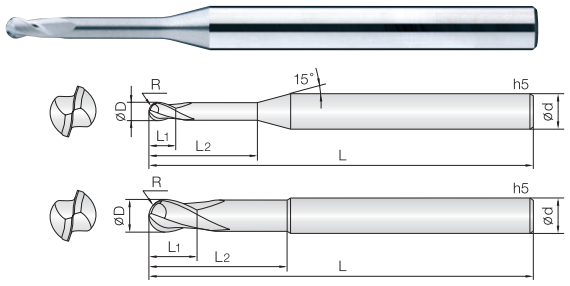
2MRB

2 Flutes Micro Rib Ball End Mills

2날 범용 마이크로 리브 볼 엔드밀



- **아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 짧은 날장 채택으로 떨림을 최소화 하였습니다
- 고속,고이송 작업시 짧은 날장을 채택하여 공구의 강성이 우수합니다.
- 인선부 강성을 보강하여 날부치핑을 최소화 하였습니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Minimize chattering by short flute design.
- Excellent tool rigidity by short flute design at high speed, feed machining.
- Reinforced edge design for preventing edge chipping.
- Excellent wear resistance by applying fine WC grade.

2 | WC 미립자 | R ±0.005 (0.1 ~ 2.5R) | R ±0.01 (3R) | 30° Helix Angle | CUTTING DATA (369P)

D Size	D Tolerance
Ø0.2 ~ 5	+0 ~ −0.01mm
Ø6 ~ 12	−0.005 ~ −0.015mm

단위 : mm

Order Number	날경 Diameter R ×D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MRB 002 005 S04	0.1R X 0.2	0.3	0.5	40	4	
2MRB 002 010 S04	0.1R X 0.2	0.3	1	40	4	
2MRB 002 015 S04	0.1R X 0.2	0.3	1.5	40	4	
2MRB 002 020 S04	0.1R X 0.2	0.3	2	40	4	
2MRB 003 010 S04	0.15R X 0.3	0.45	1	40	4	
2MRB 003 020 S04	0.15R X 0.3	0.45	2	40	4	
2MRB 003 030 S04	0.15R X 0.3	0.45	3	40	4	
2MRB 003 050 S04	0.15R X 0.3	0.45	5	40	4	
2MRB 004 020 S04	0.2R X 0.4	0.6	2	40	4	
2MRB 004 030 S04	0.2R X 0.4	0.6	3	40	4	
2MRB 004 040 S04	0.2R X 0.4	0.6	4	40	4	
2MRB 004 050 S04	0.2R X 0.4	0.6	5	40	4	
2MRB 004 060 S04	0.2R X 0.4	0.6	6	40	4	
2MRB 005 020 S04	0.25R X 0.5	1	2	45	4	
2MRB 005 040 S04	0.25R X 0.5	1	4	45	4	
2MRB 005 060 S04	0.25R X 0.5	1	6	45	4	
2MRB 005 080 S04	0.25R X 0.5	1	8	45	4	
2MRB 005 100 S04	0.25R X 0.5	1	10	45	4	
2MRB 006 020 S04	0.3R X 0.6	1.2	2	45	4	
2MRB 006 040 S04	0.3R X 0.6	1.2	4	45	4	
2MRB 006 060 S04	0.3R X 0.6	1.2	6	45	4	
2MRB 006 080 S04	0.3R X 0.6	1.2	8	45	4	
2MRB 006 100 S04	0.3R X 0.6	1.2	10	45	4	
2MRB 007 040 S04	0.35R X 0.7	1.4	4	45	4	
2MRB 007 060 S04	0.35R X 0.7	1.4	6	45	4	
2MRB 007 080 S04	0.35R X 0.7	1.4	8	45	4	
2MRB 007 100 S04	0.35R X 0.7	1.4	10	45	4	
2MRB 008 040 S04	0.4R X 0.8	1.6	4	45	4	
2MRB 008 060 S04	0.4R X 0.8	1.6	6	45	4	
2MRB 008 080 S04	0.4R X 0.8	1.6	8	45	4	
2MRB 008 100 S04	0.4R X 0.8	1.6	10	45	4	
2MRB 008 120 S04	0.4R X 0.8	1.6	12	45	4	
2MRB 009 060 S04	0.45R X 0.9	1.8	6	45	4	
2MRB 009 100 S04	0.45R X 0.9	1.8	10	45	4	
2MRB 009 120 S04	0.45R X 0.9	1.8	12	45	4	
2MRB 010 060 S04	0.5R X 1	2	6	50	4	
2MRB 010 080 S04	0.5R X 1	2	8	50	4	
2MRB 010 100 S04	0.5R X 1	2	10	50	4	
2MRB 010 120 S04	0.5R X 1	2	12	50	4	
2MRB 010 160 S04	0.5R X 1	2	16	50	4	
2MRB 010 200 S04	0.5R X 1	2	20	60	4	
2MRB 010 250 S04	0.5R X 1	2	25	60	4	
2MRB 012 060 S04	0.6R X 1.2	2.4	6	50	4	
2MRB 012 080 S04	0.6R X 1.2	2.4	8	50	4	
2MRB 012 100 S04	0.6R X 1.2	2.4	10	50	4	
2MRB 012 120 S04	0.6R X 1.2	2.4	12	50	4	
2MRB 012 160 S04	0.6R X 1.2	2.4	16	50	4	
2MRB 014 060 S04	0.7R X 1.4	2.8	6	50	4	
2MRB 014 100 S04	0.7R X 1.4	2.8	10	50	4	
2MRB 014 160 S04	0.7R X 1.4	2.8	16	50	4	

