

KORLOY NOTICE

"Another Originality" Everyday we pursue Another Originality for the Future

New High Rake Angle Cutting Edge Multi-Functional Milling Tool Released

Purpose

- To promote a new milling tool which can maximize productivity with excellent perpendicularity and minimized cutting load.

Subject Item

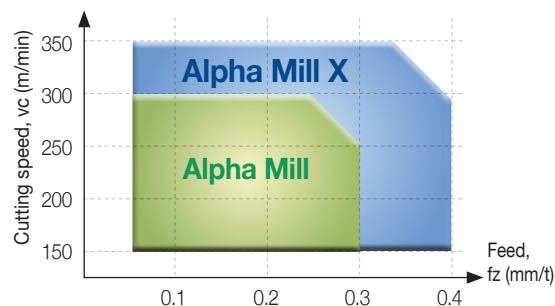
- Alpha Mill X ※ See the attached #1 for details

Detailed

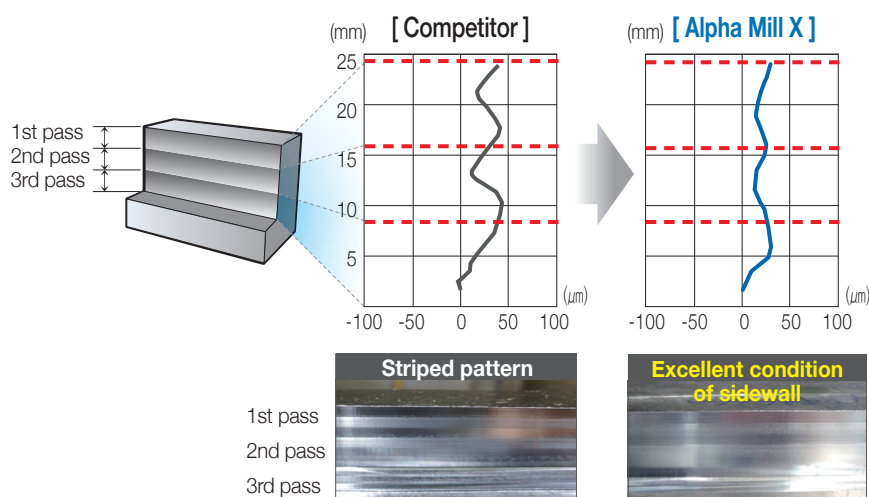
1 Features

- Superior perpendicularity is achieved by its design and optimized for high quality surface finish.
- Lower cutting load and minimized burr due to high rake angle cutting edge
- Improved productivity due to high-speed capability and high feed machining (Compared to existing tools, cutting speed and feed per tooth are improved by 15%)

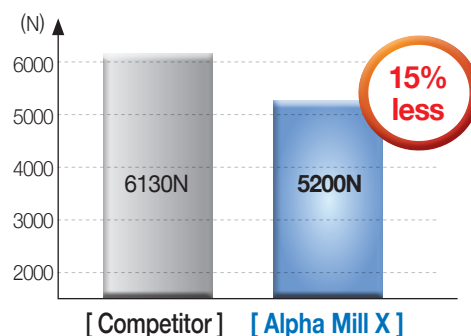
2 Application Range



3 Perpendicularity Evaluation



4 Cutting load



5 Recommended Cutting Conditions

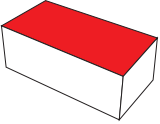
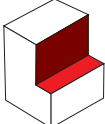
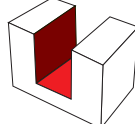
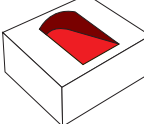
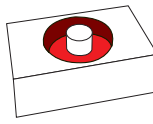
※ See the attached #1, 2 for details

Launch Date

- From June 2019

[Attached 1]

Uses

Facing	Shouldering	Slotting	Ramping	Helical Cutting
				

Recommended Cutting Conditions

ADKT17 (Facing & Shouldering)

