

Shoulder milling tool for high helix

Alpha Mill-X

**Ampliamento
di gamma**

**KORLOY
TECH-NEWS**



- High helix cutting edge realizes high speed and high feed machining (15% higher speed than conventional tool's machining) and increases 20% higher productivity.
- Highly precise cutting edge ensures high quality surface finish in milling.

Shoulder milling tool for high helix

Alpha Mill-X

The recent trend of cutting conditions has been changing to high speed and high feed conditions to decrease tooling cost from high productivity. However, without tool productivity and rigidity, chattering from impact in interrupted machining reduces surface finish and occurs tool fracture.

KORLOY introduces Alpha Mill-X ensuring high speed and high feed machining with high quality to increase productivity.

Alpha Mill-X with exclusive chip breaker and cutting edge with high rake angle reduces cutting load and controls chattering in machining.

The insert for the Alpha Mill-X is thicker than the conventional ones which increases tool rigidity and realizes stable machining from stable clamping system with flat flank surface clamping structure. In addition, wide wiper minor cutting edge and precise perpendicular cutting edge of Alpha Mill-X ensure milling with high quality.

The Alpha Mill-X with various sized nose-R and optimal grades for each cutting conditions increases productivity in high speed and feed machining with high performance.



Longer tool life

- New shape and optimal grade

Soft cutting and high speed and high feed machining

- High rake angle chip breaker and cutting edge

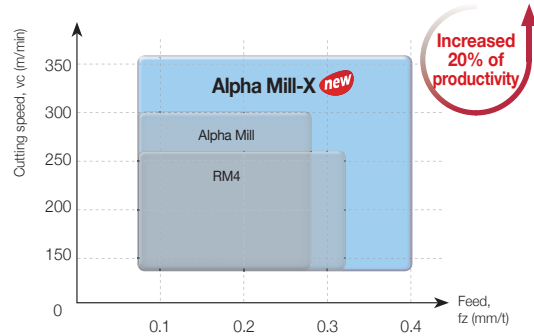
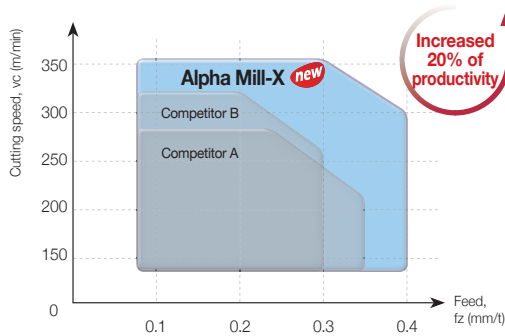
Stable machinability

- Increased clamping force due to thicker insert and flat flank surface clamping structure

Good surface finish and perpendicularity

- Wide wiper minor cutting edge and precise cutting edge

Application range



Applications

Facing	Shouldering	Slotting	Ramping	Helical cutting

Code system

[Shank type]

AMX	S	032	R	-	2	C	32	-	150	-	AD17
Alpha Mill-X	Type S: Shank	Machining diameter 032: Ø32 mm	Oil hole & Hand R: With Oil hole, right-handed NR: Without oil hole, right-handed	No. of tooth 2: 2 teeth	Shank type C: Cylinder W: Weldon	Shank diameter 32: Ø32 mm	Overall length 150: 150 mm	Available insert AD17: ADKT17 AD12: ADKT12 AD10: ADKT10			

[Cutter type]

AMX	C	M	050	R	-	22	-	4	-	AD17
Alpha Mill-X	Type C: Cutter	Arbor type M: Metric A: Inch None: Asia	Machining diameter 050: Ø50 mm	Oil hole & Hand R: With Oil hole, right-handed NR: Without oil hole, right-handed	Internal diameter 22: Ø22 mm	No. of tooth 4: 4 teeth	Available insert AD17: ADKT17 AD12: ADKT12 AD10: ADKT10			

Insert features

High rake angle chip breaker

- Applied high rake angle
- Improved chip control



Max. ap

- ADKT17: 16.5 mm
- ADKT12: 11.5 mm
- ADKT10: 9.5 mm

Proprietary relief surface shape

- High rigidity of insert



Flat clamping area

- Stable clamping in high speed and high feed machining

Applied minor cutting edge with a wiper function

- Minor cutting edge design optimized for excellent surface finish

High rake cutting edge

- Better surface toughness
- Lower cutting load



Cutter features

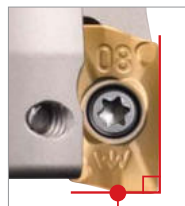


High rake angle cutting edge

- Improved surface finish
- Decreased cutting load

Wider chip pocket

- Maximized chip control
- Outstanding chip control in high speed and high feed machining

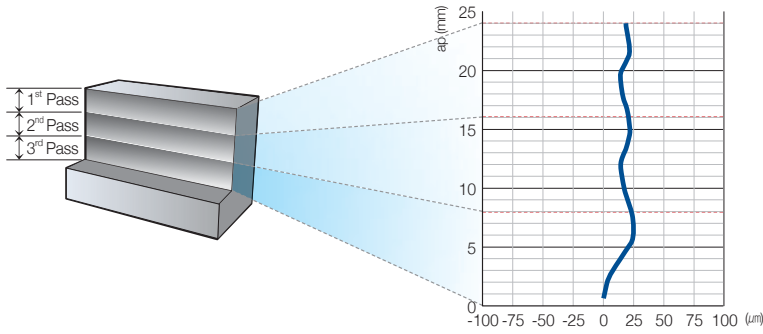


Perfect perpendicularity

Performance evaluation

Perpendicularity

- **Workpiece** Alloy steel (42CrMo4, HB200), 300(L)x200(W)x100(H)
- **Cutting conditions** vc (m/min) = 150, fz (mm/t) = 0.15, ap (mm) = 8 mm x 3 Passes (Total 24 mm), ae (mm) = 5, dry
- **Tool** Insert ADKT170608PESR-MM (PC5300) Holder AMXS032R-3W32-125-AD17



▶ Perpendicularity error is less than 30 μm .