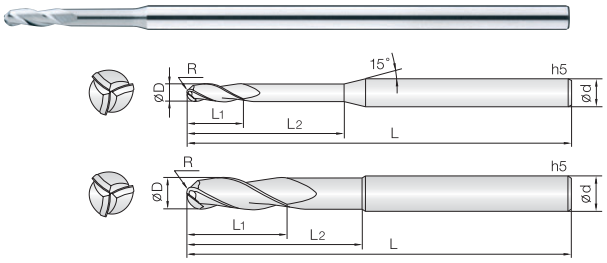
Order Number	날경 Diameter R ×D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MRB 015 060 S04	0.75R X 1.5	3	6	50	4	
2MRB 015 100 S04	0.75R X 1.5	3	10	50	4	
2MRB 015 140 S04	0.75R X 1.5	3	14	50	4	
2MRB 015 160 S04	0.75R X 1.5	3	16	50	4	
2MRB 015 200 S04	0.75R X 1.5	3	20	60	4	
2MRB 015 250 S04	0.75R X 1.5	3	25	60	4	
2MRB 015 300 S04	0.75R X 1.5	3	30	70	4	
2MRB 016 060 S04	0.8R X 1.6	3.2	6	50	4	
2MRB 020 080 S04	1R X 2	4	8	50	4	
2MRB 020 100 S04	1R X 2	4	10	50	4	
2MRB 020 120 S04	1R X 2	4	12	50	4	
2MRB 020 140 S04	1R X 2	4	14	50	4	
2MRB 020 160 S04	1R X 2	4	16	50	4	
2MRB 020 180 S04	1R X 2	4	18	50	4	
2MRB 020 200 S04	1R X 2	4	20	60	4	
2MRB 020 250 S04	1R X 2	4	25	60	4	
2MRB 020 300 S04	1R X 2	4	30	70	4	
2MRB 020 350 S04	1R X 2	4	35	80	4	
2MRB 020 400 S04	1R X 2	4	40	80	4	
2MRB 025 120 S04	1.25R X 2.5	5	12	60	4	
2MRB 025 200 S04	1.25R X 2.5	5	20	60	4	
2MRB 030 080 S06	1.5R X 3	6	8	70	6	
2MRB 030 120 S06	1.5R X 3	6	12	70	6	
2MRB 030 160 S06	1.5R X 3	6	16	70	6	
2MRB 030 200 S06	1.5R X 3	6	20	70	6	
2MRB 030 250 S06	1.5R X 3	6	25	70	6	
2MRB 030 300 S06	1.5R X 3	6	30	80	6	
2MRB 030 400 S06	1.5R X 3	6	40	90	6	
2MRB 030 450 S06	1.5R X 3	6	45	90	6	
2MRB 040 120 S06	2R X 4	8	12	70	6	
2MRB 040 160 S06	2R X 4	8	16	70	6	
2MRB 040 200 S06	2R X 4	8	20	70	6	
2MRB 040 250 S06	2R X 4	8	25	70	6	
2MRB 040 300 S06	2R X 4	8	30	70	6	
2MRB 040 350 S06	2R X 4	8	35	80	6	
2MRB 040 400 S06	2R X 4	8	40	80	6	
2MRB 040 500 S06	2R X 4	8	50	100	6	
2MRB 050 160 S06	2.5R X 5	10	16	80	6	
2MRB 050 250 S06	2.5R X 5	10	25	80	6	
2MRB 050 350 S06	2.5R X 5	10	35	80	6	
2MRB 060 250 S06	3R X 6	12	25	80	6	
2MRB 060 350 S06	3R X 6	12	35	80	6	
2MRB 060 500 S06	3R X 6	12	50	120	6	
2MRB 060 600 S06	3R X 6	12	60	120	6	

