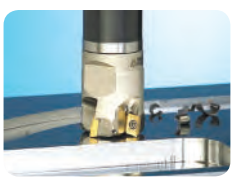
WE CREATE YOUR TOMORROW!

Various applications are available with multi-functional cutters

Alpha Mill



The long edge is for deep depth of cuts and more MRR.

- The Alpha mill series line-up makes high feed and deep depth of cut machining possible with a variety of insert sizes.
- The new series provides use of an extra short edge and provides for high feed milling.

KORLOY

Alpha Mill

Features

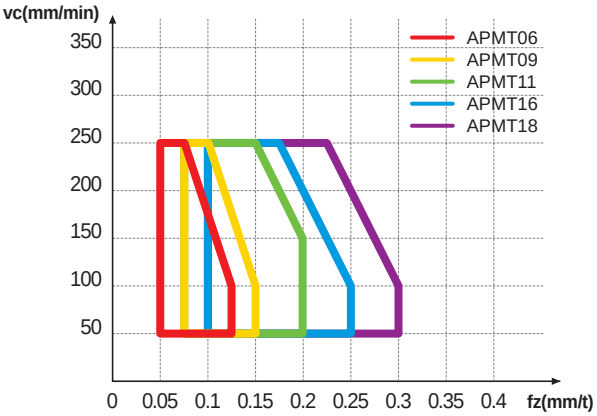
- Alpha Mill series line-up makes both high feed and deep depth of cut machining possible with a variety of insert sizes.
- The smaller inserts with 1.5 times more edges accomplish high feed.
- The bigger inserts achieve better hardness and deep depth of cutting making 1.3 times better MRR.

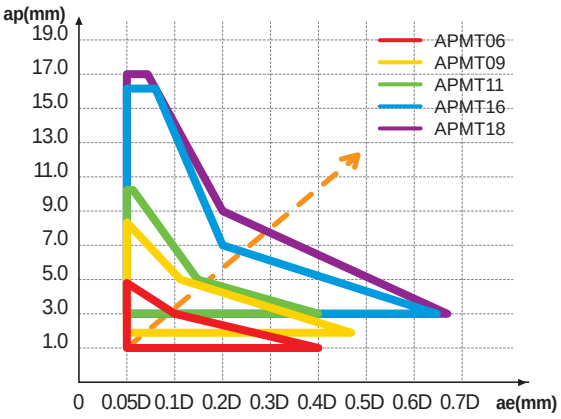
- Through coolant system
  - Better chip evacuation
  - Longer tool life with less heat
- Wider chip pocket
  - Screw on system for better chip control
- Usable with both socket and mounting bolt (bigger than Ø80)
- Lighter cutter due to bigger inside diameter
  - More convenient

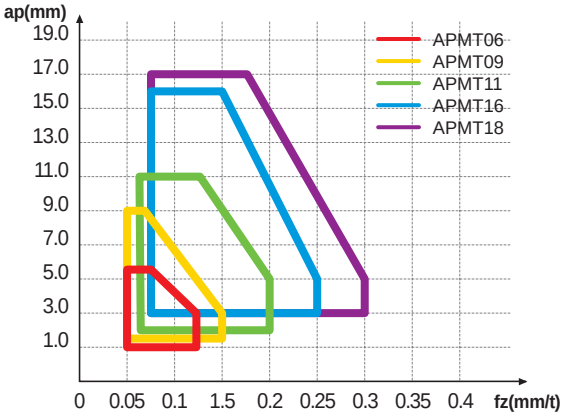
- Chip breaker
  - High angle of inclination better hardness and enlarged chip pocket with the convex and concave shape
- Concave shape
  - Minimum interference better chip control
- The side
  - All positive shaped sides minimum interference
- Main cutting edge
  - High rake angle cutting edge
  - Decreasing cutting resistance
  - Sharp cutting edge

Application range

- Please follow this table.
- When L/D=1~1.5D & 2D, 3D, reduce condition by 70~90%.
- Reduce cutting condition by 70% when slotting, ramping and helical ramping.
- Avoid ap=ae, It might tool breakage.





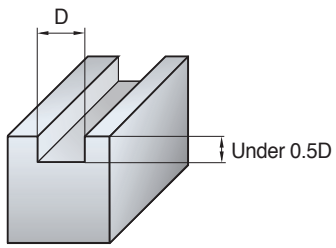


Recommended grades and chip breakers by workpiece

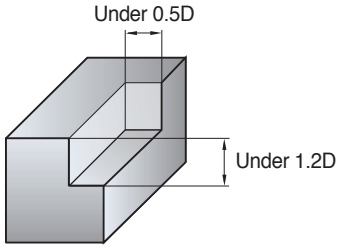
Chip breaker	Cutter edge	Recommended C/B and grade as per workpiece (□ : 1st)											
		P				M		K		N		S	
		Low carbon steel Mild steel		High carbon steel Alloy steel		Stainless steel		Cast iron		Aluminum alloy		Ti / Inconel	
		C/B	Grades	C/B	Grades	C/B	Grades	C/B	Grades	C/B	Grades	C/B	Grades
MA		-	-	-	-	-	-	-	-	●	●H01	-	-
ML		-	-	-	-	●	●PC5300 ○PC5400 ○PC3545 ○PC9530	-	-	-	-	●	●PC5300 ○PC5400 ○PC3545
MF		●	●PC3500 ○PC5300 ○PC5400 ○NCM325 ○NCM335	-	●PC3500 ○PC3545 ○NCM325 ○NCM335	-	●PC5300 ○PC5400 ○PC3545 ○PC9530	-	●PC6510 ○PC5300 ○PC5400	-	-	-	●PC5300 ○PC5400 ○PC3545
MM		-	●PC3500 ○PC5300 ○PC5400 ○NCM325 ○NCM335	●	●PC3500 ○PC5300 ○PC5400 ○NCM325 ○NCM335	-	●PC5300 ○PC5400 ○PC3545 ○PC9530	●	●PC6510 ○PC5300 ○PC5400	-	-	-	●PC5300 ○PC5400 ○PC3545

Alpha Mill

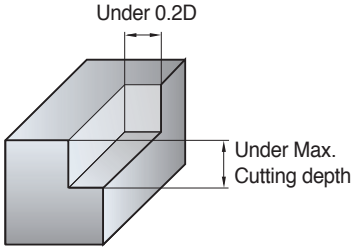
Recommended depth of cut



① Slotting



② Shouldering

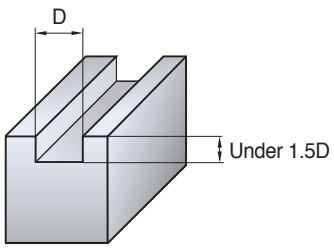


③ Shouldering

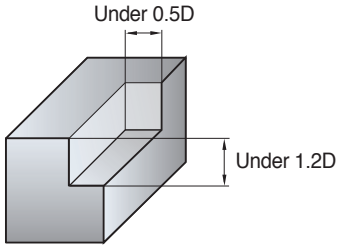
Recommended cutting condition(for multi edge type)

Workpiece	Grades	Fig.	Tool Dia.							
			Ø20, 25		Ø32, 40		Ø50, 63		Ø80, 100	
			vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)
Mild steel, Low carbon steel	NCM325 PC3500	①	80~100	0.05~0.08	100~120	0.05~0.08	100~120	0.05~0.08	100~120	0.05~0.08
		②	100~120	0.08~0.10	120~140	0.08~0.10	120~140	0.08~0.10	120~140	0.08~0.10
		③	100~120	0.10~0.15	140~140	0.10~0.15	120~140	0.10~0.15	130~150	0.10~0.15
High carbon steel, Alloy steel	NCM325 PC3500	①	60~80	0.05	80~100	0.05	80~100	0.05	80~100	0.05
		②	80~100	0.05~0.08	100~120	0.08~0.10	100~120	0.08~0.10	100~120	0.08~0.10
		③	80~100	0.10~0.15	110~130	0.10~0.15	100~120	0.10~0.15	110~130	0.10~0.15
Alloy tool steel	NCM325 PC3500	①	50~70	0.05	70~90	0.05	70~90	0.05	70~90	0.05
		②	60~80	0.05~0.08	90~120	0.05~0.08	100~120	0.05~0.08	100~120	0.05~0.08
		③	90~110	0.12~0.18	100~130	0.10~0.15	100~120	0.10~0.15	110~130	0.10~0.15
Stainless steel	PC5300 PC9530	①	50~70	0.054	70~90	0.05	70~90	0.05	70~90	0.05
		②	60~80	0.05~0.08	90~120	0.05~0.08	100~120	0.05~0.08	100~120	0.05~0.08
		③	90~110	0.10~0.15	100~130	0.10~0.15	110~130	0.10~0.15	110~130	0.10~0.15
Cast iron	PC6510 PC5300	①	70~90	0.10~0.12	70~90	0.10~0.12	90~120	0.10~0.12	90~120	0.10~0.12
		②	80~100	0.12	90~120	0.12	100~140	0.12	100~140	0.12
		③	80~100	0.15~0.2	100~130	0.15~0.20	120~150	0.15~0.20	120~150	0.15~0.20
Aluminum alloy	H01	①	200~800	0.10~0.20	300~900	0.10~0.20	400~1,000	0.10~0.20	400~1,000	0.10~0.20
		②	250~900	0.15~0.30	300~950	0.15~0.30	400~1,000	0.10~0.40	400~1,000	0.10~0.40
		③	250~900	0.15~0.30	300~950	0.15~0.30	400~1,000	0.10~0.40	400~1,000	0.10~0.40
Hardened steel	PC3545 PC5300	①	50~70	0.03	60~90	0.03	60~90	0.03	60~90	0.03
		②	60~80	0.05~0.08	80~100	0.05~0.08	80~100	0.05~0.08	80~100	0.05~0.08
		③	80~100	0.05~0.08	80~100	0.05~0.08	80~100	0.05~0.08	80~100	0.05~0.08

