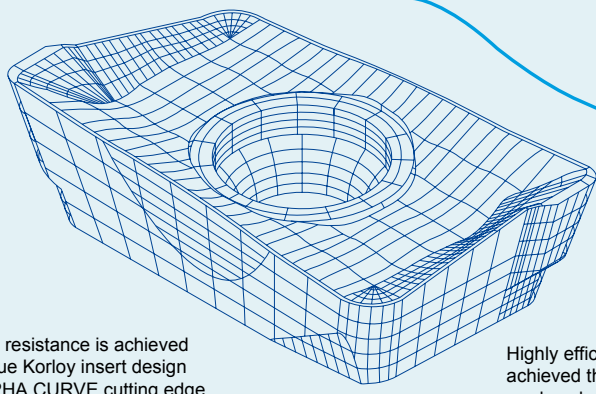


AA 90°

Long tool life at high speed, high feed and deeper cutting by low cutting resistance and strong cutting edge.

The special 'Alpha Curve' reduces cutting resistance and increases the strength of the cutting edge to improve wear resistance.



Low cutting resistance is achieved by the unique Korloy insert design i.e. the ALPHA CURVE cutting edge & convex/concave design.

Highly efficient machining can be achieved thanks to a very wide grade selection.

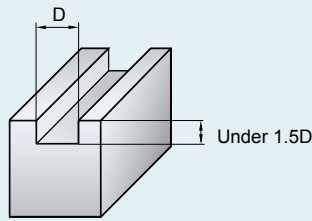
Shouldering		Slotting
Drilling	Ramping	Helical Cutting

Insert Features & Application

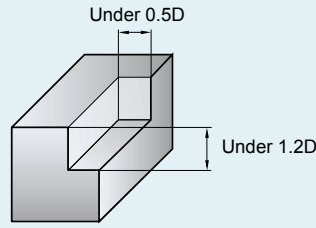
- 1 Insert will fit into the family of 6 tools.
- Innovative cutting edge and chip breaker gives better performance and chip control than APKT geometry inserts.
- Wide grade selection for ultimate optimised performance.
- Excellent performance in large depth of cut operations due to strong cutting edge and low cutting resistance.
- Various applications are possible with the multifunctional range of holders.
- New through coolant holders for increased performance, chip control and tool life.

Holders	Applicable Inserts	Page
AMS1000S, AMM1000S	APMT06	B7
AMS2000S, AMCM2000S, AMM2000S, AMS2000M, AMCM200M, AMS2000MH	APXT11T3	B8
AMS3000S, AMCM3000S, AMS3000MH	APXT1604, APKT1604	B8

