



Long Edge Mills with Helical Edge Technology for Smooth Sidewall Finishes



Cutter Series:

22J3G - All-Effective RH Helix
22J5G - 1/2-Effective RH Helix

Diameters:

1.50" - 3.00"

Length of Cut:

1.70" - 4.40"

Corner Radii:

.015", .031", .039", .062", .093",
.118", .125", .157", .187" and .250"

Adaptions:

50 Taper, Weldon, Shell Mill

Materials:

Aluminum, Iron, Steel,
Stainless Steel, Hi-Temp Alloys,
Inconel, Titanium

NEW
PRODUCT ANNOUNCEMENT
2019

Multi-Purpose



R.015 - R.250

SS/Hi-Temp/Ti



R.031 - R.250

Polished for Alum



R.031 - R.118

Precision



R.031

Chip Splitters



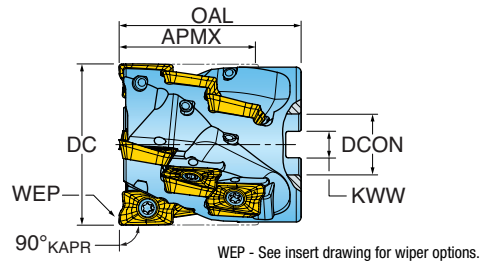
R.031

Features & Benefits:

- Highest Positive milling geometry with large 17mm Inserts for utmost durability
- Helical Edge Technology produces true 90° shoulders
- Helical Edge Technology produces smooth blend transition between stations (visible lines, but no mismatch steps)
- Integrated wiper flats promote 32-63 Ra deck finish
- .015, .031 & .062 R insert corners can be used on Face & Periphery Stations
- All-Effective flute design maximizes productivity
- 1/2-Effective flute design minimizes system vibration
- Coolant ported to every station

HIPOST⁺ SERIES 22J3G

90° ROUGH & FINISH END MILL
ALL-EFFECTIVE RH HELIX

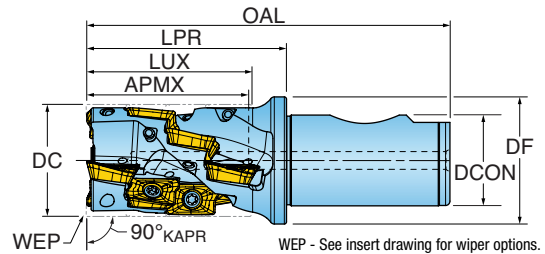


Part Number	DC Cutting Diameter	APMX Depth of Cut Max.	OAL Overall Length	ZNF Face Insert Count	ZNP Peripheral Insert Count	NOF Flute Count	DCON Bore Diameter	KWW Keyway	RMPX Ramp Angle Max.
22J3G-20022D1R02	2.000	1.71	2.25	4	8	4	0.750	0.312	4
22J3G-20041D3R02	2.000	2.80	4.17	4	20	4	1.000	0.375	4
22J3G-25030D3R02	2.500	2.27	3.00	5	15	5	1.000	0.375	3
22J3G-25040D3R02	2.500	3.35	4.00	5	25	5	1.000	0.375	3
22J3G-30040D4R02	3.000	3.35	4.00	6	30	6	1.250	0.500	2

NOTES: Total Number of Inserts = ZNF + ZNP.
Cutter body must be relieved when using insert corner radii larger than R.062 (Body R" = Insert R" - .02").

