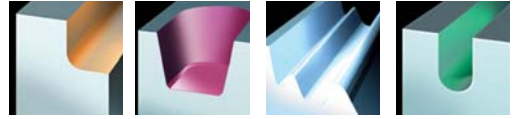


# 5510 VS 06

## Contour Milling Cutter



### 5510 VS 06 Weldon Shank

EDP#	Part Number	Dimensions (mm)							No. of Inserts	Spares			
		D	L	I <sub>1</sub>	I <sub>2</sub>	I <sub>3</sub>	d <sub>1</sub>	MT		EDP#	EDP#	EDP#	EDP#
021677	5510VS 06 WA025R30	25	100	-	44	30	25	-	a. 3	015268	F2506TP	018488	T7
									b. 4	015268	F2506TP	018488	T7

### 5510 VS 06 Morse Taper Shank

021676	5510VS 06 M025R30	25	130	49	44	30	25	MT3	a. 3	015268	F2506TP	018488	T7
									b. 4	015268	F2506TP	018488	T7



Weldon Shank



Morse Taper Shank



## 5510 VS 06 Technical Advice

Milling Cutter Order Example: **5510VS06WA025R30**  
 Milling Insert Order Example: **SPEW060304SN X500**  
**XPEW08/250308SN-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.

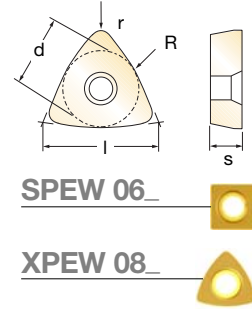


#### Working Diameter:

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

where: **DW** = Working Diameter  
**r** = Cutter radius  
**a<sub>p</sub>** = Axial Depth of Cut

# Inserts for 5510 VS 06



EDP#	Part Number	Grade	Application & Material			Dimensions (mm)						
			Roughing	Semi-Finishing	Finishing	d	l	s	r	R	$h_m$ min	
014413	SPEW 06 0304SN	X500	b.	◆◆◆	▼▼	▼▼▼	6,35	6,35	3,18	0,4		0,15
014419	XPEW 08 /250308SN-B	X500	a.	◆◆◆			6,35	8,0	3,18	0,8	12,5	0,12

To find programmed feedrate:

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

Average chip thickness:

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

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

## Recommended Cutting Conditions

Material	Speed	▼ Roughing	D.O.C.	Speed	▼ Semi-Finishing	D.O.C.	Speed	▼ Finishing	D.O.C.
	$V_C$ (m/min)	Feed/Rev $h_m$ (mm)	$a_p$ (mm)	$V_C$ (m/min)	Feed $h_m$ (mm)	$a_p$ (mm)	$V_C$ (m/min)	Feed $h_m$ (mm)	$a_p$ (mm)
◆ Unalloyed Steels	180 - 220	0,15 - 0,35	3,0 - 30,0	-	-	-	-	-	-
◆ Alloyed Steels	70 - 110	0,15 - 0,30	3,0 - 30,0	-	-	-	-	-	-
◆ Stainless Steels	-	-	-	-	-	-	-	-	-
◆ PH Stainless	-	-	-	-	-	-	-	-	-
◆ Cast Irons	140 - 280	0,15 - 0,30	3,0 - 30,0	-	-	-	-	-	-
◆ Aluminium & Alloys	-	-	-	-	-	-	-	-	-
◆ High Temp. Alloys	-	-	-	-	-	-	-	-	-
◆ Hard Steels (52-56 HRC)	-	-	-	-	-	-	-	-	-

$h_m$  = average chip thickness

## Star Guide Key to Recommended Tools

Material Designations			
	<b>P</b> ◆ Unalloyed Steels	<b>M</b> ◆ Stainless Steels	<b>K</b> ◆ Cast Irons
	<b>P</b> ◆ Alloyed Steels	<b>M</b> ◆ PH Stainless	<b>N</b> ◆ Aluminium & Alloys
			<b>S</b> ◆ High Temp. Alloys
			<b>H</b> ◆ Hard Materials