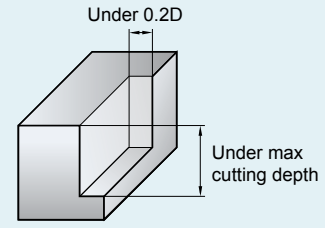
Recommended depth of cut



1. SLOTTING



2. SHOULDERING



3. SHOULDERING

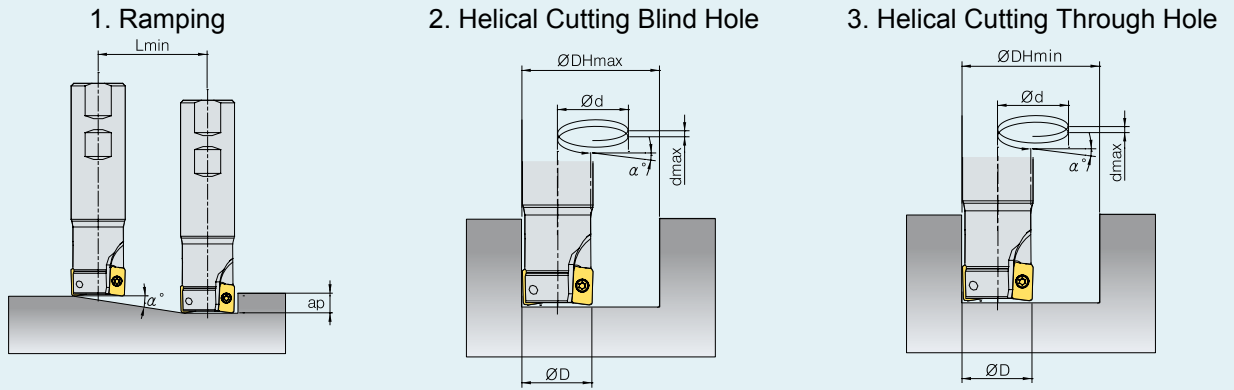
Cutting conditions for single edge type

WORK PIECE	GRADE	Fig	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 NCM335 PC3500 PC240	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	0.08~0.1	120~180	0.08~0.1	180~250	0.08~0.1	200~250	0.08~0.1
		3	80~120	0.1~0.15	120~180	0.1~0.15	180~250	0.1~0.15	200~250	0.1~0.15
High carbon steel, Alloy steel	NCM325 NCM335 PC3500 PC240	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	0.05~0.1	150~200	0.05~0.1	150~200	0.05~0.1
		3	80~100	0.1~0.15	120~150	0.1~0.15	180~200	0.1~0.15	80~200	0.1~0.15
Alloy tool steel	NCM325 NCM335 PC240 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	0.05~0.1	130~180	0.05~0.1	130~180	0.05~0.1
		3	70~100	0.1~0.15	100~150	0.1~0.15	130~180	0.1~0.15	130~180	0.1~0.15
Stainless steel	NCM325 NCM335 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	0.05~0.1	130~180	0.05~0.1	130~180	0.05~0.1
		3	70~100	0.1~0.15	100~150	0.1~0.15	130~180	0.1~0.15	130~180	0.1~0.15
Cast iron	PC6510	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	0.15~0.2	100~130	0.15~0.2	150~200	0.15~0.2	150~200	0.15~0.2
Aluminum alloy	H01	1	250~800	0.15~0.2	300~900	0.15~0.2	400~1,000	0.1~0.2	400~1,000	0.1~0.2
		2	250~900	0.2~0.25	350~950	0.2~0.25	400~1,000	0.2~0.3	400~1,000	0.2~0.3
		3	250~900	0.25~0.3	350~950	0.25~0.3	400~1,000	0.3~0.1	400~1,000	0.3~0.4
Hardened steel	NCM325 PC3500 PC240	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

Cutting conditions for multi edge type

WORK PIECE	GRADE	Fig	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 NCM335 PC3500 PC240	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	0.08~0.1	120~140	0.08~0.1	120~140	0.08~0.1	120~140	0.08~0.1
		3	100~120	0.1~0.15	140~140	0.1~0.15	120~140	0.1~0.15	130~150	0.1~0.15
High carbon steel, Alloy steel	NCM325 NCM335 PC3500 PC240	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	0.08~0.1	100~120	0.08~0.1	100~120	0.08~0.1
		3	80~100	0.1~0.15	110~130	0.1~0.15	100~120	0.1~0.15	110~130	0.1~0.15
Alloy tool steel	NCM325 NCM335 PC240 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	0.1~0.15	100~120	0.1~0.15	110~130	0.1~0.15
Stainless steel	NCM325 NCM335 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	0.1~0.15	100~130	0.1~0.15	110~130	0.1~0.15	110~130	0.1~0.15
Cast iron	PC6510	1	70~90	0.1~0.12	70~90	0.1~0.12	90~120	0.1~0.12	90~120	0.1~0.12
		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	0.15~0.2	120~150	0.15~0.2	120~150	0.15~0.2
Aluminum alloy	H01	1	200~800	0.1~0.2	300~900	0.1~0.2	400~1,000	0.1~0.2	400~1,000	0.1~0.2
		2	250~900	0.15~0.3	300~950	0.15~0.3	400~1,000	0.1~0.4	400~1,000	0.1~0.4
		3	250~900	0.15~0.3	300~950	0.15~0.3	400~1,000	0.1~0.4	400~1,000	0.1~0.4
Hardened steel	NCM325 PC3500 PC240	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

