알루미늄(Aluminium) 가공에 최적

The greatest Endmills for Aluminium

AL-PRO *Advantages*

1. 알루미늄 및 알루미늄 합금, 비철계열 가공에 탁월
   Outstanding performance for Aluminium, Non-ferrous metal
2. 경면 실현으로 면조도 및 내마모성 향상
   Improvement of surface roughness and wear resistance due to having "Mirror face"
3. 다양한 날장길이, 온길이 선택으로 맞춤가공 가능
   Available to choose the variety of cutting length and overall length

AL-PRO
SERIES

Aluminium, Plastic **1ALE**
Aluminium **2ALE**
Aluminium **3ALE**

NEW

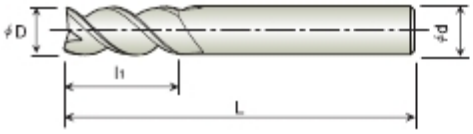
AL-PRO
SERIES

초경, 3날 45° 헬릭스 알루미늄용 스퀘어(플랫) 엔드밀

3 FLUTES 45° HELIX SQUARE(FLAT) END MILLS FOR ALUMINIUM

- 알루미늄 및 알루미늄 합금, 비철계열 피삭재 적용 탁월
- "경면 실현"으로 면조도 및 내마모성 향상.
- 다양한 날장길이,온길이 선택으로 맞춤 가공 가능.
- 균형잡힌 3날로 뛰어난 강성과 가공성능 발휘.

- Outstanding performance for Aluminium, Aluminium Alloy and Non Ferrous metal.
- Improvement of surface roughness and wear resisitance due to having "Mirror face".
- Available to choose the variety of cutting length and overall length.
- Outstanding performance for well Rigidity and performance with well balanced 3 flutes



MG | 3 | 0~-0.01 | 45° | DATA p.229 | h6

AL-PRO

unit (mm)

신규 모델번호 Model No.	구 모델번호 Model No.	인선직경 Outside Diameter D	날 장 Length of cut l_1	생크경 Shank Diameter d	전 장 Overall Length L
● 3ALE 010 020 640		1	2	6	40
● 3ALE 010 025 640		1	2.5	6	40
● 3ALE 010 030 650		1	3	6	50
● 3ALE 010 040 660		1	4	6	60
● 3ALE 010 060 660		1	6	6	60
● 3ALE 012 040 650		1.2	4	6	50
● 3ALE 015 030 640		1.5	3	6	40
● 3ALE 015 050 650		1.5	5	6	50
● 3ALE 015 060 660		1.5	6	6	60
● 3ALE 015 080 660		1.5	8	6	60
● 3ALE 015 100 660		1.5	10	6	60
● 3ALE 020 030 640		2	3	6	40
● 3ALE 020 060 650		2	6	6	50
● 3ALE 020 080 660		2	8	6	60
● 3ALE 020 100 660		2	10	6	60
● 3ALE 020 120 660		2	12	6	60
● 3ALE 025 080 640		2.5	8	6	40
● 3ALE 025 100 660		2.5	10	6	60
● 3ALE 025 120 660		2.5	12	6	60
● 3ALE 030 040 645		3	4	6	45
● 3ALE 030 080 645		3	8	6	45
● 3ALE 030 110 660		3	11	6	60
● 3ALE 030 150 665		3	15	6	65
● 3ALE 030 200 670		3	20	6	70
● 3ALE 030 250 675		3	25	6	75
● 3ALE 030 300 680		3	30	6	80
● 3ALE 035 120 660		3.5	12	6	60
● 3ALE 040 050 645		4	5	6	45
● 3ALE 040 080 645		4	8	6	45
● 3ALE 040 110 645		4	11	6	45
● 3ALE 040 130 660		4	13	6	60
● 3ALE 040 160 665		4	16	6	65

▶ 인선직경 14부터 주문생산

● : NEW

초경, 3날 45° 헬릭스 알루미늄용 스퀘어(플랫) 엔드밀

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MG | 3 | 0~0.01 | 45° | DATA p.229 | h6

AL-PRO

unit (mm)

