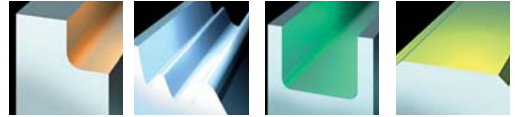




7702 VRD 07 Contour Milling Cutter



7702 VRD 07 Weldon Shank

EDP #	Part Number	Dimensions (inch)							No. of Inserts	Linear Ramp Down	Spares		
		D	L	l_1	d_3	a	EDP#				EDP# 		
025713	C7702VRD07WA0.50R2.00	0.500	3.906	2.00	0.625	0.137	1	21°	015060	F2505T	018488	T7	
025714	C7702VRD07WA0.50R4.00	0.500	5.905	4.00	0.625	0.137	1	21°	015060	F2505T	018488	T7	
025715	C7702VRD07WA0.625R2.0	0.625	3.906	2.00	0.625	0.137	2	14.5°	015060	F2505T	018488	T7	
025716	C7702VRD07WA0.625R4.0	0.625	6.030	4.00	0.750	0.137	2	14.5°	015060	F2505T	018488	T7	
025717	C7702VRD07WA0.75R2.00	0.750	4.030	2.00	0.750	0.137	2	10.5°	015060	F2505T	018488	T7	
025718	C7702VRD07WA0.75R4.00	0.750	6.280	4.00	1.000	0.137	2	10.5°	015060	F2505T	018488	T7	
025719	C7702VRD07WA1.00R2.00	1.000	4.280	2.00	1.000	0.137	4	10.5°	015060	F2505T	018488	T7	
025720	C7702VRD07WA1.00R4.00	1.000	6.280	4.00	1.000	0.137	4	10.5°	015060	F2505T	018488	T7	



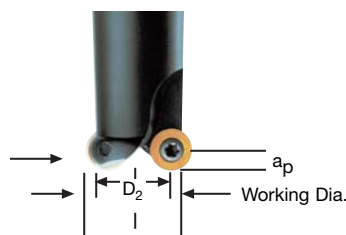
Weldon Shank



Depth of Cut (a)

7702 VRD 07 Technical Advice

Milling Cutter Order Example: **C7702VRD07WA.625R4.0**
 Milling Insert Order Example: **RDET0702MOE-701 SP4036**
 For complete cutting conditions refer to page: **208**



Working Diameter:

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

where:

- DW** = Working Diameter
- D₂** = Diameter of cutter insert center to center
- r** = Insert radius
- a_p** = Axial Depth of Cut

To find programmed feedrate:

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

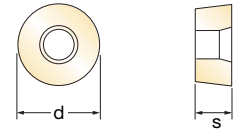
where:

- 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 7702 VRD 07

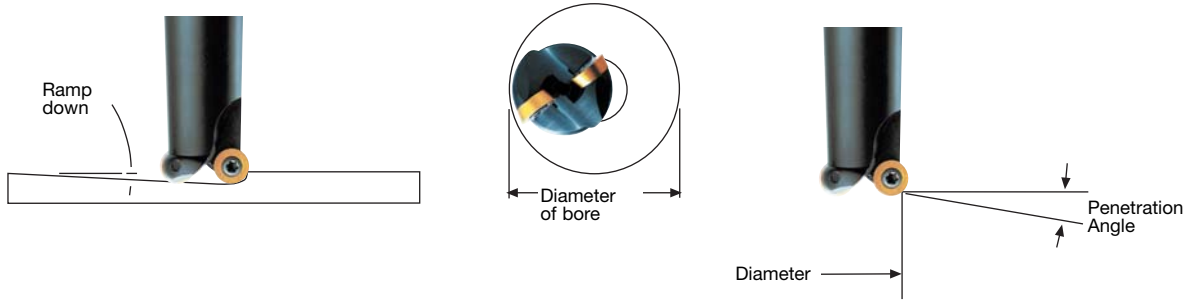


EDP#	Part Number	Grade	Application & Material			Dimensions (inch)				
			Roughing	Semi-Finishing	Finishing	d	l	s	r	h_m min
025739	RDET0702M0E-701	SP4036	▼	▼▼	▼▼▼	0.276	-	0.094	0.138	0.0012

RDET 07_ -701

025737	RDHW0702M0T	SP4036	◆◆◆	◆◆◆	◆◆◆	0.276	-	0.094	0.138	0.0030
--------	-------------	--------	-----	-----	-----	-------	---	-------	-------	--------

RDHW 07_



Part Number	Bore Dia. Max. (inch)	Bore Dia. Min. (inch)	Penetration Angle	Linear Ramp Down
C7702VRD07WA0.50R2.00	0.921	0.500	15.3°	21.5°
C7702VRD07WA0.50R4.00				
C7702VRD07WA0.625R2.0	1.171	0.782	11.2°	13.0°
C7702VRD07WA0.625R4.0				
C7702VRD07WA0.75R2.00	1.421	1.064	8.8°	14.5°
C7702VRD07WA0.75R4.00				
C7702VRD07WA1.00R2.00	1.921	1.511	6.1°	10.0°
C7702VRD07WA1.00R4.00				

RD_07 Recommended Cutting Conditions

Material	▼ Roughing			▼▼ Semi-Finishing			▼▼▼ Finishing		
	Speed V_c (feet/min)	Feed h_m (inch)	D.O.C. a_p (inch)	Speed V_c (feet/min)	Feed h_m (inch)	D.O.C. a_p (inch)	Speed V_c (feet/min)	Feed h_m (inch)	D.O.C. a_p (inch)
◆ Unalloyed Steels	-	-	-	730 - 850	0.002 - 0.005	0.02 - 0.08	730 - 980	0.002 - 0.004	0.00 - 0.02
◆ Alloyed Steels	-	-	-	330 - 490	0.002 - 0.004	0.02 - 0.08	330 - 630	0.002 - 0.004	0.00 - 0.02
◆ Stainless Steels	-	-	-	460 - 590	0.002 - 0.004	0.02 - 0.08	600 - 750	0.002 - 0.003	0.00 - 0.02
◆ PH Stainless	-	-	-	230 - 270	0.002 - 0.003	0.02 - 0.08	270 - 320	0.002 - 0.003	0.00 - 0.02
◆ Cast Irons	-	-	-	600 - 980	0.002 - 0.004	0.02 - 0.08	660 - 1140	0.002 - 0.004	0.00 - 0.02
◆ Aluminum & Alloys	-	-	-	1320 - 2460	0.002 - 0.004	0.02 - 0.08	2300 - 3280	0.002 - 0.004	0.00 - 0.02
◆ High Temp. Alloys	-	-	-	120 - 160	0.002 - 0.003	0.02 - 0.08	150 - 190	0.002 - 0.003	0.00 - 0.02
◆ Hard Steels (52-56 HRC)	-	-	-	-	-	-	170 - 320	0.001 - 0.002	0.00 - 0.02

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 ◆	Aluminum & Alloys	H ◆	Hard Materials