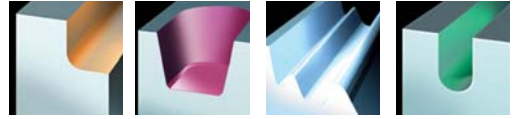




5510 VS 09

Contour Milling Cutter



5510 VS 09 Weldon Shank

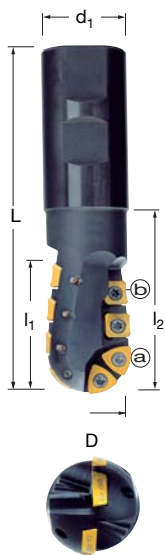
EDP#	Part Number	Dimensions (inch)					No. of Inserts	Spares				
		D	L	l ₁	l ₂	d ₁		EDP#		EDP#		
014863	C5510VS09WA1.25R1.90	1.25	5.00	1.90	2.70	1.25	a.	3	015269	F3508T	015240	T15
							b.	5	015269	F3508T	015240	T15



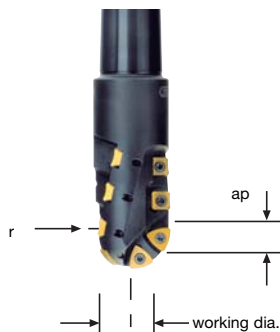
5510 VS 09 Technical Advice

Milling Cutter Order Example: **C5510VS09WA1.25R1.90**
 Milling Insert Order Example: **SDMW09T308TN X500**
XDEW11/32T308SN-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.



Weldon Shank

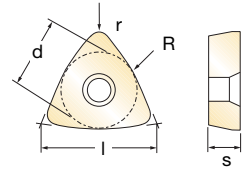


Working Diameter:

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

where: **DW** = Working Diameter
r = Cutter radius
a_p = Axial Depth of Cut

Inserts for 5510 VS 09



EDP#	Part Number	Grade	Application & Material			Dimensions (inch)							
			Roughing	Semi-Finishing	Finishing	d	l	s	r	R	h _m min		
017717	SDCW09T3AETN	X44	b.			0.375	0.375	0.156	Facet	-	0.0059	SDCW 09_	
015231	SDHW09T3AETN	X500	b.			0.375	0.375	0.156	Facet	-	0.0039	SDHW 09_	
015232	SDMW09T308TN	X500	b.	◆◆◆		0.375	0.375	0.156	0.031	-	0.0047	SDMW 09_	
015194	XDEW11/32T308SN-B	X44	a.			0.354	0.433	0.156	0.031	0.630	0.0047	XDEW 11_	
015195	XDEW11/32T308SN-B	X500	a.	◆◆◆		0.354	0.433	0.156	0.031	0.630	0.0047		

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:

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

Recommended Cutting Conditions

Material	▼ Roughing			▼▼ Semi-Finishing			▼▼▼ Finishing		
	Speed V _C (feet/min)	Feed/Rev 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	600 - 720	0.005 - 0.014	0.12 - 1.89	-	-	-	-	-	-
◆ Alloyed Steels	230 - 360	0.005 - 0.012	0.12 - 1.89	-	-	-	-	-	-
◆ Stainless Steels	-	-	-	-	-	-	-	-	-
◆ PH Stainless	-	-	-	-	-	-	-	-	-
◆ Cast Irons	460 - 910	0.005 - 0.012	0.12 - 1.89	-	-	-	-	-	-
◆ 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
	P ◆ Alloyed Steels	M ◆ PH Stainless	N ◆ Aluminum & Alloys
			S ◆ High Temp. Alloys
			H ◆ Hard Materials