HIPOST⁺ SERIES 22J3G

90° ROUGH & FINISH END MILL
ALL-EFFECTIVE RH HELIX

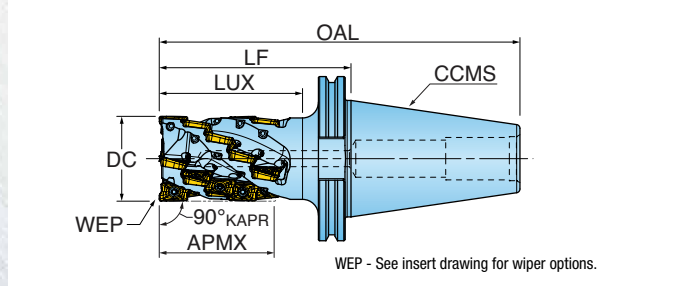


Part Number	DC Cutting Diameter	APMX Depth of Cut Max.	LUX Usuable Length Max.	LPR Protruding Length	OAL Overall Length	ZNF Face Insert Count	ZNP Peripheral Insert Count	NOF Flute Count	DF Flange Diameter	DCON Shank Diameter	RMPX Ramp Angle Max.
22J3G-1502781R01	1.500	2.27	2.40	2.75	5.00	3	9	3	1.750	1.250	4
22J3G-1503381R01	1.500	2.82	3.00	3.30	5.50	3	12	3	1.750	1.250	4
22J3G-2002782R01	2.000	2.25	2.70	2.75	6.00	4	12	4	-	2.000	4
22J3G-2005082R01	2.000	4.40	4.90	5.00	8.25	4	28	4	-	2.000	4

NOTES: Total Number of Inserts = ZNF + ZNP.
Cutter body must be relieved when using insert corner radii larger than R.062 (Body R" = Insert R" - .02").

HIPOST⁺ SERIES 22J3G

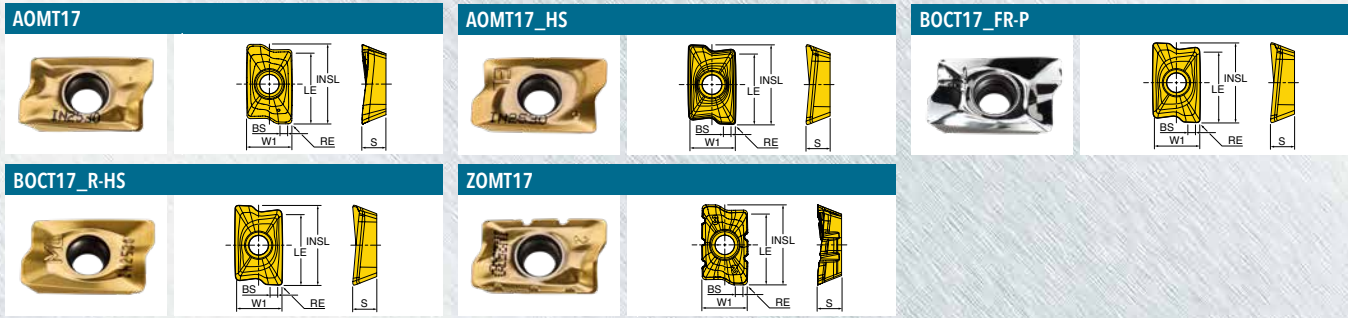
90° ROUGH & FINISH END MILL
ALL-EFFECTIVE RH HELIX



Part Number	DC Cutting Diameter	APMX Depth of Cut Max.	LUX Usuable Length Max.	LF Functional Length	OAL Overall Length	ZNF Face Insert Count	ZNP Peripheral Insert Count	NOF Flute Count	CCMS Connection Code Machine Side	RMPX Ramp Angle Max.
22J3G-2004548R01	2.000	2.80	3.38	4.500	8.50	4	16	4	ICTC #50 .125 Draw	4
22J3G-2006048R01	2.000	4.40	4.88	6.000	10.00	4	28	4	ICTC #50 .125 Draw	4

NOTES: Total Number of Inserts = ZNF + ZNP.
Cutter body must be relieved when using insert corner radii larger than R.062 (Body R" = Insert R" - .02").

