

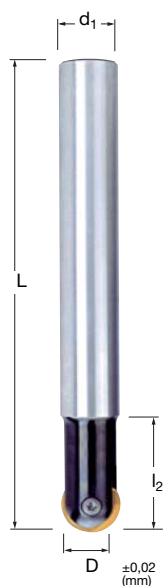
# 5500 V 08

## Contour Milling Cutter

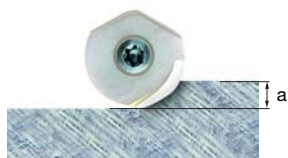


### 5500 V 08 Cylindrical Shank

EDP #	Part Number	Dimensions (mm)					No. of Inserts	Spares			
		D	L	l <sub>2</sub>	d <sub>1</sub>	a		EDP#	EDP#	EDP#	
021666	5500V 08 CR	8	160	20	12	4	1	022149	55.671	018487	T6



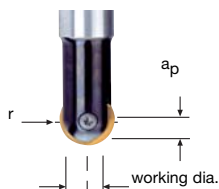
Cylindrical Shank



Depth of cut (a)

### 5500 V 08 Technical Advice

Milling Cutter Order Example: **5500V08CR**  
 Milling Insert Order Example: **RG08 SP1032**  
 For complete cutting conditions refer to page: **264**

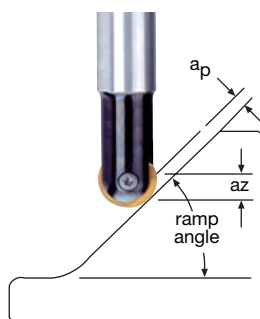


#### Working Diameter:

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

where: **DW** = Working Diameter  
**r** = Cutter radius  
**a<sub>p</sub>** = Axial Depth of Cut

### Ramp Milling Method

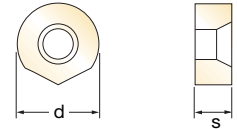


#### Ramp-up Data

Cutter Diameter 8,00 mm		Ramp Angle
a <sub>p</sub> (mm)	az (mm)	
3,0	3,9	15°
2,0	3,5	30°
1,2	2,8	45°
0,5	2,0	60°
0,14	1,1	75°
0,1	0,4	85°

Torque Limits .31 Nm

# Inserts for 5500 V 08



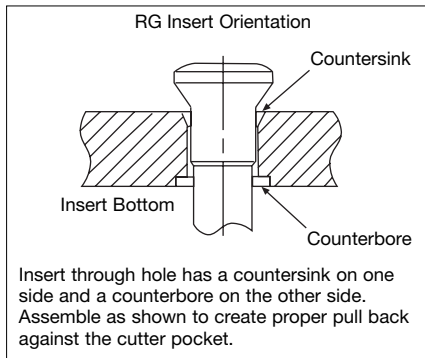
EDP#	Part Number	Grade	Application & Material			Dimensions (mm)				
			Roughing	Semi-Finishing	Finishing	d	l	s	r	h <sub>m</sub> min
024116	RG 08	SP1032	▼	▼▼	▼▼▼	8,0	-	1,75	4,0	0,02

RG 08\_



027794	RG 08S	SP1064				8,0	-	1,75	4,0	0,02
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RG 08S\_



**To find programmed feedrate:**

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

**where:**

- f<sub>z</sub> = Feed per tooth
- h<sub>m</sub> = Average chip thickness
- D = Cutter diameter (outside)
- a<sub>e</sub> = Radial Depth of Cut
- D<sub>w</sub> = Working Diameter
- a<sub>p</sub> = 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\_08 Recommended Cutting Conditions

Material	▼ Roughing			▼▼ Semi-Finishing			▼▼▼ Finishing		
	Speed V <sub>C</sub> (m/min)	Feed h <sub>m</sub> (mm)	D.O.C. a <sub>p</sub> (mm)	Speed V <sub>C</sub> (m/min)	Feed h <sub>m</sub> (mm)	D.O.C. a <sub>p</sub> (mm)	Speed V <sub>C</sub> (m/min)	Feed h <sub>m</sub> (mm)	D.O.C. a <sub>p</sub> (mm)
Unalloyed Steels	-	-	-	-	-	-	180 - 360	0,10	< 1,0
Alloyed Steels	-	-	-	-	-	-	110 - 240	0,10	< 1,0
Stainless Steels	-	-	-	-	-	-	140 - 240	0,10	< 1,0
PH Stainless	-	-	-	-	-	-	120 - 190	0,08	< 1,0
Cast Irons	-	-	-	-	-	-	100 - 160	0,08	< 1,0
Aluminium & Alloys	-	-	-	-	-	-	400 - 1000	0,10	< 1,0
High Temp. Alloys	-	-	-	-	-	-	45 - 60	0,08	< 1,0
Hard Steels (52-56 HRC)	-	-	-	-	-	-	50 - 100	0,05	< 0,5

h<sub>m</sub> = 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