



Complete range for high efficiency machining of aluminium alloy

■ High speed milling over 6,000cc/min (ROUGHING type)

ALIMASTER

Features

- For efficient finishing and high metal removal.
- Designed for aerospace and general aluminium alloys.

Series

Ball nose end mill

AM2MB

2 flute ball nose, Short cut length,
Relieved neck

R0.5—R10



Square end mill

AM2MR

2 flute end mill, Medium cut length,
General purpose cutter

φ3—φ25



AM2SC

2 flute end mill, Short cut length,
Relieved neck, Centre cutting

φ3—φ20



AM3SS

3 flute end mill, Short cut length,
Relieved neck, Non centre cutting

φ12—φ25



AM3MF

3 flute end mill, Medium cut length,
Centre cutting

φ6—φ16



AM4MF

4 flute end mill, Medium cut length,
Finishing type, Centre cutting

φ20—φ25



Corner radius end mill

AM2SCRB NEW

2 flute end mill, Corner radius,
Short cut length, Relieved neck

φ3—φ20



AM3SSRB

3 flute end mill, Corner radius,
Short cut length, Relieved neck

φ12—φ25



Roughing end mill

AMSR

Roughing end mill, 3 flute,
Short cut length, Relieved neck

φ10—φ25



AMMR

Roughing end mill, 3 flute,
Medium cut length, Relieved neck

φ3—φ25



AMSRRB

Roughing end mill, 3 flute,
Corner radius, Short cut length,
Relieved neck

φ10—φ25



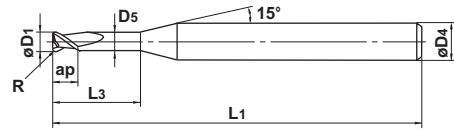
ALIMASTER END MILLS

AM25CRB

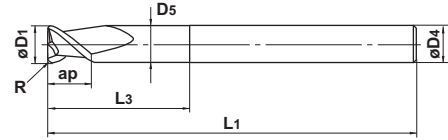
2 flute end mill, Corner radius, Short cut length, Relieved neck



D1 ≤ 12 0 - -0.020
12 < D1 0 - -0.030



Type 1



Type 2

● High efficiency machining for aluminium alloys.

Unit : mm

Order Number	Dia. D1	Length of Cut ap	Neck Length L3	Neck Dia. D5	Overall Length L1	Shank Dia. D4	Corner R R	No. of Flutes N	Stock	Type
AM2SCRBD0300A060R030	3	6	12	2.7	60	6	0.3	2	●	1
D0300A060R050	3	6	12	2.7	60	6	0.5	2	●	1
D0400A060R030	4	6	12	3.7	60	6	0.3	2	●	1
D0400A060R050	4	6	12	3.7	60	6	0.5	2	●	1
D0500A060R030	5	8	15	4.7	60	6	0.3	2	●	1
D0500A060R050	5	8	15	4.7	60	6	0.5	2	●	1
D0600A075R030	6	8	16	5.7	75	6	0.3	2	●	2
D0600A075R050	6	8	16	5.7	75	6	0.5	2	●	2
D0600A075R100	6	8	16	5.7	75	6	1	2	●	2
D0800A075R030	8	10	20	7.4	75	8	0.3	2	●	2
D0800A075R050	8	10	20	7.4	75	8	0.5	2	●	2
D0800A075R100	8	10	20	7.4	75	8	1	2	●	2
D0800A075R160	8	10	20	7.4	75	8	1.6	2	●	2
D0800A075R250	8	10	20	7.4	75	8	2.5	2	●	2
D1000A075R030	10	12	30	9.4	75	10	0.3	2	●	2
D1000A075R050	10	12	30	9.4	75	10	0.5	2	●	2
D1000A075R100	10	12	30	9.4	75	10	1	2	●	2
D1000A075R160	10	12	30	9.4	75	10	1.6	2	●	2
D1000A075R250	10	12	30	9.4	75	10	2.5	2	●	2
D1000A100R030	10	12	35	9.4	100	10	0.3	2	●	2
D1000A100R050	10	12	35	9.4	100	10	0.5	2	●	2
D1000A100R100	10	12	35	9.4	100	10	1	2	●	2
D1000A100R160	10	12	35	9.4	100	10	1.6	2	●	2
D1000A100R250	10	12	35	9.4	100	10	2.5	2	●	2
D1200A075R030	12	15	30	11.4	75	12	0.3	2	●	2
D1200A075R050	12	15	30	11.4	75	12	0.5	2	●	2
D1200A075R100	12	15	30	11.4	75	12	1	2	●	2
D1200A075R160	12	15	30	11.4	75	12	1.6	2	●	2
D1200A075R250	12	15	30	11.4	75	12	2.5	2	●	2
D1200A075R320	12	15	30	11.4	75	12	3.2	2	●	2
D1200A075R400	12	15	30	11.4	75	12	4	2	●	2
D1200A100R030	12	15	35	11.4	100	12	0.3	2	●	2
D1200A100R050	12	15	35	11.4	100	12	0.5	2	●	2
D1200A100R100	12	15	35	11.4	100	12	1	2	●	2
D1200A100R160	12	15	35	11.4	100	12	1.6	2	●	2
D1200A100R250	12	15	35	11.4	100	12	2.5	2	●	2
D1200A100R320	12	15	35	11.4	100	12	3.2	2	●	2
D1200A100R400	12	15	35	11.4	100	12	4	2	●	2

