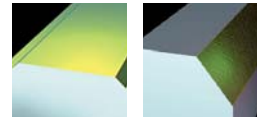




7745 VSE 12 Milling Cutter



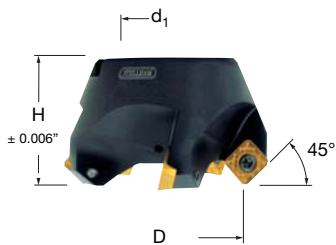
7745 VSE 12 Shell Mill Fixation

EDP #	Part Number	Dimensions (inch)						No. of Inserts	Spares			
		D	H	d ₁	a	Plunge max.	EDP#			EDP#		
014915	C7745VSE12-A2.00Z04R	2.000	1.570	0.750	0.275	0.230	4	015270	F4011T	015241	T20	
014916	C7745VSE12-A2.50Z05R	2.500	1.970	0.750	0.275	0.230	5	015270	F4011T	015241	T20	
014917	C7745VSE12-A3.00Z06R	3.000	1.970	1.000	0.275	0.230	6	015270	F4011T	015241	T20	
014918	C7745VSE12-A4.00Z07R	4.000	1.970	1.250	0.275	0.230	7	015270	F4011T	015241	T20	
014914	C7745VSE12-A5.00Z08R	5.000	2.480	1.500	0.275	0.230	8	015270	F4011T	015241	T20	

7745 VSE 12 Technical Advice



Milling Cutter Order Example: **C7745VSE12-A2.00Z04R**
 Milling Insert Order Example: **SDKT1204AEEN-45 X500**
 For complete cutting conditions refer to page: 208



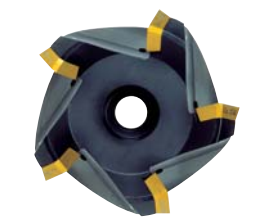
Feedrate compensation: For 45° cutting, divide the h_m value by the sine of the approach angle (the sine of 45° = 0.707)

$$\text{ie: } \frac{h_m}{0.707} \quad \text{or} \quad \frac{0.004''}{0.707} = 0.0056 \text{ in. programmed feed rate}$$

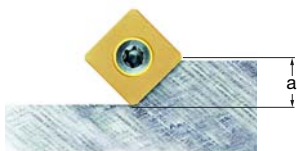
SD_12 Recommended Cutting Conditions

Material	▼ Roughing			▼▼ Semi-Finishing			▼▼▼ Finishing		
	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)	Speed V _C (feet/min)	Feed h _m (inch)	D.O.C. a _p (inch)
◆ Unalloyed Steels	600 - 720	0.008 - 0.018	0.12 - 0.24	730 - 850	0.006 - 0.012	0.04 - 0.12	730 - 980	0.006 - 0.007	0.01 - 0.04
◆ Alloyed Steels	230 - 360	0.008 - 0.014	0.12 - 0.24	330 - 490	0.006 - 0.010	0.04 - 0.12	330 - 630	0.006 - 0.007	0.01 - 0.04
◆ Stainless Steels	400 - 450	0.006 - 0.012	0.12 - 0.24	460 - 590	0.006 - 0.010	0.04 - 0.12	600 - 750	0.006 - 0.007	0.01 - 0.04
◆ PH Stainless	190 - 220	0.006 - 0.010	0.08 - 0.16	230 - 270	0.006 - 0.008	0.04 - 0.08	270 - 320	0.002 - 0.004	0.01 - 0.04
◆ Cast Irons	460 - 910	0.006 - 0.012	0.12 - 0.24	600 - 980	0.004 - 0.009	0.04 - 0.12	660 - 1140	0.002 - 0.006	0.01 - 0.04
◆ Aluminum & Alloys	910 - 1470	0.006 - 0.012	0.12 - 0.24	1320 - 2460	0.004 - 0.009	0.04 - 0.12	2300 - 3280	0.002 - 0.006	0.01 - 0.04
◆ High Temp. Alloys	90 - 130	0.006 - 0.010	0.08 - 0.16	120 - 160	0.006 - 0.008	0.04 - 0.08	150 - 190	0.002 - 0.004	0.01 - 0.04
◆ Hard Steels (52-56 HRC)	-	-	-	170 - 270	0.002 - 0.005	0.02 - 0.06	170 - 320	0.001 - 0.002	0.01 - 0.02

h_m = average chip thickness



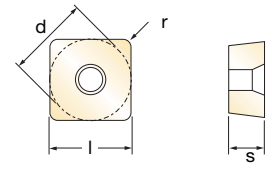
Shell Mill Fixation



Depth of Cut (a)