Cutting conditions for ramping and helical operations



1. Ramping				2. Helical Cutting Blind Hole				3. Helical Cutting Through Hole	
Designation	ØD	Max angle α(°)	Lmin (mm)	Maximum Hole Diameter ØDHmax	Maximum Pitch	Minimum Hole Diameter ØDHmin	Maximum Pitch	Maximum Hole Diameter ØDHmax	Maximum Pitch
AMS2010HS	10	16.82	33	18	5.4	16.4	5	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	10.3	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	5.6	102	38	3.7	36	3.5	31	3
AMS2022HS	22	5.15	11	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	2.7	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
AMCM2050HS	50	0.36	1576	98	0.6	96	0.6	91	0.6
AMCM2063HS	63	0.27	2104	124	0.6	122	0.6	117	0.6
AMCM2080HS	80	0.21	2784	158	0.6	156	0.6	151	0.5
AMCM2100HS	100	0.16	3584	198	0.6	196	0.5	191	0.5
AMS3025HS	25	4.72	121	48	4	46	3.8	36	3
AMS3032HS	32	3	191	62	3.2	60	3.1	50	2.6
AMS3040HS	40	2.29	250	78	3.1	76	3	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
AMCM3040HS	40	1.99	288	78	2.7	76	2.6	66	2.3
AMCM3050HS	50	1.67	343	98	2.9	96	2.8	86	2.5
AMCM3063HS	63	1.22	470	124	2.6	122	2.6	112	2.4
AMCM3080HS	80	0.9	636	158	2.5	156	2.5	146	2.3
AMCM3100HS	100	0.69	830	198	2.4	196	2.4	186	2.2
AMS2025MH	25	1.5	764	48	1.3	46	1.2	-	-
AMS2032MH	32	1.5	1146	62	1.6	60	1.6	-	-
AMS3040MH	40	1.5	1528	78	2	76	2	-	-

Machining Formulae	
RPM	$n = \frac{vc \times 1000}{\pi \times D}$
Feed (per min)	$Vf = fz \times n \times z \text{ (mm/min)}$

Symbol	Key
vc	Surface speed (m/min)
n	Revolutions per minute
ae	Width of cut
ap	Depth of cut
fz	Feed per tooth (mm/t)
D	Cutting diameter
Z	Number of teeth

Lmin is ap = 10mm

Lmin : Min. inclination cutting length

α° : Max. ramping angle

ap : Depth of cut

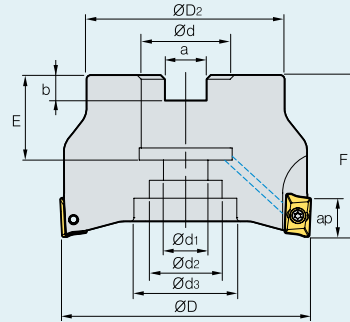
$$Lmin = \frac{ap}{\tan \alpha^\circ} \text{ (mm)}$$

Alpha Mill AMCM 2000S / 3000S SERIES



AA 90°

Cutting Data B20-21



DESIGNATION	£	STOCK STATUS	ØD	ØD ₂	Ød	a	b	E	F	Ød ₁	Ød ₂	ap	kg		
AMCM	2040HS	£136.00	●	40	5	-	16	8.4	5.6	18	40	9	14	11	0.2
	2050HS	£165.00	●	50	6	-	22	10.4	6.3	20	40	11	18	11	0.32
2000S SERIES	2063HS	£199.00	●	63	8	-	22	10.4	6.3	20	40	11	18	11	0.6
	2080HS	£225.00	●	80	8	-	27	12.4	7	22	50	14	20	11	1.2
	2100HS	£265.00	●	100	10	-	32	14.4	8	28	63	18	26	11	2.5
AMCM	3040HS	£136.00	●	40	4	34	16	8.4	5.6	18	40	9	14	16	0.2
	3050HS	£159.00	●	50	5	42	22	10.4	6.3	20	40	11	18	16	0.3
3000S SERIES	3063HS	£188.00	●	63	6	49	22	10.4	6.3	20	40	11	18	16	0.5
	3080HS	£217.00	●	80	7	57	27	12.4	7	22	50	14	20	16	1.2
	3100HS	£250.00	●	100	8	67	32	14.4	8	28	63	18	26	16	2.5

Stock Status ● Stock item (next day delivery) □ Non-stock item (7-10 days)

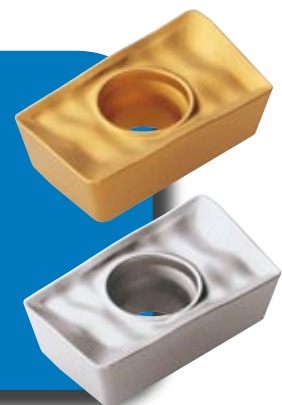
Spares & Accessories

HOLDER SERIES	INSERT DESIGNATION	No EDGES	INSERT PAGE	INSERT	SCREW	WRENCH	ARBOR
AMCM 2000S	APXT11T3	2	B8		FTKA02565S	TW08S	
AMCM 3000S	APXT1604 APKT1604	2	B7-B8		FTKA0410	TW15S	Section G

Through coolant system for decreasing cutting heat & better chip flow

Alpha Mill Family 90° Milling Systems

- Standardize your inserts to one style which can be applied to 6 different styles of holder.
- Through coolant system for decreasing cutting heat & better chip flow.
- The APXT Alpha curve geometry insert gives the smoothest cutting action of all Korloy milling systems.
- Suitable for all applications including steel, stainless, cast iron, aluminium and exotics.



