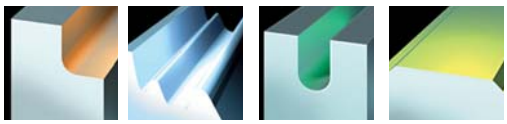
7700 VR 06 Contour Milling Cutter



7700 VR 06 Weldon Shank

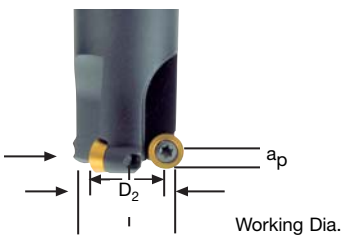
EDP #	Part Number	Dimensions (mm) D_1	D_2	L/H	l_2	d_1	$a_{max.}$	No. of Inserts	EDP#	Spares	EDP#	
021727	**7700VR 06 WA016R067**	16	10	115	67	16	3	2	015060	F2505T	018488	T7
021728	**7700VR 06 WA016R102**	16	10	150	102	16	3	2	015060	F2505T	018488	T7
021729	**7700VR 06 WA020R060**	20	14	110	60	20	3	3	015060	F2505T	018488	T7
021730	**7700VR 06 WA020R090**	20	14	140	90	20	3	3	015060	F2505T	018488	T7
021731	**7700VR 06 WA020R120**	20	14	170	120	20	3	3	015060	F2505T	018488	T7

Weldon Shank

Depth of Cut (a)

7700 VR 06 Technical Advice

Milling Cutter Order Example: **7700VR06WA016R067**
Milling Insert Order Example: **RPEX0602M0F-701 SFZ**
For complete cutting conditions refer to page: **264**



Working Diameter:

$$DW = D_2 + 2 \times \sqrt{r^2 - (r - a_p)^2}$$

where:
- **DW** = Working Diameter
- **D_2** = Diameter of cutter insert centre to centre
- **r** = Insert radius
- **a_p** = Axial Depth of Cut

To find programmed feedrate:

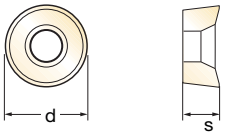
$$f_z = h_m \times \sqrt{\frac{D}{a_p}} \times \sqrt{\frac{D_w}{a_e}}$$

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:

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

Inserts for 7700 VR 06



EDP#	Part Number	Grade	Application & Material: Roughing / Semi-Finishing / Finishing	d	l	s	r	h_m min
024755	**RPEW 06 02M0T**	**X500**	◆	6,0	-	2,38	3,0	0,1
017686	**RPEX 06 02M0F-701**	**GH1**	◆ ◆ ◆	6,0	-	2,38	3,0	0,02
015212	**RPEX 06 02M0F-701**	**SFZ**	◆ ◆ ◆ ◆ ◆ ◆ ◆	6,0	-	2,38	3,0	0,02
024104	**RPEX 06 02M0F-701**	**X44**	◆	6,0	-	2,38	3,0	0,02
023327	**RPMT 06 02M0E-41**	**MP91M**	◆	6,0	-	2,38	3,0	0,03
015219	**RPMT 06 02M0E-41**	**X500**	◆	6,0	-	2,38	3,0	0,03

RPEW 06_

RPEX 06_ -701

RPMT 06_ -41

RP_06 Recommended Cutting Conditions

Material	▼ Roughing Speed V_c (m/min)	Feed h_m (mm)	D.O.C. a_p (mm)	▼▼ Semi-Finishing Speed V_c (m/min)	Feed h_m (mm)	D.O.C. a_p (mm)	▼▼▼ Finishing Speed V_c (m/min)	Feed h_m (mm)	D.O.C. a_p (mm)
◆ Unalloyed Steels	180 - 220	0,12 - 0,18	1,5 - 3,0	220 - 260	0,10 - 0,14	0,5 - 1,5	220 - 300	0,08 - 0,12	0,1 - 0,5
◆ Alloyed Steels	-	-	-	100 - 150	0,08 - 0,12	0,5 - 1,5	100 - 195	0,06 - 0,10	0,1 - 0,5
◆ Stainless Steels	-	-	-	140 - 180	0,06 - 0,10	0,5 - 1,5	180 - 230	0,05 - 0,08	0,1 - 0,5
◆ PH Stainless	-	-	-	70 - 85	0,06 - 0,10	0,5 - 1,5	80 - 100	0,05 - 0,08	0,1 - 0,5
◆ Cast Irons	-	-	-	180 - 300	0,08 - 0,12	0,5 - 1,5	200 - 350	0,06 - 0,10	0,1 - 0,5
◆ Aluminium & Alloys	275 - 450	0,05 - 0,08	1,5 - 3,0	400 - 750	0,04 - 0,06	0,5 - 1,5	700 - 1000	0,04 - 0,06	0,1 - 0,5
◆ High Temp. Alloys	-	-	-	35 - 50	0,06 - 0,10	0,5 - 1,5	45 - 60	0,05 - 0,08	0,1 - 0,5
◆ Hard Steels (52-56 HRC)	-	-	-	-	-	-	50 - 100	0,03 - 0,06	0,1 - 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

STELLRAM®