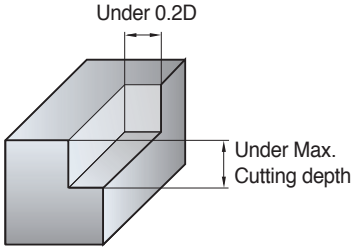
Recommended depth of cut



① Slotting



② Shouldering



③ Shouldering

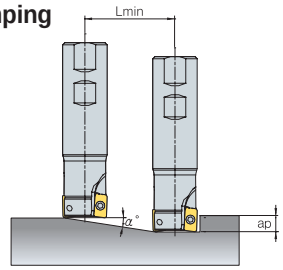
Recommended cutting condition(for single edge type)

Workpiece	Grades	Fig.	Tool Dia.							
			Ø20, 25		Ø32, 40		Ø50, 63		Ø80, 100	
			vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)
Mild steel, Low carbon steel	NCM325 PC3500	①	60~80	0.05~0.08	80~120	0.05~0.08	120~200	0.05~0.08	150~200	0.05~0.08
		②	80~120	0.08~0.10	120~180	0.08~0.10	180~250	0.08~0.10	200~250	0.08~0.10
		③	80~120	0.10~0.15	120~180	0.10~0.15	180~250	0.10~0.15	200~250	0.10~0.15
High carbon steel, Alloy steel	NCM325 PC3500	①	50~80	0.05	80~110	0.05	100~150	0.05	100~150	0.05
		②	80~100	0.05~0.08	110~150	0.05~0.10	150~200	0.05~0.10	150~200	0.05~0.10
		③	80~100	0.10~0.15	120~150	0.10~0.15	180~200	0.10~0.15	80~200	0.10~0.15
Alloy tool steel	NCM325 PC3500	①	50~70	0.05	80~100	0.05	100~130	0.05	100~130	0.05
		②	70~100	0.05~0.08	100~130	0.05~0.10	130~180	0.05~0.10	130~180	0.05~0.10
		③	70~100	0.10~0.15	100~150	0.10~0.15	130~180	0.10~0.15	130~180	0.10~0.15
Stainless steel	PC5300 PC9530	①	50~70	0.05	80~100	0.05	100~130	0.05	100~130	0.05
		②	70~100	0.05~0.08	100~130	0.05~0.10	130~180	0.05~0.10	130~180	0.05~0.10
		③	70~100	0.10~0.15	100~150	0.10~0.15	130~180	0.10~0.15	130~180	0.10~0.15
Cast iron	PC6510 PC5300	①	80~100	0.08~0.12	80~100	0.15	120~150	0.15	120~150	0.15
		②	100~120	0.12~0.15	100~130	0.15~0.18	150~200	0.15~0.18	150~200	0.15~0.18
		③	100~120	0.15~0.20	100~130	0.15~0.20	150~200	0.15~0.20	150~200	0.15~0.20
Aluminum alloy	H01	①	250~800	0.15~0.20	300~900	0.15~0.20	400~1,000	0.10~0.20	400~1,000	0.10~0.20
		②	250~900	0.20~0.25	350~950	0.20~0.25	400~1,000	0.20~0.30	400~1,000	0.20~0.30
		③	250~900	0.25~0.3	350~950	0.25~0.30	400~1,000	0.30~0.40	400~1,000	0.30~0.40
Hardened steel	PC3545 PC5300	①	50~70	0.03	60~90	0.03	60~90	0.03	60~90	0.03
		②	60~80	0.05~0.08	80~100	0.05~0.08	80~100	0.05~0.08	80~100	0.05~0.08
		③	80~100	0.05~0.08	80~100	0.05~0.08	80~100	0.05~0.08	80~100	0.05~0.08

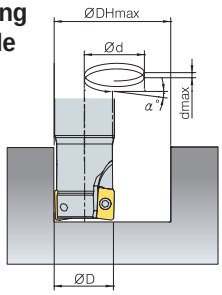
Alpha Mill

Cutting condition for ramping and helical operation

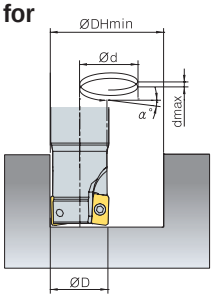
1. Ramping



2. Helical cutting for blind hole



3. Helical cutting for through hole



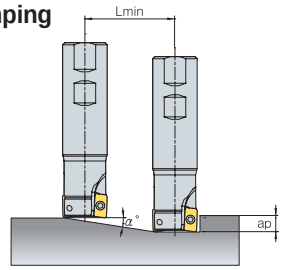
(mm)

Designation	Tool Dia. ØD (min)	Ramping			Helical cutting for blind hole				Helical cutting for through hole	
		ap	Maximum angle α(°)	Lmin	Max. desirable hole Dia. ØDHmax	Max. pitch dmax	Min. desirable hole Dia. ØDHmin	Max. pitch dmax	Min. desirable hole Dia. ØDHmin	Max. pitch dmax
AMS1010HS	10	5	6.5	44	18.8	2.1	17.6	2.0	13	1.5
AMS1011HS	11		5.6	51	20.8	2.0	19.6	1.9	15	1.5
AMS1012HS	12		4.9	58	22.8	2.0	21.6	1.9	17	1.5
AMS1014HS	14		3.9	73	26.8	1.8	25.6	1.8	21	1.4
AMS1015HS	15		3.6	80	28.8	1.8	27.6	1.7	23	1.4
AMS1016HS	16		3.3	87	30.8	1.8	29.6	1.7	25	1.4
AMS1017HS	17		3.0	94	32.8	1.7	31.6	1.7	27	1.4
AMS1018HS	18		2.8	101	34.8	1.7	33.6	1.7	29	1.4
AMS1020HS	20		2.5	115	38.8	1.7	37.6	1.6	33	1.4
AMS1021HS	21		2.3	123	40.8	1.7	39.6	1.6	35	1.4
AMS1022HS	22		2.2	130	42.8	1.6	41.6	1.6	37	1.4
AMS1025HS	25		1.9	151	48.8	1.6	47.6	1.6	43	1.4
AMS1026HS	26		1.8	158	50.8	1.6	49.6	1.6	45	1.4
AMS1032HS	32		1.4	201	62.8	1.6	61.6	1.5	57	1.4
AMS1033HS	33		1.4	208	64.8	1.6	63.6	1.5	59	1.4
AMC1032HS	32		1.4	201	62.8	1.6	61.6	1.5	57	1.4
AMC1040HS	40		1.1	258	78.8	1.5	77.6	1.5	73	1.4
AMC1050HS	50		0.9	330	98.8	1.5	97.6	1.5	93	1.4
AMC1063HS	63		0.7	423	124.8	1.5	123.6	1.5	119	1.4
AMS1510HS	10	9	7.5	68	18.8	2.5	17.4	2.3	11	1.5
AMS1512HS	12		6.5	79	22.8	2.6	21.4	2.4	15	1.7
AMS1513HS	13		5.7	90	24.8	2.5	23.4	2.3	17	1.7
AMS1514HS	14		6.3	82	26.8	2.9	25.4	2.8	19	2.1
AMS1516HS	16		5.0	102	30.8	2.7	29.4	2.6	23	2.0
AMS1517HS	17		4.6	112	32.8	2.6	31.4	2.5	25	2.0
AMS1518HS	18		4.2	122	34.8	2.6	33.4	2.5	27	2.0
AMS1519HS	19		3.9	132	36.8	2.5	35.4	2.4	29	2.0
AMS1520HS	20		3.6	142	38.8	2.5	37.4	2.4	31	2.0
AMS1521HS	21		3.4	152	40.8	2.4	39.4	2.3	33	2.0
AMS1522HS	22		3.2	162	42.8	2.4	41.4	2.3	35	1.9
AMS1524HS	24		2.8	182	46.8	2.3	45.4	2.2	39	1.9
AMS1525HS	25		2.7	192	48.8	2.3	47.4	2.2	41	1.9
AMS1528HS	28		2.3	222	54.8	2.2	53.4	2.2	47	1.9
AMS1530HS	30		2.1	242	58.8	2.2	57.4	2.1	51	1.9
AMS1532HS	32		2.0	262	62.8	2.2	61.4	2.1	55	1.9
AMS1535HS	35		1.8	292	68.8	2.1	67.4	2.1	61	1.9
AMS1540HS	40		1.5	342	78.8	2.1	77.4	2.0	71	1.9
AMC15040HS	40		1.5	342	78.8	2.1	77.4	2.0	71	1.9
AMC15050HS	50		1.2	442	98.8	2.0	97.4	2.0	91	1.9
AMC15063HS	63		0.9	572	124.8	2.0	123.4	1.9	117	1.8
AMC15080HS	80		0.7	742	158.8	1.9	157.4	1.9	151	1.8
AMC15100HS	100		0.5	942	198.8	1.9	197.4	1.9	191	1.8

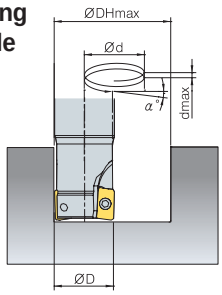
$$L\ min = \frac{ap}{\tan \alpha^{\circ}} \quad (mm)$$

Cutting condition for ramping and helical operation

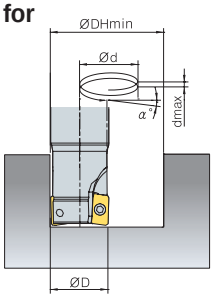
1. Ramping



2. Helical cutting for blind hole



3. Helical cutting for through hole



(mm)