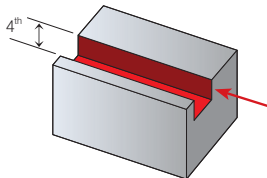
[Graph of measured perpendicularities]

[Comparison picture of flank surface finish]

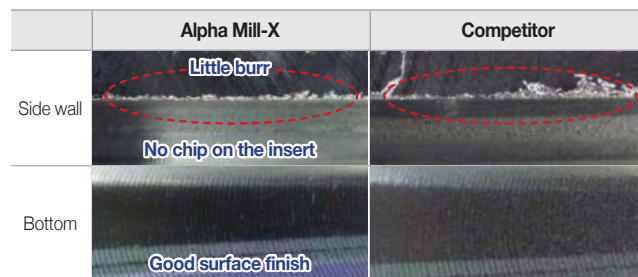
Surface finish

(* : DIN)

- **Workpiece** Alloy steel (34CrNiMo6*, HB200), 300(L)x200(W)x100(H)
- **Cutting conditions** vc (m/min) = 176, fz (mm/t) = 0.15, ap (mm) = 5 mm x 4 Passes (Total 20 mm), ae (mm) = 50, dry
- **Tool** Insert ADKT170616PESR-MM (PC5300) Holder AMXCM050R-22-5-AD17

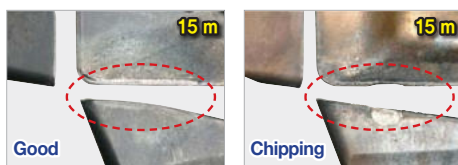


- ▶ Decreased burr
- ▶ Good surface finish on the side wall and bottom of the workpiece after machining



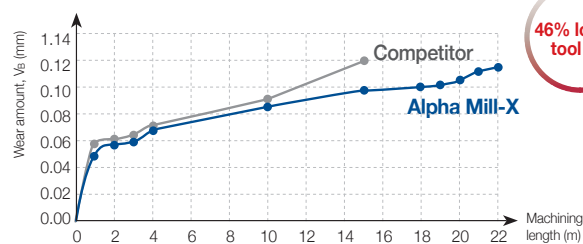
Wear resistance

- **Workpiece** Alloy steel (42CrMo4, HB200), 300(L)x200(W)x100(H)
- **Cutting conditions** vc (m/min) = 200, fz (mm/t) = 0.17, ap (mm) = 5, ae (mm) = 20, dry
- **Tool** Insert ADKT170608PESR-MM (PC5300) Holder AMXS032R-3W32-125-AD17



[Alpha Mill-X]



[Competitor]



46% longer tool life

Recommended grades and chip breakers

(● : 1st Recommendation)

C/B	Cutting edge	P				M		K		N		S	
		Low carbon steel/ Mild steel		High carbon steel/ Alloy steel		Stainless steel		Cast iron		Non-ferrous metal		HRSA	
		C/B	Grade	C/B	Grade	C/B	Grade	C/B	Grade	C/B	Grade	C/B	Grade
ML		-	● PC3700 ○ PC5300 ○ PC5400 ○ NCM535	-	● PC3700 ○ PC5300 ○ PC5400 ○ NCM535	●	● PC5300 ○ PC5400 ○ PC9540	-	● PC6510 ○ PC5300 ○ PC5400 ○ NCM535	-	-	●	● UPC845 ○ UNC840 ○ PC5300 ○ PC5400
MM		●	● PC3700 ○ PC5300 ○ PC5400 ○ NCM535	●	● PC3700 ○ PC5300 ○ PC5400 ○ NCM535	-	● PC5300 ○ PC5400 ○ PC9540	●	● PC6510 ○ PC5300 ○ PC5400 ○ NCM535	-	-	-	● UPC845 ○ UNC840 ○ PC5300 ○ PC5400

Recommended cutting conditions

[In face machining and shouldering]

Workpiece	Grade	Cutting speed vc (m/min)	Feed, fz (mm/t)		
			ADKT17	ADKT12	ADKT10
P Steel	PC5300	150-240	0.3-0.05	0.25-0.05	0.2-0.05
	PC5400	130-210			
	PC3700	160-270			
	NCM535	250-350			
M Stainless steel	PC5300	90-150	0.25-0.05	0.2-0.05	0.15-0.05
	PC5400	70-120			
	PC9540	50-120			
K Cast iron	PC6510	150-200	0.35-0.08	0.3-0.08	0.25-0.08
	PC5300	120-200			
	NCM535	200-300			
S HRSA	PC5300	40-70	0.2-0.05	0.15-0.05	0.1-0.05
	PC5400	30-50			
	UPC845	20-60			
	UNC840	30-60			

※ The above data refer to general cutting conditions and can be adjustable up to 350 m/min and 0.4 mm/t depending on user environment.