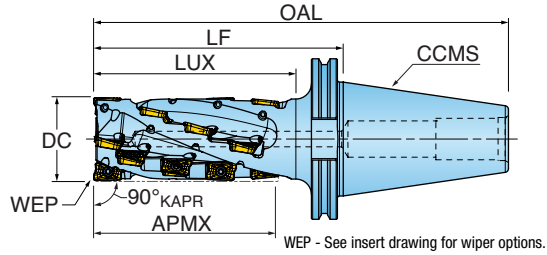
HIPOST⁺ SERIES 22J3G INSERTS



Part Number	Application	Station	RE Corner Radius	BS Wiper Length	LE Cutting Edge Length	INSL Length	W1 Width	S Thickness	Grade	IN1030	IN10K	IN2005	IN2035	IN2505	IN2510	IN2530	IN2540	IN4030
AOMT170504R	Multi-Purpose	Face & Periphery	0.015 R	0.100	0.633	0.728	0.421	0.218	•							•	•	
AOMT170508R	Multi-Purpose	Face & Periphery	0.031 R	0.088	0.633	0.728	0.421	0.218	•		•			•	•	•	•	•
AOMT170508R-HS	SS/Hi-Temp/Ti	Face & Periphery	0.031 R	0.082	0.633	0.728	0.421	0.218	•		•	•				•		
AOMT170510R	Multi-Purpose	Face & Periphery	0.039 R	0.078	0.633	0.728	0.421	0.218								•		
AOMT170516R	Multi-Purpose	Face & Periphery	0.062 R	0.054	0.633	0.728	0.421	0.218	•		•				•	•		
AOMT170524R	Multi-Purpose	Face	0.093 R	0.035	0.633	0.728	0.421	0.218	•		•							
BOCT170508FR-P	Grd/Pol for Al	Face & Periphery	0.031 R	0.124	0.633	0.692	0.421	0.207		•								
BOCT170508R-HS	Precision	Face & Periphery	0.031 R	0.082	0.633	0.728	0.421	0.218				•				•		
ZOMT170508R	Chip Splitters	Face & Periphery	0.031 R	0.088	0.645	0.728	0.421	0.218					•	•		•		

HIPOST⁺ SERIES 22J5G

90° ROUGH & FINISH END MILL
1/2-EFFECTIVE RH HELIX

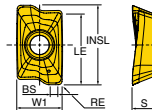


Part Number	DC Cutting Diameter	APMX Depth of Cut Max.	LUX Usuable Length Max.	LF Functional Length	OAL Overall Length	ZEP Eff. Teeth Periphery	ZNF ZNF Face Insert Count	ZNP ZNP Peripheral Insert Count	NOF NOF Flute Count	KAPR KAPR Cutting Edge Angle	CCMS CCMS Connection Code Machine Side	CSP CSP Coolant	RMPX RMPX Ramp Angle Max.
22J5G-2006048R01	2.000	4.40	4.88	6.000	10.00	2	4	14	4	90	ICTC #50 .125 Draw	Yes	4

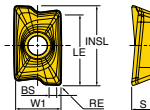
NOTES: Total Number of Inserts = ZNF + ZNP.
Cutter body must be relieved when using insert corner radii larger than R.062 (Body R" = Insert R" - .02").

