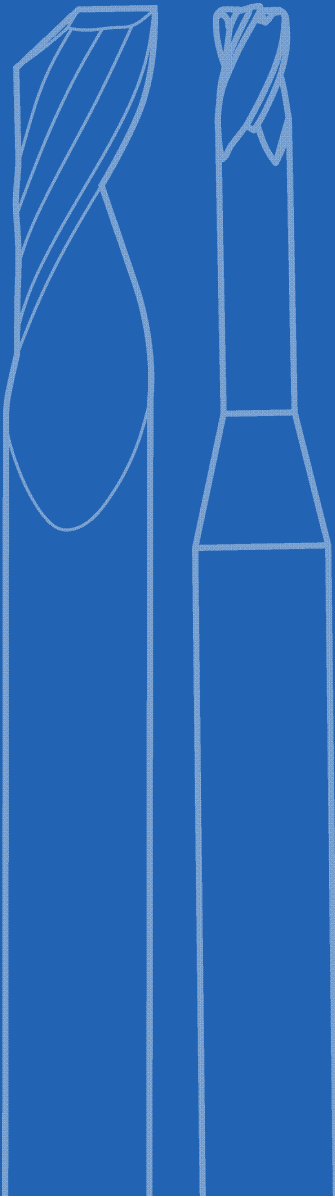


PART 8



AL-PRO SERIES



전체 타입 All Type

사이즈 D Size	인선직경공차(mm) D Tolerance
ALL	-0.005 ~ -0.015

- 알루미늄, 알루미늄 합금 절삭에 특화된 날부 형상 설계
- Flute Polishing 연삭으로 면조도 향상 및 칩 배출 용이
- 다양한 날장 길이, 전장 길이 선택으로 맞춤 가공 가능

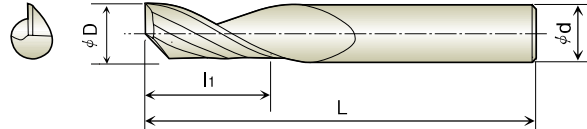
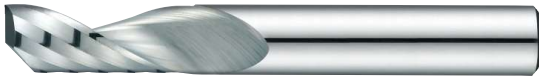
- Aluminum and Aluminum alloy.
- Excellent surface clean and chip disposal
- Variety of cutting length and overall length

1ALE



초경, 1날 알루미늄, 수지가공용 플랫 엔드밀

1 Flutes Flat End Mills For ALUMINIUM, RESIN, ABS



unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	날장 Length of Cut (l ₁)	생크경 Shank Diameter (d)	전장 Overall Length (L)
1ALE 005 010 440	0.5	1	4	40
1ALE 006 012 440	0.6	1.2	4	40
1ALE 007 014 440	0.7	1.4	4	40
1ALE 008 016 440	0.8	1.6	4	40
1ALE 009 018 440	0.9	1.8	4	40
1ALE 010 030 645	1	3	6	45
1ALE 010 040 645	1	4	6	45
1ALE 010 050 645	1	5	6	45
1ALE 010 060 650	1	6	6	50
1ALE 015 040 645	1.5	4	6	45
1ALE 015 060 650	1.5	6	6	50
1ALE 015 080 650	1.5	8	6	50
1ALE 015 100 650	1.5	10	6	50
1ALE 020 060 650	2	6	6	50
1ALE 020 080 650	2	8	6	50
1ALE 020 100 650	2	10	6	50
1ALE 020 120 650	2	12	6	50
1ALE 030 080 650	3	8	6	50
1ALE 030 100 650	3	10	6	50
1ALE 030 120 650	3	12	6	50
1ALE 030 160 650	3	16	6	50
1ALE 040 120 650	4	12	6	50
1ALE 040 160 650	4	16	6	50
1ALE 040 210 660	4	21	6	60

초경, 1날 알루미늄, 수지가공용 플랫 엔드밀



1 Flutes Flat End Mills For ALUMINIUM, RESIN, ABS

unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	날장 Length of Cut (L)	샙크경 Shank Diameter (d)	전장 Overall Length (L)
1ALE 050 160 660	5	16	6	60
1ALE 050 210 660	5	21	6	60
🔴 1ALE 050 260 660	5	26	6	60
1ALE 060 160 660	6	16	6	60
1ALE 060 210 660	6	21	6	60
1ALE 060 260 665	6	26	6	65
🔴 1ALE 060 320 670	6	32	6	70
1ALE 080 210 870	8	21	8	70
1ALE 080 260 875	8	26	8	75
1ALE 080 320 880	8	32	8	80
1ALE 080 360 890	8	36	8	90
1ALE 100 260 A75	10	26	10	75
1ALE 100 320 A80	10	32	10	80
1ALE 120 260 C80	12	26	12	80
1ALE 120 360 C90	12	36	12	90

