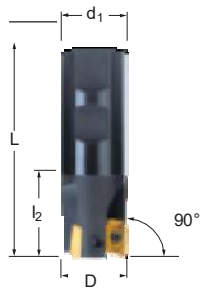


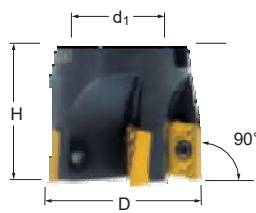
MILLING



AFM16 Milling Cutter





Weldon Shank



Shell Mill Fixation

AFM 16 Weldon Shank

EDP#Part Number	Dimensions (mm)							No of teeth	Spares		
	D	L/H	l_2	l_3	d_1	a_p max.	EDP#		 EDP#	 EDP#	
021707 AFM 16 WA025R	25	96	40	-	25	16	2	015260	D4008T	015240	T15
021708 AFM 16 WA032R	32	100	40	-	32	16	3	015262	D4010T	015240	T15
021708 AFM 16 WA032R	40	110	50	-	32	16	4	015262	D4010T	015240	T15

AFM16 Shell Mill Fixation

017985 AFM 16 -A040R	40	40	-	-	16	16	4	015262	D4010T	015240	T15
021700 AFM 16 -A050R	50	40	-	-	22	16	5	015262	D4010T	015240	T15
021701 AFM 16 -A063R	63	40	-	-	22	16	5	015262	D4010T	015240	T15
021702 AFM 16 -A080R	80	50	-	-	27	16	6	015262	D4010T	015240	T15
021703 AFM 16 -A100R	100	50	-	-	32	16	7	015262	D4010T	015240	T15
021704 AFM 16 -A125R	125	63	-	-	40	16	8	015262	D4010T	015240	T15

AFM16 Morse Taper Shank

018291 AFM 16 M025R	25	124	38	43	MT3	16	2	015260	D4008T	015240	T15
021705 AFM 16 M032R	32	124	38	43,5	MT3	16	3	015262	D4010T	015240	T15
021706 AFM 16 M040R	40	157	48	54,5	MT4	16	4	015262	D4010T	015240	T15

Milling Cutter Order Example: **AFM 16 WA025R**
 Milling Insert Order Example: **APKT1604PDTR ...**
 When using inserts with a radius larger than 2 mm,
 the cutter body has to be modified.

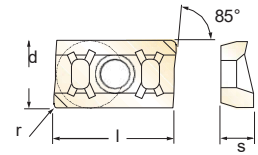


Depth of Cut (a_p)

AP_16 Recommended Cutting Conditions

Material	✓ <i>Roughing</i>			▼ <i>Semi-Finishing</i>			▼▼ <i>Finishing</i>		
	Speed V_c (m/min)	Feed h_m (mm)	D.O.C. a_p (mm)	Speed V_c (m/min)	Feed h_m (mm)	D.O.C. a_p (mm)	Speed V_c (m/min)	Feed h_m (mm)	D.O.C. a_p (mm)
◆ Unalloyed Steels	180 - 220	0,14 - 0,24	8,0 - 16,0	220 - 260	0,12 - 0,35	3,0 - 8,0	220 - 300	0,15 - 0,45	0,2 - 3,0
◆ Alloyed Steels	70 - 110	0,12 - 0,20	8,0 - 16,0	100 - 150	0,12 - 0,30	3,0 - 8,0	100 - 195	0,15 - 0,40	0,2 - 3,0
◆ Stainless Steels	-	-	-	140 - 180	0,12 - 0,25	3,0 - 8,0	180 - 230	0,15 - 0,28	0,2 - 3,0
◆ PH Stainless	-	-	-	70 - 85	0,10 - 0,20	3,0 - 8,0	80 - 100	0,10 - 0,20	0,2 - 3,0
◆ Cast Irons	140 - 280	0,10 - 0,16	8,0 - 16,0	180 - 300	0,12 - 0,25	3,0 - 8,0	200 - 350	0,18 - 0,30	0,2 - 3,0
◆ Aluminium & Alloys	275 - 450	0,06 - 0,25	8,0 - 16,0	400 - 750	0,04 - 0,20	3,0 - 8,0	700 - 1000	0,08 - 0,30	0,2 - 3,0
◆ High Temp. Alloys	-	-	-	35 - 50	0,10 - 0,20	3,0 - 8,0	45 - 60	0,10 - 0,20	0,2 - 3,0
◆ Hard Steels (52-56 HRC)	-	-	-	50 - 85	0,04 - 0,08	1,5 - 3,5	50 - 100	0,06 - 0,10	0,2 - 1,5