FOR A.B.S

3MRB

3 Flutes Micro Rib Ball End Mills

3날 범용 마이크로 리브 볼 엔드밀



- **아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 짧은 날장 채택으로 떨림을 최소화 하였습니다
- 고속,고이송 작업시 짧은 날장을 채택하여 공구의 강성이 우수합니다.
- 인선부 강성을 보강하여 날부치핑을 최소화 하였습니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Minimize chattering by short flute design.
- Excellent tool rigidity by short flute design at high speed, feed machining.
- Reinforced edge design for preventing edge chipping.
- Excellent wear resistance by applying fine WC grade.

3 | WC 미립자 | R ±0.005 (0.5 ~ 2R) | R ±0.01 (3 ~ 6R) | R ±0.015 (8R) | 30° Helix Angle | CUTTING DATA (369P)

D Size	D Tolerance
ø1 ~ 4	+0~ -0.01mm
ø6 ~ 12	-0.005 ~ -0.015mm
ø16	-0.01~ -0.02mm

단위 : mm

Order Number	날경 Diameter R×D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
3MRB 010 050 S04	0.5R X 1	3	5	70	4	
3MRB 010 100 S04	0.5R X 1	3	10	70	4	
3MRB 010 150 S04	0.5R X 1	3	15	70	4	
3MRB 010 200 S04	0.5R X 1	3	20	70	4	
3MRB 010 250 S04	0.5R X 1	3	25	70	4	
3MRB 015 100 S04	0.75R X 1.5	4.5	10	70	4	
3MRB 015 150 S04	0.75R X 1.5	4.5	15	70	4	
3MRB 015 200 S04	0.75R X 1.5	4.5	20	70	4	
3MRB 015 250 S04	0.75R X 1.5	4.5	25	70	4	
3MRB 015 300 S04	0.75R X 1.5	4.5	30	70	4	
3MRB 020 100 S04	1R X 2	6	10	70	4	
3MRB 020 150 S04	1R X 2	6	15	70	4	
3MRB 020 200 S04	1R X 2	6	20	70	4	
3MRB 020 250 S04	1R X 2	6	25	70	4	
3MRB 020 300 S04	1R X 2	6	30	70	4	
3MRB 030 200 080	1.5R X 3	15	20	80	3	
3MRB 030 200 S04	1.5R X 3	9	20	80	4	
3MRB 030 300 100	1.5R X 3	15	30	100	3	
3MRB 030 300 S04	1.5R X 3	9	30	80	4	
3MRB 040 200 080	2R X 4	12	20	80	4	
3MRB 040 300 100	2R X 4	12	30	100	4	
3MRB 060 300 100	3R X 6	18	30	100	6	
3MRB 060 400 150	3R X 6	18	40	150	6	
3MRB 080 400 120	4R X 8	24	40	120	8	
3MRB 080 500 150	4R X 8	24	50	150	8	
3MRB 100 500 120	5R X 10	30	50	120	10	
3MRB 100 600 150	5R X 10	30	60	150	10	
3MRB 120 600 150	6R X 12	36	60	150	12	
3MRB 160 700 160	8R X 16	54	70	160	16	