● : Inventory maintained.

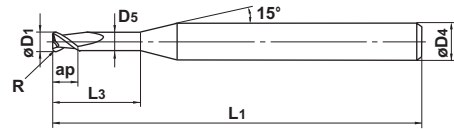
ALIMASTER END MILLS

AM25CRB

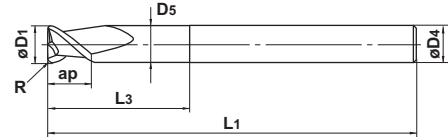
2 flute end mill, Corner radius, Short cut length, Relieved neck



$D1 \leq 12$ 0 - -0.020
 $12 < D1$ 0 - -0.030



Type 1



Type 2

● High efficiency machining for aluminium alloys.

Unit : mm

Order Number	Dia. D1	Length of Cut ap	Neck Length L3	Neck Dia. D5	Overall Length L1	Shank Dia. D4	Corner R R	No. of Flutes N	Stock	Type
AM2SCRBD1200A125R030	12	15	40	11.4	125	12	0.3	2	●	2
D1200A125R050	12	15	40	11.4	125	12	0.5	2	●	2
D1200A125R100	12	15	40	11.4	125	12	1	2	●	2
D1200A125R160	12	15	40	11.4	125	12	1.6	2	●	2
D1200A125R250	12	15	40	11.4	125	12	2.5	2	●	2
D1200A125R320	12	15	40	11.4	125	12	3.2	2	●	2
D1200A125R400	12	15	40	11.4	125	12	4	2	●	2
D1600A075R100	16	15	30	15.4	75	16	1	2	●	2
D1600A075R160	16	15	30	15.4	75	16	1.6	2	●	2
D1600A075R250	16	15	30	15.4	75	16	2.5	2	●	2
D1600A075R320	16	15	30	15.4	75	16	3.2	2	●	2
D1600A075R400	16	15	30	15.4	75	16	4	2	●	2
D1600A100R100	16	15	40	15.4	100	16	1	2	●	2
D1600A100R160	16	15	40	15.4	100	16	1.6	2	●	2
D1600A100R250	16	15	40	15.4	100	16	2.5	2	●	2
D1600A100R320	16	15	40	15.4	100	16	3.2	2	●	2
D1600A100R400	16	15	40	15.4	100	16	4	2	●	2
D1600A125R100	16	15	45	15.4	125	16	1	2	●	2
D1600A125R160	16	15	45	15.4	125	16	1.6	2	●	2
D1600A125R250	16	15	45	15.4	125	16	2.5	2	●	2
D1600A125R320	16	15	45	15.4	125	16	3.2	2	●	2
D1600A125R400	16	15	45	15.4	125	16	4	2	●	2
D2000A100R100	20	20	40	18.0	100	20	1	2	●	2
D2000A100R160	20	20	40	18.0	100	20	1.6	2	●	2
D2000A100R250	20	20	40	18.0	100	20	2.5	2	●	2
D2000A100R320	20	20	40	18.0	100	20	3.2	2	●	2
D2000A100R400	20	20	40	18.0	100	20	4	2	●	2
D2000A125R100	20	20	50	18.0	125	20	1	2	●	2
D2000A125R160	20	20	50	18.0	125	20	1.6	2	●	2
D2000A125R250	20	20	50	18.0	125	20	2.5	2	●	2
D2000A125R320	20	20	50	18.0	125	20	3.2	2	●	2
D2000A125R400	20	20	50	18.0	125	20	4	2	●	2

AM25CRB

2 flute end mill, Corner radius, Short cut length, Relieved neck

Work material	Aluminium alloy			
	Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	
			Side milling	Slotting
3	40,000	1,800	1,600	
4	36,000	2,400	2,100	
5	30,000	3,000	2,700	
6	27,000	3,200	2,800	
8	20,000	3,400	3,000	
10	16,000	3,600	3,200	
12	13,000	3,600	3,200	
16	10,000	3,600	3,200	
20	8,000	3,300	3,000	

Depth of cut		
	D:Dia.	

