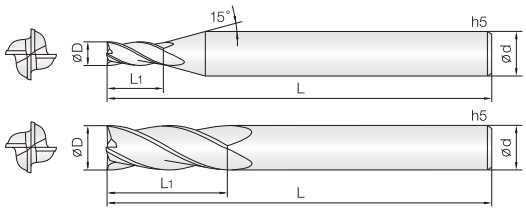
4MEM

4 Flutes End Mills
4날 범용 엔드밀



- **일반강, 아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 인선부 강성을 보강하여 날부치핑을 최소화 하였습니다.
- 균일한 런아웃 공차관리로 떨림을 최소화 하였습니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Mild steel, Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Reinforced edge design for preventing edge chipping.
- Minimize chattering by even run-out and tolerance control.
- Excellent wear resistance by applying fine WC grade.

4 | WC 미립자 | D +0-0.01 Ø1 ~ 5 | D -0.01-0.025 Ø6 ~ 12 | 30° Helix Angle | Sharp Edge | CUTTING DATA 373P

D Size	D Tolerance
Ø1 ~ 5	+0 ~ -0.01mm
Ø6 ~ 12	-0.01 ~ -0.025mm

단위: mm

Order Number	날경 Diameter D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고
4MEM 010 025 S04	1	2.5	40	4	
4MEM 010 040 S04	1	4	45	4	
4MEM 015 040 S04	1.5	4	40	4	
4MEM 015 060 S04	1.5	6	45	4	
4MEM 020 050 S04	2	5	40	4	
4MEM 020 080 S04	2	8	45	4	
4MEM 025 080 S04	2.5	8	45	4	
4MEM 025 100 S04	2.5	10	50	4	
4MEM 030 080 S06	3	8	45	6	
4MEM 030 120 S06	3	12	50	6	
4MEM 040 110 S06	4	11	45	6	
4MEM 040 160 S06	4	16	55	6	
4MEM 050 130 S06	5	13	50	6	
4MEM 050 200 S06	5	20	60	6	
4MEM 060 130 S06	6	13	50	6	
4MEM 060 240 S06	6	24	70	6	
4MEM 080 200 S08	8	20	60	8	
4MEM 080 320 S08	8	32	80	8	
4MEM 100 220 S10	10	22	70	10	
4MEM 100 400 S10	10	40	100	10	
4MEM 120 260 S12	12	26	75	12	
4MEM 120 480 S12	12	48	100	12	

Order Number	날경 Diameter D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고

FOR A.B.S

2MEM

• RPM : rev./min • Feed : mm/min

피삭재 Material	탄소강 Carbon Steels				합금강 Alloy Steels				알루미늄 Aluminum			
외경 Outside Diameter	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
ø 1	12,900	125	0.15	0.07	11,400	90	0.15	0.07	43,000	510	0.15	0.07
ø 1.5	8,600	125	0.75	0.11	7,700	90	0.75	0.11	29,000	580	0.75	0.11
ø 2	6,500	125	1.00	0.14	5,800	110	1.00	0.14	22,000	650	1.00	0.14
ø 2.5	5,100	150	1.25	0.18	4,600	110	1.25	0.18	17,200	680	1.25	0.18
ø 3	4,300	170	1.50	0.45	3,800	120	1.50	0.45	14,300	720	1.50	0.45
ø 4	3,200	200	3.00	0.60	2,900	120	3.00	0.60	10,700	750	3.00	0.60
ø 5	2,600	210	3.75	0.75	2,300	135	3.75	0.75	8,600	775	3.75	0.75
ø 6	2,200	220	4.50	0.90	1,900	150	4.50	0.90	7,200	790	4.50	0.90
ø 8	1,600	200	6.00	1.20	1,400	145	6.00	1.20	5,400	700	6.00	1.20
ø 10	1,300	180	7.50	1.50	1,200	145	7.50	1.50	4,300	650	7.50	1.50
ø 12	1,100	170	9.00	1.80	1,000	135	9.00	1.80	3,600	610	9.00	1.80

