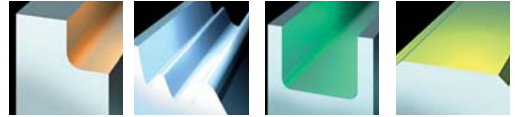


7702 VRD 07 Contour Milling Cutter



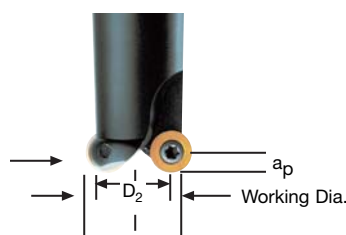
7702 VRD 07 Weldon Shank

EDP #	Part Number	Dimensions (mm)						No. of Inserts	Linear Ramp Down	Spares		
		D	L	l ₁	d ₃	a _{max.}	EDP#			EDP#	EDP#	
025689	7702VRD 07 WA012R50	12	98	50	16	3,5	1	21,5°	015060	F2505T	018488	T7
025690	7702VRD 07 WA012R100	12	148	100	16	3,5	1	21,5°	015060	F2505T	018488	T7
025691	7702VRD 07 WA016R50	16	98	50	16	3,5	2	13,0°	015060	F2505T	018488	T7
025692	7702VRD 07 WA016R100	16	150	100	20	3,5	2	13,0°	015060	F2505T	018488	T7
025693	7702VRD 07 WA020R50	20	100	50	20	3,5	3	14,5°	015060	F2505T	018488	T7
025694	7702VRD 07 WA020R100	20	156	100	25	3,5	3	14,5°	015060	F2505T	018488	T7
025695	7702VRD 07 WA025R50	25	106	50	25	3,5	4	10,0°	015060	F2505T	018488	T7
025696	7702VRD 07 WA025R100	25	156	100	25	3,5	4	10,0°	015060	F2505T	018488	T7



7702 VRD 07 Technical Advice

Milling Cutter Order Example: 7702VRD07WA025R100
 Milling Insert Order Example: RDET0702M0E-701 SP4036
 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
- D₂ = 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:

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

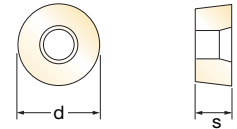
Weldon Shank



Depth of Cut (a)



Inserts for 7702 VRD 07

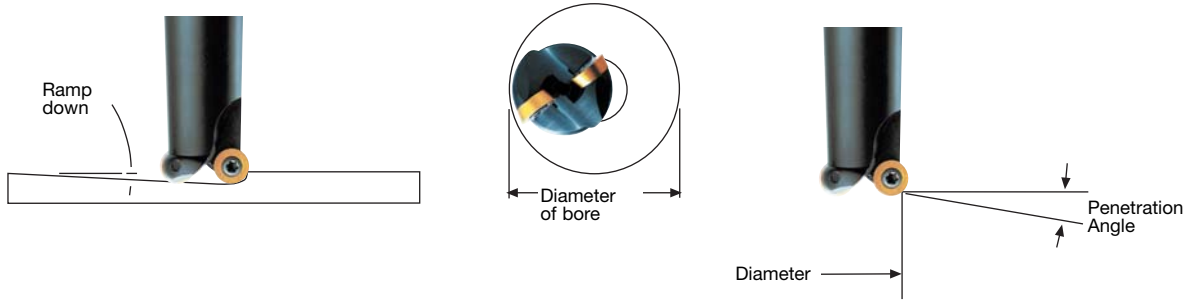


EDP#	Part Number	Grade	Application & Material			Dimensions (mm)				
			Roughing	Semi-Finishing	Finishing	d	l	s	r	h _m min
025739	RDET 07 02M0E-701	SP4036	▼	▼▼	▼▼▼	7,0	-	2,38	3,5	0,03

RDET 07_ -701

025737	RDHW 07 02M0T	SP4036		◆◆◆		7,0	-	2,38	3,5	0,08
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RDHW 07_



Part Number	Bore Dia. Max. (mm)	Bore Dia. Min. (mm)	Penetration Angle	Linear Ramp Down
7702VRD 07 WA012R50	22	12	16,6°	21,5°
7702VRD 07 WA012R100				
7702VRD 07 WA016R50	30	20	11,0°	13,0°
7702VRD 07 WA016R100				
7702VRD 07 WA020R50	38	28	8,2°	14,5°
7702VRD 07 WA020R100				
7702VRD 07 WA025R50	48	38	6,2°	10,0°
7702VRD 07 WA025R100				

RD_07 Recommended Cutting Conditions

Material	▼ Roughing			▼▼ Semi-Finishing			▼▼▼ Finishing		
	Speed V _C (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _C (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _C (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)
◆ Unalloyed Steels	-	-	-	220 - 260	0,06 - 0,12	0,5 - 2,0	220 - 300	0,05 - 0,10	0,1 - 0,5
◆ Alloyed Steels	-	-	-	100 - 150	0,06 - 0,10	0,5 - 2,0	100 - 195	0,05 - 0,10	0,1 - 0,5
◆ Stainless Steels	-	-	-	140 - 180	0,05 - 0,10	0,5 - 2,0	180 - 230	0,05 - 0,08	0,1 - 0,5
◆ PH Stainless	-	-	-	70 - 85	0,05 - 0,08	0,5 - 2,0	80 - 100	0,05 - 0,08	0,1 - 0,5
◆ Cast Irons	-	-	-	180 - 300	0,06 - 0,10	0,5 - 2,0	200 - 350	0,05 - 0,10	0,1 - 0,5
◆ Aluminium & Alloys	-	-	-	400 - 750	0,05 - 0,10	0,5 - 2,0	700 - 1000	0,05 - 0,10	0,1 - 0,5
◆ High Temp. Alloys	-	-	-	35 - 50	0,05 - 0,08	0,5 - 2,0	45 - 60	0,05 - 0,08	0,1 - 0,5
◆ Hard Steels (52-56 HRC)	-	-	-	-	-	-	50 - 100	0,03 - 0,04	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