[In grooving, ramping and helical machining]

Workpiece	Grade	Cutting speed vc (m/min)	Feed, fz (mm/t)		
			ADKT17	ADKT12	ADKT10
P Steel	PC5300	150-240	0.15-0.05	0.15-0.05	0.15-0.05
	PC5400	130-210			
	PC3700	160-270			
	NCM535	250-350			
M Stainless steel	PC5300	90-150	0.15-0.05	0.15-0.05	0.15-0.05
	PC5400	70-120			
	PC9540	50-120			
K Cast iron	PC6510	150-250	0.2-0.08	0.2-0.08	0.2-0.08
	PC5300	120-200			
	NCM535	200-300			
S HRSA	PC5300	40-70	0.15-0.05	0.15-0.05	0.1-0.05
	PC5400	30-50			
	UPC845	20-60			
	UNC840	30-60			

※ In deep grooving, set the ap under 5 mm and use coolant and air.

Shoulder milling tool selection guide

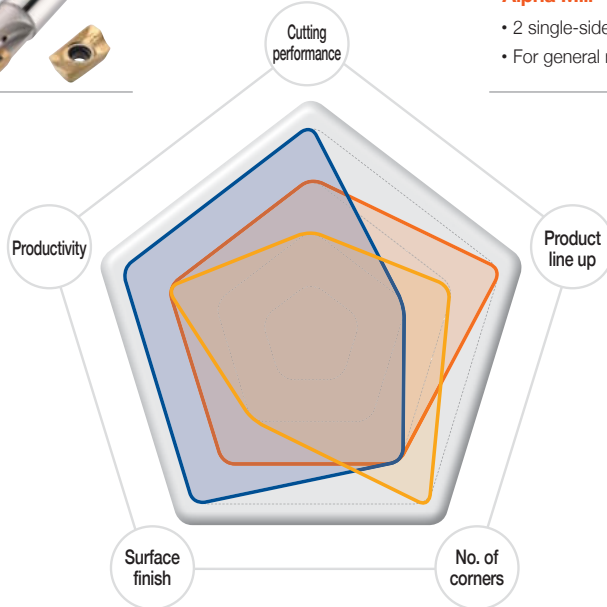
Alpha Mill-X new

- Higher productivity
- Lower cutting load



Alpha Mill

- 2 single-sided corners
- For general machining



— Alpha Mill-X

— Alpha Mill

— RM4

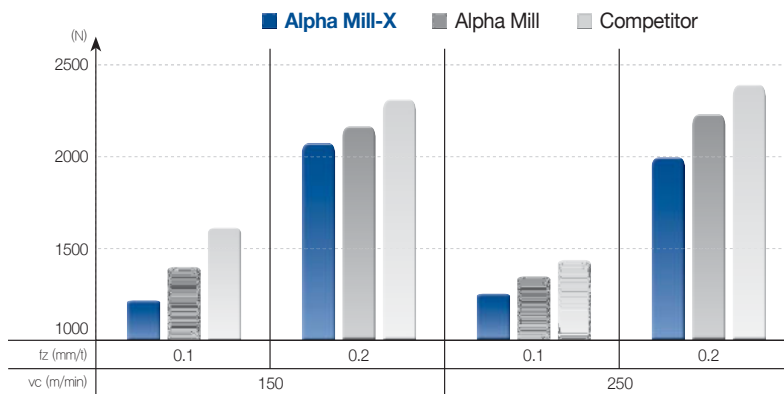
RM4

- 4 double-sided corners
- High cost efficiency



Tools	Cutting performance	Line up	No. of corners	Surface finish	Productivity
Alpha Mill-X <small>new</small>	★★★★	★★	★★★	★★★★	★★★★
Alpha Mill	★★★	★★★★	★★★	★★★	★★★
RM4	★★	★★★	★★★★	★★	★★★

Cutting load

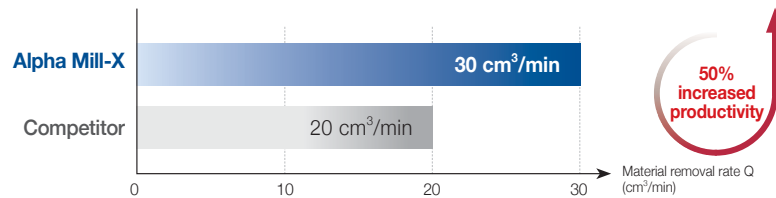
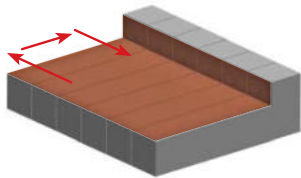


Decreased 10% or above of cutting load

Application examples

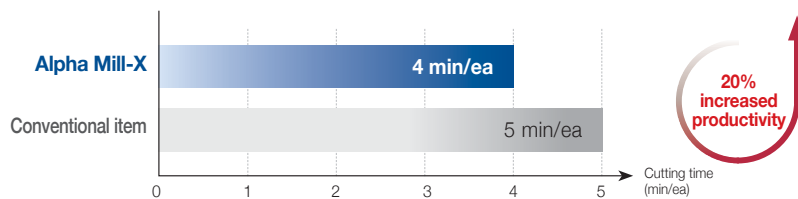
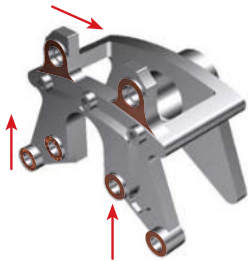
Alloy steel (42CrMo4)