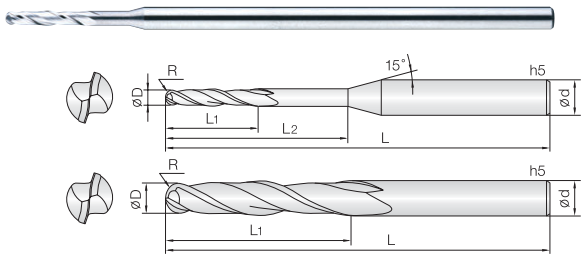
Order Number	날경 Diameter R×D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고

FOR A.B.S

2MLB

2 Flutes Micro Long Ball End Mills

2날 ABS수지 가공용 마이크로 롱 볼 엔드밀



- **아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 전용 엔드밀**
- 균일한 런아웃 공차관리로 떨림을 최소화 하였습니다.
- 깊은 피삭재 가공시 긴 날장을 채택하여 가공이 용이하며, 칩배출이 좋습니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Minimize chattering by even run-out and tolerance control.
- Long flute helps chip control in deep groove machining.
- Excellent wear resistance by applying fine WC grade.

2 | WC 미립자 | R ±0.005 (0.1 ~ 2.5R) | R ±0.01 (3 ~ 6R) | R ±0.015 (8R) | 30° Helix Angle | CUTTING DATA 370P

D Size	D Tolerance
ø0.2 ~ 5	+0 ~ −0.01mm
ø6 ~ 12	−0.005 ~ −0.015mm
ø16	−0.01 ~ −0.02mm

단위 : mm

Order Number	날경 Diameter R ×D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MLB 002 010 S03	0.1R X 0.2	0.4	1	40	3	
2MLB 002 015 S03	0.1R X 0.2	0.4	1.5	40	3	
2MLB 002 020 S03	0.1R X 0.2	0.4	2	40	3	
2MLB 003 010 S03	0.15R X 0.3	1	-	45	3	
2MLB 003 015 S03	0.15R X 0.3	1	1.5	45	3	
2MLB 003 018 S03	0.15R X 0.3	1.8	-	45	3	
2MLB 003 020 S03	0.15R X 0.3	1	2	45	3	
2MLB 003 025 S03	0.15R X 0.3	1	2.5	45	3	
2MLB 003 030 S03	0.15R X 0.3	1	3	45	3	
2MLB 003 040 S03	0.15R X 0.3	1	4	45	3	
2MLB 004 012 S03	0.2R X 0.4	1.2	-	45	3	
2MLB 004 020 S03	0.2R X 0.4	2	-	45	3	
2MLB 004 030 S03	0.2R X 0.4	1.2	3	45	3	
2MLB 004 040 S03	0.2R X 0.4	1.2	4	45	3	
2MLB 004 050 S03	0.2R X 0.4	1.2	5	45	3	
2MLB 005 015 S03	0.25R X 0.5	1.5	-	50	3	
2MLB 005 020 S03	0.25R X 0.5	2	-	50	3	
2MLB 005 030 S03	0.25R X 0.5	1.5	3	50	3	
2MLB 005 040 S03	0.25R X 0.5	1.5	4	50	3	
2MLB 005 050 S03	0.25R X 0.5	1.5	5	50	3	
2MLB 005 060 S03	0.25R X 0.5	1.5	6	50	3	
2MLB 005 080 S03	0.25R X 0.5	1.5	8	50	3	
2MLB 005 100 S03	0.25R X 0.5	1.5	10	50	3	
2MLB 006 030 S03	0.3R X 0.6	3	-	50	3	
2MLB 006 060 S03	0.3R X 0.6	3	6	50	3	
2MLB 006 080 S03	0.3R X 0.6	3	8	50	3	
2MLB 006 100 S03	0.3R X 0.6	3	10	50	3	
2MLB 007 030 S03	0.35R X 0.7	3	-	50	3	
2MLB 007 070 S03	0.35R X 0.7	3	7	50	3	
2MLB 007 100 S03	0.35R X 0.7	3	10	50	3	
2MLB 007 120 S03	0.35R X 0.7	3	12	50	3	
2MLB 008 040 S03	0.4R X 0.8	4	-	50	3	
2MLB 008 080 S03	0.4R X 0.8	4	8	50	3	
2MLB 008 100 S03	0.4R X 0.8	4	10	50	3	
2MLB 008 120 S03	0.4R X 0.8	4	12	50	3	
2MLB 009 040 S03	0.45R X 0.9	4	-	50	3	
2MLB 009 060 S03	0.45R X 0.9	4	6	50	3	
2MLB 009 080 S03	0.45R X 0.9	4	8	50	3	
2MLB 009 100 S03	0.45R X 0.9	4	10	50	3	
2MLB 010 050 S03	0.5R X 1	5	-	80	3	
2MLB 010 050 S04	0.5R X 1	5	-	80	4	
2MLB 010 100 S03	0.5R X 1	5	10	80	3	
2MLB 010 100 S04	0.5R X 1	5	10	80	4	
2MLB 010 150 S03	0.5R X 1	5	15	80	3	
2MLB 010 150 S04	0.5R X 1	5	15	80	4	
2MLB 010 200 S03	0.5R X 1	5	20	80	3	
2MLB 010 200 S04	0.5R X 1	5	20	80	4	
2MLB 010 250 S03	0.5R X 1	5	25	80	3	
2MLB 010 250 S04	0.5R X 1	5	25	80	4	
2MLB 010 300 S03	0.5R X 1	5	30	80	3	