Inserts For AFM 16



EDP#	Part Number	Grade	Application & Material			Dimensions (mm)				
			Roughing	SemiFinishing	Finishing	d	l	s	r	h _{min}
023102	APKT 16 0402PDTR	A04030				9,52	16,66	4,76	0,2	0,1
023103	APKT 16 0408PDTR	A04030				9,52	16,66	4,76	0,8	0,1
023104	APKT 16 0410PDTR	A04030				9,52	16,66	4,76	1,0	0,1
023105	APKT 16 0415PDTR	A04030				9,52	16,66	4,76	1,5	0,1
023106	APKT 16 0420PDTR	A04030				9,52	16,66	4,76	2,0	0,1
017618	APKT16 0425PDTR	750				9,52	16,66	4,76	2,5	0,1
017619	APKT16 0425PDTR	XT500				9,52	16,66	4,76	2,5	0,1
023107	APKT 16 0430PDTR	A04030				9,52	16,66	4,76	3,0	0,1
017290	APKT 16 0440PDTR	750				9,52	16,66	4,76	4,0	0,1
024921	APKT 16 0440PDTR	A04030				9,52	16,66	4,76	4,0	0,1
017620	APKT 16 0440PDTR	XT500				9,52	16,66	4,76	4,0	0,1
025504	APKT 16 0460PDTR	A04030				9,52	16,66	4,76	6,0	0,1

APKT 16



027863	APKT 16 0408PDSR	750S				9,52	16,66	4,76	0,8	0,1
027869	APKT 16 0408PDSR	XT500				9,53	16,67	4,76	0,8	0,1
027864	APKT 16 0416PDSR	750S				9,54	16,68	4,76	1,6	0,1
027870	APKT 16 0416PDSR	XT500				9,55	16,69	4,76	1,6	0,1
027865	APKT 16 0424PDSR	750S				9,56	16,70	4,76	2,4	0,1
027871	APKT 16 0424PDSR	XT500				9,57	16,71	4,76	2,4	0,1
027862	APKT 16 0432PDSR	750S				9,58	16,72	4,76	3,2	0,1
027866	APKT 16 0432PDSR	XT500				9,59	16,73	4,76	3,2	0,1
027873	APKT 16 0440PDSR	750S				9,60	16,74	4,76	4,0	0,1
027873	APKT 16 0440PDSR	XT500				9,61	16,75	4,76	4,0	0,1
027867	APKT 16 0450PDSR	750S				9,62	16,76	4,76	5,0	0,1
027874	APKT 16 0450PDSR	XT500				9,63	16,77	4,76	5,0	0,1
027868	APKT 16 0464PDSR	750S				9,64	16,78	4,76	6,4	0,1

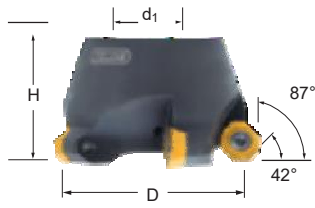
**APHT 16
-46**



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	Aluminium & Alloys	H	Hard Materials

AMFOD 06 Milling Cutter





Shell Mill Fixation

AMF OD 06 Shell Mill Fixation Medium Pitch

EDP# Part Number	Dimensions (mm)								Spares			
	D	L/H	l_2	d_1	$a_{p1 \text{ max}}$	$a_{p \text{ max}}$	No. of teeth	EDP#	 EDP#	 EDP#		
026581 AMF OD 06 -A050R	50	40	-	22	10	4,5	4	015270	F4011T	015241	T20	
026582 AMF OD 06 -A063R	63	40	-	22	10	4,5	5	015270	F4011T	015241	T20	
026583 AMF OD 06 -A080R	80	50	-	27	10	4,5	6	015270	F4011T	015241	T20	
026584 AMF OD 06 -A100R	100	55	-	32	10	4,5	7	015270	F4011T	015241	T20	
026585 AMF OD 06 -A125R	125	63	-	40	10	4,5	8	015270	F4011T	015241	T20	
026586 AMF OD 06 -160R	160	63	-	40	10	4,5	10	015270	F4011T	015241	T20	

7745 VOD 06 Shell Mill Fixation Fine Pitch

EDP# Part Number	D	L/H	l_2	d_1	$a_{p1 \text{ max}}$	$a_{p \text{ max}}$	No. of teeth	EDP#	 EDP#	 EDP#	
027911 AMF OD 06 -A080Z08R	80	50	-	27	10	4,5	8	015270	F4011T	015241	T20
027876 AMF OD 06 -A100Z09R	100	55	-	32	10	4,5	9	015270	F4011T	015241	T20
027877 AMF OD 06 -A125Z11R	125	63	-	40	10	4,5	11	015270	F4011T	015241	T20
027878 AMF OD 06 -160Z14R	160	63	-	40	10	4,5	14	015270	F4011T	015241	T20

Milling cutters with through coolant except \varnothing 160.