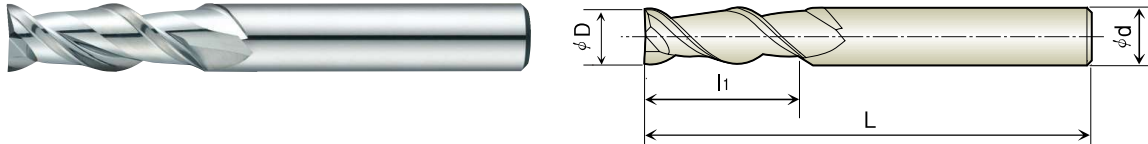
🔴 주문생산 Order Production

2ALE



초경, 2날 45° 헬릭스 알루미늄용 플랫 엔드밀

2 Flutes 45° HELIX Flat End Mills For ALUMINIUM



unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	날장 Length of Cut (l ₁)	샙크경 Shank Diameter (d)	전장 Overall Length (L)
2ALE 010 030 650	1	3	6	50
▶ 2ALE 010 060 660	1	6	6	60
2ALE 012 040 650	1.2	4	6	50
2ALE 015 060 650	1.5	6	6	50
▶ 2ALE 015 080 660	1.5	8	6	60
2ALE 020 060 650	2	6	6	50
2ALE 020 100 660	2	10	6	60
2ALE 025 120 660	2.5	12	6	60
2ALE 030 120 660	3	12	6	60
2ALE 030 150 665	3	15	6	65
2ALE 040 140 660	4	14	6	60
2ALE 040 160 665	4	16	6	65
2ALE 050 170 660	5	17	6	60
2ALE 050 220 660	5	22	6	60
2ALE 060 170 660	6	17	6	60
2ALE 060 220 660	6	22	6	60
▶ 2ALE 070 230 865	7	23	8	65
2ALE 080 230 870	8	23	8	70
2ALE 080 310 880	8	31	8	80
2ALE 100 280 A75	10	28	10	75
2ALE 100 360 A90	10	36	10	90
2ALE 120 330 C80	12	33	12	80
2ALE 120 410 CA0	10	41	12	100
2ALE 120 450 CA0	10	45	12	100

초경, 2날 45° 헬릭스 알루미늄용 플랫 엔드밀



2 Flutes 45° HELIX Flat End Mills For ALUMINIUM

unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	날장 Length of Cut (L)	샙크경 Shank Diameter (d)	전장 Overall Length (L)
2ALE 140 380 E90	14	38	14	90
2ALE 160 450 GA0	16	45	16	100
🔴 2ALE 160 530 GB0	16	53	16	110
🔴 2ALE 180 490 IA0	18	49	18	100
🔴 2ALE 200 500 KA0	20	50	20	100
2ALE 200 550 KB0	20	55	20	110
🔴 2ALE 250 500 PC0	25	50	25	120

🔴 주문생산 Order Production

R-PRO

H-PRO

A-PRO

X-PRO

S-PRO

D-PRO

A-PLUS

AL-PRO

ABS

MICRO GRAIN

MULTI

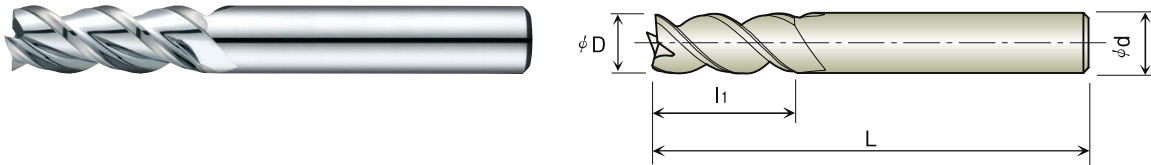
기술자료

3ALE



초경, 3날 45° 헬릭스 알루미늄용 플랫 엔드밀

3 Flutes 45° HELIX Flat End Mills For ALUMINIUM



unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	날장 Length of Cut (L ₁)	생크경 Shank Diameter (d)	전장 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



3 Flutes 45° HELIX Flat End Mills For ALUMINIUM

unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	날장 Length of Cut (L)	샹크경 Shank Diameter (d)	전장 Overall Length (L)
▶ 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
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

초경, 3날 45° 헬릭스 알루미늄용 플랫 엔드밀



3 Flutes 45° HELIX Flat End Mills For ALUMINIUM

unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	날장 Length of Cut (L.)	생크경 Shank Diameter (d)	전장 Overall Length (L)
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
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 140 370 E90	14	37	14	90
3ALE 140 370 G90	14	37	16	90
3ALE 160 180 G90	16	18	16	90

초경, 3날 45° 헬릭스 알루미늄용 플랫 엔드밀



3 Flutes 45° HELIX Flat End Mills For ALUMINIUM

unit(mm)

모델번호 Model No.	인선직경(선단경) Outside Diameter (D)	날장 Length of Cut (L.)	생크경 Shank Diameter (d)	전장 Overall Length (L)
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 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 250 500 PC0	25	50	25	120

🔴 주문생산 Order Production

R-PRO
H-PRO
A-PRO
X-PRO
S-PRO
D-PRO
A-PLUS
AL-PRO
ABS
MICRO GRAIN
MULTI
기술자료