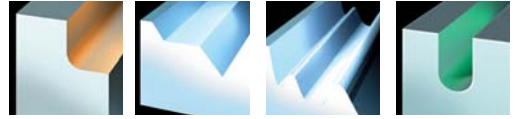


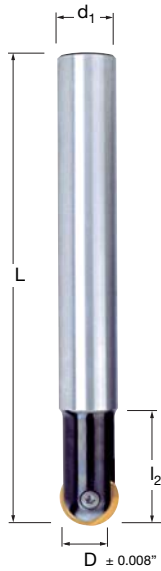
5500 V 1.00

Contour Milling Cutter



5500 V 1.00 Cylindrical Shank

EDP#	Part Number	Dimensions (inch)						No. of Inserts	Spares		
		D	L	l ₂	d ₁	a	EDP#		EDP#	EDP#	
014295	C5500V1.00CR	1	8	1.81	1	0.5	1	015253	55.677	015241	T20



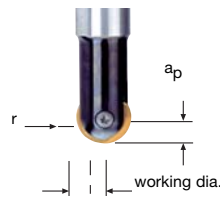
Cylindrical Shank



Depth of cut (a)

5500 V 1.00 Technical Advice

Milling Cutter Order Example: **C5500V 1.00CR**
 Milling Insert Order Example: **RG 1.00 SP1032**
 For complete cutting conditions refer to page: **208**

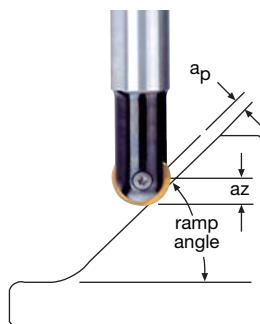


Working Diameter:

$$DW = 2 \times \sqrt{r^2 - (r - a_p)^2}$$

where: **DW** = Working Diameter
r = Cutter radius
a_p = Axial Depth of Cut

Ramp Milling Method

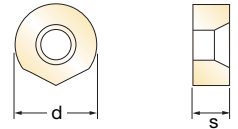


Ramp-up Data

Cutter Diameter 1.00 in.		Ramp Angle
ap (in.)	az (in.)	
0.375	0.490	15°
0.250	0.440	30°
0.146	0.354	45°
0.067	0.250	60°
0.017	0.130	75°
0.004	0.050	85°

Torque Limits 45 in. lbs.

Inserts for 5500 V 1.00



EDP#	Part Number	Grade	Application & Material			Dimensions (inch)				
			Roughing	Semi-Finishing	Finishing	d	l	s	r	h _m min.
014406	RG1.00	SP1032				1.000	-	0.157	0.500	0.0008

RG 1.00_



027799	RG25S	SP1064				0.984	-	0.157	0.492	0.0008
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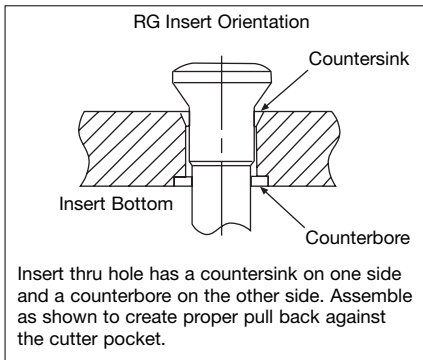
RG 25S_



Insert Interchangeability*

Metric		Inch	
Diameter	Insert Number	Diameter	Insert Number
25 mm	RG 25	1.000 in.	RG1.00

*Insert interchangeability allows metric inserts to be used in inch cutters and vice-versa.



To find programmed feedrate:

$$f_z = h_m \times \sqrt{\frac{D}{a_p}} \times \sqrt{\frac{D_w}{a_e}}$$

where:
 f_z = Feed per tooth
 h_m = Average chip thickness
 D = Cutter diameter (outside)
 a_e = Radial Depth of Cut
 D_w = Working Diameter
 a_p = Axial Depth of Cut

Average chip thickness:

$$h_m = \frac{f_z}{\sqrt{\frac{D}{a_p}} \times \sqrt{\frac{D_w}{a_e}}}$$

RG_1.00 Recommended Cutting Conditions

Material	▼ Roughing			▼▼ Semi-Finishing			▼▼▼ Finishing		
	Speed V _C (feet/min)	Feed h _m (inch)	D.O.C. a _p (inch)	Speed V _C (feet/min)	Feed h _m (inch)	D.O.C. a _p (inch)	Speed V _C (feet/min)	Feed h _m (inch)	D.O.C. a _p (inch)
◆ Unalloyed Steels	-	-	-	-	-	-	600 - 1180	0.004 - 0.012	<0.060
◆ Alloyed Steels	-	-	-	-	-	-	370 - 780	0.004 - 0.012	<0.060
◆ Stainless Steels	-	-	-	-	-	-	460 - 780	0.004 - 0.008	<0.060
◆ PH Stainless	-	-	-	-	-	-	400 - 620	0.004 - 0.008	<0.060
◆ Cast Irons	-	-	-	-	-	-	330 - 520	0.004 - 0.008	<0.060
◆ Aluminum & Alloys	-	-	-	-	-	-	1320 - 3280	0.004 - 0.012	<0.060
◆ High Temp. Alloys	-	-	-	-	-	-	150 - 190	0.004 - 0.008	<0.060
◆ Hard Steels (52-56 HRC)	-	-	-	-	-	-	170 - 320	0.001 - 0.002	<0.020

h_m = average chip thickness

Star Guide Key to Recommended Tools

Material Designations								
	P	◆ Unalloyed Steels	M	◆ Stainless Steels	K	◆ Cast Irons	S	◆ High Temp. Alloys
	P	◆ Alloyed Steels	M	◆ PH Stainless	N	◆ Aluminum & Alloys	H	◆ Hard Materials