Milling Cutter Order Example: **AMF OD 06-A080R**
 Milling Insert Order Example: **ODMT0605...**

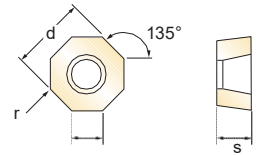
Feedrate compensation: For 45° cutting, divide the h_m value by the sine of the approach angle (the sine of 45° = 0,707)

ie: $\frac{h_m}{0,707}$ or $\frac{0,08}{0,707} = 0,113$ mm programmed feed rate



Depth of Cut (a_p)

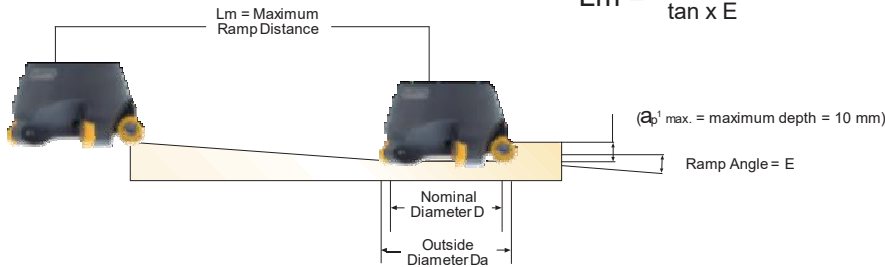
Inserts for AMF OD 06



ECP#	Part Number	Grade	Application & Material			Dimensions (mm)				
			Roughing ✓	Semi-Finishing ▼▼	Finishing ▼▼▼	d	l	s	r	h _m min
026591	ODMT0605PEN	A04030			◆	16,0	6,0	5,55	Facet	0,04
026598	ODMT0605PEN	750			◆◆	16,0	6,0	5,55	Facet	0,04
027891	ODMT0605PEN	750S			◆◆◆	16,0	6,0	5,55	Facet	0,04
026592	ODMT0605PEN	XT500			◆◆	16,0	6,0	5,55	Facet	0,04
026598	ODGT0605AFN	H01	◆	◆	◆	16,0	6,0	5,55	Facet	0,02
027895	ODMW0605PTR	K01	◆	◆	◆	16,0	6,0	5,55	Facet	0,19
026599	ODMT0605AEN	A04030			◆	16,0	6,0	5,55	Facet	0,04
026597	ODMT0605AEN	750			◆◆	16,0	6,0	5,55	Facet	0,04
027892	ODMT0605AEN	750S			◆◆◆	16,0	6,0	5,55	Facet	0,04
026590	ODMT0605AEN	XT500	◆	◆◆		16,0	6,0	5,55	Facet	0,04



Linear Ramp Milling Method



$$L_m = \frac{a_p^1}{\tan \alpha E}$$

Ramp Angle	
Ø 50	6,0°
Ø 63	4,6°
Ø 80	3,3°
Ø 100	2,6°
Ø 125	2,0°
Ø 160	1,5°

OD_06 Recommended Cutting Conditions

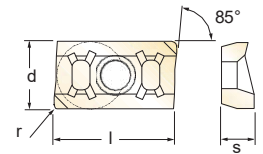
Material	✓ Roughing			▼▼ Semi-Finishing			▼▼▼ Finishing		
	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)
◆ Unalloyed Steels	180 - 220	0,30 - 0,70	2,5 - 4,5	220 - 260	0,20 - 0,40	1,0 - 2,0	220 - 300	0,08 - 0,15	0,2 - 1,0
◆ Alloyed Steels	70 - 110	0,27 - 0,50	2,5 - 4,5	100 - 150	0,20 - 0,35	1,0 - 2,0	100 - 195	0,08 - 0,15	0,2 - 1,0
◆ Stainless Steels	120 - 140	0,27 - 0,40	2,5 - 4,5	140 - 180	0,15 - 0,25	1,0 - 2,0	180 - 230	0,05 - 0,15	0,2 - 1,0
◆ PH Stainless	55 - 70	0,15 - 0,30	2,5 - 4,5	70 - 85	0,10 - 0,20	1,0 - 2,0	80 - 100	0,05 - 0,10	0,2 - 1,0
◆ Cast Irons	155 - 290	0,20 - 0,45	2,5 - 4,5	195 - 310	0,15 - 0,30	1,0 - 2,0	215 - 360	0,05 - 0,15	0,2 - 1,0
◆ Aluminium & Alloys	275 - 450	0,20 - 0,35	2,5 - 4,5	400 - 750	0,10 - 0,25	1,0 - 2,0	700 - 1000	0,05 - 0,15	0,2 - 1,0
◆ High Temp. Alloys	25 - 40	0,17 - 0,25	2,5 - 4,5	35 - 50	0,10 - 0,20	1,0 - 2,0	45 - 60	0,05 - 0,10	0,2 - 1,0
◆ Hard Steels (52-56 HRC)	-	-	-	50 - 85	0,06 - 0,12	0,5 - 1,5	50 - 100	0,03 - 0,06	0,2 - 0,5

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	Aluminium & Alloys	H	Hard Materials

Inserts for APKT11T3



EDP#	Part Number	Grade	Application & Material			Dimensions (mm)				
			Roughing ▽	SemiFinishing ▽▽	Finishing ▽▽▽	d	l	s	r	h _m min
027914	APKT11T3PDER	750S				7,87	11,70	3,76	Facet	0,05
027913	APKT11T3PDER	XT500				7,87	11,70	3,76	Facet	0,05
027915	APKT11T3PDER	A04030	◆			7,87	11,70	3,76	Facet	0,05
027916	APKT11T3PDER	K01	◆			7,87	11,70	3,76	Facet	0,05
029098	APGT11T3PDFR	H01	◆			7,96	11,90	3,76	Facet	0,05
029326	APKT11T308R	750	◆			8,00	11,90	3,76	Facet	0,05
029327	APKT11T316R	XT500	◆			8,00	11,90	3,76	Facet	0,05
029328	APKT11T324R	750	◆			8,00	11,90	3,76	0,8	0,05
029329	APKT11T332R	XT500	◆			8,00	11,90	3,76	0,8	0,05



APKT 11T3

Please note that for the 5315 range, only a maximum 0,8mm radius is allowed.