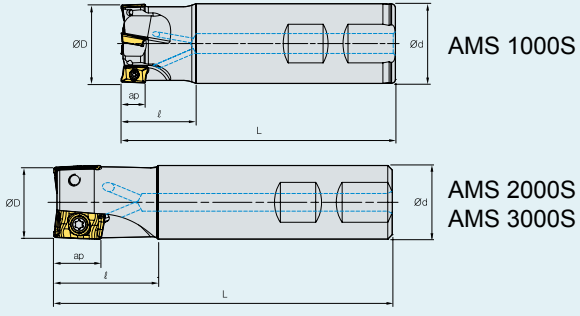
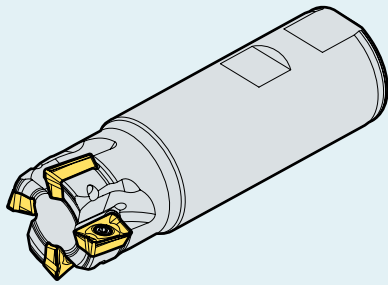
INDEXABLE MILLING

ALPHA MILL FAMILY

Alpha Mill AMS 1000S/2000S/3000S SERIES



AA 90°



DESIGNATION	£	STOCK STATUS	ØD		Ød	l	L	ap		
AMS 1000S SERIES	1010HS	£39.00	●	10	2	10	20	80	5.6	0.04
	1012HS-3	£39.00	●	12	3	12	25	80	5.6	0.06
	1014HS-3	£48.00	●	14	3	16	25	90	5.6	0.11
	1015HS	£48.00	□	15	3	16	25	90	5.6	0.11
	1016HS-4	£48.00	●	16	4	16	25	90	5.6	0.12
	1017HS	£52.00	□	17	4	16	25	90	5.6	0.12
	1018HS	£52.00	□	18	4	16	25	90	5.6	0.12
	1020HS-4	£52.00	●	20	4	20	30	110	5.6	0.23
	1021HS	£53.00	□	21	5	20	30	110	5.6	0.24
	1022HS	£53.00	□	22	5	20	30	110	5.6	0.27
1025HS	£63.00	●	25	7	25	30	120	5.6	0.39	
AMS 2000S SERIES	2010HS	£36.00	●	10	1	10	20	85	11	0.04
	2012HS	£36.00	●	12	1	16	25	85	11	0.1
	2014HS	£44.00	●	14	1	16	25	90	11	0.12
	2016HS	£44.00	●	16	2	16	25	90	11	0.12
	2018HS	£45.00	●	18	2	16	25	90	11	0.12
	2020HS	£47.00	●	20	2	20	30	100	11	0.21
	2022HS	£55.00	●	22	3	20	35	115	11	0.25
	2025HS	£55.00	●	25	3	25	35	115	11	0.4
	2032HS	£74.00	●	32	4	32	40	125	11	0.7
	2040HS	£87.00	□	40	5	32	42	130	11	0.84
2050HS	£121.00	□	50	6	32	45	135	11	1.06	
2063HS	£195.00	□	63	8	32	45	135	11	1.31	
AMS 3000S SERIES	3025HS	£70.00	●	25	2	25	35	115	16	0.4
	3032HS	£90.00	●	32	3	32	40	125	16	0.69
	3040HS	£111.00	□	40	4	32	42	130	16	0.8
	3050HS	£132.00	□	50	5	32	45	135	16	1
3063HS	£150.00	□	63	6	32	45	135	16	1.25	

