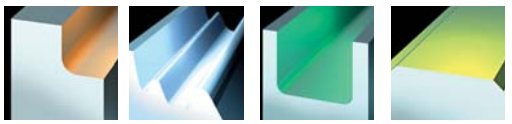
7701 VRD 16 Contour Milling Cutter



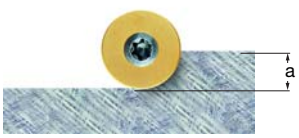
7701 VRD 16 Shell Mill Fixation

EDP #	Part Number	Dimensions (mm) D_1	D_2	H	d_1	a max.	No. of Inserts	Spares EDP#		EDP#	
021748	**7701VRD 16 -A052R**	52	36	55	22	8	4	015266	D5013T	015241	T20
021749	**7701VRD 16 -A066R**	66	50	55	27	8	4	015266	D5013T	015241	T20
021750	**7701VRD 16 -A080R**	80	64	55	27	8	5	015266	D5013T	015241	T20
021751	**7701VRD 16 -A100R**	100	84	55	32	8	6	015266	D5013T	015241	T20
021752	**7701VRD 16 -A125R**	125	109	55	40	8	7	015266	D5013T	015241	T20
021753	**7701VRD 16 -160R**	160	144	55	40	8	8	015266	D5013T	015241	T20

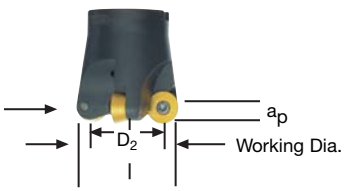
7701 VRD 16 Technical Advice

Milling Cutter Order Example: **7701VRD16-A125R**
Milling Insert Order Example: **RDMW1606M0S X500**
For complete cutting conditions refer to page: **264**

Shell Mill Fixation



Depth of Cut (a)



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:

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

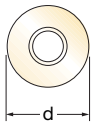
where:
- **f_z** = Feed per tooth
- **h_m** = Average chip thickness
- **D** = Cutter diameter (outside)
- **a_e** = Radial Depth of Cut
- **D_w** = Working Diameter
- **a_p** = Axial Depth of Cut

Average chip thickness:

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

Inserts for 7701 VRD 16

EDP#	Part Number	Grade	Application & Material Roughing ▼	Semi-Finishing ▼▼	Finishing ▼▼▼	Dimensions (mm) d	l	s	r	h_m min
017673	**RDMW 16 06M0S**	**SF30**				16,0	-	6,35	8,0	0,3
015183	**RDMW 16 06M0S**	**X500**	◆◆◆			16,0	-	6,35	8,0	0,3



RDMW 16_

RD_16 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	0,35 - 0,60	1,5 - 8,0	-	-	-	-	-	-
◆ Alloyed Steels	70 - 110	0,30 - 0,50	1,5 - 8,0	-	-	-	-	-	-
◆ Stainless Steels	-	-	-	-	-	-	-	-	-
◆ PH Stainless	-	-	-	-	-	-	-	-	-
◆ Cast Irons	140 - 280	0,30 - 0,50	1,5 - 8,0	-	-	-	-	-	-
◆ Aluminium & Alloys	-	-	-	-	-	-	-	-	-
◆ High Temp. Alloys	-	-	-	-	-	-	-	-	-
◆ Hard Steels (52-56 HRC)	-	-	-	-	-	-	-	-	-

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

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