HIPOST⁺ SERIES 22J5G INSERTS

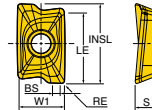
AOMT17



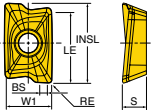
AOMT17_HS



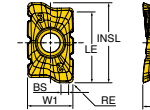
BOCT17_FR-P



BOCT17_R-HS



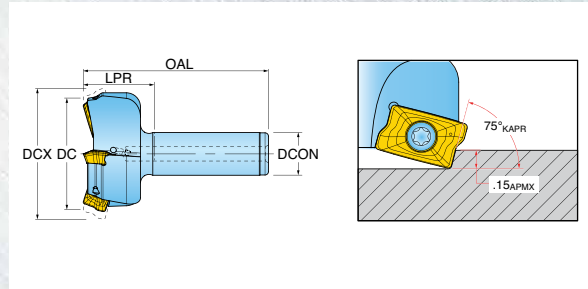
ZOMT17



Part Number	Application	Station	RE Corner Radius	BS Wiper Length	LE Cutting Edge Length	INSL Length	W1 Width	S Thickness	Grade	IN1030	IN10K	IN2005	IN2035	IN2505	IN2510	IN2530	IN2540	IN4030	IN7035
AOMT170504R	Multi-Purpose	Face & Periphery	0.015 R	0.100	0.633	0.728	0.421	0.218	•						•	•			
AOMT170508R	Multi-Purpose	Face & Periphery	0.031 R	0.088	0.633	0.728	0.421	0.218	•		•			•	•	•	•	•	
AOMT170508R-HS	SS/Hi-Temp/Ti	Face & Periphery	0.031 R	0.082	0.633	0.728	0.421	0.218	•		•	•				•			
AOMT170510R	Multi-Purpose	Face & Periphery	0.039 R	0.078	0.633	0.728	0.421	0.218								•			
AOMT170516R	Multi-Purpose	Face & Periphery	0.062 R	0.054	0.633	0.728	0.421	0.218	•		•				•	•			
AOMT170516R-HS	SS/Hi-Temp/Ti	Face & Periphery	0.062 R	0.054	0.633	0.728	0.421	0.218											•
AOMT170524R	Multi-Purpose	Face	0.093 R	0.035	0.633	0.728	0.421	0.218	•		•								
AOMT170532R-HS	SS/Hi-Temp/Ti	Face & Periphery	0.125 R	0.051	0.606	0.683	0.421	0.218											•
AOMT170532R	Multi-Purpose	Face	0.125 R	0.051	0.633	0.728	0.421	0.218	•		•				•	•			
AOMT170540R	Multi-Purpose	Face	0.156 R	-	0.633	0.728	0.421	0.218	•				•						
AOMT170548R	Multi-Purpose	Face	0.187 R	-	0.633	0.728	0.421	0.218	•			•							
AOMT170550R	Multi-Purpose	Face	0.197R	-	0.596	0.664	0.421	0.218	•										
AOMT170564R-HS	SS/Hi-Temp/Ti	Face & Periphery	0.250 R	-	0.595	0.669	0.421	0.218											•
AOMT170564R	Multi-Purpose	Face	0.250 R	-	0.633	0.728	0.421	0.218	•		•				•				
BOCT170508FR-P	Grd/Pol for Al	Face & Periphery	0.031 R	0.124	0.633	0.692	0.421	0.207			•								
BOCT170530FR-P	Grd/Pol for Al	Face & Periphery	0.118 R	0.060	0.630	0.720	0.425	0.221			•								
BOCT170508R-HS	Precision	Face	0.031 R	0.082	0.633	0.728	0.421	0.218				•				•			
ZOMT170508R	Chip Splitters	Face & Periphery	0.031 R	0.088	0.645	0.728	0.421	0.218					•	•		•			

HI·POS+™ SERIES: 12L1G

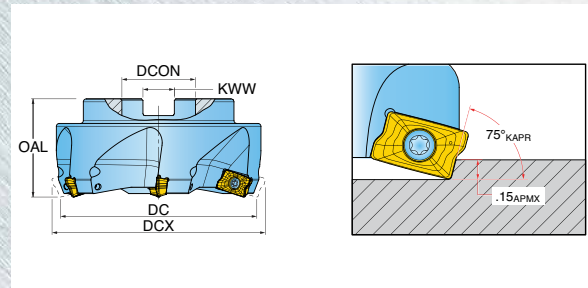
75° ROUGHING END MILL



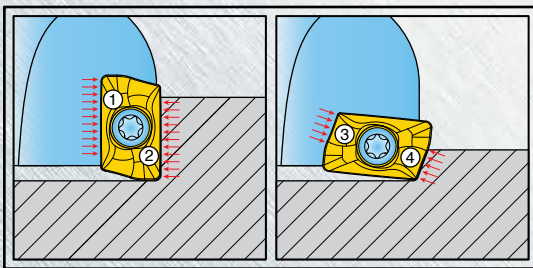
Part Number	DC Cutting Diameter	DCX Cutting Dia. Max.	KAPR Cutting Edge Angle	APMX Depth of Cut Max.	LPR Projection Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Diameter	CSP Coolant
12L1G-20012S7R01	2.000	2.300	75	0.15	1.25	3.25	3	0.750	Yes

HI·POS+™ SERIES: 2L1G

75° ROUGHING FACE MILL



Part Number	DC Cutting Diameter	DCX Cutting Dia. Max.	KAPR Cutting Edge Angle	APMX Depth of Cut Max.	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Diameter	KWW Keyway	CSP Coolant	HAND Hand
2L1G-40R01	4.000	4.35	75.0	0.15	2.000	6	1.500	0.625	No	Right

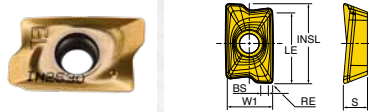


When using the Hi-Pos+ milling family, it is possible to make use of all four cutting edges. The first 2 edges can be used in any Hi-Pos+ 90° or lead angle endmill or facemill, then use edges 3 and 4 in 12L endmills or 2L facemills

