	1125 (1100 – 1400)
N3	E/M/A	0,30	0,034	0,042	0,055	0,070	230 (220 – 290)
		0,30	0,0013	0,0017	0,0022	0,0028	750 (730 – 950)
N11	E/M/A	0,30	0,034	0,042	0,055	0,070	295 (250 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	970 (830 – 1100)
S1	E	0,55	0,034	0,042	0,055	0,070	27 (21 – 33)
		0,55	0,0013	0,0017	0,0022	0,0028	90 (69 – 100)
S2	E	0,55	0,034	0,042	0,055	0,070	23 (17 – 28)
		0,55	0,0013	0,0017	0,0022	0,0028	75 (56 – 91)
S3	E	0,55	0,034	0,042	0,055	0,070	20 (15 – 24)
		0,55	0,0013	0,0017	0,0022	0,0028	65 (50 – 78)
S11	E	0,55	0,034	0,042	0,055	0,070	90 (65 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	295 (220 – 360)
S12	E	0,55	0,034	0,042	0,055	0,070	70 (50 – 89)
		0,55	0,0013	0,0017	0,0022	0,0028	230 (170 – 290)
S13	E	0,55	0,034	0,042	0,055	0,070	55 (39 – 69)
		0,55	0,0013	0,0017	0,0022	0,0028	180 (130 – 220)
TS1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
TP1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
GR1	A/D	0,30	0,034	0,042	0,055	0,070	590 (500 – 690)
		0,30	0,0013	0,0017	0,0022	0,0028	1925 (1700 – 2200)

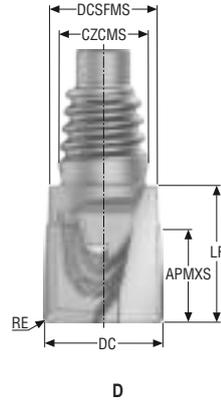
Cutting data – XVE540 – Side milling PCEDC 4 inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
				3/8	1/2	5/8	3/4		
P1	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,090	180 (150 – 210)	Universal
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	590 (500 – 680)	
P2	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,090	175 (150 – 200)	Steel and cast iron
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	570 (500 – 650)	
P3	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	155 (130 – 180)	Steel and cast iron
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	510 (430 – 590)	
P4	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	135 (110 – 150)	Steel and cast iron
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	445 (370 – 490)	
P5	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	110 (88 – 130)	Steel and cast iron
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	360 (290 – 420)	
P6	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	125 (99 – 140)	Stainless steel and S-materials
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	410 (330 – 450)	
P7	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	115 (93 – 130)	Stainless steel and S-materials
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	375 (310 – 420)	
P8	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,090	110 (88 – 130)	Stainless steel and S-materials
		0,50	0,55	0,0020	0,0024	0,0030	0,0036	360 (290 – 420)	
P11	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	90 (70 – 110)	Stainless steel and S-materials
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (230 – 360)	
P12	E/M/A/D	0,50	0,55	0,034	0,040	0,050	0,060	60 (44 – 73)	Stainless steel and S-materials
		0,50	0,55	0,0013	0,0016	0,0020	0,0024	195 (150 – 230)	
M1	E/M/A	0,50	0,55	0,055	0,065	0,080	0,095	105 (80 – 130)	Non ferrous
		0,50	0,55	0,0022	0,0026	0,0032	0,0038	345 (270 – 420)	
M2	E/M/A	0,50	0,55	0,050	0,060	0,075	0,085	90 (66 – 100)	Non ferrous
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (220 – 320)	
M3	E/M/A	0,50	0,55	0,050	0,060	0,075	0,085	75 (55 – 98)	Non ferrous
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	245 (190 – 320)	
M4	E/M/A	0,50	0,55	0,044	0,050	0,065	0,075	60 (43 – 75)	Non ferrous
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	195 (150 – 240)	
M5	E/M/A	0,50	0,55	0,044	0,050	0,065	0,075	49 (36 – 63)	Non ferrous
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	160 (120 – 200)	
K1	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	135 (120 – 150)	Hard
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	445 (400 – 490)	
K2	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	120 (110 – 130)	Hard
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	395 (370 – 420)	
K3	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	100 (86 – 110)	Hard
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	330 (290 – 360)	
K4	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	110 (88 – 130)	Plastic and cfrp
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	360 (290 – 420)	
K5	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	65 (54 – 79)	Plastic and cfrp
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	215 (180 – 250)	
K6	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	95 (78 – 110)	Plastic and cfrp
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	310 (260 – 360)	
K7	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	85 (68 – 100)	Plastic and cfrp
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	280 (230 – 320)	
N1	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	610 (510 – 700)	Graphite
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2200)	
N2	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	390 (330 – 450)	Graphite
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	1275 (1100 – 1400)	
N3	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	260 (220 – 300)	Graphite
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	850 (730 – 980)	
N11	E/M/A	0,50	0,55	0,070	0,080	0,11	0,13	295 (250 – 340)	Graphite
		0,50	0,30	0,0028	0,0032	0,0044	0,0055	1000 (860 – 1100)	
S1	E	0,50	0,55	0,055	0,065	0,080	0,090	39 (31 – 46)	X-Heads
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	130 (110 – 150)	
S2	E	0,50	0,55	0,055	0,065	0,080	0,090	31 (25 – 37)	X-Heads
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	100 (83 – 120)	
S3	E	0,50	0,55	0,050	0,060	0,075	0,085	27 (22 – 32)	X-Heads
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	90 (73 – 100)	
S11	E	0,50	0,55	0,050	0,060	0,075	0,085	115 (86 – 140)	X-Heads
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	375 (290 – 450)	
S12	E	0,50	0,55	0,050	0,060	0,075	0,085	90 (66 – 100)	X-Heads
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (220 – 320)	
S13	E	0,50	0,55	0,044	0,050	0,065	0,075	70 (53 – 87)	X-Heads
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	230 (180 – 280)	
TS1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	250 (160 – 350)	Minimaster
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	820 (530 – 1100)	
TP1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	250 (160 – 350)	Minimaster
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	820 (530 – 1100)	
GR1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	610 (510 – 700)	Minimaster
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2200)	

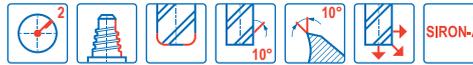
Cutting data – XVE540 – Slot milling PCEDC 4 inch

SMG		a <sub>p</sub> /DC	f <sub>z</sub>				v <sub>c</sub>	
			3/8	1/2	5/8	3/4		
Universal	P1	E/M/A/D	0,55	0,034	0,042	0,055	0,070	170 (140 – 190)
			0,55	0,0013	0,0017	0,0022	0,0028	560 (460 – 620)
	P2	E/M/A/D	0,55	0,034	0,042	0,055	0,070	165 (140 – 180)
			0,55	0,0013	0,0017	0,0022	0,0028	540 (460 – 590)
	P3	E/M/A/D	0,55	0,034	0,042	0,055	0,070	140 (120 – 160)
			0,55	0,0013	0,0017	0,0022	0,0028	460 (400 – 520)
	P4	E/M/A/D	0,55	0,034	0,042	0,055	0,070	125 (100 – 140)
			0,55	0,0013	0,0017	0,0022	0,0028	410 (330 – 450)
	P5	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)
			0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)
	P6	E/M/A/D	0,55	0,034	0,042	0,055	0,070	110 (89 – 130)
			0,55	0,0013	0,0017	0,0022	0,0028	360 (300 – 420)
P7	E/M/A/D	0,55	0,034	0,042	0,055	0,070	105 (84 – 120)	
		0,55	0,0013	0,0017	0,0022	0,0028	345 (280 – 390)	
P8	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)	
		0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)	
P11	E/M/A/D	0,55	0,034	0,042	0,055	0,070	85 (63 – 100)	
		0,55	0,0013	0,0017	0,0022	0,0028	280 (210 – 320)	
P12	E/M/A/D	0,55	0,034	0,040	0,050	0,060	49 (37 – 61)	
		0,55	0,0013	0,0016	0,0020	0,0024	160 (130 – 200)	
Steel and cast iron	M1	E/M/A	0,55	0,034	0,042	0,055	0,070	100 (74 – 120)
			0,55	0,0013	0,0017	0,0022	0,0028	330 (250 – 390)
	M2	E/M/A	0,55	0,034	0,042	0,055	0,070	80 (60 – 99)
			0,55	0,0013	0,0017	0,0022	0,0028	260 (200 – 320)
	M3	E/M/A	0,55	0,034	0,042	0,055	0,070	70 (50 – 89)
		0,55	0,0013	0,0017	0,0022	0,0028	230 (170 – 290)	
M4	E/M/A	0,55	0,034	0,042	0,055	0,070	50 (38 – 66)	
		0,55	0,0013	0,0017	0,0022	0,0028	165 (130 – 210)	
M5	E/M/A	0,55	0,034	0,042	0,055	0,070	43 (31 – 55)	
		0,55	0,0013	0,0017	0,0022	0,0028	140 (110 – 180)	
Stainless steel and S-materials	K1	E/M/A/D	0,55	0,034	0,042	0,055	0,070	125 (110 – 140)
			0,55	0,0013	0,0017	0,0022	0,0028	410 (370 – 450)
	K2	E/M/A/D	0,55	0,034	0,042	0,055	0,070	105 (91 – 120)
			0,55	0,0013	0,0017	0,0022	0,0028	345 (300 – 390)
	K3	E/M/A/D	0,55	0,034	0,042	0,055	0,070	90 (77 – 100)
			0,55	0,0013	0,0017	0,0022	0,0028	295 (260 – 320)
	K4	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)	
K5	E/M/A/D	0,55	0,034	0,042	0,055	0,070	60 (48 – 70)	
		0,55	0,0013	0,0017	0,0022	0,0028	195 (160 – 220)	
K6	E/M/A/D	0,55	0,034	0,042	0,055	0,070	85 (70 – 100)	
		0,55	0,0013	0,0017	0,0022	0,0028	280 (230 – 320)	
K7	E/M/A/D	0,55	0,034	0,042	0,055	0,070	75 (61 – 90)	
		0,55	0,0013	0,0017	0,0022	0,0028	245 (210 – 290)	
Non ferrous	N1	E/M/A	0,30	0,034	0,042	0,055	0,070	590 (500 – 690)
			0,30	0,0013	0,0017	0,0022	0,0028	1925 (1700 – 2200)
	N2	E/M/A	0,30	0,034	0,042	0,055	0,070	380 (320 – 440)
			0,30	0,0013	0,0017	0,0022	0,0028	1250 (1100 – 1400)
N3	E/M/A	0,30	0,034	0,042	0,055	0,070	255 (220 – 290)	
		0,30	0,0013	0,0017	0,0022	0,0028	840 (730 – 950)	
N11	E/M/A	0,30	0,034	0,042	0,055	0,070	295 (250 – 340)	
		0,30	0,0013	0,0017	0,0022	0,0028	970 (830 – 1100)	
Hard	S1	E	0,55	0,034	0,042	0,055	0,070	36 (29 – 42)
			0,55	0,0013	0,0017	0,0022	0,0028	120 (96 – 130)
	S2	E	0,55	0,034	0,042	0,055	0,070	29 (23 – 34)
			0,55	0,0013	0,0017	0,0022	0,0028	95 (76 – 110)
	S3	E	0,55	0,034	0,042	0,055	0,070	25 (20 – 29)
			0,55	0,0013	0,0017	0,0022	0,0028	80 (66 – 95)
	S11	E	0,55	0,034	0,042	0,055	0,070	105 (78 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	345 (260 – 390)	
S12	E	0,55	0,034	0,042	0,055	0,070	80 (60 – 99)	
		0,55	0,0013	0,0017	0,0022	0,0028	260 (200 – 320)	
S13	E	0,55	0,034	0,042	0,055	0,070	60 (47 – 76)	
		0,55	0,0013	0,0017	0,0022	0,0028	195 (160 – 240)	
Plastic and cfrp	TS1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 340)
			0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
	TP1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 340)
Minimaster	GR1	A/D	0,30	0,034	0,042	0,055	0,070	820 (500 – 1100)
			0,30	0,0013	0,0017	0,0022	0,0028	590 (500 – 690)
			0,30	0,034	0,042	0,055	1925 (1700 – 2200)	

XVE510  
General purpose – Universal – Square – 2 Flutes – Corner radius



—Tolerances:  
—DC= h10  
—RE= ±0,015 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XVE510E10100D1R050Z2	10138003	1	D	E10	10,0	9,7	8,0	11,8	0,5	2	6	■
XVE510E12120D1R050Z2	10138004	1	D	E12	12,0	11,7	10,0	14,0	0,5	2	8	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

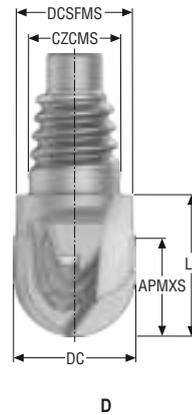
Cutting data – XVE510 Side milling

SMG		a <sub>p</sub> /DC		f <sub>z</sub>		v <sub>c</sub>			
				10	12				
Universal		P1	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	210 (170 – 250) 690 (560 – 820)		
		P2	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	205 (170 – 240) 670 (560 – 780)		
		P3	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	175 (150 – 210) 570 (500 – 680)		
		P4	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	155 (130 – 180) 510 (430 – 590)		
		P5	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	155 (130 – 180) 510 (430 – 590)		
		P6	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	175 (140 – 200) 570 (460 – 650)		
		P7	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	165 (140 – 190) 540 (460 – 620)		
		P8	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	155 (130 – 180) 510 (430 – 590)		
		P11	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	115 (82 – 140) 375 (270 – 450)		
		P12	E/M/A/D 0,10 0.10	0,65 0.65	0,070 0.0028	0,080 0.0032	70 (50 – 89) 230 (170 – 290)		
		Steel and cast iron		M1	E/M/A 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	135 (97 – 170) 445 (320 – 550)
				M2	E/M/A 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	110 (78 – 130) 360 (260 – 420)
M3	E/M/A 0,10 0.10			0,65 0.65	0,080 0.0032	0,095 0.0038	70 (55 – 85) 230 (190 – 270)		
M4	E/M/A 0,10 0.10			0,65 0.65	0,080 0.0032	0,095 0.0038	50 (41 – 64) 165 (140 – 200)		
M5	E/M/A 0,10 0.10			0,65 0.65	0,080 0.0032	0,095 0.0038	44 (35 – 53) 145 (120 – 170)		
Stainless steel and S-materials		K1	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	185 (160 – 210) 610 (530 – 680)		
		K2	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	160 (140 – 180) 520 (460 – 590)		
		K3	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	135 (120 – 150) 445 (400 – 490)		
		K4	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	130 (110 – 150) 425 (370 – 490)		
		K5	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	155 (130 – 180) 510 (430 – 590)		
		K6	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	230 (190 – 270) 750 (630 – 880)		
		K7	E/M/A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	100 (83 – 110) 330 (280 – 360)		
Non ferrous		N1	E/M/A 0,20 0.20	0,65 0.65	0,075 0.0030	0,090 0.0036	470 (410 – 530) 1550 (1400 – 1700)		
		N2	E/M/A 0,20 0.20	0,65 0.65	0,075 0.0030	0,090 0.0036	305 (270 – 340) 1000 (890 – 1100)		
		N3	E/M/A 0,20 0.20	0,65 0.65	0,075 0.0030	0,090 0.0036	200 (180 – 230) 660 (600 – 750)		
		N11	E/M/A 0,10 0.10	0,65 0.65	0,10 0.0040	0,12 0.0048	370 (300 – 440) 1225 (990 – 1400)		
Hard		S1	E 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	60 (39 – 85) 195 (130 – 270)		
		S2	E 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	55 (32 – 77) 180 (110 – 250)		
		S3	E 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	39 (24 – 54) 130 (79 – 170)		
		S11	E 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	120 (110 – 140) 395 (370 – 450)		
		S12	E 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	95 (78 – 100) 310 (260 – 320)		
		S13	E 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	70 (61 – 84) 230 (210 – 270)		
		Plastic and CFRP		TS1	A/D 0,10 0.10	0,65 0.65	0,080 0.0032	0,095 0.0038	540 (470 – 620) 1775 (1600 – 2000)
TP1	A/D 0,10 0.10			0,65 0.65	0,080 0.0032	0,095 0.0038	540 (470 – 620) 1775 (1600 – 2000)		
GR1	A/D 0,20 0.20			0,65 0.65	0,10 0.0040	0,12 0.0048	570 (510 – 630) 1875 (1700 – 2000)		

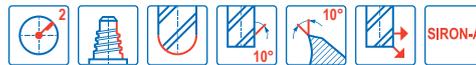
Cutting data – XVE510 Slot milling

SMG		$a_p/DC$	$f_z$		$v_c$	
			10	12		
P1	E/M/A/D	0,50	0,050	0,060	135 (110 – 160)	Universal
		0,50	0,0020	0,0024	445 (370 – 520)	
P2	E/M/A/D	0,50	0,050	0,060	130 (110 – 150)	Steel and cast iron
		0,50	0,0020	0,0024	425 (370 – 490)	
P3	E/M/A/D	0,50	0,050	0,060	115 (91 – 130)	Steel and cast iron
		0,50	0,0020	0,0024	375 (300 – 420)	
P4	E/M/A/D	0,50	0,050	0,060	100 (80 – 110)	Steel and cast iron
		0,50	0,0020	0,0024	330 (270 – 360)	
P5	E/M/A/D	0,50	0,050	0,060	100 (81 – 120)	Steel and cast iron
		0,50	0,0020	0,0024	330 (270 – 390)	
P6	E/M/A/D	0,50	0,050	0,060	110 (90 – 130)	Stainless steel and S-materials
		0,50	0,0020	0,0024	360 (300 – 420)	
P7	E/M/A/D	0,50	0,050	0,060	105 (85 – 120)	Stainless steel and S-materials
		0,50	0,0020	0,0024	345 (280 – 390)	
P8	E/M/A/D	0,50	0,050	0,060	100 (81 – 120)	Stainless steel and S-materials
		0,50	0,0020	0,0024	330 (270 – 390)	
P11	E/M/A/D	0,50	0,050	0,060	75 (53 – 94)	Stainless steel and S-materials
		0,50	0,0020	0,0024	245 (180 – 300)	
P12	E/M/A/D	0,40	0,040	0,048	46 (33 – 58)	Non ferrous
		0,40	0,0016	0,0019	150 (110 – 190)	
M1	E/M/A	0,50	0,050	0,060	85 (62 – 110)	Non ferrous
		0,50	0,0020	0,0024	280 (210 – 360)	
M2	E/M/A	0,50	0,050	0,060	70 (50 – 89)	Non ferrous
		0,50	0,0020	0,0024	230 (170 – 290)	
M3	E/M/A	0,50	0,050	0,060	45 (35 – 54)	Non ferrous
		0,50	0,0020	0,0024	150 (120 – 170)	
M4	E/M/A	0,38	0,050	0,060	34 (27 – 41)	Hard
		0,38	0,0020	0,0024	110 (89 – 130)	
M5	E/M/A	0,38	0,050	0,060	28 (23 – 34)	Hard
		0,38	0,0020	0,0024	90 (76 – 110)	
K1	E/M/A/D	0,50	0,050	0,060	120 (100 – 130)	Hard
		0,50	0,0020	0,0024	395 (330 – 420)	
K2	E/M/A/D	0,50	0,050	0,060	105 (87 – 120)	Hard
		0,50	0,0020	0,0024	345 (290 – 390)	
K3	E/M/A/D	0,50	0,050	0,060	90 (74 – 100)	Plastic and CFRP
		0,50	0,0020	0,0024	295 (250 – 320)	
K4	E/M/A/D	0,50	0,050	0,060	85 (70 – 97)	Plastic and CFRP
		0,50	0,0020	0,0024	280 (230 – 310)	
K5	E/M/A/D	0,50	0,050	0,060	100 (80 – 120)	Plastic and CFRP
		0,50	0,0020	0,0024	330 (270 – 390)	
K6	E/M/A/D	0,50	0,050	0,060	150 (120 – 170)	Plastic and CFRP
		0,50	0,0020	0,0024	490 (400 – 550)	
K7	E/M/A/D	0,50	0,050	0,060	65 (54 – 74)	Plastic and CFRP
		0,50	0,0020	0,0024	215 (180 – 240)	
N1	E/M/A	0,50	0,050	0,060	350 (300 – 390)	Graphite
		0,50	0,0020	0,0024	1150 (990 – 1200)	
N2	E/M/A	0,50	0,050	0,060	225 (200 – 250)	Graphite
		0,50	0,0020	0,0024	740 (660 – 820)	
N3	E/M/A	0,50	0,050	0,060	150 (130 – 170)	Graphite
		0,50	0,0020	0,0024	490 (430 – 550)	
N11	E/M/A	0,50	0,050	0,060	250 (200 – 290)	Graphite
		0,50	0,0020	0,0024	820 (660 – 950)	
S1	E	0,50	0,050	0,060	40 (25 – 54)	X-Heads
		0,50	0,0020	0,0024	130 (83 – 170)	
S2	E	0,50	0,050	0,060	35 (20 – 49)	X-Heads
		0,50	0,0020	0,0024	115 (66 – 160)	
S3	E	0,50	0,050	0,060	25 (15 – 34)	X-Heads
		0,50	0,0020	0,0024	80 (50 – 110)	
S11	E	0,50	0,050	0,060	80 (65 – 90)	X-Heads
		0,50	0,0020	0,0024	260 (220 – 290)	
S12	E	0,50	0,050	0,060	60 (50 – 69)	X-Heads
		0,50	0,0020	0,0024	195 (170 – 220)	
S13	E	0,42	0,050	0,060	47 (39 – 54)	Minimaster
		0,42	0,0020	0,0024	155 (130 – 170)	
TS1	A/D	0,50	0,050	0,060	350 (300 – 390)	Minimaster
		0,50	0,0020	0,0024	1150 (990 – 1200)	
TP1	A/D	0,50	0,050	0,060	350 (300 – 390)	Minimaster
		0,50	0,0020	0,0024	1150 (990 – 1200)	
GR1	A/D	0,50	0,050	0,060	450 (400 – 490)	Minimaster
		0,50	0,0020	0,0024	1475 (1400 – 1600)	

**XVB510**  
General purpose – Universal – Ball nose – 2 Flutes



—Tolerances:  
—DC= h9  
—RE= ±0,01 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			
XVB510E10100D1BZ2	10138005	1	D	E10	10,0	9,7	8,0	11,8	5,0	2	6	■
XVB510E12120D1BZ2	10138006	1	D	E12	12,0	11,7	10,0	14,0	6,0	2	8	■
XVB510E16160D1BZ2	10138007	1	D	E16	16,0	15,5	13,0	18,1	8,0	2	10	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

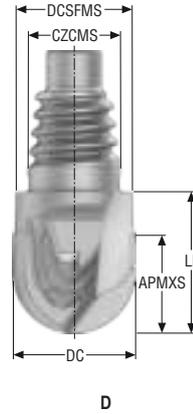
Plastic and CFRP

Graphite

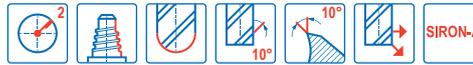
X-Heads

Minimaster

XVB510  
General purpose – Universal – Ball nose – 2 Flutes – Inch



—Tolerances:  
—DC= h9  
—RE= ±.0004 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	Inch	Inch	Inch	Inch			
XVB510E10.375D1BZ2	10138008	1	D	E10	0.375	0.364	0.315	0.465	0.187	2	6	■
XVB510E12.500D1BZ2	10138009	1	D	E12	0.500	0.484	0.413	0.551	0.250	2	8	■
XVB510E16.625D1BZ2	10138010	1	D	E16	0.624	0.610	0.512	0.713	0.313	2	10	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

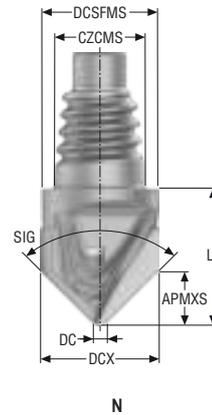
Cutting data – XVB510 Copy milling roughing

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>											
				10	12	16												
Universal	P1	E/M/A/D	0,10	0,65	0,070	0,085	0,11	185 (150 — 210)										
			0.10	0.65	0.0028	0.0034	0.0044	610 (500 — 680)										
		Steel and cast iron	P2	E/M/A/D	0,10	0,65	0,070	0,085	0,11	180 (150 — 210)								
					0.10	0.65	0.0028	0.0034	0.0044	590 (500 — 680)								
				Stainless steel and S-materials	P3	E/M/A/D	0,10	0,65	0,070	0,085	0,11	155 (130 — 180)						
							0.10	0.65	0.0028	0.0034	0.0044	510 (430 — 590)						
						Non ferrous	P4	E/M/A/D	0,10	0,65	0,070	0,085	0,11	135 (110 — 160)				
									0.10	0.65	0.0028	0.0034	0.0044	445 (370 — 520)				
								Hard	P5	E/M/A/D	0,10	0,65	0,070	0,085	0,11	135 (110 — 160)		
											0.10	0.65	0.0028	0.0034	0.0044	445 (370 — 520)		
										Plastic and cfrp	P6	E/M/A/D	0,10	0,65	0,070	0,085	0,11	150 (130 — 180)
													0.10	0.65	0.0028	0.0034	0.0044	490 (430 — 590)
Graphite	P7											E/M/A/D	0,10	0,65	0,070	0,085	0,11	145 (120 — 170)
			0.10									0.65	0.0028	0.0034	0.0044	475 (400 — 550)		
		X-Heads	P8	E/M/A/D	0,10							0,65	0,070	0,085	0,11	135 (110 — 160)		
					0.10	0.65	0.0028					0.0034	0.0044	445 (370 — 520)				
				Minimaster	P11	E/M/A/D	0,10	0,65	0,070			0,085	0,11	65 (50 — 78)				
							0.10	0.65	0.0028	0.0034	0.0044	215 (170 — 250)						
Universal	P12					E/M/A/D	0,10	0,65	0,060	0,075	0,090	39 (30 — 47)						
			0.10			0.65	0.0024	0.0030	0.0036	130 (99 — 150)								
		Steel and cast iron	M1	E/M/A	0,10	0,65	0,070	0,085	0,11	75 (59 — 91)								
	0.10			0.65	0.0028	0.0034	0.0044	245 (200 — 290)										
Stainless steel and S-materials	M2			E/M/A	0,10	0,65	0,070	0,085	0,11	60 (48 — 74)								
					0.10	0.65	0.0028	0.0034	0.0044	195 (160 — 240)								
				Non ferrous	M3	E/M/A	0,10	0,65	0,070	0,085	0,11	60 (48 — 74)						
							0.10	0.65	0.0028	0.0034	0.0044	195 (160 — 240)						
						Hard	M4	E/M/A	0,10	0,65	0,070	0,085	0,11	46 (36 — 55)				
									0.10	0.65	0.0028	0.0034	0.0044	150 (120 — 180)				
								Plastic and cfrp	M5	E/M/A	0,10	0,65	0,070	0,085	0,11	38 (30 — 46)		
											0.10	0.65	0.0028	0.0034	0.0044	125 (99 — 150)		
										Graphite	K1	E/M/A/D	0,10	0,65	0,070	0,085	0,11	180 (150 — 210)
													0.10	0.65	0.0028	0.0034	0.0044	590 (500 — 680)
		X-Heads	K2									E/M/A/D	0,10	0,65	0,070	0,085	0,11	155 (130 — 180)
	0.10											0.65	0.0028	0.0034	0.0044	510 (430 — 590)		
Minimaster	K3			E/M/A/D	0,10							0,65	0,070	0,085	0,11	130 (110 — 150)		
					0.10	0.65	0.0028					0.0034	0.0044	425 (370 — 490)				
				Universal	K4	E/M/A/D	0,10	0,65	0,070			0,085	0,11	125 (110 — 150)				
							0.10	0.65	0.0028	0.0034	0.0044	410 (370 — 490)						
		Steel and cast iron	K5			E/M/A/D	0,10	0,65	0,070	0,085	0,11	80 (63 — 94)						
	0.10					0.65	0.0028	0.0034	0.0044	260 (210 — 300)								
Stainless steel and S-materials	K6			E/M/A/D	0,10	0,65	0,070	0,085	0,11	115 (93 — 130)								
			0.10	0.65	0.0028	0.0034	0.0044	375 (310 — 420)										
Steel and cast iron	K7	E/M/A/D	0,10	0,65	0,070	0,085	0,11	100 (81 — 120)										
			0.10	0.65	0.0028	0.0034	0.0044	330 (270 — 390)										
		Stainless steel and S-materials	N1	E/M/A	0,10	0,65	0,10	0,12	0,15	445 (390 — 500)								
					0.10	0.65	0.0040	0.0048	0.0060	1450 (1300 — 1600)								
				Non ferrous	N2	E/M/A	0,10	0,65	0,10	0,12	0,15	285 (250 — 320)						
							0.10	0.65	0.0040	0.0048	0.0060	940 (830 — 1000)						
						Hard	N3	E/M/A	0,10	0,65	0,10	0,12	0,15	190 (170 — 210)				
									0.10	0.65	0.0040	0.0048	0.0060	620 (560 — 680)				
								Plastic and cfrp	N11	E/M/A	0,10	0,65	0,070	0,085	0,11	335 (270 — 400)		
											0.10	0.65	0.0028	0.0034	0.0044	1100 (890 — 1300)		
										X-Heads	S1	E	0,050	0,65	0,060	0,070	0,095	55 (33 — 76)
													0.050	0.65	0.0024	0.0028	0.0038	180 (110 — 240)
Minimaster	S2											E	0,050	0,65	0,060	0,070	0,095	44 (27 — 61)
			0.050									0.65	0.0024	0.0028	0.0038	145 (89 — 200)		
		Universal	S3	E	0,050							0,65	0,060	0,070	0,095	38 (23 — 52)		
					0.050	0.65	0.0024					0.0028	0.0038	125 (76 — 170)				
				Steel and cast iron	S11	E	0,10	0,65	0,070			0,085	0,11	105 (88 — 120)				
							0.10	0.65	0.0028	0.0034	0.0044	345 (290 — 390)						
Stainless steel and S-materials	S12					E	0,10	0,65	0,070	0,085	0,11	80 (68 — 94)						
			0.10			0.65	0.0028	0.0034	0.0044	260 (230 — 300)								
		Non ferrous	S13	E	0,10	0,65	0,070	0,085	0,11	65 (53 — 73)								
	0.10			0.65	0.0028	0.0034	0.0044	215 (180 — 230)										
Universal	TS1	A/D	0,10	0,65	0,10	0,12	0,15	445 (390 — 500)										
			0.10	0.65	0.0040	0.0048	0.0060	1450 (1300 — 1600)										
		Steel and cast iron	TP1	A/D	0,10	0,65	0,10	0,12	0,15	445 (390 — 500)								
	0.10			0.65	0.0040	0.0048	0.0060	1450 (1300 — 1600)										
Stainless steel and S-materials	GR1	A/D	0,10	0,65	0,070	0,085	0,11	630 (570 — 700)										
			0.10	0.65	0.0028	0.0034	0.0044	2075 (1900 — 2200)										

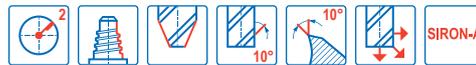
Cutting data – XVB510 Copy milling roughing inch

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>		
				3/8	1/2	5/8			
P1	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	365 (320 – 420) 1200 (1100 – 1300)	Universal Steel and cast iron	
P2	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	355 (310 – 400) 1175 (1100 – 1300)		
P3	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	305 (270 – 350) 1000 (890 – 1100)		
P4	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	270 (230 – 310) 890 (760 – 1000)		
P5	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	175 (140 – 210) 570 (460 – 680)		
P6	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	195 (160 – 240) 640 (530 – 780)		
P7	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	185 (150 – 220) 610 (500 – 720)		
P8	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	175 (140 – 210) 570 (460 – 680)		
P11	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	155 (130 – 180) 510 (430 – 590)		
P12	E/M/A/D	0,10 0.10	0,65 0.65	0,060 0.0024	0,075 0.0030	0,090 0.0036	95 (78 – 110) 310 (260 – 360)		
M1	E/M/A	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	185 (160 – 210) 610 (530 – 680)		Non ferrous
M2	E/M/A	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	150 (130 – 170) 490 (430 – 550)		
M3	E/M/A	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	120 (95 – 140) 395 (320 – 450)		
M4	E/M/A	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	90 (71 – 110) 295 (240 – 360)		
M5	E/M/A	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	75 (59 – 92) 245 (200 – 300)		
K1	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	360 (310 – 410) 1175 (1100 – 1300)	Hard	
K2	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	310 (270 – 350) 1025 (890 – 1100)		
K3	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	265 (230 – 300) 870 (760 – 980)		
K4	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	250 (220 – 280) 820 (730 – 910)		
K5	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	100 (79 – 120) 330 (260 – 390)		
K6	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	150 (120 – 180) 490 (400 – 590)		
K7	E/M/A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	130 (110 – 160) 425 (370 – 520)		
N1	E/M/A	0,10 0.10	0,65 0.65	0,10 0.0040	0,12 0.0048	0,15 0.0060	510 (390 – 630) 1675 (1300 – 2000)	Graphite	
N2	E/M/A	0,10 0.10	0,65 0.65	0,10 0.0040	0,12 0.0048	0,15 0.0060	330 (250 – 400) 1075 (830 – 1300)		
N3	E/M/A	0,10 0.10	0,65 0.65	0,10 0.0040	0,12 0.0048	0,15 0.0060	220 (170 – 270) 720 (560 – 880)		
N11	E/M/A	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	405 (270 – 530) 1325 (890 – 1700)		
S1	E	0,050 0.050	0,65 0.65	0,060 0.0024	0,070 0.0028	0,095 0.0038	110 (66 – 150) 360 (220 – 490)	X-Heads	
S2	E	0,050 0.050	0,65 0.65	0,060 0.0024	0,070 0.0028	0,095 0.0038	90 (53 – 120) 295 (180 – 390)		
S3	E	0,050 0.050	0,65 0.65	0,060 0.0024	0,070 0.0028	0,095 0.0038	75 (46 – 100) 245 (160 – 320)		
S11	E	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	175 (130 – 220) 570 (430 – 720)		
S12	E	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	135 (95 – 170) 445 (320 – 550)		
S13	E	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	105 (74 – 130) 345 (250 – 420)		
TS1	A/D	0,10 0.10	0,65 0.65	0,10 0.0040	0,12 0.0048	0,15 0.0060	320 (200 – 440) 1050 (660 – 1400)	Minimaster	
TP1	A/D	0,10 0.10	0,65 0.65	0,10 0.0040	0,12 0.0048	0,15 0.0060	320 (200 – 440) 1050 (660 – 1400)		
GR1	A/D	0,10 0.10	0,65 0.65	0,070 0.0028	0,085 0.0034	0,11 0.0044	850 (710 – 980) 2800 (2400 – 3200)		

XVC506/509/512  
General purpose – Universal – Chamfer – 2 Flutes



—Tolerances:  
—SIG= ±1°



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					mm	mm	mm	mm			
XVC506E10100N1SZ2	10138012	1	N	E10	1,5	9,7	7,23	11,8	2	6	■
XVC509E10100N1SZ2	10138014	1	N	E10	1,5	9,7	4,23	11,8	2	6	■
XVC506E12120N1SZ2	10138013	1	N	E12	1,5	11,7	7,73	14,0	2	8	■
XVC509E12120N1SZ2	10138015	1	N	E12	1,5	11,7	5,23	14,0	2	8	■
XVC512E12120N1SZ2	10138017	1	N	E12	1,5	11,7	3,03	14,0	2	8	■
XVC509E16160N1SZ2	10138016	1	N	E16	1,5	15,5	7,23	18,1	2	10	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

Cutting data – XVC506 Chamfering

SMG		a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>		v <sub>c</sub>	
				10	12		
P1	E/M/A/D	0,10	2,0	0,25	0,26	200 (180 – 220)	Universal
		0.10	2.0	0.010	0.010	660 (600 – 720)	
P2	E/M/A/D	0,10	2,0	0,25	0,26	195 (180 – 220)	Steel and cast iron
		0.10	2.0	0.010	0.010	640 (600 – 720)	
P3	E/M/A/D	0,10	2,0	0,24	0,25	170 (150 – 190)	Steel and cast iron
		0.10	2.0	0.0095	0.010	560 (500 – 620)	
P4	E/M/A/D	0,10	2,0	0,24	0,25	150 (130 – 160)	Steel and cast iron
		0.10	2.0	0.0095	0.010	490 (430 – 520)	
P5	E/M/A/D	0,10	2,0	0,24	0,25	150 (140 – 170)	Steel and cast iron
		0.10	2.0	0.0095	0.010	490 (460 – 550)	
P6	E/M/A/D	0,10	2,0	0,24	0,24	170 (150 – 190)	Stainless steel and S-materials
		0.10	2.0	0.0095	0.0095	560 (500 – 620)	
P7	E/M/A/D	0,10	2,0	0,24	0,24	160 (140 – 180)	Stainless steel and S-materials
		0.10	2.0	0.0095	0.0095	520 (460 – 590)	
P8	E/M/A/D	0,10	2,0	0,24	0,26	150 (140 – 170)	Stainless steel and S-materials
		0.10	2.0	0.0095	0.010	490 (460 – 550)	
P11	E/M/A/D	0,10	2,0	0,24	0,24	105 (86 – 120)	Stainless steel and S-materials
		0.10	2.0	0.0095	0.0095	345 (290 – 390)	
P12	E/M/A/D	0,10	1,6	0,15	0,16	65 (52 – 76)	Non ferrous
		0.10	1.6	0.0060	0.0065	215 (180 – 240)	
M1	E/M/A	0,10	2,0	0,26	0,28	125 (99 – 140)	Non ferrous
		0.10	2.0	0.010	0.011	410 (330 – 450)	
M2	E/M/A	0,10	2,0	0,24	0,25	100 (80 – 120)	Non ferrous
		0.10	2.0	0.0095	0.010	330 (270 – 390)	
M3	E/M/A	0,10	2,0	0,24	0,25	65 (45 – 84)	Non ferrous
		0.10	2.0	0.0095	0.010	215 (150 – 270)	
M4	E/M/A	0,10	1,5	0,19	0,20	47 (33 – 60)	Non ferrous
		0.10	1.5	0.0075	0.0080	155 (110 – 190)	
M5	E/M/A	0,10	1,5	0,19	0,20	39 (27 – 50)	Non ferrous
		0.10	1.5	0.0075	0.0080	130 (89 – 160)	
K1	E/M/A/D	0,10	2,0	0,25	0,26	200 (180 – 220)	Hard
		0.10	2.0	0.010	0.010	660 (600 – 720)	
K2	E/M/A/D	0,10	2,0	0,22	0,24	175 (160 – 190)	Hard
		0.10	2.0	0.0085	0.0095	570 (530 – 620)	
K3	E/M/A/D	0,10	2,0	0,22	0,24	150 (130 – 160)	Hard
		0.10	2.0	0.0085	0.0095	490 (430 – 520)	
K4	E/M/A/D	0,10	2,0	0,22	0,24	140 (130 – 150)	Plastic and cfrp
		0.10	2.0	0.0085	0.0095	460 (430 – 490)	
K5	E/M/A/D	0,10	2,0	0,20	0,22	85 (74 – 95)	Plastic and cfrp
		0.10	2.0	0.0080	0.0085	280 (250 – 310)	
K6	E/M/A/D	0,10	2,0	0,22	0,24	125 (110 – 140)	Plastic and cfrp
		0.10	2.0	0.0085	0.0095	410 (370 – 450)	
K7	E/M/A/D	0,10	2,0	0,20	0,22	110 (94 – 120)	Plastic and cfrp
		0.10	2.0	0.0080	0.0085	360 (310 – 390)	
N1	E/M/A	0,10	2,0	0,24	0,25	600 (500 – 690)	Graphite
		0.10	2.0	0.0095	0.010	1975 (1700 – 2200)	
N2	E/M/A	0,10	2,0	0,24	0,25	385 (330 – 440)	Graphite
		0.10	2.0	0.0095	0.010	1275 (1100 – 1400)	
N3	E/M/A	0,10	2,0	0,24	0,25	255 (220 – 290)	Graphite
		0.10	2.0	0.0095	0.010	840 (730 – 950)	
N11	E/M/A	0,10	2,0	0,24	0,25	400 (350 – 450)	Graphite
		0.10	2.0	0.0095	0.010	1300 (1200 – 1400)	
S1	E	0,10	2,0	0,12	0,13	43 (15 – 71)	X-Heads
		0.10	2.0	0.0048	0.0050	140 (50 – 230)	
S2	E	0,10	2,0	0,12	0,13	35 (12 – 57)	X-Heads
		0.10	2.0	0.0048	0.0050	115 (40 – 180)	
S3	E	0,10	2,0	0,12	0,12	30 (10 – 49)	X-Heads
		0.10	2.0	0.0048	0.0048	100 (33 – 160)	
S11	E	0,10	2,0	0,24	0,25	95 (72 – 120)	X-Heads
		0.10	2.0	0.0095	0.010	310 (240 – 390)	
S12	E	0,10	2,0	0,24	0,25	75 (55 – 94)	X-Heads
		0.10	2.0	0.0095	0.010	245 (190 – 300)	
S13	E	0,10	1,7	0,19	0,20	55 (43 – 72)	Minimaster
		0.10	1.7	0.0075	0.0080	180 (150 – 230)	
H5	M/A	0,050	2,0	0,11	0,12	120 (110 – 140)	Minimaster
		0.050	2.0	0.0044	0.0048	395 (370 – 450)	
H8	M/A	0,050	1,8	0,080	0,085	120 (99 – 130)	Minimaster
		0.050	1.8	0.0032	0.0034	395 (330 – 420)	
H21	M/A	0,050	1,8	0,080	0,085	120 (99 – 130)	Minimaster
		0.050	1.8	0.0032	0.0034	395 (330 – 420)	
H31	M/A	0,050	1,8	0,070	0,075	90 (75 – 100)	Minimaster
		0.050	1.8	0.0028	0.0030	295 (250 – 320)	
TS1	A/D	0,10	2,0	0,17	0,18	260 (160 – 360)	Minimaster
		0.10	2.0	0.0065	0.0070	850 (530 – 1100)	
TP1	A/D	0,10	2,0	0,17	0,18	260 (160 – 360)	Minimaster
		0.10	2.0	0.0065	0.0070	850 (530 – 1100)	

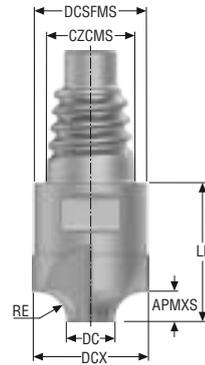
Cutting data – XVC509 Chamfering

Material Group	SMG	Icon	a <sub>e</sub> /DC	a <sub>p</sub> /DC	f <sub>z</sub>			v <sub>c</sub>	
					10	12	16		
Universal	P1	E/M/A/D	0,10 0.10	2,0 2.0	0,24 0.0095	0,25 0.010	0,28 0.011	200 (180 – 220) 660 (600 – 720)	
	P2	E/M/A/D	0,10 0.10	2,0 2.0	0,24 0.0095	0,26 0.010	0,28 0.011	195 (180 – 220) 640 (600 – 720)	
	P3	E/M/A/D	0,10 0.10	2,0 2.0	0,24 0.0095	0,24 0.0095	0,26 0.010	170 (150 – 190) 560 (500 – 620)	
	P4	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	150 (130 – 160) 490 (430 – 520)	
	P5	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	150 (140 – 170) 490 (460 – 550)	
	P6	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	170 (150 – 190) 560 (500 – 620)	
	P7	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	160 (140 – 180) 520 (460 – 590)	
	P8	E/M/A/D	0,10 0.10	2,0 2.0	0,24 0.0095	0,25 0.010	0,28 0.011	150 (130 – 160) 490 (430 – 520)	
	P11	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	105 (85 – 120) 345 (280 – 390)	
	P12	E/M/A/D	0,10 0.10	1,6 1.6	0,14 0.0055	0,15 0.0060	0,17 0.0065	60 (50 – 74) 195 (170 – 240)	
	Steel and cast iron	M1	E/M/A	0,10 0.10	2,0 2.0	0,25 0.010	0,26 0.010	0,28 0.011	120 (98 – 140) 395 (330 – 450)
		M2	E/M/A	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	100 (80 – 120) 330 (270 – 390)
M3		E/M/A	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	65 (45 – 84) 215 (150 – 270)	
M4		E/M/A	0,10 0.10	1,5 1.5	0,18 0.0070	0,19 0.0075	0,20 0.0080	46 (33 – 60) 150 (110 – 190)	
M5		E/M/A	0,10 0.10	1,5 1.5	0,18 0.0070	0,19 0.0075	0,20 0.0080	39 (27 – 50) 130 (89 – 160)	
Stainless steel and S-materials	K1	E/M/A/D	0,10 0.10	2,0 2.0	0,24 0.0095	0,26 0.010	0,28 0.011	200 (180 – 220) 660 (600 – 720)	
	K2	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	175 (160 – 190) 570 (530 – 620)	
	K3	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	145 (130 – 160) 475 (430 – 520)	
	K4	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	140 (130 – 150) 460 (430 – 490)	
	K5	E/M/A/D	0,10 0.10	2,0 2.0	0,20 0.0080	0,22 0.0085	0,24 0.0095	85 (74 – 95) 280 (250 – 310)	
	K6	E/M/A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	125 (110 – 130) 410 (370 – 420)	
	K7	E/M/A/D	0,10 0.10	2,0 2.0	0,20 0.0080	0,22 0.0085	0,24 0.0095	110 (94 – 120) 360 (310 – 390)	
Non ferrous	N1	E/M/A	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	600 (500 – 700) 1975 (1700 – 2200)	
	N2	E/M/A	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	385 (330 – 450) 1275 (1100 – 1400)	
	N3	E/M/A	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	255 (220 – 300) 840 (730 – 980)	
	N11	E/M/A	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	400 (350 – 450) 1300 (1200 – 1400)	
Hard	S1	E	0,10 0.10	2,0 2.0	0,13 0.0050	0,13 0.0050	0,15 0.0060	43 (15 – 71) 140 (50 – 230)	
	S2	E	0,10 0.10	2,0 2.0	0,13 0.0050	0,13 0.0050	0,15 0.0060	35 (12 – 57) 115 (40 – 180)	
	S3	E	0,10 0.10	2,0 2.0	0,12 0.0048	0,12 0.0048	0,14 0.0055	30 (10 – 50) 100 (33 – 160)	
	S11	E	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	100 (72 – 120) 330 (240 – 390)	
	S12	E	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	75 (55 – 94) 245 (190 – 300)	
	S13	E	0,10 0.10	1,7 1.7	0,19 0.0075	0,20 0.0080	0,22 0.0085	55 (42 – 72) 180 (140 – 230)	
	Plastic and cfrp	H5	M/A	0,10 0.10	2,0 2.0	0,12 0.0048	0,12 0.0048	0,14 0.0055	120 (110 – 140) 395 (370 – 450)
H8		M/A	0,10 0.10	1,8 1.8	0,085 0.0034	0,090 0.0036	0,10 0.0040	120 (99 – 130) 395 (330 – 420)	
H21		M/A	0,10 0.10	1,8 1.8	0,085 0.0034	0,090 0.0036	0,10 0.0040	120 (99 – 130) 395 (330 – 420)	
H31		M/A	0,10 0.10	1,8 1.8	0,075 0.0030	0,080 0.0032	0,085 0.0034	90 (75 – 100) 295 (250 – 320)	
TS1		A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	250 (150 – 350) 820 (500 – 1100)	
Graphite	TP1	A/D	0,10 0.10	2,0 2.0	0,22 0.0085	0,24 0.0095	0,26 0.010	250 (150 – 350) 820 (500 – 1100)	

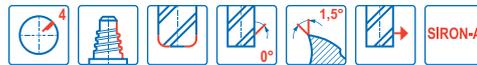
Cutting data – XVC512 Chamfering

SMG		$a_{p/DC}$	$a_{p/DC}$	$f_z$	$v_c$	
				12		Universal
P1	E/M/A/D	0,10 0.10	1,3 1.3	0,36 0.014	165 (150 – 180) 540 (500 – 590)	Steel and cast iron
P2	E/M/A/D	0,10 0.10	1,3 1.3	0,36 0.014	160 (140 – 170) 520 (460 – 550)	
P3	E/M/A/D	0,10 0.10	1,3 1.3	0,34 0.013	135 (120 – 150) 445 (400 – 490)	Steel and cast iron
P4	E/M/A/D	0,10 0.10	1,3 1.3	0,34 0.013	120 (110 – 130) 395 (370 – 420)	
P5	E/M/A/D	0,10 0.10	1,3 1.3	0,34 0.013	120 (110 – 130) 395 (370 – 420)	Stainless steel and S-materials
P6	E/M/A/D	0,10 0.10	1,3 1.3	0,32 0.013	135 (120 – 150) 445 (400 – 490)	
P7	E/M/A/D	0,10 0.10	1,3 1.3	0,32 0.013	125 (120 – 140) 410 (400 – 450)	Stainless steel and S-materials
P8	E/M/A/D	0,10 0.10	1,3 1.3	0,34 0.013	120 (110 – 130) 395 (370 – 420)	
P11	E/M/A/D	0,10 0.10	1,3 1.3	0,32 0.013	85 (68 – 100) 280 (230 – 320)	Non ferrous
P12	E/M/A/D	0,10 0.10	1,3 1.3	0,22 0.0085	50 (41 – 61) 165 (140 – 200)	
M1	E/M/A	0,10 0.10	1,3 1.3	0,36 0.014	100 (80 – 110) 330 (270 – 360)	Non ferrous
M2	E/M/A	0,10 0.10	1,3 1.3	0,34 0.013	80 (65 – 96) 260 (220 – 310)	
M3	E/M/A	0,10 0.10	1,3 1.3	0,34 0.013	50 (37 – 68) 165 (130 – 220)	Hard
M4	E/M/A	0,10 0.10	1,3 1.3	0,30 0.012	39 (28 – 51) 130 (92 – 160)	
M5	E/M/A	0,10 0.10	1,3 1.3	0,30 0.012	33 (23 – 42) 110 (76 – 130)	Plastic and cfrp
K1	E/M/A/D	0,10 0.10	1,3 1.3	0,36 0.014	160 (140 – 180) 520 (460 – 590)	
K2	E/M/A/D	0,10 0.10	1,3 1.3	0,32 0.013	140 (130 – 150) 460 (430 – 490)	Graphite
K3	E/M/A/D	0,10 0.10	1,3 1.3	0,32 0.013	115 (110 – 130) 375 (370 – 420)	
K4	E/M/A/D	0,10 0.10	1,3 1.3	0,32 0.013	110 (98 – 120) 360 (330 – 390)	X-Heads
K5	E/M/A/D	0,10 0.10	1,3 1.3	0,30 0.012	65 (58 – 75) 215 (200 – 240)	
K6	E/M/A/D	0,10 0.10	1,3 1.3	0,32 0.013	100 (86 – 110) 330 (290 – 360)	Minimaster
K7	E/M/A/D	0,10 0.10	1,3 1.3	0,30 0.012	85 (74 – 96) 280 (250 – 310)	
N1	E/M/A	0,10 0.10	1,3 1.3	0,34 0.013	480 (410 – 560) 1575 (1400 – 1800)	Minimaster
N2	E/M/A	0,10 0.10	1,3 1.3	0,34 0.013	310 (260 – 360) 1025 (860 – 1100)	
N3	E/M/A	0,10 0.10	1,3 1.3	0,34 0.013	205 (180 – 240) 670 (600 – 780)	X-Heads
N11	E/M/A	0,10 0.10	1,3 1.3	0,34 0.013	320 (290 – 360) 1050 (960 – 1100)	
S1	E	0,10 0.10	1,3 1.3	0,19 0.0075	35 (12 – 58) 115 (40 – 190)	Minimaster
S2	E	0,10 0.10	1,3 1.3	0,19 0.0075	29 (9,6 – 47) 95 (32 – 150)	
S3	E	0,10 0.10	1,3 1.3	0,17 0.0065	25 (8,3 – 41) 80 (28 – 130)	X-Heads
S11	E	0,10 0.10	1,3 1.3	0,34 0.013	80 (58 – 98) 260 (200 – 320)	
S12	E	0,10 0.10	1,3 1.3	0,34 0.013	60 (45 – 76) 195 (150 – 240)	Minimaster
S13	E	0,10 0.10	1,3 1.3	0,30 0.012	47 (35 – 59) 155 (120 – 190)	
H5	M/A	0,10 0.10	1,3 1.3	0,17 0.0065	100 (83 – 110) 330 (280 – 360)	Minimaster
H8	M/A	0,10 0.10	1,3 1.3	0,13 0.0050	100 (84 – 110) 330 (280 – 360)	
H21	M/A	0,10 0.10	1,3 1.3	0,13 0.0050	100 (84 – 110) 330 (280 – 360)	X-Heads
H31	M/A	0,10 0.10	1,3 1.3	0,11 0.0044	75 (64 – 88) 245 (210 – 280)	
TS1	A/D	0,10 0.10	1,3 1.3	0,34 0.013	200 (130 – 280) 660 (430 – 910)	X-Heads
TP1	A/D	0,10 0.10	1,3 1.3	0,34 0.013	200 (130 – 280) 660 (430 – 910)	

XVK310  
General purpose – Universal – Concave – 4 Flutes



—Tolerances:  
—RE= ≤5= ±0,05 mm  
—RE= >5= ±0,1 mm



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			
XVK310E12120D1K400Z4	10137999	1	D	E12	4,0	11,7	4,0	14,5	4,0	4	10	■
XVK310E12120D1K300Z4	10137998	1	D	E12	5,0	11,7	3,0	14,5	3,0	4	10	■
XVK310E16160D1K500Z4	10138000	1	D	E16	6,0	15,5	5,0	18,7	5,0	4	12	■
XVK310E20200D1K600Z4	10138001	1	D	E20	8,0	19,3	6,0	21,3	6,0	4	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster

Cutting data – XVK310 Side milling roughing

SMG		a <sub>p</sub> /D <sub>c</sub>		f <sub>z</sub>			v <sub>c</sub>	
		12	16	20				
P1	E/M/A/D	0,24	0,048	0,065	0,080	290 (195 – 310)	Universal	
		0,24	0,0019	0,0026	0,0032	950 (640 – 1100)		
P2	E/M/A/D	0,24	0,050	0,065	0,080	280 (190 – 305)	Steel and cast iron	
		0,24	0,0022	0,0026	0,0032	910 (620 – 1000)		
P3	E/M/A/D	0,24	0,046	0,060	0,075	240 (165 – 260)	Steel and cast iron	
		0,24	0,0018	0,0024	0,003	790 (540 – 850)		
P4	E/M/A/D	0,24	0,046	0,060	0,075	210 (145 – 230)	Steel and cast iron	
		0,24	0,0018	0,0024	0,003	680 (475 – 760)		
P5	E/M/A/D	0,24	0,046	0,060	0,075	205 (135 – 220)	Steel and cast iron	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
P6	E/M/A/D	0,24	0,044	0,060	0,075	230 (155 – 245)	Stainless steel and S-materials	
		0,24	0,0017	0,0024	0,003	760 (510 – 800)		
P7	E/M/A/D	0,24	0,044	0,060	0,075	215 (145 – 230)	Stainless steel and S-materials	
		0,24	0,0017	0,0024	0,003	710 (475 – 760)		
P8	E/M/A/D	0,24	0,046	0,060	0,075	205 (140 – 220)	Stainless steel and S-materials	
		0,24	0,0018	0,0024	0,003	670 (460 – 730)		
P11	E/M/A/D	0,24	0,044	0,060	0,075	210 (140 – 225)	Stainless steel and S-materials	
		0,24	0,0017	0,0024	0,003	680 (460 – 740)		
M1	E/M/A	0,24	0,050	0,065	0,080	255 (170 – 270)	Non ferrous	
		0,24	0,0022	0,0026	0,0032	840 (560 – 890)		
M2	E/M/A	0,24	0,046	0,060	0,075	205 (135 – 220)	Non ferrous	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
M3	E/M/A	0,24	0,036	0,048	0,060	150 (105 – 165)	Non ferrous	
		0,24	0,0014	0,0019	0,0024	490 (345 – 540)		
M4	E/M/A	0,24	0,032	0,042	0,050	110 (75 – 120)	Non ferrous	
		0,24	0,0013	0,0017	0,0022	360 (250 – 400)		
M5	E/M/A	0,24	0,032	0,042	0,050	95 (65 – 100)	Non ferrous	
		0,24	0,0013	0,0017	0,0022	310 (220 – 320)		
K1	E/M/A/D	0,24	0,046	0,060	0,075	205 (135 – 220)	Hard	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
K2	E/M/A/D	0,24	0,040	0,055	0,065	175 (120 – 190)	Hard	
		0,24	0,0016	0,0022	0,0026	570 (400 – 620)		
K3	E/M/A/D	0,24	0,040	0,055	0,065	150 (100 – 160)	Hard	
		0,24	0,0016	0,0022	0,0026	490 (320 – 530)		
K4	E/M/A/D	0,24	0,040	0,055	0,065	140 (95 – 150)	Hard	
		0,24	0,0016	0,0022	0,0026	460 (310 – 490)		
K5	E/M/A/D	0,24	0,036	0,050	0,060	85 (55 – 90)	Plastic and CFRP	
		0,24	0,0014	0,0022	0,0024	280 (180 – 300)		
K6	E/M/A/D	0,24	0,040	0,055	0,065	125 (85 – 135)	Plastic and CFRP	
		0,24	0,0016	0,0022	0,0026	410 (280 – 445)		
K7	E/M/A/D	0,24	0,036	0,050	0,060	105 (70 – 115)	Plastic and CFRP	
		0,24	0,0014	0,0022	0,0024	345 (220 – 375)		
N1	E/M/A	0,24	0,046	0,060	0,075	315 (215 – 340)	Graphite	
		0,24	0,0018	0,0024	0,003	1025 (710 – 1125)		
N2	E/M/A	0,24	0,046	0,060	0,075	205 (135 – 220)	Graphite	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
N3	E/M/A	0,24	0,046	0,060	0,075	135 (90 – 145)	Graphite	
		0,24	0,0018	0,0024	0,003	445 (300 – 475)		
N11	E/M/A	0,24	0,046	0,060	0,075	205 (135 – 220)	Graphite	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
S1	E	0,24	0,048	0,065	0,080	205 (140 – 220)	X-Heads	
		0,24	0,0019	0,0026	0,0032	670 (460 – 730)		
S2	E	0,24	0,048	0,065	0,080	205 (140 – 220)	X-Heads	
		0,24	0,0019	0,0026	0,0032	670 (460 – 730)		
S3	E	0,24	0,046	0,060	0,075	205 (135 – 220)	X-Heads	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
S11	E	0,24	0,046	0,060	0,075	265 (180 – 285)	X-Heads	
		0,24	0,0018	0,0024	0,003	870 (590 – 940)		
S12	E	0,24	0,046	0,060	0,075	205 (135 – 220)	X-Heads	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
S13	E	0,24	0,040	0,050	0,065	155 (105 – 165)	X-Heads	
		0,24	0,0016	0,0022	0,0026	510 (345 – 540)		
TS1	A/D	0,24	0,046	0,060	0,075	205 (135 – 220)	Minimaster	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
TP1	A/D	0,24	0,046	0,060	0,075	205 (135 – 220)	Minimaster	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		
GR1	A/D	0,24	0,046	0,060	0,075	205 (135 – 220)	Minimaster	
		0,24	0,0018	0,0024	0,003	670 (445 – 730)		

## Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!				
Straight	Slotting		Side rough			Side finish				Ramping		Helical		
														
	a <sub>p</sub>	f <sub>z</sub>	a <sub>e</sub>	f <sub>z</sub>	a <sub>p</sub>	v <sub>c</sub>	a <sub>e</sub>	f <sub>z</sub>	a <sub>p</sub>	a <sub>p</sub>	f <sub>z</sub>	f <sub>z</sub>	a <sub>p</sub> /360° (% of DC)	hole Ø (≥ % of DC)
										≤ 30° *				
<b>C5121</b>														
LV1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	170%
LV2	70%	80%	100%	80%	100%	80%	100%	80%	100%	100%	100%	100%	100%	170%
LV3	60%	64%	100%	64%	100%	64%	100%	64%	100%	100%	85%	85%	100%	170%
LV4	x	x	100%	52%	100%	52%	100%	52%	100%	100%	75%	75%	100%	170%
LV5	x	x	100%	40%	100%	40%	100%	40%	100%	100%	65%	65%	100%	170%
LV6	x	x	100%	33%	100%	33%	100%	33%	100%	100%	55%	55%	100%	170%
LV7	x	x	100%	26%	100%	26%	100%	26%	100%	100%	45%	45%	100%	170%
LV8	x	x	100%	21%	100%	21%	100%	21%	100%	100%	35%	35%	100%	170%
										≤ 10° *				
<b>C5131</b>														
LV1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	170%
LV2	70%	80%	100%	80%	100%	80%	100%	80%	100%	100%	100%	100%	100%	170%
LV3	60%	64%	100%	64%	100%	64%	100%	64%	100%	100%	85%	85%	100%	170%
LV4	x	x	100%	52%	100%	52%	100%	52%	100%	100%	75%	75%	100%	170%
										≤ 30° *				
<b>C5141</b>														
LV1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	170%
LV2	70%	80%	100%	80%	100%	80%	100%	80%	100%	100%	100%	100%	100%	170%
LV3	60%	64%	100%	64%	100%	64%	100%	64%	100%	100%	85%	85%	100%	170%
LV4	x	x	100%	52%	100%	52%	100%	52%	100%	100%	75%	75%	100%	170%
LV5	x	x	100%	40%	100%	40%	100%	40%	100%	100%	65%	65%	100%	170%
LV6	x	x	100%	33%	100%	33%	100%	33%	100%	100%	55%	55%	100%	170%
LV7	x	x	100%	26%	100%	26%	100%	26%	100%	100%	45%	45%	100%	170%
LV8	x	x	100%	21%	100%	21%	100%	21%	100%	100%	35%	35%	100%	170%
LV9	x	x	100%	17%	100%	17%	100%	17%	100%	100%	25%	25%	100%	170%
										≤ 10° *				
<b>C5231</b>														
LV2	100%	100%	100%	100%	100%	100%	80%	100%	80%	100%	100%	100%	100%	100%
LV3	70%	80%	100%	80%	100%	80%	64%	100%	64%	100%	100%	85%	85%	100%
										≤ 10° *				
<b>ST5541</b>														
LV1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	170%
LV2	70%	90%	100%	85%	70%	90%	100%	85%	100%	100%	85%	85%	100%	170%
LV3	50%	70%	100%	75%	50%	80%	100%	75%	100%	100%	75%	75%	100%	170%
LV4	x	x	100%	65%	40%	70%	100%	65%	100%	100%	65%	65%	100%	170%
										≤ 10° *				
<b>ST5551</b>														
LV1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	170%
LV2	75%	80%	100%	85%	75%	90%	100%	85%	100%	100%	85%	85%	100%	170%
LV3	x	x	100%	70%	55%	85%	100%	70%	100%	100%	70%	70%	100%	170%
LV4	x	x	100%	55%	25%	75%	100%	55%	100%	100%	55%	55%	100%	170%
LV5	x	x	100%	40%	20%	70%	100%	40%	100%	100%	40%	40%	100%	170%
LV6	x	x	100%	30%	15%	65%	100%	35%	100%	100%	35%	35%	100%	170%
LV8	x	x	100%	15%	10%	60%	100%	25%	100%	100%	25%	25%	100%	170%

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!								
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Drilling		
																		
	$a_p$	$f_z$	$a_e$	$f_z$	$a_p$	$v_c$	$a_e$ (% of DC)	$f_z$	$a_p$	$a_p$	$f_z$	$f_z$	$a_p/360^\circ$ (% of DC)	hole $\varnothing$ ( $\geq$ % of DC)	$f_z$	$a_p$ (% of DC)		
										$\leq 30^\circ$ *								
JS412 LV2	100	100	100	100	100	140	3	40	120	80	100	50	10	130	50	100		
										$\leq 10^\circ$ *								
JS413 LV2	100	100	100	100	100	150	3	40	120	70	50	50	10	130	X	X		
JS413 LV3	X	X	25	60	240	120	3	40	230	70	50	50	10	130	X	X		
										$\leq 30^\circ$ *								
JS452 LV2	100	100	100	100	100	140	3	35	120	70	100	50	10	130	50	100		
JS452 LV3	50	60	75	60	50	120	3	40	100	70	70	50	10	130	20	10		
										$\leq 10^\circ$ *								
JS453 LV2	100	100	100	100	100	140	3	35	120	70	50	50	10	130	20	10		
JS453 LV3	X	X	25	60	240	120	3	40	230	70	70	50	10	130	20	10		
										$\leq 30^\circ$ *								
S4521 LV2	100	100	100	100	100	140	3	35	120	70	100	50	10	130	50	100		
S4521 LV3	50	60	75	60	50	120	3	40	100	70	70	50	10	130	20	10		
										$\leq 30^\circ$ *								
S4531 LV2	100	100	100	100	100	140	3	35	120	70	100	50	10	130	50	100		
S4531 LV3	X	X	25	60	240	120	3	40	100	70	70	50	10	130	20	10		
										$\leq 30^\circ$ *								
S4651 LV2	X	X	100	100	100	140	3	35	100	X	X	100	2	130	X	X		
S4651 LV4	X	X	100	85	200	120	3	40	200	X	X	60	1,5	130	X	X		
										$\leq 30^\circ$ *								
JSE512 LV2	100	100	100	100	100	110	3	65	125	40	40	100	5	130	40	40		
										$\leq 5^\circ$ *								
JSE513 LV2	100	100	100	100	100	110	3	85	150	100	100	100	5	130	50	40		
JSE513 LV3	30	100	30	50	200	110	3	85	250	X	X	X	X	X	X	X		
JSE513 LV4	X	X	X	X	X	60	3	80	350	X	X	X	X	X	X	X		
										$\leq 5^\circ$ *								
JSE514 LV1	100	100	100	100	100	110	3	60	150	100	100	100	5	130	X	X		
JSE514 LV2	100	100	100	100	100	110	3	60	150	100	100	100	5	130	X	X		
JSE514 LV3	X	X	25	50	200	110	3	60	250	X	X	X	X	X	X	X		
JSE514 LV4	X	X	X	X	X	60	3	80	350	X	X	X	X	X	X	X		
										$\leq 45^\circ$ *								
JS553 LV1	100	100	100	100	100	110	3	55	150	50	55	35	3	130	35	50		
JS553 LV2	100	100	100	100	100	110	3	55	150	50	55	35	3	130	35	50		
JS553 LV3	40	60	40	105	200	110	3	55	250	50	15	35	3	130	35	50		
										$\leq 5^\circ$ *								
JS554 LV1	100	100	100	100	100	110	3	53	150	100	100	100	3	130	X	X		
JS554 LV2	100	100	100	100	100	110	3	53	150	100	100	100	3	130	X	X		
JS554 LV3	40	60	38	105	200	110	3	53	250	50	50	60	3	130	X	X		
										$\leq 5^\circ$ *								
JS564 LV2	X	X	100	100	100	110	3	55	100	X	X	100	2	130	X	X		
JS564 LV3	X	X	38	105	140	110	3	55	140	X	X	60	1,5	130	X	X		
JS564 LV4	X	X	38	100	200	110	3	55	200	X	X	X	X	X	X	X		
										$\leq 5^\circ$ *								
JS565 LV2	X	X	100	100	100	110	3	55	100	X	X	100	2	130	X	X		
JS565 LV3	X	X	38	100	140	110	3	55	140	X	X	60	1,5	130	X	X		
JS565 LV4	X	X	38	100	200	110	3	55	200	X	X	X	X	X	X	X		

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!								
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Drilling		
																		
	$a_p$	$f_z$	$a_e$	$f_z$	$a_p$	$v_c$	$a_e$ (% of DC)	$f_z$	$a_p$	$a_p$	$f_z$	$f_z$	$a_p/360^\circ$ (% of DC)	hole $\varnothing$ ( $\geq$ % of DC)	$f_z$	$a_p$ (% of DC)		
J28 LV2	100	100	100	100	100	140	3	100	135	$\leq 45^\circ$ *		40	25	100	10	130	25	60
J36 LV2	X	X	100	100	100	120	3	85	150	$\leq X^\circ$ *		X	X	X	X	X	X	X
J93F LV2	100	100	100	100	100	133	3	40	100	$\leq 20^\circ$ *		100	100	100	3	130	25	30
JH120 LV2	100	100	100	100	100	120	3	120	80	$\leq 1^\circ$		17	100	100	2	130	X	X
JH130 LV2	X	X	100	100	100	120	3	120	80	$\leq X^\circ$ *		X	X	X	X	X	X	X
JH142 LV2	X	X	100	100	100	110	3	80	70	$\leq 45^\circ$ *		X	X	30	2	130	X	X
JH142 LV3	X	X	100	100	100	110	3	80	70	$\leq X^\circ$ *		X	X	20	1	130	X	X
JH142 LV6	X	X	100	100	100	110	3	80	70	$\leq 45^\circ$ *		X	X	10	1	130	X	X
JH830 LV2	100	100	100	100	100	110	3	110	80	$\leq X^\circ$ *		9	135	135	3	130	X	X
JH910 LV2	100	100	100	100	100	125	4	100	80	$\leq X^\circ$ *		15	140	140	3	130	X	X
JH910 LV3	80	80	100	80	80	125	4	80	65	$\leq X^\circ$ *		10	110	110	3	130	X	X
JH930 LV2	X	X	100	100	100	125	2	30	100	$\leq X^\circ$ *		X	X	X	X	X	X	X

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!							
Straight	Slotting		Side rough			Side finish				Ramping		Helical			Drilling		
																	
	$a_p$	$f_z$	$a_e$	$f_z$	$a_p$	$v_c$	$a_e$ (% of DC)	$f_z$	$a_p$	$a_p$	$f_z$	$f_z$	$a_p/360^\circ$ (% of DC)	hole $\varnothing$ ( $\geq$ % of DC)	$f_z$	$a_p$ (% of DC)	
										$\leq 5^\circ$ *							
JH40	100	100	100	100	100	100	3	35	100	83	55	55	25	130	55	80	
LV2	100	100	100	100	100	100	3	35	100	83	55	55	25	130	55	80	
JH410											$\leq 45^\circ$ *						
LV2	100	100	100	100	100	125	2	25	100	100	67	67	40	130	67	80	
LV2 (ML)	75	60	80	60	100	125	2	25	100	60	40	40	40	130	40	50	
LV2 (TL)	125	100	100	100	100	100	2	100	100	100	50	100	40	130	150	80	
LV2 (RS)	125	100	100	100	100	100	2	100	100	100	50	100	40	130	150	80	
LV3 (RS)	95	95	80	100	100	100	2	100	100	50	50	50	40	130	75	40	
JH421											$\leq 45^\circ$ *						
LV2	100	100	100	100	100	100	4	35	100	100	100	100	25	130	45	80	
JH440											$\leq 30^\circ$ *						
LV2	100	100	100	100	100	125	3	40	100	100	100	100	5	130	X	X	
JHP750											$\leq 5^\circ$ *						
LV1	115	120	115	115	100	100	2	145	100	100	120	120	3	130	10	70	
LV2	100	100	100	100	100	100	2	145	100	100	100	100	3	130	10	60	
JHP951											$\leq 5^\circ$ *						
LV2	100	100	100	100	100	158	2	50	113	20	100	125	3	130	6	20	
JHP993											$\leq 10^\circ$ *						
LV2	100	100	100	100	100	X	X	X	X	30	100	100	3	130	4	40	
LV3	80	80	80	80	80	X	X	X	X	20	80	80	3	130	3	30	
JS520											$\leq X^\circ$ *						
LV2	X	X	100	100	100	133	2	65	100	X	X	X	X	X	X	X	
LV3	X	X	X	X	X	133	2	65	175	X	X	X	X	X	X	X	
JS522											$\leq X^\circ$ *						
LV4	X	X	100	100	100	129	2	140	100	X	X	X	X	X	X	X	
JS720											$\leq X^\circ$ *						
LV2	X	X	100	100	100	110	2	65	100	X	X	100	2	130	X	X	
LV3	X	X	100	100	100	110	2	65	100	X	X	100	2	130	X	X	
JS754											$\leq X^\circ$ *						
LV1	100	100	100	100	100	110	3	55	150	100	100	100	3	130			
LV2	100	100	100	100	100	110	3	55	150	100	100	100	3	130	X	X	
LV3	40	60	38	105	200	110	3	55	250	50	50	60	3	130			
JS755											$\leq X^\circ$ *						
LV2	100	100	100	100	100	110	3	55	150	100	100	100	3	130	X	X	
LV3	40	60	38	105	100	110	3	55	250	50	50	60	3	130	X	X	

\*Max ramping angle

All values are percentages of original (100%) cutting data.

# Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version side milling cutting data then recalculate parameters!							
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Drilling	
																	
	$a_p$	$f_z$	$a_e$	$f_z$	$a_p$	$v_c$	$a_e$ (% of DC)	$f_z$	$a_p$	$a_p$	$f_z$	$f_z$	$a_p/360^\circ$ (% of DC)	hole $\varnothing$ ( $\geq$ % of DC)	$f_z$	$a_p$ (% of DC)	
										$\leq X^\circ$							
<b>JME542-JME562-JME564</b>																	
LV1	100	100	100	100	100	125	2	150	5	X	X	X	X	X	X	X	
LV2	63	100	100	100	65	125	2	150	3	X	X	X	X	X	X	X	
LV3	25	100	100	100	25	125	2	150	1	X	X	X	X	X	X	X	
LV4 (TL)	18	100	100	100	20	125	2	150	1	X	X	X	X	X	X	X	
LV4 (XL)	12	100	100	100	10	125	2	150	1	X	X	X	X	X	X	X	
LV5	10	100	100	100	10	125	2	150	1	X	X	X	X	X	X	X	
LV6	4	100	100	100	5	125	2	150	1	X	X	X	X	X	X	X	
LV7	2	100	100	100	2	125	2	150	1	X	X	X	X	X	X	X	
										$\leq X^\circ$							
<b>JME142-JME144</b>																	
LV1	100	100	100	100	100	100	2	150	5	X	X	X	X	X	X	X	
LV2	85	85	100	100	63	100	2	150	3	X	X	X	X	X	X	X	
LV3	75	75	100	100	25	100	2	150	1	X	X	X	X	X	X	X	
LV4	60	60	100	100	20	100	2	150	1	X	X	X	X	X	X	X	
LV5	50	50	100	100	10	100	2	150	1	X	X	X	X	X	X	X	
LV6	40	40	100	100	5	100	2	150	1	X	X	X	X	X	X	X	
										$\leq X^\circ +$							
<b>JM403-JM404-JM406</b>																	
LV1	100	100	100	100	100	X	X	X	X	X	X	X	X	X	X	X	
LV2	100	75	100	75	100	X	X	X	X	X	X	X	X	X	X	X	
LV3 (L)	100	75	100	75	90	X	X	X	X	X	X	X	X	X	X	X	
LV3 (TL)	90	75	100	75	70	X	X	X	X	X	X	X	X	X	X	X	
LV4 (XL)	75	75	100	75	70	X	X	X	X	X	X	X	X	X	X	X	
LV4 (SL)	75	75	100	75	45	X	X	X	X	X	X	X	X	X	X	X	
LV5	50	50	100	50	30	X	X	X	X	X	X	X	X	X	X	X	
										$\leq 2$							
<b>JC898</b>																	
LV3	X	X	100	100	100	X	X	X	X	X	50	80	3	130-160	X	X	
										$\leq 5^\circ$							
<b>JC899</b>																	
LV3	X	X	100	100	100	100	3	50	100	X	X	X	X	X	X	X	

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!							
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Drilling	
																	
	$a_p$	$f_z$	$a_e$	$f_z$	$a_p$	$v_c$	$a_e$ (% of DC)	$f_z$	$a_p$	$a_p$	$f_z$	$f_z$	$a_p/360^\circ$ (% of DC)	hole $\varnothing$ ( $\geq$ % of DC)	$f_z$	$a_p$ (% of DC)	
JHP170										$\leq 1^\circ$							
LV2	100	100	100	100	100	130	3	175	80	100	100	100	2	130	X	X	
JHP490										$\leq 30^\circ$							
LV2	100	100	100	100	100	X	X	X	X	50	50	35	5	130	30	50	
LV2 (E-Shape)	100	75	100	100	100	X	X	X	X	50	50	35	5	130	30	50	
LV3	100	75	80	100	100	X	X	X	X	50	50	35	5	130	30	50	
LV4	150	75	80	100	100	X	X	X	X	50	50	35	5	130	30	50	
JHP760										$\leq 5^\circ$							
LV2	100	100	100	100	100	140	2	125	15	30	100	100	3	130	10	50	
LV3	50	50	100	50	50	140	2	125	15	15	50	50	3	130	5	25	
JHP770										$\leq 15^\circ$							
LV2	100	100	100	100	100	170	3	125	100	100	40	40	3	130	X	X	
JHP780										$\leq 5^\circ$							
LV1	100	100	100	100	100	160	2	135	140	100	100	35	3	130	35	50	
LV2	100	100	100	100	100	160	2	135	140	100	100	35	3	130	35	50	
JD620										$\leq X^\circ$							
LV2	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
LV4	20	100	60	100	60	100	2	110	4	X	X	X	X	X	X	X	
JD630										$\leq X^\circ$							
LV2	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
LV4	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
JD640										$\leq X^\circ$							
LV2	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
LV4	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!									
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Plunging			
																			
	$a_p$	$f_z$	$a_e$	$f_z$	$a_p$	$v_c$	$a_e$ (% of DC)	$f_z$	$a_p$	$a_p$	$f_z$	$f_z$	$a_p/360^\circ$ (% of DC)	hole $\varnothing$ ( $\geq$ % of DC)	$v_c$	$a_e$ (% of DC)	$f_z$	$a_e$ -sd (% of DC)	
<b>JHF181</b>																			
LV1	100	100	100	100	100	X	X	X	X	X	X	100	3,4	130	X	X	X	X	
LV2	80	85	100	85	80	X	X	X	X	X	X	85	3,0	130	X	X	X	X	
LV3	60	70	100	70	60	X	X	X	X	X	X	70	2,5	130	X	X	X	X	
										$\leq 1,5^\circ$ *									
<b>JHF980</b>																			
LV1	100	100	100	100	100	X	X	X	X	100	100	100	3	130	70	30	33	200	
LV2	100	100	100	100	100	X	X	X	X	100	100	100	3	130	70	30	33	200	
LV3	80	85	80	85	80	X	X	X	X	80	85	85	3	130	70	30	33	200	
LV4	50	70	50	70	60	X	X	X	X	60	70	70	3	130	70	30	33	200	

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Recalculation

Use original standard version cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!									
BALL	Slotting		Side rough			Side finish					Copy milling roughing			Copy milling finishing				Helical	
																			
	$a_p$	$f_z$	$a_e$	$f_z$	$a_p$	$v_c$	$a_e$ (% of DC)	$f_z$	$a_p$	$a_e$	$f_z$	$a_p$	$v_c$	$a_e$ (% of DC)	$f_z$	$a_p$	$f_z$	$a_p/360^\circ$ (% of DC)	hole $\varnothing$ ( $\geq$ % of DC)
<b>JSB512</b>																			
LV2	X	X	100	100	100	125	3	125	10	X	X	X	X	X	X	X	100	5	130
<b>JS532</b>																			
LV1	X	X	100	100	100	125	3	125	10	X	X	X	X	X	X	X	75	5	130
LV2	X	X	70	100	70	125	3	125	10	X	X	X	X	X	X	X	75	5	130
LV3	X	X	X	X	X	125	3	125	10	X	X	X	X	X	X	X	X	X	X
<b>JS533</b>																			
LV1	X	X	100	100	100	125	3	125	15	X	X	X	X	X	X	X	75	5	130
LV2	X	X	75	75	75	125	3	125	15	X	X	X	X	X	X	X	75	5	130
<b>JS534</b>																			
LV1	X	X	100	100	100	125	3	170	20	X	X	X	X	X	X	X	100	3	130
LV2	X	X	70	100	70	125	3	170	20	X	X	X	X	X	X	X	100	3	130
LV3	X	X	70	100	70	125	3	170	20	X	X	X	X	X	X	X	100	3	130
<b>JHB970</b>																			
LV1	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130
LV2	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130
LV3	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130
<b>JHB720</b>																			
LV2	X	X	100	100	100	125	2	90	75	X	X	X	X	X	X	X	40	3	130
<b>JH112</b>																			
LV1	X	X	100	100	100	110	2	70	100	X	X	X	X	X	X	X	20	2	130
LV2	X	X	100	100	100	110	2	70	100	X	X	X	X	X	X	X	20	2	130
LV3	X	X	100	100	100	110	1,6	55	100	X	X	X	X	X	X	X	X	X	X
LV4	X	X	100	100	100	130	1,4	55	100	X	X	X	X	X	X	X	X	X	X
LV5	X	X	100	100	100	130	1,4	50	100	X	X	X	X	X	X	X	X	X	X
LV6	X	X	100	100	100	130	1	35	100	X	X	X	X	X	X	X	X	X	X
<b>JH150</b>																			
LV2	X	X	100	100	100	165	1	90	35	X	X	X	X	X	X	X	30	2	130

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!				
BALL	Slotting		Side rough			Side finish				Ramping		Helical		
														
	a <sub>p</sub>	f <sub>z</sub>	a <sub>e</sub>	f <sub>z</sub>	a <sub>p</sub>	v <sub>c</sub>	a <sub>e</sub>	f <sub>z</sub>	a <sub>p</sub>	a <sub>p</sub>	f <sub>z</sub>	f <sub>z</sub>	a <sub>p</sub> /360° (% of DC)	hole Ø (≥ % of DC)
<b>C5321</b>														
LV1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	170%
LV2	100%	80%	100%	80%	100%	80%	100%	80%	100%	70%	100%	85%	90%	170%
LV3	100%	64%	100%	64%	100%	64%	100%	64%	100%	65%	100%	85%	75%	160%
LV4	x	x	100%	52%	100%	52%	100%	52%	100%	65%	65%	70%	75%	160%
LV5	x	x	100%	40%	100%	40%	100%	40%	100%	x	x	65%	75%	160%
LV6	x	x	100%	33%	100%	33%	100%	33%	100%	x	x	60%	75%	160%
LV7	x	x	100%	26%	100%	26%	100%	26%	100%	x	x	55%	75%	160%
<b>C5341</b>														
LV1	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	170%
LV2	100%	80%	100%	80%	100%	80%	100%	80%	100%	70%	100%	85%	90%	170%
LV3	100%	64%	100%	64%	100%	64%	100%	64%	100%	65%	100%	85%	75%	160%
LV4	x	x	100%	52%	100%	52%	100%	52%	100%	65%	65%	70%	75%	160%
LV5	x	x	100%	40%	100%	40%	100%	40%	100%	x	x	65%	75%	160%
LV6	x	x	100%	33%	100%	33%	100%	33%	100%	x	x	60%	75%	160%
LV7	x	x	100%	26%	100%	26%	100%	26%	100%	x	x	55%	75%	160%
LV8	x	x	100%	21%	100%	21%	100%	21%	100%	x	x	50%	75%	160%
<b>ST5341</b>														
LV2	x	x	100%	100%	100%	100%	100%	100%	100%	x	x	x	x	x
LV3	x	x	100%	85%	100%	85%	100%	85%	100%	x	x	x	x	x

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!										
BALL	Slotting		Side rough			Side finish					Copy milling roughing			Copy milling finishing				Helical		
																				
	a <sub>p</sub>	f <sub>z</sub>	a <sub>e</sub>	f <sub>z</sub>	a <sub>p</sub>	v <sub>c</sub>	a <sub>e</sub> (% of DC)	f <sub>z</sub>	a <sub>p</sub>		a <sub>e</sub>	f <sub>z</sub>	a <sub>p</sub>	v <sub>c</sub>	a <sub>e</sub> (% of DC)	f <sub>z</sub>	a <sub>p</sub>	f <sub>z</sub>	a <sub>p</sub> /360° (% of DC)	hole Ø (≥ % of DC)
JH160 Standard (2)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
JH450 Standard (2)	X	X	100	100	100	120	5	90	25	X	X	X	X	X	X	X	45	5	130	
JH460 Standard (2)	X	X	100	100	100	120	5	90	25	X	X	X	X	X	X	X	X	X	X	
JMB542-JMB562- JMB563																				
LV1	100	100	X	X	X	X	X	X	X	100	100	100	125	2	150	5	X	X	X	
LV2	65	100	X	X	X	X	X	X	X	100	100	63	125	2	150	3	X	X	X	
LV3	26	100	X	X	X	X	X	X	X	100	100	25	125	2	150	1	X	X	X	
LV4 (TL)	20	100	X	X	X	X	X	X	X	100	100	19	125	2	150	1	X	X	X	
LV4 (XL)	12	100	X	X	X	X	X	X	X	100	100	12	125	2	150	1	X	X	X	
LV5	10	100	X	X	X	X	X	X	X	100	100	10	125	2	150	1	X	X	X	
LV6	4	100	X	X	X	X	X	X	X	100	100	4	125	2	150	1	X	X	X	
LV7	2	100	X	X	X	X	X	X	X	100	100	2	125	2	150	1	X	X	X	
JMB112																				
LV1	100	100	X	X	X	X	X	X	X	100	100	100	118	2	120	5	X	X	X	
LV2	65	100	X	X	X	X	X	X	X	64	85	85	118	2	120	3	X	X	X	
LV3	26	100	X	X	X	X	X	X	X	56	75	75	118	2	120	1	X	X	X	
LV4	20	100	X	X	X	X	X	X	X	45	60	60	118	2	120	1	X	X	X	
LV5	10	100	X	X	X	X	X	X	X	38	50	50	118	2	120	1	X	X	X	
LV6	4	100	X	X	X	X	X	X	X	30	40	40	118	2	120	1	X	X	X	
JM413-JM416																				
LV1	X	X	100	100	100	100	5	40	35	X	X	X	X	X	X	X	X	X	X	
LV2	X	X	100	60	100	100	5	40	15	X	X	X	X	X	X	X	X	X	X	
LV3	X	X	100	80	100	100	5	40	15	X	X	X	X	X	X	X	X	X	X	
LV4	X	X	100	60	75	100	5	40	10	X	X	X	X	X	X	X	X	X	X	
JMB642																				
LV1	100	100	100	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
LV3	100	100	100	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
LV5	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
LV6	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
LV7	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
JD660										≤2										
LV1	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	
LV2	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	
LV3	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	
LV4	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	
LV5	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	

\*Max ramping angle

All values are percentages of original (100%) cutting data.

## Nomenclature and formulae

<b>RPM</b>	
$n = \frac{v_c \cdot 1000}{\pi \cdot D_c}$	(rev/min)
<b>Cutting speed</b>	
$v_c = \frac{n \cdot \pi \cdot D_c}{1000}$	(m/min)
<b>Feed speed</b>	
$v_f = n \cdot z_n \cdot f_z$	(mm/min)
<b>Feed per revolution</b>	
$f = z_n \cdot f_z$	(mm/rev)
<b>Metal removal rate</b>	
$Q = \frac{a_e \cdot a_p \cdot v_f}{1000}$	(cm <sup>3</sup> /min)
<b>Cutting speed and RPM for copying</b>	
$v_c = \frac{n \cdot \pi \cdot D_w}{1000}$	(m/min)
$n = \frac{v_c \cdot 1000}{\pi \cdot D_w}$	(RPM)
$D_w = 2 \cdot \sqrt{a_p (D_c - a_p)}$	(mm)

**Calculation of  $a_p$  vs. overhang length:**

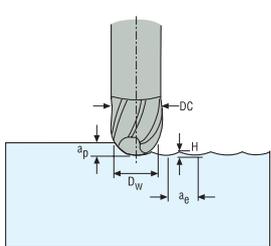
If the overhang length (XS) is longer than 4 x DC and Cylindrical shanks are used it is important to adopt another depth of cut ( $a_p$ ) value than that indicated in the table.

Use the following formula to calculate the new  $a_p$  value

$$a_{p, \text{new}} = a_p \times (4 \times \text{DC} / \text{XS})^2$$

**Profile height**

$$H = \frac{D_c}{2} - \sqrt{\frac{D_c^2 - a_e^2}{4}}$$

$$D_w = 2 \cdot \sqrt{a_p (D_c - a_p)} \quad (\text{mm})$$


**Profile height H (um)**

DC	Pitch $a_e$ (μm)						
	0,06	0,08	0,11	0,15	0,20	0,3	0,45
1	0,90	1,60	3,00	5,70	10,0	23,0	53,0
2	0,45	0,80	1,50	2,80	5,0	11,0	26,0
4	0,23	0,40	0,76	1,40	2,5	5,60	13,0
6	0,15	0,27	0,50	0,94	1,7	3,80	8,40
8	0,11	0,20	0,38	0,70	1,3	2,80	6,30
10	0,09	0,16	0,30	0,56	1,0	2,30	5,10
12	0,08	0,13	0,25	0,47	0,83	1,90	4,20

- $a_p$  = Depth of cut mm/axial depth of cut (mm)
- $a_e$  = Width of cut mm/radial depth of cut (mm)
- DC = Cutter diameter
- $f$  = Feed per revolution (mm/rev)
- $f_z$  = Feed per tooth (mm/tooth)
- $z_n$  = No. of teeth
- $n$  = RPM (rev/min)
- Q = Material removal rate (cm<sup>3</sup>/min)
- $v_c$  = Cutting speed (m/min)
- $v_f$  = Feed speed (mm/min)
- $D_w$  = Working diameter

## Operation recommendations

### Helical interpolation ramping

The table below shows the diameter recommendations for Helical interpolation ramping

#### Recommended diameter of hole for helical interpolation ramping

Diameter of end mill DC	Diameter of hole
1-2,5	1,4 x DC
3-6	1,3 x DC
8-12	1,2 x DC
16-32	1,15 x DC

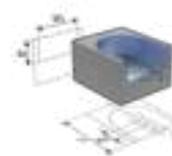


### Trochoidal method

The figure below shows a method often called the trochoidal method for milling slots

#### Recommendation of width of slot

Diameter of end mill DC	Slot width
1-2,5	1,8 x DC
3-6	1,6 x DC
8-12	1,4 x DC
16-32	1,2 x DC



Universal

Steel and cast  
iron

Stainless steel  
and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster



## MINIMASTER™

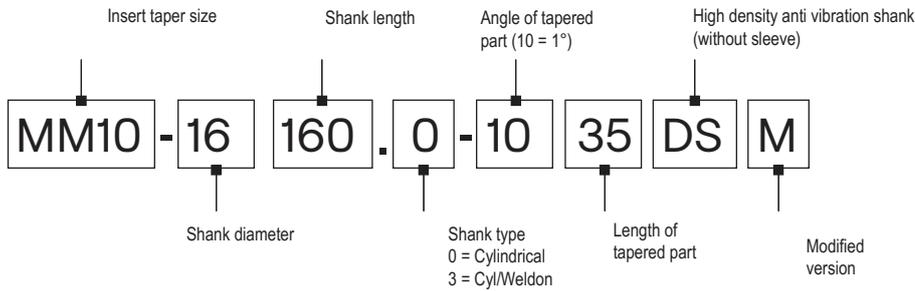
Minimaster™ is a unique, versatile end milling system that can combine different solutions for optimum accessibility and maximum stability and security.

The flexible two-piece design combines shanks and inserts to save time, money and create a versatile tool that enables users to find a solution for almost every application – whether they need to minimize the overhang, attain maximum stability, or more.

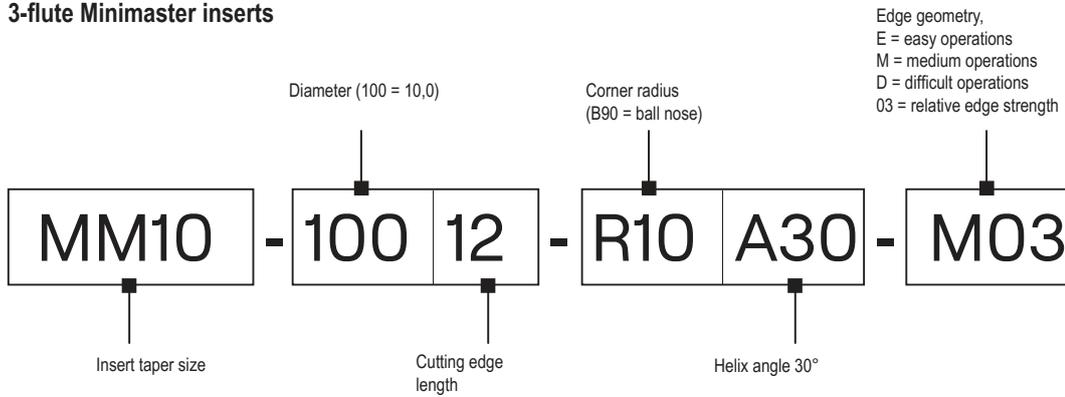
- Square Shoulder range: 6-20 mm (.25 - .75 inch)
- Ballnose range: 6-20 mm (.25 - .75 inch)
- Center Drilling/Chamfering range: 6-19,05mm (.25 - .750 inch)
- High Feed range: 8-12 mm (.375 - .625 inch)
- Plunging range: 6-16 mm (.25 - .625 inch)
- Concave Radius range: 12 mm (.472 inch)

## Code keys

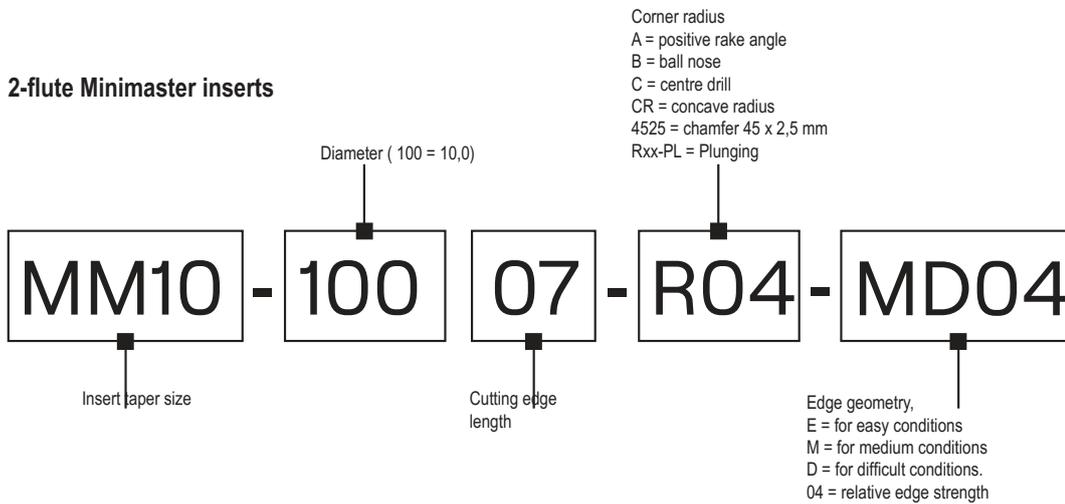
### Shanks



### 3-flute Minimaster inserts



### 2-flute Minimaster inserts



Note that parts of the code can vary for different types of insert or shanks

### Internal through coolant



Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

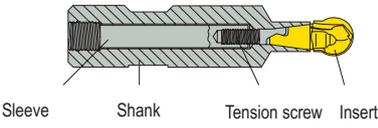
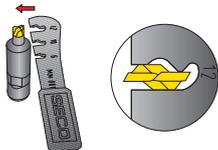
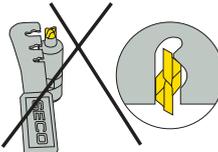
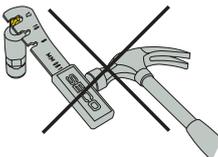
Hard

Graphite

X-Heads

Minimaster

## Mounting instructions for 2-flute Minimaster

Universal	Torque wrench	
Steel and cast iron	 <p>Sleeve      Shank      Tension screw      Insert</p>	<p>The sleeve must be securely tightened in the shank before the tension screw and insert are fitted. If the wrench cannot be used for changing the insert (If the insert has broken off or jammed in the shank) , the sleeve can be released, which will also release the insert. Use Allen key (turn it anti-clockwise) to back off the sleeve until the insert is free. Re-tighten the sleeve in the shank before fitting the tension screw and the new insert. For 3-flute Minimaster another key (MM0416) must be used (Key grip on hexagonal part of the insert.)</p>
Stainless steel and S-materials		<p>Make sure that the wrench is used correctly</p>
Non ferrous		<p>If the wrench is used on the wrong side, it will cause damage</p>
Hard		<p>Do not use excessive force</p>
Plastic and cfrp		<p>Normal hand-power is quite sufficient</p>
Graphite		
X-Heads		
Minimaster		

## Selection guide

### 1. Select taper size

The design of the workpiece and the machining operations determines suitable taper size. Select the largest possible taper size for best strength and stability.

### 2. Select insert

- Use the tables beginning on page 790 to classify the workpiece material into a Seco material group.
- Look up the pages for the selected taper size and choose a suitable insert in the insert selection table.

### 3. Select shank

- Look up the pages for the selected taper size and choose a suitable shank in the tool data table.
- Always choose the shortest shank possible to achieve the best possible stability.

### 4. Select cutting data

- Cutting speed recommendations are found in the cutting data tables for each selected taper size. Cutting data recommendations are based on stable conditions and might therefore need to be adjusted depending on the stability in the application (tooling, machine & workpiece fixturing). General rule for max ap in slotting is  $DC \cdot 0.3 = \text{Max APMXS}$ . (See figure 1)
- Feed and cutting speed recommendations are found in the cutting data conversion table.
- Maximum RPM that for safety reasons should never be exceeded, are shown on page N/A.
- If the cutter is not fully engaged the feed per tooth and the cutting speed should be increased compared to the recommendations for a fully engaged cutter. The reason for that is to keep the average chip thickness and the working temperature in the cutting zone.
- Divide the radial depth of cut with the cutter diameter to get the actual cutter engagement percentage ( $a_p/DC\%$ ), for ball nose cutters use the effective working diameter  $D_w$  instead of DC (See figure 2 & 6)
- Use the percentage to get a correct feed per tooth and cutting speed recommendation for the actual cutter engagement.

### 5. General

- When milling in corners and bottoms of cavities the feed rate should be reduced due to the increase of the average chip thickness. Use the feed per tooth recommendations for a fully engaged cutter.
- When steep down copying with an angle bigger than  $40^\circ$  or steep up copying with an angle bigger than  $30^\circ$  in combination with small depths of cut, use the diameter (DC) as working diameter instead of  $D_w$ .
- When calculating feed per revolution and feed speed, always use the ZAFP-value. That is the effective number of teeth to use for cutting data calculations. The ZAFP-value can be found in the insert selection table.

**Note!** There will be a deterioration in the surface finish on the workpiece when the feed rate is increased. (See figure 3 & 5)

Universal

 Steel and cast  
iron

 Stainless steel  
and S-materials

 Stainless steel  
and S-materials

Non ferrous

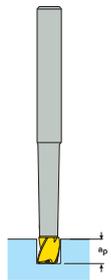
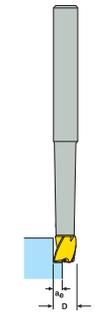
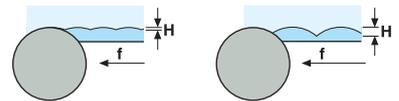
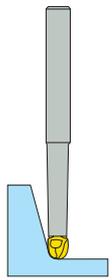
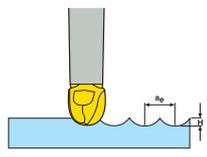
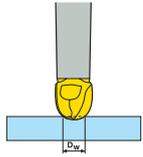
Hard

Graphite

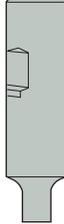
X-Heads

Minimaster

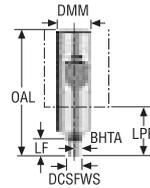
Minimaster figures

Universal	Figure 1	Figure 2
Steel and cast iron		
Stainless steel and S-materials	Figure 3	Figure 4
Non ferrous		
Hard	Figure 5	Figure 6
Plastic and cfrp		
Graphite		
X-Heads		
Minimaster		

### Shank design

<p>Design 1, Keyway shank</p>	<p>Design 2, Cylindrical/Weldon back end and 90° front</p>	<p>Universal Steel and cast iron Stainless steel and S-materials</p>
		
<p>Design 3, Cylindrical/Weldon back end tapered front 87°/89°</p>	<p>Design 4, Cylindrical/Weldon back end tapered front 80°/85°/87°</p>	<p>Stainless steel and S-materials Non ferrous</p>
		
<p>Design 5, Cylindrical back end double tapered front end 89°/85°</p>		<p>Graphite X-Heads</p>
		

MM06 Shank – Metric



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		mm	mm	mm	mm	mm					kg	
MM06-10040.0-0007	00094747	5,75	10,0	7,0	7,0	40,0	0,0	2	■	80000	0,1	2
MM06-10050.0-0007DS	02580666	5,75	10,0	7,0	7,0	50,0	0,0	2	■	80000	0,1	3
MM06-10075.0-3041DS	02580701	5,75	10,0	40,5	35,0	75,0	3,0	4	■	80000	0,1	3
MM06-10100.0-1035DS	02580713	5,75	10,0	35,0	60,0	100,0	1,0	3	■	80000	0,1	3
MM06-12070.3-0005	75080695	5,75	12,0	5,0	25,0	70,0	0,0	2	■	80000	0,1	1
MM06-12065.0-0000	75080694	5,7	12,0	0,0	15,0	65,0	60,0	1	■	80000	0,1	1
MM06-12120.0-1050DS	02580714	5,75	12,0	50,0	75,0	120,0	1,0	3	■	80000	0,2	3
MM06-16075.3-3009	75080696	5,75	16,0	9,0	27,0	75,0	3,0	3	■	80000	0,1	1
MM06-16110.3-5058	75080697	5,75	16,0	58,6	62,0	110,0	5,0	4	■	80000	0,2	4
MM06-16140.0-1020M	00027102	5,75	16,0	20,0	92,0	140,0	1,0	3	■	80000	0,2	5
MM06-16140.0-1035M	00027103	5,75	16,0	35,0	92,0	140,0	1,0	3	■	80000	0,2	6
MM06-16140.0-1050M	00094748	5,75	16,0	50,0	92,0	140,0	1,0	3	■	80000	0,2	6
MM06-16090.0-0012DS	02580670	5,75	16,0	12,0	42,0	90,0	0,0	2	■	80000	0,3	3
MM06-16095.0-0024DS	02580673	5,75	16,0	24,0	47,0	95,0	0,0	2	■	80000	0,3	3
MM06-16140.0-1050DS	02580717	5,75	16,0	50,0	92,0	140,0	1,0	3	■	80000	0,3	3
MM06-16140.0-1035DS	02580716	5,75	16,0	35,0	92,0	140,0	1,0	3	■	80000	0,4	3
MM06-20250.0-1035DS	02580718	5,75	20,0	35,0	190,0	250,0	1,0	5	■	80000	0,9	3

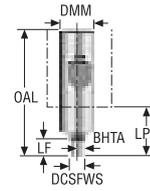
Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
1	MM-035046	MM06-03518	H05-4
2	MM-035023	MM06-03518	H05-4
3	-	MM06-03518	-
4	MM-035091	MM06-03518	H05-4
5	MM-035046	MM06-03544	H05-4
6	MM-035046	MM06-03564	H05-4

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

MM06 Shank – Inch



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		inch	inch	inch	inch	inch					lbs	
MM06-0.38-1.6-0-0002	00096107	0.224	0.375	0.276	0.276	1.575	0,0	2	■	80000	0.220	2
MM06-0.50-2.8-3-0002	00096108	0.224	0.500	0.197	0.984	2.756	0,0	2	■	80000	0.220	1
MM06-0.50-2.6-0-0000	00096106	0.224	0.500	0	0.787	2.559	60,0	1	■	80000	0.220	1
MM06-0.62-3.0-3-3003	00096116	0.224	0.625	0.354	1.063	2.953	3,0	1	■	80000	0.220	1
MM06-0.62-4.3-3-5022	00096117	0.224	0.625	2.291	2.441	4.331	5,0	2	■	80000	0.440	4
MM06-0.62-5.5-0-1007	00096111	0.224	0.625	0.787	3.622	5.512	1,0	3	■	80000	0.440	5
MM06-0.62-5.5-0-1013	00096112	0.224	0.625	1.378	3.622	5.512	1,0	3	■	80000	0.440	6
MM06-0.62-5.5-0-1019	00096114	0.224	0.625	1.969	3.622	5.512	1,0	3	■	80000	0.440	6
MM06-0.62-3.5-0-0004DS	02593394	0.224	0.625	0.472	1.654	3.543	0,0	2	■	80000	0.660	3
MM06-0.62-3.7-0-0009DS	02593395	0.224	0.625	0.945	1.850	3.740	0,0	2	■	80000	0.660	3
MM06-0.62-5.5-0-1013DS	02593396	0.224	0.625	1.378	3.622	5.512	1,0	3	■	80000	0.880	3
MM06-0.62-5.5-0-1019DS	02593397	0.224	0.625	1.969	3.622	5.512	1,0	3	■	80000	0.660	3
MM06-0.75-10.0-0-1013DS	02593399	0.224	0.750	1.378	7.874	9.843	1,0	5	■	80000	1.760	3

Spare Parts, included in delivery

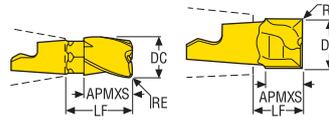
Accessories

For cutter	Sleeve	Tension screw	Sleeve key
1	 MM-035046	 MM06-03518	 H05-4
2	MM-035023	MM06-03518	H05-4
3	-	MM06-03518	-
4	MM-035091	MM06-03518	H05-4
5	MM-035046	MM06-03544	H05-4
6	MM-035046	MM06-03564	H05-4

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Nonferrous  
Hard  
Graphite  
X-Heads  
Minimaster

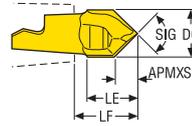
Slot milling/square shoulder milling



—For Torque keys and torque values, see page 787

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEPF	Wrench	Grades			
											Coated			
											T60M	F15M	F30M	F40M
mm Inch	mm Inch	mm Inch	mm Inch											
MM06-05804T-R02-D02	5,8 0.228	4,1 0.161	0,2 0.008	5,1 0.201	15,0	7,2	11,0	0	2	MM0612	■			
MM06-05807-R02A30-M02	5,8 0.228	7,5 0.295	0,2 0.008	9,9 0.390	15,0	7,2	11,0	30	3	MM0416	✓			■
MM06-06004-M02	6,0 0.236	4,1 0.161	–	5,1 0.201	15,0	7,4	11,8	0	2	MM0612	■			
MM06-06004-R04-MD02	6,0 0.236	4,1 0.161	0,4 0.016	5,1 0.201	15,0	7,4	11,0	0	2	MM0612	■		■	
MM06-06004-R10-MD02	6,0 0.236	4,1 0.161	1,0 0.039	5,1 0.201	15,0	7,4	9,8	0	2	MM0612			■	
MM06-06007-A30-E02	6,0 0.236	7,5 0.295	–	9,9 0.390	15,0	7,4	11,8	30	3	MM0416	✓			■
MM06-06007-R05A30-M02	6,0 0.236	7,5 0.295	0,5 0.020	9,9 0.390	15,0	7,4	10,8	30	3	MM0416	✓			■
MM06-06007-R10A30-D02	6,0 0.236	7,5 0.295	1,0 0.039	9,9 0.390	15,0	7,4	9,8	30	3	MM0416	✓			■
MM06-06007-R10A30-E02	6,0 0.236	7,5 0.295	1,0 0.039	9,9 0.390	15,0	7,4	9,8	30	3	MM0416	✓			■
MM06-06007-R10A30-M02	6,0 0.236	7,5 0.295	1,0 0.039	9,9 0.390	15,0	7,4	9,8	30	3	MM0416	✓			■
MM06-06007-R20A30-M02	6,0 0.236	7,5 0.295	2,0 0.079	9,9 0.390	15,0	7,4	7,8	30	3	MM0416	✓			■
MM06-06407-A30-E02	6,35 0.250	7,5 0.295	–	9,9 0.390	15,0	7,8	12,5	30	3	MM0416	✓			■
MM06-06407-R04A30-M02	6,35 0.250	7,5 0.295	0,4 0.016	9,9 0.390	15,0	7,8	11,7	30	3	MM0416	✓			■
MM06-06407-R08A30-M02	6,35 0.250	7,5 0.295	0,8 0.031	9,9 0.390	15,0	7,8	10,9	30	3	MM0416	✓			■

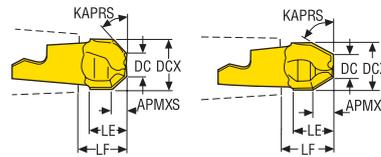
### Centre drilling



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	LE mm Inch	LF mm Inch	SIG°	ZEFP	Wrench	Grades			
								Coated			
								T60M	F15M	F30M	F40M
MM06-06003-C120-M02	6,0 0.236	1,6 0.063	6,27 0.247	7,19 0.283	120,0	2	MM0612	■			
MM06-06003-C90-M02	6,0 0.236	2,86 0.113	6,0 0.236	7,12 0.280	90,0	2	MM0612	■			

### Chamfering



—For Torque keys and torque values, see page 787

Designation	DCX mm Inch	DC mm Inch	APMXS mm Inch	RE mm Inch	LE mm Inch	LF mm Inch	KAPRS°	ZEFP	Wrench	Grades			
										Coated			
										T60M	F15M	F30M	F40M
MM06-06004-4515-E02	6,0 0.236	1,8 0.071	2,1 0.083	0,2 0.008	4,0 0.157	5,1 0.201	45,0	2	MM0612	■			
MM06-06004-6015-E02	6,0 0.236	3,14 0.124	2,4 0.094	0,2 0.008	4,6 0.181	5,75 0.226	60,0	2	MM0612	■			

Universal

Steel and cast  
iron

Stainless steel  
and S-materials

Stainless steel  
and S-materials

Non ferrous

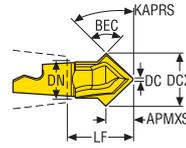
Hard

Graphite

X-Heads

Minimaster

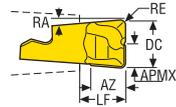
Double chamfering



—For Torque keys and torque values, see page 787

Designation	DCX	DC	APMXS	DN	LF	BEC°	KAPRS°	ZFP	Wrench	Grades			
										Coated			
	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					T60M	F15M	F30M	F40M
MM06-08008-D4510P-M02	8,0 0.315	0,6 0.024	3,7 0.146	6,0 0.236	8,5 0.335	90,0	45,0	2	MM0612		■		

Plunge milling



—For Torque keys and torque values, see page 787

Designation	DC	APMXE	RE	AZ	LF	RA°	ZFP	Wrench	Grades			
									Coated			
	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch				T60M	F15M	F30M	F40M
MM06-06004-R10-PL-MD02	6,0 0.236	3,0 0.118	1,0 0.039	4,3 0.169	5,08 0.200	5,0	2	MM0612			■	

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

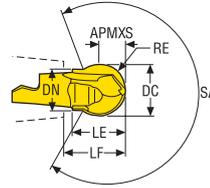
Plastic and cfrp

Graphite

X-Heads

Minimaster

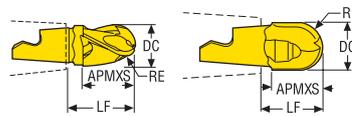
Precision inserts for semi-finishing in all materials



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LE mm Inch	DN mm Inch	LF mm Inch	SA°	ZEFP	Wrench	Grades			
										Coated			
										T60M	F15M	F30M	F40M
MM06-08008-B120PF-M01	8,0 0.315	4,0 0.157	4,0 0.157	8,0 0.315	6,0 0.236	8,73 0.344	263,0	2	MM0612		■		
MM06-08008-B120P-M03	8,0 0.315	4,0 0.157	4,0 0.157	8,0 0.315	6,0 0.236	8,73 0.344	263,0	2	MM0612			■	

### Copy milling



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LF mm Inch	FHA°	ZEFP	Wrench		Grades			
									Coated			
									T60M	F15M	F30M	F40M
MM06-06006-B90-MD02	6,0 0.236	6,1 0.240	3,0 0.118	7,06 0.278		2	MM0612		■		■	
MM06-06006-B90PF-M01	6,0 0.236	5,2 0.205	3,0 0.118	7,04 0.277		2	MM0612			■		
MM06-06006-B90P-M02	6,0 0.236	5,2 0.205	3,0 0.118	7,04 0.277		2	MM0612				■	
MM06-06006-B90S-E02	6,0 0.236	6,1 0.240	3,0 0.118	7,06 0.278		2	MM0612				■	
MM06-06007-B90A30-E02	6,0 0.236	7,4 0.291	3,0 0.118	9,85 0.388	30,0	3	MM0416	✓			■	
MM06-06007-B90A30-M02	6,0 0.236	7,4 0.291	3,0 0.118	9,85 0.388	30,0	3	MM0416	✓				■
MM06-06406-B90P-M02	6,35 0.250	5,4 0.213	3,175 0.125	7,22 0.284		2	MM0612				■	
MM06-06406-B90S-E02	6,35 0.250	6,3 0.248	3,175 0.125	7,24 0.285		2	MM0612				■	