- **Workpiece use** Lathe holder
- **Cutting conditions** vc (m/min) = 163, fz (mm/t) = 0.11, ap (mm) = 1.5x4 Passes, ae (mm) = 40, wet
- **Tool** **Insert** ADKT170616PESR-MM (PC5300) **Holder** AMXCM080R-27-7-AD17



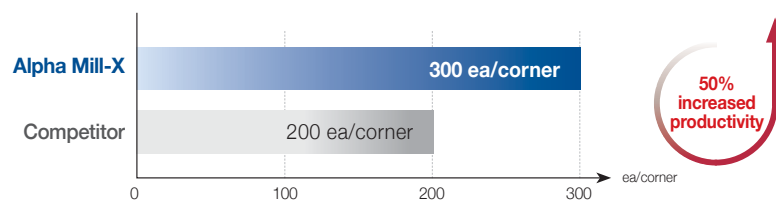
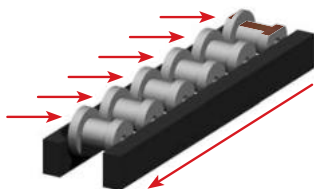
Ductile cast iron (700-2)

- **Workpiece use** Break carrier
- **Cutting conditions** vc (m/min) = 118, fz (mm/t) = 0.1~0.2, ap (mm) = 2 (Finishing), 4x2 Passes (Roughing), wet
- **Tool** **Insert** ADKT170608PESR-ML (PC5300) **Holder** AMXCM063R-22-6-AD17



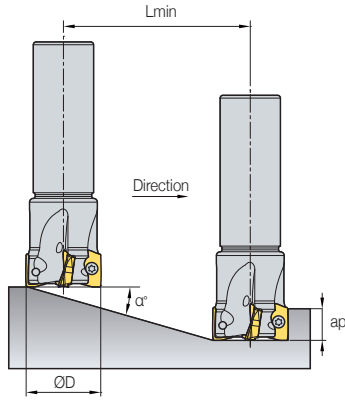
Alloy steel (34CrMo4)

- **Workpiece use** Automobile suspension parts
- **Cutting conditions** vc (m/min) = 296, fz (mm/t) = 0.09, ap (mm) = 2.0x2 Passes, ae (mm) = 40~50, wet
- **Tool** **Insert** ADKT170616PESR-MM (PC5300) **Holder** AMXCM063R-22-6-AD17

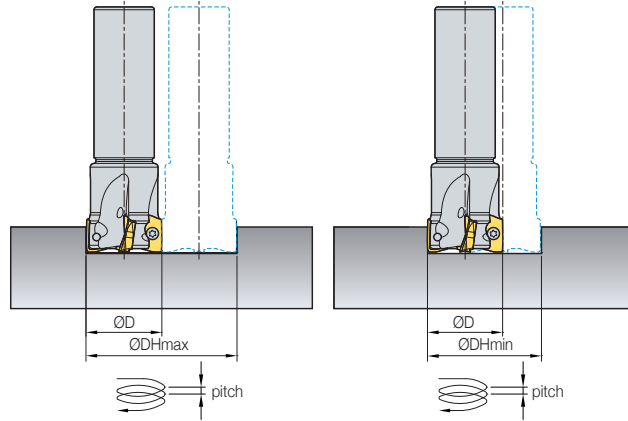


Ramping and helical cutting

Ramping



Helical cutting



(mm)


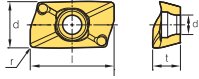

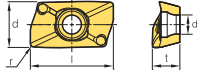
Designation	Tool dia. ØD	ap	Ramping		Blind hole helical cutting				Through hole helical cutting	
			Max. rake angle α°	Lmin	Min. desirable hole dia. ØDHmin	Max. pitch dmax	Max. desirable hole dia. ØDHmax	Max. pitch dmax	Min. desirable hole dia. ØDHmin	Max. pitch dmax
ADKT17	20	16.5	13	71	30	7.0	38	8.9	21	4.8
	25	16.5	8.0	117	40	5.7	48	6.8	31	4.3
	32	16.5	3.7	255	54	3.5	62	4.0	45	2.9
	33	16.5	3.6	262	56	3.5	64	4.1	47	2.9
	40	16.5	2.6	363	70	3.2	78	3.6	61	2.8
	50	16.5	1.9	497	90	3.0	98	3.3	81	2.7
	63	16.5	1.3	727	116	2.6	124	2.8	107	2.4
	80	16.5	1.1	859	150	2.9	158	3.0	141	2.7
	100	16.5	0.7	1350	190	2.3	198	2.4	181	2.2
125	16.5	0.5	1891	240	2.1	248	2.2	231	2.0	
ADKT12	18	11.5	7.0	98	29	3.6	34	4.2	23	2.8
	20	11.5	5.5	125	33	3.2	38	3.7	27	2.6
	25	11.5	3.5	196	43	2.7	48	3.0	37	2.3
	32	11.5	2.5	275	57	2.5	62	2.7	51	2.2
	33	11.5	2.4	286	59	2.5	64	2.7	53	2.2
	40	11.5	1.5	458	73	1.9	78	2.1	67	1.7
	50	11.5	1.2	573	93	2.0	98	2.1	87	1.8
	63	11.5	1.0	687	119	2.1	124	2.2	113	2.0
80	11.5	0.7	982	153	1.9	158	1.9	147	1.8	
ADKT10	16	9.5	4.5	121	28	2.2	31	2.5	24	1.9
	18	9.5	3.5	155	32	2.0	35	2.2	28	1.7
	20	9.5	3.0	181	36	1.9	39	2.1	32	1.7
	25	9.5	2.2	247	46	1.8	49	1.9	42	1.6
	32	9.5	1.5	363	60	1.6	63	1.7	56	1.5
	33	9.5	1.4	389	62	1.5	65	1.6	58	1.4
	40	9.5	1.2	454	76	1.6	79	1.7	72	1.5
	50	9.5	0.8	680	96	1.3	99	1.4	92	1.3
	63	9.5	0.6	907	122	1.3	125	1.3	118	1.2
80	9.5	0.5	1089	156	1.4	159	1.4	152	1.3	