APKT11T3 Recommended Cutting Conditions									
Material	Roughing			SemiFinishing			Finishing		
	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)
◆ Unalloyed Steels	120 - 305	0,06 - 0,12	-	-	-	-	-	-	-
◆ Alloyed Steels	75 - 175	0,06 - 0,10	-	-	-	-	-	-	-
◆ Stainless Steels	115 - 160	0,06 - 0,10	-	-	-	-	-	-	-
◆ PH Stainless	95 - 150	0,06 - 0,10	-	-	-	-	-	-	-
◆ Cast Irons	115 - 400	0,06 - 0,13	-	-	-	-	-	-	-
◆ Aluminium & Alloys	200 - 800	0,04 - 0,20	-	-	-	-	-	-	-
◆ High Temp. Alloys	25 - 40	0,04 - 0,10	-	-	-	-	-	-	-
◆ Hard Steels (52-56 HRC)	-	-	-	-	-	-	-	-	-

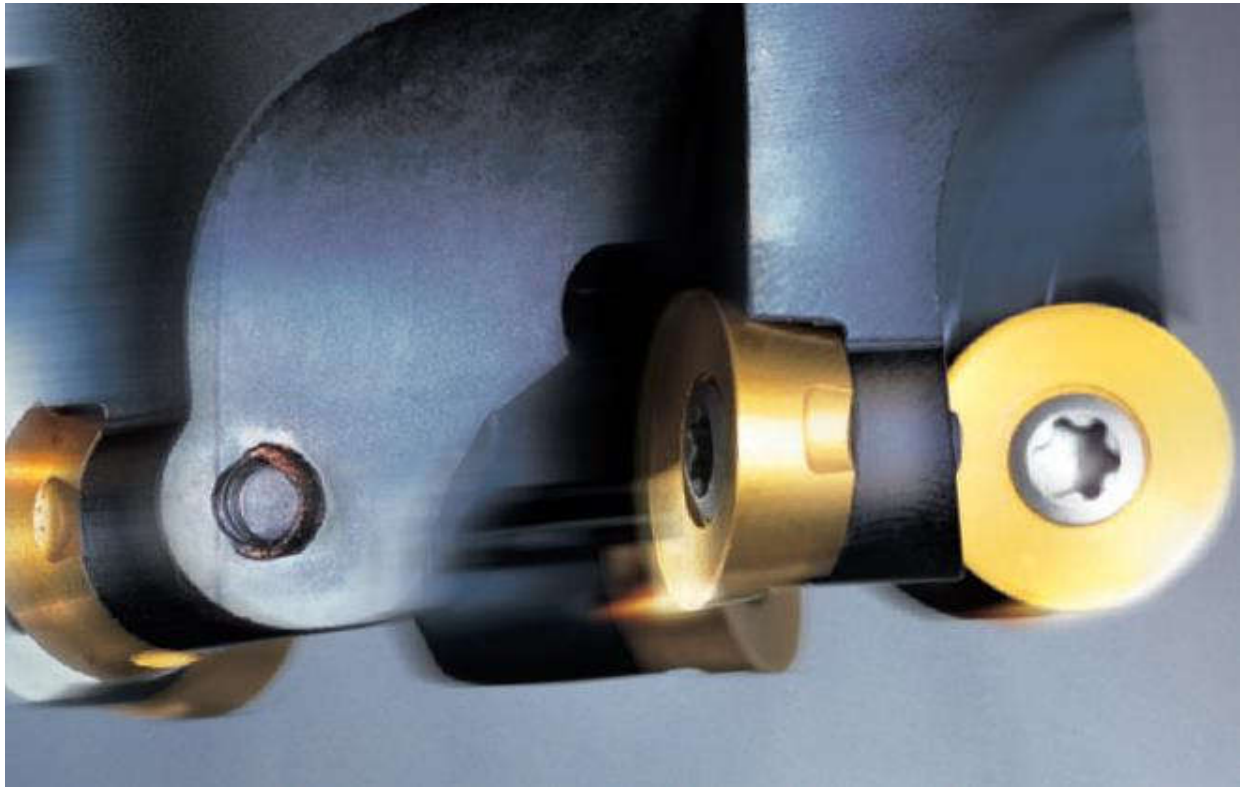
NOTE: For material families [M] (stainless steel and PH stainless) and [S] (high temperature alloys) the -46 insert geometry is only profile these materials, not slotting.

For D.O.C. please refer to a_p max

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	Aluminium & Alloys	H	Hard Materials



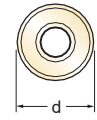


These versatile tools are used for face milling, radius end milling, slotting, pocketing, contour milling and hole milling.

All Stellram Contour Milling Cutters feature P-20 tool steel bodies. Through-tool coolant allows better chip evacuation, higher feed rates. They can be used in roughing and finishing operations.