Designation	Tool Dia. ØD (min)	Ramping			Helical cutting for blind hole				Helical cutting for through hole	
		ap	Maximum angle α(°)	Lmin	Max. desirable hole Dia. ØDHmax	Max. pitch dmax	Min. desirable hole Dia. ØDHmin	Max. pitch dmax	Min. desirable hole Dia. ØDHmin	Max. pitch dmax
AMS2010HS	10	10	16.82	33	18	5.4	16.4	5.0	11	3.3
AMS2012HS	12		11.69	48	22	4.6	20.4	4.2	15	3.1
AMS2014HS	14		7.55	75	26	3.4	24.4	3.2	19	2.5
AMS2016HS	16		10.30	55	30	5.5	28	5.1	23	4.2
AMS2018HS	18		8.23	69	34	4.9	32	4.6	27	3.9
AMS2020HS	20		5.60	102	38	3.7	36	3.5	31	3.0
AMS2022HS	22		5.15	111	42	3.8	40	3.6	35	3.2
AMS2025HS	25		3.92	146	48	3.3	46	3.2	41	2.8
AMS2032HS	32		2.70	212	62	2.9	60	2.8	55	2.6
AMS2040HS	40		1.98	289	78	2.7	76	2.6	71	2.5
AMS2050HS	50		1.48	386	98	2.5	96	2.5	91	2.4
AMS2063HS	63		1.11	514	124	2.4	122	2.4	117	2.3
AMC2050HS	50		0.36	1576	98	0.6	96	0.6	91	0.6
AMC2063HS	63		0.27	2104	124	0.6	122	0.6	117	0.6
AMC2080HS	80		0.21	2784	158	0.6	156	0.6	151	0.5
AMC2100HS	100		0.16	3584	198	0.6	196	0.5	191	0.5
AMS3025HS	25	10	4.72	121	48	4.0	46	3.8	36	3.0
AMS3032HS	32		3.00	191	62	3.2	60	3.1	50	2.6
AMS3040HS	40		2.29	250	78	3.1	76	3.0	66	2.6
AMS3050HS	50		1.64	350	98	2.8	96	2.7	86	2.5
AMS3063HS	63		1.22	470	124	2.6	122	2.6	112	2.4
AMC3040HS	40		1.99	288	78	2.7	76	2.6	66	2.3
AMC3050HS	50		1.67	343	98	2.9	96	2.8	86	2.5
AMC3063HS	63		1.22	470	124	2.6	122	2.6	112	2.4
AMC3080HS	80		0.90	636	158	2.5	156	2.5	146	2.3
AMC3100HS	100		0.69	830	198	2.4	196	2.4	186	2.2
AMS2025MH	25	10	1.50	764	48	1.3	46	1.2	-	-
AMS2032MH	32		1.50	1146	62	1.6	60	1.6	-	-
AMS3040MH	40	16	1.50	1528	78	2.0	76	2.0	-	-
AMS4020HS	20	16	9.5	98	38.8	6.5	37.4	6.2	31	5.2
AMS4021HS	21		5.2	179	40.8	3.7	39.4	3.6	33	3.0
AMS4025HS	25		7.6	122	48.8	6.5	47.4	6.3	41	5.5
AMS4026HS	26		7.1	130	50.8	6.4	49.4	6.2	43	5.4
AMS4032HS	32		3.4	276	62.8	3.7	61.4	3.6	55	3.3
AMS4033HS	33		3.2	288	64.8	3.7	63.4	3.6	57	3.2
AMS4040HS	40		2.5	376	78.8	3.4	77.4	3.4	71	3.1
AMS4050HS	50		1.9	502	98.8	3.2	97.4	3.2	91	3.0
AMS4063HS	63		1.4	665	124.8	3.1	123.4	3.0	117	2.9
AMC4050HS	50		1.9	502	98.8	3.2	97.4	3.2	91	3.0
AMC4063HS	63		1.4	665	124.8	3.1	123.4	3.0	117	2.9
AMC4080HS	80		1.1	878	158.8	2.9	157.4	2.9	151	2.8
AMC4100HS	100		0.8	1128	198.8	2.9	197.4	2.9	191	2.8
AMC4125HS	125		0.6	1442	248.8	2.8	247.4	2.8	241	2.7

$$L\ min = \frac{ap}{\tan \alpha^{\circ}} \quad (mm)$$

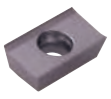
Alpha Mill

Inserts


APFT-X22


APFT-X28


APKT


APKT-MA


APKT-MA2


APKT-MA3


APKT-MF

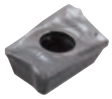

APKT-MM


APKT-MM


APKT-X22


APKT-X23

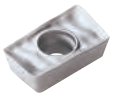

APKT-X24


APMT-MA

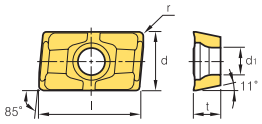

APMT-MF


APMT-ML


APMT-MM


APXT-MA


APXT-MR



Designation		Coated										Cermet			Uncoated				Dimensions(mm)					
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PC215K	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20	l	d	t	r	d1	C
APFT	1604PDSR-X22				●															16.4	9.525	4.76	0.8	4.4	-
	1604PDTR-X22																			16.4	9.525	4.76	0.8	4.4	-
APFT	1604PDR-X28																			16.4	9.525	4.76	0.8	4.4	-
	1604PDSR-X28																			16.4	9.525	4.76	0.8	4.4	-
	1604PDTR-X28																			16.4	9.525	4.76	0.8	4.4	-
APKT	1604PDSR	●			●					●										16.4	9.525	4.76	0.8	4.4	-
APKT	1604PDFR-MA											●				●				16.4	9.525	4.76	0.2	4.4	-
APKT	1604PDFR-MA2															●				16.5	9.56	5.76	0.8	4.5	-
	160416FR-MA2																			16.5	9.56	5.76	1.6	4.5	-
	160432FR-MA2																			16.5	9.56	5.76	3.2	4.5	-
APKT	1604PDFR-MA3															●	●			16.4	9.525	5.0	0.8	4.4	-
	160420FR-MA3																			16.0	9.525	5.0	2.0	4.4	-
APKT	1604PDSR-MF	●				●														16.4	9.525	5.0	0.8	4.4	-
APKT	1604PDSR-MM	●	●		●	●		●	●	●										16.4	9.525	5.2	0.8	4.4	-
APKT	160432R-MM1	●																		16.4	9.525	4.76	3.2	4.4	-
APKT	1604PDSR-X22	●																		16.4	9.525	4.76	0.8	4.4	-
	1604PDTR-X22																			16.4	9.525	4.76	0.8	4.4	-
APKT	1604PDR-X23																			16.3	9.525	4.76	1.0	4.4	-
	1604PDTR-X23																			16.3	9.525	4.76	1.0	4.4	-
APKT	1604PDR-X24																			16.3	9.525	4.76	1.0	4.4	-
	1604PDFR-X24																			16.3	9.525	4.76	1.0	4.4	-
APMT	0602PDFR-MA															●				6	4.24	2.6	0.4	2.0	-
	0903PDFR-MA															●				9.4	6.21	3.6	0.4	2.8	-
	11T3PDFR-MA															●				11.2	6.467	3.6	0.5	2.9	-
	1604PDFR-MA															●				16.4	9.41	5.76	0.8	4.5	-
	1806PDFR-MA															●				17.4	10.98	6.35	0.8	4.5	-
APMT	11T3PDSR-MF	●		●	●	●		●	●											11.2	6.467	3.6	0.5	2.85	-
	1604PDSR-MF	●		●	●	●		●	●											16.4	9.41	5.76	0.8	4.5	-
	1806PDSR-MF			●		●		●	●											17.4	10.98	6.35	0.8	4.5	-
	180612PDSR-MF																			17.4	10.98	6.35	1.2	4.5	-
APMT	0903PDER-ML							●												9.4	6.21	3.6	0.4	2.8	-
	11T3PDER-ML							●												11.2	6.467	3.6	0.5	2.9	-
	1604PDER-ML							●												16.4	9.41	5.76	0.8	4.5	-
	1806PDER-ML							●												17.4	10.98	6.35	0.8	4.5	-

□ : Stock item

Inserts

Designation		Coated											Cermet			Uncoated				Dimensions(mm)					
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PC215K	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20	l	d	t	r	d_1	C
APMT	060202PDSR-MM			●	●	●		●	●											6	4.24	2.6	0.2	2.0	-
	0602PDSR-MM			●	●	●		●	●	●	●									6	4.24	2.6	0.4	2.0	-
	060208PDSR-MM			●	●	●		●	●											6	4.24	2.6	0.8	2.0	-
	060212R-MM			●	●	●														6	4.24	2.6	1.2	2.0	-
	060216R-MM				●															6	4.24	2.6	1.6	2.0	-
	0903PDSR-MM			●	●	●		●	●											9.4	6.21	3.6	0.4	2.8	-
	090306PDSR-MM																			9.4	6.21	3.6	0.6	2.8	-
	090308PDSR-MM			●	●	●		●	●											9.4	6.21	3.6	0.8	2.8	-
	090312R-MM					●		●	●											9.4	6.21	3.6	1.2	2.8	-
	090316R-MM			●	●	●														9.4	6.21	3.6	1.6	2.8	-
	090320R-MM				●	●														9.2	6.21	3.6	2.0	2.8	-
	090331R-MM																			9.2	6.21	3.6	3.1	2.8	-
	090332R-MM																			9.2	6.21	3.6	3.2	2.8	-
	11T3PDSR-MM	●		●	●	●		●	●	●	●									11.2	6.467	3.6	0.5	2.85	-
	11T308PDSR-MM	●		●	●	●		●	●	●										11.2	6.467	3.6	0.8	2.85	-
	11T312PDSR-MM	●		●	●	●		●	●	●										11.2	6.467	3.6	1.2	2.85	-
	11T316R-MM	●		●	●	●														11	6.467	3.6	1.6	2.85	-
	11T318R-MM																			11	6.467	3.6	1.8	2.85	-
	11T324R-MM			●	●	●		●												11	6.467	3.6	2.4	2.85	-
	1604PDSR-MM	●		●	●	●			●	●	●									16.4	9.41	5.76	0.8	4.5	-
	160410PDSR-MM	●			●	●		●	●											16.4	9.41	5.76	1.0	4.5	-
	160416PDSR-MM	●		●	●	●		●	●											16.4	9.41	5.76	1.6	4.5	-
	160424R-MM			●	●	●		●	●											16	9.41	5.76	2.4	4.5	-
	160430R-MM							●												16	9.41	5.76	3.0	4.5	-
	160432R-MM	●		●	●	●		●	●											16	9.41	5.76	3.2	4.5	-
	160450R-MM							●												16	9.41	5.76	5.0	4.5	-
	160464R-MM							●												16	9.41	5.76	6.4	4.5	-
	1806PDSR-MM	●		●	●	●		●	●	●	●									17.4	10.98	6.35	0.8	4.5	-
	180612PDSR-MM	●		●	●	●		●	●											17.4	10.98	6.35	1.2	4.5	-
	180616PDSR-MM			●				●	●											17.4	10.98	6.35	1.6	4.5	-
	180620PDSR-MM																			17.4	10.98	6.35	2.0	4.5	-
	180624PDSR-MM			●	●			●												17.4	10.98	6.35	2.4	4.5	-
	180630R-MM																			16.7	10.98	6.35	3.0	4.5	-
	180632R-MM			●	●		●	●												16.7	10.98	6.35	3.2	4.5	-
	180640R-MM						●	●												16.7	10.98	6.35	4.0	4.5	-
	180648R-MM						●													16.7	10.98	6.35	4.8	4.5	-
	180650R-MM																			16.7	10.98	6.35	5.0	4.5	-
	180660R-MM																			16.7	10.98	6.35	6.0	4.5	-
	180664R-MM																			16.7	10.98	6.35	6.4	4.5	-
APXT	11T3PDR-MA															●				11.3	6.594	3.6	0.5	2.85	-
	11T318R-MA																			11.3	6.594	3.6	1.8	2.85	-
APXT	11T3PDSR-MR																			11.3	6.594	3.6	0.5	2.85	-
	11T308PDR-MR																			11.3	6.594	3.6	0.8	2.85	-