• In ramping and helical machining, use coolant and air.

- Lmin : Cutting length in machining with Min. rake angle
- α° : Rake angle for ramping
- ap : Depth of cut in axial direction

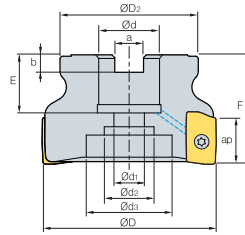
$$Lmin = \frac{ap}{\tan \alpha^\circ} \text{ (mm)}$$

Inserts

Inserts	Designation	Coated								Dimensions (mm)					Geometries
		NCM535	PC3700	PC6510	PC9540	PC5300	PC5400	UNC840	UPC845	l	d	t	r	d ₁	
	ADKT 10T304PEER-ML	●	●	●	○	●	●	●	●	11.7	6.424	3.819	0.4	2.8	
	120408PESR-ML	●	●	●	●	●	●	●	●	14.5	7.813	4.824	0.8	3.4	
	170608PESR-ML	●	●	●	●	●	●	●	●	19.665	10.843	6.529	0.8	4.5	
	ADKT 10T304PESR-MM	●	●	●	○	●	○	●	●	11.7	6.424	3.819	0.4	2.8	
	10T308PESR-MM					●	○			11.7	6.424	3.819	0.8	2.8	
	10T312PESR-MM					○	●			11.7	6.424	3.819	1.2	2.8	
	120408PESR-MM	●	●	●	●	●	●	●	●	14.5	7.813	4.824	0.8	3.4	
	120412PESR-MM		●	●		●	●	●	●	14.5	7.813	4.824	1.2	3.4	
	120416PESR-MM		●	●		●	●	●	●	14.5	7.813	4.824	1.6	3.4	
	170604PESR-MM		●			●				19.665	10.843	6.529	0.4	4.5	
	170608PESR-MM	●	●	●	●	●	●	●	●	19.665	10.843	6.529	0.8	4.5	
	170616PESR-MM					●	●			19.665	10.843	6.529	1.6	4.5	
	170620PESR-MM					●	●			19.665	10.843	6.529	2.0	4.5	

●: Stock item ○: In stock (December, 2020) None: Order made

AMXCM



• AR: 8°
• RR: -10° ~ -3°

(mm)

Designation	Stock	AR	ØD	ØD2	Ød	Ød1	Ød2	Ød3	a	b	E	F	ap	Weight	Available insert
AMXCM 040R-16-3-AD17	●	3	40	35	16	9	14	-	8.4	5.6	19	40	16.5	0.18	ADKT17
040R-16-4-AD17	●	4	40	35	16	9	14	-	8.4	5.6	19	40	16.5	0.18	
050R-22-4-AD17	●	4	50	42	22	11	18	-	10.4	6.3	20	40	16.5	0.23	
050R-22-5-AD17	●	5	50	42	22	11	18	-	10.4	6.3	20	40	16.5	0.20	
063R-22-5-AD17	●	5	63	49	22	11	18	-	10.4	6.3	20	40	16.5	0.44	
063R-22-6-AD17	●	6	63	49	22	11	18	-	10.4	6.3	20	40	16.5	0.49	
080R-27-6-AD17	●	6	80	57	27	14	25	38	12.4	7	23	50	16.5	0.88	
080R-27-7-AD17	●	7	80	57	27	14	25	38	12.4	7	23	50	16.5	0.90	
100R-32-8-AD17	●	8	100	70	32	18	28	45	14.4	8	28	63	16.5	1.76	
100R-32-10-AD17	●	10	100	70	32	18	28	45	14.4	8	28	63	16.5	1.68	
125R-40-8-AD17	●	8	125	90	40	22	32	54	16.4	9	30	63	16.5	2.89	
125R-40-10-AD17	●	10	125	90	40	22	32	54	16.4	9	30	63	16.5	4.83	

●: Stock item None: Order made

Available inserts



ADKT-ML



ADKT-MM

Designation	Coated							
	NCM535	PC3700	PC6510	PC9540	PC5300	PC5400	UNC840	UPC845
ADKT 170608PESR-ML	●	●	●	●	●	●	●	●
170604PESR-MM		●			●			
170608PESR-MM	●	●	●	●	●	●	●	●
170616PESR-MM					●	●		
170620PESR-MM					●	●		