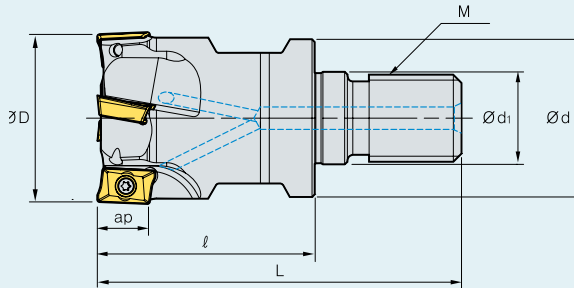
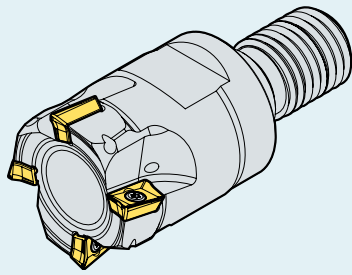
Spares & Accessories

HOLDER SERIES	INSERT DESIGNATION	No EDGES	INSERT PAGE	INSERT	SCREW	WRENCH	END MILL HOLDERS
AMS 1000S	APMT0602	2	B7		FTKA01842	TW06S-A	
AMS 2000S	APXT11T3	2	B8		FTKA02565S	TW08S	
AMS 3000S	APXT1604 APKT1604	2	B7-B8		FTKA0410	TW15S	Section G

Alpha Mill AMM 1000S / 2000S SERIES



AA 90°

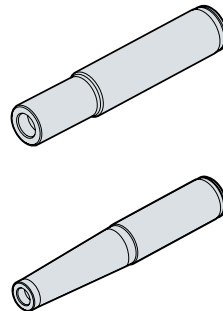


DESIGNATION	£	STOCK STATUS	ØD		Ød	Ød ₁	l	L	ap	M	
AMM	1012HR-M06	£99.00	●	12	3	11	6.5	25	40	5.6	M06
	1016HR-M08	£120.00	●	16	4	14.5	8.5	25	42	5.6	M08
1000S SERIES	1020HR-M10	£139.00	●	20	5	18	10.5	30	51	5.6	M10
	1025HR-M12	£175.00	●	25	7	23	12.5	35	59	5.6	M12
	1032HR-M16	£199.00	●	32	8	29	17	40	67	5.6	M16

Stock Status ● Stock item (next day delivery) □ Non-stock item (7-10 days)

Adaptors

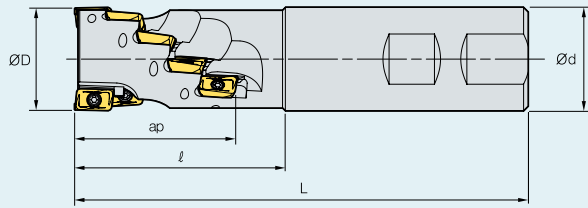
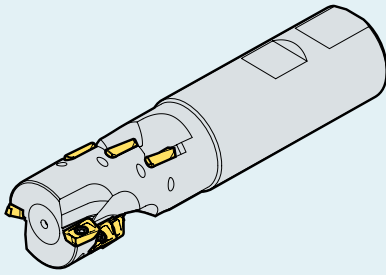
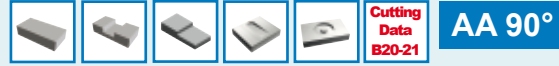
DESIGNATION	APPLICABLE HOLDERS	PAGE
AMM	1012HR-M06	MAT - M06
	1016HR-M08	MAT - M08
1000S SERIES	1020HR-M10	MAT - M10
	1025HR-M12	MAT - M12
	1032HR-M16	MAT - M16



Spares & Accessories

HOLDER SERIES	INSERT DESIGNATION	No EDGES	INSERT PAGE	INSERT	SCREW	WRENCH	END MILL HOLDERS
AMM 1000S	APMT0602	2	B7		FTKA01842	TW06S-A	
AMM 2000S	APXT11T3	2	B8		FTKA02565S	TW08S	Section G