신규 모델번호 Model No.	구 모델번호 Model No.	인선직경 Outside Diameter D	날 장 Length of cut l_1	생크경 Shank Diameter d	전 장 Overall Length L
● 3ALE 040 200 670		4	20	6	70
● 3ALE 040 260 675		4	26	6	75
● 3ALE 040 300 680		4	30	6	80
● 3ALE 045 150 660		4.5	15	6	60
● 3ALE 050 060 645		5	6	6	45
● 3ALE 050 170 660		5	17	6	60
● 3ALE 050 220 660		5	22	6	60
● 3ALE 050 250 670		5	25	6	70
● 3ALE 050 300 675		5	30	6	75
● 3ALE 050 350 680		5	35	6	80
● 3ALE 050 400 685		5	40	6	85
● 3ALE 050 450 690		5	45	6	90
● 3ALE 055 170 660		5.5	17	6	60
● 3ALE 060 070 650		6	7	6	50
● 3ALE 060 130 650		6	13	6	50
● 3ALE 060 170 660		6	17	6	60
● 3ALE 060 220 660		6	22	6	60
● 3ALE 060 250 670		6	25	6	70
● 3ALE 060 300 675		6	30	6	75
● 3ALE 060 350 680		6	35	6	80
● 3ALE 060 420 690		6	42	6	90
● 3ALE 060 500 6A0		6	50	6	100
● 3ALE 070 220 865		7	22	8	65
● 3ALE 080 090 860		8	9	8	60
● 3ALE 080 190 860		8	19	8	60
● 3ALE 080 220 870		8	22	8	70
● 3ALE 080 280 880		8	28	8	80
● 3ALE 080 300 880		8	30	8	80
● 3ALE 080 350 885		8	35	8	85
● 3ALE 080 400 890		8	40	8	90
● 3ALE 080 450 895		8	45	8	95
● 3ALE 080 500 8A0		8	50	8	100
● 3ALE 080 550 8B0		8	55	8	110
● 3ALE 080 660 8B0		8	66	8	110
● 3ALE 090 270 A70		9	27	10	70
● 3ALE 100 110 A65		10	11	10	65
● 3ALE 100 220 A65		10	22	10	65
● 3ALE 100 270 A75		10	27	10	75
● 3ALE 100 320 A90		10	32	10	90
● 3ALE 100 350 A90		10	35	10	90
● 3ALE 100 400 A90		10	40	10	90
● 3ALE 100 450 AA0		10	45	10	100
● 3ALE 100 500 AA0		10	50	10	100
● 3ALE 100 550 AB0		10	55	10	110
● 3ALE 100 600 AB0		10	60	10	110
● 3ALE 100 650 AC0		10	65	10	120

▶ 인선직경 14부터 주문생산

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3 FLUTES 45° HELIX SQUARE(FLAT) END MILLS FOR ALUMINIUM

unit (mm)

신규 모델번호 Model No.	구 모델번호 Model No.	인선직경 Outside Diameter D	날 장 Length of cut l_1	생크경 Shank Diameter d	전 장 Overall Length L
● 3ALE 120 130 C70		12	13	12	70
● 3ALE 120 260 C70		12	26	12	70
● 3ALE 120 320 C80		12	32	12	80
● 3ALE 120 400 CA0		12	40	12	100
● 3ALE 120 450 CA0		12	45	12	100
● 3ALE 120 500 CA0		12	50	12	100
● 3ALE 120 550 CB0		12	55	12	110
● 3ALE 120 600 CB0		12	60	12	110
● 3ALE 120 650 CC0		12	65	12	120
● 3ALE 120 700 CC0		12	70	12	120
● 3ALE 120 750 CE0		12	75	12	140
● 3ALE 120 800 CE0		12	80	12	140
● 3ALE 140 370 E90		14	37	14	90
● 3ALE 140 370 G90		14	37	16	90
● 3ALE 160 180 G90		16	18	16	90
● 3ALE 160 320 G90		16	32	16	90
● 3ALE 160 420 GA0		16	42	16	100
● 3ALE 160 520 GB0		16	52	16	110
● 3ALE 160 550 GB0		16	55	16	110
● 3ALE 160 650 GD0		16	65	16	130
● 3ALE 160 750 GF0		16	75	16	150
● 3ALE 160 850 GG0		16	85	16	160
● 3ALE 160 950 GI0		16	95	16	180
● 3ALE 160 1050 GK0		16	105	16	200
● 3ALE 160 1150 GK0		16	115	16	200
● 3ALE 180 450 IA0		18	45	18	100
● 3ALE 200 230 K90		20	23	20	90
● 3ALE 200 380 K90		20	38	20	90
● 3ALE 200 480 KA0		20	48	20	100
● 3ALE 200 550 KB0		20	55	20	110
● 3ALE 200 650 KD0		20	65	20	130
● 3ALE 200 750 KF0		20	75	20	150
● 3ALE 200 850 KG0		20	85	20	160
● 3ALE 200 950 KI0		20	95	20	180
● 3ALE 200 1050 KK0		20	105	20	200
● 3ALE 200 1150 KK0		20	115	20	200
● 3ALE 200 1250 KM0		20	125	20	220
● 3ALE 250 500 PC0		25	50	25	120

▶ 인선직경 14부터 주문생산

생크경, 전장 표시법	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

사이즈 D Size	인선직경공차(mm) D Tolerance
1~25	0~-0.010

● : NEW