Inserts for RPHT10T3



EDP#	Part Number	Grade	Application & Material			Dimensions (mm)				
			Roughing ▽	Semi-Finishing ▽▽	Finishing ▽▽▽	d	l	s	r	h _m min
017679	RPET10T3M0E	A04030			◇	10,0	-	3,97	5,0	0,03
017678	RPET10T3M0E	XT500				10,0	-	3,97	5,0	0,03
015215	RPEX10T3M0E	A04030				10,0	-	3,97	5,0	0,02
017688	RPEX10T3M0F	H01	◇	◇	◇	10,0	-	3,97	5,0	0,02
023317	RPEX10T3M0F	A04030				10,0	-	3,97	5,0	0,02
017680	RPHT10T3M0T	X500				10,0	-	3,97	5,0	0,075
027726	RPHT10T3M0T	SP6564		◇◇		10,0	-	3,97	5,0	0,075
015145	RPHT10T3M0E	XT500		◇◇	◇◇	10,0	-	3,97	5,0	0,04
027725	RPHT10T3M0E	750S		◇◇	◇◇	10,0	-	3,97	5,0	0,04
023329	RPMT10T3M0E-4T	A04030	◇◇	◇	◇	10,0	-	3,97	5,0	0,04
015221	RPMT10T3M0E-4T	XT500	◇◇			10,0	-	3,97	5,0	0,04
027729	RPMT10T3M0E-4T	750S	◇◇			10,0	-	3,97	5,0	0,04
028839	RPMW10T3M0T	XT500				10,0	-	3,97	5,0	0,13

RPET 10

RPEX 10

RPHT 10

RPHT 10

**RPMT 10
-4T**

RPMW 10



Material	▽ Roughing			▽▽ Semi-Finishing			▽▽▽ Finishing		
	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)
◇ Unalloyed Steels	180 - 220	0,15 - 0,28	2,5 - 5,0	220 - 260	0,12 - 0,20	1,0 - 2,5	220 - 300	0,10 - 0,18	0,1 - 1,0
◇ Alloyed Steels	70 - 110	0,12 - 0,24	2,5 - 4,0	100 - 150	0,10 - 0,18	1,0 - 2,5	100 - 195	0,08 - 0,14	0,1 - 1,0
◇ Stainless Steels	120 - 140	0,10 - 0,16	2,5 - 4,0	140 - 180	0,08 - 0,14	1,0 - 2,5	180 - 230	0,08 - 0,10	0,1 - 1,0
◇ PH Stainless	55 - 70	0,08 - 0,14	2,5 - 4,0	70 - 85	0,08 - 0,12	1,0 - 2,5	80 - 100	0,08 - 0,10	0,1 - 1,0
◇ Cast Irons	140 - 280	0,12 - 0,24	2,5 - 4,0	180 - 300	0,10 - 0,18	1,0 - 2,5	200 - 350	0,08 - 0,14	0,1 - 1,0
◇ Aluminium & Alloys	275 - 450	0,06 - 0,12	2,5 - 5,0	400 - 750	0,04 - 0,10	1,0 - 2,5	700 - 1000	0,04 - 0,08	0,1 - 1,0
◇ High Temp. Alloys	25 - 40	0,08 - 0,14	2,5 - 4,0	35 - 50	0,08 - 0,12	1,0 - 2,5	45 - 60	0,08 - 0,10	0,1 - 1,0
◇ Hard Steels (52-56 HRC)	-	-	-	-	-	-	50 - 100	0,08 - 0,03	0,1 - 0,5

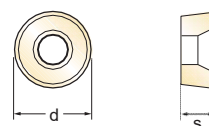
h_m = average chip thickness

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	Aluminium & Alloys	H	Hard Materials



Inserts for RP..T1204



EDP#	Part Number	Grade	Application & Material			Dimensions (mm)				
			Roughing ▽	SemiFinishing ▽▽	Finishing ▽▽▽	d	l	s	r	h _m min
029271	RPET 12 04M0E	A04030			◇	12,0	-	4,76	6,0	0,03
029279	RPET 12 04M0E	750			◇	12,0	-	4,76	6,0	0,03
029280	RPET 12 04M0E	A04030		◇	◇	12,0	-	4,76	6,0	0,03
029282	RPEX 12 04M0E	XT500		◇	◇	12,0	-	4,76	6,0	0,02
029283	RPEX 12 04M0F	A04030		◇	◇	12,0	-	4,76	6,0	0,02
029284	RPEX 12 04M0F	H01	◇	◇	◇	12,0	-	4,76	6,0	0,02
029286	RPHT 12 04M0E	XT500		◇	◇	12,0	-	4,76	6,0	1,10
029287	RPHT 12 04M0E	K01		◇	◇	12,0	-	4,76	6,0	1,10
029289	RPHT1204M0T	750S	◇	◇		12,0	-	4,76	6,0	0,04
029290	RPHT1204M0T	750	◇	◇		12,0	-	4,76	6,0	0,04
029272	RPMT1204M0E-4T	XT500	◇	◇	◇	12,0	-	4,76	6,0	0,05
029291	RPMT1204M0E-4T	A04030	◇	◇	◇	12,0	-	4,76	6,0	0,05
029293	RPMT1204M0E-4T	750	◇	◇	◇	12,0	-	4,76	6,0	0,05
029294	RPMW1204M0T	A04030	◇	◇		12,0	-	4,76	6,0	0,13
029295	RPMW1204M0T	XT500				12,0	-	4,76	6,0	0,13
029296	RPMW1204M0T	750	◇	◇		12,0	-	4,76	6,0	0,13