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

Hard

Graphite

X-Heads

Minimaster

MM06 – Slot and Side milling – Insert selection – Metric/ Inch

Material Group	SMG	a <sub>p</sub>	f <sub>z</sub>			
			100%	40%	20%	10%
Universal	P1	1,3 0,050	0,030 0,0012	0,030 0,0012	0,036 0,0014	0,048 0,0019
	P2	1,3 0,050	0,030 0,0012	0,030 0,0012	0,036 0,0014	0,048 0,0019
Steel and cast iron	P3	1,3 0,050	0,028 0,0011	0,028 0,0011	0,034 0,0013	0,046 0,0018
	P4	1,3 0,050	0,028 0,0011	0,028 0,0011	0,034 0,0013	0,044 0,0017
	P5	1,3 0,050	0,028 0,0011	0,028 0,0011	0,032 0,0013	0,044 0,0017
	P6	1,3 0,050	0,028 0,0011	0,028 0,0011	0,032 0,0013	0,044 0,0017
	P7	1,3 0,050	0,028 0,0011	0,028 0,0011	0,032 0,0013	0,044 0,0017
	P8	1,3 0,050	0,028 0,0011	0,028 0,0011	0,032 0,0013	0,044 0,0017
Stainless steel and S-materials	P11	1,3 0,050	0,028 0,0011	0,028 0,0011	0,032 0,0013	0,044 0,0017
	P12	1,0 0,040	0,020 0,00080	0,020 0,00080	0,022 0,00085	0,030 0,0012
Non ferrous	M1	1,3 0,050	0,030 0,0012	0,030 0,0012	0,036 0,0014	0,048 0,0019
	M2	1,3 0,050	0,028 0,0011	0,028 0,0011	0,032 0,0013	0,044 0,0017
	M3	1,0 0,040	0,024 0,00095	0,024 0,00095	0,026 0,0010	0,036 0,0014
	M4	0,80 0,032	0,022 0,00085	0,022 0,00080	0,024 0,00095	0,030 0,0012
	M5	0,80 0,032	0,022 0,00085	0,020 0,00080	0,024 0,00095	0,030 0,0012
Hard	K1	1,3 0,050	0,036 0,0014	0,034 0,0013	0,038 0,0015	0,050 0,0020
	K2	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017
	K3	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017
	K4	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017
	K5	1,3 0,050	0,030 0,0012	0,028 0,0011	0,030 0,0012	0,040 0,0016
	K6	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017
	K7	1,3 0,050	0,030 0,0012	0,028 0,0011	0,030 0,0012	0,040 0,0016
Plastic and CFRP	N1	1,3 0,050	0,046 0,0018	0,044 0,0017	0,048 0,0019	0,065 0,0026
	N2	1,3 0,050	0,046 0,0018	0,044 0,0017	0,048 0,0019	0,065 0,0026
	N3	1,3 0,050	0,046 0,0018	0,044 0,0017	0,048 0,0019	0,065 0,0026
	N11	1,3 0,050	0,046 0,0018	0,044 0,0017	0,048 0,0019	0,065 0,0026
Graphite	S1	0,80 0,032	0,028 0,0011	0,026 0,0010	0,025 0,0010	0,032 0,0013
	S2	0,80 0,032	0,028 0,0011	0,026 0,0010	0,025 0,0010	0,032 0,0013
	S3	0,80 0,032	0,026 0,0010	0,025 0,0010	0,024 0,00095	0,028 0,0012
X-Heads	S11	0,90 0,036	0,024 0,00095	0,024 0,00095	0,026 0,0010	0,036 0,0014
	S12	0,90 0,036	0,024 0,00095	0,024 0,00095	0,026 0,0010	0,036 0,0014
	S13	0,80 0,032	0,022 0,00085	0,020 0,00080	0,024 0,00095	0,030 0,0012
Minimaster	H5	1,0 0,040	0,025 0,0010	0,024 0,00095	0,024 0,00095	0,030 0,0012
	H8	0,90 0,036	0,020 0,00080	0,019 0,00075	0,018 0,00070	0,024 0,00095
	H11	1,0 0,040	0,025 0,0010	0,024 0,00095	0,024 0,00095	0,030 0,0012
	H12	0,90 0,036	0,020 0,00080	0,019 0,00075	0,018 0,00070	0,024 0,00095
	H21	0,90 0,036	0,020 0,00080	0,019 0,00075	0,018 0,00070	0,024 0,00095

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM06 - Slot and Side milling – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F30M				F40M				T60M				
	100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%	
P1	280	350	395	435	270	335	375	415	220	270	300	330	Universal
	920	1150	1300	1425	890	1100	1225	1350	720	890	980	1075	
P2	275	340	380	420	260	325	365	400	210	260	295	320	Steel and cast iron
	900	1125	1250	1375	850	1075	1200	1300	690	850	970	1050	
P3	240	295	330	365	225	285	315	350	185	230	255	280	Steel and cast iron
	790	970	1075	1200	740	940	1025	1150	610	750	840	920	
P4	210	260	295	320	200	250	280	305	160	200	225	245	Steel and cast iron
	690	850	970	1050	660	820	920	1000	520	660	740	800	
P5	200	250	280	310	190	240	265	295	155	190	215	235	Steel and cast iron
	660	820	920	1025	620	790	870	970	510	620	710	770	
P6	225	285	315	345	215	270	300	330	175	215	240	265	Stainless steel and S-materials
	740	940	1025	1125	710	890	980	1075	570	710	790	870	
P7	215	265	295	325	205	255	285	310	165	205	230	250	Stainless steel and S-materials
	710	870	970	1075	670	840	940	1025	540	670	750	820	
P8	200	250	280	305	190	240	265	290	155	190	215	235	Stainless steel and S-materials
	660	820	920	1000	620	790	870	950	510	620	710	770	
P11	210	260	290	320	200	245	275	305	160	200	220	245	Stainless steel and S-materials
	690	850	950	1050	660	800	900	1000	520	660	720	800	
P12	130	160	175	195	125	150	170	185	100	125	135	150	Stainless steel and S-materials
	425	520	570	640	410	490	560	610	330	410	445	490	
M1	—	—	—	—	210	265	295	320	170	210	235	260	Stainless steel and S-materials
	—	—	—	—	690	870	970	1050	560	690	770	850	
M2	—	—	—	—	175	215	240	265	140	170	195	210	Stainless steel and S-materials
	—	—	—	—	570	710	790	870	460	560	640	690	
M3	—	—	—	—	135	165	190	205	110	135	150	165	Stainless steel and S-materials
	—	—	—	—	445	540	620	670	360	445	490	540	
M4	—	—	—	—	105	130	145	155	85	105	115	125	Stainless steel and S-materials
	—	—	—	—	345	425	475	510	280	345	375	410	
M5	—	—	—	—	85	105	120	130	70	85	95	105	Non ferrous
	—	—	—	—	280	345	395	425	230	280	310	345	
K1	215	270	305	335	205	260	290	315	165	210	230	255	Non ferrous
	710	890	1000	1100	670	850	950	1025	540	690	750	840	
K2	190	235	265	295	180	225	255	280	150	180	205	225	Non ferrous
	620	770	870	970	590	740	840	920	490	590	670	740	
K3	160	200	225	250	155	190	215	235	125	155	175	190	Non ferrous
	520	660	740	820	510	620	710	770	410	510	570	620	
K4	155	190	215	235	145	180	205	225	120	145	165	180	Hard
	510	620	710	770	475	590	670	740	395	475	540	590	
K5	95	115	130	145	90	110	125	135	70	90	100	110	Hard
	310	375	425	475	295	360	410	445	230	295	330	360	
K6	135	170	190	210	130	160	180	200	105	130	145	160	Hard
	445	560	620	690	425	520	590	660	345	425	475	520	
K7	120	150	165	180	115	140	160	175	90	115	125	140	Hard
	395	490	540	590	375	460	520	570	295	375	410	460	
N1	1650	2050	2325	2525	1575	1975	2200	2400	1275	1575	1775	1950	Graphite
	5425	6725	7625	8275	5175	6475	7225	7875	4175	5175	5825	6400	
N2	670	830	930	1025	640	790	890	970	510	640	710	790	Graphite
	2200	2725	3050	3375	2100	2600	2925	3175	1675	2100	2325	2600	
N3	445	560	620	680	425	530	590	650	340	425	475	530	Graphite
	1450	1825	2025	2225	1400	1750	1925	2125	1125	1400	1550	1750	
N11	510	630	710	780	485	600	680	740	390	485	540	600	Graphite
	1675	2075	2325	2550	1600	1975	2225	2425	1275	1600	1775	1975	
S1	50	65	70	75	49	60	65	75	39	49	55	60	X-Heads
	165	215	230	245	160	195	215	245	130	160	180	195	
S2	41	50	55	60	39	48	55	60	32	39	44	48	X-Heads
	135	165	180	195	130	155	180	195	105	130	145	155	
S3	36	44	49	55	34	42	47	50	27	34	38	41	X-Heads
	120	145	160	180	110	140	155	165	90	110	125	135	
S11	—	—	—	—	70	85	95	105	55	70	75	85	X-Heads
	—	—	—	—	230	280	310	345	180	230	245	280	
S12	—	—	—	—	48	60	65	70	38	48	55	60	X-Heads
	—	—	—	—	155	195	215	245	125	155	180	195	
S13	—	—	—	—	27	34	38	41	22	27	30	33	X-Heads
	—	—	—	—	90	110	125	135	70	90	100	110	
H5	43	55	60	65	41	50	55	60	33	41	45	50	Minimaster
	140	180	195	215	135	165	180	195	110	135	150	165	
H8	44	55	60	65	42	50	60	65	34	42	47	50	Minimaster
	145	180	195	215	140	165	195	215	110	140	155	165	
H11	55	65	75	85	50	65	70	80	42	50	60	65	Minimaster
	180	215	245	280	165	215	230	260	140	165	195	215	
H12	80	95	110	120	75	90	105	115	60	75	85	90	Minimaster
	260	310	360	395	245	295	345	375	195	245	280	295	
H21	44	55	60	65	42	50	60	65	34	42	47	50	Minimaster
	145	180	195	215	140	165	195	215	110	140	155	165	

MM06 Z3-Copy milling – Insert selection – Roughing – mm/Inch

Material Group	SMG	a <sub>p</sub>	f <sub>z</sub>				
			100%	40%	20%	10%	
Universal	P1	1,3 0,050	0,036 0,0014	0,034 0,0013	0,036 0,0014	0,048 0,0019	
	P2	1,3 0,050	0,036 0,0014	0,034 0,0013	0,036 0,0014	0,048 0,0019	
	P3	1,3 0,050	0,034 0,0013	0,034 0,0013	0,034 0,0013	0,046 0,0018	
	P4	1,3 0,050	0,034 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	P5	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	P6	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	P7	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	P8	1,3 0,050	0,034 0,0013	0,034 0,0013	0,034 0,0013	0,046 0,0018	
	P11	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	P12	1,0 0,040	0,024 0,00095	0,022 0,00085	0,024 0,00095	0,030 0,0012	
	Steel and cast iron	M1	1,3 0,050	0,036 0,0014	0,036 0,0013	0,036 0,0014	0,048 0,0019
		M2	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017
M3		1,0 0,040	0,028 0,0011	0,026 0,0010	0,028 0,0011	0,036 0,0014	
M4		0,80 0,032	0,025 0,0010	0,025 0,0010	0,025 0,0010	0,030 0,0013	
M5		0,80 0,032	0,025 0,0010	0,025 0,0010	0,025 0,0010	0,030 0,0013	
Non ferrous	K1	1,3 0,050	0,036 0,0014	0,034 0,0013	0,036 0,0014	0,048 0,0019	
	K2	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	K3	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	K4	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	K5	1,3 0,050	0,030 0,0012	0,028 0,0011	0,030 0,0012	0,040 0,0016	
	K6	1,3 0,050	0,032 0,0013	0,032 0,0013	0,034 0,0013	0,044 0,0017	
	K7	1,3 0,050	0,030 0,0012	0,028 0,0011	0,030 0,0012	0,040 0,0016	
Hard	N1	1,3 0,050	0,046 0,0018	0,044 0,0017	0,046 0,0018	0,060 0,0024	
	N2	1,3 0,050	0,046 0,0018	0,044 0,0017	0,046 0,0018	0,060 0,0024	
	N3	1,3 0,050	0,046 0,0018	0,044 0,0017	0,046 0,0018	0,060 0,0024	
	N11	1,3 0,050	0,046 0,0018	0,044 0,0017	0,046 0,0018	0,060 0,0024	
Plastic and cfrp	S1	0,80 0,032	0,025 0,0010	0,025 0,0010	0,025 0,0010	0,030 0,0013	
	S2	0,80 0,032	0,025 0,0010	0,025 0,0010	0,025 0,0010	0,030 0,0013	
	S3	0,80 0,032	0,024 0,00095	0,022 0,00085	0,022 0,00085	0,028 0,0012	
Graphite	S11	0,90 0,036	0,028 0,0011	0,028 0,0011	0,028 0,0011	0,036 0,0014	
	S12	0,90 0,036	0,028 0,0011	0,028 0,0011	0,028 0,0011	0,036 0,0014	
	S13	0,80 0,032	0,025 0,0010	0,025 0,0010	0,025 0,0010	0,030 0,0013	
	H5	1,0 0,040	0,024 0,00095	0,022 0,00085	0,024 0,00095	0,030 0,0012	
X-Heads	H8	0,90 0,036	0,018 0,00070	0,018 0,00070	0,018 0,00070	0,022 0,00095	
	H11	1,0 0,040	0,024 0,00095	0,022 0,00085	0,024 0,00095	0,030 0,0012	
	H12	0,90 0,036	0,018 0,00070	0,018 0,00070	0,018 0,00070	0,022 0,00095	
	H21	0,90 0,036	0,018 0,00070	0,018 0,00070	0,018 0,00070	0,022 0,00095	
	Minimaster	H21	0,90 0,036	0,018 0,00070	0,018 0,00070	0,018 0,00070	0,022 0,00095

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM06 Z3-Copy milling – Insert selection – Finishing – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>			
			15%	10%	5%	2%
P1	MM06-06007-B90A30-E02 F30M	1,3	0,040	0,048	0,065	0,11
		0,050	0,0016	0,0019	0,0026	0,0044
P2	MM06-06007-B90A30-E02 F30M	1,3	0,040	0,048	0,065	0,11
		0,050	0,0016	0,0019	0,0026	0,0044
P3	MM06-06007-B90A30-E02 F30M	1,3	0,038	0,046	0,065	0,10
		0,050	0,0015	0,0018	0,0026	0,0040
P4	MM06-06007-B90A30-E02 F30M	1,3	0,038	0,044	0,060	0,10
		0,050	0,0015	0,0017	0,0024	0,0040
P5	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
P6	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
P7	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
P8	MM06-06007-B90A30-E02 F30M	1,3	0,038	0,046	0,065	0,10
		0,050	0,0015	0,0018	0,0026	0,0040
P11	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
P12	MM06-06007-B90A30-E02 F30M	1,0	0,026	0,030	0,042	0,065
		0,040	0,0010	0,0012	0,0017	0,0026
M1	MM06-06007-B90A30-E02 F30M	1,3	0,040	0,048	0,065	0,11
		0,050	0,0016	0,0019	0,0026	0,0044
M2	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
M3	MM06-06007-B90A30-E02 F30M	1,0	0,030	0,036	0,048	0,080
		0,040	0,0012	0,0014	0,0019	0,0032
M4	MM06-06007-B90A30-E02 F30M	0,80	0,026	0,030	0,042	0,070
		0,032	0,0010	0,0013	0,0017	0,0028
M5	MM06-06007-B90A30-E02 F30M	0,80	0,026	0,030	0,042	0,070
		0,032	0,0010	0,0013	0,0017	0,0028
K1	MM06-06007-B90A30-E02 F30M	1,3	0,040	0,048	0,065	0,11
		0,050	0,0016	0,0019	0,0026	0,0044
K2	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
K3	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
K4	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
K5	MM06-06007-B90A30-E02 F30M	1,3	0,034	0,040	0,055	0,090
		0,050	0,0013	0,0016	0,0022	0,0036
K6	MM06-06007-B90A30-E02 F30M	1,3	0,036	0,044	0,060	0,10
		0,050	0,0014	0,0017	0,0024	0,0040
K7	MM06-06007-B90A30-E02 F30M	1,3	0,034	0,040	0,055	0,090
		0,050	0,0013	0,0016	0,0022	0,0036
N1	MM06-06007-B90A30-E02 F30M	1,3	0,050	0,060	0,085	0,14
		0,050	0,0020	0,0024	0,0034	0,0055
N2	MM06-06007-B90A30-E02 F30M	1,3	0,050	0,060	0,085	0,14
		0,050	0,0020	0,0024	0,0034	0,0055
N3	MM06-06007-B90A30-E02 F30M	1,3	0,050	0,060	0,085	0,14
		0,050	0,0020	0,0024	0,0034	0,0055
N11	MM06-06007-B90A30-E02 F30M	1,3	0,050	0,060	0,085	0,14
		0,050	0,0020	0,0024	0,0034	0,0055
S1	MM06-06007-B90A30-E02 F30M	0,80	0,026	0,030	0,042	0,070
		0,032	0,0010	0,0013	0,0017	0,0028
S2	MM06-06007-B90A30-E02 F30M	0,80	0,026	0,030	0,042	0,070
		0,032	0,0010	0,0013	0,0017	0,0028
S3	MM06-06007-B90A30-E02 F30M	0,80	0,025	0,028	0,040	0,065
		0,032	0,0010	0,0012	0,0016	0,0026
S11	MM06-06007-B90A30-E02 F30M	0,90	0,030	0,036	0,048	0,080
		0,036	0,0012	0,0014	0,0019	0,0032
S12	MM06-06007-B90A30-E02 F30M	0,90	0,030	0,036	0,048	0,080
		0,036	0,0012	0,0014	0,0019	0,0032
S13	MM06-06007-B90A30-E02 F30M	0,80	0,026	0,030	0,042	0,070
		0,032	0,0010	0,0013	0,0017	0,0028
H5	MM06-06007-B90A30-E02 F30M	1,0	0,026	0,030	0,042	0,065
		0,040	0,0010	0,0012	0,0017	0,0026
H8	MM06-06007-B90A30-E02 F30M	0,90	0,020	0,022	0,032	0,050
		0,036	0,00080	0,00095	0,0013	0,0020
H11	MM06-06007-B90A30-E02 F30M	1,0	0,026	0,030	0,042	0,065
		0,040	0,0010	0,0012	0,0017	0,0026
H12	MM06-06007-B90A30-E02 F30M	0,90	0,020	0,022	0,032	0,050
		0,036	0,00080	0,00095	0,0013	0,0020
H21	MM06-06007-B90A30-E02 F30M	0,90	0,020	0,022	0,032	0,050
		0,036	0,00080	0,00095	0,0013	0,0020

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

MM06 Z3-Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

	SMG	F30M					F40M				
		100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
Universal	P1	295	350	370	405	400	280	330	355	385	380
		970	1150	1225	1325	1300	920	1075	1175	1275	1250
Steel and cast iron	P2	285	340	360	395	390	275	325	345	375	370
		940	1125	1175	1300	1275	900	1075	1125	1225	1225
Stainless steel and S-materials	P3	250	295	315	340	340	235	280	300	320	325
		820	970	1025	1125	1125	770	920	980	1050	1075
Non ferrous	P4	220	260	275	300	300	210	245	265	285	285
		720	850	900	980	980	690	800	870	940	940
Hard	P5	210	245	265	285	285	200	235	250	275	270
		690	800	870	940	940	660	770	820	900	890
Plastic and cfrp	P6	235	275	295	320	320	225	265	285	305	305
		770	900	970	1050	1050	740	870	940	1000	1000
Graphite	P7	225	260	280	305	300	210	250	265	290	285
		740	850	920	1000	980	690	820	870	950	940
X-Heads	P8	210	245	265	285	285	200	235	250	270	270
		690	800	870	940	940	660	770	820	890	890
Minimaster	P11	215	255	270	295	295	205	240	260	280	280
		710	840	890	970	970	670	790	850	920	920
Steel and cast iron	P12	135	160	165	180	180	125	150	160	170	170
		445	520	560	590	590	410	490	520	560	560
Universal	M1	230	275	290	315	315	220	260	280	300	300
		750	900	950	1025	1025	720	850	920	980	980
Steel and cast iron	M2	190	220	240	260	255	180	210	225	245	245
		620	720	790	850	840	590	690	740	800	800
Non ferrous	M3	150	180	185	200	200	140	170	175	190	190
		490	590	610	660	660	460	560	590	620	620
Hard	M4	105	145	140	150	150	100	135	135	145	145
		345	475	490	490	490	330	445	460	475	475
Plastic and cfrp	M5	85	120	115	125	125	85	115	110	120	120
		280	395	410	410	410	280	375	395	395	395
Graphite	K1	230	270	285	310	310	215	255	275	295	295
		750	890	940	1025	1025	710	840	900	970	970
Universal	K2	200	235	250	270	270	190	225	240	260	255
		660	770	820	890	890	620	740	790	850	840
Steel and cast iron	K3	170	200	210	230	230	160	190	200	220	220
		560	660	690	750	750	520	620	660	720	720
Non ferrous	K4	160	190	205	220	220	155	180	195	210	210
		520	620	670	720	720	510	590	640	690	690
Hard	K5	95	115	120	130	130	90	110	115	125	125
		310	375	395	425	425	295	360	375	410	410
Plastic and cfrp	K6	140	165	180	195	190	135	160	170	185	185
		460	540	590	640	620	445	520	560	610	610
Universal	K7	125	145	155	170	170	120	140	150	160	160
		410	475	510	560	560	395	460	490	520	520
Steel and cast iron	N1	1750	2075	2200	2375	2375	1675	1975	2100	2275	2250
		5750	6800	7225	7800	7800	5500	6475	6900	7475	7375
Non ferrous	N2	710	830	890	960	950	670	790	850	920	910
		2325	2725	2925	3150	3125	2200	2600	2800	3025	2975
Hard	N3	470	560	590	640	640	450	530	570	610	610
		1550	1825	1925	2100	2100	1475	1750	1875	2000	2000
Plastic and cfrp	N11	540	630	680	730	730	510	600	650	700	690
		1775	2075	2225	2400	2400	1675	1975	2125	2300	2275
Universal	S1	49	65	65	70	70	46	65	65	70	65
		160	215	230	230	230	150	215	215	230	215
Steel and cast iron	S2	39	55	55	55	55	37	50	50	55	55
		130	180	180	180	180	120	165	180	180	180
Non ferrous	S3	34	47	46	50	49	32	44	44	47	47
		110	155	155	165	160	105	145	150	155	155
Hard	S11	75	95	95	100	100	70	90	90	95	95
		245	310	310	330	330	230	295	295	310	310
Plastic and cfrp	S12	50	65	65	70	70	48	60	60	65	65
		165	215	215	230	230	155	195	215	215	215
Universal	S13	27	38	37	40	40	26	36	35	38	38
		90	125	130	130	130	85	120	120	125	125
Steel and cast iron	H5	44	55	55	60	60	42	50	55	55	55
		145	180	180	195	195	140	165	180	180	180
Non ferrous	H8	44	55	55	60	60	42	55	55	60	60
		145	180	195	195	195	140	180	180	195	195
Hard	H11	55	70	70	75	75	55	65	65	70	75
		180	230	230	245	245	180	215	230	230	245
Plastic and cfrp	H12	80	100	100	110	110	75	95	95	105	105
		260	330	345	360	360	245	310	330	345	345
Universal	H21	44	55	55	60	60	42	55	55	60	60
		145	180	195	195	195	140	180	180	195	195

MM06 Z2-Copy milling – Insert selection – Roughing – mm/Inch

SMG		a <sub>p</sub>		f <sub>z</sub>				
				100%	40%	20%	10%	
P1	MM06-06006-B90S-E02 F30M	2,5	0,030	0,030	0,032	0,036	0,048	Universal
		0,10	0,0012	0,0013	0,0014	0,0019		
P2	MM06-06006-B90S-E02 F30M	2,5	0,032	0,032	0,036	0,048	Steel and cast iron	
		0,10	0,0013	0,0013	0,0014	0,0019		
P3	MM06-06006-B90S-E02 F30M	2,5	0,030	0,030	0,034	0,046	Steel and cast iron	
		0,10	0,0012	0,0012	0,0013	0,0018		
P4	MM06-06006-B90-MD02 F30M	2,5	0,030	0,030	0,034	0,044	Steel and cast iron	
		0,10	0,0012	0,0012	0,0013	0,0017		
P5	MM06-06006-B90-MD02 F30M	2,5	0,028	0,028	0,034	0,044	Steel and cast iron	
		0,10	0,0011	0,0011	0,0013	0,0017		
P6	MM06-06006-B90-MD02 F30M	2,5	0,028	0,028	0,032	0,044	Steel and cast iron	
		0,10	0,0011	0,0011	0,0013	0,0017		
P7	MM06-06006-B90-MD02 F30M	2,5	0,028	0,028	0,032	0,044	Steel and cast iron	
		0,10	0,0011	0,0011	0,0013	0,0017		
P8	MM06-06006-B90-MD02 F30M	2,5	0,030	0,030	0,034	0,046	Stainless steel and S-materials	
		0,10	0,0012	0,0012	0,0013	0,0018		
P11	MM06-06006-B90-MD02 F30M	2,5	0,028	0,028	0,032	0,044	Stainless steel and S-materials	
		0,10	0,0011	0,0011	0,0013	0,0017		
P12	MM06-06006-B90-MD02 F30M	2,0	0,020	0,020	0,024	0,030	Stainless steel and S-materials	
		0,080	0,00080	0,00080	0,00095	0,0012		
M1	MM06-06006-B90S-E02 F30M	2,5	0,032	0,032	0,036	0,048	Stainless steel and S-materials	
		0,10	0,0013	0,0013	0,0014	0,0019		
M2	MM06-06006-B90S-E02 F30M	2,5	0,028	0,028	0,034	0,044	Stainless steel and S-materials	
		0,10	0,0011	0,0011	0,0013	0,0017		
M3	MM06-06006-B90S-E02 F30M	2,0	0,024	0,024	0,028	0,036	Stainless steel and S-materials	
		0,080	0,00095	0,00095	0,0011	0,0014		
M4	MM06-06006-B90-MD02 F30M	1,5	0,022	0,022	0,024	0,030	Stainless steel and S-materials	
		0,060	0,00085	0,00085	0,00095	0,0013		
M5	MM06-06006-B90-MD02 F30M	1,5	0,022	0,022	0,024	0,030	Stainless steel and S-materials	
		0,060	0,00085	0,00085	0,00095	0,0013		
K1	MM06-06006-B90S-E02 F30M	2,5	0,032	0,032	0,036	0,048	Non ferrous	
		0,10	0,0013	0,0013	0,0014	0,0019		
K2	MM06-06006-B90S-E02 F30M	2,5	0,028	0,028	0,034	0,044	Non ferrous	
		0,10	0,0011	0,0011	0,0013	0,0017		
K3	MM06-06006-B90S-E02 F30M	2,5	0,028	0,028	0,034	0,044	Non ferrous	
		0,10	0,0011	0,0011	0,0013	0,0017		
K4	MM06-06006-B90S-E02 F30M	2,5	0,028	0,028	0,034	0,044	Non ferrous	
		0,10	0,0011	0,0011	0,0013	0,0017		
K5	MM06-06006-B90S-E02 F30M	2,5	0,026	0,026	0,030	0,040	Non ferrous	
		0,10	0,0010	0,0010	0,0012	0,0016		
K6	MM06-06006-B90-MD02 F30M	2,5	0,028	0,028	0,034	0,044	Non ferrous	
		0,10	0,0011	0,0011	0,0013	0,0017		
K7	MM06-06006-B90-MD02 F30M	2,5	0,026	0,026	0,030	0,040	Non ferrous	
		0,10	0,0010	0,0010	0,0012	0,0016		
N1	MM06-06006-B90S-E02 F30M	2,5	0,040	0,040	0,046	0,060	Hard	
		0,10	0,0016	0,0016	0,0018	0,0024		
N2	MM06-06006-B90S-E02 F30M	2,5	0,040	0,040	0,046	0,060	Hard	
		0,10	0,0016	0,0016	0,0018	0,0024		
N3	MM06-06006-B90S-E02 F30M	2,5	0,040	0,040	0,046	0,060	Hard	
		0,10	0,0016	0,0016	0,0018	0,0024		
N11	MM06-06006-B90S-E02 F30M	2,5	0,040	0,040	0,046	0,060	Hard	
		0,10	0,0016	0,0016	0,0018	0,0024		
S1	MM06-06006-B90-MD02 F30M	1,5	0,022	0,022	0,024	0,030	Graphite	
		0,060	0,00085	0,00085	0,00095	0,0013		
S2	MM06-06006-B90-MD02 F30M	1,5	0,022	0,022	0,024	0,030	Graphite	
		0,060	0,00085	0,00085	0,00095	0,0013		
S3	MM06-06006-B90-MD02 F30M	1,5	0,020	0,020	0,022	0,028	Graphite	
		0,060	0,00080	0,00080	0,00085	0,0012		
S11	MM06-06006-B90-MD02 F30M	1,7	0,025	0,024	0,028	0,036	Graphite	
		0,065	0,0010	0,00095	0,0011	0,0014		
S12	MM06-06006-B90-MD02 F30M	1,7	0,025	0,024	0,028	0,036	Graphite	
		0,065	0,0010	0,00095	0,0011	0,0014		
S13	MM06-06006-B90-MD02 F30M	1,5	0,022	0,022	0,024	0,030	Graphite	
		0,060	0,00085	0,00085	0,00095	0,0013		
H5	MM06-06006-B90-MD02 F30M	2,0	0,020	0,020	0,024	0,030	X-Heads	
		0,080	0,00080	0,00080	0,00095	0,0012		
H8	MM06-06006-B90-MD02 F30M	1,7	0,016	0,016	0,018	0,022	X-Heads	
		0,065	0,00065	0,00065	0,00070	0,00095		
H11	MM06-06006-B90-MD02 F30M	2,0	0,020	0,020	0,024	0,030	X-Heads	
		0,080	0,00080	0,00080	0,00095	0,0012		
H12	MM06-06006-B90-MD02 F30M	1,7	0,016	0,016	0,018	0,022	X-Heads	
		0,065	0,00065	0,00065	0,00070	0,00095		
H21	MM06-06006-B90-MD02 F30M	1,7	0,016	0,016	0,018	0,022	X-Heads	
		0,065	0,00065	0,00065	0,00070	0,00095		

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM06 Z2-Copy milling – Insert selection – Finishing – mm/Inch

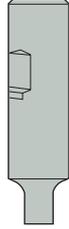
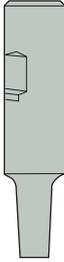
Material Group	SMG	a <sub>p</sub>	f <sub>z</sub>			
			15%	10%	5%	2%
Universal	P1	2,0 0,080	0,020 0,00080	0,024 0,00095	0,034 0,0013	0,055 0,0022
	P2	2,0 0,080	0,020 0,00080	0,024 0,00095	0,034 0,0013	0,055 0,0022
Steel and cast iron	P3	2,0 0,080	0,020 0,00080	0,024 0,00095	0,032 0,0013	0,050 0,0020
	P4	2,0 0,080	0,019 0,00075	0,022 0,00085	0,032 0,0013	0,050 0,0020
	P5	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	P6	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	P7	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	P8	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
Stainless steel and S-materials	P11	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	P12	1,7 0,065	0,013 0,00050	0,015 0,00060	0,020 0,00080	0,032 0,0013
Non ferrous	M1	2,0 0,080	0,020 0,00080	0,024 0,00095	0,034 0,0013	0,055 0,0022
	M2	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	M3	1,7 0,065	0,015 0,00060	0,018 0,00070	0,025 0,0010	0,038 0,0015
	M4	1,2 0,048	0,014 0,00055	0,016 0,00065	0,022 0,00085	0,034 0,0013
	M5	1,2 0,048	0,014 0,00055	0,016 0,00065	0,022 0,00085	0,034 0,0013
Hard	K1	2,0 0,080	0,020 0,00080	0,024 0,00095	0,034 0,0013	0,055 0,0022
	K2	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	K3	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	K4	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	K5	2,0 0,080	0,017 0,00065	0,020 0,00080	0,028 0,0011	0,044 0,0017
	K6	2,0 0,080	0,019 0,00075	0,022 0,00085	0,030 0,0012	0,048 0,0019
	K7	2,0 0,080	0,017 0,00065	0,020 0,00080	0,028 0,0011	0,044 0,0017
Plastic and cfrp	N1	2,0 0,080	0,026 0,0010	0,032 0,0013	0,044 0,0017	0,070 0,0028
	N2	2,0 0,080	0,026 0,0010	0,032 0,0013	0,044 0,0017	0,070 0,0028
	N3	2,0 0,080	0,026 0,0010	0,032 0,0013	0,044 0,0017	0,070 0,0028
	N11	2,0 0,080	0,026 0,0010	0,032 0,0013	0,044 0,0017	0,070 0,0028
Graphite	S1	1,2 0,048	0,014 0,00055	0,016 0,00065	0,022 0,00085	0,034 0,0013
	S2	1,2 0,048	0,014 0,00055	0,016 0,00065	0,022 0,00085	0,034 0,0013
	S3	1,2 0,048	0,013 0,00050	0,014 0,00060	0,020 0,00080	0,032 0,0013
X-Heads	S11	1,5 0,060	0,015 0,00060	0,018 0,00070	0,025 0,0010	0,038 0,0015
	S12	1,5 0,060	0,015 0,00060	0,018 0,00070	0,025 0,0010	0,038 0,0015
	S13	1,2 0,048	0,014 0,00055	0,016 0,00065	0,022 0,00085	0,034 0,0013
Minimaster	H5	1,7 0,065	0,013 0,00050	0,015 0,00060	0,020 0,00080	0,032 0,0013
	H8	1,5 0,060	0,010 0,00040	0,012 0,00048	0,016 0,00065	0,025 0,0010
	H11	1,7 0,065	0,013 0,00050	0,015 0,00060	0,020 0,00080	0,032 0,0013
	H12	1,5 0,060	0,010 0,00040	0,012 0,00048	0,016 0,00065	0,025 0,0010
	H21	1,5 0,060	0,010 0,00040	0,012 0,00048	0,016 0,00065	0,025 0,0010

SMG = Seco material group  
f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
All cutting data are start values

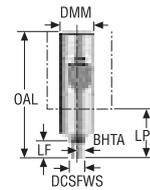
MM06 Z2-Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F15M					F30M					T60M					
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	
P1	325	415	430	470	465	275	345	375	405	405	225	280	305	330	325	Universal
	1075	1350	1400	1550	1525	900	1125	1225	1325	1325	740	920	1000	1075	1075	
P2	320	400	420	455	455	265	335	365	395	395	215	270	295	320	320	Steel and cast iron
	1050	1300	1375	1500	1500	870	1100	1200	1300	1300	710	890	970	1050	1050	
P3	275	345	360	395	395	230	290	315	340	340	190	235	255	275	275	Steel and cast iron
	900	1125	1175	1300	1300	750	950	1025	1125	1125	620	770	840	900	900	
P4	240	305	320	345	345	205	255	280	305	300	165	205	225	245	245	Steel and cast iron
	790	1000	1050	1125	1125	670	840	920	1000	980	540	670	740	800	800	
P5	230	290	305	330	330	195	245	265	290	290	160	200	215	235	235	Steel and cast iron
	750	950	1000	1075	1075	640	800	870	950	950	520	660	710	770	770	
P6	260	330	345	370	370	220	275	300	325	325	180	225	245	265	260	Steel and cast iron
	850	1075	1125	1225	1225	720	900	980	1075	1075	590	740	800	870	850	
P7	245	310	325	350	350	210	260	285	305	305	170	210	230	250	245	Stainless steel and S-materials
	800	1025	1075	1150	1150	690	850	940	1000	1000	560	690	750	820	800	
P8	230	290	305	330	330	195	245	265	285	290	160	200	215	230	235	Stainless steel and S-materials
	750	950	1000	1075	1075	640	800	870	940	950	520	660	710	750	770	
P11	240	300	315	340	340	200	255	275	300	295	165	205	220	240	240	Stainless steel and S-materials
	790	980	1025	1125	1125	660	840	900	980	970	540	670	720	790	790	
P12	145	185	190	205	205	130	160	170	180	180	105	130	135	145	145	Stainless steel and S-materials
	475	610	620	670	670	425	520	560	590	590	345	425	445	475	475	
M1	255	325	340	365	365	215	270	295	320	315	175	220	240	260	255	Stainless steel and S-materials
	840	1075	1125	1200	1200	710	890	970	1050	1025	570	720	790	850	840	
M2	210	265	275	300	300	175	220	240	260	260	145	180	195	210	210	Stainless steel and S-materials
	690	870	900	980	980	570	720	790	850	850	475	590	640	690	690	
M3	165	210	210	230	230	140	180	185	205	200	115	145	150	165	165	Stainless steel and S-materials
	540	690	710	750	750	460	590	620	670	660	375	475	510	540	540	
M4	125	160	160	170	170	110	140	140	155	155	90	115	115	125	125	Stainless steel and S-materials
	410	520	560	560	560	360	460	490	510	510	295	375	395	410	410	
M5	105	135	130	145	145	95	120	120	130	130	75	95	95	105	105	Non ferrous
	345	445	475	475	475	310	395	410	425	425	245	310	330	345	345	
K1	250	320	335	360	360	210	265	290	315	310	170	215	235	255	250	Non ferrous
	820	1050	1100	1175	1175	690	870	950	1025	1025	560	710	770	840	820	
K2	220	275	290	315	315	185	230	255	275	275	150	190	205	220	220	Non ferrous
	720	900	950	1025	1025	610	750	840	900	900	490	620	670	720	720	
K3	185	235	245	265	265	160	195	215	230	230	130	160	175	190	185	Non ferrous
	610	770	800	870	870	520	640	710	750	750	425	520	570	620	610	
K4	175	225	235	255	255	150	185	205	220	220	120	150	165	180	180	Non ferrous
	570	740	770	840	840	490	610	670	720	720	395	490	540	590	590	
K5	105	135	140	150	150	90	115	125	135	135	75	90	100	110	105	Hard
	345	445	460	490	490	295	375	410	445	445	245	295	330	360	345	
K6	155	195	205	225	225	135	165	180	195	195	105	135	145	160	155	Hard
	510	640	670	740	740	445	540	590	640	640	345	445	475	520	510	
K7	135	170	180	195	195	115	145	155	170	170	95	115	125	140	140	Hard
	445	560	590	640	640	375	475	510	560	560	310	375	410	460	460	
N1	1975	2475	2600	2800	2800	1625	2050	2225	2400	2375	1325	1650	1800	1950	1925	Graphite
	6475	8125	8525	9175	9175	5325	6725	7300	7875	7800	4350	5425	5900	6400	6325	
N2	790	1000	1050	1125	1125	660	820	900	970	960	530	670	730	790	780	Graphite
	2600	3275	3450	3700	3700	2175	2700	2950	3175	3150	1750	2200	2400	2600	2550	
N3	530	670	700	760	750	440	550	600	650	640	355	445	485	520	520	Graphite
	1750	2200	2300	2500	2450	1450	1800	1975	2125	2100	1175	1450	1600	1700	1700	
N11	600	760	800	860	860	500	630	680	740	730	405	510	550	600	590	Graphite
	1975	2500	2625	2825	2825	1650	2075	2225	2425	2400	1325	1675	1800	1975	1925	
S1	60	75	75	80	80	50	65	65	70	70	42	55	55	60	60	X-Heads
	195	245	260	260	260	165	215	230	230	230	140	180	180	195	195	
S2	47	60	60	65	65	42	55	55	60	60	34	43	43	47	47	X-Heads
	155	195	215	215	215	140	180	180	195	195	110	140	150	155	155	
S3	41	50	50	55	55	36	46	46	50	50	29	37	38	40	40	X-Heads
	135	165	180	180	180	120	150	160	165	165	95	120	130	130	130	
S11	85	105	105	115	115	75	95	95	105	100	60	75	75	85	85	X-Heads
	280	345	360	375	375	245	310	310	345	330	195	245	260	280	280	
S12	55	75	75	80	80	50	65	65	70	70	41	55	55	55	55	X-Heads
	180	245	245	260	260	165	215	215	230	230	135	180	180	180	180	
S13	33	42	42	45	45	29	37	37	40	40	24	30	30	33	33	X-Heads
	110	140	150	150	150	95	120	130	130	130	80	100	105	110	110	
H5	48	60	60	65	65	42	55	55	60	60	34	43	45	49	49	Minimaster
	155	195	215	215	215	140	180	180	195	195	110	140	150	160	160	
H8	48	60	60	65	65	44	55	55	60	60	36	46	46	50	50	Minimaster
	155	195	215	215	215	145	180	195	195	195	120	150	155	165	165	
H11	60	80	80	85	85	55	70	70	75	75	44	55	55	60	60	Minimaster
	195	260	260	280	280	180	230	230	245	245	145	180	195	195	195	
H12	85	110	110	120	120	80	100	100	110	110	65	80	85	90	90	Minimaster
	280	360	375	395	395	260	330	345	360	360	215	260	280	295	295	
H21	48	60	60	65	65	44	55	55	60	60	36	46	46	50	50	Minimaster
	155	195	215	215	215	145	180	195	195	195	120	150	155	165	165	

## Shank design

Universal	Design 1, Keyway shank	Design 2, Cylindrical/Weldon back end and 90° front
Steel and cast iron		
Stainless steel and S-materials	Design 3, Cylindrical/Weldon back end tapered front 87°/89°	Design 4, Cylindrical/Weldon back end tapered front 80°/85°/87°
Non ferrous		
Hard	Design 5, Cylindrical back end double tapered front end 89°/85°	
Plastic and cfrp		
Graphite		
X-Heads		

MM08 Shank – Metric



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		mm	mm	mm	mm	mm					kg	
MM08-10040.0-0007	00083980	7,6	10,0	7,0	7,0	40,0	0,0	2	■	80000	0,1	2
MM08-10050.0-0007DS	02580665	7,6	10,0	7,0	10,0	50,0	0,0	2	■	80000	0,1	3
MM08-10080.0-3023DS	02580702	7,6	10,0	22,9	40,0	80,0	3,0	4	■	80000	0,1	3
MM08-12065.0-0000	75034240	7,6	12,0	0,0	20,0	65,0	60,0	1	■	80000	0,1	1
MM08-12100.0-1035DS	02580719	7,6	12,0	35,0	55,0	100,0	1,0	3	■	80000	0,2	3
MM08-12120.0-1050DS	02580720	7,6	12,0	50,0	75,0	120,0	1,0	3	■	80000	0,2	3
MM08-16070.3-0007	75034241	7,6	16,0	7,6	22,0	70,0	0,0	2	■	80000	0,1	1
MM08-16075.3-3012	75034242	7,6	16,0	12,0	27,0	75,0	3,0	3	■	80000	0,1	1
MM08-16120.3-5048M	00042863	7,6	16,0	48,0	72,0	120,0	5,0	4	■	80000	0,2	5
MM08-16150.0-1030M	00094751	7,6	16,0	30,0	102,0	150,0	1,0	3	■	80000	0,2	5
MM08-16150.0-1050M	00094752	7,6	16,0	50,0	102,0	150,0	1,0	3	■	80000	0,2	4
MM08-16150.0-1070M	00094754	7,6	16,0	70,0	102,0	150,0	1,0	3	■	80000	0,2	4
MM08-16085.0-0016DS	02580675	7,6	16,0	16,0	37,0	85,0	0,0	2	■	80000	0,3	3
MM08-16100.0-0032DS	02580687	7,6	16,0	32,0	52,0	100,0	0,0	2	■	80000	0,3	3
MM08-16150.0-1050DS	02580722	7,6	16,0	50,0	102,0	150,0	1,0	3	■	80000	0,4	3
MM08-16150.0-1070DS	02580727	7,6	16,0	70,0	102,0	150,0	1,0	3	■	80000	0,3	3

Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
1	MM-05044	MM08-0524	H05-4
2	MM-05019	MM08-0524	H05-4
3	-	MM08-0524	-
4	MM-05044	MM08-0582	H05-4
5	MM-05044	MM08-0543	H05-4

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Nonferrous

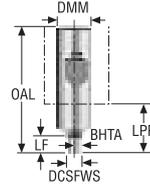
Hard

Graphite

X-Heads

Minimaster

MM08 Shank – Inch



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		inch	inch	inch	inch	inch					lbs	
MM08-0.38-1.6-0-0002	00096119	0.299	0.375	0.276	0.276	1.575	0,0	2	■	80000	0.220	3
MM08-0.50-2.6-0-0000	75054599	0.299	0.500	0	0.787	2.559	60,0	1	■	80000	0.220	1
MM08-0.62-2.8-3-0003	75054600	0.299	0.625	0.299	0.866	2.756	0,0	2	■	80000	0.220	1
MM08-0.62-3.0-3-3004	75054601	0.299	0.625	0.472	1.063	2.953	3,0	3	■	80000	0.220	1
MM08-0.62-4.7-3-5018	75054602	0.299	0.625	1.850	2.835	4.724	5,0	4	■	80000	0.440	2
MM08-0.62-5.9-0-1011	75054604	0.299	0.625	1.181	4.016	5.906	1,0	3	■	80000	0.440	2
MM08-0.62-3.3-0-0006DS	02593402	0.299	0.625	0.630	1.457	3.346	0,0	2	■	80000	0.660	4
MM08-0.62-4.0-0-0012DS	02593403	0.299	0.625	1.260	2.047	3.937	0,0	2	■	80000	0.660	4
MM08-0.62-5.9-0-1019DS	02593407	0.299	0.625	1.969	4.016	5.906	1,0	3	■	80000	0.880	4
MM08-0.62-5.9-0-1027DS	02593410	0.299	0.625	2.756	4.016	5.906	1,0	3	■	80000	0.660	4
MM08-0.75-10.0-0-1019DS	02593413	0.299	0.750	1.969	7.874	9.843	1,0	5	■	80000	1.980	4

Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
1	MM-05044	MM08-0524	H05-4
2	MM-05044	MM08-0543	H05-4
3	MM-05019	MM08-0524	H05-4
4	-	MM08-0524	-

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

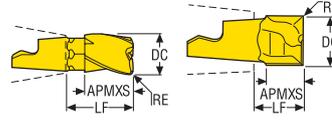
Plastic and CFRP

Graphite

X-Heads

Minimaster

Slot milling/square shoulder milling



—For Torque keys and torque values, see page 787

Designation											Grades			
	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench	Coated			
	mm Inch	mm Inch	mm Inch	mm Inch							T60M	F15M	F30M	F40M
MM08-07805T-R02-D03	7,8 0.307	5,4 0.213	0,2 0.008	6,8 0.268	15,0	9,6	15,0	0	2	MM0612	■			
MM08-07809-R02A30-M03	7,8 0.307	10,0 0.394	0,2 0.008	13,0 0.512	15,0	9,6	15,0	30	3	MM0416	✓			■
MM08-08005-M03	8,0 0.315	5,5 0.217	—	6,8 0.268	15,0	9,8	15,8	0	2	MM0612	■			
MM08-08005-R04A8-E03	8,0 0.315	5,4 0.213	0,4 0.016	6,7 0.264	15,0	9,8	15,0	8	2	MM0612	■		■	
MM08-08005-R04-MD03	8,0 0.315	5,5 0.217	0,4 0.016	6,8 0.268	15,0	9,8	15,0	0	2	MM0612	■		■	
MM08-08005-R04P-M02	8,0 0.315	5,4 0.213	0,4 0.016	6,7 0.264	15,0	9,8	15,0	0	2	MM0612			■	
MM08-08005-R10-MD03	8,0 0.315	5,4 0.213	1,0 0.039	6,8 0.268	15,0	9,8	13,8	0	2	MM0612			■	
MM08-08009-A30-E03	8,0 0.315	10,0 0.394	—	13,0 0.512	15,0	9,8	15,0	30	3	MM0416	✓		■	
MM08-08009-R05A30-M03	8,0 0.315	10,0 0.394	0,5 0.020	13,0 0.512	15,0	9,8	14,8	30	3	MM0416	✓			■
MM08-08009-R10A30-D03	8,0 0.315	10,0 0.394	1,0 0.039	13,0 0.512	15,0	9,8	13,8	30	3	MM0416	✓		■	
MM08-08009-R10A30-E03	8,0 0.315	10,0 0.394	1,0 0.039	13,0 0.512	15,0	9,8	13,8	30	3	MM0416	✓		■	
MM08-08009-R10A30-M03	8,0 0.315	10,0 0.394	1,0 0.039	13,0 0.512	15,0	9,8	13,8	30	3	MM0416	✓			■
MM08-08009-R20A30-M03	8,0 0.315	10,0 0.394	2,0 0.079	13,0 0.512	15,0	9,8	11,8	30	3	MM0416	✓			■
MM08-08009-R30A30-M03	8,0 0.315	10,0 0.394	3,0 0.118	13,0 0.512	15,0	9,8	9,8	30	3	MM0416	✓			■

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

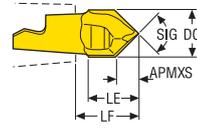
Hard

Graphite

X-Heads

Minimaster

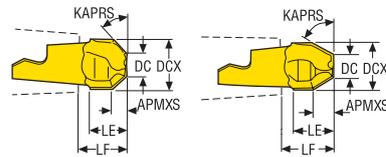
Centre drilling



—For Torque keys and torque values, see page 787

Designation	DC	APMXS	LE	LF	SIG°	ZEFP	Wrench	Grades			
								T60M	F15M	F30M	F40M
MM08-08004-C90-M03	8,0 0.315	3,79 0.149	8,0 0.315	9,5 0.374	90,0	2	MM0612	■			
MM08-08006-C120-M03	8,0 0.315	2,15 0.085	8,32 0.328	9,46 0.372	120,0	2	MM0612	■			

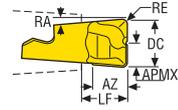
Chamfering



—For Torque keys and torque values, see page 787

Designation	DCX	DC	APMXS	RE	LE	LF	KAPRS°	ZEFP	Wrench	Grades			
										T60M	F15M	F30M	F40M
MM08-08005-4520-E03	8,0 0.315	3,87 0.152	2,1 0.083	0,2 0.008	5,5 0.217	6,7 0.264	45,0	2	MM0612	■			
MM08-08006-6030-E03	8,0 0.315	4,19 0.165	3,3 0.130	0,24 0.009	6,45 0.254	7,66 0.302	60,0	2	MM0612	■			

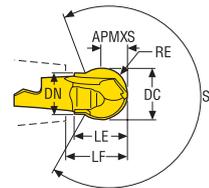
Plunge milling



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXE mm Inch	RE mm Inch	AZ mm Inch	LF mm Inch	RA°	ZEFP	Wrench	Grades			
									Coated			
									T60M	F15M	F30M	F40M
MM08-08005-R10-PL-MD03	8,0 0.315	4,0 0.157	1,0 0.039	5,7 0.224	6,78 0.267	5,0	2	MM0612			■	

Precision inserts for semi-finishing in all materials



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LE mm Inch	DN mm Inch	LF mm Inch	SA°	ZEFP	Wrench	Grades			
										Coated			
										T60M	F15M	F30M	F40M
MM08-10010-B120PF-M02	10,0 0.394	5,0 0.197	5,0 0.197	10,0 0.394	8,0 0.315	10,97 0.432	254,0	2	MM0612		■		
MM08-10010-B120P-M04	10,0 0.394	5,0 0.197	5,0 0.197	10,0 0.394	8,0 0.315	10,97 0.432	254,0	2	MM0612			■	

Universal

Steel and cast  
iron

Stainless steel  
and S-materials

Stainless steel  
and S-materials

Non ferrous

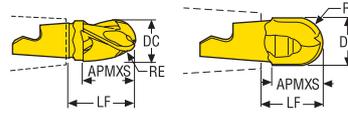
Hard

Graphite

X-Heads

Minimaster

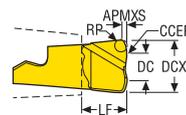
Copy milling



—For Torque keys and torque values, see page 787

Designation	DC	APMXS	RE	LF	FHA°	ZEFP	Wrench 	Grades					
								T60M	F15M	F30M	F40M		
	mm Inch	mm Inch	mm Inch	mm Inch									
MM08-08008-B90-MD03	8,0 0.315	8,1 0.319	4,0 0.157	9,42 0.371		2	MM0612	■		■			
MM08-08008-B90PF-M01	8,0 0.315	6,9 0.272	4,0 0.157	9,39 0.370		2	MM0612		■				
MM08-08008-B90P-M03	8,0 0.315	6,9 0.272	4,0 0.157	9,39 0.370		2	MM0612			■			
MM08-08008-B90S-E03	8,0 0.315	8,1 0.319	4,0 0.157	9,42 0.371		2	MM0612			■			
MM08-08009-B90A30-E03	8,0 0.315	10,0 0.394	4,0 0.157	13,0 0.512	30,0	3	MM0416	✓		■			
MM08-08009-B90A30-M03	8,0 0.315	10,0 0.394	4,0 0.157	13,0 0.512	30,0	3	MM0416	✓				■	

High feed



—For Torque keys and torque values, see page 787

Designation	DCX	DC	APMXS	RP	CCER	LF	RMPX°	C min	C max	ZEFP	Wrench	Grades			
												T60M	F15M	F30M	F40M
	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch									
MM08-08.40-HF-MD06	8,0 0.315	4,0 0.157	0,37 0.015	0,88 0.035	4,0 0.157	6,84 0.269	5,0	9,8	14,6	2	MM0612			■	

MM08 – Slot and Side milling – Insert selection – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>				
			100%	40%	20%	10%	
P1	MM08-08009-R05A30-M03 F40M	1,8	0,044	0,044	0,055	0,070	Universal
		0,070	0,0017	0,0017	0,0022	0,0028	
P2	MM08-08009-R05A30-M03 F40M	1,8	0,044	0,046	0,055	0,070	Steel and cast iron
		0,070	0,0017	0,0018	0,0022	0,0028	
P3	MM08-08009-R05A30-M03 F40M	1,8	0,042	0,042	0,050	0,070	Steel and cast iron
		0,070	0,0017	0,0017	0,0020	0,0028	
P4	MM08-08009-R05A30-M03 F40M	1,8	0,042	0,042	0,050	0,065	Steel and cast iron
		0,070	0,0017	0,0017	0,0020	0,0026	
P5	MM08-08009-R05A30-M03 F40M	1,8	0,040	0,042	0,050	0,065	Steel and cast iron
		0,070	0,0016	0,0017	0,0020	0,0026	
P6	MM08-08009-R05A30-M03 F40M	1,8	0,040	0,040	0,048	0,065	Steel and cast iron
		0,070	0,0016	0,0016	0,0019	0,0026	
P7	MM08-08009-R05A30-M03 F40M	1,8	0,040	0,040	0,048	0,065	Steel and cast iron
		0,070	0,0016	0,0016	0,0019	0,0026	
P8	MM08-08009-R05A30-M03 F40M	1,8	0,042	0,042	0,050	0,070	Stainless steel and S-materials
		0,070	0,0017	0,0017	0,0020	0,0028	
P11	MM08-08009-R05A30-M03 F40M	1,8	0,040	0,040	0,048	0,065	Stainless steel and S-materials
		0,070	0,0016	0,0016	0,0019	0,0026	
P12	MM08-08009-R05A30-M03 F40M	1,4	0,028	0,028	0,034	0,044	Stainless steel and S-materials
		0,055	0,0011	0,0011	0,0013	0,0017	
M1	MM08-08009-R05A30-M03 F40M	1,8	0,044	0,046	0,055	0,070	Stainless steel and S-materials
		0,070	0,0017	0,0018	0,0022	0,0028	
M2	MM08-08009-R05A30-M03 F40M	1,8	0,040	0,042	0,050	0,065	Stainless steel and S-materials
		0,070	0,0016	0,0017	0,0020	0,0026	
M3	MM08-08009-R05A30-M03 F40M	1,4	0,034	0,034	0,040	0,055	Stainless steel and S-materials
		0,055	0,0013	0,0013	0,0016	0,0022	
M4	MM08-08009-R05A30-M03 F40M	1,0	0,030	0,030	0,034	0,046	Stainless steel and S-materials
		0,040	0,0012	0,0012	0,0013	0,0018	
M5	MM08-08009-R05A30-M03 F40M	1,0	0,030	0,030	0,034	0,046	Stainless steel and S-materials
		0,040	0,0012	0,0012	0,0013	0,0018	
K1	MM08-08009-R10A30-E03 F30M	1,8	0,050	0,048	0,055	0,075	Non ferrous
		0,070	0,0020	0,0019	0,0022	0,0030	
K2	MM08-08009-R10A30-E03 F30M	1,8	0,044	0,044	0,050	0,065	Non ferrous
		0,070	0,0017	0,0017	0,0020	0,0026	
K3	MM08-08009-R10A30-E03 F30M	1,8	0,044	0,044	0,050	0,065	Non ferrous
		0,070	0,0017	0,0017	0,0020	0,0026	
K4	MM08-08009-R10A30-E03 F30M	1,8	0,044	0,044	0,050	0,065	Non ferrous
		0,070	0,0017	0,0017	0,0020	0,0026	
K5	MM08-08009-R10A30-D03 F30M	1,8	0,040	0,040	0,046	0,060	Non ferrous
		0,070	0,0016	0,0016	0,0018	0,0024	
K6	MM08-08009-R10A30-D03 F30M	1,8	0,044	0,044	0,050	0,065	Non ferrous
		0,070	0,0017	0,0017	0,0020	0,0026	
K7	MM08-08009-R10A30-D03 F30M	1,8	0,040	0,040	0,046	0,060	Non ferrous
		0,070	0,0016	0,0016	0,0018	0,0024	
N1	MM08-08009-R10A30-E03 F30M	1,8	0,060	0,060	0,070	0,095	Hard
		0,070	0,0024	0,0024	0,0028	0,0038	
N2	MM08-08009-R10A30-E03 F30M	1,8	0,060	0,060	0,070	0,095	Hard
		0,070	0,0024	0,0024	0,0028	0,0038	
N3	MM08-08009-R10A30-E03 F30M	1,8	0,060	0,060	0,070	0,095	Hard
		0,070	0,0024	0,0024	0,0028	0,0038	
N11	MM08-08009-R10A30-E03 F30M	1,8	0,060	0,060	0,070	0,095	Hard
		0,070	0,0024	0,0024	0,0028	0,0038	
S1	MM08-08009-R10A30-D03 F30M	1,0	0,038	0,036	0,036	0,046	Graphite
		0,040	0,0015	0,0014	0,0014	0,0019	
S2	MM08-08009-R10A30-D03 F30M	1,0	0,038	0,036	0,036	0,046	Graphite
		0,040	0,0015	0,0014	0,0014	0,0019	
S3	MM08-08009-R10A30-D03 F30M	1,0	0,036	0,034	0,034	0,042	Graphite
		0,040	0,0014	0,0013	0,0013	0,0017	
S11	MM08-08009-R05A30-M03 F40M	1,2	0,034	0,034	0,040	0,055	X-Heads
		0,048	0,0013	0,0013	0,0016	0,0022	
S12	MM08-08009-R05A30-M03 F40M	1,2	0,034	0,034	0,040	0,055	X-Heads
		0,048	0,0013	0,0013	0,0016	0,0022	
S13	MM08-08009-R05A30-M03 F40M	1,0	0,030	0,030	0,034	0,046	X-Heads
		0,040	0,0012	0,0012	0,0013	0,0018	
H5	MM08-08009-R10A30-E03 F30M	1,4	0,032	0,032	0,034	0,044	X-Heads
		0,055	0,0013	0,0013	0,0013	0,0018	
H8	MM08-08009-R10A30-E03 F30M	1,2	0,026	0,025	0,026	0,034	X-Heads
		0,048	0,0010	0,0010	0,0010	0,0013	
H11	MM08-08009-R10A30-E03 F30M	1,4	0,032	0,032	0,034	0,044	X-Heads
		0,055	0,0013	0,0013	0,0013	0,0018	
H12	MM08-08009-R10A30-E03 F30M	1,2	0,026	0,025	0,026	0,034	X-Heads
		0,048	0,0010	0,0010	0,0010	0,0013	
H21	MM08-08009-R10A30-E03 F30M	1,2	0,026	0,025	0,026	0,034	Minimaster
		0,048	0,0010	0,0010	0,0010	0,0013	