3MEM

• RPM : rev./min • Feed : mm/min

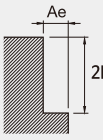
피삭재 Material	탄소강 Carbon Steels				합금강 Alloy Steels				알루미늄 Aluminum			
외경 Outside Diameter	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
ø 1	13,674	141	0.15	0.07	12,084	101	0.15	0.07	45,580	566	0.15	0.07
ø 1.5	9,116	141	0.75	0.11	8,162	101	0.75	0.11	30,740	644	0.75	0.11
ø 2	6,890	141	1.00	0.14	6,148	123	1.00	0.14	23,320	722	1.00	0.14
ø 2.5	5,406	170	1.25	0.18	4,876	123	1.25	0.18	18,232	769	1.25	0.18
ø 3	4,558	192	1.50	0.45	4,028	134	1.50	0.45	15,158	799	1.50	0.45
ø 4	3,392	226	3.00	0.60	3,074	134	3.00	0.60	11,342	833	3.00	0.60
ø 6	2,332	249	4.50	0.90	2,014	168	4.50	0.90	7,632	877	4.50	0.90

4MEM

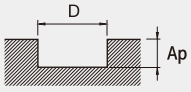
• RPM : rev./min • Feed : mm/min

피삭재 Material	탄소강 Carbon Steels				합금강 Alloy Steels				프리하든강 Prehardened Steels			
외경 Outside Diameter	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
ø 1	14,084	153	0.15	0.07	12,483	107	0.15	0.07	46,583	594	0.15	0.07
ø 1.5	9,389	153	0.75	0.11	8,431	107	0.75	0.11	31,416	676	0.75	0.11
ø 2	7,097	153	1.00	0.14	6,351	131	1.00	0.14	23,833	758	1.00	0.14
ø 2.5	5,568	183	1.25	0.18	5,037	131	1.25	0.18	18,633	808	1.25	0.18
ø 3	4,695	207	1.50	0.45	4,161	142	1.50	0.45	15,491	839	1.50	0.45
ø 4	3,494	244	3.00	0.60	3,175	142	3.00	0.60	11,592	874	3.00	0.60
ø 6	2,402	268	4.50	0.90	2,080	178	4.50	0.90	7,800	921	4.50	0.90
ø 8	2,509	258	6.00	1.20	1,957	156	6.00	1.20	6,006	889	6.00	1.20
ø 10	1,720	234	7.50	1.50	1,342	133	7.50	1.50	4,625	826	7.50	1.50
ø 12	1,279	210	9.00	1.80	998	116	9.00	1.80	3,561	744	9.00	1.80

절입량 Depth of Cut



Ae
ø 1 ~ 2.9 = 0.07D
ø 3 ~ = 0.15D



Ap
ø 1 ~ 1.2 = 0.15D
ø 1.5 ~ 3.5 = 0.5D
ø 4 ~ = 0.75D

- 날 끝이 정밀하게 연삭되어 있습니다. 파손을 피하기 위해 가능하면 비접촉 방식으로 측정 하십시오
- 공구 진입시 피삭재 밖에서 진입 하십시오.
- 이 절삭 조건표는 절삭조건의 참고 수치 입니다. 실 가공시 가공 형상, 가공 목적, 적용 기계에 따라 조건변경 요망합니다.
- 조건표가 기계의 최대 스핀들 속도를 초과하거나 버 및 적열 현상이 발생할 때 스핀들 속도와 이송 속도를 비례적으로 조정 하십시오.

- The edge of the flute precisely grinded. If you want to measure the tool, and to avoid damaging on the flutes, use non-contact measuring method.
- When entering the tool to the workpiece, enter the tool from outside to the workpiece.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- If the table over the maximum RPM and feed of your machine, or found red heat on the material, adjust RPM and feed in the same proportion.

Your specials are our standards.

당신의스페셜은우리의표준품입니다.

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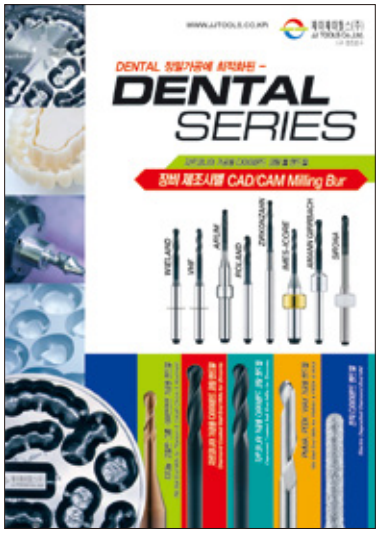

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