RPET 12

RPEX 12

RPHT 12

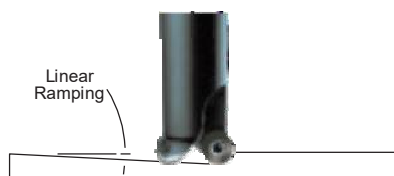
RPHT 12

**RPMT 12
-4T**

RPMW 12

Linear Ramping

Description	Diameter at Axis	External Diameter	Insert Diameter	Ramp angle	linear ramping	
					a _p max.	length
AMFR12-A040R	40	52	12	4.15°	6	82.69
AMFR12-A050R	50	62	12	4.4°	6	77.98
AMFR12-A063R	63	75	12	3.5°	6	98.10
AMFR12-A080R	80	92	12	2.63°	6	130.62
AMFR12-A100R	100	112	12	2.15°	6	159.82
AMFR12-A125R	125	137	12	1.6°	6	214.80



RP_12 Recommended Cutting Conditions

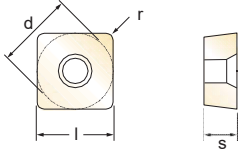
Material	▽ Roughing			▽▽ SemiFinishing			▽▽▽ Finishing		
	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)	Speed V _c (m/min)	Feed h _m (mm)	D.O.C. a _p (mm)
◇ Unalloyed Steels	180 - 220	0,16 - 0,30	2,5 - 6,0	220 - 260	0,14 - 0,22	1,0 - 3,0	220 - 300	0,12 - 0,18	0,1 - 1,0
◇ Alloyed Steels	70 - 110	0,14 - 0,25	2,5 - 6,0	100 - 150	0,12 - 0,20	1,0 - 3,0	100 - 195	0,08 - 0,16	0,1 - 1,0
◇ Stainless Steels	120 - 140	0,10 - 0,18	2,5 - 4,0	140 - 180	0,08 - 0,14	1,0 - 3,0	180 - 230	0,08 - 0,12	0,1 - 1,0
◇ PH Stainless	-	-	-	70 - 85	0,08 - 0,12	1,0 - 3,0	80 - 100	0,08 - 0,10	0,1 - 1,0
◇ Cast Irons	140 - 280	0,14 - 0,25	2,5 - 6,0	180 - 300	0,12 - 0,20	1,0 - 3,0	200 - 350	0,08 - 0,16	0,1 - 1,0
◇ Aluminium & Alloys	275 - 450	0,06 - 0,12	2,5 - 6,0	400 - 750	0,06 - 0,10	1,0 - 3,0	700 - 1000	0,04 - 0,08	0,1 - 1,0
◇ High Temp. Alloys	-	-	-	35 - 50	0,08 - 0,12	1,0 - 3,0	45 - 60	0,08 - 0,10	0,1 - 1,0
◇ 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	Aluminium & Alloys	H	Hard Materials

S Style Milling Inserts



SDHT Ground circumference χ 45° one face pressed chip-breaker.

EDP#	Part Number	Grade	Dimensions (mm)				
			d	l	s	r	h_n ,min
017320	SDHT09T3AEEN	750	9,52	9,52	3,97	Facet	0,03
023366	SDHT09T3AEEN	A04030	9,52	9,52	3,97	Facet	0,03
015166	SDHT09T3AEEN	XT500	9,52	9,52	3,97	Facet	0,03
027733	SDHT09T3AEEN	750S	9,52	9,52	3,97	Facet	0,03
017321	SDHT1204AEEN	750	12,7	12,7	4,76	8,0	0,04
015133	SDHT1204AEEN	A04030	12,7	12,7	4,76	8,0	0,04
015187	SDHT1204AEEN	XT500	12,7	12,7	4,76	8,0	0,04
027734	SDHT1204AEEN	750S	12,7	12,7	4,76	8,0	0,04



SDHW
Ground circumference χ 45° without chip-breaker.

017323	SDHW 09 T3AETN	750	9,52	9,52	3,97	Facet	0,10
023368	SDHW 09 T3AETN	A04030	9,52	9,52	3,97	Facet	0,10
015231	SDHW 09 T3AETN	XT500	9,52	9,52	3,97	Facet	0,10
017324	SDHW 12 04AETN	750	12,7	12,7	4,76	Facet	0,15
015134	SDHW 12 04AETN	A04030	12,7	12,7	4,76	Facet	0,15
017730	SDHW 12 04AETN	XT500	12,7	12,7	4,76	Facet	0,15
017731	SDHW 15 05AETN	XT500	15,88	15,88	5,56	Facet	0,15



SDKT
Ground wiper facet χ 45° one face pressed chip-breaker.

