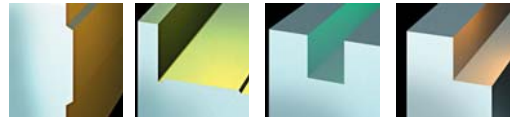






7690 VA 16 Milling Cutter

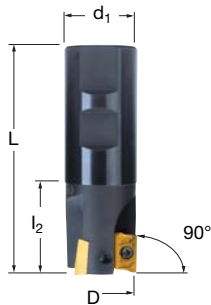


7690 VA 16 Weldon Shank

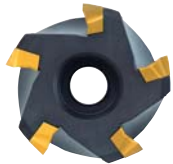
EDP #	Part Number	Dimensions (inch)						No. of Inserts	Spares		
		D	L/H	l_2	d_1	a	EDP#			EDP#	
022330	C7690VA16WA.750R	0.750	3.940	1.91	0.75	0.600	1	015260	D4008T	015240	T15
015409	C7690VA16WA1.00R	1.000	3.770	1.570	1.000	0.600	2	015260	D4008T	015240	T15
014881	C7690VA16WA1.25R	1.250	3.930	1.600	1.250	0.600	3	015262	D4010T	015240	T15
014875	C7690VA16WA1.50R	1.500	4.330	2.000	1.250	0.600	4	015262	D4010T	015240	T15

7690 VA 16 Shell Mill Fixation

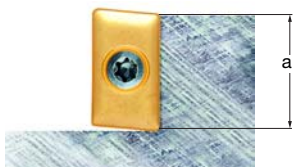
EDP #	Part Number	D	L/H	l_2	d_1	a	No. of Inserts	EDP#		EDP#	
014876	C7690VA16-A2.00R	2.000	1.560	-	0.750	0.600	5	015262	D4010T	015240	T15
014877	C7690VA16-A2.50R	2.500	1.560	-	0.750	0.600	5	015262	D4010T	015240	T15
014878	C7690VA16-A3.00R	3.000	1.960	-	1.000	0.600	6	015262	D4010T	015240	T15
014879	C7690VA16-A4.00R	4.000	1.960	-	1.250	0.600	7	015262	D4010T	015240	T15
014880	C7690VA16-A5.00R	5.000	2.480	-	1.500	0.600	8	015262	D4010T	015240	T15



Weldon Shank



Shell Mill Fixation



Depth of Cut (a)



7690 VA 16 Technical Advice

Milling Cutter Order Example: **C7690VA16WA.750R**
 Milling Insert Order Example: **APFW1604PDTR-42 PFZ**
 For complete cutting conditions refer to page: **208**

When using inserts with a radius larger than 0.08 in., the cutter body has to be modified.

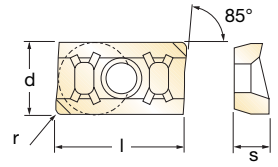
AP_16 Recommended Cutting Conditions

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	0.006-0.016	0.31-0.63	730-850	0.005-0.014	0.12-0.31	730-980	0.006-0.018	0.01-0.12
◆ Alloyed Steels	230-360	0.006-0.014	0.31-0.63	330-490	0.005-0.012	0.12-0.31	330-630	0.006-0.016	0.01-0.12
◆ Stainless Steels	-	-	-	460-590	0.005-0.010	0.12-0.31	600-750	0.006-0.011	0.01-0.12
◆ PH Stainless	-	-	-	230-270	0.004-0.008	0.12-0.31	270-320	0.004-0.008	0.01-0.12
◆ Cast Irons	460-910	0.006-0.011	0.31-0.63	600-980	0.005-0.010	0.12-0.31	660-1140	0.007-0.012	0.01-0.12
◆ Aluminum & Alloys	910-1470	0.002-0.010	0.31-0.63	1320-2460	0.002-0.008	0.12-0.31	2300-3280	0.003-0.012	0.01-0.12
◆ High Temp. Alloys	-	-	-	120-160	0.004-0.008	0.12-0.31	150-190	0.004-0.008	0.01-0.12
◆ Hard Steels (52-56 HRC)	-	-	-	170-270	0.002-0.003	0.06-0.14	170-320	0.002-0.004	0.01-0.06

