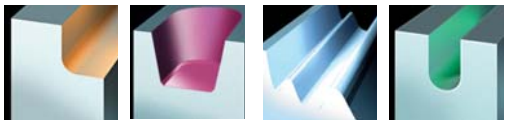
5515 VS 12 Contour Milling Cutter



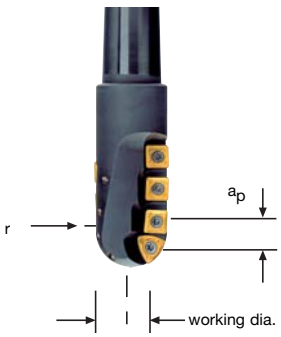
5515 VS 12 Weldon Shank

EDP#	Part Number	Dimensions (inch) D	L	l_1	l_2	d_1	No. of Inserts	Spares EDP#		EDP#	
014864	**C5515VS12WA1.50R2.50**	1.50	6.70	2.50	4.00	1.50	*a.* 3	015265	D5010T	015241	T20
							b. 5	015270	F4011T	015241	T20
014298	**C5515VS12W2.00R3.00**	2.00	6.70	3.00	4.00	1.5	*a.* 4	015265	D5010T	015241	T20
							b. 6	015270	F4011T	015241	T20

5515 VS 12 Technical Advice

Milling Cutter Order Example: **C5515VS12WA1.50R2.50**
Milling Insert Order Example: **SDMW120412TN X500**
XDEW16/500512SN-B X500
For complete cutting conditions refer to page: **208**

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
a_p = Axial Depth of Cut

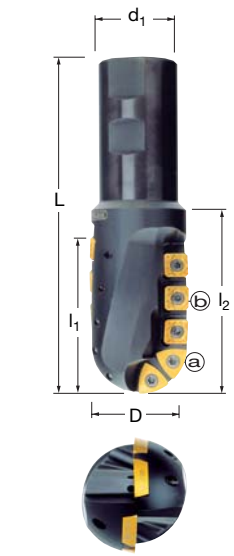
To find programmed feedrate:

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

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

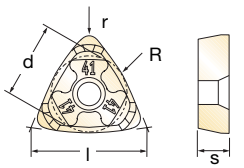
Average chip thickness:

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



Weldon Shank

Inserts for 5515 VS 12



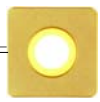
EDP#	Part Number	Grade		Application & Material ▼ Roughing	▼▼ Semi-Finishing	▼▼▼ Finishing	Dimensions (inch) d	l	s	r	R	h_m min
018206	**SDEW120412TN**	**X500**	*b.*				0.500	0.500	0.187	0.047	-	0.0059
017730	**SDHW1204AETN**	**X500**	*b.*				0.500	0.500	0.187	Facet	-	0.0059
014411	**SDMT120412EN-41**	**X500**	*b.*				0.500	0.500	0.187	0.047	-	0.0020
015233	**SDMW120412TN**	**X500**	*b.*	◆◆◆			0.500	0.500	0.187	0.047	-	0.0047
014415	**XDEW16/400512SN-B**	**X500**	*a.*	◆◆◆			0.500	0.630	0.219	0.047	0.787	0.0079
015176	**XDEW16/500512SN-B**	**X500**	*a.*	◆◆◆			0.500	0.630	0.219	0.047	0.984	0.0079
015174	**XDMT16/400512EN-B41**	**X500**	*a.*	◆◆◆			0.500	0.630	0.219	0.047	0.787	0.0024
015162	**XDMT16/500512EN-B41**	**X500**	*a.*	◆◆◆			0.500	0.630	0.219	0.047	0.984	0.0024

SDEW 12_

SDHW 12_

SDMT 12_ -41

SDMW 12_



XDEW 16_ -B

XDMT 16_ -B41

Recommended Cutting Conditions

Material	▼ Roughing Speed V_c (feet/min)	Feed/Rev. h_m (inch)	D.O.C. a_p (inch)	▼▼ Semi-Finishing Speed V_c (feet/min)	Feed h_m (inch)	D.O.C. a_p (inch)	▼▼▼ Finishing Speed V_c (feet/min)	Feed h_m (inch)	D.O.C. a_p (inch)
◆ Unalloyed Steels	600 - 720	0.006 - 0.015	0.12 - 2.52	-	-	-	-	-	-
◆ Alloyed Steels	230 - 360	0.005 - 0.013	0.12 - 2.52	-	-	-	-	-	-
◆ Stainless Steels	-	-	-	-	-	-	-	-	-
◆ PH Stainless	-	-	-	-	-	-	-	-	-
◆ Cast Irons	460 - 910	0.005 - 0.013	0.12 - 2.52	-	-	-	-	-	-
◆ Aluminum & 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 ◆	Aluminum & Alloys	H ◆	Hard Materials

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