Alpha Mill AMS 2000M SERIES



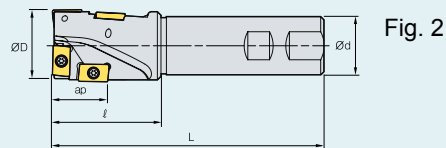
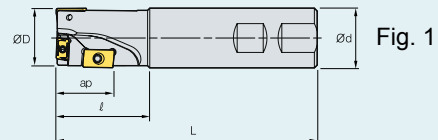
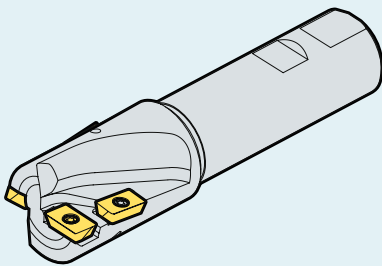
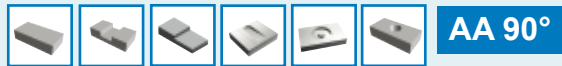
DESIGNATION	£	STOCK STATUS	ØD		Ød	L	l	No of flutes	ap		
AMS	2020M	£116.00	•	20	3	20	120	45	1	29.4	0.32
	2025M	£231.00	•	25	8	25	130	55	2	38.9	0.4
2000M SERIES	2032M	£294.00	•	32	10	32	140	65	2	48.5	0.65
	2040M	£354.00	□	40	14	42	150	75	2	58.0	0.75

Spares & Accessories

Stock Status • Stock item (next day delivery) □ Non-stock item (7-10 days)

HOLDER SERIES	INSERT DESIGNATION	No EDGES	INSERT PAGE	INSERT	SCREW	WRENCH	END MILL HOLDERS
AMS 2000M	APXT11T3	2	B8		FTKA02565S	TW08S	Section G

Alpha Mill (Mill Drill) AMS 2000/3000MH SERIES



DESIGNATION	£	STOCK STATUS	ØD		Ød	L	l	ap	APXT11	APXT16	Fig.	
AMS	2025MH	£63.00	•	25	3	25	130	40	20	3	-	1
	2032MH	£84.00	•	32	3	32	140	50	30	1	2	1
AMS	3040MH	£128.00	□	40	4	32	150	60	40	-	4	2

Stock Status • Stock item (next day delivery) □ Non-stock item (7-10 days)

Spares & Accessories

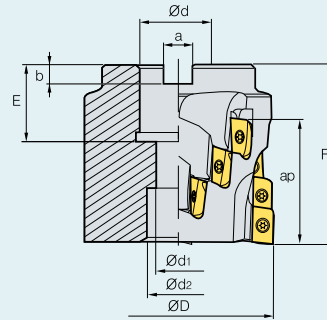
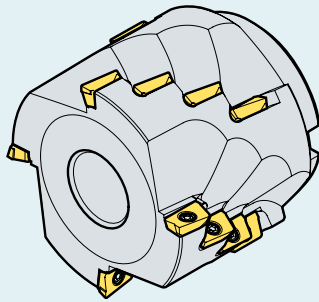
HOLDER SERIES	INSERT DESIGNATION	No EDGES	INSERT PAGE	INSERT	SCREW	WRENCH	END MILL HOLDERS
AMS 2000MH	APXT11T3	2	B7-B8		FTKA02565S	TW08S	Section G
AMS 3000MH	APXT1604				FTKA0410	TW15S	

Alpha Mill AMCM 2000M SERIES



Cutting
Data
B20-21

AA 90°



DESIGNATION	£	STOCK STATUS	ØD		ØD ₂	Ød	Ød ₁	Ød ₂	a	b	E	F	No. OF COLUMNS	ap	
AMCM 2050M	£410.00	<input type="checkbox"/>	50	16	40	22	11	18	10.4	6.3	29	58	4	39	0.7
AMCM 2063M	£413.00	<input type="checkbox"/>	63	16	50	22	13.5	20	12.4	7	25	58	4	39	0.8
AMCM 2080M	£535.00	<input type="checkbox"/>	80	20	60	27	-	45	14.4	8	35	63	5	39	0.96
AMCM 2100M	£653.00	<input type="checkbox"/>	100	24	80	32	-	56	16.4	9	38	63	6	39	0.12

Stock Status • Stock item (next day delivery) □ Non-stock item (7-10 days)

Spares & Accessories

HOLDER SERIES	INSERT DESIGNATION	No EDGES	INSERT PAGE	INSERT	SCREW	WRENCH	ARBORS
AMCM 2000M	APXT11T3	2	B8		FTKA02565S	TW08S	 Section G

Alpha Mill Family 90° Milling Systems

- Standardize your inserts to one style which can be applied to 6 different styles of holder.
- The APXT Alpha curve geometry insert gives the smoothest cutting action of all Korloy milling systems.
- Suitable for all applications including steel, stainless, cast iron, aluminium and exotics.