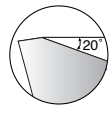
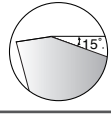
Workpiece	Recommended grade	ADKT1706 □□ PESR-MM / ML		
		vc	fz	max. ap
P	PC5300	150~240 m/min	0.3~0.05 mm/t	16.5 mm
	PC3700	100~300 m/min	0.3~0.05 mm/t	
M	PC5300	90~150 m/min	0.25~0.05 mm/t	
	PC5400	70~120 m/min	0.25~0.05 mm/t	
K	PC6510	100~250 m/min	0.30~0.08 mm/t	
	PC5300	100~200 m/min	0.30~0.08 mm/t	

- The above data refers to general cutting condition and can be adjustable to the speed of 350 m/min and the feed per tooth of 0.4 mm/t depending on user environment

- In case of ramping, helical cutting and deep slotting, ap shall not be more than 5 mm. Also, vc and fz should be less than 20%.

Recommended grades and chip breakers by workpiece

(●: 1st recommended)

Chip breaker	Cutter edge	Nose R	Recommended C/B and grade as per workpiece				
			P		M	K	S
			Low carbon steel / Mild steel	High carbon steel / Alloy steel	STS	Cast iron	Ti/Inconel
ML		0.8	● PC3700 ○ PC5300 ○ PC5400	● PC5300 ○ PC3700	● PC5300 ○ PC5400	● PC6510 ○ PC5300	● UNC840 ○ PC5300 ○ PC5400
MM		0.8 1.6 2.0	● PC3700 ○ PC5300 ○ PC5400	● PC5300 ○ PC3700 ○ PC5400	● PC5300 ○ PC5400	● PC6510 ○ PC5300	● UNC840 ○ PC5300 ○ PC5400

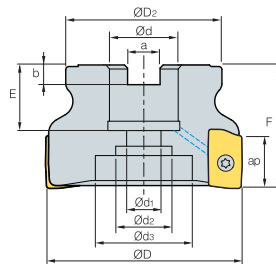
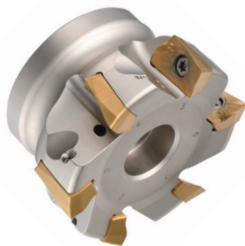
[Attached 2]

Inserts

Designation		Grade				
		PC3700	PC6510	PC5300	PC5400	UNC840
ADKT	170608PESR-MM	●	●	●	●	●
	170608PESR-ML	●	●	●	●	●
	170616PESR-MM			●	●	
	170620PESR-MM			●	●	

●: Stock item

Cutter Type



AA
90°

• AR : 8°
• RR : -10°~3°

(mm)

Designation		Stock		ØD	ØD2	Ød	Ød1	Ød2	Ød3	a	b	E	F	ap	
AMXCM	040R-16-3-AD17	●	3	40	35	16	9	14	-	8.4	5.6	19	40	16.5	0.18
	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	7.0	23	50	16.5	0.88
	080R-27-7-AD17	●	7	80	57	27	14	25	38	12.4	7.0	23	50	16.5	0.90

●: Stock item

Shank Type

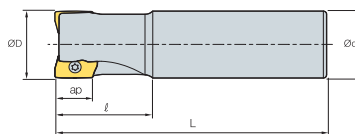


Fig. 1

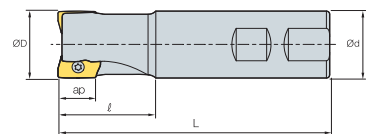


Fig. 2



AA
90°

• AR : 8°
• RR : -10°~3°

(mm)

Designation		Stock		ØD	Ød	ℓ	L	ap		Fig.
AMXS	032R-3W32-125-AD17	●	3	32	32	45	125	16.5	1.05	2
	032R-3C32-200-AD17	●	3	32	32	45	200	16.5	0.62	1
	033R-3W32-125-AD17	●	3	33	32	45	125	16.5	1.05	2
	033R-3C32-200-AD17	●	3	33	32	45	200	16.5	0.62	1
	040R-3W32-130-AD17	●	3	40	32	50	130	16.5	1.17	2
	040R-3C32-200-AD17	●	3	40	32	50	200	16.5	0.75	1
	040R-4W32-130-AD17	●	4	40	32	50	130	16.5	1.20	2
	040R-4C32-200-AD17	●	4	40	32	50	200	16.5	0.74	1

●: Stock item