h_m = average chip thickness



Inserts for 7690 VA 16



EDP#	Part Number	Grade	Application & Material			Dimensions (inch)				
			Roughing ▼	Semi-Finishing ▼▼	Finishing ▼▼▼	d	l	s	r	h _{min}
017621	APEX1604PDER-701	PFZ				0.375	0.656	0.187	Facet	0.0008
017623	APEX1604PDFR-701	SFZ				0.375	0.656	0.187	Facet	0.0008
014066	APEX1604PDFR-701	GH1				0.375	0.656	0.187	Facet	0.0008
017291	APFW1604PDER	MP91M				0.375	0.656	0.187	Facet	0.0016
017627	APFW1604PDTR	X44				0.375	0.656	0.187	Facet	0.0039
017628	APFW1604PDTR	GH1				0.375	0.656	0.187	Facet	0.0039
018030	APFW1604PDTR	CN35				0.375	0.656	0.187	Facet	0.0039
017626	APFW1604PDTR	SF30				0.375	0.656	0.187	Facet	0.0039
017629	APFW1604PDTR	SFZ		◊	◊	0.375	0.656	0.187	Facet	0.0039
017633	APHT1604PDER	SFZ				0.375	0.656	0.187	Facet	0.0020
015154	APHT1604PDFR	GH1	◊	◊	◊	0.375	0.656	0.187	Facet	0.0008
017293	APHT1604PDTR-42	MP91M				0.375	0.656	0.187	Facet	0.0039
017634	APHT1604PDTR-42	PFZ				0.375	0.656	0.187	Facet	0.0039
015155	APHT1604PDTR-42	X500				0.375	0.656	0.187	Facet	0.0039
027718	APHT1604PDTR-42	SP6564				0.375	0.656	0.187	Facet	0.0039
011649	APKT1604PDRB-3M	MP91M				0.375	0.656	0.187	Facet	0.0039
017294	APKT1604PDER-43	MP91M	◊	◊	◊	0.375	0.656	0.187	Facet	0.0031
014067	APKT1604PDER-43	PFZ				0.375	0.656	0.187	Facet	0.0031
015156	APKT1604PDER-43	X500		◊◊	◊◊	0.375	0.656	0.187	Facet	0.0031
027720	APKT1604PDER-43	SP6564	◊◊	◊◊	◊◊	0.375	0.656	0.187	Facet	0.0031
023102	APET160402TR-42	PFZ				0.375	0.656	0.187	0.008	0.0039
023103	APET160408TR-42	PFZ				0.375	0.656	0.187	0.031	0.0039
023104	APET160410TR-42	PFZ				0.375	0.656	0.187	0.039	0.0039
023105	APET160415TR-42	PFZ				0.375	0.656	0.187	0.059	0.0039
023106	APET160420TR-42	PFZ				0.375	0.656	0.187	0.079	0.0039
017618	APET160425TR-42	MP91M				0.375	0.656	0.187	0.098	0.0039
017619	APET160425TR-42	X500				0.375	0.656	0.187	0.098	0.0039
023107	APET160430TR-42	PFZ				0.375	0.656	0.187	0.118	0.0039
017290	APET160440TR-42	MP91M				0.375	0.656	0.187	0.157	0.0039
024921	APET160440TR-42	PFZ				0.375	0.656	0.187	0.157	0.0039
017620	APET160440TR-42	X500				0.375	0.656	0.187	0.157	0.0039
025804	APET160460TR-42	PFZ				0.375	0.656	0.187	0.236	0.0039
017636	APHW160440TR	X44				0.375	0.656	0.187	0.157	0.0039
011488	APKT160408E-2C	MP91M				0.375	0.656	0.187	0.031	0.0039
010796	APKT160408E-2C	PFZ				0.375	0.656	0.187	0.031	0.0039
017228	APMT160412B-2C	MP91M				0.375	0.656	0.187	0.047	0.0039
013944	APMT160416B-2C	MP91M				0.375	0.656	0.187	0.063	0.0039
013945	APMT160424B-2C	MP91M				0.375	0.656	0.187	0.094	0.0039
013946	APMT160432B-2C	MP91M				0.375	0.656	0.187	0.126	0.0039
017229	APMT160440B-2C	MP91M				0.375	0.656	0.187	0.157	0.0039
017230	APMT160448B-2C	MP91M				0.375	0.656	0.187	0.189	0.0039
013947	APMT160464B-2C	MP91M				0.375	0.656	0.187	0.252	0.0039



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