AOMT17



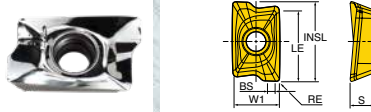
AOMT17_HS



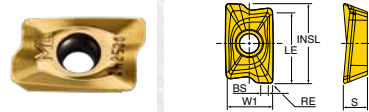
APKT17_DT



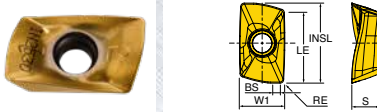
BOCT17_FR-P



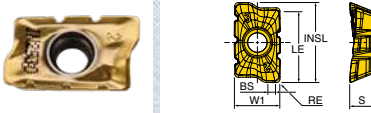
BOCT17_R-HS



BOMT17



ZOMT17



Part Number	Application	RE Corner Radius	BS Wiper Length	LE Cutting Edge Length	INSL Length	W1 Width	S Thickness	Grade	IN1030	IN10K	IN2005	IN2035	IN2504	IN2505	IN2510	IN2530	IN2540	IN4030	IN7035	
AOMT170504R	Multi-Purpose	0.015 R	0.100	0.633	0.728	0.421	0.218		•							•	•			
AOMT170508R	Multi-Purpose	0.031 R	0.088	0.633	0.728	0.421	0.218		•		•			•	•	•	•	•		
AOMT170508R-HS	SS/Hi-Temp/Ti	0.031 R	0.082	0.633	0.728	0.421	0.218		•		•	•				•				
AOMT170510R	Multi-Purpose	0.039 R	0.078	0.633	0.728	0.421	0.218									•				
AOMT170516R	Multi-Purpose	0.062 R	0.054	0.633	0.728	0.421	0.218		•		•				•	•				
AOMT170516R-HS	SS/Hi-Temp/Ti	0.062 R	0.054	0.633	0.728	0.421	0.218									•				•
AOMT170524R	Multi-Purpose	0.093 R	0.035	0.633	0.728	0.421	0.218		•		•									
AOMT170532R	Multi-Purpose	0.125 R	0.051	0.633	0.728	0.421	0.218		•		•					•	•			
AOMT170532R-HS	SS/Hi-Temp/Ti	0.125 R	0.051	0.606	0.683	0.421	0.218									•				•
AOMT170540R	Multi-Purpose	0.156 R	-	0.633	0.728	0.421	0.218		•					•						
AOMT170548R	Multi-Purpose	0.187 R	-	0.633	0.728	0.421	0.218		•		•									
AOMT170550R	Multi-Purpose	0.197 R	-	0.596	0.664	0.421	0.218		•											
AOMT170564R	Multi-Purpose	0.250 R	-	0.633	0.728	0.421	0.218		•		•				•					
AOMT170564R-HS	SS/Hi-Temp/Ti	0.250 R	-	0.595	0.669	0.421	0.218									•				•
BOCT170508FR-P	Grd/Pol for Al	0.031 R	0.124	0.633	0.692	0.421	0.207			•										
BOCT170530FR-P	Grd/Pol for Al	0.118 R	0.060	0.630	0.720	0.425	0.221			•										
BOCT170508R-HS	Precision	0.031 R	0.082	0.633	0.728	0.421	0.218				•					•				
BOMT170608R	Heavy Duty	0.031 R	0.086	0.630	0.744	0.421	0.256					•	•	•	•	•	•			
ZOMT170508R	Multi-Purpose Splitters	0.031 R	0.088	0.645	0.728	0.421	0.218					•		•		•				

	Insert Screw	Driver Handle	Driver Bit	**OPTIONAL** Torque Driver Handle	**OPTIONAL** Preset Torque Bit	**OPTIONAL** Torque Driver Bit	Socket Head Cap Screw	Socket Set Screw
22J3G-20022D1R02	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	SD-06-50	-
22J3G-20041D3R02	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	SD-08-97	-
22J3G-25030D3R02	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	SD-08-52	SA030-01
22J3G-25040D3R02	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	SD-08-D3	SA030-01
22J3G-30040D4R02	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	SD-10-73	SA030-01
22J3G-1502781R01	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	-
22J3G-1503381R01	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	-
22J3G-2002782R01	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	SA030-01
22J3G-2005082R01	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	SA030-01
22J3G-2004548R01	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	SA030-01
22J3G-2006048R01	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	SA030-01
22J5G-2006048R01	SM40-093-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	SA030-01
12L1G-2001257R01	SM40-120-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	-
2L1G-40R01	SM40-120-20	DS-A00T	DS-T156B	DS-A00.25-T	DT-35-.25	DS-T15B1	-	-