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM08 - Slot and Side milling – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F30M				F40M				T60M				
	100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%	
Universal	P1	265	330	370	410	255	315	350	385	205	250	280	310
		870	1075	1225	1350	840	1025	1150	1275	670	820	920	1025
Steel and cast iron	P2	255	320	360	390	245	305	340	375	195	245	275	300
		840	1050	1175	1275	800	1000	1125	1225	640	800	900	980
Stainless steel and S-materials	P3	225	280	315	340	215	265	295	325	170	210	240	260
		740	920	1025	1125	710	870	970	1075	560	690	790	850
Non ferrous	P4	195	245	275	300	190	235	260	290	150	185	210	230
		640	800	900	980	620	770	850	950	490	610	690	750
Hard	P5	190	235	265	290	180	225	250	275	145	180	200	220
		620	770	870	950	590	740	820	900	475	590	660	720
Plastic and cfrp	P6	215	265	295	325	205	255	280	310	160	200	225	250
		710	870	970	1075	670	840	920	1025	520	660	740	820
Graphite	P7	200	250	280	310	190	240	265	290	155	190	215	235
		660	820	920	1025	620	790	870	950	510	620	710	770
X-Heads	P8	190	235	265	285	180	225	250	270	145	180	200	220
		620	770	870	940	590	740	820	890	475	590	660	720
Minimaster	P11	195	245	270	300	185	230	260	285	150	185	210	230
		640	800	890	980	610	750	850	940	490	610	690	750
Universal	P12	120	150	170	185	115	145	160	175	95	115	130	145
		395	490	560	610	375	475	520	570	310	375	425	475
Steel and cast iron	M1	—	—	—	—	200	245	275	305	160	195	220	240
		—	—	—	—	660	800	900	1000	520	640	720	790
Non ferrous	M2	—	—	—	—	165	200	225	250	130	160	180	200
		—	—	—	—	540	660	740	820	425	520	590	660
Hard	M3	—	—	—	—	130	160	175	195	105	130	145	155
		—	—	—	—	425	520	570	640	345	425	475	510
Plastic and cfrp	M4	—	—	—	—	100	120	135	150	80	100	110	120
		—	—	—	—	330	395	445	490	260	330	360	395
Graphite	M5	—	—	—	—	80	100	115	125	65	85	90	100
		—	—	—	—	260	330	375	410	215	280	295	330
Universal	K1	205	255	285	310	195	240	270	300	155	195	215	235
		670	840	940	1025	640	790	890	980	510	640	710	770
Steel and cast iron	K2	180	225	250	275	170	210	235	260	135	170	190	210
		590	740	820	900	560	690	770	850	445	560	620	690
Non ferrous	K3	155	190	210	235	145	180	200	220	115	145	160	180
		510	620	690	770	475	590	660	720	375	475	520	590
Hard	K4	145	180	200	225	140	170	190	210	110	140	155	170
		475	590	660	740	460	560	620	690	360	460	510	560
Plastic and cfrp	K5	90	110	120	135	85	105	115	125	65	85	95	100
		295	360	395	445	280	345	375	410	215	280	310	330
Graphite	K6	130	160	180	195	120	150	170	185	95	120	135	150
		425	520	590	640	395	490	560	610	310	395	445	490
Universal	K7	115	140	155	170	110	135	150	165	85	105	120	130
		375	460	510	560	360	445	490	540	280	345	395	425
Steel and cast iron	N1	1550	1950	2150	2350	1475	1850	2025	2250	1175	1475	1625	1800
		5075	6400	7050	7700	4850	6075	6650	7375	3850	4850	5325	5900
Non ferrous	N2	630	780	870	950	600	750	820	910	475	590	660	720
		2075	2550	2850	3125	1975	2450	2700	2975	1550	1925	2175	2350
Hard	N3	420	520	580	630	400	495	550	610	315	395	440	485
		1375	1700	1900	2075	1300	1625	1800	2000	1025	1300	1450	1600
Plastic and cfrp	N11	480	600	660	720	455	570	630	690	360	455	500	550
		1575	1975	2175	2350	1500	1875	2075	2275	1175	1500	1650	1800
Universal	S1	48	60	65	75	46	55	65	70	37	46	50	55
		155	195	215	245	150	180	215	230	120	150	165	180
Steel and cast iron	S2	39	48	55	60	37	46	50	55	30	37	41	45
		130	155	180	195	120	150	165	180	100	120	135	150
Non ferrous	S3	34	42	47	50	32	40	45	49	26	32	36	39
		110	140	155	165	105	130	150	160	85	105	120	130
Hard	S11	—	—	—	—	65	80	90	100	50	65	75	80
		—	—	—	—	215	260	295	330	165	215	245	260
Plastic and cfrp	S12	—	—	—	—	45	55	60	70	36	45	50	55
		—	—	—	—	150	180	195	230	120	150	165	180
Graphite	S13	—	—	—	—	26	32	36	39	21	26	29	31
		—	—	—	—	85	105	120	130	70	85	95	100
Universal	H5	41	50	55	60	39	48	55	60	31	39	43	47
		135	165	180	195	130	155	180	195	100	130	140	155
Steel and cast iron	H8	42	50	60	65	40	50	55	60	33	40	45	49
		140	165	195	215	130	165	180	195	110	130	150	160
Non ferrous	H11	50	65	70	80	49	60	70	75	39	49	55	60
		165	215	230	260	160	195	230	245	130	160	180	195
Hard	H12	75	95	105	115	70	90	100	110	60	70	80	90
		245	310	345	375	230	295	330	360	195	230	260	295
Plastic and cfrp	H21	42	50	60	65	40	50	55	60	33	40	45	49
		140	165	195	215	130	165	180	195	110	130	150	160

MM08 Z3 – Copy milling – Insert selection – Roughing – mm/Inch

SMG		a <sub>p</sub>		f <sub>z</sub>				
		100%	40%	20%	10%			
P1	MM08-08009-B90A30-M03 F40M	1,8	0,055	0,050	0,055	0,070	Universal	
		0,070	0,0022	0,0020	0,0022	0,0028		
P2	MM08-08009-B90A30-M03 F40M	1,8	0,055	0,050	0,055	0,070	Steel and cast iron	
		0,070	0,0022	0,0020	0,0022	0,0028		
P3	MM08-08009-B90A30-M03 F40M	1,8	0,050	0,050	0,050	0,070	Steel and cast iron	
		0,070	0,0020	0,0020	0,0020	0,0028		
P4	MM08-08009-B90A30-M03 F40M	1,8	0,050	0,048	0,050	0,065	Steel and cast iron	
		0,070	0,0020	0,0019	0,0020	0,0026		
P5	MM08-08009-B90A30-M03 F40M	1,8	0,048	0,048	0,050	0,065	Steel and cast iron	
		0,070	0,0019	0,0019	0,0020	0,0026		
P6	MM08-08009-B90A30-M03 F40M	1,8	0,048	0,048	0,050	0,065	Steel and cast iron	
		0,070	0,0019	0,0019	0,0020	0,0026		
P7	MM08-08009-B90A30-M03 F40M	1,8	0,048	0,048	0,050	0,065	Stainless steel and S-materials	
		0,070	0,0019	0,0019	0,0020	0,0026		
P8	MM08-08009-B90A30-M03 F40M	1,8	0,050	0,050	0,050	0,070	Stainless steel and S-materials	
		0,070	0,0020	0,0020	0,0020	0,0028		
P11	MM08-08009-B90A30-M03 F40M	1,8	0,048	0,048	0,050	0,065	Stainless steel and S-materials	
		0,070	0,0019	0,0019	0,0020	0,0026		
P12	MM08-08009-B90A30-M03 F40M	1,4	0,034	0,034	0,034	0,044	Stainless steel and S-materials	
		0,055	0,0013	0,0013	0,0013	0,0017		
M1	MM08-08009-B90A30-M03 F40M	1,8	0,055	0,050	0,055	0,070	Stainless steel and S-materials	
		0,070	0,0022	0,0020	0,0022	0,0028		
M2	MM08-08009-B90A30-M03 F40M	1,8	0,048	0,048	0,050	0,065	Stainless steel and S-materials	
		0,070	0,0019	0,0019	0,0020	0,0026		
M3	MM08-08009-B90A30-M03 F40M	1,4	0,040	0,040	0,040	0,055	Stainless steel and S-materials	
		0,055	0,0016	0,0016	0,0016	0,0022		
M4	MM08-08009-B90A30-M03 F40M	1,0	0,038	0,036	0,036	0,046	Stainless steel and S-materials	
		0,040	0,0015	0,0014	0,0014	0,0019		
M5	MM08-08009-B90A30-M03 F40M	1,0	0,038	0,036	0,036	0,046	Stainless steel and S-materials	
		0,040	0,0015	0,0014	0,0014	0,0019		
K1	MM08-08009-B90A30-E03 F30M	1,8	0,055	0,050	0,055	0,070	Non ferrous	
		0,070	0,0022	0,0020	0,0022	0,0028		
K2	MM08-08009-B90A30-E03 F30M	1,8	0,048	0,048	0,050	0,065	Non ferrous	
		0,070	0,0019	0,0019	0,0020	0,0026		
K3	MM08-08009-B90A30-E03 F30M	1,8	0,048	0,048	0,050	0,065	Non ferrous	
		0,070	0,0019	0,0019	0,0020	0,0026		
K4	MM08-08009-B90A30-E03 F30M	1,8	0,048	0,048	0,050	0,065	Non ferrous	
		0,070	0,0019	0,0019	0,0020	0,0026		
K5	MM08-08009-B90A30-M03 F40M	1,8	0,044	0,042	0,046	0,060	Non ferrous	
		0,070	0,0017	0,0017	0,0018	0,0024		
K6	MM08-08009-B90A30-M03 F40M	1,8	0,048	0,048	0,050	0,065	Non ferrous	
		0,070	0,0019	0,0019	0,0020	0,0026		
K7	MM08-08009-B90A30-M03 F40M	1,8	0,044	0,042	0,046	0,060	Non ferrous	
		0,070	0,0017	0,0017	0,0018	0,0024		
N1	MM08-08009-B90A30-E03 F30M	1,8	0,070	0,065	0,070	0,090	Hard	
		0,070	0,0028	0,0026	0,0028	0,0036		
N2	MM08-08009-B90A30-E03 F30M	1,8	0,070	0,065	0,070	0,090	Hard	
		0,070	0,0028	0,0026	0,0028	0,0036		
N3	MM08-08009-B90A30-E03 F30M	1,8	0,070	0,065	0,070	0,090	Hard	
		0,070	0,0028	0,0026	0,0028	0,0036		
N11	MM08-08009-B90A30-E03 F30M	1,8	0,070	0,065	0,070	0,090	Hard	
		0,070	0,0028	0,0026	0,0028	0,0036		
S1	MM08-08009-B90A30-M03 F40M	1,0	0,038	0,036	0,036	0,046	Graphite	
		0,040	0,0015	0,0014	0,0014	0,0019		
S2	MM08-08009-B90A30-M03 F40M	1,0	0,038	0,036	0,036	0,046	Graphite	
		0,040	0,0015	0,0014	0,0014	0,0019		
S3	MM08-08009-B90A30-M03 F40M	1,0	0,036	0,034	0,034	0,042	Graphite	
		0,040	0,0014	0,0013	0,0013	0,0017		
S11	MM08-08009-B90A30-M03 F40M	1,2	0,042	0,040	0,042	0,055	Graphite	
		0,048	0,0017	0,0016	0,0017	0,0022		
S12	MM08-08009-B90A30-M03 F40M	1,2	0,042	0,040	0,042	0,055	Graphite	
		0,048	0,0017	0,0016	0,0017	0,0022		
S13	MM08-08009-B90A30-M03 F40M	1,0	0,038	0,036	0,036	0,046	Graphite	
		0,040	0,0015	0,0014	0,0014	0,0019		
H5	MM08-08009-B90A30-E03 F30M	1,4	0,034	0,034	0,034	0,044	X-Heads	
		0,055	0,0013	0,0013	0,0013	0,0017		
H8	MM08-08009-B90A30-E03 F30M	1,2	0,028	0,026	0,026	0,034	X-Heads	
		0,048	0,0011	0,0010	0,0010	0,0013		
H11	MM08-08009-B90A30-E03 F30M	1,4	0,034	0,034	0,034	0,044	X-Heads	
		0,055	0,0013	0,0013	0,0013	0,0017		
H12	MM08-08009-B90A30-E03 F30M	1,2	0,028	0,026	0,026	0,034	X-Heads	
		0,048	0,0011	0,0010	0,0010	0,0013		
H21	MM08-08009-B90A30-E03 F30M	1,2	0,028	0,026	0,026	0,034	X-Heads	
		0,048	0,0011	0,0010	0,0010	0,0013		

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM08 Z3 – Copy milling – Insert selection – Finishing – mm/Inch

Material Group	SMG	a <sub>p</sub>	f <sub>z</sub>			
			15%	10%	5%	2%
Universal	P1	1,8 0,070	0,060 0,0024	0,070 0,0028	0,10 0,0040	0,16 0,0065
	P2	1,8 0,070	0,060 0,0024	0,070 0,0028	0,10 0,0040	0,17 0,0065
Steel and cast iron	P3	1,8 0,070	0,060 0,0024	0,070 0,0028	0,095 0,0038	0,16 0,0065
	P4	1,8 0,070	0,055 0,0022	0,065 0,0026	0,095 0,0038	0,15 0,0060
	P5	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	P6	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	P7	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	P8	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
Stainless steel and S-materials	P11	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	P12	1,4 0,055	0,038 0,0015	0,044 0,0017	0,060 0,0024	0,10 0,0040
Non ferrous	M1	1,8 0,070	0,060 0,0024	0,070 0,0028	0,10 0,0040	0,17 0,0065
	M2	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	M3	1,4 0,055	0,046 0,0018	0,055 0,0022	0,075 0,0030	0,12 0,0048
	M4	1,0 0,040	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040
	M5	1,0 0,040	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040
Hard	K1	1,8 0,070	0,060 0,0024	0,070 0,0028	0,10 0,0040	0,17 0,0065
	K2	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	K3	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	K4	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	K5	1,8 0,070	0,050 0,0020	0,060 0,0024	0,080 0,0032	0,13 0,0050
	K6	1,8 0,070	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060
	K7	1,8 0,070	0,050 0,0020	0,060 0,0024	0,080 0,0032	0,13 0,0050
Plastic and CFRP	N1	1,8 0,070	0,080 0,0032	0,090 0,0036	0,13 0,0050	0,22 0,0085
	N2	1,8 0,070	0,080 0,0032	0,090 0,0036	0,13 0,0050	0,22 0,0085
	N3	1,8 0,070	0,080 0,0032	0,090 0,0036	0,13 0,0050	0,22 0,0085
Graphite	N11	1,8 0,070	0,080 0,0032	0,090 0,0036	0,13 0,0050	0,22 0,0085
	S1	1,0 0,040	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040
	S2	1,0 0,040	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040
	S3	1,0 0,040	0,038 0,0015	0,042 0,0017	0,060 0,0024	0,095 0,0038
X-Heads	S11	1,2 0,048	0,046 0,0018	0,055 0,0022	0,075 0,0030	0,12 0,0048
	S12	1,2 0,048	0,046 0,0018	0,055 0,0022	0,075 0,0030	0,12 0,0048
	S13	1,0 0,040	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040
	H5	1,4 0,055	0,038 0,0015	0,044 0,0017	0,060 0,0024	0,10 0,0040
Minimaster	H8	1,2 0,048	0,030 0,0012	0,034 0,0013	0,048 0,0019	0,075 0,0030
	H11	1,4 0,055	0,038 0,0015	0,044 0,0017	0,060 0,0024	0,10 0,0040
	H12	1,2 0,048	0,030 0,0012	0,034 0,0013	0,048 0,0019	0,075 0,0030
	H21	1,2 0,048	0,030 0,0012	0,034 0,0013	0,048 0,0019	0,075 0,0030

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM08 Z3 – Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F30M					F40M					
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	
P1	280	330	355	380	380	265	315	335	360	360	Universal
	920	1075	1175	1250	1250	870	1025	1100	1175	1175	
P2	270	325	345	370	365	260	310	325	350	350	Steel and cast iron
	890	1075	1125	1225	1200	850	1025	1075	1150	1150	
P3	235	280	295	320	320	225	270	280	305	300	Steel and cast iron
	770	920	970	1050	1050	740	890	920	1000	980	
P4	210	250	265	280	280	200	235	250	270	270	Steel and cast iron
	690	820	870	920	920	660	770	820	890	890	
P5	200	235	250	270	270	190	225	240	260	255	Steel and cast iron
	660	770	820	890	890	620	740	790	850	840	
P6	225	265	280	305	305	215	255	270	290	290	Steel and cast iron
	740	870	920	1000	1000	710	840	890	950	950	
P7	210	250	265	290	285	200	240	255	275	270	Stainless steel and S-materials
	690	820	870	950	940	660	790	840	900	890	
P8	200	235	250	270	265	190	225	235	255	255	Stainless steel and S-materials
	660	770	820	890	870	620	740	770	840	840	
P11	205	245	260	280	275	195	230	245	265	265	Stainless steel and S-materials
	670	800	850	920	900	640	750	800	870	870	
P12	130	155	160	175	175	125	150	155	165	165	Stainless steel and S-materials
	425	510	520	570	570	410	490	510	540	540	
M1	220	260	275	300	295	210	250	265	285	280	Stainless steel and S-materials
	720	850	900	980	970	690	820	870	940	920	
M2	180	215	225	245	245	170	205	215	235	230	Stainless steel and S-materials
	590	710	740	800	800	560	670	710	770	750	
M3	145	170	175	190	190	135	165	170	180	180	Stainless steel and S-materials
	475	560	570	620	620	445	540	560	590	590	
M4	100	135	135	145	145	95	130	130	140	140	Stainless steel and S-materials
	330	445	475	475	475	310	425	445	460	460	
M5	80	115	115	120	120	80	110	105	115	115	Non ferrous
	260	375	395	395	395	260	360	375	375	375	
K1	215	255	270	295	290	205	245	260	280	275	Non ferrous
	710	840	890	970	950	670	800	850	920	900	
K2	190	225	240	260	255	180	215	225	245	245	Non ferrous
	620	740	790	850	840	590	710	740	800	800	
K3	160	190	200	220	215	155	180	190	210	205	Non ferrous
	520	620	660	720	710	510	590	620	690	670	
K4	155	180	190	210	205	145	175	185	200	195	Hard
	510	590	620	690	670	475	570	610	660	640	
K5	90	110	115	125	125	90	105	110	120	120	Hard
	295	360	375	410	410	295	345	360	395	395	
K6	135	160	170	185	180	130	150	160	175	175	Hard
	445	520	560	610	590	425	490	520	570	570	
K7	120	140	150	160	160	110	135	140	155	155	Hard
	395	460	490	520	520	360	445	460	510	510	
N1	1625	1950	2075	2225	2200	1550	1850	1975	2125	2100	Graphite
	5325	6400	6800	7300	7225	5075	6075	6475	6975	6900	
N2	660	790	830	900	890	630	750	790	850	840	Graphite
	2175	2600	2725	2950	2925	2075	2450	2600	2800	2750	
N3	440	520	560	600	590	420	500	530	570	560	Graphite
	1450	1700	1825	1975	1925	1375	1650	1750	1875	1825	
N11	500	600	640	680	670	480	570	610	650	640	Graphite
	1650	1975	2100	2225	2200	1575	1875	2000	2125	2100	
S1	46	65	65	70	70	44	60	60	65	65	X-Heads
	150	215	215	230	230	145	195	215	215	215	
S2	37	50	50	55	55	35	49	48	50	50	X-Heads
	120	165	180	180	180	115	160	165	165	165	
S3	32	45	44	48	48	31	43	42	45	45	X-Heads
	105	150	155	155	155	100	140	150	150	150	
S11	70	90	90	95	95	65	85	85	90	90	X-Heads
	230	295	295	310	310	215	280	280	295	295	
S12	49	60	60	65	65	47	60	60	65	65	X-Heads
	160	195	215	215	215	155	195	195	215	215	
S13	26	36	35	38	38	25	34	34	36	37	X-Heads
	85	120	125	125	125	80	110	120	120	120	
H5	43	50	55	60	55	41	49	50	55	55	Minimaster
	140	165	180	195	180	135	160	165	180	180	
H8	43	55	55	60	60	41	50	50	55	55	Minimaster
	140	180	180	195	195	135	165	180	180	180	
H11	55	65	70	75	75	50	60	65	70	70	Minimaster
	180	215	230	245	245	165	195	215	230	230	
H12	75	95	100	105	105	75	95	95	100	100	Minimaster
	245	310	330	345	345	245	310	310	330	330	
H21	43	55	55	60	60	41	50	50	55	55	Minimaster
	140	180	180	195	195	135	165	180	180	180	

MM08 Z2 – Copy milling – Insert selection – Roughing – mm/Inch

Material Group	SMG	a <sub>p</sub>	f <sub>z</sub>			
			100%	40%	20%	10%
Universal	P1	3,0	0,048	0,046	0,055	0,070
		0,12	0,0019	0,0018	0,0022	0,0028
	P2	3,0	0,048	0,048	0,055	0,075
		0,12	0,0019	0,0019	0,0022	0,0030
Steel and cast iron	P3	3,0	0,046	0,044	0,050	0,070
		0,12	0,0018	0,0017	0,0020	0,0028
	P4	3,0	0,044	0,044	0,050	0,070
		0,12	0,0017	0,0017	0,0020	0,0028
	P5	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
	P6	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
	P7	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
Stainless steel and S-materials	P8	3,0	0,046	0,044	0,050	0,070
		0,12	0,0018	0,0017	0,0020	0,0028
	P11	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
	P12	2,5	0,030	0,030	0,034	0,044
		0,10	0,0012	0,0012	0,0013	0,0018
Non ferrous	M1	3,0	0,048	0,048	0,055	0,075
		0,12	0,0019	0,0019	0,0022	0,0030
	M2	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
	M3	2,5	0,036	0,036	0,040	0,055
		0,10	0,0014	0,0014	0,0016	0,0022
	M4	1,9	0,034	0,034	0,036	0,046
		0,075	0,0013	0,0013	0,0014	0,0019
	M5	1,9	0,034	0,034	0,036	0,046
		0,075	0,0013	0,0013	0,0014	0,0019
Hard	K1	3,0	0,048	0,048	0,055	0,075
		0,12	0,0019	0,0019	0,0022	0,0030
	K2	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
	K3	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
	K4	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
	K5	3,0	0,040	0,038	0,046	0,060
		0,12	0,0016	0,0015	0,0018	0,0024
Plastic and cfrp	K6	3,0	0,044	0,042	0,050	0,065
		0,12	0,0017	0,0017	0,0020	0,0026
	K7	3,0	0,040	0,038	0,046	0,060
		0,12	0,0016	0,0015	0,0018	0,0024
Graphite	N1	3,0	0,060	0,060	0,070	0,095
		0,12	0,0024	0,0024	0,0028	0,0038
	N2	3,0	0,060	0,060	0,070	0,095
		0,12	0,0024	0,0024	0,0028	0,0038
	N3	3,0	0,060	0,060	0,070	0,095
		0,12	0,0024	0,0024	0,0028	0,0038
	N11	3,0	0,060	0,060	0,070	0,095
		0,12	0,0024	0,0024	0,0028	0,0038
X-Heads	S1	1,9	0,034	0,034	0,036	0,046
		0,075	0,0013	0,0013	0,0014	0,0019
	S2	1,9	0,034	0,034	0,036	0,046
		0,075	0,0013	0,0013	0,0014	0,0019
	S3	1,9	0,032	0,030	0,034	0,042
		0,075	0,0013	0,0012	0,0013	0,0017
	S11	2,5	0,036	0,036	0,042	0,055
		0,10	0,0014	0,0014	0,0017	0,0022
	S12	2,5	0,036	0,036	0,042	0,055
		0,10	0,0014	0,0014	0,0017	0,0022
	S13	1,9	0,034	0,034	0,036	0,046
		0,075	0,0013	0,0013	0,0014	0,0019
Minimaster	H5	2,5	0,030	0,030	0,034	0,044
		0,10	0,0012	0,0012	0,0013	0,0018
	H8	2,5	0,024	0,024	0,026	0,034
		0,10	0,00095	0,00095	0,0010	0,0013
	H11	2,5	0,030	0,030	0,034	0,044
		0,10	0,0012	0,0012	0,0013	0,0018
	H12	2,5	0,024	0,024	0,026	0,034
		0,10	0,00095	0,00095	0,0010	0,0013
	H21	2,5	0,024	0,024	0,026	0,034
		0,10	0,00095	0,00095	0,0010	0,0013

SMG = Seco material group  
f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
All cutting data are start values

MM08 Z2 – Copy milling – Insert selection – Finishing – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>			
			15%	10%	5%	2%
P1	MM08-08008-B90PF-M01 F15M	3,0	0,020	0,024	0,032	0,050
		0.12	0.00080	0.00095	0.0013	0.0020
P2	MM08-08008-B90PF-M01 F15M	3,0	0,020	0,024	0,034	0,055
		0.12	0.00080	0.00095	0.0013	0.0022
P3	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,032	0,050
		0.12	0.00075	0.00085	0.0013	0.0020
P4	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,030	0,048
		0.12	0.00075	0.00085	0.0012	0.0019
P5	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,030	0,048
		0.12	0.00075	0.00085	0.0012	0.0019
P6	MM08-08008-B90PF-M01 F15M	3,0	0,018	0,022	0,030	0,048
		0.12	0.00070	0.00085	0.0012	0.0019
P7	MM08-08008-B90PF-M01 F15M	3,0	0,018	0,022	0,030	0,048
		0.12	0.00070	0.00085	0.0012	0.0019
P8	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,032	0,050
		0.12	0.00075	0.00085	0.0013	0.0020
P11	MM08-08008-B90PF-M01 F15M	3,0	0,018	0,022	0,030	0,048
		0.12	0.00070	0.00085	0.0012	0.0019
P12	MM08-08008-B90PF-M01 F15M	2,0	0,013	0,015	0,020	0,032
		0.080	0.00050	0.00060	0.00080	0.0013
M1	MM08-08008-B90PF-M01 F15M	3,0	0,020	0,024	0,034	0,055
		0.12	0.00080	0.00095	0.0013	0.0022
M2	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,030	0,048
		0.12	0.00075	0.00085	0.0012	0.0019
M3	MM08-08008-B90PF-M01 F15M	2,0	0,015	0,018	0,024	0,038
		0.080	0.00060	0.00070	0.00095	0.0015
M4	MM08-08008-B90PF-M01 F15M	1,7	0,014	0,015	0,022	0,034
		0.065	0.00055	0.00065	0.00085	0.0013
M5	MM08-08008-B90PF-M01 F15M	1,7	0,014	0,015	0,022	0,034
		0.065	0.00055	0.00065	0.00085	0.0013
K1	MM08-08008-B90PF-M01 F15M	3,0	0,020	0,024	0,034	0,055
		0.12	0.00080	0.00095	0.0013	0.0022
K2	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,030	0,048
		0.12	0.00075	0.00085	0.0012	0.0019
K3	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,030	0,048
		0.12	0.00075	0.00085	0.0012	0.0019
K4	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,030	0,048
		0.12	0.00075	0.00085	0.0012	0.0019
K5	MM08-08008-B90PF-M01 F15M	3,0	0,017	0,020	0,028	0,044
		0.12	0.00065	0.00080	0.0011	0.0017
K6	MM08-08008-B90PF-M01 F15M	3,0	0,019	0,022	0,030	0,048
		0.12	0.00075	0.00085	0.0012	0.0019
K7	MM08-08008-B90PF-M01 F15M	3,0	0,017	0,020	0,028	0,044
		0.12	0.00065	0.00080	0.0011	0.0017
N1	MM08-08008-B90PF-M01 F15M	3,0	0,026	0,030	0,042	0,070
		0.12	0.0010	0.0012	0.0017	0.0028
N2	MM08-08008-B90PF-M01 F15M	3,0	0,026	0,030	0,042	0,070
		0.12	0.0010	0.0012	0.0017	0.0028
N3	MM08-08008-B90PF-M01 F15M	3,0	0,026	0,030	0,042	0,070
		0.12	0.0010	0.0012	0.0017	0.0028
N11	MM08-08008-B90PF-M01 F15M	3,0	0,026	0,030	0,042	0,070
		0.12	0.0010	0.0012	0.0017	0.0028
S1	MM08-08008-B90PF-M01 F15M	1,7	0,014	0,015	0,022	0,034
		0.065	0.00055	0.00065	0.00085	0.0013
S2	MM08-08008-B90PF-M01 F15M	1,7	0,014	0,015	0,022	0,034
		0.065	0.00055	0.00065	0.00085	0.0013
S3	MM08-08008-B90PF-M01 F15M	1,7	0,013	0,014	0,020	0,030
		0.065	0.00050	0.00060	0.00080	0.0012
S11	MM08-08008-B90PF-M01 F15M	1,9	0,015	0,018	0,024	0,038
		0.075	0.00060	0.00070	0.00095	0.0015
S12	MM08-08008-B90PF-M01 F15M	1,9	0,015	0,018	0,024	0,038
		0.075	0.00060	0.00070	0.00095	0.0015
S13	MM08-08008-B90PF-M01 F15M	1,7	0,014	0,015	0,022	0,034
		0.065	0.00055	0.00065	0.00085	0.0013
H5	MM08-08008-B90PF-M01 F15M	2,0	0,013	0,015	0,020	0,032
		0.080	0.00050	0.00060	0.00080	0.0013
H8	MM08-08008-B90PF-M01 F15M	1,9	0,010	0,011	0,016	0,025
		0.075	0.00040	0.00048	0.00065	0.0010
H11	MM08-08008-B90PF-M01 F15M	2,0	0,013	0,015	0,020	0,032
		0.080	0.00050	0.00060	0.00080	0.0013
H12	MM08-08008-B90PF-M01 F15M	1,9	0,010	0,011	0,016	0,025
		0.075	0.00040	0.00048	0.00065	0.0010
H21	MM08-08008-B90PF-M01 F15M	1,9	0,010	0,011	0,016	0,025
		0.075	0.00040	0.00048	0.00065	0.0010

SMG = Seco material group  
f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
All cutting data are start values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

MM08 Z2 – Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

	SMG	F15M					F30M					T60M				
		100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
Universal	P1	320	405	430	465	465	265	330	360	385	385	215	265	290	315	310
		1050	1325	1400	1525	1525	870	1075	1175	1275	1275	710	870	950	1025	1025
Steel and cast iron	P2	315	395	420	450	450	260	320	345	375	370	210	260	280	305	300
		1025	1300	1375	1475	1475	850	1050	1125	1225	1225	690	850	920	1000	980
Stainless steel and S-materials	P3	270	340	360	390	390	225	280	300	325	325	180	225	245	265	260
		890	1125	1175	1275	1275	740	920	980	1075	1075	590	740	800	870	850
Non ferrous	P4	240	300	320	345	345	200	245	265	285	285	160	200	215	230	230
		790	980	1050	1125	1125	660	800	870	940	940	520	660	710	750	750
Hard	P5	225	285	305	330	330	190	235	255	275	275	155	190	205	220	220
		740	940	1000	1075	1075	620	770	840	900	900	510	620	670	720	720
Plastic and cfrp	P6	255	320	340	370	370	210	265	285	310	305	170	215	230	250	250
		840	1050	1125	1225	1225	690	870	940	1025	1000	560	710	750	820	820
Graphite	P7	240	300	320	350	350	200	250	270	295	290	160	200	220	235	235
		790	980	1050	1150	1150	660	820	890	970	950	520	660	720	770	770
X-Heads	P8	225	285	305	330	330	190	235	250	275	270	150	190	205	220	220
		740	940	1000	1075	1075	620	770	820	900	890	490	620	670	720	720
Minimaster	P11	235	295	315	340	340	195	240	260	285	280	160	195	210	230	230
		770	970	1025	1125	1125	640	790	850	940	920	520	640	690	750	750
Universal	P12	145	185	185	200	200	125	155	165	175	175	100	125	130	145	140
		475	610	620	660	660	410	510	540	570	570	330	410	445	475	460
Steel and cast iron	M1	250	315	335	365	365	210	260	280	305	300	170	210	225	245	240
		820	1025	1100	1200	1200	690	850	920	1000	980	560	690	740	800	790
Non ferrous	M2	205	255	275	295	295	170	210	230	245	245	140	170	185	200	200
		670	840	900	970	970	560	690	750	800	800	460	560	610	660	660
Hard	M3	165	205	210	225	225	135	175	180	195	195	110	140	145	155	155
		540	670	710	740	740	445	570	590	640	640	360	460	475	510	510
Plastic and cfrp	M4	125	160	160	170	170	110	140	135	150	150	85	110	110	120	120
		410	520	560	560	560	360	460	475	490	490	280	360	375	395	395
Graphite	M5	105	135	130	140	140	90	115	115	125	125	75	95	90	100	100
		345	445	460	460	460	295	375	395	410	410	245	310	330	330	330
X-Heads	K1	250	310	330	360	355	205	255	275	300	295	165	205	220	240	240
		820	1025	1075	1175	1175	670	840	900	980	970	565	670	720	790	790
Universal	K2	215	270	290	310	310	180	225	240	260	260	145	180	195	210	210
		710	890	950	1025	1025	590	740	790	850	850	475	590	640	690	690
Steel and cast iron	K3	180	230	245	265	265	150	190	205	220	220	125	155	165	180	180
		590	750	800	870	870	490	620	670	720	720	410	510	540	590	590
Non ferrous	K4	175	220	235	250	250	145	180	195	210	210	115	145	160	170	170
		570	720	770	820	820	475	590	640	690	690	375	475	520	560	560
Hard	K5	105	130	140	150	150	90	110	120	125	125	70	90	95	105	105
		345	425	460	490	490	295	360	395	410	410	230	295	310	345	345
Plastic and cfrp	K6	155	190	205	220	220	130	160	170	185	185	105	130	140	150	150
		510	620	670	720	720	425	520	560	610	610	345	425	460	490	490
Graphite	K7	135	165	180	195	195	110	140	150	165	165	90	110	120	130	130
		445	540	590	640	640	360	460	490	540	540	295	360	395	425	425
Universal	N1	1925	2425	2575	2800	2775	1550	1925	2075	2250	2225	1250	1550	1675	1825	1800
		6325	7950	8450	9175	9100	5075	6325	6800	7375	7300	4100	5075	5500	6000	5900
Steel and cast iron	N2	780	980	1050	1125	1125	630	780	840	910	900	510	630	680	740	730
		2550	3225	3450	3700	3700	2075	2550	2750	2975	2950	1675	2075	2225	2425	2400
Non ferrous	N3	520	650	700	750	750	420	520	560	610	600	340	420	455	490	485
		1700	2125	2300	2450	2450	1375	1700	1825	2000	1975	1125	1375	1500	1600	1600
Hard	N11	590	740	800	860	860	480	590	640	700	690	390	480	520	560	560
		1925	2425	2625	2825	2825	1575	1925	2100	2300	2275	1275	1575	1700	1825	1825
Universal	S1	60	75	75	80	80	50	65	65	70	70	41	50	50	55	55
		195	245	260	260	260	165	215	230	230	230	135	165	180	180	180
Steel and cast iron	S2	47	60	60	65	65	40	50	50	55	55	33	42	42	45	45
		155	195	215	215	215	130	165	180	180	180	110	140	145	150	150
Non ferrous	S3	40	50	50	55	55	35	45	45	48	48	28	36	36	39	39
		130	165	180	180	180	115	150	155	155	155	90	120	125	130	130
Hard	S11	85	105	105	115	115	70	90	90	100	100	55	75	75	80	80
		280	345	360	375	375	230	295	310	330	330	180	245	245	260	260
Plastic and cfrp	S12	60	75	75	80	80	48	60	65	70	70	39	50	50	55	55
		195	245	245	260	260	155	195	215	230	230	130	165	180	180	180
Graphite	S13	33	42	42	45	45	28	36	36	39	39	23	29	29	31	32
		110	140	150	150	150	90	120	125	130	130	75	95	100	100	105
Universal	H5	48	60	60	65	65	41	50	55	60	60	33	42	44	47	47
		155	195	215	215	215	135	165	180	195	195	110	140	145	155	155
Steel and cast iron	H8	49	60	60	65	65	42	55	55	60	60	34	44	45	48	48
		160	195	215	215	215	140	180	180	195	195	110	145	150	155	155
Non ferrous	H11	60	80	80	85	85	55	65	70	75	75	43	55	55	60	60
		195	260	260	280	280	180	215	230	245	245	140	180	180	195	195
Hard	H12	85	110	110	120	120	75	100	100	105	105	60	80	80	85	85
		280	360	375	395	395	245	330	345	345	345	195	260	280	280	280
Plastic and cfrp	H21	49	60	60	65	65	42	55	55	60	60	34	44	45	48	48
		160	195	215	215	215	140	180	180	195	195	110	145	150	155	155

MM08 High-Feed – Insert selection – mm/Inch

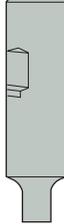
SMG		a <sub>p</sub>		f <sub>z</sub>				
			100%	70%	30%	20%		
P1	MM08-08.40-HF-MD06 F30M	0,26	0,32	0,32	0,42	0,50	Universal	
		0,010	0,013	0,013	0,017	0,020		
P2	MM08-08.40-HF-MD06 F30M	0,26	0,32	0,32	0,42	0,50	Steel and cast iron	
		0,010	0,013	0,013	0,017	0,020		
P3	MM08-08.40-HF-MD06 F30M	0,26	0,30	0,30	0,40	0,48	Steel and cast iron	
		0,010	0,012	0,012	0,016	0,019		
P4	MM08-08.40-HF-MD06 F30M	0,26	0,30	0,30	0,38	0,48	Steel and cast iron	
		0,010	0,012	0,012	0,015	0,019		
P5	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,30	0,38	0,46	Steel and cast iron	
		0,010	0,011	0,012	0,015	0,018		
P6	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,28	0,38	0,46	Steel and cast iron	
		0,010	0,011	0,011	0,015	0,018		
P7	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,28	0,38	0,46	Steel and cast iron	
		0,010	0,011	0,011	0,015	0,018		
P8	MM08-08.40-HF-MD06 F30M	0,26	0,30	0,30	0,40	0,48	Stainless steel and S-materials	
		0,010	0,012	0,012	0,016	0,019		
P11	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,28	0,38	0,46	Stainless steel and S-materials	
		0,010	0,011	0,011	0,015	0,018		
P12	MM08-08.40-HF-MD06 F30M	0,20	0,20	0,20	0,25	0,30	Stainless steel and S-materials	
		0,0080	0,0080	0,0080	0,010	0,012		
M1	MM08-08.40-HF-MD06 F30M	0,26	0,32	0,32	0,42	0,50	Stainless steel and S-materials	
		0,010	0,013	0,013	0,017	0,020		
M2	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,30	0,38	0,46	Stainless steel and S-materials	
		0,010	0,011	0,012	0,015	0,018		
M3	MM08-08.40-HF-MD06 F30M	0,20	0,24	0,24	0,30	0,36	Stainless steel and S-materials	
		0,0080	0,0095	0,0095	0,012	0,014		
M4	MM08-08.40-HF-MD06 F30M	0,16	0,20	0,20	0,26	0,32	Stainless steel and S-materials	
		0,0065	0,0080	0,0080	0,010	0,013		
M5	MM08-08.40-HF-MD06 F30M	0,16	0,20	0,20	0,26	0,32	Stainless steel and S-materials	
		0,0065	0,0080	0,0080	0,010	0,013		
K1	MM08-08.40-HF-MD06 F30M	0,26	0,32	0,32	0,42	0,50	Non ferrous	
		0,010	0,013	0,013	0,017	0,020		
K2	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,30	0,38	0,46	Non ferrous	
		0,010	0,011	0,012	0,015	0,018		
K3	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,30	0,38	0,46	Non ferrous	
		0,010	0,011	0,012	0,015	0,018		
K4	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,30	0,38	0,46	Non ferrous	
		0,010	0,011	0,012	0,015	0,018		
K5	MM08-08.40-HF-MD06 F30M	0,26	0,26	0,26	0,34	0,42	Non ferrous	
		0,010	0,010	0,010	0,013	0,017		
K6	MM08-08.40-HF-MD06 F30M	0,26	0,28	0,30	0,38	0,46	Non ferrous	
		0,010	0,011	0,012	0,015	0,018		
K7	MM08-08.40-HF-MD06 F30M	0,26	0,26	0,26	0,34	0,42	Non ferrous	
		0,010	0,010	0,010	0,013	0,017		
N1	MM08-08.40-HF-MD06 F30M	0,26	0,40	0,40	0,55	0,70	Hard	
		0,010	0,016	0,016	0,022	0,028		
N2	MM08-08.40-HF-MD06 F30M	0,26	0,40	0,40	0,55	0,70	Hard	
		0,010	0,016	0,016	0,022	0,028		
N3	MM08-08.40-HF-MD06 F30M	0,26	0,40	0,40	0,55	0,70	Hard	
		0,010	0,016	0,016	0,022	0,028		
N11	MM08-08.40-HF-MD06 F30M	0,26	0,40	0,40	0,55	0,70	Hard	
		0,010	0,016	0,016	0,022	0,028		
S1	MM08-08.40-HF-MD06 F30M	0,16	0,20	0,20	0,26	0,32	Graphite	
		0,0065	0,0080	0,0080	0,010	0,013		
S2	MM08-08.40-HF-MD06 F30M	0,16	0,20	0,20	0,26	0,32	Graphite	
		0,0065	0,0080	0,0080	0,010	0,013		
S3	MM08-08.40-HF-MD06 F30M	0,16	0,19	0,19	0,24	0,30	Graphite	
		0,0065	0,0075	0,0075	0,0095	0,012		
S11	MM08-08.40-HF-MD06 F30M	0,18	0,24	0,24	0,30	0,36	Graphite	
		0,0070	0,0095	0,0095	0,012	0,014		
S12	MM08-08.40-HF-MD06 F30M	0,18	0,24	0,24	0,30	0,36	Graphite	
		0,0070	0,0095	0,0095	0,012	0,014		
S13	MM08-08.40-HF-MD06 F30M	0,16	0,20	0,20	0,26	0,32	Graphite	
		0,0065	0,0080	0,0080	0,010	0,013		
H5	MM08-08.40-HF-MD06 F30M	0,20	0,20	0,20	0,25	0,30	X-Heads	
		0,0080	0,0080	0,0080	0,010	0,012		
H8	MM08-08.40-HF-MD06 F30M	0,18	0,16	0,15	0,19	0,24	X-Heads	
		0,0070	0,0065	0,0060	0,0075	0,0095		
H11	MM08-08.40-HF-MD06 F30M	0,20	0,20	0,20	0,25	0,30	X-Heads	
		0,0080	0,0080	0,0080	0,010	0,012		
H12	MM08-08.40-HF-MD06 F30M	0,18	0,16	0,15	0,19	0,24	X-Heads	
		0,0070	0,0065	0,0060	0,0075	0,0095		
H21	MM08-08.40-HF-MD06 F30M	0,18	0,16	0,15	0,19	0,24	Minimaster	
		0,0070	0,0065	0,0060	0,0075	0,0095		

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

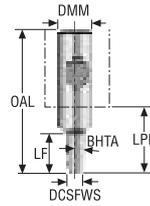
MM08 High-Feed – Cutting data  $v_c = (m/min)/(sf/min)$

	SMG	F30M			
		100%	70%	30%	20%
Universal	P1	250	305	350	375
		820	1000	1150	1225
Steel and cast iron	P2	245	300	345	365
		800	980	1125	1200
Stainless steel and S-materials	P3	215	260	300	315
		710	850	980	1025
Non ferrous	P4	190	230	265	275
		620	750	870	900
Hard	P5	180	220	255	265
		590	720	840	870
Plastic and cfrp	P6	205	250	285	300
		670	820	940	980
Graphite	P7	190	235	270	285
		620	770	890	940
X-Heads	P8	180	220	250	265
		590	720	820	870
Minimaster	P11	185	230	260	275
		610	750	850	900
	P12	120	145	165	175
		395	475	540	570
	M1	195	240	275	295
		640	790	900	970
	M2	165	195	230	240
		540	640	750	790
	M3	130	155	180	190
		425	510	590	620
	M4	100	120	140	145
		330	395	460	475
	M5	85	100	115	120
		280	330	375	395
	K1	195	235	270	290
		640	770	890	950
	K2	170	210	240	255
		560	690	790	840
	K3	145	175	205	215
		475	570	670	710
	K4	140	170	195	205
		460	560	640	670
	K5	85	105	120	125
		280	345	395	410
	K6	125	150	170	180
		410	490	560	590
	K7	110	130	150	160
		360	425	490	520
	N1	1475	1800	2050	2125
		4850	5900	6725	6975
	N2	590	720	820	860
		1925	2350	2700	2825
	N3	395	480	550	570
		1300	1575	1800	1875
	N11	450	550	630	650
		1475	1800	2075	2125
	S1	48	55	65	70
		155	180	215	230
	S2	39	46	50	55
		130	150	165	180
	S3	33	40	46	48
		110	130	150	155
	S11	65	80	90	95
		215	260	295	310
	S12	46	55	65	65
		150	180	215	215
	S13	27	32	36	38
		90	105	120	125
	H5	40	47	55	60
		130	155	180	195
	H8	41	50	55	60
		135	165	180	195
	H11	50	60	70	75
		165	195	230	245
	H12	75	90	100	105
		245	295	330	345
	H21	41	50	55	60
		135	165	180	195

### Shank design

<p>Design 1, Keyway shank</p>	<p>Design 2, Cylindrical/Weldon back end and 90° front</p>	<p>Universal Steel and cast iron Stainless steel and S-materials</p>
		
<p>Design 3, Cylindrical/Weldon back end tapered front 87°/89°</p>	<p>Design 4, Cylindrical/Weldon back end tapered front 80°/85°/87°</p>	<p>Stainless steel and S-materials Non ferrous</p>
		
<p>Design 5, Cylindrical back end double tapered front end 89°/85°</p>		<p>Hard</p>
		<p>Graphite X-Heads</p>

MM10 Shank – Metric



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		mm	mm	mm	mm	mm					kg	
MM10-10045.0-0007	00083979	9,6	10,0	7,0	7,0	45,0	0,0	2	■	80000	0,1	2
MM10-12060.0-0007DS	02580667	9,6	12,0	7,0	15,0	60,0	0,0	2	■	76300	0,1	3
MM10-12085.0-3024DS	02580704	9,5	12,0	23,8	40,0	85,0	3,0	4	■	76300	0,2	3
MM10-12100.0-1035DS	02580733	9,5	12,0	35,0	55,0	100,0	1,0	3	■	76300	0,2	3
MM10-14120.0-1050DS	02580736	9,5	14,0	50,0	75,0	120,0	1,0	3	■	76300	0,3	3
MM10-16065.0-0000	75004925	9,5	16,0	0,0	17,0	65,0	60,0	1	■	80000	0,1	1
MM10-16160.0-1035M	00094757	9,5	16,0	35,0	112,0	160,0	1,0	3	■	80000	0,2	6
MM10-16160.0-1055M	00094758	9,5	16,0	55,0	112,0	160,0	1,0	3	■	80000	0,2	7
MM10-16160.0-1075M	00094760	9,5	16,0	75,0	112,0	160,0	1,0	3	■	80000	0,2	7
MM10-16085.0-0020DS	02580688	9,5	16,0	20,0	37,0	85,0	0,0	2	■	76300	0,3	3
MM10-16105.0-0040DS	02580689	9,5	16,0	40,0	57,0	105,0	0,0	2	■	76300	0,3	3
MM10-16160.0-1055DS	02580748	9,5	16,0	55,0	112,0	160,0	1,0	3	■	76300	0,4	3
MM10-16160.0-1075DS	02580749	9,5	16,0	75,0	112,0	160,0	1,0	3	■	76300	0,4	3
MM10-20075.3-0010	75012787	9,5	20,0	10,0	25,0	75,0	0,0	2	■	80000	0,2	4
MM10-20085.3-3023	75012788	9,5	20,0	23,0	35,0	85,0	3,0	3	■	80000	0,2	4
MM10-20140.3-5060	75012789	9,5	20,0	60,0	90,0	140,0	5,0	4	■	80000	0,3	5
MM10-20250.0-1055DS	02580750	9,5	20,0	55,0	200,0	250,0	1,0	5	■	76300	1,0	3
MM10-32250.0-10063	75069366	9,5	32,0	63,8	190,0	250,0	10,0	4	■	80000	1,3	5

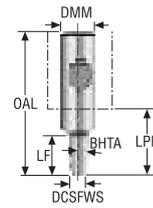
Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
1	MM-06032	MM10-0627	H06-4
2	MM-06020	MM10-0627	H05-4
3	-	MM10-061027	-
4	MM-06048	MM10-0627	H06-4
5	MM-06116	MM10-0627	H06-4
6	MM-06048	MM10-0651	H06-4
7	MM-06032	MM10-0688	H06-4

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

MM10 Shank – Inch



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		inch	inch	inch	inch	inch					lbs	
MM10-0.38-1.8-0-0002	00096126	0.360	0.375	0.276	0.276	1.772	0,0	2	■	80000	0.220	2
MM10-0.62-2.6-0-0000	75005069	0.374	0.625	0	0.669	2.559	60,0	1	■	80000	0.220	1
MM10-0.62-6.3-0-1021	75054608	0.360	0.625	2.165	4.409	6.299	1,0	3	■	80000	0.440	7
MM10-0.75-3.0-3-0004	75015052	0.360	0.750	0.394	0.984	2.953	0,0	2	■	80000	0.440	3
MM10-0.75-3.3-3-3009	75015053	0.374	0.750	0.906	1.378	3.346	3,0	3	■	80000	0.440	3
MM10-0.75-5.5-3-5021	75015054	0.374	0.750	2.150	3.543	5.512	5,0	4	■	80000	0.660	5
MM10-0.75-10.0-0-1021DS	02593420	0.360	0.750	2.165	7.874	9.843	1,0	5	■	76300	1.980	4
MM10-0.75-4.1-0-0015DS	02593422	0.360	0.750	1.575	2.165	4.134	0,0	2	■	76300	0.660	4
MM10-1.25-10.0-0-10024	00096132	0.374	1.250	2.484	7.480	9.843	10,0	4	■	80000	2.870	5

Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
			
1	MM-06032	MM10-0627	H06-4
2	MM-06020	MM10-0627	H05-4
3	MM-06048	MM10-0627	H06-4
4	-	MM10-061027	-
5	MM-06116	MM10-0627	H06-4
7	MM-06032	MM10-0688	H06-4

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

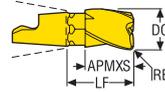
Hard

Graphite

X-Heads

Minimaster

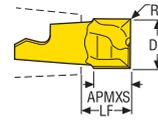
Slot milling/square shoulder milling



—For Torque keys and torque values, see page 787

Designation	Grades											Coated			
	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEP	Wrench	Water	T60M	F15M	F30M	F40M
	mm Inch	mm Inch	mm Inch	mm Inch											
MM10-09512-A30-E03	9,525 0.375	11,8 0.465	–	15,72 0.619	15,0	11,6	18,8	30	3	MM0416	✓			■	
MM10-09512-R03A30-M03	9,525 0.375	11,8 0.465	0,3 0.012	15,72 0.619	15,0	11,6	18,2	30	3	MM0416	✓				■
MM10-09512-R04A30-M03	9,525 0.375	11,8 0.465	0,4 0.016	15,72 0.619	15,0	11,6	18,0	30	3	MM0416	✓				■
MM10-09512-R08A30-M03	9,525 0.375	11,8 0.465	0,8 0.031	15,72 0.619	15,0	11,6	17,2	30	3	MM0416	✓				■
MM10-09512-R16A30-M03	9,525 0.375	11,8 0.465	1,6 0.063	15,72 0.619	15,0	11,6	15,6	30	3	MM0416	✓				■
MM10-10012-A30-E03	10,0 0.394	11,8 0.465	–	15,72 0.619	15,0	12,2	19,8	30	3	MM0416	✓			■	
MM10-10012-R05A30-M03	10,0 0.394	11,8 0.465	0,5 0.020	15,72 0.619	15,0	12,2	18,8	30	3	MM0416	✓				■
MM10-10012-R10A30-D03	10,0 0.394	11,8 0.465	1,0 0.039	15,72 0.619	15,0	12,2	17,8	30	3	MM0416	✓			■	
MM10-10012-R10A30-E03	10,0 0.394	11,8 0.465	1,0 0.039	15,72 0.619	15,0	12,2	17,8	30	3	MM0416	✓			■	
MM10-10012-R10A30-M03	10,0 0.394	11,8 0.465	1,0 0.039	15,72 0.619	15,0	12,2	17,8	30	3	MM0416	✓				■
MM10-10012-R20A30-M03	10,0 0.394	11,8 0.465	2,0 0.079	15,72 0.619	15,0	12,2	15,8	30	3	MM0416	✓				■
MM10-10012-R30A30-M03	10,0 0.394	11,8 0.465	3,0 0.118	15,72 0.619	15,0	12,2	13,8	30	3	MM0416	✓				■

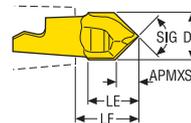
Slot milling/square shoulder milling



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LF mm Inch	RMPX°	C min	C max	FHA°	ZEFP	Wrench	Grades			
											Coated			
											T60M	F15M	F30M	F40M
MM10-09510-M03	9,525 0.375	6,8 0.268	–	8,5 0.335	15,0	11,6	18,8	0	2	MM0612	■			
MM10-09510-R04-MD04	9,525 0.375	6,8 0.268	0,4 0.016	8,49 0.334	15,0	11,6	18,0	0	2	MM0612	■			
MM10-09510-R08A8-E03	9,525 0.375	6,6 0.260	0,8 0.031	8,37 0.330	15,0	11,6	17,2	8	2	MM0612			■	
MM10-09807T-R03-D04	9,8 0.386	6,8 0.268	0,3 0.012	8,49 0.334	15,0	11,9	18,8	0	2	MM0612	■			
MM10-10007-M03	10,0 0.394	6,9 0.272	–	8,5 0.335	15,0	12,2	19,8	0	2	MM0612	■			
MM10-10007-R04A8-E03	10,0 0.394	6,6 0.260	0,4 0.016	8,44 0.332	15,0	12,2	19,0	8	2	MM0612	■		■	
MM10-10007-R04-MD04	10,0 0.394	6,8 0.268	0,4 0.016	8,49 0.334	15,0	12,2	19,0	0	2	MM0612	■		■	
MM10-10007-R04P-M03	10,0 0.394	6,7 0.264	0,4 0.016	8,38 0.330	15,0	12,2	19,0	0	2	MM0612			■	
MM10-10007-R10-MD04	10,0 0.394	6,8 0.268	1,0 0.039	8,48 0.334	15,0	12,2	17,8	0	2	MM0612	■		■	
MM10-10007-R20-MD04	10,0 0.394	6,8 0.268	2,0 0.079	8,46 0.333	15,0	12,2	15,8	0	2	MM0612			■	
MM10-10007-R30-MD04	10,0 0.394	6,8 0.268	3,0 0.118	8,44 0.332	15,0	12,2	13,8	0	2	MM0612			■	

Centre drilling



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LF mm Inch	SIG°	ZEFP	Wrench	Grades				
								Coated				
								T60M	F15M	F30M	F40M	
MM10-10005-C90-M03	10,0 0.394	4,69 0.185	–	11,8 0.465	90,0	2	MM0612	■				
MM10-10007-C120-M03	10,0 0.394	2,7 0.106	–	11,8 0.465	120,0	2	MM0612	■				

Universal

Steel and cast  
iron

Stainless steel  
and S-materials

Stainless steel  
and S-materials

Non ferrous

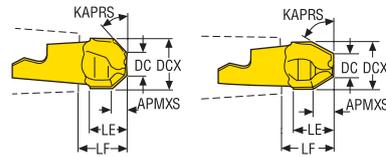
Hard

Graphite

X-Heads

Minimaster

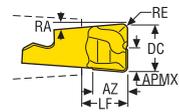
### Chamfering



—For Torque keys and torque values, see page 787

Designation	DCX	DC	APMXS	RE	LE	LF	KAPRS°	ZEFP	Wrench	Grades			
										Coated			
										T60M	F15M	F30M	F40M
	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch							
MM10-10007-4525-E03	10,0 0.394	4,82 0.190	2,6 0.102	0,3 0.012	6,94 0.273	8,48 0.334	45,0	2	MM0612	■			
MM10-10008-6040-E03	10,0 0.394	5,24 0.206	4,0 0.157	0,3 0.012	8,05 0.317	9,6 0.378	60,0	2	MM0612	■			

### Plunge milling



—For Torque keys and torque values, see page 787

Designation	DC	APMXE	RE	AZ	LF	RA°	ZEFP	Wrench	Grades			
									Coated			
									T60M	F15M	F30M	F40M
	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch							
MM10-10007-R10-PL-MD04	10,0 0.394	5,0 0.197	1,0 0.039	7,1 0.280	8,48 0.334	5,0	2	MM0612			■	

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

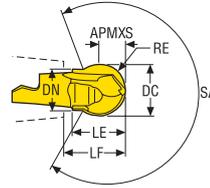
Plastic and CFRP

Graphite

X-Heads

Minimaster

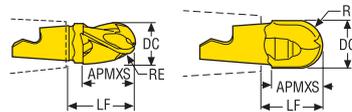
Precision inserts for semi-finishing in all materials