□ : Stock item

Alpha Mill

AMC(M)1000S/1500S

- AR : 9°~13°
- RR : -14°~5°

AA 0°

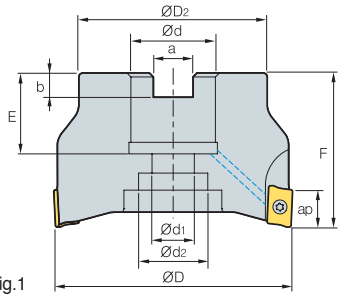


Fig.1

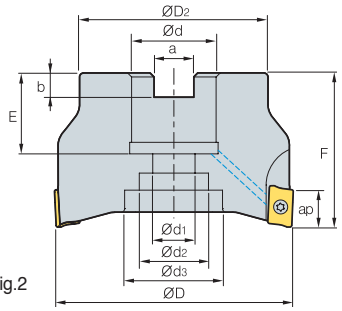


Fig.2

(mm)

Designation			ØD	ØD2	Ød	Ød1	Ød2	Ød3	a	b	E	F	ap	kg	Fig.
AMC(M)	1032HS	8	32	30	16	9	14	-	8.4	5.6	19	40	5.6	0.15	1
	1040HS-16	10	40	34	16	9	14	-	8.4	5.6	19	40	5.6	0.24	1
	1040HS-22	10	40	34	22	11	18	-	10.4	6.3	21	40	5.6	0.24	1
	1050HS	12	50	42	22	11	18	-	10.4	6.3	21	40	5.6	0.36	1
	1063HS	14	63	49	22	11	18	-	10.4	6.3	21	40	5.6	0.61	1
AMCM	15040HS	5	40	34	16	9	14	-	8.4	5.6	19	40	9	0.22	2
	15050HS	6	50	42	22	11	18	-	10.4	6.3	21	40	9	0.34	2
	15063HS	8	63	49	22	11	18	-	10.4	6.3	21	40	9	0.57	2
AMC	15080HS	10	80	57	25.4(27)	14	25	35	9.5(12.4)	6(7)	24(23)	50	9	1.10	2
(AMCM)	15100HS	12	100	67	31.75(32)	18	26	42	12.7(14.4)	8(8)	32(26)	63	9	2.10	2

• ( )Metric size

Available inserts

APMT-MA

APMT-ML

APMT-MM

Type	Designation	Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
1000 type	APMT 0602PDFR-MA																	
	060202PDSR-MM			●	●	●	●	●										
	0602PDSR-MM			●	●	●	●	●	●	●								
	060208PDSR-MM			●	●	●	●	●										
	060212R-MM			●	●	●												
1500 type	APMT 0903PDFR-MA																	
	0903PDER-ML						●											
	0903PDSR-MM			●	●	●	●	●										
	090308PDSR-MM			●	●	●	●	●										
	090312R-MM					●	●	●										
	090316R-MM				●	●												
	090320R-MM				●	●												

Available arbors

Type	Designation	Ød	NC arbors	Type	Designation	Ød	NC arbors
1000 type	AMC(M) 1032HS, 1040HS-16	16	BT□□-FMC16-□□	1500 type	AMC(M) 15040HS	16	BT□□-FMC16-□□
	1040HS-22, 1050HS, 1063HS	22	BT□□-FMC22-□□		15050HS, 15063HS	22	BT□□-FMC22-□□
					15080HS	25.4	BT□□-FMA25.4-□□
						27	BT□□-FMC27-□□
					15100HS	31.75	BT□□-FMA31.75-□□
						32	BT□□-FMC32-□□

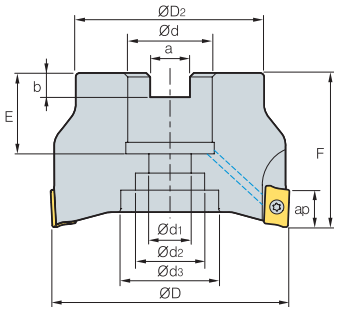
Parts

Type	Screw	Wrench	Type	Screw	Wrench
1000 type	FTKA01842	TW06S-A	1500 type	FTKA02565S	TW08S

AMC(M)2000S

- AR : 9°~13°
- RR : -14°~5°

AA 0°



(mm)

Designation			ØD	ØD2	Ød	Ød1	Ød2	Ød3	a	b	E	F	ap	kg
AMCM	2040HS	5	40	34	16	9	14	-	8.4	5.6	18	40	11	0.22
	2050HS	6	50	42	22	11	18	-	10.4	6.3	20	40	11	0.34
	2063HS	8	63	49	22	11	18	-	10.4	6.3	20	40	11	0.57
AMC (AMCM)	2080HS	8	80	57	25.4(27)	14	25	35	9.5(12.4)	6(7)	25(22)	50	11	1.10
	2100HS	10	100	67	31.75(32)	18	26	42	12.7(14.4)	8(8)	32(28)	63	11	2.10

• ( )Metric size

Available inserts

APMT-MA	APMT-ML	APMT-MM	APMT-MF
			

Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	11T3PDFR-MA																	
	11T3PDER-ML						●											
	11T3PDSR-MM	●		●	●	●	●	●	●	●								
	11T3PDSR-MF	●		●	●	●	●	●										
	11T308PDSR-MM	●		●	●	●	●	●	●									
	11T312PDSR-MM	●		●	●	●	●	●	●									
	11T316R-MM	●		●	●	●												
	11T318R-MM																	
	11T324R-MM			●	●	●		●										

Available arbors

Designation		Ød	NC arbors
AMC(M)	2040HS	16	BT□□-FMC16-□□
	2050HS 2063HS	22	BT□□-FMC22-□□
	2080HS	25.4	BT□□-FMA25.4-□□
		27	BT□□-FMC27-□□
	2100HS	31.75	BT□□-FMA31.75-□□
		32	BT□□-FMC32-□□

Parts

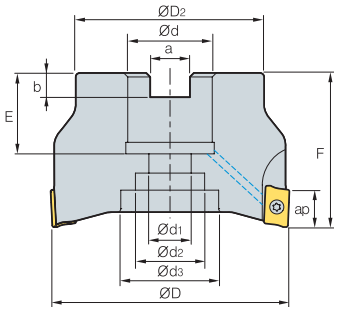
Screw	Wrench
	
FTKA02565S	TW08S

Alpha Mill

AMC(M)3000S

- AR : 14°
- RR : -12°~8°

AA 0°



(mm)

Designation			ØD	ØD2	Ød	Ød1	Ød2	Ød3	a	b	E	F	ap	kg
AMCM	3040HS	4	40	34	16	9	14	-	8.4	5.6	18	40	16	0.18
	3050HS	5	50	42	22	11	18	-	10.4	6.3	20	40	16	0.28
	3063HS	6	63	49	22	11	18	-	10.4	6.3	20	40	16	0.50
AMC (AMCM)	3080HS	7	80	57	25.4(27)	14	25	35	9.5(12.4)	6(7)	25(22)	50	16	1.02
	3100HS	8	100	67	31.75(32)	18	26	42	12.7(14.4)	8(8)	32(28)	63	16	2.05

• ( )Metric size

Available inserts

APMT-MA	APMT-ML	APMT-MM	APMT-MF
			

Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	1604PDFR-MA																	
	1604PDER-ML						●											
	1604PDSR-MM	●		●	●	●	●	●	●	●								
	1604PDSR-MF	●		●	●	●	●	●										
	160410PDSR-MM	●			●	●	●	●										
	160416PDSR-MM	●		●	●	●	●	●										
	160424R-MM			●	●	●	●	●										
	160430R-MM						●											
	160432R-MM	●		●	●	●	●	●										

Available arbors

Designation		Ød	NC arbors
AMC(M)	3040HS	16	BT□□-FMC16-□□
	3050HS 3063HS	22	BT□□-FMC22-□□
	3080HS	25.4	BT□□-FMA25.4-□□
		27	BT□□-FMC27-□□
	3100HS	31.75	BT□□-FMA31.75-□□
		32	BT□□-FMC32-□□

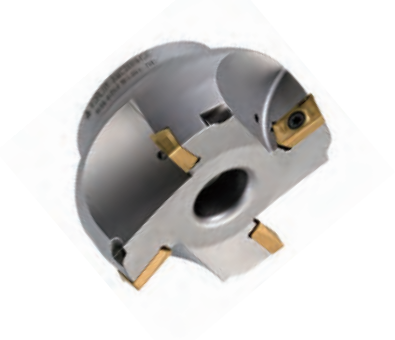
Parts

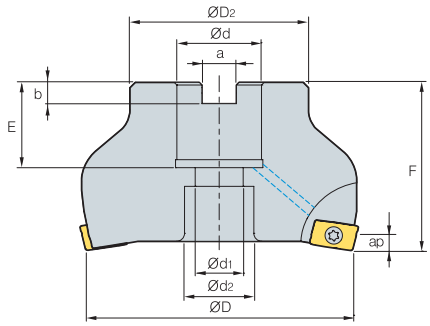
Screw	Wrench
	
FTKA0410	TW15S

AMC(M)1000SE/2000SE

• AR : 45°
• RR : 0°

AA 15°





(mm)