Available arbors

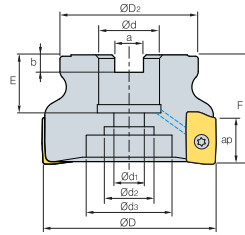
Designation	Ød	Available arbors
AMXCM 040R-16-□-AD□□	16	BT□□-FMC16-□□
050R-22-□-AD□□	22	BT□□-FMC22-□□
063R-22-□-AD□□		

Designation	Ød	Available arbors
AMXCM 080R-27-□-AD□□	27	BT□□-FMC27-□□
100R-32-□-AD□□	32	BT□□-FMC32-□□
125R-40-□-AD□□	40	BT□□-FMC40-□□

Parts

Specification	Screw	Wrench
Ø40~Ø125	FTKA0408	TW15S

AMXCM



AA
90°
• AR: 8°
• RR: -10° ~ -3°

(mm)

Designation	Stock	⊙	ØD	ØD2	Ød	Ød1	Ød2	Ød3	a	b	E	F	ap	⊙	Available insert
AMXCM 040R-16-4-AD12	●	⊙	40	35	16	9	14	-	8.4	5.6	19	40	11.5	0.18	ADKT12
040R-16-5-AD12	●	⊙	40	35	16	9	14	-	8.4	5.6	19	40	11.5	0.16	
050R-22-5-AD12	●	⊙	50	42	22	11	18	-	10.4	6.3	20	40	11.5	0.23	
050R-22-7-AD12	●	⊙	50	42	22	11	18	-	10.4	6.3	20	40	11.5	0.20	
063R-22-6-AD12	●	⊙	63	49	22	11	18	-	10.4	6.3	20	40	11.5	0.44	
063R-22-7-AD12	●	⊙	63	49	22	11	18	-	10.4	6.3	20	40	11.5	0.49	
080R-27-7-AD12	●	⊙	80	57	27	14	25	38	12.4	7	23	50	11.5	0.88	
080R-27-8-AD12	●	⊙	80	57	27	14	25	38	12.4	7	23	50	11.5	0.90	
040R-16-5-AD10	●	⊙	40	35	16	9	14	-	8.4	5.6	19	40	9.5	0.18	ADKT10
040R-16-6-AD10	●	⊙	40	35	16	9	14	-	8.4	5.6	19	40	9.5	0.18	
050R-22-6-AD10	●	⊙	50	42	22	11	18	-	10.4	6.3	20	40	9.5	0.23	
050R-22-7-AD10	●	⊙	50	42	22	11	18	-	10.4	6.3	20	40	9.5	0.20	
063R-22-7-AD10	●	⊙	63	49	22	11	18	-	10.4	6.3	20	40	9.5	0.44	
063R-22-8-AD10	●	⊙	63	49	22	11	18	-	10.4	6.3	20	40	9.5	0.49	
080R-27-8-AD10	●	⊙	80	57	27	14	25	38	12.4	7	23	50	9.5	0.88	
080R-27-9-AD10	●	⊙	80	57	27	14	25	38	12.4	7	23	50	9.5	0.90	

●: Stock item ○: In stock (December, 2020) None: Order made

Available inserts



ADKT-ML



ADKT-MM

Designation	Coated							
	NCM535	PC3700	PC6510	PC9540	PC5300	PC5400	UNC840	UPC845
ADKT 120408PESR-ML	●	●	●	●	●	●	●	●
120408PESR-MM	●	●	●	●	●	●	●	●
120412PESR-MM		●	●		●	●	●	●
120416PESR-MM		●	●		●	●	●	●
ADKT 10T304PEER-ML	●	●	●	○	●	●	●	●
10T304PESR-MM	●	●	●	○	●	○	●	●
10T308PESR-MM					●	○		
10T312PESR-MM					○	●		

Available arbors

Designation	Ød	Available arbors	Designation	Ød	Available arbors
AMXCM 040R-16-□-AD□□	16	BT□□-FMC16-□□	AMXCM 063R-22-□-AD□□	22	BT□□-FMC22-□□
050R-22-□-AD□□	22	BT□□-FMC22-□□	080R-27-□-AD□□	27	BT□□-FMC27-□□

Parts

Specification	Screw	Wrench
Ø40~Ø80 (12 type)	FTNA0306	TW09S
Ø40~Ø80 (10 type)	FTKA0255S	TW08S

AMXS

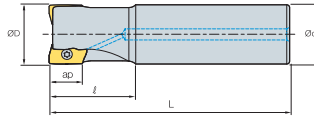


Fig. 1

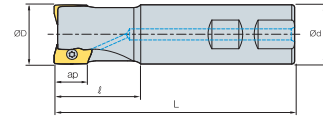


Fig. 2



• AR: 8°
• RR: -10° - -3°

(mm)

