7700 VR 10 Contour Milling Cutter

7700 VR 10 Weldon Shank

EDP #	Part Number	Dimensions (mm) D_1	D_2	L/H	l_2	l_3	d_1	$a_{max.}$	No. of Inserts	Spares EDP#		EDP#	
021737	**7700VR 10 WA032R070**	32	22	130	70	-	32	5	3	*015260*	D4008T	*015240*	T15
021738	**7700VR 10 WA032R140**	32	22	200	140	-	32	5	3	*015260*	D4008T	*015240*	T15
021739	**7700VR 10 WA032R190**	32	22	250	190	-	32	5	3	*015260*	D4008T	*015240*	T15

7700 VR 10 Morse Taper Shank

021735	**7700VR 10 M032R070**	32	22	179	70	76,5	MT4	5	3	*015260*	D4008T	*015240*	T15
021736	**7700VR 10 M032R140**	32	22	249	140	146,5	MT4	5	3	*015260*	D4008T	*015240*	T15

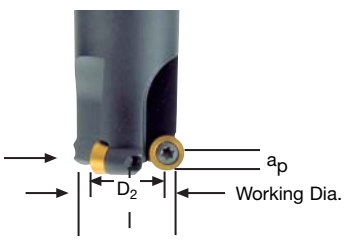
Weldon Shank

Morse Taper Shank

Depth of Cut (a)

7700 VR 10 Technical Advice

Milling Cutter Order Example: **7700VR10M032R140**
Milling Insert Order Example: **RPHT10T3M0E-421 X500**
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:

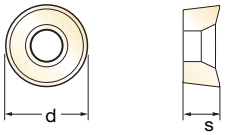
$$f_z = h_m \times \sqrt{\frac{D}{a_p}} \times \sqrt{\frac{D_w}{a_e}}$$

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 10



EDP#	Part Number	Grade	Application & Material ▼ Roughing	▼▼ Semi-Finishing	▼▼▼ Finishing	d	l	s	r	h_m min
017679	**RPET 10 T3M0E**	**SFZ**			◆	10,0	-	3,97	5,0	0,03
017678	**RPET 10 T3M0E**	**X44**				10,0	-	3,97	5,0	0,03
015215	**RPEX 10 T3M0E-701**	**PFZ**				10,0	-	3,97	5,0	0,02
017688	**RPEX 10 T3M0F-701**	**GH1**	◆	◆	◆	10,0	-	3,97	5,0	0,02
023317	**RPEX 10 T3M0F-701**	**SFZ**				10,0	-	3,97	5,0	0,02
024082	**RPHT 10 T3M0T**	**PFZ**				10,0	-	3,97	5,0	0,075
017690	**RPHT 10 T3M0T**	**X500**				10,0	-	3,97	5,0	0,075
027726	**RPHT 10 T3M0T**	**SP6564**		◆◆◆		10,0	-	3,97	5,0	0,075
023320	**RPHT 10 T3M0E-421**	**MP91M**		◆	◆	10,0	-	3,97	5,0	0,04
015145	**RPHT 10 T3M0E-421**	**X500**		◆◆	◆◆	10,0	-	3,97	5,0	0,04
027725	**RPHT 10 T3M0E-421**	**SP6564**			◆◆◆	10,0	-	3,97	5,0	0,04
023329	**RPMT 10 T3M0E-41**	**MP91M**	◆◆			10,0	-	3,97	5,0	0,04
015221	**RPMT 10 T3M0E-41**	**X500**	◆◆			10,0	-	3,97	5,0	0,04
027729	**RPMT 10 T3M0E-41**	**SP6564**	◆◆			10,0	-	3,97	5,0	0,04
025839	**RPMW 10 T3M0T**	**X500**				10,0	-	3,97	5,0	0,13

RPET 10_

RPEX 10_ -701

RPHT 10_

RPHT 10_ -421

RPMT 10_ -41

RPMW 10_

RP_10 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	0,15 - 0,28	2,5 - 5,0	220 - 260	0,12 - 0,20	1,0 - 2,5	220 - 300	0,10 - 0,18	0,1 - 1,0
◆ Alloyed Steels	70 - 110	0,12 - 0,24	2,5 - 4,0	100 - 150	0,10 - 0,18	1,0 - 2,5	100 - 195	0,08 - 0,14	0,1 - 1,0
◆ Stainless Steels	120 - 140	0,10 - 0,16	2,5 - 4,0	140 - 180	0,08 - 0,14	1,0 - 2,5	180 - 230	0,08 - 0,10	0,1 - 1,0
◆ PH Stainless	55 - 70	0,08 - 0,14	2,5 - 4,0	70 - 85	0,08 - 0,12	1,0 - 2,5	80 - 100	0,08 - 0,10	0,1 - 1,0
◆ Cast Irons	140 - 280	0,12 - 0,24	2,5 - 4,0	180 - 300	0,10 - 0,18	1,0 - 2,5	200 - 350	0,08 - 0,14	0,1 - 1,0
◆ Aluminium & Alloys	275 - 450	0,06 - 0,12	2,5 - 5,0	400 - 750	0,06 - 0,10	1,0 - 2,5	700 - 1000	0,04 - 0,08	0,1 - 1,0
◆ High Temp. Alloys	25 - 40	0,08 - 0,14	2,5 - 4,0	35 - 50	0,08 - 0,12	1,0 - 2,5	45 - 60	0,08 - 0,10	0,1 - 1,0
◆ 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

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