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LE mm Inch	DN mm Inch	LF mm Inch	SA°	ZEFP	Wrench	Grades			
										Coated			
										T60M	F15M	F30M	F40M
MM10-12012-B120P-M05	12,0 0.472	6,0 0.236	6,0 0.236	12,0 0.472	10,0 0.394	13,2 0.520	247,0	2	MM0612			■	
MM10-12712-B120PF-M03	12,7 0.500	6,35 0.250	6,35 0.250	12,4 0.488	10,0 0.394	13,56 0.534	256,0	2	MM0612		■		
MM10-12712-B120P-M05	12,7 0.500	6,35 0.250	6,35 0.250	12,4 0.488	10,0 0.394	13,56 0.534	256,0	2	MM0612			■	

Copy milling



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LF mm Inch	FHA°	ZEFP	Wrench		Grades			
									Coated			
									T60M	F15M	F30M	F40M
MM10-09510-B90P-M04	9,525 0.375	8,7 0.343	4,763 0.188	11,74 0.462		2	MM0612		■		■	
MM10-10010-B90-MD04	10,0 0.394	10,2 0.402	5,0 0.197	11,77 0.463		2	MM0612		■		■	
MM10-10010-B90PF-M02	10,0 0.394	8,73 0.344	5,0 0.197	11,74 0.462		2	MM0612			■		
MM10-10010-B90P-M04	10,0 0.394	8,73 0.344	5,0 0.197	11,74 0.462		2	MM0612				■	
MM10-10010-B90S-E04	10,0 0.394	10,2 0.402	5,0 0.197	11,77 0.463		2	MM0612				■	
MM10-10012-B90A30-D03	10,0 0.394	11,8 0.465	5,0 0.197	15,72 0.619	30,0	3	MM0416	✓			■	
MM10-10012-B90A30-E03	10,0 0.394	11,8 0.465	5,0 0.197	15,72 0.619	30,0	3	MM0416	✓			■	
MM10-10012-B90A30-M03	10,0 0.394	11,8 0.465	5,0 0.197	15,72 0.619	30,0	3	MM0416	✓				■

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

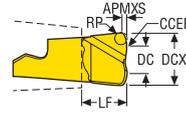
Hard

Graphite

X-Heads

Minimaster

High feed



—For Torque keys and torque values, see page 787

Designation	DCX	DC	APMXS	RP	CCER	LF	RMPX°	C min	C max	ZEFP	Wrench	Grades			
												Coated			
												T60M	F15M	F30M	F40M
MM10-10.50-HF-MD08	10,0 <i>Inch</i> 0.394	5,0 <i>Inch</i> 0.197	0,44 <i>Inch</i> 0.017	1,13 <i>Inch</i> 0.044	5,0 <i>Inch</i> 0.197	8,5 <i>Inch</i> 0.335	5,0	12,2	18,2	2	MM0612		■	■	

Universal

Steel and cast  
iron

Stainless steel  
and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

MM10 – Slot and Side milling – Insert selection – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>			
			100%	40%	20%	10%
P1	MM10-10012-R05A30-M03 F40M	2,0	0,044	0,044	0,055	0,070
		0,080	0,0017	0,0017	0,0022	0,0028
P2	MM10-10012-R05A30-M03 F40M	2,0	0,044	0,044	0,055	0,070
		0,080	0,0017	0,0017	0,0022	0,0028
P3	MM10-10012-R05A30-M03 F40M	2,0	0,042	0,042	0,050	0,070
		0,080	0,0017	0,0017	0,0020	0,0028
P4	MM10-10012-R05A30-M03 F40M	2,0	0,042	0,042	0,050	0,065
		0,080	0,0017	0,0017	0,0020	0,0026
P5	MM10-10012-R05A30-M03 F40M	2,0	0,040	0,040	0,050	0,065
		0,080	0,0016	0,0016	0,0020	0,0026
P6	MM10-10012-R05A30-M03 F40M	2,0	0,040	0,040	0,048	0,065
		0,080	0,0016	0,0016	0,0019	0,0026
P7	MM10-10012-R05A30-M03 F40M	2,0	0,040	0,040	0,048	0,065
		0,080	0,0016	0,0016	0,0019	0,0026
P8	MM10-10012-R05A30-M03 F40M	2,0	0,042	0,042	0,050	0,070
		0,080	0,0017	0,0017	0,0020	0,0028
P11	MM10-10012-R05A30-M03 F40M	2,0	0,040	0,040	0,048	0,065
		0,080	0,0016	0,0016	0,0019	0,0026
P12	MM10-10012-R05A30-M03 F40M	1,7	0,028	0,028	0,034	0,044
		0,065	0,0011	0,0011	0,0013	0,0017
M1	MM10-10012-R05A30-M03 F40M	2,0	0,044	0,044	0,055	0,070
		0,080	0,0017	0,0017	0,0022	0,0028
M2	MM10-10012-R05A30-M03 F40M	2,0	0,040	0,040	0,050	0,065
		0,080	0,0016	0,0016	0,0020	0,0026
M3	MM10-10012-R05A30-M03 F40M	1,7	0,032	0,032	0,040	0,050
		0,065	0,0013	0,0013	0,0016	0,0020
M4	MM10-10012-R05A30-M03 F40M	1,2	0,030	0,030	0,034	0,046
		0,048	0,0012	0,0012	0,0013	0,0018
M5	MM10-10012-R05A30-M03 F40M	1,2	0,030	0,030	0,034	0,046
		0,048	0,0012	0,0012	0,0013	0,0018
K1	MM10-10012-R10A30-E03 F30M	2,0	0,048	0,048	0,055	0,075
		0,080	0,0019	0,0019	0,0022	0,0030
K2	MM10-10012-R10A30-E03 F30M	2,0	0,044	0,042	0,050	0,065
		0,080	0,0017	0,0017	0,0020	0,0026
K3	MM10-10012-R10A30-E03 F30M	2,0	0,044	0,042	0,050	0,065
		0,080	0,0017	0,0017	0,0020	0,0026
K4	MM10-10012-R10A30-E03 F30M	2,0	0,044	0,042	0,050	0,065
		0,080	0,0017	0,0017	0,0020	0,0026
K5	MM10-10012-R10A30-D03 F30M	2,0	0,040	0,038	0,044	0,060
		0,080	0,0016	0,0015	0,0017	0,0024
K6	MM10-10012-R10A30-D03 F30M	2,0	0,044	0,042	0,050	0,065
		0,080	0,0017	0,0017	0,0020	0,0026
K7	MM10-10012-R10A30-D03 F30M	2,0	0,040	0,038	0,044	0,060
		0,080	0,0016	0,0015	0,0017	0,0024
N1	MM10-10012-R10A30-E03 F30M	2,0	0,060	0,060	0,070	0,095
		0,080	0,0024	0,0024	0,0028	0,0038
N2	MM10-10012-R10A30-E03 F30M	2,0	0,060	0,060	0,070	0,095
		0,080	0,0024	0,0024	0,0028	0,0038
N3	MM10-10012-R10A30-E03 F30M	2,0	0,060	0,060	0,070	0,095
		0,080	0,0024	0,0024	0,0028	0,0038
N11	MM10-10012-R10A30-E03 F30M	2,0	0,060	0,060	0,070	0,095
		0,080	0,0024	0,0024	0,0028	0,0038
S1	MM10-10012-R10A30-D03 F30M	1,2	0,036	0,034	0,036	0,046
		0,048	0,0014	0,0013	0,0014	0,0018
S2	MM10-10012-R10A30-D03 F30M	1,2	0,036	0,034	0,036	0,046
		0,048	0,0014	0,0013	0,0014	0,0018
S3	MM10-10012-R10A30-D03 F30M	1,2	0,032	0,032	0,034	0,042
		0,048	0,0013	0,0013	0,0013	0,0017
S11	MM10-10012-R05A30-M03 F40M	1,4	0,034	0,034	0,040	0,050
		0,055	0,0013	0,0013	0,0016	0,0020
S12	MM10-10012-R05A30-M03 F40M	1,4	0,034	0,034	0,040	0,050
		0,055	0,0013	0,0013	0,0016	0,0020
S13	MM10-10012-R05A30-M03 F40M	1,2	0,030	0,030	0,034	0,046
		0,048	0,0012	0,0012	0,0013	0,0018
H5	MM10-10012-R10A30-D03 F30M	1,7	0,030	0,030	0,034	0,044
		0,065	0,0012	0,0012	0,0013	0,0017
H8	MM10-10012-R10A30-D03 F30M	1,4	0,025	0,024	0,026	0,034
		0,055	0,0010	0,00095	0,0010	0,0013
H11	MM10-10012-R10A30-D03 F30M	1,7	0,030	0,030	0,034	0,044
		0,065	0,0012	0,0012	0,0013	0,0017
H12	MM10-10012-R10A30-D03 F30M	1,4	0,025	0,024	0,026	0,034
		0,055	0,0010	0,00095	0,0010	0,0013
H21	MM10-10012-R10A30-D03 F30M	1,4	0,025	0,024	0,026	0,034
		0,055	0,0010	0,00095	0,0010	0,0013

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

MM10 – Slot and Side milling – Cutting data  $v_c = (m/min)/(sf/min)$

	SMG	F30M				F40M				T60M			
		100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%
Universal	P1	265	330	365	405	250	315	345	385	190	240	270	295
		870	1075	1200	1325	820	1025	1125	1275	620	790	890	970
Steel and cast iron	P2	260	320	360	390	245	305	340	375	185	235	260	290
		850	1050	1175	1275	800	1000	1125	1225	610	770	850	950
Stainless steel and S-materials	P3	225	280	315	340	215	265	295	325	165	205	230	250
		740	920	1025	1125	710	870	970	1075	540	670	750	820
Non ferrous	P4	200	245	275	305	190	235	260	290	145	180	200	225
		660	800	900	1000	620	770	850	950	475	590	660	740
Hard	P5	190	235	265	290	180	225	250	275	140	175	195	215
		620	770	870	950	590	740	820	900	460	570	640	710
Plastic and cfrp	P6	215	265	295	325	205	250	280	310	155	195	220	240
		710	870	970	1075	670	820	920	1025	510	640	720	790
Graphite	P7	200	250	280	310	190	240	265	290	145	185	205	225
		660	820	920	1025	620	790	870	950	475	610	670	740
X-Heads	P8	190	235	265	285	180	225	250	270	140	175	190	210
		620	770	870	940	590	740	820	890	460	570	620	690
Minimaster	P11	195	245	270	300	185	230	260	285	140	180	200	220
		640	800	890	980	610	750	850	940	460	590	660	720
Universal	P12	125	150	170	185	115	145	160	175	90	115	125	140
		410	490	560	610	375	475	520	570	295	375	410	460
Steel and cast iron	M1	—	—	—	—	200	245	275	305	150	190	210	235
		—	—	—	—	660	800	900	1000	490	620	690	770
Non ferrous	M2	—	—	—	—	165	200	225	250	125	155	175	190
		—	—	—	—	540	660	740	820	410	510	570	620
Hard	M3	—	—	—	—	130	160	175	195	100	125	140	155
		—	—	—	—	425	520	570	640	330	410	460	510
Plastic and cfrp	M4	—	—	—	—	100	120	135	150	75	95	105	115
		—	—	—	—	330	395	445	490	245	310	345	375
Graphite	M5	—	—	—	—	80	100	115	125	65	80	90	95
		—	—	—	—	260	330	375	410	215	260	295	310
Universal	K1	205	255	285	310	195	240	270	300	150	185	205	230
		670	840	940	1025	640	790	890	980	490	610	670	750
Steel and cast iron	K2	180	225	250	275	170	215	235	260	130	165	185	200
		590	740	820	900	560	710	770	850	425	540	610	660
Non ferrous	K3	150	190	210	235	145	180	200	220	110	140	155	170
		490	620	690	770	475	590	660	720	360	460	510	560
Hard	K4	145	180	200	225	140	170	190	210	105	130	150	165
		475	590	660	740	460	560	620	690	345	425	490	540
Plastic and cfrp	K5	90	110	125	135	85	105	115	125	65	80	90	100
		295	360	410	445	280	345	375	410	215	260	295	330
Graphite	K6	130	160	180	195	120	150	170	185	95	115	130	145
		425	520	590	640	395	490	560	610	310	375	425	475
Universal	K7	110	140	155	170	105	135	150	165	85	105	115	125
		360	460	510	560	345	445	490	540	280	345	375	410
Steel and cast iron	N1	1550	1925	2150	2350	1475	1825	2025	2250	1125	1400	1550	1725
		5075	6325	7050	7700	4850	6000	6650	7375	3700	4600	5075	5650
Non ferrous	N2	630	780	870	950	600	740	820	910	450	570	630	690
		2075	2550	2850	3125	1975	2425	2700	2975	1475	1875	2075	2275
Hard	N3	415	520	580	630	395	495	550	610	300	380	420	460
		1350	1700	1900	2075	1300	1625	1800	2000	980	1250	1375	1500
Plastic and cfrp	N11	475	590	660	720	455	570	620	690	345	430	480	530
		1550	1925	2175	2350	1500	1875	2025	2275	1125	1400	1575	1750
Universal	S1	48	60	65	75	46	55	65	70	36	45	50	55
		155	195	215	245	150	180	215	230	120	150	165	180
Steel and cast iron	S2	38	48	55	60	37	46	50	55	29	36	40	44
		125	155	180	195	120	150	165	180	95	120	130	145
Non ferrous	S3	34	42	47	50	32	40	45	49	25	32	35	38
		110	140	155	165	105	130	150	160	80	105	115	125
Hard	S11	—	—	—	—	65	80	90	100	50	65	70	75
		—	—	—	—	215	260	295	330	165	215	230	245
Plastic and cfrp	S12	—	—	—	—	45	55	60	70	35	43	49	55
		—	—	—	—	150	180	195	230	115	140	160	180
Graphite	S13	—	—	—	—	26	32	36	39	20	25	28	30
		—	—	—	—	85	105	120	130	65	80	90	100
Universal	H5	41	50	55	60	39	48	55	60	30	38	42	46
		135	165	180	195	130	155	180	195	100	125	140	150
Steel and cast iron	H8	42	50	60	65	40	50	55	60	31	39	44	48
		140	165	195	215	130	165	180	195	100	130	145	155
Non ferrous	H11	50	65	70	80	49	60	70	75	38	48	55	60
		165	215	230	260	160	195	230	245	125	155	180	195
Hard	H12	75	95	105	115	70	90	100	110	55	70	80	85
		245	310	345	375	230	295	330	360	180	230	260	280
Plastic and cfrp	H21	42	50	60	65	40	50	55	60	31	39	44	48
		140	165	195	215	130	165	180	195	100	130	145	155

MM10 Z3 – Copy milling – Insert selection – Roughing – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>			
			100%	40%	20%	10%
P1	MM10-10012-B90A30-M03 F40M	2,0	0,055	0,050	0,055	0,070
		0,080	0,0022	0,0020	0,0022	0,0028
P2	MM10-10012-B90A30-M03 F40M	2,0	0,055	0,050	0,055	0,075
		0,080	0,0022	0,0020	0,0022	0,0030
P3	MM10-10012-B90A30-M03 F40M	2,0	0,050	0,050	0,050	0,070
		0,080	0,0020	0,0020	0,0020	0,0028
P4	MM10-10012-B90A30-M03 F40M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
P5	MM10-10012-B90A30-M03 F40M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
P6	MM10-10012-B90A30-M03 F40M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
P7	MM10-10012-B90A30-M03 F40M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
P8	MM10-10012-B90A30-M03 F40M	2,0	0,050	0,050	0,050	0,070
		0,080	0,0020	0,0020	0,0020	0,0028
P11	MM10-10012-B90A30-M03 F40M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
P12	MM10-10012-B90A30-M03 F40M	1,7	0,034	0,034	0,034	0,044
		0,065	0,0013	0,0013	0,0013	0,0018
M1	MM10-10012-B90A30-M03 F40M	2,0	0,055	0,050	0,055	0,075
		0,080	0,0022	0,0020	0,0022	0,0030
M2	MM10-10012-B90A30-M03 F40M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
M3	MM10-10012-B90A30-M03 F40M	1,7	0,042	0,040	0,042	0,055
		0,065	0,0017	0,0016	0,0017	0,0022
M4	MM10-10012-B90A30-M03 F40M	1,2	0,038	0,036	0,036	0,046
		0,048	0,0015	0,0014	0,0014	0,0019
M5	MM10-10012-B90A30-M03 F40M	1,2	0,038	0,036	0,036	0,046
		0,048	0,0015	0,0014	0,0014	0,0019
K1	MM10-10012-B90A30-E03 F30M	2,0	0,055	0,050	0,055	0,075
		0,080	0,0022	0,0020	0,0022	0,0030
K2	MM10-10012-B90A30-E03 F30M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
K3	MM10-10012-B90A30-E03 F30M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
K4	MM10-10012-B90A30-E03 F30M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
K5	MM10-10012-B90A30-D03 F30M	2,0	0,044	0,042	0,046	0,060
		0,080	0,0017	0,0017	0,0018	0,0024
K6	MM10-10012-B90A30-D03 F30M	2,0	0,050	0,048	0,050	0,065
		0,080	0,0020	0,0019	0,0020	0,0026
K7	MM10-10012-B90A30-D03 F30M	2,0	0,044	0,042	0,046	0,060
		0,080	0,0017	0,0017	0,0018	0,0024
N1	MM10-10012-B90A30-E03 F30M	2,0	0,070	0,065	0,070	0,095
		0,080	0,0028	0,0026	0,0028	0,0038
N2	MM10-10012-B90A30-E03 F30M	2,0	0,070	0,065	0,070	0,095
		0,080	0,0028	0,0026	0,0028	0,0038
N3	MM10-10012-B90A30-E03 F30M	2,0	0,070	0,065	0,070	0,095
		0,080	0,0028	0,0026	0,0028	0,0038
N11	MM10-10012-B90A30-E03 F30M	2,0	0,070	0,065	0,070	0,095
		0,080	0,0028	0,0026	0,0028	0,0038
S1	MM10-10012-B90A30-D03 F30M	1,2	0,038	0,036	0,036	0,046
		0,048	0,0015	0,0014	0,0014	0,0019
S2	MM10-10012-B90A30-D03 F30M	1,2	0,038	0,036	0,036	0,046
		0,048	0,0015	0,0014	0,0014	0,0019
S3	MM10-10012-B90A30-D03 F30M	1,2	0,036	0,034	0,034	0,042
		0,048	0,0014	0,0013	0,0013	0,0017
S11	MM10-10012-B90A30-M03 F40M	1,4	0,042	0,042	0,042	0,055
		0,055	0,0017	0,0017	0,0017	0,0022
S12	MM10-10012-B90A30-M03 F40M	1,4	0,042	0,042	0,042	0,055
		0,055	0,0017	0,0017	0,0017	0,0022
S13	MM10-10012-B90A30-M03 F40M	1,2	0,038	0,036	0,036	0,046
		0,048	0,0015	0,0014	0,0014	0,0019
H5	MM10-10012-B90A30-D03 F30M	1,7	0,034	0,034	0,034	0,044
		0,065	0,0013	0,0013	0,0013	0,0018
H8	MM10-10012-B90A30-D03 F30M	1,4	0,028	0,026	0,026	0,034
		0,055	0,0011	0,0010	0,0010	0,0013
H11	MM10-10012-B90A30-D03 F30M	1,7	0,034	0,034	0,034	0,044
		0,065	0,0013	0,0013	0,0013	0,0018
H12	MM10-10012-B90A30-D03 F30M	1,4	0,028	0,026	0,026	0,034
		0,055	0,0011	0,0010	0,0010	0,0013
H21	MM10-10012-B90A30-D03 F30M	1,4	0,028	0,026	0,026	0,034
		0,055	0,0011	0,0010	0,0010	0,0013

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

MM10 Z3 – Copy milling – Insert selection – Finishing – mm/Inch

Material Group	SMG	Material	a <sub>p</sub>		f <sub>z</sub>			
			2.0	15%	10%	5%	2%	
Universal	P1	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,060 0,0024	0,070 0,0028	0,10 0,0040	0,16 0,0065	
	P2	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,060 0,0024	0,075 0,0030	0,10 0,0040	0,16 0,0065	
Steel and cast iron	P3	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,060 0,0024	0,070 0,0028	0,095 0,0038	0,15 0,0060	
	P4	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,095 0,0038	0,15 0,0060	
	P5	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	P6	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	P7	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	P8	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
Stainless steel and S-materials	P11	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	P12	MM10-10012-B90A30-E03 F30M	1,7 0,065	0,038 0,0015	0,044 0,0018	0,060 0,0024	0,10 0,0040	
Non ferrous	M1	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,060 0,0024	0,075 0,0030	0,10 0,0040	0,16 0,0065	
	M2	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	M3	MM10-10012-B90A30-E03 F30M	1,7 0,065	0,046 0,0018	0,055 0,0022	0,075 0,0030	0,12 0,0048	
	M4	MM10-10012-B90A30-E03 F30M	1,2 0,048	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040	
	M5	MM10-10012-B90A30-E03 F30M	1,2 0,048	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040	
Hard	K1	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,060 0,0024	0,075 0,0030	0,10 0,0040	0,16 0,0065	
	K2	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	K3	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	K4	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	K5	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,050 0,0020	0,060 0,0024	0,080 0,0032	0,13 0,0050	
	K6	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,055 0,0022	0,065 0,0026	0,090 0,0036	0,15 0,0060	
	K7	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,050 0,0020	0,060 0,0024	0,080 0,0032	0,13 0,0050	
Plastic and CFRP	N1	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,080 0,0032	0,095 0,0038	0,13 0,0050	0,22 0,0085	
	N2	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,080 0,0032	0,095 0,0038	0,13 0,0050	0,22 0,0085	
	N3	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,080 0,0032	0,095 0,0038	0,13 0,0050	0,22 0,0085	
Graphite	N11	MM10-10012-B90A30-E03 F30M	2,0 0,080	0,080 0,0032	0,095 0,0038	0,13 0,0050	0,22 0,0085	
	S1	MM10-10012-B90A30-E03 F30M	1,2 0,048	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040	
	S2	MM10-10012-B90A30-E03 F30M	1,2 0,048	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040	
	S3	MM10-10012-B90A30-E03 F30M	1,2 0,048	0,038 0,0015	0,042 0,0017	0,060 0,0024	0,095 0,0038	
X-Heads	S11	MM10-10012-B90A30-E03 F30M	1,4 0,055	0,046 0,0018	0,055 0,0022	0,075 0,0030	0,12 0,0048	
	S12	MM10-10012-B90A30-E03 F30M	1,4 0,055	0,046 0,0018	0,055 0,0022	0,075 0,0030	0,12 0,0048	
	S13	MM10-10012-B90A30-E03 F30M	1,2 0,048	0,040 0,0016	0,046 0,0019	0,065 0,0026	0,10 0,0040	
	H5	MM10-10012-B90A30-E03 F30M	1,7 0,065	0,038 0,0015	0,044 0,0018	0,060 0,0024	0,10 0,0040	
Minimaster	H8	MM10-10012-B90A30-E03 F30M	1,4 0,055	0,030 0,0012	0,034 0,0013	0,048 0,0019	0,075 0,0030	
	H11	MM10-10012-B90A30-E03 F30M	1,7 0,065	0,038 0,0015	0,044 0,0018	0,060 0,0024	0,10 0,0040	
	H12	MM10-10012-B90A30-E03 F30M	1,4 0,055	0,030 0,0012	0,034 0,0013	0,048 0,0019	0,075 0,0030	
	H21	MM10-10012-B90A30-E03 F30M	1,4 0,055	0,030 0,0012	0,034 0,0013	0,048 0,0019	0,075 0,0030	

SMG = Seco material group  
f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
All cutting data are start values

MM10 Z3 – Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F30M					F40M					
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	
P1	280	330	355	380	380	270	310	335	365	360	Universal
	920	1075	1175	1250	1250	890	1025	1100	1200	1175	
P2	275	320	340	370	370	260	305	325	355	355	Steel and cast iron
	900	1050	1125	1225	1225	850	1000	1075	1175	1175	
P3	240	280	295	320	320	230	265	280	305	305	Steel and cast iron
	790	920	970	1050	1050	750	870	920	1000	1000	
P4	210	245	265	285	285	200	235	250	270	270	Steel and cast iron
	690	800	870	940	940	660	770	820	890	890	
P5	200	235	250	275	270	190	225	240	260	260	Steel and cast iron
	660	770	820	900	890	620	740	790	850	850	
P6	225	265	285	305	305	215	250	270	290	290	Stainless steel and S-materials
	740	870	940	1000	1000	710	820	890	950	950	
P7	215	250	265	290	285	205	235	255	275	275	Stainless steel and S-materials
	710	820	870	950	940	670	770	840	900	900	
P8	200	235	250	270	270	190	225	235	260	260	Stainless steel and S-materials
	660	770	820	890	890	620	740	770	850	850	
P11	205	240	260	280	280	195	230	245	265	265	Stainless steel and S-materials
	670	790	850	920	920	640	750	800	870	870	
P12	130	160	160	175	175	125	150	155	165	165	Stainless steel and S-materials
	425	520	520	570	570	410	490	510	540	540	
M1	220	255	275	300	300	210	245	260	285	285	Stainless steel and S-materials
	720	840	900	980	980	690	800	850	940	940	
M2	180	210	225	245	245	175	200	215	235	230	Stainless steel and S-materials
	590	690	740	800	800	570	660	710	770	750	
M3	145	175	175	190	190	135	165	170	185	180	Stainless steel and S-materials
	475	570	590	620	620	445	540	560	610	590	
M4	95	140	135	145	145	95	130	130	140	140	Stainless steel and S-materials
	310	460	475	475	475	310	425	445	460	460	
M5	80	115	115	120	120	75	110	105	115	115	Non ferrous
	260	375	395	395	395	245	360	375	375	375	
K1	220	255	270	295	295	205	240	255	280	280	Non ferrous
	720	840	890	970	970	670	790	840	920	920	
K2	190	220	240	260	255	180	210	230	245	245	Non ferrous
	620	720	790	850	840	590	690	750	800	800	
K3	160	190	200	220	215	155	180	195	210	205	Non ferrous
	520	620	660	720	710	510	590	640	690	670	
K4	155	180	195	210	205	145	170	185	200	195	Hard
	510	590	640	690	670	475	560	610	660	640	
K5	95	110	115	125	125	90	105	110	120	120	Hard
	310	360	375	410	410	295	345	360	395	395	
K6	135	160	170	185	185	130	150	160	175	175	Hard
	445	520	560	610	610	425	490	520	570	570	
K7	120	140	150	160	160	115	130	140	155	155	Hard
	395	460	490	520	520	375	425	460	510	510	
N1	1650	1925	2050	2225	2200	1575	1825	1950	2125	2100	Graphite
	5425	6325	6725	7300	7225	5175	6000	6400	6975	6900	
N2	670	780	830	900	890	640	740	790	860	850	Graphite
	2200	2550	2725	2950	2925	2100	2425	2600	2825	2800	
N3	445	520	550	600	590	425	495	530	570	560	Graphite
	1450	1700	1800	1975	1925	1400	1625	1750	1875	1825	
N11	510	590	630	690	680	485	560	600	650	650	Graphite
	1675	1925	2075	2275	2225	1600	1825	1975	2125	2125	
S1	45	65	65	70	70	43	60	60	65	65	X-Heads
	150	215	215	230	230	140	195	215	215	215	
S2	37	50	50	55	55	35	49	48	50	50	X-Heads
	120	165	180	180	180	115	160	165	165	165	
S3	32	45	44	48	48	30	43	42	46	45	X-Heads
	105	150	155	155	155	100	140	150	150	150	
S11	70	90	90	95	95	65	85	85	90	90	X-Heads
	230	295	295	310	310	215	280	280	295	295	
S12	48	60	60	65	65	45	60	60	65	65	X-Heads
	155	195	215	215	215	150	195	195	215	215	
S13	26	36	36	38	38	24	34	34	37	37	X-Heads
	85	120	125	125	125	80	110	120	120	120	
H5	43	55	55	60	55	41	50	50	55	55	Minimaster
	140	180	180	195	180	135	165	165	180	180	
H8	41	55	55	60	60	39	50	50	55	55	Minimaster
	135	180	180	195	195	130	165	180	180	180	
H11	55	65	70	75	75	50	65	65	70	70	Minimaster
	180	215	230	245	245	165	215	215	230	230	
H12	75	100	100	105	105	70	95	95	100	100	Minimaster
	245	330	330	345	345	230	310	310	330	330	
H21	41	55	55	60	60	39	50	50	55	55	Minimaster
	135	180	180	195	195	130	165	180	180	180	

MM10 Z2 – Copy milling – Insert selection – Roughing – mm/Inch

Material Group	SMG	Material	a <sub>p</sub>		f <sub>z</sub>			
			100%	40%	20%	10%		
Universal	P1	MM10-10010-B90S-E04 F30M	4,0	0,060	0,060	0,070	0,095	
			0,16	0,0024	0,0024	0,0028	0,0038	
Steel and cast iron	P2	MM10-10010-B90S-E04 F30M	4,0	0,065	0,065	0,075	0,095	
			0,16	0,0026	0,0026	0,0030	0,0038	
Stainless steel and S-materials	P3	MM10-10010-B90S-E04 F30M	4,0	0,060	0,060	0,070	0,090	
			0,16	0,0024	0,0024	0,0028	0,0036	
Non ferrous	P4	MM10-10010-B90-MD04 F30M	4,0	0,060	0,060	0,070	0,090	
			0,16	0,0024	0,0024	0,0028	0,0036	
Hard	P5	MM10-10010-B90-MD04 F30M	4,0	0,060	0,055	0,065	0,090	
			0,16	0,0024	0,0022	0,0026	0,0036	
Plastic and cfrp	P6	MM10-10010-B90-MD04 F30M	4,0	0,055	0,055	0,065	0,085	
			0,16	0,0022	0,0022	0,0026	0,0034	
Graphite	P7	MM10-10010-B90-MD04 F30M	4,0	0,055	0,055	0,065	0,085	
			0,16	0,0022	0,0022	0,0026	0,0034	
X-Heads	P8	MM10-10010-B90-MD04 F30M	4,0	0,060	0,060	0,070	0,090	
			0,16	0,0024	0,0024	0,0028	0,0036	
Minimaster	P11	MM10-10010-B90-MD04 F30M	4,0	0,055	0,055	0,065	0,085	
			0,16	0,0022	0,0022	0,0026	0,0034	
Universal	P12	MM10-10010-B90-MD04 F30M	3,5	0,040	0,040	0,046	0,060	
			0,14	0,0016	0,0016	0,0018	0,0024	
Steel and cast iron	M1	MM10-10010-B90S-E04 F30M	4,0	0,065	0,065	0,075	0,095	
			0,16	0,0026	0,0026	0,0030	0,0038	
Stainless steel and S-materials	M2	MM10-10010-B90S-E04 F30M	4,0	0,060	0,055	0,065	0,090	
			0,16	0,0024	0,0022	0,0026	0,0036	
Non ferrous	M3	MM10-10010-B90S-E04 F30M	3,5	0,048	0,048	0,055	0,070	
			0,14	0,0019	0,0019	0,0022	0,0028	
Hard	M4	MM10-10010-B90-MD04 F30M	2,5	0,044	0,044	0,048	0,060	
			0,10	0,0017	0,0017	0,0019	0,0026	
Plastic and cfrp	M5	MM10-10010-B90-MD04 F30M	2,5	0,044	0,044	0,048	0,060	
			0,10	0,0017	0,0017	0,0019	0,0026	
Graphite	K1	MM10-10010-B90S-E04 F30M	4,0	0,065	0,065	0,075	0,095	
			0,16	0,0026	0,0026	0,0030	0,0038	
X-Heads	K2	MM10-10010-B90S-E04 F30M	4,0	0,060	0,055	0,065	0,090	
			0,16	0,0024	0,0022	0,0026	0,0036	
Universal	K3	MM10-10010-B90S-E04 F30M	4,0	0,060	0,055	0,065	0,090	
			0,16	0,0024	0,0022	0,0026	0,0036	
Steel and cast iron	K4	MM10-10010-B90S-E04 F30M	4,0	0,060	0,055	0,065	0,090	
			0,16	0,0024	0,0022	0,0026	0,0036	
Stainless steel and S-materials	K5	MM10-10010-B90-MD04 F30M	4,0	0,050	0,050	0,060	0,080	
			0,16	0,0020	0,0020	0,0024	0,0032	
Non ferrous	K6	MM10-10010-B90-MD04 F30M	4,0	0,060	0,055	0,065	0,090	
			0,16	0,0024	0,0022	0,0026	0,0036	
Hard	K7	MM10-10010-B90-MD04 F30M	4,0	0,050	0,050	0,060	0,080	
			0,16	0,0020	0,0020	0,0024	0,0032	
Plastic and cfrp	N1	MM10-10010-B90S-E04 F30M	4,0	0,080	0,080	0,095	0,12	
			0,16	0,0032	0,0032	0,0038	0,0048	
Graphite	N2	MM10-10010-B90S-E04 F30M	4,0	0,080	0,080	0,095	0,12	
			0,16	0,0032	0,0032	0,0038	0,0048	
X-Heads	N3	MM10-10010-B90S-E04 F30M	4,0	0,080	0,080	0,095	0,12	
			0,16	0,0032	0,0032	0,0038	0,0048	
Universal	N11	MM10-10010-B90S-E04 F30M	4,0	0,080	0,080	0,095	0,12	
			0,16	0,0032	0,0032	0,0038	0,0048	
Steel and cast iron	S1	MM10-10010-B90S-E04 F30M	2,5	0,044	0,044	0,048	0,060	
			0,10	0,0017	0,0017	0,0019	0,0026	
Stainless steel and S-materials	S2	MM10-10010-B90S-E04 F30M	2,5	0,044	0,044	0,048	0,060	
			0,10	0,0017	0,0017	0,0019	0,0026	
Non ferrous	S3	MM10-10010-B90S-E04 F30M	2,5	0,042	0,042	0,044	0,055	
			0,10	0,0017	0,0017	0,0017	0,0024	
Hard	S11	MM10-10010-B90S-E04 F30M	3,0	0,048	0,048	0,055	0,070	
			0,12	0,0019	0,0019	0,0022	0,0028	
Plastic and cfrp	S12	MM10-10010-B90S-E04 F30M	3,0	0,048	0,048	0,055	0,070	
			0,12	0,0019	0,0019	0,0022	0,0028	
Graphite	S13	MM10-10010-B90S-E04 F30M	2,5	0,044	0,044	0,048	0,060	
			0,10	0,0017	0,0017	0,0019	0,0026	
X-Heads	H5	MM10-10010-B90-MD04 F30M	3,5	0,040	0,040	0,046	0,060	
			0,14	0,0016	0,0016	0,0018	0,0024	
Universal	H8	MM10-10010-B90-MD04 F30M	3,0	0,032	0,032	0,036	0,046	
			0,12	0,0013	0,0013	0,0014	0,0018	
Steel and cast iron	H11	MM10-10010-B90-MD04 F30M	3,5	0,040	0,040	0,046	0,060	
			0,14	0,0016	0,0016	0,0018	0,0024	
Stainless steel and S-materials	H12	MM10-10010-B90-MD04 F30M	3,0	0,032	0,032	0,036	0,046	
			0,12	0,0013	0,0013	0,0014	0,0018	
Non ferrous	H21	MM10-10010-B90-MD04 F30M	3,0	0,032	0,032	0,036	0,046	
			0,12	0,0013	0,0013	0,0014	0,0018	

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM10 Z2 – Copy milling – Insert selection – Finishing – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>			
			15%	10%	5%	2%
P1	MM10-10010-B90PF-M02 F15M	3,5	0,040	0,048	0,065	0,11
		0.14	0.0016	0.0019	0.0026	0.0044
P2	MM10-10010-B90PF-M02 F15M	3,5	0,042	0,048	0,070	0,11
		0.14	0.0017	0.0019	0.0028	0.0044
P3	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,046	0,065	0,10
		0.14	0.0015	0.0018	0.0026	0.0040
P4	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,046	0,065	0,10
		0.14	0.0015	0.0018	0.0026	0.0040
P5	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,10
		0.14	0.0015	0.0017	0.0024	0.0040
P6	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,095
		0.14	0.0015	0.0017	0.0024	0.0038
P7	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,095
		0.14	0.0015	0.0017	0.0024	0.0038
P8	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,046	0,065	0,10
		0.14	0.0015	0.0018	0.0026	0.0040
P11	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,095
		0.14	0.0015	0.0017	0.0024	0.0038
P12	MM10-10010-B90PF-M02 F15M	3,0	0,026	0,030	0,042	0,065
		0.12	0.0010	0.0012	0.0017	0.0026
M1	MM10-10010-B90PF-M02 F15M	3,5	0,042	0,048	0,070	0,11
		0.14	0.0017	0.0019	0.0028	0.0044
M2	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,10
		0.14	0.0015	0.0017	0.0024	0.0040
M3	MM10-10010-B90PF-M02 F15M	3,0	0,030	0,036	0,048	0,075
		0.12	0.0012	0.0014	0.0019	0.0030
M4	MM10-10010-B90PF-M02 F15M	2,0	0,028	0,030	0,042	0,070
		0.080	0.0011	0.0013	0.0017	0.0028
M5	MM10-10010-B90PF-M02 F15M	2,0	0,028	0,030	0,042	0,070
		0.080	0.0011	0.0013	0.0017	0.0028
K1	MM10-10010-B90PF-M02 F15M	3,5	0,042	0,048	0,070	0,11
		0.14	0.0017	0.0019	0.0028	0.0044
K2	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,10
		0.14	0.0015	0.0017	0.0024	0.0040
K3	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,10
		0.14	0.0015	0.0017	0.0024	0.0040
K4	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,10
		0.14	0.0015	0.0017	0.0024	0.0040
K5	MM10-10010-B90PF-M02 F15M	3,5	0,034	0,040	0,055	0,085
		0.14	0.0013	0.0016	0.0022	0.0034
K6	MM10-10010-B90PF-M02 F15M	3,5	0,038	0,044	0,060	0,10
		0.14	0.0015	0.0017	0.0024	0.0040
K7	MM10-10010-B90PF-M02 F15M	3,5	0,034	0,040	0,055	0,085
		0.14	0.0013	0.0016	0.0022	0.0034
N1	MM10-10010-B90PF-M02 F15M	3,5	0,050	0,060	0,085	0,14
		0.14	0.0020	0.0024	0.0034	0.0055
N2	MM10-10010-B90PF-M02 F15M	3,5	0,050	0,060	0,085	0,14
		0.14	0.0020	0.0024	0.0034	0.0055
N3	MM10-10010-B90PF-M02 F15M	3,5	0,050	0,060	0,085	0,14
		0.14	0.0020	0.0024	0.0034	0.0055
N11	MM10-10010-B90PF-M02 F15M	3,5	0,050	0,060	0,085	0,14
		0.14	0.0020	0.0024	0.0034	0.0055
S1	MM10-10010-B90PF-M02 F15M	2,0	0,028	0,030	0,042	0,070
		0.080	0.0011	0.0013	0.0017	0.0028
S2	MM10-10010-B90PF-M02 F15M	2,0	0,028	0,030	0,042	0,070
		0.080	0.0011	0.0013	0.0017	0.0028
S3	MM10-10010-B90PF-M02 F15M	2,0	0,025	0,028	0,040	0,065
		0.080	0.0010	0.0012	0.0016	0.0026
S11	MM10-10010-B90PF-M02 F15M	2,5	0,030	0,036	0,048	0,075
		0.10	0.0012	0.0014	0.0019	0.0030
S12	MM10-10010-B90PF-M02 F15M	2,5	0,030	0,036	0,048	0,075
		0.10	0.0012	0.0014	0.0019	0.0030
S13	MM10-10010-B90PF-M02 F15M	2,0	0,028	0,030	0,042	0,070
		0.080	0.0011	0.0013	0.0017	0.0028
H5	MM10-10010-B90PF-M02 F15M	3,0	0,026	0,030	0,042	0,065
		0.12	0.0010	0.0012	0.0017	0.0026
H8	MM10-10010-B90PF-M02 F15M	2,5	0,020	0,022	0,032	0,050
		0.10	0.00080	0.00095	0.0013	0.0020
H11	MM10-10010-B90PF-M02 F15M	3,0	0,026	0,030	0,042	0,065
		0.12	0.0010	0.0012	0.0017	0.0026
H12	MM10-10010-B90PF-M02 F15M	2,5	0,020	0,022	0,032	0,050
		0.10	0.00080	0.00095	0.0013	0.0020
H21	MM10-10010-B90PF-M02 F15M	2,5	0,020	0,022	0,032	0,050
		0.10	0.00080	0.00095	0.0013	0.0020

SMG = Seco material group  
f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
All cutting data are start values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

MM10 Z2 – Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

	SMG	F15M					F30M					T60M				
		100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
Universal	P1	305	390	405	440	440	250	320	340	370	365	205	260	275	300	295
		1000	1275	1325	1450	1450	820	1050	1125	1225	1200	670	850	900	980	970
Steel and cast iron	P2	295	380	395	425	425	240	305	330	355	355	195	250	270	285	285
		970	1250	1300	1400	1400	790	1000	1075	1175	1175	640	820	890	940	940
Steel and cast iron	P3	260	330	340	370	370	210	265	285	310	310	170	215	235	250	250
		850	1075	1125	1225	1225	690	870	940	1025	1025	560	710	770	820	820
Steel and cast iron	P4	225	290	300	325	325	185	235	255	270	275	150	190	205	220	220
		740	950	980	1075	1075	610	770	840	890	900	490	620	670	720	720
Steel and cast iron	P5	215	275	290	315	310	175	225	240	265	260	145	185	195	215	210
		710	900	950	1025	1025	570	740	790	870	850	475	610	640	710	690
Steel and cast iron	P6	245	310	325	350	350	200	255	275	295	295	165	205	220	240	235
		800	1025	1075	1150	1150	660	840	900	970	970	540	670	720	790	770
Stainless steel and S-materials	P7	230	295	305	330	330	190	240	260	280	275	155	195	210	225	225
		750	970	1000	1075	1075	620	790	850	920	900	510	640	690	740	740
Stainless steel and S-materials	P8	215	275	290	310	310	175	225	240	260	260	145	180	195	210	210
		710	900	950	1025	1025	570	740	790	850	850	475	590	640	690	690
Stainless steel and S-materials	P11	225	285	295	325	320	185	235	250	270	270	150	190	205	220	215
		740	940	970	1075	1050	610	770	820	890	890	490	620	670	720	710
Stainless steel and S-materials	P12	140	175	180	195	195	120	150	155	170	170	95	120	125	135	135
		460	570	610	640	640	395	490	510	560	560	310	395	410	445	445
Non ferrous	M1	240	305	320	345	345	195	245	265	285	285	160	200	215	230	230
		790	1000	1050	1125	1125	640	800	870	940	940	520	660	710	750	750
Non ferrous	M2	195	250	260	280	280	160	205	215	235	235	130	165	175	190	190
		640	820	850	920	920	520	670	710	770	770	425	540	570	620	620
Non ferrous	M3	155	200	200	220	220	130	165	175	185	185	105	135	140	150	150
		510	660	670	720	720	425	540	570	610	610	345	445	460	490	490
Non ferrous	M4	120	155	155	165	165	105	135	130	145	140	85	105	105	115	115
		395	510	560	540	540	345	445	460	475	460	280	345	375	375	375
Non ferrous	M5	100	130	130	140	140	85	110	110	120	120	70	90	90	95	95
		330	425	460	460	460	280	360	375	395	395	230	295	310	310	310
Hard	K1	235	300	315	335	335	190	245	260	280	280	155	195	210	225	225
		770	980	1025	1100	1100	620	800	850	920	920	510	640	690	740	740
Hard	K2	205	265	275	295	295	170	215	230	250	250	135	175	185	200	200
		670	870	900	970	970	560	710	750	820	820	445	570	610	660	660
Hard	K3	175	225	230	250	250	140	180	195	210	210	115	150	155	170	170
		570	740	750	820	820	460	590	640	690	690	375	490	510	560	560
Plastic and cfrp	K4	165	215	220	240	240	135	175	185	200	200	110	140	150	165	160
		540	710	720	790	790	445	570	610	660	660	360	460	490	540	520
Plastic and cfrp	K5	100	130	135	145	145	85	105	110	120	120	70	85	90	100	100
		330	425	445	475	475	280	345	360	395	395	230	280	295	330	330
Plastic and cfrp	K6	145	185	195	210	210	120	155	165	180	175	95	125	130	145	145
		475	610	640	690	690	395	510	540	590	570	310	410	425	475	475
Plastic and cfrp	K7	130	165	170	185	185	105	135	145	155	155	85	110	115	125	125
		425	540	560	610	610	345	445	475	510	510	280	360	375	410	410
Graphite	N1	1800	2300	2425	2600	2600	1450	1825	1975	2150	2100	1175	1475	1600	1725	1700
		5900	7550	7950	8525	8525	4750	6000	6475	7050	6900	3850	4850	5250	5650	5575
Graphite	N2	730	930	970	1050	1050	590	740	800	870	850	475	600	650	700	680
		2400	3050	3175	3450	3450	1925	2425	2625	2850	2800	1550	1975	2125	2300	2225
Graphite	N3	485	620	650	700	700	390	495	530	580	560	315	400	435	465	455
		1600	2025	2125	2300	2300	1275	1625	1750	1900	1825	1025	1300	1425	1525	1500
Graphite	N11	550	710	740	800	800	450	570	610	660	640	360	460	495	530	520
		1800	2325	2425	2625	2625	1475	1875	2000	2175	2100	1175	1500	1625	1750	1700
X-Heads	S1	55	70	70	80	75	48	60	60	65	65	39	50	50	55	55
		180	230	260	260	245	155	195	215	215	215	130	165	180	180	180
X-Heads	S2	46	60	60	65	60	39	50	50	55	55	32	40	40	43	43
		150	195	215	215	195	130	165	180	180	180	105	130	140	140	140
X-Heads	S3	40	50	50	55	55	34	43	43	47	46	27	35	35	38	38
		130	165	180	180	180	110	140	150	155	150	90	115	120	125	125
X-Heads	S11	80	100	100	110	110	65	85	85	95	95	55	70	70	75	75
		260	330	360	360	360	215	280	295	310	310	180	230	245	245	245
X-Heads	S12	55	70	70	75	75	47	60	60	65	65	38	48	49	55	55
		180	230	245	245	245	155	195	195	215	215	125	155	165	180	180
X-Heads	S13	32	41	40	44	43	27	35	35	37	37	22	28	28	30	30
		105	135	145	145	140	90	115	120	120	120	70	90	100	100	100
Minimaster	H5	46	60	60	65	65	39	50	50	55	55	32	41	42	45	45
		150	195	195	215	215	130	165	165	180	180	105	135	140	150	150
Minimaster	H8	48	60	60	65	65	41	55	55	60	60	33	43	43	47	47
		155	195	215	215	215	135	180	180	195	195	110	140	150	155	155
Minimaster	H11	60	75	75	85	85	50	65	65	70	70	40	50	55	60	60
		195	245	260	280	280	165	215	215	230	230	130	165	180	195	195
Minimaster	H12	85	110	110	120	120	75	95	95	105	105	60	75	80	85	85
		280	360	375	395	395	245	310	330	345	345	195	245	260	280	280
Minimaster	H21	48	60	60	65	65	41	55	55	60	60	33	43	43	47	47
		155	195	215	215	215	135	180	180	195	195	110	140	150	155	155

MM10 High-Feed – Insert selection – mm/Inch

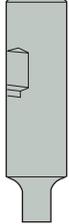
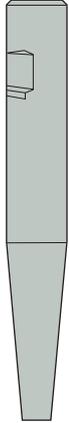
SMG		$a_p$		$f_z$				
			100%	70%	30%	20%		
P1	MM10-10.50-HF-MD08 F30M	0,30	0,48	0,48	0,65	0,80	Universal	
		0,012	0,019	0,019	0,026	0,032		
P2	MM10-10.50-HF-MD08 F30M	0,30	0,50	0,50	0,65	0,80	Steel and cast iron	
		0,012	0,020	0,020	0,026	0,032		
P3	MM10-10.50-HF-MD08 F30M	0,30	0,46	0,46	0,60	0,75	Steel and cast iron	
		0,012	0,018	0,018	0,024	0,030		
P4	MM10-10.50-HF-MD08 F30M	0,30	0,46	0,46	0,60	0,75	Steel and cast iron	
		0,012	0,018	0,018	0,024	0,030		
P5	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,46	0,60	0,75	Steel and cast iron	
		0,012	0,017	0,018	0,024	0,030		
P6	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,44	0,60	0,75	Steel and cast iron	
		0,012	0,017	0,017	0,024	0,030		
P7	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,44	0,60	0,75	Steel and cast iron	
		0,012	0,017	0,017	0,024	0,030		
P8	MM10-10.50-HF-MD08 F30M	0,30	0,46	0,46	0,60	0,75	Stainless steel and S-materials	
		0,012	0,018	0,018	0,024	0,030		
P11	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,44	0,60	0,75	Stainless steel and S-materials	
		0,012	0,017	0,017	0,024	0,030		
P12	MM10-10.50-HF-MD08 F30M	0,25	0,30	0,30	0,40	0,48	Stainless steel and S-materials	
		0,010	0,012	0,012	0,016	0,019		
M1	MM10-10.50-HF-MD08 F30M	0,30	0,50	0,50	0,65	0,80	Stainless steel and S-materials	
		0,012	0,020	0,020	0,026	0,032		
M2	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,46	0,60	0,75	Stainless steel and S-materials	
		0,012	0,017	0,018	0,024	0,030		
M3	MM10-10.50-HF-MD08 F30M	0,25	0,36	0,36	0,46	0,55	Stainless steel and S-materials	
		0,010	0,014	0,014	0,018	0,022		
M4	MM10-10.50-HF-MD08 F30M	0,18	0,32	0,32	0,40	0,50	Stainless steel and S-materials	
		0,0070	0,013	0,013	0,016	0,020		
M5	MM10-10.50-HF-MD08 F30M	0,18	0,32	0,32	0,40	0,50	Stainless steel and S-materials	
		0,0070	0,013	0,013	0,016	0,020		
K1	MM10-10.50-HF-MD08 F30M	0,30	0,50	0,50	0,65	0,80	Non ferrous	
		0,012	0,020	0,020	0,026	0,032		
K2	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,46	0,60	0,75	Non ferrous	
		0,012	0,017	0,018	0,024	0,030		
K3	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,46	0,60	0,75	Non ferrous	
		0,012	0,017	0,018	0,024	0,030		
K4	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,46	0,60	0,75	Non ferrous	
		0,012	0,017	0,018	0,024	0,030		
K5	MM10-10.50-HF-MD08 F30M	0,30	0,40	0,40	0,55	0,65	Non ferrous	
		0,012	0,016	0,016	0,022	0,026		
K6	MM10-10.50-HF-MD08 F30M	0,30	0,44	0,46	0,60	0,75	Non ferrous	
		0,012	0,017	0,018	0,024	0,030		
K7	MM10-10.50-HF-MD08 F30M	0,30	0,40	0,40	0,55	0,65	Non ferrous	
		0,012	0,016	0,016	0,022	0,026		
N1	MM10-10.50-HF-MD08 F30M	0,30	0,65	0,65	0,85	1,1	Hard	
		0,012	0,026	0,026	0,034	0,044		
N2	MM10-10.50-HF-MD08 F30M	0,30	0,65	0,65	0,85	1,1	Hard	
		0,012	0,026	0,026	0,034	0,044		
N3	MM10-10.50-HF-MD08 F30M	0,30	0,65	0,65	0,85	1,1	Hard	
		0,012	0,026	0,026	0,034	0,044		
N11	MM10-10.50-HF-MD08 F30M	0,30	0,65	0,65	0,85	1,1	Hard	
		0,012	0,026	0,026	0,034	0,044		
S1	MM10-10.50-HF-MD08 F30M	0,18	0,32	0,32	0,40	0,50	Graphite	
		0,0070	0,013	0,013	0,016	0,020		
S2	MM10-10.50-HF-MD08 F30M	0,18	0,32	0,32	0,40	0,50	Graphite	
		0,0070	0,013	0,013	0,016	0,020		
S3	MM10-10.50-HF-MD08 F30M	0,18	0,30	0,30	0,38	0,46	Graphite	
		0,0070	0,012	0,012	0,015	0,018		
S11	MM10-10.50-HF-MD08 F30M	0,22	0,36	0,36	0,46	0,55	Graphite	
		0,0085	0,014	0,014	0,018	0,022		
S12	MM10-10.50-HF-MD08 F30M	0,22	0,36	0,36	0,46	0,55	Graphite	
		0,0085	0,014	0,014	0,018	0,022		
S13	MM10-10.50-HF-MD08 F30M	0,18	0,32	0,32	0,40	0,50	Graphite	
		0,0070	0,013	0,013	0,016	0,020		
H5	MM10-10.50-HF-MD08 F15M	0,25	0,30	0,30	0,40	0,48	X-Heads	
		0,010	0,012	0,012	0,016	0,019		
H8	MM10-10.50-HF-MD08 F15M	0,22	0,24	0,24	0,30	0,36	X-Heads	
		0,0085	0,0095	0,0095	0,012	0,014		
H11	MM10-10.50-HF-MD08 F15M	0,25	0,30	0,30	0,40	0,48	X-Heads	
		0,010	0,012	0,012	0,016	0,019		
H12	MM10-10.50-HF-MD08 F15M	0,22	0,24	0,24	0,30	0,36	X-Heads	
		0,0085	0,0095	0,0095	0,012	0,014		
H21	MM10-10.50-HF-MD08 F15M	0,22	0,24	0,24	0,30	0,36	X-Heads	
		0,0085	0,0095	0,0095	0,012	0,014		

SMG = Seco material group  
 $f_z$  = mm/tooth (in/tooth),  $v_c$  = m/min (sf/min),  $a_e/DC$  = %  
 All cutting data are start values

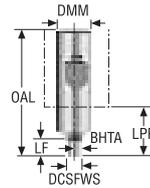
MM10 High-Feed – Cutting data  $v_c = (m/min)/(sf/min)$

	SMG	F15M				F30M			
		100%	70%	30%	20%	100%	70%	30%	20%
Universal	P1	—	—	—	—	230	280	325	340
		—	—	—	—	750	920	1075	1125
Steel and cast iron	P2	—	—	—	—	225	270	315	330
		—	—	—	—	740	890	1025	1075
	P3	—	—	—	—	195	240	275	290
		—	—	—	—	640	790	900	950
	P4	—	—	—	—	170	210	240	255
Stainless steel and S-materials	P5	—	—	—	—	560	690	790	840
		—	—	—	—	165	200	230	240
	P6	—	—	—	—	540	660	750	790
		—	—	—	—	185	225	260	270
	P7	—	—	—	—	610	740	850	890
		—	—	—	—	175	215	245	255
	P8	—	—	—	—	570	710	800	840
		—	—	—	—	165	200	230	240
	P11	—	—	—	—	540	660	750	790
		—	—	—	—	170	210	240	250
	P12	—	—	—	—	560	690	790	820
		—	—	—	—	110	135	150	160
Non ferrous	M1	—	—	—	—	360	445	490	520
		—	—	—	—	180	220	255	265
	M2	—	—	—	—	590	720	840	870
		—	—	—	—	150	180	210	220
	M3	—	—	—	—	490	590	690	720
—		—	—	—	120	145	165	175	
Hard	M4	—	—	—	—	395	475	540	570
		—	—	—	—	95	110	130	135
	M5	—	—	—	—	310	360	425	445
Plastic and cfrp	K1	—	—	—	—	80	95	110	115
		—	—	—	—	260	310	360	375
	K2	190	230	270	280	175	215	250	260
		620	750	890	920	570	710	820	850
	K3	170	205	235	245	160	190	220	230
		560	670	770	800	520	620	720	750
	Graphite	K4	145	175	200	210	135	160	185
475			570	660	690	445	520	610	640
K5		135	165	190	200	125	155	175	185
		445	540	620	660	410	510	570	610
X-Heads		K6	85	100	115	125	75	95	105
	280		330	375	410	245	310	345	375
	K7	120	145	170	175	110	135	155	165
Minimaster	S1	395	475	560	570	360	445	510	540
		105	130	150	155	100	120	140	145
	S2	345	425	490	510	330	395	460	475
		—	—	—	—	45	50	60	65
Graphite	N1	—	—	—	—	1325	1600	1850	1925
		—	—	—	—	4350	5250	6075	6325
	N2	—	—	—	—	530	650	750	780
		—	—	—	—	1750	2125	2450	2550
X-Heads	N3	—	—	—	—	355	430	500	520
		—	—	—	—	1175	1400	1650	1700
	N11	—	—	—	—	405	495	570	590
		—	—	—	—	1325	1625	1875	1925
Minimaster	S3	—	—	—	—	36	42	49	50
		—	—	—	—	120	140	160	165
	S11	—	—	—	—	31	37	42	45
		—	—	—	—	100	120	140	150
	S12	—	—	—	—	60	75	85	90
		—	—	—	—	195	245	280	295
	Minimaster	S13	—	—	—	—	43	50	60
—			—	—	—	140	165	195	195
H5		—	—	—	—	25	29	34	36
		—	—	—	—	80	95	110	120
H8		40	48	55	60	37	44	50	55
	130	155	180	195	120	145	165	180	
Minimaster	H11	42	50	55	60	39	46	55	55
		140	165	180	195	130	150	180	180
	H12	50	60	70	75	47	55	65	70
		165	195	230	245	155	180	215	230
	H21	75	90	105	110	70	85	95	100
		245	295	345	360	230	280	310	330
H21	42	50	55	60	39	46	55	55	
—	—	—	—	140	165	180	180		

### Shank design

<p>Design 1, Keyway shank</p>	<p>Design 2, Cylindrical/Weldon back end and 90° front</p>	<p>Universal Steel and cast iron Stainless steel and S-materials</p>
		