Designation			ØD	ØD2	Ød	Ød1	Ød2	a	b	E	F	ap	kg
AMCM	1040HSE	4	40	34	16	9	14	8.4	5.6	19	40	2.5	0.26
	1050HSE	5	50	42	22	11	18	10.4	6.3	21	40	2.5	0.39
AMC (AMCM)	2080HSE	5	80	57	25.4(27)	14	20	9.5(12.4)	6.0(7.0)	25(22)	50	4	1.2
	2100HSE	6	100	67	31.75(32)	18	26	12.7(14.4)	8.0(8.0)	32(28)	63	4	2.33

• ( )Metric size

Available inserts

APMT-MM

APMT-MF

Type	Designation	Coated									Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
1000 type	APMT 060202PDSR-MM			●	●	●	●	●										
	0602PDSR-MM			●	●	●	●	●	●	●								
	060208PDSR-MM			●	●	●	●	●										
	060212R-MM			●	●	●												
2000 type	APMT 11T3PDSR-MM	●		●	●	●	●	●	●	●								
	11T3PDSR-MF	●		●	●	●	●	●										
	11T308PDSR-MM	●		●	●	●	●	●	●									
	11T312PDSR-MM	●		●	●	●	●	●	●									
	11T316R-MM	●		●	●	●												
	11T318R-MM																	
	11T324R-MM			●	●	●		●										

Available arbors

Type	Designation		Ød	NC arbors
1000 type	AMC(M)	1040HSE	16	BT□□-FMC16-□□
		1050HSE	22	BT□□-FMC22-□□
2000 type	AMC(M)	2080HSE	25.4	BT□□-FMA25.4-□□
			27	BT□□-FMC27-□□
		2100HSE	31.75	BT□□-FMA31.75-□□
			32	BT□□-FMC32-□□

Parts

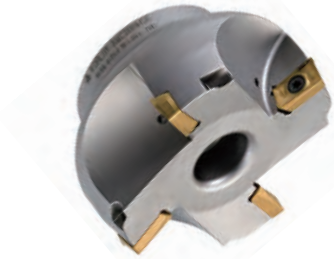
Type	Screw	Wrench	Wrench
			
1000 type	FTKA01842	-	TW06S-A
2000 type	FTKA02565S	TW08S	-

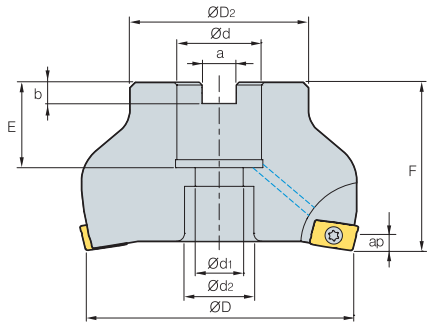
Alpha Mill

AMC(M)3000SE

- AR : 45°
- RR : 0°

AA 15°





(mm)

Designation			ØD	ØD2	Ød	Ød1	Ød2	a	b	E	F	ap	kg
AMC(M)	3080HSE	4	80	57	25.4(27)	14	20	9.5(12.4)	6.0(7.0)	25(22)	50	6	1.3
	3100HSE	5	100	67	31.75(32)	18	26	12.7(14.4)	8.0(8.0)	32(28)	63	6	2.3

• ( )Metric size

Available inserts

APMT-MM

APMT-MF

Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	1604PDSR-MM	●		●	●	●	●	●	●	●								
	1604PDSR-MF	●		●	●	●	●	●										
	160410PDSR-MM	●				●	●	●										
	160416PDSR-MM	●		●	●	●	●	●										
	160424R-MM			●	●	●	●	●										
	160430R-MM						●											
	160432R-MM	●		●	●	●	●	●										

Available arbors

Designation		Ød	NC arbors
AMC(M)	3080HSE	25.4	BT□□-FMA25.4-□□
		27	BT□□-FMC27-□□
	3100HSE	31.75	BT□□-FMA31.75-□□
		32	BT□□-FMC32-□□

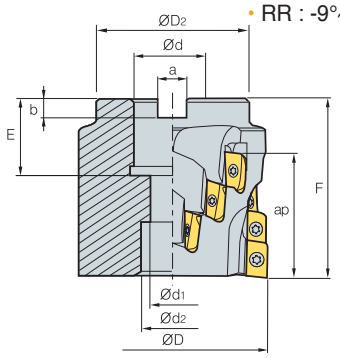
Parts

Screw	Wrench
	
FTKA0410	TW08S

AMC(M)2000M

- AR : 9°
- RR : -9°~-5°

AA 0°



(mm)

Designation			ØD	ØD2	Ød	Ød1	Ød2	a	b	E	F	No. of flute	ap	kg
AMC(M)	2050M	16	50	40	22.225(22)	11	18	8(10.4)	5(6.3)	29(21)	58	4	39	0.7
	2063M	16	63	50	25.4(27)	13.5	20	9.5(12.4)	6(7)	25(25)	58	4	39	0.8
	2080M	20	80	60	31.75(32)	-	45	12.7(14.4)	8(8)	35(28)	63	5	39	0.96
	2100M	24	100	80	38.1(40)	-	56	15.9(16.4)	10(9)	38(30)	63	6	39	1.2

• ( )Metric size

Available inserts

APMT-MA | APMT-ML | APMT-MM | APMT-MF




Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	11T3PDFR-MA																	
	11T3PDER-ML						●											
	11T3PDSR-MM	●		●	●	●	●	●	●	●								
	11T3PDSR-MF	●		●	●	●	●	●										
	11T308PDSR-MM	●		●	●	●	●	●	●									
	11T312PDSR-MM	●		●	●	●	●	●	●									
	11T316R-MM	●		●	●	●												
	11T318R-MM																	
	11T324R-MM			●	●	●		●										

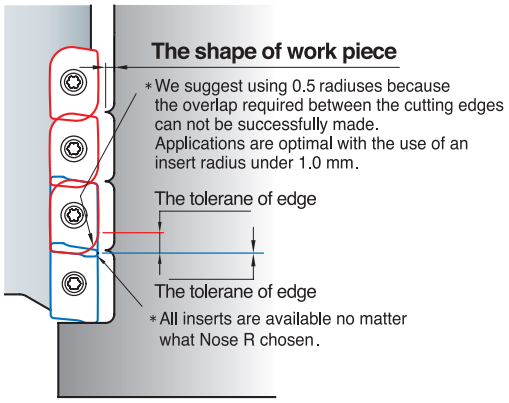
Available arbors

Designation		Ød	NC arbors	
AMC(M)	2050M	22.225	BT□□-FMA22.225-□□	BT□□-SMA22.225-□□
		22	BT□□-FMC22-□□	BT□□-SMC22-□□
	2063M	25.4	BT□□-FMA25.4 -□□	BT□□-SMA25.4-□□
		27	BT□□-FMC27-□□	BT□□-SMC27-□□
	2080M	31.75	BT□□-FMA31.75-□□	BT□□-SMA31.75-□□
		32	BT□□-FMC32-□□	BT□□-SMC32-□□
	2100M	38.1	BT□□-FMA38.1-□□	BT□□-SMA38.1-□□
		40	BT□□-FMC40-□□	BT□□-SMC40-□□

Parts

Screw	Wrench
	
FTKA02565S	TW08S

Caution when insert are screwed

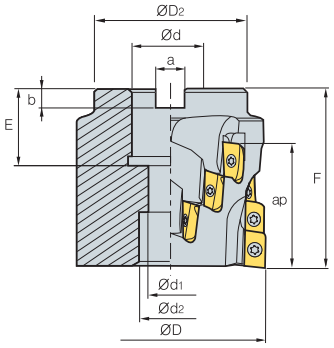


Alpha Mill

AMC(M)3000M

- AR : 9°
- RR : -9°~-5°

AA 0°



(mm)

Designation			ØD	ØD2	Ød	Ød1	Ød2	a	b	E	F	No. of flute	ap	kg
AMC(M)	3063M	16	63	57	25.4(27)	14	20	9.5(12.4)	6(7)	38(38)	85	4	57	1.1
	3080M	20	80	67	31.75(32)	14	26	12.7(14.4)	8(8)	40(40)	100	4	71	2.23
	3100M	30	100	87	38.1(40)	22	32	15.9(16.4)	10(9)	40(40)	100	6	71	3.59

• ( )Metric size

Available inserts

APMT-MA | APMT-ML | APMT-MM | APMT-MF




Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	1604PDFR-MA																	
	1604PDER-ML						●											
	1604PDSR-MM	●		●	●	●	●	●	●	●								
	1604PDSR-MF	●		●	●	●	●	●										
	160410PDSR-MM	●			●	●	●	●										
	160416PDSR-MM	●		●	●	●	●	●										
	160424R-MM			●	●	●	●	●										
	160430R-MM						●											
	160432R-MM	●		●	●	●	●	●										

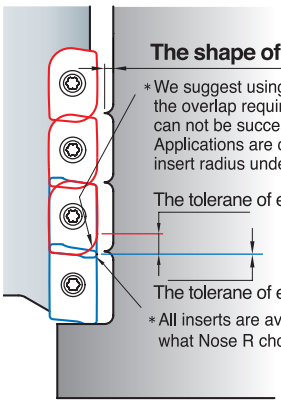
Available arbors

Designation		Ød	NC arbors	
AMC(M)	3063M	25.4	BT□□-FMA25.4-□□	BT□□-SMA25.4-□□
		27	BT□□-FMC27-□□	BT□□-SMC27-□□
	3080M	31.75	BT□□-FMA31.75-□□	BT□□-SMA31.75-□□
		32	BT□□-FMC32-□□	BT□□-SMC32-□□
	3100M	38.1	BT□□-FMA38.1-□□	BT□□-SMA38.1-□□
		40	BT□□-FMC40-□□	BT□□-SMC40-□□

Parts

Screw	Wrench
	
FTKA0410	TW15S

Caution when insert are screwed

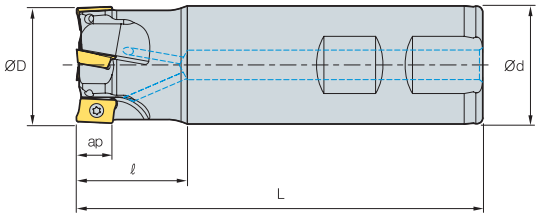


Alpha Mill

AMS1000S

- AR : 7.5°~13°
- RR : -17°~-6°

AA 0°



(mm)