Inserts for 7745 VSE 12



EDP#	Part Number	Grade	Application & Material			Dimensions (inch)				
			Roughing ▼	Semi-Finishing ▼▼	Finishing ▼▼▼	d	l	s	r	h _m min
018203	SDCT1204AEEN	SF30				0.500	0.500	0.187	Facet	0.0016
017243	SDCT1204AEFN	GH1	◆	◆	◆	0.500	0.500	0.187	Facet	0.0008
017318	SDCW1204AEEN	MP91M		◆	◆	0.500	0.500	0.187	Facet	0.0012
017719	SDCW1204AEFN	SFZ			◆	0.500	0.500	0.187	Facet	0.0008
017722	SDCW1204AETN	GH1				0.500	0.500	0.187	Facet	0.0059
018205	SDCW1204AETN	CN35				0.500	0.500	0.187	Facet	0.0067
017720	SDCW1204AETN	SF30				0.500	0.500	0.187	Facet	0.0059
017723	SDCW1204AETN	SFZ		◆		0.500	0.500	0.187	Facet	0.0039
017721	SDCW1204AETN	X44				0.500	0.500	0.187	Facet	0.0059
017727	SDEX1204AEEN-701	PFZ				0.500	0.500	0.187	Facet	0.0008
015149	SDEX1204AEFN-701	GH1				0.500	0.500	0.187	Facet	0.0008
015230	SDEX1204AEFN-701	SFZ				0.500	0.500	0.187	Facet	0.0008
017321	SDHT1204AEEN-421	MP91M				0.500	0.500	0.187	Facet	0.0016
015133	SDHT1204AEEN-421	PFZ				0.500	0.500	0.187	Facet	0.0016
015187	SDHT1204AEEN-421	X500	◆		◆◆	0.500	0.500	0.187	Facet	0.0016
027734	SDHT1204AEEN-421	SP6564				0.500	0.500	0.187	Facet	0.0016
017322	SDHT1204AETN-42	MP91M				0.500	0.500	0.187	Facet	0.0059
017728	SDHT1204AETN-42	PFZ				0.500	0.500	0.187	Facet	0.0059
027735	SDHT1204AETN-42	SP6564				0.500	0.500	0.187	Facet	0.0059
017729	SDHT1204AETN-42	X500	◆			0.500	0.500	0.187	Facet	0.0039
017324	SDHW1204AETN	MP91M				0.500	0.500	0.187	Facet	0.0059
015134	SDHW1204AETN	PFZ				0.500	0.500	0.187	Facet	0.0059
017730	SDHW1204AETN	X500				0.500	0.500	0.187	Facet	0.0059
026601	SDKT1204AEEN-45	MP91M		◆◆	◆	0.500	0.500	0.187	Facet	0.0020
026603	SDKT1204AEEN-45	X500		◆◆	◆	0.500	0.500	0.187	Facet	0.0020
027739	SDKT1204AEEN-45	SP6564		◆◆	◆◆	0.500	0.500	0.187	Facet	0.0020
018206	SDEW120412TN	X500				0.500	0.500	0.187	0.047	0.0059
017326	SDMT120412EN-41	MP91M	◆			0.500	0.500	0.187	0.047	0.0020
015135	SDMT120412EN-41	PFZ				0.500	0.500	0.187	0.047	0.0020
014411	SDMT120412EN-41	X500				0.500	0.500	0.187	0.047	0.0020
027737	SDMT120412EN-41	SP6564	◆◆			0.500	0.500	0.187	0.047	0.0020
017328	SDMW120412TN	MP91M	◆			0.500	0.500	0.187	0.047	0.0059
015136	SDMW120412TN	PFZ				0.500	0.500	0.187	0.047	0.0059
015233	SDMW120412TN	X500				0.500	0.500	0.187	0.047	0.0047



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	