<p>Design 3, Cylindrical/Weldon back end tapered front 87°/89°</p>	<p>Design 4, Cylindrical/Weldon back end tapered front 80°/85°/87°</p>	
		
<p>Design 5, Cylindrical back end double tapered front end 89°/85°</p>		<p>Hard</p>
		<p>Graphite X-Heads</p>

MM12 Shank – Metric



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		mm	mm	mm	mm	mm					kg	
MM12-12055.0-0008	00083978	11,5	12,0	8,5	10,0	55,0	0,0	2	■	80000	0,1	2
MM12-12070.0-0008DS	02580668	11,5	12,0	8,5	25,0	70,0	0,0	2	■	63600	0,1	3
MM12-16065.0-0000	75004926	11,4	16,0	0,0	17,0	65,0	60,0	1	■	80000	0,1	1
MM12-16170.0-1040	75034505	11,4	16,0	40,0	122,0	170,0	1,0	3	■	80000	0,3	5
MM12-16170.0-1060	75034506	11,4	16,0	60,0	122,0	170,0	1,0	3	■	80000	0,2	5
MM12-16170.0-1080	75034507	11,4	16,0	80,0	122,0	170,0	1,0	3	■	80000	0,2	5
MM12-16095.0-0024DS	02580690	11,4	16,0	24,0	47,0	95,0	0,0	2	■	63600	0,3	3
MM12-16090.0-3044DS	02580705	11,4	16,0	43,9	42,0	90,0	3,0	4	■	63600	0,3	3
MM12-16120.0-1045DS	02580752	11,4	16,0	45,0	72,0	120,0	1,0	3	■	63600	0,3	3
MM12-16115.0-0048DS	02580691	11,4	16,0	48,0	67,0	115,0	0,0	2	■	63600	0,3	3
MM12-16170.0-1060DS	02580753	11,4	16,0	60,0	122,0	170,0	1,0	3	■	63600	0,5	3
MM12-16170.0-1080DS	02580755	11,4	16,0	80,0	122,0	170,0	1,0	3	■	63600	0,5	3
MM12-20080.3-0012	75012864	11,4	20,0	12,0	30,0	80,0	0,0	2	■	80000	0,2	4
MM12-20095.3-3027	75012865	11,4	20,0	27,0	45,0	95,0	3,0	3	■	80000	0,2	4
MM12-20150.3-5049	75012866	11,4	20,0	49,1	100,0	150,0	5,0	4	■	80000	0,3	5
MM12-20250.0-1060DS	02580756	11,4	20,0	60,0	200,0	250,0	1,0	5	■	63600	1,0	3

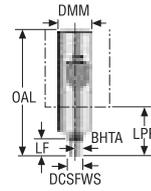
Spare Parts, included in delivery

Accessories

For cutter	Sleeve	Tension screw	Sleeve key
1	MM-06032	MM12-0637	H06-4
2	MM-06020	MM12-0637	H05-4
3	-	MM12-061037	-
4	MM-06048	MM12-0637	H06-4
5	MM-06116	MM12-0637	H06-4

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

MM12 Shank – Inch



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		inch	inch	inch	inch	inch					lbs	
MM12-0.50-2.2-0-0003	00096133	0.453	0.500	0.335	0.394	2.165	0,0	2	■	80000	0.220	2
MM12-0.62-2.6-0-0000	75005070	0.449	0.625	0	0.669	2.559	60,0	1	■	80000	0.220	1
MM12-0.62-6.7-0-1015	75054728	0.449	0.625	1.575	4.803	6.693	1,0	3	■	80000	0.440	5
MM12-0.62-6.7-0-1023	75054729	0.449	0.625	2.362	4.803	6.693	1,0	3	■	80000	0.440	5
MM12-0.62-6.7-0-1023DS	02593423	0.449	0.625	2.362	4.803	6.693	1,0	3	■	63600	1.100	4
MM12-0.62-6.7-0-1031DS	02593426	0.449	0.625	3.150	4.803	6.693	1,0	3	■	63600	1.100	4
MM12-0.75-3.1-3-0004	75015055	0.449	0.750	0.472	1.181	3.150	0,0	2	■	80000	0.440	3
MM12-0.75-3.7-3-3010	75015056	0.449	0.750	1.063	1.772	3.740	3,0	3	■	80000	0.440	3
MM12-0.75-5.9-3-5017	75015057	0.449	0.750	1.720	3.937	5.906	5,0	4	■	80000	0.660	5
MM12-0.75-10.0-0-1023DS	02593427	0.449	0.750	2.362	7.874	9.843	1,0	5	■	63600	1.980	4
MM12-0.75-3.8-0-0009DS	02593428	0.449	0.750	0.945	1.772	3.740	0,0	2	■	63600	0.880	4
MM12-0.75-4.5-0-0018DS	02593430	0.449	0.750	1.890	2.559	4.528	0,0	2	■	63600	0.880	4

Spare Parts, included in delivery

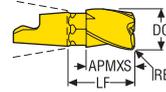
Accessories

For cutter	Sleeve	Tension screw	Sleeve key
1	 MM-06032	 MM12-0637	 H06-4
2	MM-06020	MM12-0637	H05-4
3	MM-06048	MM12-0637	H06-4
4	-	MM12-061037	-
5	MM-06116	MM12-0637	H06-4

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

Slot milling/square shoulder milling

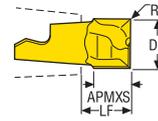


Universal  
Steel and cast iron  
Stainless steel and S-materials  
Non ferrous  
Hard  
Plastic and cfrp  
Graphite  
X-Heads  
Minimaster

—For Torque keys and torque values, see page 787

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEP	Wrench		Grades			
												Coated			
												T60M	F15M	F30M	F40M
	mm Inch	mm Inch	mm Inch	mm Inch											
MM12-11715-R03A30-M04	11,7 0.461	15,35 0.604	0,3 0.012	19,9 0.783	15,0	14,2	22,6	30	3	MM0416	✓				■
MM12-12015-A30-E04	12,0 0.472	15,35 0.604	–	19,9 0.783	15,0	14,6	23,8	30	3	MM0416	✓			■	
MM12-12015-R05A30-M04	12,0 0.472	15,35 0.604	0,5 0.020	19,9 0.783	15,0	14,6	22,8	30	3	MM0416	✓				■
MM12-12015-R10A30-E04	12,0 0.472	15,35 0.604	1,0 0.039	19,9 0.783	15,0	14,6	21,8	30	3	MM0416	✓			■	
MM12-12015-R10A30-M04	12,0 0.472	15,35 0.604	1,0 0.039	19,9 0.783	15,0	14,6	21,8	30	3	MM0416	✓				■
MM12-12015-R15A30-D04	12,0 0.472	15,35 0.604	1,5 0.059	19,9 0.783	15,0	14,6	20,8	30	3	MM0416	✓			■	
MM12-12015-R20A30-M04	12,0 0.472	15,35 0.604	2,0 0.079	19,9 0.783	15,0	14,6	19,8	30	3	MM0416	✓				■
MM12-12015-R30A30-E04	12,0 0.472	15,3 0.602	3,0 0.118	19,9 0.783	15,0	14,6	17,8	30	3	MM0416	✓			■	
MM12-12015-R30A30-M04	12,0 0.472	15,35 0.604	3,0 0.118	19,9 0.783	15,0	14,6	17,8	30	3	MM0416	✓				■
MM12-12015-R40A30-M04	12,0 0.472	15,35 0.604	4,0 0.157	19,9 0.783	15,0	14,6	15,8	30	3	MM0416	✓				■
MM12-12715-A30-E04	12,7 0.500	15,35 0.604	–	19,9 0.783	15,0	15,4	25,2	30	3	MM0416	✓			■	
MM12-12715-R08A30-M04	12,7 0.500	15,35 0.604	0,8 0.031	19,9 0.783	15,0	15,4	23,6	30	3	MM0416	✓				■
MM12-12715-R16A30-M04	12,7 0.500	15,35 0.604	1,6 0.063	19,9 0.783	15,0	15,4	22,0	30	3	MM0416	✓				■

Slot milling/square shoulder milling



—For Torque keys and torque values, see page 787

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench	Grades			
											Coated			
											T60M	F15M	F30M	F40M
MM12-11708T-R03-D05	11,7 0.461	8,2 0.323	0,3 0.012	10,18 0.401	15,0	14,2	22,6	0	2	MM0612	■			
MM12-12008-M04	12,0 0.472	8,2 0.323	–	10,2 0.402	15,0	14,6	23,8	0	2	MM0612	■			
MM12-12008-R08A8-E04	12,0 0.472	8,1 0.319	0,8 0.031	10,15 0.400	15,0	14,6	22,2	8	2	MM0612	■			
MM12-12008-R08-MD05	12,0 0.472	8,2 0.323	0,8 0.031	10,18 0.401	15,0	14,6	22,2	0	2	MM0612	■		■	
MM12-12008-R08P-M04	12,0 0.472	8,1 0.319	0,8 0.031	10,05 0.396	15,0	14,6	22,2	0	2	MM0612			■	
MM12-12008-R20-MD05	12,0 0.472	8,2 0.323	2,0 0.079	10,16 0.400	15,0	14,6	19,8	0	2	MM0612			■	
MM12-12008-R30-MD05	12,0 0.472	8,2 0.323	3,0 0.118	10,14 0.399	15,0	14,6	17,8	0	2	MM0612			■	
MM12-12708-M04	12,7 0.500	9,3 0.366	–	11,25 0.443	15,0	15,4	25,2	0	2	MM1420	■			
MM12-12708-R08-MD05	12,7 0.500	9,3 0.366	0,8 0.031	11,23 0.442	15,0	15,4	23,6	0	2	MM1420	■			
MM12-12708-R08P-M04	12,7 0.500	9,3 0.366	0,8 0.031	11,23 0.442	15,0	15,4	23,6	0	2	MM1420			■	
MM12-13709T-R03-D05	13,7 0.539	9,3 0.366	0,3 0.012	11,25 0.443	15,0	16,6	26,6	0	2	MM1420	■			
MM12-14009-M04	14,0 0.551	9,3 0.366	–	11,26 0.443	15,0	17,0	27,8	0	2	MM1420	■			
MM12-14009-R08A8-E04	14,0 0.551	9,2 0.362	0,8 0.031	11,06 0.435	15,0	17,0	26,2	8	2	MM1420	■		■	
MM12-14009-R08-MD05	14,0 0.551	9,3 0.366	0,8 0.031	11,26 0.443	15,0	17,0	26,2	0	2	MM1420	■		■	

Universal

Steel and cast  
iron

Stainless steel  
and S-materials

Stainless steel  
and S-materials

Non ferrous

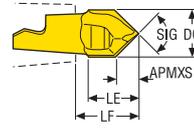
Hard

Graphite

X-Heads

Minimaster

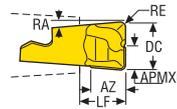
Centre drilling



—For Torque keys and torque values, see page 787

Designation	DC	APMXS	RE	LF	SIG°	ZEFP	Wrench	Grades			
								Coated			
	mm Inch	mm Inch	mm Inch	mm Inch				T60M	F15M	F30M	F40M
MM12-12006-C90-M04	12,0 0.472	5,65 0.222	– –	14,64 0.576	90,0	2	MM0612	■			

Plunge milling



—For Torque keys and torque values, see page 787

Designation	DC	APMXE	RE	AZ	LF	RA°	ZEFP	Wrench	Grades			
									Coated			
	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch				T60M	F15M	F30M	F40M
MM12-12008-R10-PL-MD05	12,0 0.472	6,0 0.236	1,0 0.039	8,5 0.335	10,2 0.402	5,0	2	MM0612			■	

Universal

Steel and cast  
iron

Stainless steel  
and S-materials

Non ferrous

Hard

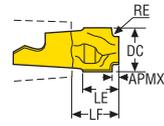
Plastic and cfrp

Graphite

X-Heads

Minimaster

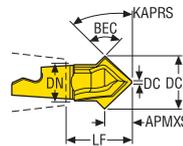
Concave radius



—For Torque keys and torque values, see page 787

Designation	DC	APMXS	RE	LE	LF	ZEFP	Wrench	Grades			
								Coated			
								T60M	F15M	F30M	F40M
MM12-12010-CR10-MD05	12,0 0.472	2,2 0.087	1,0 0.039	10,6 0.417	12,14 0.478	2	MM0612	■			
MM12-12010-CR20-MD05	12,0 0.472	2,4 0.094	2,0 0.079	10,7 0.421	12,25 0.482	2	MM0612	■			
MM12-12010-CR30-MD05	12,0 0.472	3,3 0.130	3,0 0.118	10,6 0.417	12,2 0.480	2	MM0612	■			

Double chamfering



—For Torque keys and torque values, see page 787

Designation	DCX	DC	APMXS	DN	LF	KAPRS°	BEC°	ZEFP	Wrench	Grades			
										Coated			
										T60M	F15M	F30M	F40M
MM12-16016-D3020P-M02	16,0 0.630	1,0 0.039	4,3 0.169	11,5 0.453	15,2 0.598	30,0	60,0	2	MM1420	■			
MM12-16016-D4520P-M02	16,0 0.630	1,0 0.039	7,5 0.295	11,5 0.453	17,2 0.677	45,0	90,0	2	MM1420	■			

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

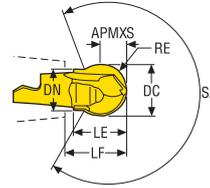
Hard

Graphite

X-Heads

Minimaster

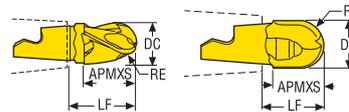
Precision inserts for semi-finishing in all materials



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LE mm Inch	DN mm Inch	LF mm Inch	SA°	ZAFP	Wrench	Grades			
										Coated			
										T60M	F15M	F30M	F40M
MM12-14014-B120P-M05	14,0 0.551	7,0 0.276	7,0 0.276	14,0 0.551	12,0 0.472	15,45 0.608	242,0	2	MM1420			■	
MM12-16016-B120PF-M03	16,0 0.630	8,0 0.315	8,0 0.315	16,0 0.630	12,0 0.472	17,46 0.687	263,0	2	MM1420		■		
MM12-16016-B120P-M07	16,0 0.630	8,0 0.315	8,0 0.315	16,0 0.630	12,0 0.472	17,46 0.687	263,0	2	MM1420			■	

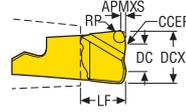
Copy milling



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LF mm Inch	FHA°	ZAFP	Wrench		Grades			
									Coated			
									T60M	F15M	F30M	F40M
MM12-12012-B90-MD05	12,0 0.472	12,2 0.480	6,0 0.236	14,12 0.556		2	MM0612		■		■	
MM12-12012-B90PF-M02	12,0 0.472	10,4 0.409	6,0 0.236	14,09 0.555		2	MM0612			■		
MM12-12012-B90P-M05	12,0 0.472	10,4 0.409	6,0 0.236	14,09 0.555		2	MM0612				■	
MM12-12012-B90S-E05	12,0 0.472	12,3 0.484	6,0 0.236	14,12 0.556		2	MM0612				■	
MM12-12015-B90A30-E04	12,0 0.472	15,3 0.602	6,0 0.236	19,9 0.783	30,0	3	MM0416	✓			■	
MM12-12015-B90A30-M04	12,0 0.472	15,3 0.602	6,0 0.236	19,9 0.783	30,0	3	MM0416	✓				■
MM12-12713-B90P-M05	12,7 0.500	12,2 0.480	6,35 0.250	15,92 0.627		2	MM1420		■		■	
MM12-12715-B90A30-M04	12,7 0.500	15,3 0.602	6,35 0.250	19,75 0.778	30,0	3	MM0416	✓				■
MM12-14014-B90S-E05	14,0 0.551	14,1 0.555	7,0 0.276	15,92 0.627		2	MM1420				■	

High feed



—For Torque keys and torque values, see page 787

Designation												Grades			
	DCX	DC	APMXS	RP	CCER	LF	RMPX°	C min	C max	ZEFP	Wrench	Coated			
												T60M	F15M	F30M	F40M
mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch									
MM12-12.60-HF-MD10	12,0 0.472	6,0 0.236	0,51 0.020	1,21 0.048	6,5 0.256	10,25 0.404	5,0	14,6	22,2	2	MM0612		■	■	

Universal

Steel and cast  
iron

Stainless steel  
and S-materials

Stainless steel  
and S-materials

Non ferrous

Hard

Graphite

X-Heads

Minimaster

MM12 – Slot and Side milling – Insert selection – mm/Inch

Universal	SMG		$a_p$				$f_z$					
				100%	40%	20%	10%					
Universal	P1	MM12-12015-R05A30-M04 F40M	2,5	0,055	0,060	0,070	0,095	0,10	0,0022	0,0024	0,0028	0,0038
			2,5	0,060	0,060	0,070	0,095	0,10	0,0024	0,0024	0,0028	0,0038
Steel and cast iron	P2	MM12-12015-R05A30-M04 F40M	2,5	0,055	0,055	0,070	0,090	0,10	0,0022	0,0022	0,0026	0,0036
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0036
Steel and cast iron	P3	MM12-12015-R05A30-M04 F40M	2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0036
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0036
Steel and cast iron	P4	MM12-12015-R05A30-M04 F40M	2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0036
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0036
Steel and cast iron	P5	MM12-12015-R05A30-M04 F40M	2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0036
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0036
Steel and cast iron	P6	MM12-12015-R05A30-M04 F40M	2,5	0,050	0,055	0,065	0,085	0,10	0,0020	0,0022	0,0026	0,0034
			2,5	0,050	0,055	0,065	0,085	0,10	0,0020	0,0022	0,0026	0,0034
Stainless steel and S-materials	P7	MM12-12015-R05A30-M04 F40M	2,5	0,050	0,055	0,065	0,085	0,10	0,0020	0,0022	0,0026	0,0034
			2,5	0,055	0,055	0,070	0,090	0,10	0,0020	0,0022	0,0026	0,0034
Stainless steel and S-materials	P8	MM12-12015-R05A30-M04 F40M	2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0028	0,0036
			2,5	0,050	0,055	0,065	0,085	0,10	0,0020	0,0022	0,0026	0,0034
Stainless steel and S-materials	P11	MM12-12015-R05A30-M04 F40M	2,5	0,050	0,055	0,065	0,085	0,10	0,0020	0,0022	0,0026	0,0034
			2,0	0,036	0,036	0,044	0,060	0,080	0,0014	0,0014	0,0017	0,0024
Stainless steel and S-materials	P12	MM12-12015-R05A30-M04 F40M	2,5	0,060	0,060	0,070	0,095	0,10	0,0024	0,0024	0,0028	0,0038
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
Non ferrous	M1	MM12-12015-R05A30-M04 F40M	2,5	0,060	0,060	0,070	0,095	0,10	0,0024	0,0024	0,0028	0,0038
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
Non ferrous	M2	MM12-12015-R05A30-M04 F40M	2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
			2,0	0,042	0,044	0,050	0,070	0,090	0,0017	0,0017	0,0020	0,0028
Non ferrous	M3	MM12-12015-R05A30-M04 F40M	1,6	0,038	0,038	0,046	0,060	0,080	0,0015	0,0015	0,0018	0,0024
			1,6	0,038	0,038	0,046	0,060	0,080	0,0015	0,0015	0,0018	0,0024
Non ferrous	M4	MM12-12015-R05A30-M04 F40M	0,065	0,0015	0,0015	0,0018	0,0024	0,032	0,0015	0,0015	0,0018	0,0024
			0,065	0,0015	0,0015	0,0018	0,0024	0,032	0,0015	0,0015	0,0018	0,0024
Non ferrous	M5	MM12-12015-R05A30-M04 F40M	1,6	0,038	0,038	0,046	0,060	0,080	0,0015	0,0015	0,0018	0,0024
			0,065	0,0015	0,0015	0,0018	0,0024	0,032	0,0015	0,0015	0,0018	0,0024
Hard	K1	MM12-12015-R10A30-E04 F30M	2,5	0,060	0,060	0,070	0,095	0,10	0,0024	0,0024	0,0028	0,0038
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
Hard	K2	MM12-12015-R10A30-E04 F30M	2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
Hard	K3	MM12-12015-R10A30-E04 F30M	2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
Hard	K4	MM12-12015-R10A30-E04 F30M	2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
			2,5	0,055	0,055	0,065	0,085	0,10	0,0022	0,0022	0,0026	0,0034
Hard	K5	MM12-12015-R15A30-D04 F30M	2,5	0,055	0,055	0,060	0,080	0,10	0,0022	0,0022	0,0024	0,0032
			2,5	0,060	0,060	0,065	0,090	0,10	0,0024	0,0024	0,0026	0,0036
Plastic and CFRP	K6	MM12-12015-R15A30-D04 F30M	2,5	0,060	0,060	0,065	0,090	0,10	0,0024	0,0024	0,0026	0,0036
			2,5	0,055	0,055	0,060	0,080	0,10	0,0022	0,0022	0,0024	0,0032
Plastic and CFRP	K7	MM12-12015-R15A30-D04 F30M	2,5	0,055	0,055	0,060	0,080	0,10	0,0022	0,0022	0,0024	0,0032
			2,5	0,080	0,080	0,090	0,12	0,10	0,0032	0,0032	0,0036	0,0048
Plastic and CFRP	N1	MM12-12015-R10A30-E04 F30M	2,5	0,080	0,080	0,090	0,12	0,10	0,0032	0,0032	0,0036	0,0048
			2,5	0,080	0,080	0,090	0,12	0,10	0,0032	0,0032	0,0036	0,0048
Plastic and CFRP	N2	MM12-12015-R10A30-E04 F30M	2,5	0,080	0,080	0,090	0,12	0,10	0,0032	0,0032	0,0036	0,0048
			2,5	0,080	0,080	0,090	0,12	0,10	0,0032	0,0032	0,0036	0,0048
Plastic and CFRP	N3	MM12-12015-R10A30-E04 F30M	2,5	0,080	0,080	0,090	0,12	0,10	0,0032	0,0032	0,0036	0,0048
			2,5	0,080	0,080	0,090	0,12	0,10	0,0032	0,0032	0,0036	0,0048
Graphite	N11	MM12-12015-R10A30-E04 F30M	2,5	0,080	0,080	0,090	0,12	0,10	0,0032	0,0032	0,0036	0,0048
			1,6	0,050	0,048	0,048	0,060	0,080	0,0032	0,0032	0,0036	0,0048
Graphite	S1	MM12-12015-R15A30-D04 F30M	0,065	0,0020	0,0019	0,0019	0,0026	0,032	0,0020	0,0019	0,0026	0,0034
			0,065	0,0020	0,0019	0,0019	0,0026	0,032	0,0020	0,0019	0,0026	0,0034
Graphite	S2	MM12-12015-R15A30-D04 F30M	1,6	0,050	0,048	0,048	0,060	0,080	0,0018	0,0017	0,0017	0,0024
			0,065	0,0020	0,0019	0,0019	0,0026	0,032	0,0020	0,0019	0,0026	0,0034
Graphite	S3	MM12-12015-R15A30-D04 F30M	1,6	0,046	0,044	0,044	0,055	0,075	0,0018	0,0017	0,0017	0,0024
			0,065	0,0018	0,0017	0,0017	0,0024	0,032	0,0018	0,0017	0,0017	0,0024
X-Heads	S11	MM12-12015-R05A30-M04 F40M	1,9	0,044	0,044	0,050	0,070	0,090	0,0017	0,0017	0,0020	0,0028
			0,075	0,0017	0,0017	0,0020	0,0028	0,032	0,0017	0,0017	0,0020	0,0028
X-Heads	S12	MM12-12015-R05A30-M04 F40M	1,9	0,044	0,044	0,050	0,070	0,090	0,0017	0,0017	0,0020	0,0028
			0,075	0,0017	0,0017	0,0020	0,0028	0,032	0,0017	0,0017	0,0020	0,0028
X-Heads	S13	MM12-12015-R05A30-M04 F40M	1,6	0,038	0,038	0,046	0,060	0,080	0,0015	0,0015	0,0018	0,0024
			0,065	0,0015	0,0015	0,0018	0,0024	0,032	0,0015	0,0015	0,0018	0,0024
X-Heads	H5	MM12-12015-R15A30-D04 F30M	2,0	0,044	0,042	0,046	0,060	0,080	0,0017	0,0017	0,0018	0,0024
			0,080	0,0017	0,0017	0,0018	0,0024	0,032	0,0017	0,0017	0,0018	0,0024
X-Heads	H8	MM12-12015-R15A30-D04 F30M	1,9	0,034	0,034	0,036	0,046	0,060	0,0013	0,0013	0,0014	0,0018
			0,075	0,0013	0,0013	0,0014	0,0018	0,032	0,0013	0,0013	0,0014	0,0018
X-Heads	H11	MM12-12015-R15A30-D04 F30M	2,0	0,044	0,042	0,046	0,060	0,080	0,0017	0,0017	0,0018	0,0024
			0,080	0,0017	0,0017	0,0018	0,0024	0,032	0,0017	0,0017	0,0018	0,0024
X-Heads	H12	MM12-12015-R15A30-D04 F30M	1,9	0,034	0,034	0,036	0,046	0,060	0,0013	0,0013	0,0014	0,0018
			0,075	0,0013	0,0013	0,0014	0,0018	0,032	0,0013	0,0013	0,0014	0,0018
X-Heads	H21	MM12-12015-R15A30-D04 F30M	1,9	0,034	0,034	0,036	0,046	0,060	0,0013	0,0013	0,0014	0,0018
			0,075	0,0013	0,0013	0,0014	0,0018	0,032	0,0013	0,0013	0,0014	0,0018

SMG = Seco material group  
 $f_z$  = mm/tooth (in/tooth),  $v_c$  = m/min (sf/min),  $a_e/DC$  = %  
 All cutting data are start values

MM12 - Slot and Side milling – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F30M				F40M				T60M				Material
	100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%	
P1	250	315	350	385	240	300	335	365	185	225	255	280	Universal
	820	1025	1150	1275	790	980	1100	1200	610	740	840	920	
P2	245	305	340	375	235	290	325	355	175	220	250	275	Steel and cast iron
	800	1000	1125	1225	770	950	1075	1175	570	720	820	900	
P3	210	265	295	325	200	250	280	310	155	195	215	235	Steel and cast iron
	690	870	970	1075	660	820	920	1025	510	640	710	770	
P4	190	235	260	285	180	225	250	270	135	170	190	210	Steel and cast iron
	620	770	850	940	590	740	820	890	445	560	620	690	
P5	180	225	250	275	170	215	240	260	130	160	180	200	Steel and cast iron
	590	740	820	900	560	710	790	850	425	520	590	660	
P6	205	250	280	310	195	240	270	295	150	185	205	225	Steel and cast iron
	670	820	920	1025	640	790	890	970	490	610	670	740	
P7	190	240	265	295	180	225	255	280	140	175	195	215	Stainless steel and S-materials
	620	790	870	970	590	740	840	920	460	570	640	710	
P8	175	220	245	275	170	210	235	260	130	160	180	200	Stainless steel and S-materials
	570	720	800	900	560	690	770	850	425	520	590	660	
P11	185	230	260	285	175	220	245	270	135	170	190	210	Stainless steel and S-materials
	610	750	850	940	570	720	800	890	445	560	620	690	
P12	115	145	165	180	110	140	155	170	85	110	120	130	Stainless steel and S-materials
	375	475	540	590	360	460	510	560	280	360	395	425	
M1	200	245	275	300	190	235	260	285	140	180	200	220	Stainless steel and S-materials
	660	800	900	980	620	770	850	940	460	590	660	720	
M2	160	200	225	245	155	195	215	235	120	145	165	180	Stainless steel and S-materials
	520	660	740	800	510	640	710	770	395	475	540	590	
M3	130	160	175	195	125	150	170	185	95	120	135	145	Stainless steel and S-materials
	425	520	570	640	410	490	560	610	310	395	445	475	
M4	100	125	140	150	95	115	130	145	75	90	100	110	Stainless steel and S-materials
	330	410	460	490	310	375	425	475	245	295	330	360	
M5	80	100	115	125	80	95	110	120	60	75	85	95	Non ferrous
	260	330	375	410	260	310	360	395	195	245	280	310	
K1	195	240	270	295	185	230	255	280	140	175	195	220	Non ferrous
	640	790	890	970	610	750	840	920	460	570	640	720	
K2	170	215	240	260	165	205	225	245	125	155	175	190	Non ferrous
	560	710	790	850	540	670	740	800	410	510	570	620	
K3	145	180	200	220	140	170	190	210	105	130	145	160	Non ferrous
	475	590	660	720	460	560	620	690	345	425	475	520	
K4	140	170	190	210	130	165	185	200	100	125	140	155	Hard
	460	560	620	690	425	540	610	660	330	410	460	510	
K5	85	105	115	125	80	100	110	120	60	75	85	95	Hard
	280	345	375	410	260	330	360	395	195	245	280	310	
K6	120	150	170	185	115	145	160	175	90	110	125	135	Hard
	395	490	560	610	375	475	520	570	295	360	410	445	
K7	105	135	150	165	100	125	140	155	80	100	110	120	Hard
	345	445	490	540	330	410	460	510	260	330	360	395	
N1	1450	1800	2025	2225	1375	1725	1925	2125	1050	1300	1450	1600	Graphite
	4750	5900	6650	7300	4500	5650	6325	6975	3450	4275	4750	5250	
N2	580	730	820	900	560	690	780	860	420	530	590	650	Graphite
	1900	2400	2700	2950	1825	2275	2550	2825	1375	1750	1925	2125	
N3	390	485	550	600	370	460	520	570	280	350	395	435	Graphite
	1275	1600	1800	1975	1225	1500	1700	1875	920	1150	1300	1425	
N11	445	550	620	690	425	530	590	650	320	405	450	495	Graphite
	1450	1800	2025	2275	1400	1750	1925	2125	1050	1325	1475	1625	
S1	46	55	65	70	44	55	60	65	34	43	47	50	X-Heads
	150	180	215	230	145	180	195	215	110	140	155	165	
S2	37	46	50	55	35	44	49	55	28	34	38	42	X-Heads
	120	150	165	180	115	145	160	180	90	110	125	140	
S3	32	40	45	50	31	38	43	47	24	30	33	37	X-Heads
	105	130	150	165	100	125	140	155	80	100	110	120	
S11	65	80	90	100	60	75	85	95	48	60	65	75	X-Heads
	215	260	295	330	195	245	280	310	155	195	215	245	
S12	45	55	60	70	43	55	60	65	33	41	47	50	X-Heads
	150	180	195	230	140	180	195	215	110	135	155	165	
S13	26	32	36	40	25	31	34	38	19	24	27	29	X-Heads
	85	105	120	130	80	100	110	125	60	80	90	95	
H5	39	49	55	60	37	46	50	55	29	36	40	44	Minimaster
	130	160	180	195	120	150	165	180	95	120	130	145	
H8	41	50	55	60	39	48	55	60	30	37	42	46	Minimaster
	135	165	180	195	130	155	180	195	100	120	140	150	
H11	49	60	70	75	47	60	65	70	37	46	50	55	Minimaster
	160	195	230	245	155	195	215	230	120	150	165	180	
H12	75	90	100	110	70	85	95	105	55	65	75	85	Minimaster
	245	295	330	360	230	280	310	345	180	215	245	280	
H21	41	50	55	60	39	48	55	60	30	37	42	46	Minimaster
	135	165	180	195	130	155	180	195	100	120	140	150	

MM12 Z3 – Copy milling – Insert selection – Roughing – mm/Inch

Material Group	SMG	a <sub>p</sub>	f <sub>z</sub>			
			100%	40%	20%	10%
Universal	P1	2,5	0,070	0,070	0,070	0,095
		0,10	0,0028	0,0028	0,0028	0,0038
Steel and cast iron	P2	2,5	0,070	0,070	0,075	0,095
		0,10	0,0028	0,0028	0,0030	0,0038
Stainless steel and S-materials	P3	2,5	0,070	0,065	0,070	0,090
		0,10	0,0028	0,0026	0,0028	0,0036
Non ferrous	P4	2,5	0,065	0,065	0,070	0,090
		0,10	0,0026	0,0026	0,0028	0,0036
Hard	P5	2,5	0,065	0,065	0,065	0,090
		0,10	0,0026	0,0026	0,0026	0,0036
Plastic and CFRP	P6	2,5	0,065	0,065	0,065	0,085
		0,10	0,0026	0,0026	0,0026	0,0034
Graphite	P7	2,5	0,065	0,065	0,065	0,085
		0,10	0,0026	0,0026	0,0026	0,0034
X-Heads	P8	2,5	0,070	0,065	0,070	0,090
		0,10	0,0028	0,0026	0,0028	0,0036
Minimaster	P11	2,5	0,065	0,065	0,065	0,085
		0,10	0,0026	0,0026	0,0026	0,0034
Universal	P12	2,0	0,046	0,044	0,046	0,060
		0,080	0,0018	0,0017	0,0018	0,0024
Steel and cast iron	M1	2,5	0,070	0,070	0,075	0,095
		0,10	0,0028	0,0028	0,0030	0,0038
Stainless steel and S-materials	M2	2,5	0,065	0,065	0,065	0,090
		0,10	0,0026	0,0026	0,0026	0,0036
Non ferrous	M3	2,0	0,055	0,055	0,055	0,070
		0,080	0,0022	0,0022	0,0022	0,0028
Hard	M4	1,6	0,050	0,048	0,048	0,060
		0,065	0,0020	0,0019	0,0019	0,0026
Plastic and CFRP	M5	1,6	0,050	0,048	0,048	0,060
		0,065	0,0020	0,0019	0,0019	0,0026
Graphite	K1	2,5	0,070	0,070	0,075	0,095
		0,10	0,0028	0,0028	0,0030	0,0038
X-Heads	K2	2,5	0,065	0,065	0,065	0,090
		0,10	0,0026	0,0026	0,0026	0,0036
Universal	K3	2,5	0,065	0,065	0,065	0,090
		0,10	0,0026	0,0026	0,0026	0,0036
Steel and cast iron	K4	2,5	0,065	0,065	0,065	0,090
		0,10	0,0026	0,0026	0,0026	0,0036
Stainless steel and S-materials	K5	2,5	0,060	0,055	0,060	0,080
		0,10	0,0024	0,0022	0,0024	0,0032
Non ferrous	K6	2,5	0,065	0,065	0,065	0,090
		0,10	0,0026	0,0026	0,0026	0,0036
Hard	K7	2,5	0,060	0,055	0,060	0,080
		0,10	0,0024	0,0022	0,0024	0,0032
Plastic and CFRP	N1	2,5	0,090	0,090	0,095	0,12
		0,10	0,0036	0,0036	0,0038	0,0048
Graphite	N2	2,5	0,090	0,090	0,095	0,12
		0,10	0,0036	0,0036	0,0038	0,0048
X-Heads	N3	2,5	0,090	0,090	0,095	0,12
		0,10	0,0036	0,0036	0,0038	0,0048
Universal	N11	2,5	0,090	0,090	0,095	0,12
		0,10	0,0036	0,0036	0,0038	0,0048
Steel and cast iron	S1	1,6	0,050	0,048	0,048	0,060
		0,065	0,0020	0,0019	0,0019	0,0026
Stainless steel and S-materials	S2	1,6	0,050	0,048	0,048	0,060
		0,065	0,0020	0,0019	0,0019	0,0026
Non ferrous	S3	1,6	0,046	0,046	0,046	0,055
		0,065	0,0018	0,0018	0,0018	0,0024
Hard	S11	1,9	0,055	0,055	0,055	0,070
		0,075	0,0022	0,0022	0,0022	0,0028
Plastic and CFRP	S12	1,9	0,055	0,055	0,055	0,070
		0,075	0,0022	0,0022	0,0022	0,0028
Graphite	S13	1,6	0,050	0,048	0,048	0,060
		0,065	0,0020	0,0019	0,0019	0,0026
X-Heads	H5	2,0	0,046	0,044	0,046	0,060
		0,080	0,0018	0,0017	0,0018	0,0024
Universal	H8	1,9	0,036	0,036	0,036	0,046
		0,075	0,0014	0,0014	0,0014	0,0018
Steel and cast iron	H11	2,0	0,046	0,044	0,046	0,060
		0,080	0,0018	0,0017	0,0018	0,0024
Stainless steel and S-materials	H12	1,9	0,036	0,036	0,036	0,046
		0,075	0,0014	0,0014	0,0014	0,0018
Non ferrous	H21	1,9	0,036	0,036	0,036	0,046
		0,075	0,0014	0,0014	0,0014	0,0018

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM12 Z3 – Copy milling – Insert selection – Finishing – mm/Inch

SMG		$a_p$		$f_z$				
				15%	10%	5%	2%	
P1	MM12-12015-B90A30-E04 F30M	2,5	0,080	0,095	0,13	0,22	Universal	
		0.10	0.0032	0.0038	0.0050	0.0085		
P2	MM12-12015-B90A30-E04 F30M	2,5	0,080	0,095	0,13	0,22	Steel and cast iron	
		0.10	0.0032	0.0038	0.0050	0.0085		
P3	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,13	0,20	Steel and cast iron	
		0.10	0.0030	0.0036	0.0050	0.0080		
P4	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,12	0,20	Steel and cast iron	
		0.10	0.0030	0.0036	0.0048	0.0080		
P5	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,12	0,20	Steel and cast iron	
		0.10	0.0030	0.0036	0.0048	0.0080		
P6	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,085	0,12	0,19	Steel and cast iron	
		0.10	0.0030	0.0034	0.0048	0.0075		
P7	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,085	0,12	0,19	Stainless steel and S-materials	
		0.10	0.0030	0.0034	0.0048	0.0075		
P8	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,13	0,20	Stainless steel and S-materials	
		0.10	0.0030	0.0036	0.0050	0.0080		
P11	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,085	0,12	0,19	Stainless steel and S-materials	
		0.10	0.0030	0.0034	0.0048	0.0075		
P12	MM12-12015-B90A30-E04 F30M	2,0	0,050	0,060	0,080	0,13	Stainless steel and S-materials	
		0.080	0.0020	0.0024	0.0032	0.0050		
M1	MM12-12015-B90A30-E04 F30M	2,5	0,080	0,095	0,13	0,22	Stainless steel and S-materials	
		0.10	0.0032	0.0038	0.0050	0.0085		
M2	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,12	0,20	Stainless steel and S-materials	
		0.10	0.0030	0.0036	0.0048	0.0080		
M3	MM12-12015-B90A30-E04 F30M	2,0	0,060	0,070	0,095	0,16	Stainless steel and S-materials	
		0.080	0.0024	0.0028	0.0038	0.0065		
M4	MM12-12015-B90A30-E04 F30M	1,6	0,055	0,060	0,085	0,14	Stainless steel and S-materials	
		0.065	0.0022	0.0026	0.0034	0.0055		
M5	MM12-12015-B90A30-E04 F30M	1,6	0,055	0,060	0,085	0,14	Stainless steel and S-materials	
		0.065	0.0022	0.0026	0.0034	0.0055		
K1	MM12-12015-B90A30-E04 F30M	2,5	0,080	0,095	0,13	0,22	Non ferrous	
		0.10	0.0032	0.0038	0.0050	0.0085		
K2	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,12	0,20	Non ferrous	
		0.10	0.0030	0.0036	0.0048	0.0080		
K3	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,12	0,20	Non ferrous	
		0.10	0.0030	0.0036	0.0048	0.0080		
K4	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,12	0,20	Non ferrous	
		0.10	0.0030	0.0036	0.0048	0.0080		
K5	MM12-12015-B90A30-E04 F30M	2,5	0,065	0,080	0,11	0,18	Non ferrous	
		0.10	0.0026	0.0032	0.0044	0.0070		
K6	MM12-12015-B90A30-E04 F30M	2,5	0,075	0,090	0,12	0,20	Non ferrous	
		0.10	0.0030	0.0036	0.0048	0.0080		
K7	MM12-12015-B90A30-E04 F30M	2,5	0,065	0,080	0,11	0,18	Non ferrous	
		0.10	0.0026	0.0032	0.0044	0.0070		
N1	MM12-12015-B90A30-E04 F30M	2,5	0,10	0,12	0,17	0,28	Hard	
		0.10	0.0040	0.0048	0.0065	0.011		
N2	MM12-12015-B90A30-E04 F30M	2,5	0,10	0,12	0,17	0,28	Hard	
		0.10	0.0040	0.0048	0.0065	0.011		
N3	MM12-12015-B90A30-E04 F30M	2,5	0,10	0,12	0,17	0,28	Hard	
		0.10	0.0040	0.0048	0.0065	0.011		
N11	MM12-12015-B90A30-E04 F30M	2,5	0,10	0,12	0,17	0,28	Hard	
		0.10	0.0040	0.0048	0.0065	0.011		
S1	MM12-12015-B90A30-E04 F30M	1,6	0,055	0,060	0,085	0,14	Graphite	
		0.065	0.0022	0.0026	0.0034	0.0055		
S2	MM12-12015-B90A30-E04 F30M	1,6	0,055	0,060	0,085	0,14	Graphite	
		0.065	0.0022	0.0026	0.0034	0.0055		
S3	MM12-12015-B90A30-E04 F30M	1,6	0,050	0,055	0,080	0,13	Graphite	
		0.065	0.0020	0.0024	0.0032	0.0050		
S11	MM12-12015-B90A30-E04 F30M	1,9	0,060	0,070	0,095	0,16	Graphite	
		0.075	0.0024	0.0028	0.0038	0.0065		
S12	MM12-12015-B90A30-E04 F30M	1,9	0,060	0,070	0,095	0,16	Graphite	
		0.075	0.0024	0.0028	0.0038	0.0065		
S13	MM12-12015-B90A30-E04 F30M	1,6	0,055	0,060	0,085	0,14	Graphite	
		0.065	0.0022	0.0026	0.0034	0.0055		
H5	MM12-12015-B90A30-E04 F30M	2,0	0,050	0,060	0,080	0,13	X-Heads	
		0.080	0.0020	0.0024	0.0032	0.0050		
H8	MM12-12015-B90A30-E04 F30M	1,9	0,040	0,046	0,065	0,10	X-Heads	
		0.075	0.0016	0.0018	0.0026	0.0040		
H11	MM12-12015-B90A30-E04 F30M	2,0	0,050	0,060	0,080	0,13	X-Heads	
		0.080	0.0020	0.0024	0.0032	0.0050		
H12	MM12-12015-B90A30-E04 F30M	1,9	0,040	0,046	0,065	0,10	X-Heads	
		0.075	0.0016	0.0018	0.0026	0.0040		
H21	MM12-12015-B90A30-E04 F30M	1,9	0,040	0,046	0,065	0,10	Minimaster	
		0.075	0.0016	0.0018	0.0026	0.0040		

SMG = Seco material group  
 $f_z$  = mm/tooth (in/tooth),  $v_c$  = m/min (sf/min),  $a_e/DC$  = %  
 All cutting data are start values

MM12 Z3 – Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

	SMG	F30M					F40M				
		100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
Universal	P1	270	315	335	365	360	255	300	320	345	340
		890	1025	1100	1200	1175	840	980	1050	1125	1125
Steel and cast iron	P2	265	305	325	355	350	250	290	310	335	330
		870	1000	1075	1175	1150	820	950	1025	1100	1075
Stainless steel and S-materials	P3	225	265	285	305	305	215	255	270	290	290
		740	870	940	1000	1000	710	840	890	950	950
Non ferrous	P4	200	235	250	270	270	190	225	235	260	255
		660	770	820	890	890	620	740	770	850	840
Hard	P5	195	225	240	260	255	185	215	225	245	245
		640	740	790	850	840	610	710	740	800	800
Plastic and cfrp	P6	215	255	270	290	290	205	240	255	275	275
		710	840	890	950	950	670	790	840	900	900
Graphite	P7	205	240	255	275	275	195	230	240	260	260
		670	790	840	900	900	640	750	790	850	850
X-Heads	P8	190	225	240	255	255	180	215	225	245	245
		620	740	790	840	840	590	710	740	800	800
Minimaster	P11	200	235	245	265	265	190	220	235	255	255
		660	770	800	870	870	620	720	770	840	840
Universal	P12	125	150	155	170	165	120	140	145	160	160
		410	490	510	560	540	395	460	490	520	520
Steel and cast iron	M1	210	245	265	285	280	200	235	250	270	270
		690	800	870	940	920	660	770	820	890	890
Non ferrous	M2	175	205	215	235	230	165	195	205	220	220
		570	670	710	770	750	540	640	670	720	720
Hard	M3	140	165	170	185	185	130	155	160	175	175
		460	540	560	610	610	425	510	540	570	570
Plastic and cfrp	M4	100	130	130	140	140	95	125	125	135	135
		330	425	460	460	460	310	410	425	445	445
Graphite	M5	80	110	110	115	115	80	105	105	110	110
		260	360	375	375	375	260	345	360	360	360
X-Heads	K1	210	240	260	280	275	200	230	245	265	265
		690	790	850	920	900	660	750	800	870	870
Universal	K2	185	215	225	245	245	175	205	215	235	230
		610	710	740	800	800	570	670	710	770	750
Steel and cast iron	K3	155	180	190	210	205	145	175	180	200	195
		510	590	620	690	670	475	570	590	660	640
Non ferrous	K4	150	175	180	200	195	140	165	175	190	185
		490	570	590	660	640	460	540	570	620	610
Hard	K5	90	105	110	120	120	85	100	105	115	115
		295	345	360	395	395	280	330	345	375	375
Plastic and cfrp	K6	130	155	160	175	175	125	145	155	165	165
		425	510	520	570	570	410	475	510	540	540
Graphite	K7	115	135	140	155	155	110	125	135	145	145
		375	445	460	510	510	360	410	445	475	475
Universal	N1	1575	1825	1950	2100	2100	1500	1750	1850	2000	2000
		5175	6000	6400	6900	6900	4925	5750	6075	6550	6550
Steel and cast iron	N2	640	740	790	850	840	610	700	750	810	800
		2100	2425	2600	2800	2750	2000	2300	2450	2650	2625
Non ferrous	N3	425	495	530	570	560	405	470	500	540	540
		1400	1625	1750	1875	1825	1325	1550	1650	1775	1775
Hard	N11	485	560	600	650	640	460	540	570	620	610
		1600	1825	1975	2125	2100	1500	1775	1875	2025	2000
X-Heads	S1	46	60	60	65	65	44	60	60	65	60
		150	195	215	215	215	145	195	195	215	195
Universal	S2	37	50	49	55	55	35	47	47	50	50
		120	165	165	180	180	115	155	165	165	165
Steel and cast iron	S3	32	43	43	46	46	31	41	41	44	44
		105	140	150	150	150	100	135	140	145	145
Non ferrous	S11	70	85	85	95	90	65	80	80	90	90
		230	280	295	310	295	215	260	280	295	295
Hard	S12	48	60	60	65	65	46	55	55	60	60
		155	195	195	215	215	150	180	195	195	195
Plastic and cfrp	S13	26	35	34	37	37	25	33	33	35	35
		85	115	120	120	120	80	110	115	115	115
Universal	H5	42	50	50	55	55	40	47	49	55	55
		140	165	165	180	180	130	155	160	180	180
Steel and cast iron	H8	42	55	55	55	55	40	50	50	55	55
		140	180	180	180	180	130	165	165	180	180
Non ferrous	H11	55	65	65	70	70	50	60	60	65	65
		180	215	215	230	230	165	195	195	215	215
Hard	H12	75	95	95	105	105	75	90	90	100	100
		245	310	330	345	345	245	295	310	330	330
Plastic and cfrp	H21	42	55	55	55	55	40	50	50	55	55
		140	180	180	180	180	130	165	165	180	180

MM12 Z2 – Copy milling – Insert selection – Roughing – mm/Inch

SMG		$a_p$		$f_z$				
				100%	40%	20%	10%	
P1	MM12-12012-B90S-E05 F30M	5,0	0,075	0,080	0,090	0,12	Universal	
		0.20	0.0030	0.0032	0.0036	0.0048		
P2	MM12-12012-B90S-E05 F30M	5,0	0,080	0,080	0,090	0,12	Steel and cast iron	
		0.20	0.0032	0.0032	0.0036	0.0048		
P3	MM12-12012-B90S-E05 F30M	5,0	0,075	0,075	0,085	0,11	Steel and cast iron	
		0.20	0.0030	0.0030	0.0034	0.0044		
P4	MM12-12012-B90-MD05 F30M	5,0	0,075	0,075	0,085	0,11	Steel and cast iron	
		0.20	0.0030	0.0030	0.0034	0.0044		
P5	MM12-12012-B90-MD05 F30M	5,0	0,070	0,070	0,085	0,11	Steel and cast iron	
		0.20	0.0028	0.0028	0.0034	0.0044		
P6	MM12-12012-B90-MD05 F30M	5,0	0,070	0,070	0,080	0,11	Steel and cast iron	
		0.20	0.0028	0.0028	0.0032	0.0044		
P7	MM12-12012-B90-MD05 F30M	5,0	0,070	0,070	0,080	0,11	Steel and cast iron	
		0.20	0.0028	0.0028	0.0032	0.0044		
P8	MM12-12012-B90-MD05 F30M	5,0	0,075	0,075	0,085	0,11	Stainless steel and S-materials	
		0.20	0.0030	0.0030	0.0034	0.0044		
P11	MM12-12012-B90-MD05 F30M	5,0	0,070	0,070	0,080	0,11	Stainless steel and S-materials	
		0.20	0.0028	0.0028	0.0032	0.0044		
P12	MM12-12012-B90-MD05 F30M	4,0	0,050	0,050	0,060	0,075	Stainless steel and S-materials	
		0.16	0.0020	0.0020	0.0024	0.0030		
M1	MM12-12012-B90S-E05 F30M	5,0	0,080	0,080	0,090	0,12	Stainless steel and S-materials	
		0.20	0.0032	0.0032	0.0036	0.0048		
M2	MM12-12012-B90S-E05 F30M	5,0	0,070	0,070	0,085	0,11	Stainless steel and S-materials	
		0.20	0.0028	0.0028	0.0034	0.0044		
M3	MM12-12012-B90S-E05 F30M	4,0	0,060	0,060	0,070	0,090	Stainless steel and S-materials	
		0.16	0.0024	0.0024	0.0028	0.0036		
M4	MM12-12012-B90-MD05 F30M	3,0	0,055	0,055	0,060	0,075	Stainless steel and S-materials	
		0.12	0.0022	0.0022	0.0024	0.0032		
M5	MM12-12012-B90-MD05 F30M	3,0	0,055	0,055	0,060	0,075	Stainless steel and S-materials	
		0.12	0.0022	0.0022	0.0024	0.0032		
K1	MM12-12012-B90S-E05 F30M	5,0	0,080	0,080	0,090	0,12	Non ferrous	
		0.20	0.0032	0.0032	0.0036	0.0048		
K2	MM12-12012-B90S-E05 F30M	5,0	0,070	0,070	0,085	0,11	Non ferrous	
		0.20	0.0028	0.0028	0.0034	0.0044		
K3	MM12-12012-B90S-E05 F30M	5,0	0,070	0,070	0,085	0,11	Non ferrous	
		0.20	0.0028	0.0028	0.0034	0.0044		
K4	MM12-12012-B90S-E05 F30M	5,0	0,070	0,070	0,085	0,11	Non ferrous	
		0.20	0.0028	0.0028	0.0034	0.0044		
K5	MM12-12012-B90-MD05 F30M	5,0	0,065	0,065	0,075	0,10	Non ferrous	
		0.20	0.0026	0.0026	0.0030	0.0040		
K6	MM12-12012-B90-MD05 F30M	5,0	0,070	0,070	0,085	0,11	Non ferrous	
		0.20	0.0028	0.0028	0.0034	0.0044		
K7	MM12-12012-B90-MD05 F30M	5,0	0,065	0,065	0,075	0,10	Non ferrous	
		0.20	0.0026	0.0026	0.0030	0.0040		
N1	MM12-12012-B90S-E05 F30M	5,0	0,10	0,10	0,12	0,15	Hard	
		0.20	0.0040	0.0040	0.0048	0.0060		
N2	MM12-12012-B90S-E05 F30M	5,0	0,10	0,10	0,12	0,15	Hard	
		0.20	0.0040	0.0040	0.0048	0.0060		
N3	MM12-12012-B90S-E05 F30M	5,0	0,10	0,10	0,12	0,15	Hard	
		0.20	0.0040	0.0040	0.0048	0.0060		
N11	MM12-12012-B90S-E05 F30M	5,0	0,10	0,10	0,12	0,15	Hard	
		0.20	0.0040	0.0040	0.0048	0.0060		
S1	MM12-12012-B90-MD05 F30M	3,0	0,055	0,055	0,060	0,075	Graphite	
		0.12	0.0022	0.0022	0.0024	0.0032		
S2	MM12-12012-B90-MD05 F30M	3,0	0,055	0,055	0,060	0,075	Graphite	
		0.12	0.0022	0.0022	0.0024	0.0032		
S3	MM12-12012-B90-MD05 F30M	3,0	0,050	0,050	0,055	0,070	Graphite	
		0.12	0.0020	0.0020	0.0022	0.0030		
S11	MM12-12012-B90-MD05 F30M	3,5	0,060	0,060	0,070	0,090	Graphite	
		0.14	0.0024	0.0024	0.0028	0.0036		
S12	MM12-12012-B90-MD05 F30M	3,5	0,060	0,060	0,070	0,090	Graphite	
		0.14	0.0024	0.0024	0.0028	0.0036		
S13	MM12-12012-B90-MD05 F30M	3,0	0,055	0,055	0,060	0,075	X-Heads	
		0.12	0.0022	0.0022	0.0024	0.0032		
H5	MM12-12012-B90-MD05 F30M	4,0	0,050	0,050	0,060	0,075	X-Heads	
		0.16	0.0020	0.0020	0.0024	0.0030		
H8	MM12-12012-B90-MD05 F30M	3,5	0,040	0,040	0,044	0,055	X-Heads	
		0.14	0.0016	0.0016	0.0017	0.0024		
H11	MM12-12012-B90-MD05 F30M	4,0	0,050	0,050	0,060	0,075	X-Heads	
		0.16	0.0020	0.0020	0.0024	0.0030		
H12	MM12-12012-B90-MD05 F30M	3,5	0,040	0,040	0,044	0,055	X-Heads	
		0.14	0.0016	0.0016	0.0017	0.0024		
H21	MM12-12012-B90-MD05 F30M	3,5	0,040	0,040	0,044	0,055	Minimaster	
		0.14	0.0016	0.0016	0.0017	0.0024		

SMG = Seco material group  
 $f_z$  = mm/tooth (in/tooth),  $v_c$  = m/min (sf/min),  $a_e/DC$  = %  
 All cutting data are start values

MM12 Z2 – Copy milling – Insert selection – Finishing – mm/Inch

Material Group	SMG	Material	$a_p$		$f_z$			
			4.0	0.16	15%	10%	5%	2%
Universal	P1	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.040	0.048	0.065	0.11
	P2	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.042	0.048	0.070	0.11
Steel and cast iron	P3	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.040	0.046	0.065	0.10
	P4	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.046	0.065	0.10
	P5	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	P6	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	P7	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	P8	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
Stainless steel and S-materials	P11	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	P12	MM12-12012-B90PF-M02 F15M	3.5	0.14	0.026	0.030	0.042	0.065
Non ferrous	M1	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.042	0.048	0.070	0.11
	M2	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	M3	MM12-12012-B90PF-M02 F15M	3.5	0.14	0.030	0.036	0.050	0.075
	M4	MM12-12012-B90PF-M02 F15M	2.5	0.10	0.028	0.032	0.042	0.065
	M5	MM12-12012-B90PF-M02 F15M	2.5	0.10	0.028	0.032	0.042	0.065
Hard	K1	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.042	0.048	0.070	0.11
	K2	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	K3	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	K4	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	K5	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.034	0.040	0.055	0.085
	K6	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
	K7	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.038	0.044	0.060	0.095
Plastic and CFRP	N1	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.055	0.060	0.085	0.14
	N2	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.055	0.060	0.085	0.14
	N3	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.055	0.060	0.085	0.14
Graphite	N11	MM12-12012-B90PF-M02 F15M	4.0	0.16	0.055	0.060	0.085	0.14
	S1	MM12-12012-B90PF-M02 F15M	2.5	0.10	0.028	0.032	0.042	0.065
	S2	MM12-12012-B90PF-M02 F15M	2.5	0.10	0.028	0.032	0.042	0.065
X-Heads	S3	MM12-12012-B90PF-M02 F15M	2.5	0.10	0.025	0.028	0.040	0.065
	S11	MM12-12012-B90PF-M02 F15M	3.0	0.12	0.030	0.036	0.050	0.075
	S12	MM12-12012-B90PF-M02 F15M	3.0	0.12	0.030	0.036	0.050	0.075
	S13	MM12-12012-B90PF-M02 F15M	2.5	0.10	0.028	0.032	0.042	0.065
	H5	MM12-12012-B90PF-M02 F15M	3.5	0.14	0.026	0.030	0.042	0.065
	H8	MM12-12012-B90PF-M02 F15M	3.0	0.12	0.020	0.024	0.032	0.050
Minimaster	H11	MM12-12012-B90PF-M02 F15M	3.5	0.14	0.026	0.030	0.042	0.065
	H12	MM12-12012-B90PF-M02 F15M	3.0	0.12	0.020	0.024	0.032	0.050
	H21	MM12-12012-B90PF-M02 F15M	3.0	0.12	0.020	0.024	0.032	0.050
	H21	MM12-12012-B90PF-M02 F15M	3.0	0.12	0.020	0.024	0.032	0.050

SMG = Seco material group  
 $f_z$  = mm/tooth (in/tooth),  $v_c$  = m/min (sf/min),  $a_e/DC$  = %  
 All cutting data are start values