Designation			ØD	Ød	ℓ	L	ap	kg
AMS	1010HS	2	10	10	20	80	5.6	0.04
	1011HS	2	11	10	20	80	5.6	0.04
	1012HS-2	2	12	12	25	80	5.6	0.06
	1012HS-2L12	2	12	12	25	120	5.6	0.09
	1012HS-3	3	12	12	25	80	5.6	0.06
	1014HS-2	2	14	16	25	90	5.6	0.11
	1014HS-2L16	2	14	16	25	140	5.6	0.18
	1014HS-3	3	14	16	25	90	5.6	0.11
	1015HS	3	15	16	25	90	5.6	0.11
	1015HS-3L16	3	15	16	25	140	5.6	0.18
	1016HS-3	3	16	16	25	90	5.6	0.12
	1016HS-3L16	3	16	16	25	160	5.6	0.22
	1016HS-4	4	16	16	25	90	5.6	0.12
	1017HS	4	17	16	25	90	5.6	0.12
	1017HS-3L16	3	17	16	25	160	5.6	0.22
	1018HS	4	18	16	25	90	5.6	0.12
	1018HS-4L16	4	18	16	25	180	5.6	0.25
	1020HS-4	4	20	20	30	110	5.6	0.23
	1020HS-4L20	4	20	20	30	200	5.6	0.43
	1020HS-5	5	20	20	30	110	5.6	0.23
	1021HS	5	21	20	30	110	5.6	0.24
	1021HS-4L20	4	21	20	30	200	5.6	0.43
	1022HS	5	22	20	30	110	5.6	0.27
	1025HS	7	25	25	30	120	5.6	0.39
	1026HS	7	26	25	30	120	5.6	0.39
	1032HS	8	32	32	35	120	5.6	0.65
	1033HS	8	33	32	35	120	5.6	0.65

Available inserts

APMT-MA

APMT-MM

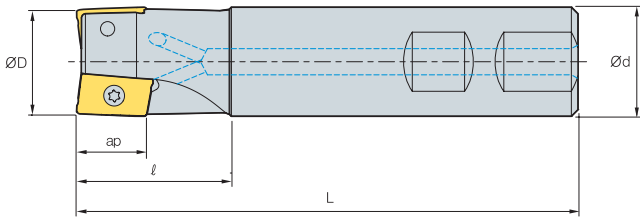
Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	0602PDFR-MA																	
	060202PDSR-MM			●	●	●	●	●										
	0602PDSR-MM			●	●	●	●	●	●	●								
	060208PDSR-MM			●	●	●	●	●										
	060212R-MM			●	●	●		●										
	060216R-MM				●													

Parts

Screw	Wrench
	
FTKA01842	TW06S-A

AMS2000S

- AR : 3°~14°
- RR : -25°~-18°



(mm)

Designation			ØD	Ød	ℓ	L	ap	kg
AMS	2010HS	1	10	10	20	85	11	0.04
	2010HS-1L16	1	10	16	30	160	11	0.21
	2012HS	1	12	16	25	85	11	0.10
	2012HS-1L16	1	12	16	30	160	11	0.21
	2014HS	1	14	16	25	90	11	0.12
	2014HS-1L16	1	14	16	30	160	11	0.21
	2016HS	2	16	16	25	90	11	0.12
	2016HS-2L16	2	16	16	30	180	11	0.21
	2018HS	2	18	16	25	90	11	0.12
	2018HS-2L16	2	18	16	30	180	11	0.21
	2020HS	2	20	20	30	100	11	0.21
	2020HS-2L20	2	20	20	30	210	11	0.49
	2022HS	3	22	20	35	115	11	0.25
	2022HS-3L20	3	22	20	35	180	11	0.38
	2025HS	3	25	25	35	115	11	0.40
	2025HS-3L25	3	25	25	40	180	11	0.59
	2032HS	4	32	32	40	125	11	0.70
	2032HS-4L32	4	32	32	50	180	11	1.00
	2040HS	5	40	32	42	130	11	0.84
	2040HS-5L32	5	40	32	50	200	11	1.20
	2040HS-S40	5	40	40	42	130	11	1.15
	2040HS-S42	5	40	42	42	130	11	2.00
	2050HS	6	50	32	45	135	11	1.06
	2050HS-S40	6	50	40	45	135	11	1.38
	2050HS-S42	6	50	42	45	135	11	1.50
	2063HS	8	63	32	45	135	11	1.31
	2063HS-S40	8	63	40	45	135	11	1.62
	2063HS-S42	8	63	42	45	135	11	1.70

Available inserts

APMT-MA	APMT-ML	APMT-MF	APMT-MM
			

Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	11T3PDFR-MA																	
	11T3PDER-ML						●											
	11T3PDSR-MM	●		●	●	●	●	●	●	●								
	11T3PDSR-MF	●		●	●	●	●	●										
	11T308PDSR-MM	●		●	●	●	●	●	●									
	11T312PDSR-MM	●		●	●	●	●	●	●									
	11T316R-MM	●		●	●	●												
	11T318R-MM																	
	11T324R-MM			●	●	●		●										

Parts

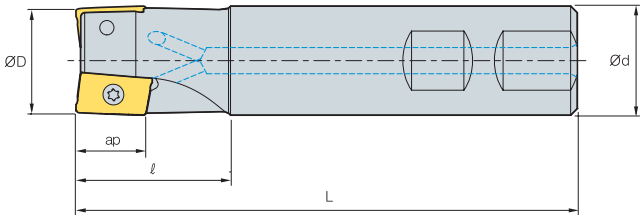
Screw	Wrench	Cutter Dia.
		
FTKA02555S FTKA02565S	TW08S	Ø10~Ø14 Ø16~Ø100

Alpha Mill

AMS3000S

- AR : 3°~14°
- RR : -18°~-10°

AA 0°



(mm)

Designation			ØD	Ød	ℓ	L	ap	kg
AMS	3025HS	2	25	25	35	115	16	0.40
	3025HS-2M25	2	25	25	35	180	16	0.65
	3025HS-2L25	2	25	25	60	220	16	0.75
	3032HS	3	32	32	40	125	16	0.69
	3032HS-2M32	2	32	32	40	200	16	1.13
	3032HS-2L32	2	32	32	65	260	16	1.52
	3032HS-3M32	3	32	32	40	200	16	1.12
	3032HS-3L32	3	32	32	65	260	16	1.48
	3040HS	4	40	32	42	130	16	0.80
	3040HS-3M32	3	40	32	42	200	16	1.24
	3040HS-3L32	3	40	32	42	260	16	1.61
	3040HS-4M32	4	40	32	42	200	16	1.21
	3040HS-4L32	4	40	32	42	260	16	1.58
	3040HS-S40	4	40	40	42	130	16	1.10
	3040HS-S42	4	40	42	42	130	16	1.20
	3050HS	5	50	32	45	135	16	1.00
	3050HS-S40	5	50	40	45	135	16	1.30
	3050HS-S42	5	50	42	45	135	16	1.40
	3063HS	6	63	32	45	135	16	1.25
	3063HS-S40	6	63	40	45	135	16	1.50
	3063HS-S42	6	63	42	45	135	16	1.54

Available inserts

APMT-MA

APMT-ML

APMT-MF

APMT-MM

Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	1604PDFR-MA																	
	1604PDER-ML						●											
	1604PDSR-MM	●		●	●	●	●	●	●	●								
	1604PDSR-MF	●		●	●	●	●	●										
	160410PDSR-MM	●				●	●	●										
	160416PDSR-MM	●		●	●	●	●	●										
	160424R-MM			●	●	●	●	●										
	160430R-MM						●											
	160432R-MM	●		●	●	●	●	●										

Parts

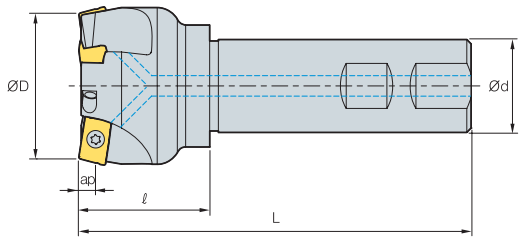
Screw	Wrench	Cutter Dia.
		
FTKA0408 FTKA0410	TW15S	Ø25 Ø32~Ø100

Alpha Mill

AMS1000SE/2000SE

- AR : -4.5°~-1°
- RR : -3°~0°

AA 15°



(mm)

Designation			ØD	Ød	ℓ	L	ap	kg
AMS	1025HSE	3	25	25	30	115	2.5	0.41
AMS	2025HSE	2	25	25	30	115	4	0.4
	2032HSE	3	32	32	40	125	4	0.72
	2040HSE	3	40	32	40	130	4	0.86
	2040HSE-S40	3	40	40	40	130	4	1.2
	2040HSE-S42	3	40	42	40	130	4	1.3
	2050HSE	4	50	32	40	135	4	0.98
	2050HSE-S40	4	50	40	40	135	4	1.3
	2050HSE-S42	4	50	42	40	135	4	1.4
	2063HSE	5	63	32	40	135	4	1.24
	2063HSE-S40	5	63	40	40	135	4	1.57
	2063HSE-S42	5	63	42	40	135	4	1.62

Available inserts

APMT-MF

APMT-MM

APXT-MR

Type	Designation	Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
1000 type	APMT 060202PDSR-MM			●	●	●	●	●										
	0602PDSR-MM			●	●	●	●	●	●	●								
	060208PDSR-MM			●	●	●	●	●										
	060212R-MM			●	●	●												
	060216R-MM				●													
2000 type	APMT 11T3PDSR-MM	●		●	●	●	●	●	●	●								
	11T3PDSR-MF	●		●	●	●	●	●										
	11T308PDSR-MM	●		●	●	●	●	●	●									
	11T312PDSR-MM	●		●	●	●	●	●	●									
	11T316R-MM	●		●	●	●		●										
	11T318R-MM																	
	11T324R-MM			●	●	●		●										
	APXT 11T3PDSR-MR																	
	11T308PDR-MR																	
	11T3PDR-MA														●			
	11T318R-MA																	