Hi-Pos+17 Long Edge Cutters - Series 22J*G		Brinnell Hardness	SFM	Feed per Insert* (Inch)	Grades						Coolant
Material					IN10K	IN2005 IN2505	IN1030 IN2530 IN4030	IN2035	IN2510	IN2540	
Aluminum	6061-T6, 7075-T6, 2024	-	1000 - 1500	.004 - .010	1	3			2		Yes
Cast Iron	Gray	150 - 250	300 - 600	.004 - .008		2	3		1		No
	Nodular		300 - 500								
Steel	Low Carbon 1018, 8620	100 - 250	400 - 600	.003 - .008		2	1		3	No	
	High Carbon F-6180	250 - 400	350 - 500	.003 - .007							
	Alloyed Steel 4140, 4340	150 - 300	300 - 600	.003 - .008							
	Tool Steel A-6, D-1, D-2	Up to 300									
Stainless Steel	300 Series, 304, 316	-	250 - 400	.003 - .007		3	2	1		May not be required at high speeds	
	400 Series 15-5 PH	Up to 320	300 - 400							Yes	
	13-8 PH	-	200 - 350								
Nickel Alloys	Inconel, Hastelloy, Waspalloy	-	65-110	.003 - .006		3	2	1		Yes	
Titanium	6AL-4V	-	90 - 120	.003 - .007		3	2	1		Yes	
	5553	-	70 - 100	.003 - .006							
	10-23	-	60 - 80	.003 - .007							

*NOTE: SEE PAGE 6 FOR FEED RATE GUIDELINES BASED ON RADIAL WIDTH OF CUT.

STARTING FEED RATE GUIDELINES FOR EXTENDED FLUTE MILL BASED ON RADIAL WIDTH OF CUT

Material	Material Specification	Radial WOC (Inch)	Feed Rate (APT")			
			1.50 Dia.	2.00 Dia.	2.50 Dia.	3.00 Dia.
Aluminum	6061-T6, 7075-T6, 2024	0.06	0.016	0.016	0.018	0.019
		0.12	0.012	0.012	0.013	0.014
		0.25	0.008	0.008	0.009	0.010
		0.50	0.007	0.007	0.007	0.008
		0.75	-	0.006	0.006	0.007
Cast Iron	Gray / Nodular	0.06	0.013	0.015	0.016	0.018
		0.12	0.009	0.011	0.011	0.013
		0.25	0.007	0.007	0.008	0.009
		0.50	0.005	0.006	0.007	0.007
		0.75	-	0.005	0.006	0.006
Steel	Low / Medium Carbon 1018, 1045, 8620 Alloyed Steel, 4140, 4340, Tool Steel A-6, D-1, D-2	0.06	0.013	0.015	0.016	0.018
		0.12	0.009	0.011	0.011	0.013
		0.25	0.007	0.007	0.008	0.009
		0.50	0.005	0.006	0.007	0.007
		0.75	-	0.005	0.006	0.006
Stainless Steel	300 Series, 304, 316, 13-8PH 400 Series 15-5 PH, 17-4PH	0.06	0.011	0.013	0.015	0.016
		0.12	0.008	0.009	0.010	0.011
		0.25	0.006	0.007	0.007	0.008
		0.50	0.005	0.005	0.006	0.006
		0.75	-	0.005	0.005	0.005
Nickel Alloys & 5553 Titanium	Inconel, Hastelloy, Waspalloy, 5553 Ti	0.06	0.010	0.011	0.013	0.014
		0.12	0.007	0.008	0.009	0.010
		0.25	0.005	0.006	0.007	0.008
		0.50	0.004	0.005	0.005	0.006
		0.75	-	0.004	0.004	0.005
6AL-4V & 10-2-3 Titanium	6AL-4V & 10-2-3 Titanium	0.06	0.011	0.013	0.015	0.016
		0.12	0.008	0.009	0.010	0.011
		0.25	0.006	0.007	0.007	0.008
		0.50	0.005	0.005	0.006	0.006
		0.75	-	0.005	0.005	0.005

These values are intended as starting parameters. Actual feed rates are to be determined by your specific application.

- Draws less horsepower
- Reduces cutting force and vibration/chatter
- Improves chip evacuation (Chips split into small pieces)
- Reduces heat generation
- Suitable for long overhang machining (Weak machining and fixture applications)
- Mountable on all standard cutter lines without any modification