MM12 Z2 – Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F15M					F30M					T60M					
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	
P1	310	390	410	445	440	240	300	325	350	345	195	240	265	285	280	Universal
	1025	1275	1350	1450	1450	790	980	1075	1150	1125	640	790	870	940	920	
P2	300	380	400	430	430	230	290	315	340	340	185	235	255	275	275	Steel and cast iron
	980	1250	1300	1400	1400	750	950	1025	1125	1125	610	770	840	900	900	
P3	260	330	345	370	370	200	255	275	295	295	160	205	225	240	240	Steel and cast iron
	850	1075	1125	1225	1225	660	840	900	970	970	520	670	740	790	790	
P4	230	290	305	325	330	175	225	245	260	260	145	180	195	210	210	Steel and cast iron
	750	950	1000	1075	1075	570	740	800	850	850	475	590	640	690	690	
P5	220	275	290	315	315	170	215	235	255	250	140	170	190	205	200	Steel and cast iron
	720	900	950	1025	1025	560	710	770	840	820	460	560	620	670	660	
P6	245	310	325	355	355	190	240	260	285	280	155	195	210	230	225	Steel and cast iron
	800	1025	1075	1175	1175	620	790	850	940	920	510	640	690	750	740	
P7	230	295	310	335	335	180	230	245	270	265	145	185	200	215	215	Stainless steel and S-materials
	750	970	1025	1100	1100	590	750	800	890	870	475	610	660	710	710	
P8	215	275	290	310	315	170	215	235	250	250	135	170	190	200	200	Stainless steel and S-materials
	710	900	950	1025	1025	560	710	770	820	820	445	560	620	660	660	
P11	225	285	300	325	325	175	220	240	260	255	140	180	195	210	210	Stainless steel and S-materials
	740	940	980	1075	1075	570	720	790	850	840	460	590	640	690	690	
P12	140	180	180	195	200	115	145	150	165	160	95	120	120	135	130	Stainless steel and S-materials
	460	590	610	640	660	375	475	510	540	520	310	395	410	445	425	
M1	240	305	320	345	345	185	235	255	275	270	150	190	205	225	220	Stainless steel and S-materials
	790	1000	1050	1125	1125	610	770	840	900	890	490	620	670	740	720	
M2	195	250	260	285	285	155	190	210	225	225	125	155	170	185	180	Stainless steel and S-materials
	640	820	850	940	940	510	620	690	740	740	410	510	560	610	590	
M3	155	200	205	220	220	125	160	165	180	180	100	130	135	145	145	Stainless steel and S-materials
	510	660	670	720	720	410	520	560	590	590	330	425	445	475	475	
M4	120	155	155	165	165	100	130	130	135	140	80	105	105	110	110	Stainless steel and S-materials
	395	510	540	540	540	330	425	445	445	460	260	345	360	360	360	
M5	100	130	130	140	140	85	110	105	115	115	70	85	85	95	95	Non ferrous
	330	425	460	460	460	280	360	375	375	375	230	280	295	310	310	
K1	235	300	315	340	340	180	230	250	270	270	145	185	205	220	215	Non ferrous
	770	980	1025	1125	1125	590	750	820	890	890	475	610	670	720	710	
K2	205	265	275	300	300	160	200	220	240	235	130	165	180	195	190	Non ferrous
	670	870	900	980	980	520	660	720	790	770	425	540	590	640	620	
K3	175	225	235	255	255	135	170	185	205	200	110	140	150	165	165	Non ferrous
	570	740	770	840	840	445	560	610	670	660	360	460	490	540	540	
K4	165	215	225	240	240	130	165	180	195	190	105	130	145	155	155	Non ferrous
	540	710	740	790	790	425	540	590	640	620	345	425	475	510	510	
K5	100	130	135	145	145	80	100	110	115	115	65	80	85	95	95	Hard
	330	425	445	475	475	260	330	360	375	375	215	260	280	310	310	
K6	145	185	195	215	215	115	145	155	170	170	95	115	125	140	135	Hard
	475	610	640	710	710	375	475	510	560	560	310	375	410	460	445	
K7	130	165	170	185	185	100	125	140	150	150	80	105	110	120	120	Hard
	425	540	560	610	610	330	410	460	490	490	260	345	360	395	395	
N1	1825	2300	2425	2625	2600	1375	1725	1900	2025	2000	1100	1400	1525	1650	1625	Graphite
	6000	7550	7950	8600	8525	4500	5650	6225	6650	6550	3600	4600	5000	5425	5325	
N2	730	930	980	1050	1050	550	690	760	820	810	450	560	620	660	660	Graphite
	2400	3050	3225	3450	3450	1800	2275	2500	2700	2650	1475	1825	2025	2175	2175	
N3	490	620	650	710	700	370	465	510	550	540	300	375	410	440	440	Graphite
	1600	2025	2125	2325	2300	1225	1525	1675	1800	1775	980	1225	1350	1450	1450	
N11	560	710	750	810	800	425	530	580	620	620	340	430	470	500	500	Graphite
	1825	2325	2450	2650	2625	1400	1750	1900	2025	2025	1125	1400	1550	1650	1650	
S1	55	70	70	80	80	47	60	60	65	65	38	49	48	50	50	X-Heads
	180	230	260	260	260	155	195	215	215	215	125	160	165	165	165	
S2	45	60	60	65	65	38	49	48	50	50	31	39	39	42	42	X-Heads
	150	195	215	215	215	125	160	165	165	165	100	130	135	140	140	
S3	39	50	50	55	55	33	43	42	45	45	27	34	34	37	36	X-Heads
	130	165	180	180	180	110	140	145	150	150	90	110	120	120	120	
S11	80	105	105	110	110	65	85	85	90	90	55	70	70	75	75	X-Heads
	260	345	360	360	360	215	280	280	295	295	180	230	230	245	245	
S12	55	70	70	75	75	45	60	60	65	60	37	47	47	50	50	X-Heads
	180	230	245	245	245	150	195	195	215	195	120	155	160	165	165	
S13	32	41	40	44	44	26	34	34	36	36	21	28	27	29	29	X-Heads
	105	135	145	145	145	85	110	120	120	120	70	90	95	95	95	
H5	46	60	60	65	65	38	48	50	55	55	31	39	41	44	44	Minimaster
	150	195	195	215	215	125	155	165	180	180	100	130	135	145	145	
H8	48	60	60	65	65	40	50	50	55	55	33	42	42	46	45	Minimaster
	155	195	215	215	215	130	165	180	180	180	110	140	140	150	150	
H11	60	75	75	85	85	49	60	65	70	70	39	50	50	55	55	Minimaster
	195	245	260	280	280	160	195	215	230	230	130	165	165	180	180	
H12	85	110	110	120	120	70	95	95	100	100	60	75	75	80	80	Minimaster
	280	360	375	395	395	230	310	310	330	330	195	245	260	260	260	
H21	48	60	60	65	65	40	50	50	55	55	33	42	42	46	45	Minimaster
	155	195	215	215	215	130	165	180	180	180	110	140	140	150	150	

MM12 High-Feed – Insert selection – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>			
			100%	70%	30%	20%
Universal	P1	0,36 0.014	0,55 0.022	0,55 0.022	0,75 0.030	0,95 0.038
	P2	0,36 0.014	0,55 0.022	0,60 0.024	0,75 0.030	0,95 0.038
Steel and cast iron	P3	0,36 0.014	0,55 0.022	0,55 0.022	0,70 0.028	0,90 0.036
	P4	0,36 0.014	0,55 0.022	0,55 0.022	0,70 0.028	0,90 0.036
Stainless steel and S-materials	P5	0,36 0.014	0,50 0.020	0,55 0.022	0,70 0.028	0,85 0.034
	P6	0,36 0.014	0,50 0.020	0,50 0.020	0,70 0.028	0,85 0.034
Non ferrous	P7	0,36 0.014	0,50 0.020	0,50 0.020	0,70 0.028	0,85 0.034
	P8	0,36 0.014	0,55 0.022	0,55 0.022	0,70 0.028	0,90 0.036
Hard	P11	0,36 0.014	0,50 0.020	0,50 0.020	0,70 0.028	0,85 0.034
	P12	0,28 0.011	0,36 0.014	0,36 0.014	0,46 0.018	0,55 0.022
Plastic and cfrp	M1	0,36 0.014	0,55 0.022	0,60 0.024	0,75 0.030	0,95 0.038
	M2	0,36 0.014	0,50 0.020	0,55 0.022	0,70 0.028	0,85 0.034
Graphite	M3	0,28 0.011	0,42 0.017	0,42 0.017	0,55 0.022	0,65 0.026
	M4	0,22 0.0085	0,36 0.014	0,36 0.014	0,48 0.019	0,60 0.024
X-Heads	M5	0,22 0.0085	0,36 0.014	0,36 0.014	0,48 0.019	0,60 0.024
	K1	0,36 0.014	0,55 0.022	0,60 0.024	0,75 0.030	0,95 0.038
Minimaster	K2	0,36 0.014	0,50 0.020	0,55 0.022	0,70 0.028	0,85 0.034
	K3	0,36 0.014	0,50 0.020	0,55 0.022	0,70 0.028	0,85 0.034
Universal	K4	0,36 0.014	0,50 0.020	0,55 0.022	0,70 0.028	0,85 0.034
	K5	0,36 0.014	0,48 0.019	0,48 0.019	0,60 0.024	0,75 0.030
Steel and cast iron	K6	0,36 0.014	0,50 0.020	0,55 0.022	0,70 0.028	0,85 0.034
	K7	0,36 0.014	0,48 0.019	0,48 0.019	0,60 0.024	0,75 0.030
Stainless steel and S-materials	N1	0,36 0.014	0,75 0.030	0,75 0.030	1,0 0.040	1,3 0.050
	N2	0,36 0.014	0,75 0.030	0,75 0.030	1,0 0.040	1,3 0.050
Non ferrous	N3	0,36 0.014	0,75 0.030	0,75 0.030	1,0 0.040	1,3 0.050
	N11	0,36 0.014	0,75 0.030	0,75 0.030	1,0 0.040	1,3 0.050
Hard	S1	0,22 0.0085	0,36 0.014	0,36 0.014	0,48 0.019	0,60 0.024
	S2	0,22 0.0085	0,36 0.014	0,36 0.014	0,48 0.019	0,60 0.024
Plastic and cfrp	S3	0,22 0.0085	0,34 0.013	0,34 0.013	0,44 0.017	0,55 0.022
	S11	0,25 0.010	0,42 0.017	0,42 0.017	0,55 0.022	0,65 0.026
Graphite	S12	0,25 0.010	0,42 0.017	0,42 0.017	0,55 0.022	0,65 0.026
	S13	0,22 0.0085	0,36 0.014	0,36 0.014	0,48 0.019	0,60 0.024
X-Heads	H5	0,28 0.011	0,36 0.014	0,36 0.014	0,46 0.018	0,55 0.022
	H8	0,25 0.010	0,28 0.011	0,28 0.011	0,36 0.014	0,42 0.017
Minimaster	H11	0,28 0.011	0,36 0.014	0,36 0.014	0,46 0.018	0,55 0.022
	H12	0,25 0.010	0,28 0.011	0,28 0.011	0,36 0.014	0,42 0.017
Universal	H21	0,25 0.010	0,28 0.011	0,28 0.011	0,36 0.014	0,42 0.017

SMG = Seco material group  
f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
All cutting data are start values

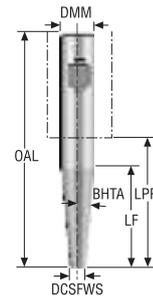
MM12 High-Feed – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F15M				F30M				
	100%	70%	30%	20%	100%	70%	30%	20%	
P1	—	—	—	—	225	275	315	330	Universal
	—	—	—	—	740	900	1025	1075	
P2	—	—	—	—	220	265	310	320	Steel and cast iron
	—	—	—	—	720	870	1025	1050	
P3	—	—	—	—	190	230	270	280	Steel and cast iron
	—	—	—	—	620	750	890	920	
P4	—	—	—	—	165	205	235	245	Steel and cast iron
	—	—	—	—	540	670	770	800	
P5	—	—	—	—	165	195	225	240	Steel and cast iron
	—	—	—	—	540	640	740	790	
P6	—	—	—	—	185	225	255	270	Stainless steel and S-materials
	—	—	—	—	610	740	840	890	
P7	—	—	—	—	170	210	240	255	Stainless steel and S-materials
	—	—	—	—	560	690	790	840	
P8	—	—	—	—	160	195	225	235	Stainless steel and S-materials
	—	—	—	—	520	640	740	770	
P11	—	—	—	—	165	205	235	245	Stainless steel and S-materials
	—	—	—	—	540	670	770	800	
P12	—	—	—	—	110	130	150	160	Stainless steel and S-materials
	—	—	—	—	360	425	490	520	
M1	—	—	—	—	175	215	250	260	Stainless steel and S-materials
	—	—	—	—	570	710	820	850	
M2	—	—	—	—	145	175	205	215	Stainless steel and S-materials
	—	—	—	—	475	570	670	710	
M3	—	—	—	—	120	140	165	175	Stainless steel and S-materials
	—	—	—	—	395	460	540	570	
M4	—	—	—	—	95	110	125	130	Non ferrous
	—	—	—	—	310	360	410	425	
M5	—	—	—	—	80	90	105	110	Non ferrous
	—	—	—	—	260	295	345	360	
K1	185	225	260	275	175	210	245	255	Non ferrous
	610	740	850	900	570	690	800	840	
K2	165	200	230	245	155	185	215	225	Non ferrous
	540	660	750	800	510	610	710	740	
K3	140	170	195	205	130	155	180	190	Non ferrous
	460	560	640	670	425	510	590	620	
K4	135	160	185	195	125	150	175	185	Hard
	445	520	610	640	410	490	570	610	
K5	80	100	115	120	75	90	105	110	Hard
	260	330	375	395	245	295	345	360	
K6	120	140	165	175	110	130	155	160	Hard
	395	460	540	570	360	425	510	520	
K7	105	125	145	155	95	115	135	145	Hard
	345	410	475	510	310	375	445	475	
N1	—	—	—	—	1275	1575	1800	1875	Graphite
	—	—	—	—	4175	5175	5900	6150	
N2	—	—	—	—	520	630	730	750	Graphite
	—	—	—	—	1700	2075	2400	2450	
N3	—	—	—	—	345	420	485	500	Graphite
	—	—	—	—	1125	1375	1600	1650	
N11	—	—	—	—	395	480	550	570	Graphite
	—	—	—	—	1300	1575	1800	1875	
S1	—	—	—	—	44	50	60	60	X-Heads
	—	—	—	—	145	165	195	195	
S2	—	—	—	—	35	41	47	50	X-Heads
	—	—	—	—	115	135	155	165	
S3	—	—	—	—	31	36	42	44	X-Heads
	—	—	—	—	100	120	140	145	
S11	—	—	—	—	60	70	85	90	X-Heads
	—	—	—	—	195	230	280	295	
S12	—	—	—	—	42	50	55	60	X-Heads
	—	—	—	—	140	165	180	195	
S13	—	—	—	—	25	29	33	35	X-Heads
	—	—	—	—	80	95	110	115	
H5	39	46	55	55	36	43	50	55	Minimaster
	130	150	180	180	120	140	165	180	
H8	41	49	55	60	38	45	50	55	Minimaster
	135	160	180	195	125	150	165	180	
H11	49	60	70	70	46	55	65	65	Minimaster
	160	195	230	230	150	180	215	215	
H12	75	90	100	105	70	80	95	100	Minimaster
	245	295	330	345	230	260	310	330	
H21	41	49	55	60	38	45	50	55	Minimaster
	135	160	180	195	125	150	165	180	

## Shank design

Universal	Design 1, Keyway shank	Design 2, Cylindrical/Weldon back end and 90° front
Steel and cast iron		
Stainless steel and S-materials		
Non ferrous	Design 3, Cylindrical/Weldon back end tapered front 87°/89°	Design 4, Cylindrical/Weldon back end tapered front 80°/85°/87°
Hard		
Plastic and cfrp	Design 5, Cylindrical back end double tapered front end 89°/85°	
Graphite		
X-Heads		

MM16 Shank – Metric



Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		mm	mm	mm	mm	mm					kg	
MM16-16070.0-0011M	00023547	15,2	16,0	11,3	22,0	70,0	0,0	2	■	63600	0,1	1
MM16-16150.0-0080DS	02580692	15,2	16,0	80,0	102,0	150,0	0,0	2	■	47600	0,4	2
MM16-20115.3-3045	75014109	15,2	20,0	45,8	65,0	115,0	3,0	4	■	63600	0,2	3
MM16-20070.0-0000	00023548	15,2	20,0	0,0	20,0	70,0	60,0	1	■	63600	0,2	1
MM16-20190.0-1055M	00094766	15,2	20,0	55,0	140,0	190,0	1,0	3	■	63600	0,4	5
MM16-20190.0-1075M	00094768	15,2	20,0	75,0	140,0	190,0	1,0	3	■	63600	0,4	5
MM16-20190.0-1095M	00094770	15,2	20,0	95,0	140,0	190,0	1,0	3	■	63600	0,4	6
MM16-20080.0-0011DS	02580669	15,2	20,0	11,3	30,0	80,0	0,0	2	■	47600	0,3	2
MM16-20150.0-0038DS	02580695	15,2	20,0	38,0	100,0	150,0	0,0	2	■	47600	0,6	2
MM16-20160.0-0076DS	02580699	15,2	20,0	76,0	110,0	160,0	0,0	2	■	47600	0,6	2
MM16-20130.0-1045DS	02580757	15,2	20,0	45,0	80,0	130,0	1,0	3	■	47600	0,5	2
MM16-20190.0-1075DS	02580758	15,2	20,0	75,0	140,0	190,0	1,0	3	■	47600	0,8	2
MM16-20190.0-1095DS	02580760	15,2	20,0	95,0	140,0	190,0	1,0	3	■	47600	0,8	2
MM16-25100.3-0019	75012790	15,2	25,0	19,0	40,0	100,0	0,0	2	■	63600	0,3	3
MM16-25115.3-3035	75012791	15,2	25,0	35,0	59,0	115,0	3,0	3	■	63600	0,3	3
MM16-25170.3-5056	75012792	15,2	25,0	56,0	114,0	170,0	5,0	4	■	63600	0,6	4
MM16-25170.0-1060	00094767	19,0	25,0	60,0	114,0	170,0	1,0	3	■	63600	0,5	5
MM16-25250.0-1075DS	02580761	15,2	25,0	75,0	194,0	250,0	1,0	5	■	47600	1,5	2
MM16-32250.0-10047	75069368	15,2	32,0	47,6	190,0	250,0	10,0	4	■	63600	1,3	4

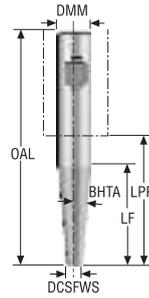
Spare Parts, included in delivery

For cutter	Sleeve	Tension screw
1	MM-10030	MM16-1045
2	-	MM16-1045
3	MM-10062	MM16-1045
4	MM-10132	MM16-1045
5	MM-10062	MM16-1093
6	MM-10062	MM16-10113

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

MM16 Shank – Inch



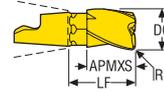
Designation	Item number	DCSFWS	DMM	LF	LPR	OAL	BHTA°	Design	CSP	RPMX	Weight	Spare part no.
		inch	inch	inch	inch	inch					lbs	
MM16-0.62-2.8-0M-0004	00037209	0.598	0.625	0.445	0.866	2.756	0,0	2	■	63600	0.220	1
MM16-0.75-4.5-3-3018	75054603	0.598	0.750	1.445	2.559	4.528	3,0	3	■	63600	0.440	4
MM16-0.75-2.8-0-0000	00037175	0.598	0.750	0	0.787	2.756	60,0	1	■	63600	0.440	1
MM16-0.75-7.5-0-1021	75054731	0.598	0.750	2.165	5.512	7.480	1,0	3	■	63600	0.660	6
MM16-0.75-7.5-0-1037	75054733	0.598	0.750	3.740	5.512	7.480	1,0	3	■	63600	0.880	7
MM16-0.75-7.5-0-1029DS	02567719	0.598	0.750	2.953	5.512	7.480	1,0	3	■	47600	1.760	3
MM16-0.75-7.5-0-1037DS	02593431	0.598	0.750	3.740	5.512	7.480	1,0	3	■	47600	1.540	3
MM16-1.00-3.9-3-0007	75015058	0.598	1.000	0.748	1.732	3.937	0,0	2	■	63600	0.660	4
MM16-1.00-4.5-3-3013	75015059	0.598	1.000	1.378	2.323	4.528	3,0	3	■	63600	0.660	4
MM16-1.00-6.7-3-5022	75015060	0.598	1.000	2.295	4.488	6.693	5,0	4	■	63600	1.320	5
MM16-1.00-5.9-0-0015DS	02593433	0.598	1.000	1.496	3.701	5.906	0,0	2	■	47600	2.200	3
MM16-1.00-6.3-0-0030DS	02593434	0.598	1.000	2.992	4.094	6.299	0,0	2	■	47600	1.980	3

Spare Parts, included in delivery

For cutter	Sleeve	Tension screw
1	MM-10030	MM16-1045
3	-	MM16-1045
4	MM-10062	MM16-1045
5	MM-10132	MM16-1045
6	MM-10062	MM16-1093
7	MM-10062	MM16-10113

Allen key H05-4 for sleeve to be ordered separately.  
For wrench types, see insert pages

Slot milling/square shoulder milling

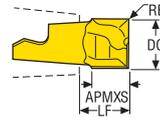


—For Torque keys and torque values, see page 787

Designation	DC	APMXS	RE	LF	RMPX°	C min	C max	FHA°	ZEFP	Wrench		Grades			
												Coated			
												T60M	F15M	F30M	F40M
	mm Inch	mm Inch	mm Inch	mm Inch											
MM16-15719-R03A30-M06	15,7 0.618	19,05 0.750	0,3 0.012	24,5 0.965	15,0	19,0	30,6	30	3	MM0416	✓				■
MM16-15919-R08A30-M06	15,875 0.625	19,05 0.750	0,8 0.031	24,5 0.965	15,0	19,2	29,9	30	3	MM0416	✓				■
MM16-16019-A30-E06	16,0 0.630	19,05 0.750	–	24,5 0.965	15,0	19,4	31,8	30	3	MM0416	✓			■	
MM16-16019-R05A30-M06	16,0 0.630	19,05 0.750	0,5 0.020	24,5 0.965	15,0	19,4	30,8	30	3	MM0416	✓				■
MM16-16019-R10A30-E06	16,0 0.630	19,05 0.750	1,0 0.039	24,5 0.965	15,0	19,4	29,8	30	3	MM0416	✓			■	
MM16-16019-R10A30-M06	16,0 0.630	19,05 0.750	1,0 0.039	24,5 0.965	15,0	19,4	29,8	30	3	MM0416	✓				■
MM16-16019-R20A30-M06	16,0 0.630	19,05 0.750	2,0 0.079	24,5 0.965	15,0	19,4	27,8	30	3	MM0416	✓				■
MM16-16019-R30A30-E06	16,0 0.630	19,05 0.750	3,0 0.118	24,5 0.965	15,0	19,4	25,8	30	3	MM0416	✓			■	
MM16-16019-R30A30-M06	16,0 0.630	19,05 0.750	3,0 0.118	24,5 0.965	15,0	19,4	25,8	30	3	MM0416	✓				■
MM16-16019-R40A30-M06	16,0 0.630	19,05 0.750	4,0 0.157	24,5 0.965	15,0	19,4	23,8	30	3	MM0416	✓				■
MM16-16019-R50A30-M06	16,0 0.630	19,05 0.750	5,0 0.197	24,5 0.965	15,0	19,4	21,8	30	3	MM0416	✓				■
MM16-16019-R60A30-M06	16,0 0.630	19,05 0.750	6,0 0.236	24,5 0.965	15,0	19,4	19,8	30	3	MM0416	✓				■
MM16-20015-A30-E06	20,0 0.787	15,0 0.591	–	20,15 0.793	15,0	24,2	39,8	30	3	MM0416	✓			■	
MM16-20015-R05A30-M06	20,0 0.787	15,0 0.591	0,5 0.020	20,15 0.793	15,0	24,2	38,8	30	3	MM0416	✓				■
MM16-20015-R10A30-M06	20,0 0.787	15,0 0.591	1,0 0.039	20,15 0.793	15,0	24,2	37,8	30	3	MM0416	✓				■
MM16-20015-R20A30-D06	20,0 0.787	15,0 0.591	2,0 0.079	20,15 0.793	15,0	24,2	35,8	30	3	MM0416	✓			■	
MM16-20015-R30A30-M06	20,0 0.787	15,0 0.591	3,0 0.118	20,15 0.793	15,0	24,2	33,8	30	3	MM0416	✓				■
MM16-20015-R50A30-M06	20,0 0.787	15,0 0.591	5,0 0.197	20,15 0.793	15,0	24,2	29,8	30	3	MM0416	✓				■

Universal  
 Steel and cast iron  
 Stainless steel and S-materials  
 Stainless steel and S-materials  
 Non ferrous  
 Hard  
 Graphite  
 X-Heads  
 Minimaster

Slot milling/square shoulder milling



Universal

Steel and cast iron

Stainless steel and S-materials

—For Torque keys and torque values, see page 787

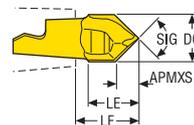
Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LF mm Inch	RMPX°	C min	C max	FHA°	ZEFP	Wrench	Grades			
											Coated			
											T60M	F15M	F30M	F40M
MM16-15711T-R03-D07	15,7 0.618	11,0 0.433	0,3 0.012	13,6 0.535	15,0	19,0	30,6	0	2	MM1420	■			
MM16-16011-M06	16,0 0.630	11,0 0.433	–	13,6 0.535	15,0	19,4	31,8	0	2	MM1420	■			
MM16-16011-R08A8-E06	16,0 0.630	10,5 0.413	0,8 0.031	13,62 0.536	15,0	19,4	30,2	8	2	MM1420	■		■	
MM16-16011-R08-MD07	16,0 0.630	11,0 0.433	0,8 0.031	13,58 0.535	15,0	19,4	30,2	0	2	MM1420	■		■	
MM16-16011-R08P-M05	16,0 0.630	10,8 0.425	0,8 0.031	13,41 0.528	15,0	19,4	30,2	0	2	MM1420			■	
MM16-16011-R20-MD07	16,0 0.630	10,9 0.429	2,0 0.079	13,55 0.533	15,0	19,4	27,8	0	2	MM1420			■	
MM16-16011-R30-MD07	16,0 0.630	10,9 0.429	3,0 0.118	13,54 0.533	15,0	19,4	25,8	0	2	MM1420			■	
MM16-16011-R40-MD07	16,0 0.630	10,9 0.429	4,0 0.157	13,52 0.532	15,0	19,4	23,8	0	2	MM1420	■			
MM16-16011-R50-MD07	16,0 0.630	10,9 0.429	5,0 0.197	13,5 0.531	15,0	19,4	21,8	0	2	MM1420	■			
MM16-19013-R08A8-E06	19,05 0.750	12,7 0.500	0,8 0.031	15,39 0.606	15,0	23,1	36,3	8	2	MM1420			■	
MM16-20013-R08A8-E06	20,0 0.787	12,7 0.500	0,8 0.031	15,42 0.607	15,0	24,2	38,2	8	2	MM1420	■		■	

Non ferrous

Hard

Plastic and cfrrp

Centre drilling



Graphite

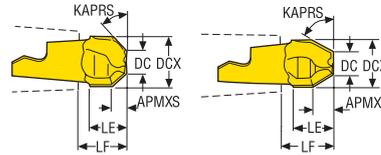
X-Heads

—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LF mm Inch	SIG°	ZEFP	Wrench	Grades			
								Coated			
								T60M	F15M	F30M	F40M
MM16-16008-C90-M06	16,0 0.630	7,53 0.296	–	19,2 0.756	90,0	2	MM1420	■			
MM16-16011-C120-M06	16,0 0.630	4,3 0.169	–	18,9 0.744	120,0	2	MM1420	■			
MM16-19019-C90	19,05 0.750	9,6 0.378	–	22,15 0.872	90,0	2	MM1420	■			

Minimaster

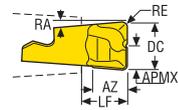
### Chamfering



—For Torque keys and torque values, see page 787

Designation	DCX	DC	APMXS	RE	LE	LF	KAPRS°	ZEFP	Wrench	Grades			
										Coated			
										T60M	F15M	F30M	F40M
MM16-16011-4540-E06	16,0 0.630	7,69 0.303	3,9 0.154	0,4 0.016	10,9 0.429	13,25 0.522	45,0	2	MM1420	■			
MM16-16012-6060-E06	16,0 0.630	8,38 0.330	6,7 0.264	0,5 0.020	12,9 0.508	15,3 0.602	60,0	2	MM1420	■			

### Plunge milling



—For Torque keys and torque values, see page 787

Designation	DC	APMXE	RE	AZ	LF	RA°	ZEFP	Wrench	Grades			
									Coated			
									T60M	F15M	F30M	F40M
MM16-16011-R10-PL-MD07	16,0 0.630	8,0 0.315	1,0 0.039	11,3 0.445	11,3 0.445	5,0	2	MM1420			■	
MM16-16011-R20-PL-MD07	16,0 0.630	8,0 0.315	2,0 0.079	11,3 0.445	11,3 0.445	5,0	2	MM1420			■	

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

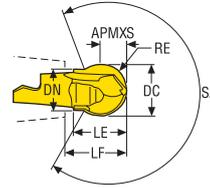
Hard

Graphite

X-Heads

Minimaster

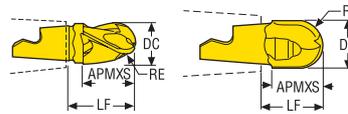
Precision inserts for semi-finishing in all materials



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LE mm Inch	DN mm Inch	LF mm Inch	SA°	ZEFP	Wrench	Grades			
										T60M	F15M	F30M	F40M
MM16-20020-B120PF-M04	20,0 0.787	10,0 0.394	10,0 0.394	20,0 0.787	15,9 0.626	21,94 0.864	254,0	2	MM1420		■		
MM16-20020-B120P-M07	20,0 0.787	10,0 0.394	10,0 0.394	20,0 0.787	15,9 0.626	21,94 0.864	254,0	2	MM1420			■	

Copy milling



—For Torque keys and torque values, see page 787

Designation	DC mm Inch	APMXS mm Inch	RE mm Inch	LF mm Inch	FHA°	ZEFP	Wrench		Grades			
									T60M	F15M	F30M	F40M
MM16-15916-B90P-M07	15,875 0.625	13,8 0.543	7,938 0.313	18,4 0.724		2	MM1420			■		
MM16-16016-B90-MD07	16,0 0.630	16,2 0.638	8,0 0.315	18,4 0.724		2	MM1420		■		■	
MM16-16016-B90PF-M03	16,0 0.630	13,8 0.543	8,0 0.315	18,4 0.724		2	MM1420			■		
MM16-16016-B90P-M07	16,0 0.630	13,8 0.543	8,0 0.315	18,4 0.724		2	MM1420				■	
MM16-16019-B90A30-E06	16,0 0.630	19,0 0.748	8,0 0.315	24,5 0.965	30,0	3	MM0416	✓			■	
MM16-16019-B90A30-M06	16,0 0.630	19,0 0.748	8,0 0.315	24,5 0.965	30,0	3	MM0416	✓				■
MM16-19020-B90P-M07	19,05 0.750	17,4 0.685	9,525 0.375	22,12 0.871		2	MM1420		■			
MM16-20015-B90A30-E06	20,0 0.787	15,0 0.591	10,0 0.394	20,15 0.793	30,0	3	MM0416	✓			■	
MM16-20015-B90A30-M06	20,0 0.787	15,0 0.591	10,0 0.394	20,15 0.793	30,0	3	MM0416	✓				■
MM16-20020-B90-MD07	20,0 0.787	20,3 0.799	10,0 0.394	22,15 0.872		2	MM1420		■		■	
MM16-20020-B90P-M07	20,0 0.787	17,4 0.685	10,0 0.394	22,12 0.871		2	MM1420				■	

MM16 – Slot and Side milling – Insert selection – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>			
			100%	40%	20%	10%
P1	MM16-16019-R05A30-M06 F40M	3,5	0,085	0,085	0,11	0,14
		0.14	0.0034	0.0034	0.0044	0.0055
P2	MM16-16019-R05A30-M06 F40M	3,5	0,085	0,090	0,11	0,14
		0.14	0.0034	0.0036	0.0044	0.0055
P3	MM16-16019-R05A30-M06 F40M	3,5	0,080	0,085	0,10	0,14
		0.14	0.0032	0.0034	0.0040	0.0055
P4	MM16-16019-R05A30-M06 F40M	3,5	0,080	0,080	0,10	0,13
		0.14	0.0032	0.0032	0.0040	0.0050
P5	MM16-16019-R05A30-M06 F40M	3,5	0,080	0,080	0,10	0,13
		0.14	0.0032	0.0032	0.0040	0.0050
P6	MM16-16019-R05A30-M06 F40M	3,5	0,080	0,080	0,095	0,13
		0.14	0.0032	0.0032	0.0038	0.0050
P7	MM16-16019-R05A30-M06 F40M	3,5	0,080	0,080	0,095	0,13
		0.14	0.0032	0.0032	0.0038	0.0050
P8	MM16-16019-R05A30-M06 F40M	3,5	0,080	0,085	0,10	0,14
		0.14	0.0032	0.0034	0.0040	0.0055
P11	MM16-16019-R05A30-M06 F40M	3,5	0,080	0,080	0,095	0,13
		0.14	0.0032	0.0032	0.0038	0.0050
P12	MM16-16019-R05A30-M06 F40M	2,5	0,055	0,055	0,065	0,090
		0.10	0.0022	0.0022	0.0026	0.0036
M1	MM16-16019-R05A30-M06 F40M	3,5	0,085	0,090	0,11	0,14
		0.14	0.0034	0.0036	0.0044	0.0055
M2	MM16-16019-R05A30-M06 F40M	3,5	0,080	0,080	0,10	0,13
		0.14	0.0032	0.0032	0.0040	0.0050
M3	MM16-16019-R05A30-M06 F40M	2,5	0,065	0,065	0,080	0,10
		0.10	0.0026	0.0026	0.0032	0.0040
M4	MM16-16019-R05A30-M06 F40M	2,0	0,055	0,055	0,070	0,090
		0.080	0.0022	0.0022	0.0028	0.0036
M5	MM16-16019-R05A30-M06 F40M	2,0	0,055	0,055	0,070	0,090
		0.080	0.0022	0.0022	0.0028	0.0036
K1	MM16-16019-R10A30-E06 F30M	3,5	0,090	0,090	0,11	0,14
		0.14	0.0036	0.0036	0.0044	0.0055
K2	MM16-16019-R10A30-E06 F30M	3,5	0,080	0,080	0,10	0,13
		0.14	0.0032	0.0032	0.0040	0.0050
K3	MM16-16019-R10A30-E06 F30M	3,5	0,080	0,080	0,10	0,13
		0.14	0.0032	0.0032	0.0040	0.0050
K4	MM16-16019-R10A30-E06 F30M	3,5	0,080	0,080	0,10	0,13
		0.14	0.0032	0.0032	0.0040	0.0050
K5	MM16-16019-R10A30-M06 F40M	3,5	0,075	0,075	0,090	0,12
		0.14	0.0030	0.0030	0.0036	0.0048
K6	MM16-16019-R10A30-M06 F40M	3,5	0,080	0,080	0,10	0,13
		0.14	0.0032	0.0032	0.0040	0.0050
K7	MM16-16019-R10A30-M06 F40M	3,5	0,075	0,075	0,090	0,12
		0.14	0.0030	0.0030	0.0036	0.0048
N1	MM16-16019-R10A30-E06 F30M	3,5	0,11	0,11	0,14	0,18
		0.14	0.0044	0.0044	0.0055	0.0070
N2	MM16-16019-R10A30-E06 F30M	3,5	0,11	0,11	0,14	0,18
		0.14	0.0044	0.0044	0.0055	0.0070
N3	MM16-16019-R10A30-E06 F30M	3,5	0,11	0,11	0,14	0,18
		0.14	0.0044	0.0044	0.0055	0.0070
N11	MM16-16019-R10A30-E06 F30M	3,5	0,11	0,11	0,14	0,18
		0.14	0.0044	0.0044	0.0055	0.0070
S1	MM16-16019-R05A30-M06 F40M	2,0	0,055	0,055	0,070	0,090
		0.080	0.0022	0.0022	0.0028	0.0036
S2	MM16-16019-R05A30-M06 F40M	2,0	0,055	0,055	0,070	0,090
		0.080	0.0022	0.0022	0.0028	0.0036
S3	MM16-16019-R05A30-M06 F40M	2,0	0,050	0,055	0,065	0,085
		0.080	0.0020	0.0022	0.0026	0.0034
S11	MM16-16019-R05A30-M06 F40M	2,5	0,065	0,065	0,080	0,10
		0.10	0.0026	0.0026	0.0032	0.0040
S12	MM16-16019-R05A30-M06 F40M	2,5	0,065	0,065	0,080	0,10
		0.10	0.0026	0.0026	0.0032	0.0040
S13	MM16-16019-R05A30-M06 F40M	2,0	0,055	0,055	0,070	0,090
		0.080	0.0022	0.0022	0.0028	0.0036
H5	MM16-16019-R10A30-E06 F30M	2,5	0,055	0,055	0,065	0,090
		0.10	0.0022	0.0022	0.0026	0.0036
H8	MM16-16019-R10A30-E06 F30M	2,5	0,044	0,044	0,050	0,070
		0.10	0.0017	0.0017	0.0020	0.0028
H11	MM16-16019-R10A30-E06 F30M	2,5	0,055	0,055	0,065	0,090
		0.10	0.0022	0.0022	0.0026	0.0036
H12	MM16-16019-R10A30-E06 F30M	2,5	0,044	0,044	0,050	0,070
		0.10	0.0017	0.0017	0.0020	0.0028
H21	MM16-16019-R10A30-E06 F30M	2,5	0,044	0,044	0,050	0,070
		0.10	0.0017	0.0017	0.0020	0.0028

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

MM16 – Slot and Side milling – Cutting data  $v_c = (m/min)/(sf/min)$

Material	SMG	F30M				F40M				T60M			
		100%	40%	20%	10%	100%	40%	20%	10%	100%	40%	20%	10%
Universal	P1	230	285	315	350	215	270	300	335	200	250	275	310
		750	940	1025	1150	710	890	980	1100	660	820	900	1025
Steel and cast iron	P2	220	275	310	345	210	260	290	325	195	240	270	295
		720	900	1025	1125	690	850	950	1075	640	790	890	970
Stainless steel and S-materials	P3	195	240	270	295	185	225	255	280	170	210	235	260
		640	790	890	970	610	740	840	920	560	690	770	850
Non ferrous	P4	170	215	240	265	160	205	225	250	150	185	205	225
		560	710	790	870	520	670	740	820	490	610	670	740
Hard	P5	165	205	230	250	155	195	215	240	140	175	200	220
		540	670	750	820	510	640	710	790	460	570	660	720
Plastic and cfrp	P6	185	230	260	285	175	215	245	270	160	200	220	245
		610	750	850	940	570	710	800	890	520	660	720	800
Graphite	P7	175	220	245	265	165	205	230	255	150	190	210	235
		570	720	800	870	540	670	750	840	490	620	690	770
X-Heads	P8	160	205	230	250	155	190	215	235	140	175	200	215
		520	670	750	820	510	620	710	770	460	570	660	710
Minimaster	P11	170	210	235	260	160	200	225	245	145	185	205	225
		560	690	770	850	520	660	740	800	475	610	670	740
Universal	P12	110	135	150	165	105	130	145	155	95	120	130	145
		360	445	490	540	345	425	475	510	310	395	425	475
Steel and cast iron	M1	180	225	250	275	170	210	235	260	155	190	215	240
		590	740	820	900	560	690	770	850	510	620	710	790
Non ferrous	M2	150	185	205	225	140	175	195	215	125	160	180	200
		490	610	670	740	460	570	640	710	410	520	590	660
Hard	M3	120	150	165	180	110	140	155	175	105	130	145	155
		395	490	540	590	360	460	510	570	345	425	475	510
Plastic and cfrp	M4	90	115	130	140	85	110	120	135	80	100	110	120
		295	375	425	460	280	360	395	445	260	330	360	395
Universal	M5	75	95	105	115	75	90	100	110	65	85	95	100
		245	310	345	375	245	295	330	360	215	280	310	330
Steel and cast iron	K1	175	220	245	270	165	205	230	260	150	190	210	235
		570	720	800	890	540	670	750	850	490	620	690	770
Non ferrous	K2	155	195	215	240	145	185	205	225	135	170	190	210
		510	640	710	790	475	610	670	740	445	560	620	690
Hard	K3	130	165	185	205	125	155	175	190	115	145	160	175
		425	540	610	670	410	510	570	620	375	475	520	570
Plastic and cfrp	K4	125	160	175	195	120	150	165	185	110	135	150	170
		410	520	570	640	395	490	540	610	360	445	490	560
Universal	K5	75	95	105	115	75	90	100	110	65	80	95	100
		245	310	345	375	245	295	330	360	215	260	310	330
Steel and cast iron	K6	110	140	155	170	105	130	145	160	95	120	135	150
		360	460	510	560	345	425	475	520	310	395	445	490
Non ferrous	K7	100	120	135	150	95	115	130	140	85	105	120	130
		330	395	445	490	310	375	425	460	280	345	395	425
Hard	N1	1325	1650	1825	2025	1225	1550	1725	1925	1125	1425	1575	1750
		4350	5425	6000	6650	4025	5075	5650	6325	3700	4675	5175	5750
Plastic and cfrp	N2	530	670	730	820	500	630	690	770	455	570	640	700
		1750	2200	2400	2700	1650	2075	2275	2525	1500	1875	2100	2300
Universal	N3	355	445	490	540	335	420	465	520	305	385	425	470
		1175	1450	1600	1775	1100	1375	1525	1700	1000	1275	1400	1550
Steel and cast iron	N11	405	510	560	620	380	475	530	590	345	435	485	540
		1325	1675	1825	2025	1250	1550	1750	1925	1125	1425	1600	1775
Non ferrous	S1	43	55	60	65	41	50	55	60	38	46	50	55
		140	180	195	215	135	165	180	195	125	150	165	180
Hard	S2	35	43	48	55	33	41	45	50	30	37	42	46
		115	140	155	180	110	135	150	165	100	120	140	150
Plastic and cfrp	S3	30	38	42	46	29	35	40	44	27	33	37	40
		100	125	140	150	95	115	130	145	90	110	120	130
Universal	S11	60	75	85	90	55	70	80	90	50	65	75	80
		195	245	280	295	180	230	260	295	165	215	245	260
Steel and cast iron	S12	42	50	60	65	39	49	55	60	36	45	50	55
		140	165	195	215	130	160	180	195	120	150	165	180
Non ferrous	S13	24	30	34	37	23	29	32	35	21	26	29	32
		80	100	110	120	75	95	105	115	70	85	95	105
Hard	H5	36	45	50	55	34	43	48	50	31	39	44	48
		120	150	165	180	110	140	155	165	100	130	145	155
Plastic and cfrp	H8	38	47	55	60	36	45	50	55	33	41	46	50
		125	155	180	195	120	150	165	180	110	135	150	165
Universal	H11	46	60	65	70	43	55	60	65	40	50	55	60
		150	195	215	230	140	180	195	215	130	165	180	195
Steel and cast iron	H12	70	85	95	105	65	80	90	100	60	75	85	90
		230	280	310	345	215	260	295	330	195	245	280	295
Non ferrous	H21	38	47	55	60	36	45	50	55	33	41	46	50
		125	155	180	195	120	150	165	180	110	135	150	165

MM16 Z3 – Copy milling – Insert selection – Roughing – mm/Inch

SMG		a <sub>p</sub>	f <sub>z</sub>			
			100%	40%	20%	10%
P1	MM16-16019-B90A30-M06 F40M	3,5	0,11	0,10	0,11	0,14
		0.14	0.0044	0.0040	0.0044	0.0055
P2	MM16-16019-B90A30-M06 F40M	3,5	0,11	0,10	0,11	0,15
		0.14	0.0044	0.0040	0.0044	0.0060
P3	MM16-16019-B90A30-M06 F40M	3,5	0,10	0,10	0,10	0,14
		0.14	0.0040	0.0040	0.0040	0.0055
P4	MM16-16019-B90A30-M06 F40M	3,5	0,10	0,095	0,10	0,13
		0.14	0.0040	0.0038	0.0040	0.0050
P5	MM16-16019-B90A30-M06 F40M	3,5	0,10	0,095	0,10	0,13
		0.14	0.0040	0.0038	0.0040	0.0050
P6	MM16-16019-B90A30-M06 F40M	3,5	0,095	0,095	0,10	0,13
		0.14	0.0038	0.0038	0.0040	0.0050
P7	MM16-16019-B90A30-M06 F40M	3,5	0,095	0,095	0,10	0,13
		0.14	0.0038	0.0038	0.0040	0.0050
P8	MM16-16019-B90A30-M06 F40M	3,5	0,10	0,10	0,10	0,14
		0.14	0.0040	0.0040	0.0040	0.0055
P11	MM16-16019-B90A30-M06 F40M	3,5	0,095	0,095	0,10	0,13
		0.14	0.0038	0.0038	0.0040	0.0050
P12	MM16-16019-B90A30-M06 F40M	2,5	0,070	0,070	0,070	0,090
		0.10	0.0028	0.0028	0.0028	0.0036
M1	MM16-16019-B90A30-M06 F40M	3,5	0,11	0,10	0,11	0,15
		0.14	0.0044	0.0040	0.0044	0.0060
M2	MM16-16019-B90A30-M06 F40M	3,5	0,10	0,095	0,10	0,13
		0.14	0.0040	0.0038	0.0040	0.0050
M3	MM16-16019-B90A30-M06 F40M	2,5	0,085	0,080	0,080	0,11
		0.10	0.0034	0.0032	0.0032	0.0044
M4	MM16-16019-B90A30-M06 F40M	2,0	0,075	0,075	0,075	0,090
		0.080	0.0030	0.0030	0.0030	0.0038
M5	MM16-16019-B90A30-M06 F40M	2,0	0,075	0,075	0,075	0,090
		0.080	0.0030	0.0030	0.0030	0.0038
K1	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,10	0,11	0,15
		0.14	0.0044	0.0040	0.0044	0.0060
K2	MM16-16019-B90A30-E06 F30M	3,5	0,10	0,095	0,10	0,13
		0.14	0.0040	0.0038	0.0040	0.0050
K3	MM16-16019-B90A30-E06 F30M	3,5	0,10	0,095	0,10	0,13
		0.14	0.0040	0.0038	0.0040	0.0050
K4	MM16-16019-B90A30-E06 F30M	3,5	0,10	0,095	0,10	0,13
		0.14	0.0040	0.0038	0.0040	0.0050
K5	MM16-16019-B90A30-E06 F30M	3,5	0,090	0,085	0,090	0,12
		0.14	0.0036	0.0034	0.0036	0.0048
K6	MM16-16019-B90A30-E06 F30M	3,5	0,10	0,095	0,10	0,13
		0.14	0.0040	0.0038	0.0040	0.0050
K7	MM16-16019-B90A30-E06 F30M	3,5	0,090	0,085	0,090	0,12
		0.14	0.0036	0.0034	0.0036	0.0048
N1	MM16-16019-B90A30-E06 F30M	3,5	0,14	0,13	0,14	0,19
		0.14	0.0055	0.0050	0.0055	0.0075
N2	MM16-16019-B90A30-E06 F30M	3,5	0,14	0,13	0,14	0,19
		0.14	0.0055	0.0050	0.0055	0.0075
N3	MM16-16019-B90A30-E06 F30M	3,5	0,14	0,13	0,14	0,19
		0.14	0.0055	0.0050	0.0055	0.0075
N11	MM16-16019-B90A30-E06 F30M	3,5	0,14	0,13	0,14	0,19
		0.14	0.0055	0.0050	0.0055	0.0075
S1	MM16-16019-B90A30-M06 F40M	2,0	0,075	0,075	0,075	0,090
		0.080	0.0030	0.0030	0.0030	0.0038
S2	MM16-16019-B90A30-M06 F40M	2,0	0,075	0,075	0,075	0,090
		0.080	0.0030	0.0030	0.0030	0.0038
S3	MM16-16019-B90A30-M06 F40M	2,0	0,070	0,070	0,070	0,085
		0.080	0.0028	0.0028	0.0028	0.0036
S11	MM16-16019-B90A30-M06 F40M	2,5	0,085	0,080	0,085	0,11
		0.10	0.0034	0.0032	0.0034	0.0044
S12	MM16-16019-B90A30-M06 F40M	2,5	0,085	0,080	0,085	0,11
		0.10	0.0034	0.0032	0.0034	0.0044
S13	MM16-16019-B90A30-M06 F40M	2,0	0,075	0,075	0,075	0,090
		0.080	0.0030	0.0030	0.0030	0.0038
H5	MM16-16019-B90A30-E06 F30M	2,5	0,070	0,070	0,070	0,090
		0.10	0.0028	0.0028	0.0028	0.0036
H8	MM16-16019-B90A30-E06 F30M	2,5	0,055	0,050	0,055	0,070
		0.10	0.0022	0.0020	0.0022	0.0028
H11	MM16-16019-B90A30-E06 F30M	2,5	0,070	0,070	0,070	0,090
		0.10	0.0028	0.0028	0.0028	0.0036
H12	MM16-16019-B90A30-E06 F30M	2,5	0,055	0,050	0,055	0,070
		0.10	0.0022	0.0020	0.0022	0.0028
H21	MM16-16019-B90A30-E06 F30M	2,5	0,055	0,050	0,055	0,070
		0.10	0.0022	0.0020	0.0022	0.0028

SMG = Seco material group  
f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
All cutting data are start values

Universal  
Steel and cast iron  
Stainless steel and S-materials  
Stainless steel and S-materials  
Non ferrous  
Hard  
Graphite  
X-Heads  
Minimaster

MM16 Z3 – Copy milling – Insert selection – Finishing – mm/Inch

	SMG		$a_p$				$f_z$					
				15%	10%	5%	2%					
Universal	P1	MM16-16019-B90A30-E06 F30M	3,5	0,12	0,14	0,20	0,32	0,14	0,0048	0,0055	0,0080	0,013
			0,14	0,12	0,15	0,20	0,34	0,14	0,0048	0,0060	0,0080	0,013
Steel and cast iron	P2	MM16-16019-B90A30-E06 F30M	3,5	0,12	0,15	0,20	0,30	0,14	0,0044	0,0050	0,0075	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Stainless steel and S-materials	P3	MM16-16019-B90A30-E06 F30M	3,5	0,12	0,14	0,19	0,32	0,14	0,0048	0,0055	0,0075	0,013
			0,14	0,11	0,13	0,19	0,30	0,14	0,0044	0,0050	0,0070	0,012
Non ferrous	P4	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Hard	P5	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Plastic and cfrp	P6	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Graphite	P7	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
X-Heads	P8	MM16-16019-B90A30-E06 F30M	3,5	0,12	0,14	0,19	0,32	0,14	0,0048	0,0055	0,0075	0,013
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Minimaster	P11	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Universal	P12	MM16-16019-B90A30-E06 F30M	2,5	0,075	0,090	0,12	0,20	0,10	0,0030	0,0036	0,0048	0,0080
			0,10	0,075	0,090	0,12	0,20	0,10	0,0030	0,0036	0,0048	0,0080
Steel and cast iron	M1	MM16-16019-B90A30-E06 F30M	3,5	0,12	0,15	0,20	0,34	0,14	0,0048	0,0060	0,0080	0,013
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Non ferrous	M2	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Hard	M3	MM16-16019-B90A30-E06 F30M	2,5	0,090	0,11	0,15	0,24	0,10	0,0036	0,0044	0,0060	0,0095
			0,10	0,090	0,11	0,15	0,24	0,10	0,0036	0,0044	0,0060	0,0095
Plastic and cfrp	M4	MM16-16019-B90A30-E06 F30M	2,0	0,080	0,090	0,13	0,20	0,080	0,0032	0,0038	0,0050	0,0080
			0,080	0,080	0,090	0,13	0,20	0,080	0,0032	0,0038	0,0050	0,0080
Graphite	M5	MM16-16019-B90A30-E06 F30M	2,0	0,080	0,090	0,13	0,20	0,080	0,0032	0,0038	0,0050	0,0080
			0,080	0,080	0,090	0,13	0,20	0,080	0,0032	0,0038	0,0050	0,0080
X-Heads	K1	MM16-16019-B90A30-E06 F30M	3,5	0,12	0,15	0,20	0,34	0,14	0,0048	0,0060	0,0080	0,013
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Universal	K2	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Steel and cast iron	K3	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Non ferrous	K4	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
Hard	K5	MM16-16019-B90A30-E06 F30M	3,5	0,10	0,12	0,17	0,26	0,14	0,0040	0,0048	0,0065	0,010
			0,14	0,10	0,12	0,17	0,26	0,14	0,0040	0,0048	0,0065	0,010
Plastic and cfrp	K6	MM16-16019-B90A30-E06 F30M	3,5	0,11	0,13	0,18	0,30	0,14	0,0044	0,0050	0,0070	0,012
			0,14	0,10	0,12	0,17	0,26	0,14	0,0044	0,0050	0,0070	0,012
Graphite	K7	MM16-16019-B90A30-E06 F30M	3,5	0,10	0,12	0,17	0,26	0,14	0,0040	0,0048	0,0065	0,010
			0,14	0,16	0,19	0,26	0,44	0,14	0,0044	0,0050	0,0065	0,010
X-Heads	N1	MM16-16019-B90A30-E06 F30M	3,5	0,16	0,19	0,26	0,44	0,14	0,0065	0,0075	0,010	0,017
			0,14	0,16	0,19	0,26	0,44	0,14	0,0065	0,0075	0,010	0,017
Universal	N2	MM16-16019-B90A30-E06 F30M	3,5	0,16	0,19	0,26	0,44	0,14	0,0065	0,0075	0,010	0,017
			0,14	0,16	0,19	0,26	0,44	0,14	0,0065	0,0075	0,010	0,017
Steel and cast iron	N3	MM16-16019-B90A30-E06 F30M	3,5	0,16	0,19	0,26	0,44	0,14	0,0065	0,0075	0,010	0,017
			0,14	0,16	0,19	0,26	0,44	0,14	0,0065	0,0075	0,010	0,017
Non ferrous	N11	MM16-16019-B90A30-E06 F30M	3,5	0,16	0,19	0,26	0,44	0,14	0,0065	0,0075	0,010	0,017
			0,14	0,16	0,19	0,26	0,44	0,14	0,0065	0,0075	0,010	0,017
Hard	S1	MM16-16019-B90A30-E06 F30M	2,0	0,080	0,090	0,13	0,20	0,080	0,0032	0,0038	0,0050	0,0080
			0,080	0,080	0,090	0,13	0,20	0,080	0,0032	0,0038	0,0050	0,0080
Plastic and cfrp	S2	MM16-16019-B90A30-E06 F30M	2,0	0,075	0,085	0,12	0,19	0,080	0,0030	0,0036	0,0048	0,0075
			0,080	0,075	0,085	0,12	0,19	0,080	0,0030	0,0036	0,0048	0,0075
Graphite	S3	MM16-16019-B90A30-E06 F30M	2,5	0,090	0,11	0,15	0,24	0,10	0,0036	0,0044	0,0060	0,0095
			0,10	0,090	0,11	0,15	0,24	0,10	0,0036	0,0044	0,0060	0,0095
X-Heads	S11	MM16-16019-B90A30-E06 F30M	2,5	0,090	0,11	0,15	0,24	0,10	0,0036	0,0044	0,0060	0,0095
			0,10	0,090	0,11	0,15	0,24	0,10	0,0036	0,0044	0,0060	0,0095
Universal	S12	MM16-16019-B90A30-E06 F30M	2,5	0,090	0,11	0,15	0,24	0,10	0,0036	0,0044	0,0060	0,0095
			0,10	0,090	0,11	0,15	0,24	0,10	0,0036	0,0044	0,0060	0,0095
Steel and cast iron	S13	MM16-16019-B90A30-E06 F30M	2,0	0,080	0,090	0,13	0,20	0,080	0,0032	0,0038	0,0050	0,0080
			0,080	0,080	0,090	0,13	0,20	0,080	0,0032	0,0038	0,0050	0,0080
Non ferrous	H5	MM16-16019-B90A30-E06 F30M	2,5	0,075	0,090	0,12	0,20	0,10	0,0030	0,0036	0,0048	0,0080
			0,10	0,075	0,090	0,12	0,20	0,10	0,0030	0,0036	0,0048	0,0080
Hard	H8	MM16-16019-B90A30-E06 F30M	2,5	0,060	0,070	0,095	0,15	0,10	0,0024	0,0028	0,0038	0,0060
			0,10	0,060	0,070	0,095	0,15	0,10	0,0024	0,0028	0,0038	0,0060
Plastic and cfrp	H11	MM16-16019-B90A30-E06 F30M	2,5	0,075	0,090	0,12	0,20	0,10	0,0030	0,0036	0,0048	0,0080
			0,10	0,075	0,090	0,12	0,20	0,10	0,0030	0,0036	0,0048	0,0080
Graphite	H12	MM16-16019-B90A30-E06 F30M	2,5	0,060	0,070	0,095	0,15	0,10	0,0024	0,0028	0,0038	0,0060
			0,10	0,060	0,070	0,095	0,15	0,10	0,0024	0,0028	0,0038	0,0060
X-Heads	H21	MM16-16019-B90A30-E06 F30M	2,5	0,060	0,070	0,095	0,15	0,10	0,0024	0,0028	0,0038	0,0060
			0,10	0,060	0,070	0,095	0,15	0,10	0,0024	0,0028	0,0038	0,0060

SMG = Seco material group  
 $f_z$  = mm/tooth (in/tooth),  $v_c$  = m/min (sf/min),  $a_e/DC$  = %  
 All cutting data are start values