Designation	Stock		ØD	Ød	ℓ	L	ap	Δ_{AR}	Available insert	Fig.
AMXS 020R-1W20-100-AD17	●	1	20	20	35	100	16.5	0.170	ADKT17	2
020R-1C20-200-AD17	●	1	20	20	35	200	16.5	0.360		1
025R-2W25-115-AD17	●	2	25	25	35	115	16.5	0.610		2
025R-2C25-200-AD17	●	2	25	25	35	200	16.5	0.450		1
032R-3W32-125-AD17	●	3	32	32	45	125	16.5	0.620		2
032R-3C32-200-AD17	●	3	32	32	45	200	16.5	1.050		1
033R-3W32-125-AD17	●	3	33	32	45	125	16.5	0.620		2
033R-3C32-200-AD17	●	3	33	32	45	200	16.5	1.050		1
040R-3W32-130-AD17	●	3	40	32	50	130	16.5	0.750		2
040R-3C32-200-AD17	●	3	40	32	50	200	16.5	1.170		1
040R-4W32-130-AD17	●	4	40	32	50	130	16.5	0.740		2
040R-4C32-200-AD17	●	4	40	32	50	200	16.5	1.200		1

●: Stock item None: Order made

Available inserts



ADKT-ML



ADKT-MM

Designation	Coated							
	NCM535	PC3700	PC6510	PC9540	PC5300	PC5400	UNC840	UPC845
ADKT 170608PESR-ML	●	●	●	●	●	●	●	●
170604PESR-MM		●			●			
170608PESR-MM	●	●	●	●	●	●	●	●
170616PESR-MM					●	●		
170620PESR-MM					●	●		

Parts

Specification	Screw	Wrench
Ø20-Ø40	FTKA0408	TW15S

AMXS

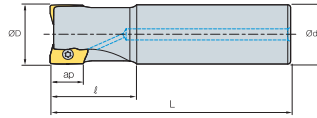


Fig. 1

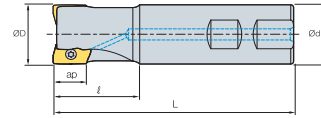


Fig. 2



• AR: 8°
• RR: -10° ~ -3°

(mm)

Designation	Stock		ØD	Ød	ℓ	L	ap	$\frac{R_a}{\mu m}$	Available insert	Fig.
AMXS 018R-2W16-100-AD12	●	2	18	16	35	100	11.5	0.120	ADKT12	2
018R-2C16-200-AD12	●	2	18	16	35	200	11.5	0.210		1
020R-2W20-100-AD12	●	2	20	20	35	100	11.5	0.250		2
020R-2C20-200-AD12	●	2	20	20	35	200	11.5	0.490		1
025R-3W25-115-AD12	●	3	25	25	40	115	11.5	0.400		2
025R-3C25-200-AD12	●	3	25	25	40	200	11.5	0.590		1
032R-4W32-125-AD12	●	4	32	32	45	125	11.5	0.700		2
032R-4C32-200-AD12	●	4	32	32	45	200	11.5	1.000		1
040R-4W32-130-AD12	●	4	40	32	50	130	11.5	1.050		2
040R-4C32-200-AD12	●	4	40	32	50	200	11.5	1.200		1
016R-2W16-90-AD10	●	2	16	16	25	90	9.5	0.110	ADKT10	2
016R-2C16-180-AD10	●	2	16	16	25	180	9.5	0.190		1
018R-2W16-100-AD10	●	2	18	16	35	100	9.5	0.120		2
018R-2C16-200-AD10	●	2	18	16	35	200	9.5	0.210		1
020R-3W20-100-AD10	●	3	20	20	35	100	9.5	0.250		2
020R-3C20-200-AD10	●	3	20	20	35	200	9.5	0.490		1
025R-4W25-115-AD10	●	4	25	25	40	115	9.5	0.400		2
025R-4C25-200-AD10	●	4	25	25	40	200	9.5	0.590		1
032R-4W32-125-AD10	●	4	32	32	45	125	9.5	0.700		2
032R-4C32-200-AD10	●	4	32	32	45	200	9.5	1.000		1
040R-5W32-130-AD10	●	5	40	32	50	130	9.5	1.050	2	
040R-5C32-200-AD10	○	5	40	32	50	200	9.5	1.200	1	

●: Stock item ○: In stock (December, 2020) None: Order made

Available inserts



ADKT-ML

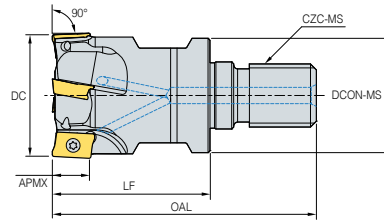


ADKT-MM

Designation	Coated							
	NCM535	PC3700	PC6510	PC9540	PC5300	PC5400	UNC840	UPC845
ADKT 120408PESR-ML	●	●	●	●	●	●	●	●
120408PESR-MM	●	●	●	●	●	●	●	●
120412PESR-MM		●	●		●	●	●	●
120416PESR-MM		●	●		●	●	●	●
ADKT 10T304PEER-ML	●	●	●	○	●	●	●	●
10T304PESR-MM	●	●	●	○	●	○	●	●
10T308PESR-MM					●	○		
10T312PESR-MM					○	●		

Parts

Specification	Screw	Wrench
	Ø18~Ø40 (12 type)	FTNA0306
Ø16~Ø40 (10 type)	FTKA02555S	TW08S



(mm)										
Designation	Stock	CICT	DC	DCON-MS	LF	OAL	CZC-MS	APMX		
AMXM 020HR-M10-3-AD10	●	3	20	18	30	52	M10	9.5	0.10	
025HR-M12-4-AD10	●	4	25	21	35	57	M12	9.5	0.12	
032HR-M16-5-AD10	●	5	32	28	39	64	M16	9.5	0.20	
025HR-M12-3-AD12	●	3	25	21	35	57	M12	11.5	0.13	
032HR-M16-4-AD12	●	4	32	29	42	64	M16	11.5	0.15	

