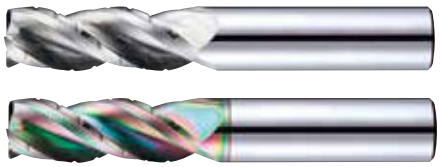
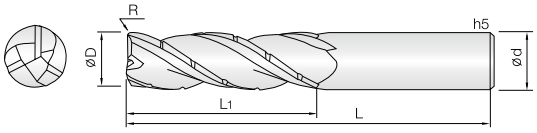
3ALCB

3 Flutes High Speed Roughing End Mills for Aluminum

New





- **End mills for Aluminum, AL alloys, non-ferrous and non-metallic materials**
- Minimize built up edge by chip breaker and deep pocket design.
- Tetrabond TAC coating provides high hardness and low friction on the coating layer
- Good surface integrity differently from competitor's AL roughing End Mills.
- Minimize fracturing by high TRS fine(0.5㎛) WC grade.

Contact Trucut Tools to order
sales@trucuttools.co.uk
Tel. 01202 717 110

3 | WC | RTAC Coating | LRJ ± 0.005 | 38° Helix Angle

R0.2

Condition	D Size	D Tolerance
ØD ≠ Ød	Ø 3 ~ 6	+0 ~ -0.01mm
	Ø 8 ~ 20	+0 ~ -0.015mm

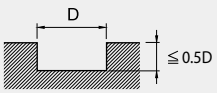
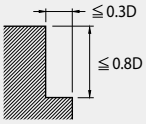
Condition	D Size	D Tolerance
ØD =Ød	Ø 6	-0.005 ~ -0.015mm
	Ø 8 ~ 12	-0.01 ~ -0.025mm
	Ø 16 ~ 20	-0.015 ~ -0.03mm

: mm

Order Number Un coated	Order Number RTAC Coated	Diameter D×R	Length of cut L1	Overall Length L	Shank Dia d	Un coated	Coated
3ALCB 030 080 S06	3ALCBC 030 080 S06	3 X R0.2	8	55	6		
3ALCB 030 110 S06	3ALCBC 030 110 S06	3 X R0.2	11	55	6		
3ALCB 040 100 S06	3ALCBC 040 100 S06	4 X R0.2	10	55	6		
3ALCB 040 130 S06	3ALCBC 040 130 S06	4 X R0.2	13	55	6		
3ALCB 050 120 S06	3ALCBC 050 120 S06	5 X R0.2	12	55	6		
3ALCB 050 170 S06	3ALCBC 050 170 S06	5 X R0.2	17	55	6		
3ALCB 060 170 S06	3ALCBC 060 170 S06	6 X R0.2	17	60	6		
3ALCB 060 250 S06	3ALCBC 060 250 S06	6 X R0.2	25	80	6		
3ALCB 080 220 S08	3ALCBC 080 220 S08	8 X R0.2	22	70	8		
3ALCB 080 300 S08	3ALCBC 080 300 S08	8 X R0.2	30	90	8		
3ALCB 100 270 S10	3ALCBC 100 270 S10	10 X R0.2	27	75	10		
3ALCB 100 400 S10	3ALCBC 100 400 S10	10 X R0.2	40	100	10		
3ALCB 120 350 S12	3ALCBC 120 350 S12	12 X R0.2	35	80	12		
3ALCB 120 500 S12	3ALCBC 120 500 S12	12 X R0.2	50	110	12		
3ALCB 160 420 S16	3ALCBC 160 420 S16	16 X R0.2	42	100	16		
3ALCB 160 520 S16	3ALCBC 160 520 S16	16 X R0.2	52	150	16		
3ALCB 200 480 S20	3ALCBC 200 480 S20	20 X R0.2	48	100	20		
3ALCB 200 550 S20	3ALCBC 200 550 S20	20 X R0.2	55	160	20		

3ALC Cutting Condition

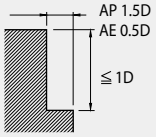
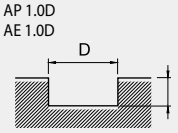
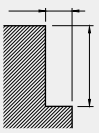
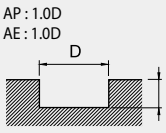
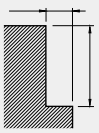
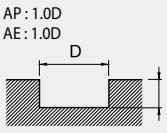
• RPM : rev./min• Feed : mm/min

	Slotting				Side Cutting			
Materia l	Aluminum Alloys AL7075				Aluminum Alloys AL7075			
Outside Diameter	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
Ø 6	10,000	3,300	3	6	10,000	4,200	4.8	1.8
Ø 8	9,000	2,700	4	8	9,000	3,750	6.4	2.4
Ø 10	7,500	2,000	5	10	7,500	3,000	8	3
Ø 12	6,500	1,600	6	12	6,500	2,700	9.6	3.6
Ø 16	5,000	1,600	8	16	5,000	2,700	12.8	4.8
Ø 20	4,000	1,500	10	20	4,000	2,500	16	6
Depth of Cut								

- In case of long effective length, reduce the RPM and feed by 20% or less.
- Refer to the corner radius value for side milling.
- Consider the corner radius value when you set up the Ae value.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- Air blow or mist coolants are recommended and note for chip emission, heat, or ignition.

3ALCB Cutting Condition

• RPM : rev./min• Feed : mm/min

Materia l	Aluminum Alloys A7075				Aluminum Alloys AC4B				Non-ferrous			
	Side Milling		Soltting		Side Milling		Soltting		Side Milling		Soltting	
Outside Diameter	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
Ø3	40,300	3,600	37,000	2,200	26,500	1,600	15,900	1,200	47,700	5,700	40,000	3,600
Ø4	30,250	4,080	27,800	2,500	19,900	2,400	12,000	1,450	35,820	6,450	30,000	4,000
Ø5	25,500	5,080	22,300	2,780	15,900	2,800	9,550	1,720	28,600	6,880	24,200	4,350
Ø6	21,200	5,700	18,500	2,900	13,270	2,900	7,960	1,790	23,800	7,100	20,170	4,800
Ø8	15,900	6,200	14,000	3,700	9,950	2,300	5,970	2,150	17,900	7,500	15,100	5,450
Ø10	12,800	5,700	11,200	4,000	7,960	2,150	4,770	2,290	14,300	8,100	12,100	5,800
Ø12	10,600	5,400	9,250	3,600	6,630	2,980	3,980	2,000	12,000	7,500	10,080	6,050
Ø16	8,560	4,700	7,000	3,100	4,970	2,680	3,000	1,700	8,950	6,780	7,560	5,200
Ø20	6,850	4,100	5,570	2,800	3,980	2,300	2,400	1,450	7,170	5,800	6,050	4,550
Depth of Cut												

- During tool entry, try to enter from outside the workpiece as much as possible.
- For diameters and effective lengths without specific cutting conditions, set them proportionally UP&DOWN to similar diameters and effective lengths.
- The above cutting conditions are numerical values, so they may need to be adjusted depending on the actual machining shape, machining purpose, and applied machine.
- If the rotation speed of the applied machine is insufficient, reduce the rotation speed and feed rate at the same ratio.
- Please use a rigid and low-vibration machine (vibration tolerance within 5μm for Ø1 or below).
- We recommend using a soluble coolant for smooth chip evacuation.

NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.