026600	SDKT 09 T3AEEN	750	9,52	9,52	3,97	Facet	0,05
026602	SDKT 09 T3AEEN	XT500	9,52	9,52	3,97	Facet	0,05
027738	SDKT 09 T3AEEN	750S	9,52	9,52	3,97	Facet	0,05
029466	SDKT 12 04AEEN	750	12,7	12,7	4,76	Facet	0,05
029467	SDKT 12 04AEEN	XT500	12,7	12,7	4,76	Facet	0,05
029465	SDKT 12 04AEEN	750	12,7	12,7	4,76	Facet	0,05



SDMT_4T
As pressed circumference one face pressed chip-breaker.

017325	SDMT 09 T308EN-4T	750	9,52	9,52	3,97	0,8	0,04
023362	SDMT 09 T308EN-4T	A04030	9,52	9,52	3,97	0,8	0,04
014410	SDMT 09 T308EN-4T	XT500	9,52	9,52	3,97	0,8	0,04
027736	SDMT 09 T308EN-4T	750S	9,52	9,52	3,97	0,8	0,04
017326	SDMT 12 0412EN-4T	750	12,7	12,7	4,76	1,2	0,05
015135	SDMT 12 0412EN-4T	A04030	12,7	12,7	4,76	1,2	0,05
014411	SDMT 12 0412EN-4T	XT500	12,7	12,7	4,76	1,2	0,05
027737	SDMT 12 0412EN-4T	750S	12,7	12,7	4,76	1,2	0,05



SDMW
As pressed circumference without chip-breaker.

017327	SDMW 09 T308TN	750	9,52	9,52	3,97	0,8	0,15
027742	SDMW 09 T308TN	750S	9,52	9,52	3,97	0,8	0,15
023363	SDMW 09 T308TN	A04030	9,52	9,52	3,97	0,8	0,15
015232	SDMW 09 T308TN	XT500	9,52	9,52	3,97	0,8	0,12
017328	SDMW 12 0412TN	750	12,7	12,7	4,76	1,2	0,15
015136	SDMW 12 0412TN	A04030	12,7	12,7	4,76	1,2	0,15
015233	SDMW 12 0412TN	XT500	12,7	12,7	4,76	1,2	0,12



SEHT
Ground circumference χ 45° one face pressed chip-breaker.

012470	SEHT 12 04AF	750	12,7	12,7	4,76	Facet	0,12
012469	SEHT 12 04AFER	A04030	12,7	12,7	4,76	Facet	0,12

012990	SEHWT12 04AF	750	12,7	12,7	4,76	Facet	0,12
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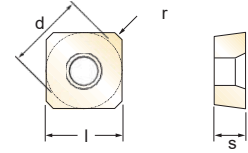
SEHT
Ground circumference χ 45° without chip-breaker.

010832	SEKN 12 03AFEN	750	12,7	12,7	3,18	Facet	0,12
009252	SEKN 12 03AFEN	A04030	12,7	12,7	3,18	Facet	0,12
009247	SEKN 12 03AFEN	K01	12,7	12,7	3,18	Facet	0,12
017862	SEKN 12 03AFFN	H01	12,7	12,7	3,18	Facet	0,12
010834	SEKN 12 04AFEN	750	12,7	12,7	4,76	Facet	0,12
009253	SEEN 12 04AFEN	A04030	12,7	12,7	4,76	Facet	0,12
011344	SEKN 15 04AFEN	750	15,88	15,88	4,76	Facet	0,12
009254	SEKN 15 04AFEN	A04030	15,88	15,88	4,76	Facet	0,12
010832	SEER 12 03AFEN	750	12,7	12,7	3,18	Facet	0,12
009252	SEER 12 03AFEN	A04030	12,7	12,7	3,18	Facet	0,12
009247	SEER 12 03AFEN	K01	12,7	12,7	3,18	Facet	0,12
017862	SEER 12 03AFFN	H01	12,7	12,7	3,18	Facet	0,12
010834	SEER 12 04AFEN	750	12,7	12,7	4,76	Facet	0,12
009253	SEER 12 04AFEN	A04030	12,7	12,7	4,76	Facet	0,12
011344	SEER 15 04AFEN	750	15,88	15,88	4,76	Facet	0,12
009254	SEER 15 04AFEN	A04030	15,88	15,88	4,76	Facet	0,12



SEER
Ground wiper facet χ 45° one face pressed chip-breaker.