● : Stock item

Available inserts

ADKT-ML ADKT-MM

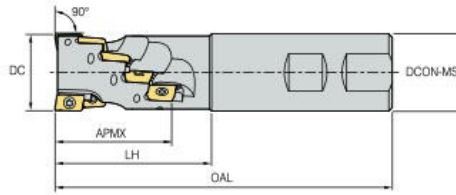


Type	Designation	Cermet		Coated											Uncoated		Page	
		CN30	NC5330	NCM325	NCM335	NCM535	NCM545	PC2505	PC2010	PC3700	PC6100	PC9530	PC9540	PC5300	PC5400	G10		H01
10 type	ADKT 10T304PEER-ML					●			●	●		●	●	●				B4
	10T304PESR-MM					●			●	●		●	●	●				
	10T308PESR-MM													●				
	10T312PESR-MM														●			
12 type	ADKT 120408PESR-ML					●			●	●		●	●	●				
	120408PESR-MM					●			●	●		●	●	●				
	120412PESR-MM								●	●		●	●	●				
	120416PESR-MM								●	●		●	●	●				

Parts

Specification	Screw	Wrench
Ø20~Ø25(10 type)	FTKA02555S	TW08S
Ø25~Ø32(12 type)	FTNA0306	TW08S

Available inserts B4



KAPR
90°
• GAMP : 7°~9°
• GAMF : -13°~-10°

Designation	Stock	CICT	DC	DCON-MS	LH	OAL	CICT-TOT	APMX	(mm)
AMXM-M 020R-2W20-100-AD10	●	2	20	20	45	100	6	27	0.40
025R-3W25-110-AD10	●	3	25	25	50	110	12	36	0.50
032R-3W32-120-AD12	●	3	32	32	60	120	12	43	0.85
040R-4W32-150-AD12	●	4	40	32	87	150	24	65	1.15

● : Stock item

Available inserts

ADKT-ML ADKT-MM

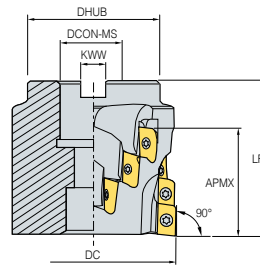


Type	Designation	Cermet		Coated											Uncoated		Page	
		CN30	NC5330	NCM325	NCM335	NCM535	NCM545	PC2505	PC2010	PC3700	PC6100	PC9530	PC9540	PC5300	PC5400	G10		H01
10 type	ADKT 10T304PEER-ML					●			●	●		●	●	●				B4
	10T304PESR-MM					●			●	●		●	●	●				
	10T308PESR-MM													●				
	10T312PESR-MM														●			
12 type	ADKT 120408PESR-ML					●			●	●		●	●	●				
	120408PESR-MM					●			●	●		●	●	●				
	120412PESR-MM								●	●		●	●	●				
	120416PESR-MM								●	●		●	●	●				

Parts

Specification	Screw	Wrench
Ø20~Ø25(10 type)	FTKA02555S	TW08S
Ø25~Ø32(12 type)	FTNA0306	TW08S

Available inserts B4



KAPR
90°

- GAMP : 9°
- GAMF : -9°~-5°

Designation		Stock	CICT	DC	DHUB	DCON-MS	LF	CICT-TOT	APMX	(mm)
AMXCM	040M-16-4-AD12	•	4	40	38	16	65	16	43	0.5
	050M-27-5-AD12	•	5	50	48	27	65	20	43	0.6
AMXCM	063M-27-4-AD17	•	4	63	60	27	85	16	60	0.9
	080M-32-5-AD17	•	5	80	77	32	85	20	60	1.3

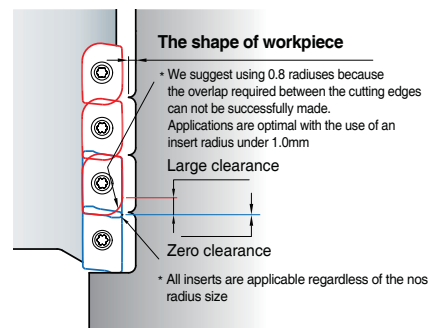
Available inserts

ADKT-ML ADKT-MM



Type	Designation	Cermet	Coated										Uncoated		Page			
		CN30	NC5330	NCM325	NCM335	NCM535	NCM545	PC2505	PC2010	PC3700	PC6100	PC9530	PC9540	PC5300		PC5400	G10	H01
12 type	ADKT 120408PESR-ML					•			•	•		•	•	•				B4
	ADKT 120408PESR-MM					•			•	•		•	•	•				
	ADKT 120412PESR-MM								•	•		•	•	•				
	ADKT 120416PESR-MM								•	•		•	•	•				
17 type	ADKT 170604PESR-MM								•	•		•	•	•				
	ADKT 170608PESR-MM/ML					•			•	•		•	•	•				
	ADKT 170616PESR-MM													•	•			
	ADKT 170620PESR-MM													•	•			

Caution when clamping the inserts



Parts

Specification	Screw	Wrench
Ø40~Ø50(12 type)	FTNA0306	TW08S
Ø63~Ø80(17 type)	FTKA0408	TW15S

Available inserts B4 Available arbors and bolt E96



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