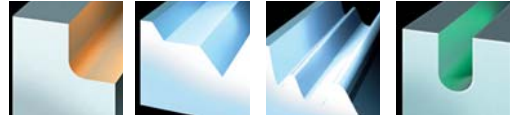


5500 V 16

Contour Milling Cutter



Cylindrical Shank

5500 V 16 Cylindrical Shank

EDP#	Part Number	Dimensions (mm)								Spares			
		D	L	l ₂	l ₃	d ₁	MT	a	No. of Inserts	EDP#	EDP#	EDP#	
021670	5500V 16 CR	16	200	40	-	16	-	8	1	022150	55.675	015240	T15

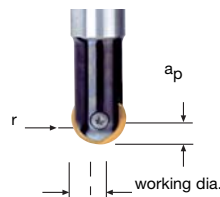
5500 V 16 Morse Taper Shank

021671	5500V 16 MR	16	139	70	75	-	MT2	8	1	022150	55.675	015240	T15
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5500 V 16 Technical Advice

Milling Cutter Order Example: **5500V16CR**
 Milling Insert Order Example: **RG16 SP1032**
 For complete cutting conditions refer to page: **264**

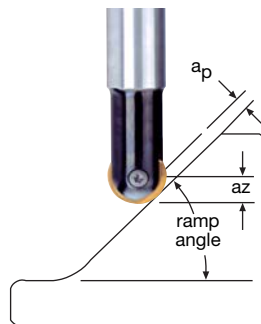


Working Diameter:

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

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

Ramp Milling Method



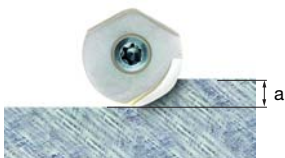
Ramp-up Data

Cutter Diameter 16,00 mm		Ramp Angle
a _p (mm)	az (mm)	
6,0	7,7	15°
4,0	6,9	30°
2,4	5,6	45°
1,1	4,0	60°
0,3	2,0	75°
0,1	0,7	85°

Torque Limits 2.6 Nm



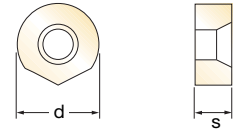
Morse Taper Shank



Depth of cut (a)



Inserts for 5500 V 16



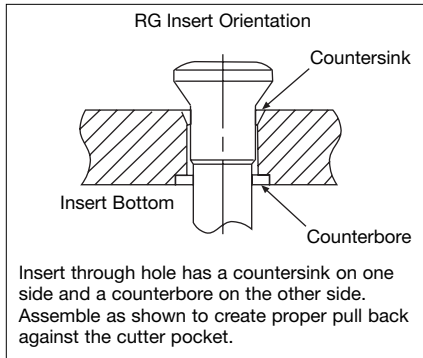
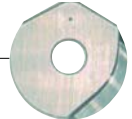
EDP#	Part Number	Grade	Application & Material			Dimensions (mm)				
			Roughing	Semi-Finishing	Finishing	d	l	s	r	h _m min
024119	RG 16	SP1032	▼	▼▼	▼▼▼	16,0	-	3,0	8,0	0,02

RG 16_



027797	RG 16S	SP1064				16,0	-	3,0	8,0	0,02
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RG 16S_



Insert Interchangeability*

Metric		Inch	
Diameter	Insert Number	Diameter	Insert Number
16 mm	RG 16	.625 in.	RG .625

*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_16 Recommended Cutting Conditions

Material	Speed	▼ Roughing	D.O.C.	Speed	▼▼ Semi-Finishing	D.O.C.	Speed	▼▼ Finishing	D.O.C.
	V _C (m/min)	Feed h _m (mm)		a _p (mm)	V _C (m/min)		Feed h _m (mm)	a _p (mm)	
Unalloyed Steels	-	-	-	-	-	-	180 - 360	0,10 - 0,15	< 1,0
Alloyed Steels	-	-	-	-	-	-	110 - 240	0,10 - 0,15	< 1,0
Stainless Steels	-	-	-	-	-	-	140 - 240	0,10 - 0,15	< 1,0
PH Stainless	-	-	-	-	-	-	120 - 190	0,08 - 0,12	< 1,0
Cast Irons	-	-	-	-	-	-	100 - 160	0,08 - 0,12	< 1,0
Aluminium & Alloys	-	-	-	-	-	-	400 - 1000	0,10 - 0,15	< 1,0
High Temp. Alloys	-	-	-	-	-	-	45 - 60	0,08 - 0,12	< 1,0
Hard Steels (52-56 HRC)	-	-	-	-	-	-	50 - 100	0,03 - 0,06	< 0,5

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	Aluminium & Alloys	H	Hard Materials