S & T Style Milling Inserts



EDP#	Part Number	Grade	Dimensions (mm)					h _m min
			d	l	s	r		
010833	SEKR 12 03AFEN	750	12,7	12,7	3,18	Facet	0,12	
009781	SEKR 12 03AFEN	A04030	12,7	12,7	3,18	Facet	0,12	
017863	SEKR 12 03AFFN	H01	12,7	12,7	3,18	Facet	0,12	
011546	SEKR 12 04AFEN	750	12,7	12,7	4,76	Facet	0,12	
027898	SEKR 12 03AFTR	750S	12,7	12,7	4,76	Facet	0,12	
017223	SEKR 12 04AFEN	A04030	12,7	12,7	4,76	Facet	0,12	
011345	SEKR 15 04AFEN	750	15,88	15,88	4,76	Facet	0,12	
010309	SEKR 15 04AFEN	A04030	15,88	15,88	4,76	Facet	0,12	
022114	SEKT 12 04AFER-4T	750	12,7	12,7	4,76	Facet	0,05	
022113	SEKT 12 04AFER-4T	XT500	12,7	12,7	4,76	Facet	0,05	

017329	SEMT13T3AGSN-4T	750	13,4	13,4	3,97	Facet	0,15
017733	SEGT13T3AGFN-4T	H01	13,4	13,4	3,97	Facet	0,15
017734	SEMT13T3AGSN-4T	A04030	13,4	13,4	3,97	Facet	0,15
017732	SEMT13T3AGSN-4T	750S	13,4	13,4	3,97	Facet	0,15

000477	SPKN 12 03EDKR	K01	12,7	12,7	3,18	Facet	0,2
012476	SPKN 12 03EDKR	750	12,7	12,7	3,18	Facet	0,2
012476	SPKN 12 03EDTR	750	12,7	12,7	3,18	Facet	0,15
012476	SPKN 12 03EDTR	A04030	12,7	12,7	3,18	Facet	0,15
012476	SPKN 12 03EDTR	750S	12,7	12,7	3,18	Facet	0,15
012476	SPKN 12 03EDER	H91	12,7	12,7	3,18	Facet	0,15

024139	TCMT 16 T308E	750	9,52	16,5	3,97	0,8	0,05
023388	TCMT 16 T308E	A04030	9,52	16,5	3,97	0,8	0,05
017743	TCMT 16 T308E	750S	9,52	16,5	3,97	0,8	0,05
027901	TCMT 16 T308E	K01	9,52	16,5	3,97	0,8	0,05
014862	TCGT 16 T308E	H01	9,52	16,5	3,97	0,8	0,07

SEKR -

Ground wiper facet χ 45°
one face pressed chip-breaker.



SEKT -4T

As pressed circumference with
ground wiper facets χ 45° with
one face pressed chip-breaker.



SEMT 4T

As pressed circumference
one face pressed chip-breaker.



SPKN

As pressed circumference
 χ 45° with ground facet
without chip-breaker.



TCMT

As pressed circumference
one face pressed chip-breaker.



Expanded Cutting Conditions

ISO	Material	Material Strength	CVD Coated Grades				PVD Coated Grades			
			K01	XT500	750	A04030	H01	750S	A750S	ST100
Surface Speed Meters per Minute*										
P	Unalloyed Steels	<600 N/mm ²			350 - 140	275 - 135		280 - 150	207 - 117	260 - 130
		<600 N/mm ²			350 - 120	240 - 120		250 - 130	183 - 104	230 - 115
	Alloyed Steels	700-950 N/mm ²		210 - 100	270 - 105	210 - 105	295 - 175	240 - 115	161 - 91	220 - 100
		950 - 1200 N/mm ²		160 - 75	200 - 80	160 - 80	225 - 135	190 - 90	122 - 69	175 - 80
		1200 - 1400 N/mm ²		100 - 50		100 - 50	145 - 85		78 - 44	110 - 50
M	Stainless Steels	Austenitic + Ferritic		240 - 115	200 - 120	240 - 120		280 - 130		265 - 115
		Martensitic		215 - 100	180 - 110	220 - 110		250 - 115		235 - 105
	PH Stainless	Refractory PH		100 - 50		105 - 50		115 - 55		110 - 50
K	Cast Irons	Grey GG-RT	395 - 150		365 - 145		400 - 240	295 - 145		
		Spheroidal-Ductile GGGFGS	335 - 120	220 - 105	285 - 115	225 - 110	315 - 185	235 - 115		
		Malleable GTS-MNMP	275 - 105	200 - 100	260 - 105	205 - 100	285 - 170	215 - 105		
N	Aluminium & Alloys	< 16% Silicon					1000 - 400			
		> 16% Silicon					475 - 275			
S	High Temperature Alloys	Iron Based		85 - 40	70 - 45	85 - 45		90 - 45		85 - 40
		Cobalt Based		45 - 20	40 - 25	45 - 25		50 - 25		45 - 25
		Nickel Based		50 - 25	40 - 25	45 - 25		55 - 25		50 - 25
		Titanium Based		60 - 30	50 - 30	60 - 30		65 - 30		60 - 30
H	Hard Materials	48 - 52 HRC					60 - 140	60 - 140	73 - 41	
		52 - 56 HRC					50 - 100	50 - 100	61 - 35	
		56 - 58 HRC					20 - 40	20 - 40		
	Austempered Ductile Iron	46 - 50 HRC			65 - 40					

* Surface Speed Meters per Minute

$$\text{Surface speed} = \frac{3.142 \times \text{cutter dia.} \times \text{RPM}}{1000}$$

$$\text{RPM} = \frac{1000 \times \text{surface speed}}{3.142 \times \text{cutter dia.}}$$

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	Aluminium & Alloys	H	Hard Materials