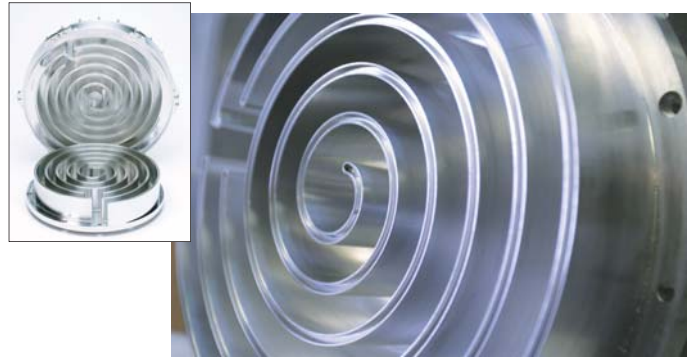
- 1) This table shows the cutting condition with less than 4D overhang length. If more than 4D, spindle speed, feed rate and depth of cut should be reduced.
- 2) If the rigidity of the machine or the workpiece installation is very low, or chattering and noise are generated, please reduce the revolution and the feed rate proportionately.
- 3) Water-soluble cutting fluid is recommended.
- 4) Climb cutting is recommended for side milling.

Performance Report 1

Machining of compressor parts

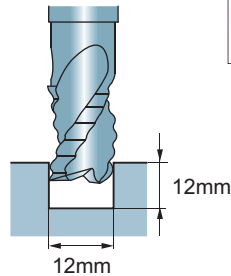
Stable machining at 7,000mm/min.

Excellent finish surface.
No chattering or noise.



■ Cutting conditions (Roughing)

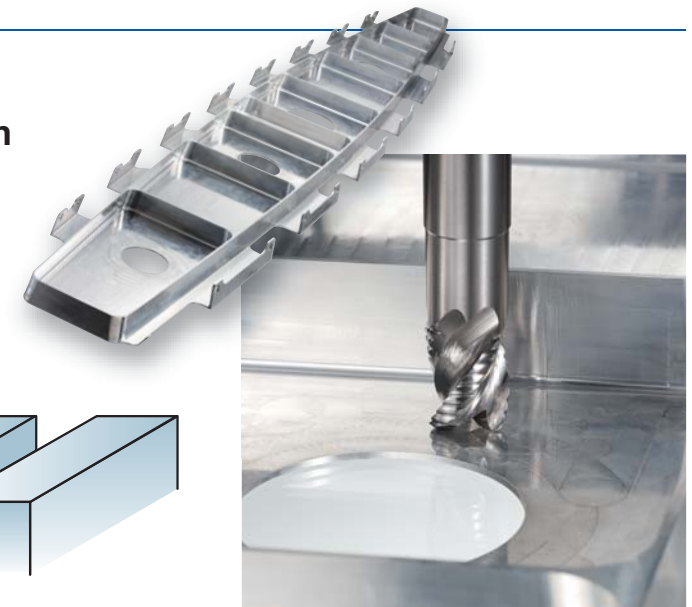
End mill	C-SRARB $\phi 12 \times R2$
Work material	Aluminium alloy (Compressor parts)
Revolution	$18,000 \text{mm}^{-1}$ (679m/min)
Feed rate	7,000mm/min
Cutting method	Emulsion



Performance Report 2

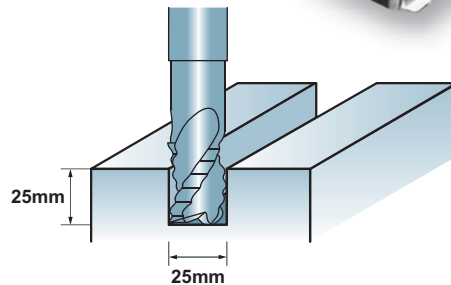
Machining of a rib.

Chip removal volume up to 6,250cc/min
Giving increased machining efficiency.



■ Cutting conditions

End mill	C-SRARB $\phi 25-R3$
Work material	Aluminium 7075
Revolution	$15,000 \text{min}^{-1}$ (1,178m/min)
Feed rate	10,000mm/min (0.222mm/tooth)
Cutting method	Emulsion
Machine	MAX15,000 min^{-1} , BT50 shank (Max. 75kw spindle)



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