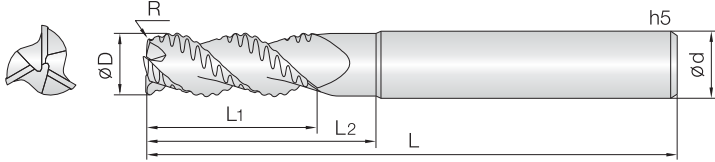


# 3ARO

3 Flutes 45 ° Helix Roughing End Mills for Aluminum



3

WC

RTAC  
Coating

|D|  
-0.02 -0.04

|D|  
-0.02 -0.05

45°  
Helix Angle

Shield Edge

D Size	D Tolerance
Ø4 ~ 8	-0.02 ~ -0.04 mm
Ø10 ~ 20	-0.02 ~ -0.05 mm

## 3ARO / 3AROC Cutting Condition

• RPM: rev./min • Feed: mm/min

Material	Side Cutting							
	Aluminum Alloys				Aluminum Alloys			
Outside Diameter	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
Ø4	30,000	4,200	6	1	16,000	1,800	6	1
Ø5	27,000	4,900	7.5	1.25	14,400	2,000	7.5	1.25
Ø6	24,300	5,500	9	1.5	11,700	2,100	9	1.5
Ø8	18,000	5,400	12	2	9,000	2,200	12	2
Ø10	14,400	5,200	15	2.5	7,200	2,100	15	2.5
Ø12	11,700	4,800	18	3	5,900	1,900	18	3
Ø16	9,000	4,600	24	4	4,500	1,800	24	4
Ø20	7,200	4,300	30	5	3,600	1,700	30	5

Depth of Cut

- When entering the tool to the workpiece, enter the tool from outside to the workpiece.
- In case of long effective length, reduce the RPM and feed by 20% or less.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- In case of workpiece and machine do not have enough rigidity and make vibration, reduce the RPM and feed in same proportion.
- Depending on the workpiece and shape, use adequate coolant.