MM16 Z3 – Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

SMG	F30M					F40M					
	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	
P1	245	295	310	335	335	235	280	295	320	320	Universal
	800	970	1025	1100	1100	770	920	970	1050	1050	
P2	240	285	300	325	320	230	270	285	310	305	Steel and cast iron
	790	940	980	1075	1050	750	890	940	1025	1000	
P3	210	250	260	285	280	200	240	250	270	265	Steel and cast iron
	690	820	850	940	920	660	790	820	890	870	
P4	185	220	235	250	250	175	210	225	240	240	Steel and cast iron
	610	720	770	820	820	570	690	740	790	790	
P5	175	210	225	240	240	170	200	215	230	230	Stainless steel and S-materials
	570	690	740	790	790	560	660	710	750	750	
P6	200	235	250	270	270	190	225	240	260	255	Stainless steel and S-materials
	660	770	820	890	890	620	740	790	850	840	
P7	190	225	235	255	255	180	210	225	245	240	Stainless steel and S-materials
	620	740	770	840	840	590	690	740	800	790	
P8	175	210	220	240	235	170	200	210	230	225	Stainless steel and S-materials
	570	690	720	790	770	560	660	690	750	740	
P11	185	215	230	250	245	175	205	220	235	235	Stainless steel and S-materials
	610	710	750	820	800	570	670	720	770	770	
P12	115	145	145	160	155	110	140	140	150	150	Stainless steel and S-materials
	375	475	475	520	510	360	460	460	490	490	
M1	195	230	240	265	260	185	220	230	250	245	Stainless steel and S-materials
	640	750	790	870	850	610	720	750	820	800	
M2	160	190	200	220	215	150	180	190	205	205	Stainless steel and S-materials
	520	620	660	720	710	490	590	620	670	670	
M3	130	160	160	170	170	120	150	150	165	165	Stainless steel and S-materials
	425	520	520	560	560	395	490	490	540	540	
M4	90	125	125	130	135	85	120	115	125	125	Non ferrous
	295	410	425	425	445	280	395	410	410	410	
M5	75	105	100	110	110	70	100	100	105	105	Non ferrous
	245	345	360	360	360	230	330	345	345	345	
K1	190	225	235	260	255	180	215	225	245	245	Non ferrous
	620	740	770	850	840	590	710	740	800	800	
K2	170	200	210	230	225	160	190	200	220	215	Non ferrous
	560	660	690	750	740	520	620	660	720	710	
K3	140	170	180	195	190	135	160	170	185	185	Hard
	460	560	590	640	620	445	520	560	610	610	
K4	135	160	170	185	185	130	155	165	175	175	Hard
	445	520	560	610	610	425	510	540	570	570	
K5	85	100	105	110	110	80	95	100	105	105	Hard
	280	330	345	360	360	260	310	330	345	345	
K6	120	140	150	165	160	115	135	145	155	155	Hard
	395	460	490	540	520	375	445	475	510	510	
K7	105	125	130	145	145	100	120	125	135	135	Hard
	345	410	425	475	475	330	395	410	445	445	
N1	1425	1700	1775	1925	1900	1350	1625	1700	1850	1800	Graphite
	4675	5575	5825	6325	6225	4425	5325	5575	6075	5900	
N2	580	690	720	780	770	550	650	680	740	730	Graphite
	1900	2275	2350	2550	2525	1800	2125	2225	2425	2400	
N3	385	455	480	520	510	365	435	455	495	485	Graphite
	1275	1500	1575	1700	1675	1200	1425	1500	1625	1600	
N11	440	520	550	600	580	420	495	520	570	560	Graphite
	1450	1700	1800	1975	1900	1375	1625	1700	1875	1825	
S1	42	60	55	60	60	40	55	55	60	60	X-Heads
	140	195	195	195	195	130	180	195	195	195	
S2	34	48	46	50	50	33	45	44	47	48	X-Heads
	110	155	160	165	165	110	150	155	155	155	
S3	30	41	40	43	43	28	39	38	41	41	X-Heads
	100	135	140	140	140	90	130	135	135	135	
S11	65	80	80	85	85	60	80	75	85	80	X-Heads
	215	260	280	280	280	195	260	260	280	260	
S12	45	55	55	60	60	43	55	55	55	55	X-Heads
	150	180	195	195	195	140	180	180	180	180	
S13	24	33	32	35	35	23	32	31	33	33	X-Heads
	80	110	110	115	115	75	105	110	110	110	
H5	39	48	48	55	50	37	46	46	50	50	Minimaster
	130	155	160	180	165	120	150	150	165	165	
H8	40	50	50	55	55	38	49	48	50	50	Minimaster
	130	165	165	180	180	125	160	165	165	165	
H11	50	60	60	65	65	47	60	60	65	65	Minimaster
	165	195	195	215	215	155	195	195	215	215	
H12	70	90	90	100	100	70	85	85	95	95	Minimaster
	230	295	310	330	330	230	280	295	310	310	
H21	40	50	50	55	55	38	49	48	50	50	Minimaster
	130	165	165	180	180	125	160	165	165	165	

MM16 Z2 – Copy milling – Insert selection – Roughing – mm/Inch

Material Group	SMG	Material	a <sub>p</sub>		f <sub>z</sub>			
			6,0	0,11	100%	40%	20%	10%
Universal	P1	MM16-16016-B90-MD07 F30M	6,0	0,11	0,11	0,13	0,17	
			0,24	0,0044	0,0044	0,0050	0,0065	
	P2	MM16-16016-B90-MD07 F30M	6,0	0,11	0,11	0,13	0,17	
			0,24	0,0044	0,0044	0,0050	0,0065	
Steel and cast iron	P3	MM16-16016-B90-MD07 F30M	6,0	0,11	0,10	0,12	0,16	
			0,24	0,0044	0,0040	0,0048	0,0065	
	P4	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,16	
			0,24	0,0040	0,0040	0,0048	0,0065	
	P5	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
	P6	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
	P7	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
Stainless steel and S-materials	P8	MM16-16016-B90-MD07 F30M	6,0	0,11	0,10	0,12	0,16	
			0,24	0,0044	0,0040	0,0048	0,0065	
	P11	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
	P12	MM16-16016-B90-MD07 F30M	5,0	0,070	0,070	0,080	0,10	
			0,20	0,0028	0,0028	0,0032	0,0044	
	M1	MM16-16016-B90-MD07 F30M	6,0	0,11	0,11	0,13	0,17	
			0,24	0,0044	0,0044	0,0050	0,0065	
Non ferrous	M2	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
	M3	MM16-16016-B90-MD07 F30M	5,0	0,085	0,080	0,095	0,12	
			0,20	0,0034	0,0032	0,0038	0,0050	
	M4	MM16-16016-B90-MD07 F30M	4,0	0,080	0,080	0,085	0,11	
			0,16	0,0032	0,0032	0,0034	0,0044	
	M5	MM16-16016-B90-MD07 F30M	4,0	0,080	0,080	0,085	0,11	
			0,16	0,0032	0,0032	0,0034	0,0044	
	K1	MM16-16016-B90-MD07 F30M	6,0	0,11	0,11	0,13	0,17	
			0,24	0,0044	0,0044	0,0050	0,0065	
Hard	K2	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
	K3	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
	K4	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
	K5	MM16-16016-B90-MD07 F30M	6,0	0,090	0,090	0,11	0,14	
			0,24	0,0036	0,0036	0,0044	0,0055	
Plastic and CFRP	K6	MM16-16016-B90-MD07 F30M	6,0	0,10	0,10	0,12	0,15	
			0,24	0,0040	0,0040	0,0048	0,0060	
	K7	MM16-16016-B90-MD07 F30M	6,0	0,090	0,090	0,11	0,14	
			0,24	0,0036	0,0036	0,0044	0,0055	
	N1	MM16-16016-B90PF-M03 F15M	6,0	0,060	0,060	0,070	0,095	
			0,24	0,0024	0,0024	0,0028	0,0038	
	N2	MM16-16016-B90PF-M03 F15M	6,0	0,060	0,060	0,070	0,095	
			0,24	0,0024	0,0024	0,0028	0,0038	
	N3	MM16-16016-B90PF-M03 F15M	6,0	0,060	0,060	0,070	0,095	
			0,24	0,0024	0,0024	0,0028	0,0038	
Graphite	N11	MM16-16016-B90PF-M03 F15M	6,0	0,060	0,060	0,070	0,095	
			0,24	0,0024	0,0024	0,0028	0,0038	
	S1	MM16-16016-B90-MD07 F30M	4,0	0,080	0,080	0,085	0,11	
			0,16	0,0032	0,0032	0,0034	0,0044	
	S2	MM16-16016-B90-MD07 F30M	4,0	0,080	0,080	0,085	0,11	
			0,16	0,0032	0,0032	0,0034	0,0044	
	S3	MM16-16016-B90-MD07 F30M	4,0	0,070	0,070	0,080	0,10	
			0,16	0,0028	0,0028	0,0032	0,0040	
X-Heads	S11	MM16-16016-B90-MD07 F30M	4,5	0,085	0,085	0,095	0,12	
			0,18	0,0034	0,0034	0,0038	0,0050	
	S12	MM16-16016-B90-MD07 F30M	4,5	0,085	0,085	0,095	0,12	
			0,18	0,0034	0,0034	0,0038	0,0050	
	S13	MM16-16016-B90-MD07 F30M	4,0	0,080	0,080	0,085	0,11	
			0,16	0,0032	0,0032	0,0034	0,0044	
	H5	MM16-16016-B90-MD07 F30M	5,0	0,070	0,070	0,080	0,10	
			0,20	0,0028	0,0028	0,0032	0,0044	
	H8	MM16-16016-B90-MD07 F30M	4,5	0,055	0,055	0,060	0,080	
			0,18	0,0022	0,0022	0,0024	0,0032	
Minimaster	H11	MM16-16016-B90-MD07 F30M	5,0	0,070	0,070	0,080	0,10	
			0,20	0,0028	0,0028	0,0032	0,0044	
	H12	MM16-16016-B90-MD07 F30M	4,5	0,055	0,055	0,060	0,080	
			0,18	0,0022	0,0022	0,0024	0,0032	
	H21	MM16-16016-B90-MD07 F30M	4,5	0,055	0,055	0,060	0,080	
			0,18	0,0022	0,0022	0,0024	0,0032	

SMG = Seco material group  
 f<sub>z</sub> = mm/tooth (in/tooth), v<sub>c</sub> = m/min (sf/min), a<sub>e</sub>/DC = %  
 All cutting data are start values

MM16 Z2 – Copy milling – Insert selection – Finishing – mm/Inch

SMG		$a_p$		$f_z$				
				15%	10%	5%	2%	
P1	MM16-16016-B90PF-M03 F15M	6,0		0,060	0,070	0,10	0,16	Universal
		0.24		0.0024	0.0028	0.0040	0.0065	
P2	MM16-16016-B90PF-M03 F15M	6,0		0,060	0,075	0,10	0,16	Steel and cast iron
		0.24		0.0024	0.0030	0.0040	0.0065	
P3	MM16-16016-B90PF-M03 F15M	6,0		0,060	0,070	0,095	0,15	Steel and cast iron
		0.24		0.0024	0.0028	0.0038	0.0060	
P4	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,070	0,095	0,15	Steel and cast iron
		0.24		0.0022	0.0028	0.0038	0.0060	
P5	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,15	Steel and cast iron
		0.24		0.0022	0.0026	0.0036	0.0060	
P6	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,14	Steel and cast iron
		0.24		0.0022	0.0026	0.0036	0.0055	
P7	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,14	Steel and cast iron
		0.24		0.0022	0.0026	0.0036	0.0055	
P8	MM16-16016-B90PF-M03 F15M	6,0		0,060	0,070	0,095	0,15	Stainless steel and S-materials
		0.24		0.0024	0.0028	0.0038	0.0060	
P11	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,14	Stainless steel and S-materials
		0.24		0.0022	0.0026	0.0036	0.0055	
P12	MM16-16016-B90PF-M03 F15M	4,5		0,038	0,046	0,060	0,10	Stainless steel and S-materials
		0.18		0.0015	0.0018	0.0024	0.0040	
M1	MM16-16016-B90PF-M03 F15M	6,0		0,060	0,075	0,10	0,16	Stainless steel and S-materials
		0.24		0.0024	0.0030	0.0040	0.0065	
M2	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,15	Stainless steel and S-materials
		0.24		0.0022	0.0026	0.0036	0.0060	
M3	MM16-16016-B90PF-M03 F15M	4,5		0,046	0,055	0,075	0,12	Stainless steel and S-materials
		0.18		0.0018	0.0022	0.0030	0.0048	
M4	MM16-16016-B90PF-M03 F15M	3,5		0,040	0,046	0,065	0,10	Stainless steel and S-materials
		0.14		0.0016	0.0019	0.0026	0.0040	
M5	MM16-16016-B90PF-M03 F15M	3,5		0,040	0,046	0,065	0,10	Stainless steel and S-materials
		0.14		0.0016	0.0019	0.0026	0.0040	
K1	MM16-16016-B90PF-M03 F15M	6,0		0,060	0,075	0,10	0,16	Non ferrous
		0.24		0.0024	0.0030	0.0040	0.0065	
K2	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,15	Non ferrous
		0.24		0.0022	0.0026	0.0036	0.0060	
K3	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,15	Non ferrous
		0.24		0.0022	0.0026	0.0036	0.0060	
K4	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,15	Non ferrous
		0.24		0.0022	0.0026	0.0036	0.0060	
K5	MM16-16016-B90PF-M03 F15M	6,0		0,050	0,060	0,085	0,13	Non ferrous
		0.24		0.0020	0.0024	0.0034	0.0050	
K6	MM16-16016-B90PF-M03 F15M	6,0		0,055	0,065	0,090	0,15	Non ferrous
		0.24		0.0022	0.0026	0.0036	0.0060	
K7	MM16-16016-B90PF-M03 F15M	6,0		0,050	0,060	0,085	0,13	Non ferrous
		0.24		0.0020	0.0024	0.0034	0.0050	
N1	MM16-16016-B90PF-M03 F15M	6,0		0,080	0,095	0,13	0,20	Hard
		0.24		0.0032	0.0038	0.0050	0.0080	
N2	MM16-16016-B90PF-M03 F15M	6,0		0,080	0,095	0,13	0,20	Hard
		0.24		0.0032	0.0038	0.0050	0.0080	
N3	MM16-16016-B90PF-M03 F15M	6,0		0,080	0,095	0,13	0,20	Hard
		0.24		0.0032	0.0038	0.0050	0.0080	
N11	MM16-16016-B90PF-M03 F15M	6,0		0,080	0,095	0,13	0,20	Hard
		0.24		0.0032	0.0038	0.0050	0.0080	
S1	MM16-16016-B90PF-M03 F15M	3,5		0,040	0,046	0,065	0,10	Graphite
		0.14		0.0016	0.0019	0.0026	0.0040	
S2	MM16-16016-B90PF-M03 F15M	3,5		0,040	0,046	0,065	0,10	Graphite
		0.14		0.0016	0.0019	0.0026	0.0040	
S3	MM16-16016-B90PF-M03 F15M	3,5		0,038	0,044	0,060	0,095	Graphite
		0.14		0.0015	0.0017	0.0024	0.0038	
S11	MM16-16016-B90PF-M03 F15M	4,0		0,046	0,055	0,075	0,12	Graphite
		0.16		0.0018	0.0022	0.0030	0.0048	
S12	MM16-16016-B90PF-M03 F15M	4,0		0,046	0,055	0,075	0,12	Graphite
		0.16		0.0018	0.0022	0.0030	0.0048	
S13	MM16-16016-B90PF-M03 F15M	3,5		0,040	0,046	0,065	0,10	X-Heads
		0.14		0.0016	0.0019	0.0026	0.0040	
H5	MM16-16016-B90PF-M03 F15M	4,5		0,038	0,046	0,060	0,10	X-Heads
		0.18		0.0015	0.0018	0.0024	0.0040	
H8	MM16-16016-B90PF-M03 F15M	4,0		0,030	0,034	0,048	0,075	X-Heads
		0.16		0.0012	0.0014	0.0019	0.0030	
H11	MM16-16016-B90PF-M03 F15M	4,5		0,038	0,046	0,060	0,10	X-Heads
		0.18		0.0015	0.0018	0.0024	0.0040	
H12	MM16-16016-B90PF-M03 F15M	4,0		0,030	0,034	0,048	0,075	X-Heads
		0.16		0.0012	0.0014	0.0019	0.0030	
H21	MM16-16016-B90PF-M03 F15M	4,0		0,030	0,034	0,048	0,075	Minimaster
		0.16		0.0012	0.0014	0.0019	0.0030	

SMG = Seco material group  
 $f_z$  = mm/tooth (in/tooth),  $v_c$  = m/min (sf/min),  $a_e/DC$  = %  
 All cutting data are start values

MM16 Z2 – Copy milling – Cutting data  $v_c = (m/min)/(sf/min)$

	SMG	F15M					F30M					T60M				
		100%	20%	10%	5%	2%	100%	20%	10%	5%	2%	100%	20%	10%	5%	2%
Universal	P1	285	360	390	420	415	225	280	300	325	325	185	225	245	265	265
		940	1175	1275	1375	1350	740	920	980	1075	1075	610	740	800	870	870
Steel and cast iron	P2	275	350	375	405	405	220	270	295	315	315	180	220	240	255	255
		900	1150	1225	1325	1325	720	890	970	1025	1025	590	720	790	840	840
Stainless steel and S-materials	P3	240	305	325	355	355	190	240	255	280	275	155	195	210	225	225
		790	1000	1075	1175	1175	620	790	840	920	900	510	640	690	740	740
Non ferrous	P4	215	270	285	310	310	170	210	225	245	245	140	170	185	200	195
		710	890	940	1025	1025	560	690	740	800	800	460	560	610	660	640
Hard	P5	205	255	275	300	295	165	200	220	235	230	130	160	175	190	190
		670	840	900	980	970	540	660	720	770	750	425	520	570	620	620
Plastic and cfrp	P6	230	290	310	335	335	180	225	245	265	265	150	180	200	215	215
		750	950	1025	1100	1100	590	740	800	870	870	490	590	660	710	710
Graphite	P7	215	275	290	315	315	170	210	230	250	250	140	170	190	200	200
		710	900	950	1025	1025	560	690	750	820	820	460	560	620	660	660
X-Heads	P8	200	255	275	295	295	160	200	215	235	230	130	160	175	190	190
		660	840	900	970	970	520	660	710	770	750	425	520	570	620	620
Minimaster	P11	210	265	285	310	310	165	205	225	240	240	135	165	180	195	195
		690	870	940	1025	1025	540	670	740	790	790	445	540	590	640	640
Universal	P12	135	175	175	190	190	110	140	145	155	155	90	110	115	125	125
		445	570	590	620	620	360	460	475	510	510	295	360	375	410	410
Steel and cast iron	M1	225	285	300	330	325	175	220	235	255	250	145	180	190	205	205
		740	940	980	1075	1075	570	720	770	840	820	475	590	620	670	670
Non ferrous	M2	185	230	250	270	265	145	180	195	210	210	120	145	160	170	170
		610	750	820	890	870	475	590	640	690	690	395	475	520	560	560
Hard	M3	150	190	195	210	210	120	150	155	170	170	95	125	125	135	135
		490	620	660	690	690	395	490	520	560	560	310	410	425	445	445
Plastic and cfrp	M4	115	150	150	160	160	95	125	120	130	130	75	100	95	105	105
		375	490	520	520	520	310	410	425	425	425	245	330	345	345	345
Graphite	M5	95	125	125	135	135	80	100	100	110	110	65	85	80	90	85
		310	410	445	445	445	260	330	345	360	360	215	280	280	295	280
X-Heads	K1	220	280	295	320	320	175	215	235	250	250	140	175	190	205	200
		720	920	970	1050	1050	570	710	770	820	820	460	570	620	670	660
Steel and cast iron	K2	195	245	260	285	280	155	190	210	220	220	125	155	170	180	180
		640	800	850	940	920	510	620	690	720	720	410	510	560	590	590
Non ferrous	K3	165	205	220	240	240	130	160	175	190	185	105	130	140	150	150
		540	670	720	790	790	425	520	570	620	610	345	425	460	490	490
Hard	K4	155	195	210	230	225	125	155	170	180	180	100	125	135	145	145
		510	640	690	750	740	410	510	560	590	590	330	410	445	475	475
Plastic and cfrp	K5	95	120	125	135	140	75	95	100	110	110	60	75	80	90	90
		310	395	410	445	460	245	310	330	360	360	195	245	260	295	295
Graphite	K6	135	175	185	200	200	110	135	150	160	155	90	110	120	130	125
		445	570	610	660	660	360	445	490	520	510	295	360	395	425	410
X-Heads	K7	120	150	165	175	175	95	120	130	140	140	80	95	105	115	115
		395	490	540	570	570	310	395	425	460	460	260	310	345	375	375
Universal	N1	1675	2125	2250	2450	2450	1300	1625	1725	1875	1850	1050	1325	1400	1525	1500
		5500	6975	7375	8050	8050	4275	5325	5650	6150	6075	3450	4350	4600	5000	4925
Steel and cast iron	N2	680	860	910	990	990	530	660	700	760	750	425	530	570	620	610
		2225	2825	2975	3250	3250	1750	2175	2300	2500	2450	1400	1750	1875	2025	2000
Non ferrous	N3	450	570	610	660	660	350	435	465	510	500	285	355	380	410	405
		1475	1875	2000	2175	2175	1150	1425	1525	1675	1650	940	1175	1250	1350	1325
Hard	N11	520	650	690	750	760	400	500	530	580	570	325	405	430	470	465
		1700	2125	2275	2450	2500	1300	1650	1750	1900	1875	1075	1325	1400	1550	1525
Plastic and cfrp	S1	55	70	70	75	75	44	55	55	60	60	36	46	45	49	49
		180	230	245	245	245	145	180	195	195	195	120	150	160	160	160
Graphite	S2	44	55	55	60	60	35	46	45	49	49	29	37	36	40	39
		145	180	195	195	195	115	150	155	160	160	95	120	130	130	130
X-Heads	S3	38	49	48	50	50	31	40	39	43	43	25	32	32	35	35
		125	160	165	165	165	100	130	140	140	140	80	105	110	115	115
Universal	S11	75	100	100	105	105	60	80	80	85	85	50	65	65	70	70
		245	330	345	345	345	195	260	260	280	280	165	215	215	230	230
Steel and cast iron	S12	55	70	70	75	75	43	55	55	60	60	35	44	44	48	48
		180	230	230	245	245	140	180	180	195	195	115	145	150	155	155
Non ferrous	S13	31	39	39	42	42	25	32	31	34	34	20	26	25	28	28
		100	130	140	140	140	80	105	110	110	110	65	85	90	90	90
Hard	H5	45	55	60	65	65	36	46	48	50	50	30	37	39	41	41
		150	180	195	215	215	120	150	155	165	165	100	120	130	135	135
Plastic and cfrp	H8	46	60	60	65	65	39	50	50	55	55	31	40	40	44	43
		150	195	215	215	215	130	165	165	180	180	100	130	140	145	140
Graphite	H11	55	75	75	80	80	46	60	60	65	65	38	47	49	55	50
		180	245	245	260	260	150	195	195	215	215	125	155	165	180	165
X-Heads	H12	85	105	105	115	115	70	90	90	95	95	55	70	70	80	80
		280	345	375	375	375	230	295	310	310	310	180	230	245	260	260
Universal	H21	46	60	60	65	65	39	50	50	55	55	31	40	40	44	43
		150	195	215	215	215	130	165	165	180	180	100	130	140	145	140

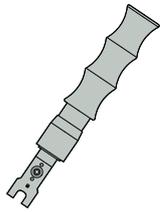
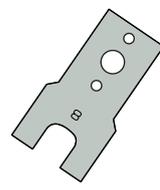
## Torque wrench and Max RPM information

Torque wrench	
<p>Recommended RPM for all Seco cutters are shown on each catalogue page. Normally there is no need for balancing tools for RPM up to 10 000. However in some cases balancing is necessary, for instance when using heavy tools and tool holders in small machines</p>	
<p>Torque wrench with fixed torque values to ensure the correct tightening force when mounting the Minimaster insert into its holder. Dynamometric keys are calibrated according to ISO 6789. Code key: MM02-4006 MM02 = 2-flute (MM03 = 3-flute) 40 = Torque value 4 Nm 06 = Insert size</p>	<p>Over 10 000 RPM: We recommend balancing of tool and tool holders at least separately. Over 20 000 RPM: Both tool and tool holders must be balanced at least separately. Over 30 000 RPM: Tool and tool holders must be balanced as a unit. (The max RPM in the tables should never be exceeded.)</p>

### 2 flute inserts

Insert size	Torque wrench (including key end)	Replaceable key end	Torque value
			
MM06	MM02-4006	MM02-06	4 Nm
MM08	MM02-8008	MM02-08	8 Nm
MM10	MM02-1201012	MM02-1012	12 Nm
MM12	MM02-1201012	MM02-1012	12 Nm
MM12 DC= Ø 14,0	MM02-16014	MM02-14	16 Nm
MM12 DCX= Ø 16,0	MM02-1601620	MM02-1620	16 Nm
MM16	MM02-1601620	MM02-1620	16 Nm

### 3 flute inserts

Insert size	Torque wrench (including key end)	Replaceable key end	Torque value
			
MM06	MM03-4006	MM03-06	4 Nm
MM08	MM03-8008	MM03-08	8 Nm
MM10	MM03-1201012	MM03-1012	12 Nm
MM12	MM03-1201012	MM03-1012	12 Nm
MM16	MM03-16016	MM03-16	16 Nm

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

Hard

Graphite

X-Heads

Minimaster



Universal

Steel and cast  
ironStainless steel  
and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster

## SMG – Introduction



The foundation for SMG is a classification of workpiece materials based on their type rather than their relative machinability and consequently it contains workpiece materials like composites. It is comprehensive enough, but still easy to identify which SMG a particular material belongs.

Each SMG has a specific material standard in a specific condition assigned as reference to allow easy adjustment of cutting data for any actual material compared to any Seco reference material see page(s) 790-793.

As an example the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 see further details in the following tables.

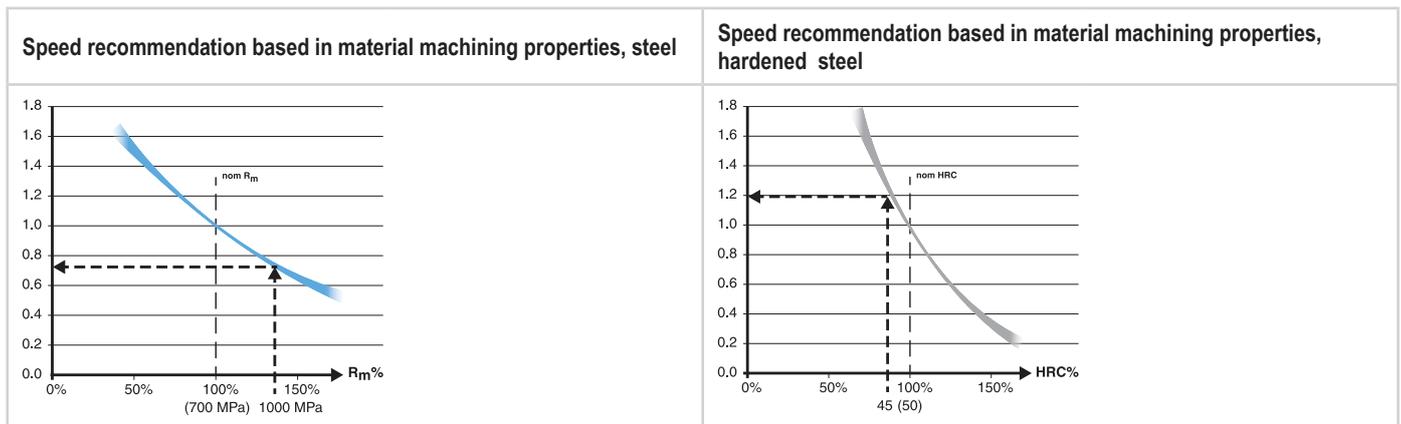
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R <sub>m</sub> < 1200	C 45E R <sub>m</sub> = 660 N/mm <sup>2</sup>	H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R <sub>m</sub> < 1200	42 CrMo 4 R <sub>m</sub> = 700 N/mm <sup>2</sup>				

Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength R<sub>m</sub> may typically vary between R<sub>m</sub> = 630 N/mm<sup>2</sup> and R<sub>m</sub> = 780 N/mm<sup>2</sup>, which provide a reference level for SMG P5. In Quenched & Tempered condition, the ultimate tensile strength R<sub>m</sub> may typically be between R<sub>m</sub> = 900 N/mm<sup>2</sup> and R<sub>m</sub> = 1100 N/mm<sup>2</sup> thus still belongs to SMG P5. However, if hardened above R<sub>m</sub> = 1200 N/mm<sup>2</sup> it instead belongs to SMG H5.

P5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Annealed	700
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	1000
H5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	45
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	50

The EN 42CrMo4 quench & tempered steel could be used to illustrate the machinability dependence of materials' condition.

The graphs below indicate how speed recommendations for a nominal material conditions may be adjusted for relative R<sub>m</sub> (left diagram valid for ISO-P) and for relative HRC (valid for ISO-H).



To further illustrate how the SMG P5 nominal v<sub>c</sub> can be adjusted to a more accurate recommended v<sub>c</sub> we need ultimate tensile strength R<sub>m</sub> data and in this case we use the EN 42 CrMo 4 quenched & tempered to R<sub>m</sub> = 1000 N/mm<sup>2</sup> according to above table (bold blue arrows).

Assume that we find that the SMG P5 nominal v<sub>c</sub> = 280 m/min / 918.64 sfm for a certain product and machining.

Then, actual recommended v<sub>c</sub> = 280 m/min x 0,75 = 210 m/min / v<sub>c</sub> = 918.64 sfm x 0.75 = 688.98 sfm.

Consequently in the SMG H5 the nominal v<sub>c</sub> can be adjusted using the hardened EN 42 CrMo 4 at HRC 45 (smaller grey arrows).

Assume that the SMG H5 nominal v<sub>c</sub> = 50 m/min / 164.04 sfm for a certain product and machining using a coated cemented carbide tools then, actual recommended v<sub>c</sub> = 50 m/min x 1,2 = 60 m/min / v<sub>c</sub> = 164.04 sfm x 1.2 = 196.85 sfm.

For further workpiece material details please see page(s) 794 - 801 and suggested cutting data at applicable pages.

For more convenient cutting data handling we recommend applicable tools in My Pages – on [www.secotools.com](http://www.secotools.com)

These cutting data compensations for steels are fully implemented at [www.secotools.com](http://www.secotools.com) in MyPages (see QR-code in the upper right corner).

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

Hard

Graphite

X-Heads

Mimimaster Plus

**Steels, ferritic and martensitic stainless steels**

	SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$
Universal	P1	Free-cutting steels	$360 < R_m < 880$	11 SMn30 $R_m = 385 \text{ N/mm}^2$	1500	0,14
Steel and cast iron	P2	Low-alloy ferritic steels, $C < 0.25\% \text{wt}$ Low-alloy weldable general structural steels	$320 < R_m < 600$	S235JRG2 $R_m = 420 \text{ N/mm}^2$	1600	0,23
	P3	Ferritic & ferritic/pearlitic steels, $C < 0.25\% \text{wt}$ Weldable general structural steels Case-hardening steels	$430 < R_m < 610$	16 MnCr 5 $R_m = 550 \text{ N/mm}^2$	1800	0,14
Stainless steel and S-materials	P4	Low-alloy general structural steels, $0.25\% < C < 0.67\% \text{wt}$ Low-alloy Quench & Temper steels	$520 < R_m < 1200$	C 45E $R_m = 660 \text{ N/mm}^2$	2000	0,15
	P5	Structural steels, $0.25\% < C < 0.67\% \text{wt}$ Quench & Temper steels	$550 < R_m < 1200$	42 CrMo 4 $R_m = 700 \text{ N/mm}^2$	2020	0,18
	P6	Low-alloy through-hardening steels, $C > 0.67\% \text{wt}$ Low-alloy spring and bearing steels	$520 < R_m < 1200$	C 100S $R_m = 600 \text{ N/mm}^2$	2100	0,17
Non ferrous	P7	Through-hardening steels, $C > 0.67\% \text{wt}$ Spring and bearing steels	$600 < R_m < 1200$	100 Cr 6 $R_m = 650 \text{ N/mm}^2$	2160	0,17
	P8	Tool steels High Speed Steels (HSS)	$600 < R_m < 1200$	X 40 CrMoV 5 1 $R_m = 700 \text{ N/mm}^2$	2400	0,20
Hard	P11	Ferritic & martensitic stainless steels	$415 < R_m < 1200$	X 20 Cr 13 $R_m = 675 \text{ N/mm}^2$	2000	0,15
	P12	Maraging and precipitation-hardening stainless steels	$500 < R_m < 1200$	X 5 CrNiCuNb 16 4 $R_m = 1100 \text{ N/mm}^2$	2100	0,17

**Free-cutting, austenitic and duplex stainless steels**

	SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$
Plastic and cfrp	M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9	1700	0,14
Graphite	M2	Low-alloy austenitic stainless steels		X 5 CrNi 18 10	1920	0,18
	M3	Medium-alloy austenitic stainless steels		X 2 CrNiMo 18 14 3	2070	0,17
	M4	High-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3	2230	0,16
X-Heads	M5	Difficult high-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4	2510	0,13

## Cast irons

SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$	
K1	Grey cast irons (GCI)		EN-GJL-250	930	0,32	Universal
K2	Compacted graphite irons (CGI)		EN-GJV-400	1000	0,35	Steel and cast iron
K3	Malleable cast irons (MCI)		EN-GJMB-550-4	1050	0,37	
K4	Nodular cast irons (SGI)		EN-GJS-500-7	1160	0,37	Stainless steel and S-materials
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5	0		
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2	0		
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4	0		Stainless steel and S-materials

## Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$	
N1	Aluminium alloys, Si < 9%		AW-7075	0		Non ferrous
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%	0		
N3	Aluminium alloys, Si > 16%		AlSi17Cu5	0		Hard
N11	Copper alloys		CW614N	740	0,26	

## Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$	
S1	Iron-based superalloys		Discalloy	0		Graphite
S2	Cobalt-based superalloys		Stellite 21	0		
S3	Nickel-based superalloys		Inconel 718	2530	0,21	X-Heads
S11	Titanium, low alloyed, ( $\alpha$ )		Ti	0		
S12	Titanium, medium alloyed, ( $\alpha+\beta$ )		TiAl6V4	1500	0,24	
S13	Titanium, high alloyed, (near $\beta$ and $\beta$ )		Ti10V2Fe3Al	0		Minimaster Plus

## Hard materials

	SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$
Universal	H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
Steel and cast iron	H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
	H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
Stainless steel and S-materials	H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
	H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
	H12	Maraged and precipitation-hardened stainless steels	1200 < $R_m$ < 1650	X 5 CrNiCuNb 16 4 $R_m = 1450 \text{ N/mm}^2$	2410	0,17
Non ferrous	H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC	0	
	H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC	0	

## Other difficult materials

	SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$
Hard	PM1	Low-alloy PM-materials		F-0008 Fe-0.7C	0	
	PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C	0	
	PM3	High-alloy PM-materials Exhaust valve seat materials, etc.			0	
Plastic and CFRP	HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys			0	
	HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys			0	
Graphite	CC1	Sintered tungsten carbide		G50	0	
X-Heads						
Minimaster Plus						

## Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$	
TS1	Thermosetting polymers		Urea formaldehyde (UF)	0		Universal
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...	0		Steel and cast iron
TS3	Thermosetting glass-fibre composites		Epoxy - HX..(42..)/E glass (7781...)...	0		Steel and cast iron
TS4	Thermosetting aramide-fibre composites		Kevlar 49	0		Steel and cast iron
TP1	Thermoplastic polymers		Polycarbonate (PC)	0		Stainless steel and S-materials
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..	0		Stainless steel and S-materials
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E-glass or A-glass...0	0		Stainless steel and S-materials
TP4	Thermoplastic aramide-fibre composites			0		Stainless steel and S-materials

## Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	$m_c$	
GR1	Graphite		R 8500	0		Non ferrous

Hard

Graphite

X-Heads

Minimaster Plus

	SMG	EN	EN-Nr	W-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS	
Universal	P1	11 SMn 30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130	
		11 SMnPb 30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134	
		10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20				
				1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20				
		15 SMn 13	1.0725	1.0723	15 S 20			210 A 15		SUM 32	1922	
		35 S20	1.0726	1.0726	35 S 20		35 MF 4	212 M 36			1957	G11400
Steel and cast iron	P2	46 S20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460	
		11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150	
		11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150	
		S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C		1311	
		S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF			1312, 1313	
		S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C		1412, 1414	
Stainless steel and S-materials	P3	C 10	1.0301	1.0301	C 10	34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100	
				1.0401	C 15	37 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170	
		C22	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200	
		S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA		2172, 2132	
		C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK		1370	G10170
				1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C			G10250
Non ferrous	P3	16 Mo 3	1.5415	1.5415	21 MnCr 5	20 NC 5			SCR 420 H			
				1.5423	15 Mo 3	15 D 3		1501-240	16 Mo 3		2912	
		14 NiCr 14	1.5752	1.5752	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M			G45200
				1.5919	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)			G33106
		18 NiCrMo 7 6	1.6587	1.6587	15 CrNi 6	16 NC 6	S 107	16 CrNi 4				
		16 MnCr 5	1.7131	1.7131	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7				
Hard	P4	16 MnCrS 5	1.7139	1.7139	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170	
		20 MnCr 5	1.7147	1.7147	16 MnCrS 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200	
		20 MnCrS 5	1.7149	1.7149	20 MnCr 5	20 MnCrS 5			SMnC 21 H			
		13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3.5	1501-620 Gr. 27	14 CrMo 4 5			2216	
				1.7337	16 CrMo 4 4	15 CD 4.5	1501-620 Gr. 27	14 CrMo 4 5			2216	
		10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9.10	1501-622 Gr. 31	12 CrMo 9 10			2218	J21890
Plastic and cfrp	P5	C35		1.0501	C 35	55 C 35	060 A 35	C 35		1550	G10350	
		E 335	1.0503	1.0503	C 45	65 C 45	80 M 46	C 45	S 45 C	1650	G10430	
		C40		1.0511	C 40	60 C 40	080 M 40	C 40	S 40 C			
		E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690			1655	
		C60	1.0601	1.0601	C 60	CC 55	080 A 62	C 60				G10600
		G 28 Mn6	1.1165	1.1165	40 Mn 4	35 M 5	150 M 36					G10390
Graphite	P5	C 35E	1.1181	1.1181	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300	
		C 45E	1.1191	1.1191	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340	
		C 60E	1.1221	1.1221	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420	
				1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678		G10640
				1.1740	C 60 W	Y3 55			SK 7			
		55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8			2085, 2090	
X-Heads	P6			1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620	
				1.2542	45 WC/V 7		BS 1	45 WC/V 8 KU		2710	T41901	
			1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206	
				1.5121	46 MnSi 4							
				1.5710	36 NiCr 6	35 NC 6	640 A 35			SNC 236		
				1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)			
Mimimaster Plus	P6	36 CrNiMo 4		1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400	
		34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541	G43400	
		34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320	
		41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400	
		25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425		2225	G41300
		42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)		2244	G41400
Mimimaster Plus	P6	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)		2244	G41400
				1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12			2240	
		50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10		2230	H61500
		41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645		2940	K24065
		C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70			1770	G10700
		C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4		1870	G10950
Mimimaster Plus	P6	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880		
				1.1645	C 105 W2	Y1 105		C 100 KU	SK 3			
				1.1663	C 125 W	Y2 120		C 120 KU	SK 2			

U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	Misc. Brands	Condition	Structure	
	1213				Annealed		Universal
	12 L 13				Annealed		
	1108				Annealed		
	11 L 08				Annealed		
	1140	40			Annealed		Steel and cast iron
	1146				Annealed		
	1215				Annealed		
	12 L 14				Annealed		
	A573 Grade 58	16D			Annealed		Steel and cast iron
	A573 Grade 70	18kp	11 378		Annealed		
	1010	St14kP	11 448		Annealed		
	1015	10			Annealed		
F.1110	1020, 1023	15			Annealed		Stainless steel and S-materials
		20	12 024		Annealed		
F.1511	1015	17G1S	11 523		Annealed		
F.1120	1025	15			Annealed		
		25			Annealed		Stainless steel and S-materials
	A204 Grade A		15 020		Annealed		
	4520				Annealed		
	3310, 9314	20X2H4A	16 420		Annealed		
	4320		16 220		Annealed		Stainless steel and S-materials
F.1516	5115	12KHN2	14 220		Annealed		
		18HG			Annealed		
	5120	20KH	14 221		Annealed		
	5120 H	20KH			Annealed		Stainless steel and S-materials
	A182-F11, A182-F12	12KHM	15 121		Annealed		
	A387 Grade 12 Cl. 2				Annealed		
F.155	A182-F22	12KH8	15 313		Annealed		
F.1130	1035	35	12 040		Annealed		Non ferrous
F.5110	1045	45	12 050		Annealed		
	1040	40	12 041		Annealed		
F.1150	1055	55			Annealed		
	1060	60	12 061		Annealed		Non ferrous
	1039	40G			Annealed		
F.1135	1330	30G2			Annealed		
	1035	35			Annealed		
F.1140	1045	45	12 050		Annealed		Non ferrous
F.1150	1064	60			Annealed		
	1060	60			Annealed		
F.144	9255	55S2			Annealed		
F.1250	4135	35KHM			Annealed		
F.5241	S1	5KHV2S			Annealed		
	L6	5KHNV			Annealed		
	5045				Annealed		Hard
	3135				Quenched & Tempered		
	3435				Annealed		
	9840				Quenched & Tempered		
F.1280	4340	38H2N2MA	16 343		Annealed		Graphite
	5132	35KH			Quenched & Tempered		
	5140	40H	14 140		Quenched & Tempered		
F.1251	4130	20KHM	15 130		Quenched & Tempered		
F.1252	4142, 4140	38HM	15 142		Annealed		Graphite
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered		
					Quenched & Tempered		
					Quenched & Tempered		
F.143	6150	50KHFA	15 260		Quenched & Tempered		X-Heads
F.1740	A355 Cl. A				Annealed		
F.5103	1070	70			Annealed		
F.5117	1095				Annealed		
F.5118	W1	U10A			Annealed		X-Heads
		U10			Annealed		
	W1	U13			Annealed		

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	SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
Universal	P7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
		90 MnCrV 8	1.2842	1.2842	100 MnCrV 4	90 MWCV 5	BO 1	95 MnVCr 5 KU	SKS 3	2140	T31501
		100 Cr 6	1.3505	1.3505	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
Steel and cast iron	P8	X 210 Cr 12	1.2080	1.2080	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
				1.2343	X 210 Cr 12	Z 200 C 12	BD 3	X 210 Cr 13 KU	SKD 1		T30403
		X 40 CrMoV 5 1	1.2344	1.2344	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 37 CrMoV 5 1 KU	SKD 6		T20811
		X 100 CrMoV 5	1.2363	1.2363	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMoV 5 1 1 KU	SKD 61	2242	T20813
				1.2365	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
				1.2436	X 32 CrMoV 3 3	32 DCV 28	BH 10	30 CrMoV 12 27 KU	SKD 7		T20810
				1.2601	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
				1.2713	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
		HS 6-5-2-5	1.3243	1.3243	55 NiCrMoV 6	55 NCDV 7			SKT 4		T61206
		HS 2-10-1-8	1.3247	1.3247	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55	2723	
		HS 18-1-2-5	1.3255	1.3255	S 2-10-1-8	Z 110 DKCVW 09-08-04	BM 42	HS 2-9-1-8	SKH 51		T11342
		HS 6-5-2	1.3343	1.3343	S 18-1-2-5	Z 80 WKCVC 18-05-04-01	BT 4	HS 18-1-1-5	SKH 3		T12004
HS 2-9-2	1.3348	1.3348	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 9, SKH 51	2722	T11302		
HS 18-0-1	1.3355	1.3355	S 2-9-2	Z 100 DCVW 09-04-02-02		HS 2-9-2	SKH 58	2782	T11307		
			S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2		T12001		
Stainless steel and S-materials	P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
		X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
		X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
		X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
		X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
		X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
		X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
		X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
		X 3 CrNiMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	425 C 11	X 6 CrNi 13 04	SCS 5	2385	S41500
		X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25				2322	S44600
Non ferrous	P12	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
		X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
			1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
		X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
		X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
		X 5 CrNiCuNb 17 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400
		X 7 CrNiAl 17 7	1.4564	1.4564	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
		X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
		X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
		X 2 NiCoMo 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
		X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
		X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
Hard	M1	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
		X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 Cr Ni 18 11	SUS 304 L	2352	S30403
		X 5 CrNi 18 10	1.4301	1.4301	X 5 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
		X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
		X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
		X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
		X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
		X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
		X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
		X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18.10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
		X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317	2366	S31700
		X 9 CrNiSiNc 21 11 2	1.4835	1.4893	X 9 CrNiSiNc 21 11 2		310 S 31			2368	S30815
X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008		
Plastic and cfrp	M2	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5		2377	S31803
		X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03				2376	S31500
		X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13			2562	N08904
		X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
		X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
Graphite	M3	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
		X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
		X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
		X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750
X-Heads	M4	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
		X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
		X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
		X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750
Mimimaster Plus	M5	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
		X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7						S32654
		X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21			NCF 800		N08800
		X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750

U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	Misc. Brands	Condition	Structure
F.520L	L2	11KHF			Annealed	
F.5220	O1	9KHVG			Annealed	
	O2	9G2F			Annealed	
F.5230	52100	SHKH15	14 109		Annealed	
F.5212	D3	KH12			Annealed	
	H11	4KH5MFS			Annealed	
F.5318	H13	4KH5MF1S			Annealed	
F.5227	A2	9KH5VF			Annealed	
	H10	3KH3M3F			Annealed	
F.5213		KH12			Annealed	
		KH12MF			Annealed	
F.520.S	L6	5KHNM			Annealed	
F.5613	M35	R6M5K5			Annealed	
	M42	R2AM9K5			Annealed	
	T4	R18K5F2			Annealed	
F.5603	M2	R6M5			Annealed	
	M7				Annealed	
	T1	R18			Annealed	
	403	08KH13			Annealed	Ferritic
F.3401	410, CA-15	12KH13, 08KH13			Annealed	Martensitic
F.3113	430	12KH17			Annealed	Ferritic
F.5261	420	20KH13	17 022		Annealed	Martensitic
F.3404	420	40KH13			Annealed	Martensitic
	440 A				Annealed	Martensitic
	440 B	95KH18			Annealed	Martensitic
	440 C	95KH18			Annealed	Martensitic
	A182 F6NM			F6NM	Annealed	Martensitic
	446	15KH28			Annealed	Ferritic
	XM-13			PH 13-8 Mo	Solution annealed	Austenitic
	XM-12			15-5 PH	H1150	Martensitic
	XM-12			15-5 PH	Solution annealed	Martensitic
	XM-12			15-5 PH	H1025	Martensitic
	SAE 630			17-4 PH	H1150	Martensitic
	630			17-4 PH	Solution annealed	Martensitic
	631	09KH17N7YU1		17-7 PH	Solution annealed	Austenitic/Ferritic
	AMS 6515			Marage 350	Solution annealed	Martensitic
	AMS 6521			Marage 300	Solution annealed	Martensitic
	AMS 6514			Marage 300, Vascomax C300	Solution annealed	Martensitic
	AMS 6512			Marage 250	Solution annealed	Martensitic
	AMS 6512			Marage 250, Vascomax C250	Solution annealed	Martensitic
F.3508	303	12KH19N9			Annealed	Austenitic
F.3504	304 L	03KH18N11			Annealed	Austenitic
F.3504	304	08KH18N10	17 240		Annealed	Austenitic
F.3534	316	08KH17H13M2T	17 346		Annealed	Austenitic
F.3524	347	08KH18N12B			Annealed	Austenitic
F.3517	301	07KH16N6			Annealed	Austenitic
	302	12KH18N9			Annealed	Austenitic
F.3533	(316 L)	03KH17N14M3	17 349		Annealed	Austenitic
	316 LN	03KH16N15M3			Annealed	Austenitic
F.3541	304 LN	03KH18N11			Annealed	Austenitic
	317	08KH17H15M3T			Annealed	Austenitic
				253 MA	Annealed	Austenitic
	310 S	12KH25N20			Annealed	Austenitic
	329 LN			SAF 2205	Annealed	Duplex
				3RE60	Annealed	Duplex
	904L				Annealed	Super austenitic
	329				Annealed	Duplex
	660			A286	Solution annealed	Austenitic
				254 SMO	Annealed	Super austenitic
				654 SMO	Annealed	Super austenitic
				Alloy 800	Annealed	Austenitic
	F 53			SAF 2507	Annealed	Super duplex

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

Hard

Graphite

X-Heads

Mimimaster Plus

	SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS	
Universal	K1	EN-GJL-150	0.6150	0.6150	GG-15	Ft 15 D	Grade 150	G15	FC 150	01 15-00	F11601	
		EN-GJL-200	0.6200	0.6200	GG-20	Ft 20 D	Grade 220	G20	FC 200	01 20-00	F12101	
		EN-GJL-250	0.6250	0.6250	GG-25	Ft 25 D	Grade 260	G25	FC 250	01 25-00	F12401	
		EN-GJL-350	0.6350	0.6350	GG-35	Ft 35 D	Grade 350	G35	FC 350	01 35-00	F13502	
		EN-GJL-215			GG-220 HB						02 19	
Steel and cast iron	K2	EN-GJV-300			GJV-300							
		EN-GJV-350			GJV-350							
		EN-GJV-400			GJV-400							
		EN-GJV-450			GJV-450							
		EN-GJV-500			GJV-500							
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130		
Stainless steel and S-materials	K4	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15		
		EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800	
		EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800	
		EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800	
		EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100	
EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800			
Non ferrous	K5	EN-GJS-1000-5			GJS-1000-5						ADI grade 5	
		EN-GJS-1200-2			GJS-1200-2						ADI grade 2	
		EN-GJS-1400-1			GJS-1400-1						ADI grade 3	
		EN-GJS-800-8			GJS-800-8						ADI grade 4	
												ADI grade 1
K6	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002		
	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL Ni30 Cr3	Grade F3				F41004		
	EN-GJLA-XNiCuCr 15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000		
	EN-GJSA-XNiMn 13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00			
	EN-GJSA-XNiCr 20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS Ni20 Cr2	Grade S2				F43000		
K7	EN-GJSA-XNiMn 23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010		
	EN-GJSA-XNiCr 30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS Ni30 Cr3	Grade S3				F43003		
	EN-GJSA-XNi 35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006		
	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A		
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-U5PbBi/2011	FC1		A2011	4355	AA2011		
Hard	N1	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014	
		AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005	
		AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060	
		AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104, 4107	AA6005	
		AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103	
		AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003	
		AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020	
		AW-7075		3.4365	AlZnMgCu1.5	A-Z5GU/7075	2L95/2L96		A7075		AA7075	
		AC-42000		3.2341	G-AlSi5Mg	A-S7G	LM25	3599	AC 4C	4244		
		AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800	
		MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600	
		MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)						
		MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330	
		N2	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
			AC-44200	AlSi12	3.2382	GD-AlSi12						
AW-6082	AlMgSi1		3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082		
N3	AlSi17Cu5							ADC14				
Graphite	N11	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200	
		CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500	
				2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600	
				2.0790	CuNi10Zn45							
				2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1						C76300
CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700			
CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700			
X-Heads	N11			2.1087	CuSn10Zn				5458	C90500		
		CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103	C5191	5428	C51900		
		CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102	C2300	5112	C23000		
		CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1			5220	C44300		
		CW508L	CuZn37	2.0321	CuZn37	CuZn37	CZ108		5150	C27200		
		CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400	
		CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121		5170	C38500		
		CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120		5168	C37800		
		CW622N	CuZn44Pb2	2.0410	CuZn44Pb2	CuZn44Pb2	CZ104		5272	C68700		
		Mimimaster Plus										



	SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS		
Universal	S1												
	S2												
Steel and cast iron	S3	NiMo30		2.4810							N10002		
		NiMo16Cr15W		2.4819							N10276		
		NiCr19Fe19Nb5Mo3		2.4668							N07718		
		NiCr20TiAl		2.4669							N07750		
		NiCr20TiAl		2.4631							N07080		
S11	NiCr19Co18Mo4Ti3Al3										N07500		
	NiCr20Co13Mo4Ti3Al		2.4654								N07001		
Stainless steel and S-materials	S12	TiAl6V4		3.7164							R54620		
	S13				TiV10Fe2Al3						R56320		
	H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170		
Non ferrous	H5	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70			1770	G10700	
		C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75			1774, 1778	G10780	
		C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4		1870	G10950	
		C 105U	1.1545	1.1545	C 105 W1	Y1 105					1880		
				1.2550	60 WCrV 7	55 WC 20							
	H7	55 Cr 3	1.7176	1.7176	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)		2253	G51550	
		42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)		2244	G41400	
		107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU				T61202	
		90 MnCrV 8	1.2842	1.2842	100 MnCrV 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3		2140	T31501	
		100 Cr 6	1.3505	1.3505	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU				T31502	
Hard	H8	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61		2242	T20813	
		X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12		2260	T30102	
		X 155 CrVMo 12 1		1.2379	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11			T30402	
				1.2436	X 210 CrV 12			X 215 CrV 12 1 KU	SKD 2		2312		
				1.2601	X 165 CrMoV 12			X 165 CrMoV 12 KU			2310		
	H11	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKH 55		2723		
		HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-	BM 42	HS 2-9-1-8	SKH 51			T11342	
		HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 2			T12001	
		X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1		2303	S42000	
		X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A			S44002	
Plastic and cfrp	H12	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B		2327	S44003	
		X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C			S44004	
		X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4				SUS 630			S15500	
		X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630			S17400	
		X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 631		2388	S17700	
	Graphite	H21	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7				S15700
			X 8 CrNiMoAl 15 7 5	1.4574	1.4574	X 8 CrNiMoAl 15 7 5							S66286
			X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660		2570	K92890
			X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162					K93120
			X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09						K93120
X-Heads	H31	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93160		
		X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4								
		X 120 Mn 12	1.3401	1.3401	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1		2183		
Mimimaster Plus	H31	EN-GJN-HV520	0.9620	0.9620	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A				05 12-00	F45001	
		EN-GJN-HV550	0.9625	0.9625	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B				05 13-00	F45000	
		EN-GJN-HV600(XCr11)	0.9630	0.9630	G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E				04 57-00	F45003	

U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	Misc. Brands	Condition	Structure
				Discalloy	Precipitation hardened	
				Haynes 25		
				Stellite 21		
		KHN65MV		Hastelloy C		
				Hastelloy C-276		
				IN 100		
				Inconel 718	Solution annealed	
				Inconel X-750		
				Nimonic 80A		
				René 41		
				Udimet 500		
				Waspalloy		
	AMS 4919			Ti	Commercially pure	Ti ( $\alpha$ )
	AMS 4943			Ti 6-2-4-2	Annealed	Ti ( $\alpha$ )
	AMS 4920, Grade 5	VT6		Ti 3Al-2.5V (grd 9)	Annealed	Ti ( $\alpha+\beta$ )
	AMS 4986			Ti 6Al-4V	Annealed	Ti ( $\alpha+\beta$ )
				Ti 10V-2Fe-3Al	Annealed	Ti ( $\beta$ )
F.1516	5115	12KHN2	14 220		Case hardened	
F.5103	1070	70			Quenched & Tempered	
F.5107	1078, 1080	75			Quenched & Tempered	
F.5117	1095				Quenched & Tempered	
F.5118	W1	U10A			Quenched & Tempered	
	S1	5KHV2SF			Quenched & Tempered	
	5155				Quenched & Tempered	
F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
F.520L	L2	11KHF			Quenched & Tempered	
F.5220	O1	9KHVG			Quenched & Tempered	
	O2	9G2F			Quenched & Tempered	
F.5230	52100	SHKH15	14 109		Quenched & Tempered	
F.5318	H13	4KH5MF1S			Quenched & Tempered	
F.5227	A2	9KH5VF			Quenched & Tempered	
F.5211	D2	KH12MF			Quenched & Tempered	
F.5213		KH12			Quenched & Tempered	
		KH12MF			Quenched & Tempered	
F.520.S	L6	5KHNM			Quenched & Tempered	
F.5613	M35	R6M5K5			Quenched & Tempered	
	M42	R2AM9K5			Quenched & Tempered	
	T1	R18			Quenched & Tempered	
F.5261	420	20KH13	17 022		Quenched & Tempered	Martensitic
	440 A				Quenched & Tempered	Martensitic
	440 B	95KH18			Quenched & Tempered	Martensitic
	440 C	95KH18			Quenched & Tempered	Martensitic
	XM-12			15-5 PH	H900	Martensitic
	SAE 630			17-4 PH	H1025	Martensitic
	SAE 630			17-4 PH	H900	Martensitic
	AMS 5528	09KH17N7YU1		17-7 PH	TH1050	Martensitic
	632			PH 15-7 Mo	TH1050	Martensitic
	660			A286	Precipitation hardened	Austenitic
	AMS 6512			Marage 250	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6521			Marage 300	Precipitation hardened	Martensitic
	AMS 6515			Marage 350	Precipitation hardened	Martensitic
	A128 Grade A			Hadfield		
	A532 IB (NiCr-LC)			Ni-Hard 2		White cast iron
	A532 IA (NiCr-HC)			Ni-Hard 1		White cast iron
	A532 ID (Ni-HiCr)			Ni-Hard 4		White cast iron

Universal

Steel and cast iron

Stainless steel and S-materials

Stainless steel and S-materials

Non ferrous

Hard

Graphite

X-Heads

Mimimaster Plus

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