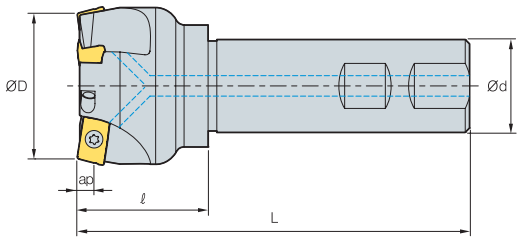
Parts

Type	Screw	Wrench	Wrench
1000 type	FTKA01842	-	TW06S-A
2000 type	FTKA02565S	TW08S	-

AMS3000SE

- AR : -4.5°~-1°
- RR : -3°~0°

AA 15°



(mm)

Designation			ØD	Ød	ℓ	L	ap	kg
AMS	3050HSE	3	50	32	45	135	6	1.0
	3050HSE-S40	3	50	40	45	135	6	1.3
	3050HSE-S42	3	50	42	45	135	6	1.4
	3063HSE	4	63	32	45	135	6	1.3
	3063HSE-S40	4	63	40	45	135	6	1.6
	3063HSE-S42	4	63	42	45	135	6	1.7

Available inserts

APMT-MF

APMT-MM

Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	1604PDSR-MM	●		●	●	●	●	●	●	●								
	1604PDSR-MF	●		●	●	●	●	●										
	160410PDSR-MM	●				●	●	●										
	160416PDSR-MM	●		●	●	●	●	●										
	160424R-MM			●	●	●	●	●										
	160430R-MM						●											
	160432R-MM	●		●	●	●	●	●										

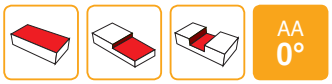
Parts

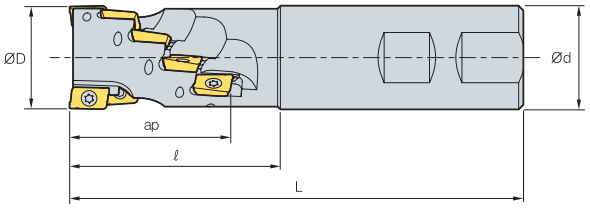
Screw	Wrench
	
FTKA0410	TW15S

Alpha Mill

AMS1000M/1500M

- AR : 7°~9°
- RR : -13°~-10°





(mm)

Designation			ØD	Ød	ℓ	L	No. of flute	ap	kg
AMS	1016M	6	16	16	30	80	2	15.5	0.3
	1020M	12	20	20	32	85	3	20.5	0.3
	1025M	20	25	25	39	95	4	25.5	0.3
AMS	15020M	3	20	20	42	105	1	26.5	0.3
	15025M	8	25	25	50	110	2	35	0.3
	15032M	10	32	32	60	120	2	44	0.3

Available inserts

APMT-MA

APMT-ML

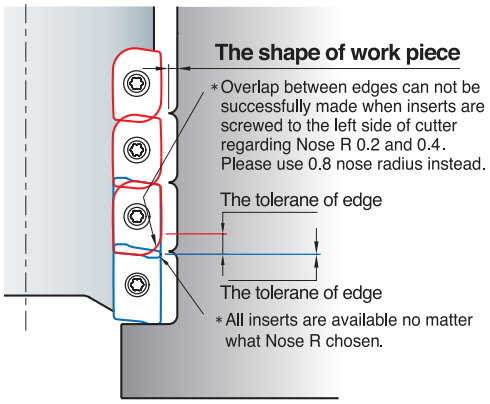
APMT-MM

Type	Designation	Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
1000 type	APMT 0602PDFR-MA																	
	060202PDSR-MM			●	●	●	●	●										
	0602PDSR-MM			●	●	●	●	●	●	●								
	060208PDSR-MM			●	●	●	●	●										
	060212R-MM			●	●	●												
	060216R-MM				●													
1500 type	APMT 0903PDFR-MA																	
	0903PDER-ML						●											
	0903PDSR-MM			●	●	●	●	●										
	090308PDSR-MM			●	●	●	●	●										
	090312R-MM					●	●	●										
	090316R-MM				●	●												
	090320R-MM				●	●												

Parts

Type	Screw	Wrench	Wrench
1000 type	FTKA01842	-	TW06S-A
1500 type	FTKA02565S	TW08S	-

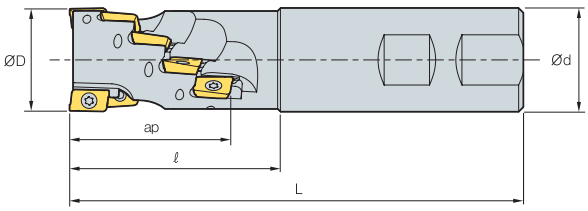
Caution when insert are screwed



AMS2000M/4000M

- AR : 7°~9°
- RR : -13°~-10°

AA 0°



(mm)

Designation		⌀	ØD	Ød	ℓ	L	No. of flute	ap	kg
AMS	2020M	3	20	20	45	120	1	29.4	0.32
	2025M	8	25	25	55	130	2	38.9	0.40
	2032M	10	32	32	65	140	2	48.5	0.65
	2040M	14	40	40	75	150	2	58	0.75
AMS	4032M	4	32	32	60	130	2	31.6	0.65
	4040M	6	40	40	70	140	2	46	1.11
	4050M-S40	6	50	40	55	125	2	46	1.22
	4050M	8	50	40	70	140	2	61	1.37

Available inserts

APMT-MA

APMT-ML

APMT-MF

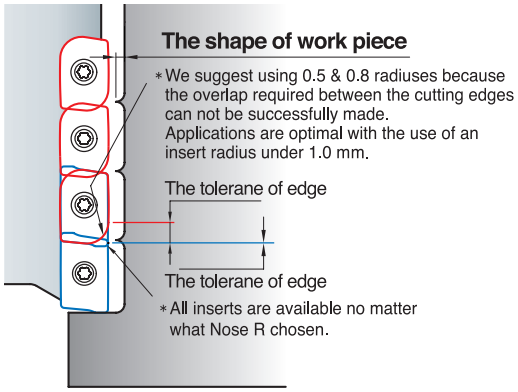
APMT-MM

Type	Designation	Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
2000 type	APMT 11T3PDFR-MA																	
	11T3PDER-ML						●											
	11T3PDSR-MM	●		●	●	●	●	●	●	●								
	11T3PDSR-MF	●		●	●	●	●	●										
	11T308PDSR-MM	●		●	●	●	●	●	●									
	11T312PDSR-MM	●		●	●	●	●	●	●									
	11T316R-MM	●		●	●	●												
	11T318R-MM																	
	11T324R-MM			●	●	●		●										
4000 type	APMT 1806PDFR-MA																	
	1806PDER-ML						●											
	1806PDSR-MM	●		●	●	●	●	●	●	●								
	1806PDSR-MF			●		●	●	●										
	180612PDSR-MM	●		●	●	●	●	●										
	180616PDSR-MM			●			●	●										
	180620PDSR-MM																	
	180624PDSR-MM			●	●		●											
	180630R-MM																	
	180632R-MM			●	●		●	●										

Parts

Type	Screw	Wrench
2000 type	FTKA02565S	TW08S
4000 type	FTKA0410	TW15S

Caution when insert are screwed



Alpha Mill

AMS1000MH/1500MH/2000MH/3000MH

- AR : 9°~12°
- RR : -12°~-10°

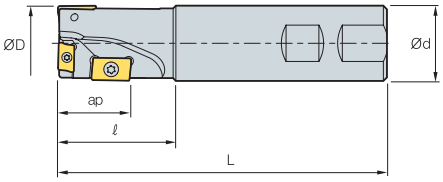


Fig. 1

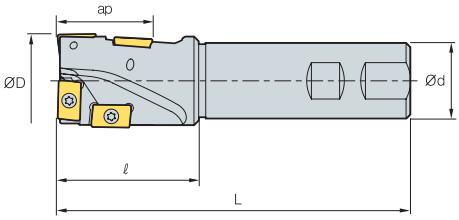


Fig. 2

(mm)

Designation			ØD	Ød	ℓ	L	ap	kg	APMT 0602-	APMT 0903-	APMT 11T3 -	APMT 1604-	APKT 1604 -	Fig.
AMS	1014MH	3	14	12	30	120	11	0.16	3	-	-	-	-	1
	1016MH	3	16	14	30	140	11	0.20	3	-	-	-	-	1
	1018MH	3	18	16	30	140	11	0.21	3	-	-	-	-	1
AMS	15020MH	3	20	20	35	140	17	0.31	1	2	-	-	-	1
AMS	2025MH	3	25	25	40	130	20	0.45	-	-	3	-	-	1
	2032MH	3	32	32	50	140	30	0.75	-	-	1	2	-	1
AMS	3040MH-K	4	40	32	60	150	40	0.90	-	-	-	-	4	2

Available inserts

APKT-MF	APKT-MM	APMT-MA	APMT-ML	APMT-MF	APMT-MM
					

Type	Designation	Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
1000 type	APMT 0602PDFR-MA																	
	060202PDSR-MM			●	●	●	●	●										
	0602PDSR-MM			●	●	●	●	●	●	●								
	060208PDSR-MM			●	●	●	●	●										
1500 type	APMT 0903PDFR-MA																	
	0903PDER-ML						●											
	0903PDSR-MM			●	●	●	●	●										
	090308PDSR-MM			●	●	●	●	●										
2000 type	APMT 11T3PDFR-MA																	
	11T3PDER-ML						●											
	11T3PDSR-MM	●		●	●	●	●	●	●	●								
	11T3PDSR-MF	●		●	●	●	●	●										
	11T308PDSR-MM	●		●	●	●	●	●	●									
	11T312PDSR-MM	●		●	●	●	●	●	●									
	11T316R-MM	●		●	●	●												
	11T318R-MM																	
	11T324R-MM			●	●	●		●										
3000 type	APMT 1604PDSR-MM	●		●	●	●	●	●	●	●								
	1604PDSR-MF	●		●	●	●	●	●										
3000-K type	APKT 1604PDSR-MM	●	●		●	●		●	●	●								
	1604PDSR-MF	●				●												

Parts

Type	Screw	Wrench	Wrench
1000 type	FTKA01842	-	TW06S-A
1500 type	FTKA02565S	TW08S	-
2000 type	FTKA02565S	TW08S	-
3000 type	FTKA0410	TW15S	-

Recommended cutting condition

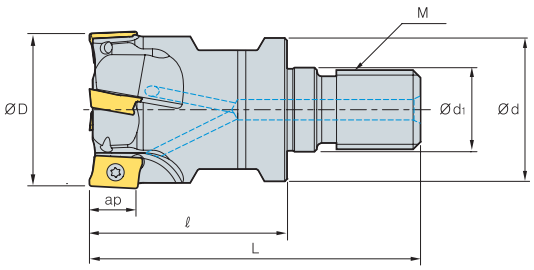
	Drilling	Shouldering	Slotting
vc(m/min)	80~200	80~200	80~200
fz(mm/t)	0.03~0.06	0.05~0.25	0.05~0.20

- Please keep the drill depth under 0.25D when you're drilling.
- Please keep the step depth from 0.2 to 0.3mm.

