

## 2 Flutes NON-COAT for Aluminum Milling



Size  $\phi 0.5 \sim \phi 12$

# CAS

MG

45°

Sharp Corner

Shank Dia  
0/-0.005

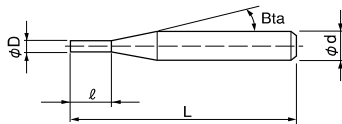
Material Applications (★ Highly Recommended ● Recommended ○ Suggested)

Work Material																	
Carbon Steels S45C S55C	Alloy Steels SK / SCM SUS	Prehardened Steels NAK HPM	Hardened Steels					Cast Iron	Aluminum Alloys	Graphite	Copper	Plastics	Glass Filled Plastics	Titanium Alloys	Heat Resistant Alloys	Cemented Carbide	Hard Brittle (Non-Metallic) Materials
			~50HRC	~55HRC	~60HRC	~65HRC	~70HRC										
								★			○						

### Features

Designed especially for Aluminum milling.

45° helix angle design offers excellent cutting performance and outstanding chip evacuation.



The shank taper angle shown is not an exact value and to avoid contact with the work piece, we recommend the user controls the precise value of this angle. Shank taper angle should not make contact with the work piece.

Total 19 models

Unit (mm)

Model Number	Outside Diameter $\phi D$	Length of Cut $\ell$	Shank Taper Angle $B_{ta}$	Overall Length $L$	Shank Diameter $\phi d$	Suggested Retail Price ¥
CAS 2005-0075	0.5	0.75	16°	45	4	4,030
CAS 2010-0150	1	1.5	16°	45	4	3,480
CAS 2015-0225	1.5	2.25	16°	45	4	3,480
CAS 2020-0300	2	3	16°	45	4	3,480
CAS 2025-0375	2.5	3.75	16°	50	6	4,560
CAS 2030-0450	3	4.5	16°	50	6	4,560
CAS 2030-0900		9		50		6,300
CAS 2040-0600	4	6	16°	50	6	4,680
CAS 2040-1200		12		50		6,510
CAS 2050-0750	5	7.5	16°	50	6	5,160
CAS 2050-1500		15		50		6,744
CAS 2060-0900	6	9	—	50	6	5,400
CAS 2060-1500		15		50		7,560
CAS 2080-1200	8	12	—	80	8	7,680
CAS 2080-2000		20		80		10,440
CAS 2100-1500	10	15	—	80	10	10,080
CAS 2100-2500		25		80		13,200
CAS 2120-1800	12	18	—	90	12	14,640
CAS 2120-3000		30		90		18,600

## Milling Conditions for CAS

### ◆ Slotting

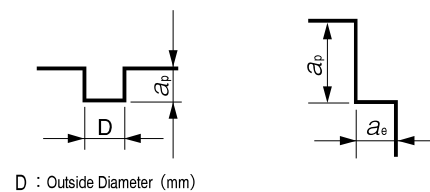
WORK MATERIAL		ALUMINUM ALLOYS etc. A5052 etc.		
Model Number	Outside Diameter (mm)	Spindle Speed (min <sup>-1</sup> )	Feed Rate (mm/min)	$a_p$ Axial Depth (mm)
2005-0075	0.5	25,000	250	0.75
2010-0150	1	25,000	500	1.5
2015-0225	1.5	25,000	750	2.25
2020-0300	2	22,000	880	3
2025-0375	2.5	19,000	950	3.75
2030-0450	3	16,000	1,600	1.5
2040-0600	4	12,000	1,200	2
2050-0750	5	9,600	1,920	2.5
2060-0900	6	8,000	1,600	3
2080-1200	8	6,000	1,200	4
2100-1500	10	12,000	2,400	5
2120-1800	12	10,000	2,000	6
Milling Amount (mm)		$D \leq 2.5$ $D \geq 3$	$a_p = 1.5D$ $a_p = 0.5D$	

### ◆ High speed milling

WORK MATERIAL		ALUMINUM ALLOYS etc. A5052 etc.			
Model Number	Outside Diameter (mm)	Spindle Speed (min <sup>-1</sup> )	Feed Rate (mm/min)	$a_p$ Axial Depth (mm)	$a_e$ Radial Depth (mm)
2030-0450	3	20,000	4,000	4.5	0.6
2040-0600	4	18,200	3,640	6	0.8
2050-0750	5	17,000	3,400	7.5	1
2060-0900	6	16,000	3,200	9	1.2
2080-1200	8	14,400	2,880	12	1.6
2100-1500	10	13,200	2,640	15	2
2120-1800	12	12,000	2,400	18	2.4
Milling Amount (mm)		$a_p = 1.5D$ $a_e = 0.2D$			

### ◆ Side milling

WORK MATERIAL			ALUMINUM ALLOYS etc. A5052 etc.			
Model Number	Outside Diameter (mm)	Length of Cut (mm)	Spindle Speed (min <sup>-1</sup> )	Feed Rate (mm/min)	$a_p$ Axial Depth (mm)	$a_e$ Radial Depth (mm)
2005-0075	0.5	0.75	25,000	1,000	0.75	0.15
2010-0150	1	1.5	25,000	1,250	1.5	0.3
2015-0225	1.5	2.25	25,000	1,500	2.25	0.45
2020-0300	2	3	22,000	1,760	3	0.6
2025-0375	2.5	3.75	19,000	1,900	3.75	0.75
2030-0450	3	4.5	16,000	3,200	4.5	0.6
2030-0900		9			4.5	0.6
2040-0600	4	6	12,000	2,400	6	0.8
2040-1200		12			6	0.8
2050-0750	5	7.5	9,600	1,920	7.5	1
2050-1500		15			7.5	1
2060-0900	6	9	8,000	1,600	9	1.2
2060-1500		15			9	1.2
2080-1200	8	12	6,000	1,200	12	1.6
2080-2000		20			12	1.6
2100-1500	10	15	4,800	960	15	2
2100-2500		25			15	2
2120-1800	12	18	4,000	800	18	2.4
2120-3000		30			18	2.4
Milling Amount (mm)			$D \leq 2.5$ $D \geq 3$	$a_p = 1.5D$ $a_p = 1.5D$	$a_e = 0.3D$ $a_e = 0.2D$	



#### Note:

- Recommend using a non-contact measuring device to avoid damaging the sharp corner.
- Recommend side milling for finishing.
- Recommend water soluble coolant.

Ø3mm Shank  
V Series

UDC-PCD  
Series

CBN  
Series

Square

Long Neck  
Square

Radius

Long Neck  
Radius

Taper Neck  
Radius

Ball / Long  
Shank Ball

Long Neck  
Ball

Taper Neck  
Ball

Taper

Barrel

Spiral  
V Cutter

Drill

Technical Data