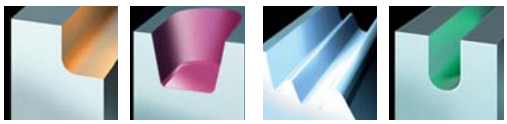
5515 VS 12 Contour Milling Cutter



5515 VS 12 Weldon Shank

EDP#	Part Number	Dimensions (mm) D	L	l_1	l_2	l_3	d_1	MT	No. of Inserts	Spares EDP#		EDP#	
021682	**5515VS 12 WA040R64**	40	170	-	100	64	40	-	*a.* 3	015265	D5010T	015241	T20
									b. 5	015270	F4011T	015241	T20
021683	**5515VS 12 WA050R75**	50	170	-	98	75	40	-	*c.* 4	015265	D5010T	015241	T20
									b. 6	015270	F4011T	015241	T20

5515 VS 12 Morse Taper Shank

021681	**5515VS 12 M040R64**	40	212	109,5	100	64	-	MT4	*a.* 3	015265	D5010T	015241	T20
									b. 5	015270	F4011T	015241	T20

Weldon Shank

Morse Taper Shank

5515 VS 12 Technical Advice

Milling Cutter Order Example: **5515VS12WA040R64**
Milling Insert Order Example: **SDMW120412TN X500**
XDEW16/400512SN-B X500
For complete cutting conditions refer to page: **264**

When using these tools for slotting operations, maximum cutting depth is half the diameter cutter.

Working Diameter:

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

where:
DW = Working Diameter
r = Cutter radius
$\mathbf{a_p}$ = Axial Depth of Cut

To find programmed feedrate:

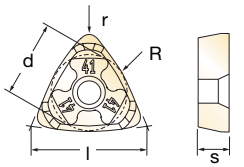
$$f_z = h_m \times \sqrt{\frac{D}{a_p}} \times \sqrt{\frac{D_w}{a_e}}$$

where:
$\mathbf{f_z}$ = Feed per tooth
$\mathbf{h_m}$ = Average chip thickness
D = Cutter diameter (outside)
$\mathbf{a_e}$ = Radial Depth of Cut
$\mathbf{D_w}$ = Working Diameter
$\mathbf{a_p}$ = 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 5515 VS 12



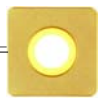
EDP#	Part Number	Grade		Application & Material ▼ Roughing ▼▼ Semi-Finishing ▼▼▼ Finishing	Dimensions (mm) d	l	s	r	R	h_m min
018206	**SDEW 12 0412TN**	**X500**	*b.*		12,7	12,7	4,76	1,2	-	0,15
017730	**SDHW 12 04AETN**	**X500**	*b.*		12,7	12,7	4,76	Facet	-	0,15
014411	**SDMT 12 0412EN-41**	**X500**	*b.*		12,7	12,7	4,76	1,2	-	0,05
015233	**SDMW 12 0412TN**	**X500**	*b.*	◆◆◆	12,7	12,7	4,76	1,2	-	0,12
014415	**XDEW 16 /400512SN-B**	**X500**	*a.*	◆◆◆	12,7	16,0	5,56	1,2	20	0,2
015176	**XDEW 16 /500512SN-B**	**X500**	*c.*	◆◆◆	12,7	16,0	5,56	1,2	25	0,2
015174	**XDMT 16 /400512EN-B41**	**X500**	*a.*	◆◆◆	12,7	16,0	5,56	1,2	20	0,06
015162	**XDMT 16 /500512EN-B41**	**X500**	*c.*	◆◆◆	12,7	16,0	5,56	1,2	25	0,06

SDEW 12_

SDHW 12_

SDMT 12_ -41

SDMW 12_



XDEW 16_ -B

XDMT 16_ -B41

Recommended Cutting Conditions

Material	▼ Roughing Speed V_c (m/min)	Feed/Rev. 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 - 0,38	3,0 - 64,0	-	-	-	-	-	-
◆ Alloyed Steels	70 - 110	0,12 - 0,32	3,0 - 64,0	-	-	-	-	-	-
◆ Stainless Steels	-	-	-	-	-	-	-	-	-
◆ PH Stainless	-	-	-	-	-	-	-	-	-
◆ Cast Irons	140 - 280	0,12 - 0,32	3,0 - 64,0	-	-	-	-	-	-
◆ 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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