AMM1000

- AR : 7.5°~12.5°
- RR : -28°~-6°

AA 0°



(mm)

Designation			ØD	Ød	Ød1	ℓ	L	M	ap	kg
AMM	1012HR-M06	3	12	11	6.5	25	40	M06	5.6	0.02
	1016HR-M08	4	16	14.5	8.5	25	42	M08	5.6	0.03
	1020HR-M10	5	20	18	10.5	30	51	M10	5.6	0.07
	1025HR-M12	7	25	23	12.5	35	59	M12	5.6	0.12
	1032HR-M16	8	32	29	17	40	67	M16	5.6	0.23

Available inserts

APMT-MA

APMT-MM

Designation		Coated									Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	0602PDFR-MA				●	●	●	●										
	060202PDSR-MM			●	●	●	●	●										
	0602PDSR-MM			●	●	●	●	●	●	●								
	060208PDSR-MM			●	●	●	●	●										
	060212R-MM			●	●	●												
	060216R-MM				●													

Available adoptor

Designation		Available adoptor
AMM	1012HR-M06	MAT - M06
	1016HR-M08	MAT - M08
	1020HR-M10	MAT - M10
	1025HR-M12	MAT - M12
	1032HR-M16	MAT - M16

Designation : AMM1032HR-M16
Modular head threading measure size(M16)

II

Adaptor spec. : MAT-M16-035-S32S
Adaptor threading measure(M16)

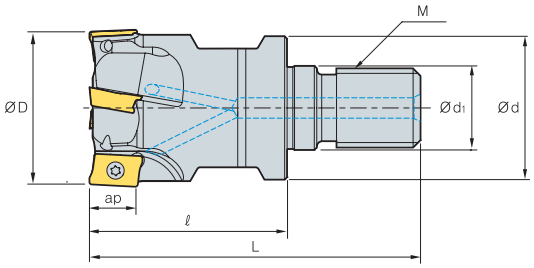
Parts

Screw	Wrench
	
FTKA01842	TW06S-A

AMM2000

- AR : 7.5°~12.5°
- RR : -28°~-6°

AA 0°



(mm)

Designation			ØD	Ød	Ød1	ℓ	L	M	ap	kg
AMM	2016HR-M08	2	16	14.5	8.5	25	42	M08	11	0.04
	2020HR-M10	2	20	18	10.5	30	51	M10	11	0.07
	2025HR-M12	3	25	23	12.5	35	59	M12	11	0.04
	2032HR-M16	4	32	29	17	40	67	M16	11	0.23
	2040HR-M16	5	40	29	17	40	67	M16	11	0.25

Available inserts

APMT-MA	APMT-ML	APMT-MM	APMT-MF	APXT-MA
				

Designation		Coated										Cermet			Uncoated			
		NCM325	NCM335	NC5330	PC3500	PC5300	PC5400	PC3545	PC9530	PC6510	PD2000	CN2000	CN20	CN30	H01	G10	ST30A	ST20
APMT	11T3PDFR-MA																	
	11T3PDER-ML						●											
	11T3PDSR-MM	●		●	●	●	●	●	●	●								
	11T3PDSR-MF	●		●	●	●	●	●										
	11T308PDSR-MM	●		●	●	●	●	●	●									
	11T312PDSR-MM	●		●	●	●	●	●	●									
	11T316R-MM	●		●	●	●												
	11T318R-MM																	
	11T324R-MM			●	●	●		●										
APXT	11T3PDR-MA														●			

Available adoptor

Designation		Available adoptor
AMM	2016HR-M08	MAT - M08
	2020HR-M10	MAT - M10
	2025HR-M12	MAT - M12
	2032HR-M16 2040HR-M16	MAT - M16

Designation : AMM1032HR-M16
Modular head threading measure size(M16)

II

Adaptor spec. : MAT-M16-035-S32S
Adaptor threading measure(M16)

Parts

Screw	Wrench
	
FTKA02565S	TW08S

Alpha Mill

MAT(Steel shank type)

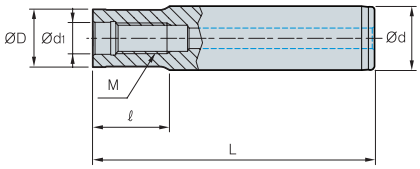


Fig. 1

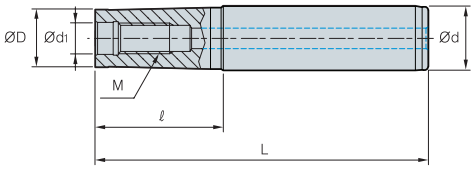


Fig. 2

(mm)

Designation		ØD	Ød	Ød1	ℓ	L	M	Fig.
MAT	M06-020-S10S	9.5	10	6.5	20	70	M06	1
	M6B-020-S12S	11.0	12	6.5	20	76	M06	1
	M6B-040-S12S	11.0	12	6.5	40	96	M06	1
	M08-020-S16S	14.5	16	8.5	20	80	M08	1
	M10-030-S20S	18.0	20	10.5	30	100	M10	1
	M12-030-S25S	22.5	25	12.5	29	110	M12	1
	M16-035-S32S	28.5	32	17.0	35	125	M16	1
	M06-040-S12T	9.5	12	6.5	40	96	M06	2
	M06-065-S16T	9.5	16	6.5	65	125	M06	2
	M6B-065-S16T	11.0	16	6.5	65	125	M06	2
	M6B-080-S16T	11.0	16	6.5	80	140	M06	2
	M08-040-S16T	14.5	16	8.5	40	100	M08	2
	M08-065-S16T	14.5	16	8.5	65	125	M08	2
	M08-080-S20T	14.5	20	8.5	80	150	M08	2
	M08-110-S25T	14.5	25	8.5	110	190	M08	2
	M10-050-S20T	18.0	20	10.5	50	120	M10	2
	M10-070-S20T	18.0	20	10.5	70	140	M10	2
	M10-090-S25T	18.0	25	10.5	90	170	M10	2
	M10-110-S25T	18.0	25	10.5	110	190	M10	2
	M10-130-S32T	18.0	32	10.5	130	220	M10	2
	M12-050-S25T	22.5	25	12.5	50	130	M12	2
	M12-070-S25T	22.5	25	12.5	70	150	M12	2
	M12-090-S25T	22.5	25	12.5	90	170	M12	2
	M12-110-S32T	22.5	32	12.5	110	200	M12	2
	M12-175-S40T	22.5	40	12.5	175	300	M12	2
	M16-055-S32T	28.5	32	17.0	55	145	M16	2
	M16-080-S32T	28.5	32	17.0	80	170	M16	2
	M16-120-S32T	28.5	32	17.0	120	210	M16	2
	M16-175-S40T	28.5	40	17.0	175	300	M16	2

• S : Straight neck adapter • T : Taper neck adapter

MAT-C(Carbide shank type)

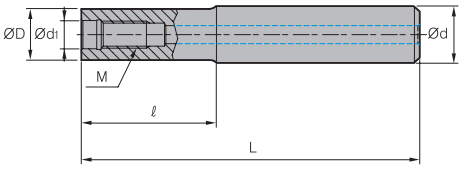


Fig. 1

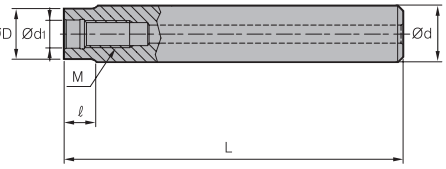


Fig. 2

(mm)

Designation		ØD	Ød	Ød1	ℓ	L	M	Fig.
MAT	M08-080-S16S-C	14.5	16	8.5	80	150	M08	1
	M08-110-S16S-C	14.5	16	8.5	110	180	M08	1
	M08-150-S16S-C	14.5	16	8.5	150	250	M08	1
	M08-010-S16S-C-150	14.5	16	8.5	10	150	M08	2
	M08-010-S16S-C-180	14.5	16	8.5	10	180	M08	2
	M08-010-S16S-C-250	14.5	16	8.5	10	250	M08	2
	M10-090-S20S-C	18.0	20	10.5	90	170	M10	1
	M10-110-S20S-C	18.0	20	10.5	110	200	M10	1
	M10-175-S20S-C	18.0	20	10.5	175	300	M10	1
	M10-010-S20S-C-170	18.0	20	10.5	10	170	M10	2
	M10-010-S20S-C-200	18.0	20	10.5	10	200	M10	2
	M10-010-S20S-C-300	18.0	20	10.5	10	300	M10	2
	M12-090-S25S-C	22.5	25	12.5	90	170	M12	1
	M12-110-S25S-C	22.5	25	12.5	110	200	M12	1
	M12-175-S25S-C	22.5	25	12.5	175	300	M12	1
	M12-015-S25S-C-170	22.5	25	12.5	15	170	M12	2
	M12-015-S25S-C-200	22.5	25	12.5	15	200	M12	2
	M12-015-S25S-C-300	22.5	25	12.5	15	300	M12	2
	M16-090-S32S-C	28.5	32	17.0	90	180	M16	1
	M16-120-S32S-C	28.5	32	17.0	120	210	M16	1
	M16-175-S32S-C	28.5	32	17.0	175	300	M16	1
	M16-020-S32S-C-180	28.5	32	17.0	20	180	M16	2
	M16-020-S32S-C-210	28.5	32	17.0	20	210	M16	2
	M16-020-S32S-C-300	28.5	32	17.0	20	300	M16	2