Order Number	날경 Diameter R ×D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MLB 010 300 S04	0.5R X 1	5	30	80	4	
2MLB 010 350 S04	0.5R X 1	5	35	100	4	
2MLB 010 400 S04	0.5R X 1	5	40	100	4	
2MLB 015 100 S03	0.75R X 1.5	10	-	80	3	
2MLB 015 100 S04	0.75R X 1.5	10	-	80	4	
2MLB 015 150 S03	0.75R X 1.5	10	15	80	3	
2MLB 015 150 S04	0.75R X 1.5	10	15	80	4	
2MLB 015 200 S03	0.75R X 1.5	10	20	80	3	
2MLB 015 200 S04	0.75R X 1.5	10	20	80	4	
2MLB 015 250 S03	0.75R X 1.5	10	25	80	3	
2MLB 015 250 S04	0.75R X 1.5	10	25	80	4	
2MLB 015 300 S03	0.75R X 1.5	10	30	80	3	
2MLB 015 300 S04	0.75R X 1.5	10	30	80	4	
2MLB 015 350 S04	0.75R X 1.5	10	35	100	4	
2MLB 015 400 S04	0.75R X 1.5	10	40	100	4	
2MLB 020 100 S03	1R X 2	10	-	80	3	
2MLB 020 100 S04	1R X 2	10	-	80	4	
2MLB 020 150 S03	1R X 2	10	15	80	3	
2MLB 020 150 S04	1R X 2	10	15	80	4	
2MLB 020 200 S03	1R X 2	10	20	80	3	
2MLB 020 200 S04	1R X 2	10	20	80	4	
2MLB 020 250 S03	1R X 2	10	25	80	3	
2MLB 020 250 S04	1R X 2	10	25	80	4	
2MLB 020 300 S03	1R X 2	10	30	80	3	
2MLB 020 300 S04	1R X 2	10	30	80	4	
2MLB 020 350 S03	1R X 2	10	35	80	3	
2MLB 020 350 S04	1R X 2	10	35	100	4	
2MLB 020 400 S03	1R X 2	10	40	80	3	
2MLB 020 400 S04	1R X 2	10	40	100	4	
2MLB 025 100 S03	1.25R X 2.5	10	-	80	3	
2MLB 025 150 S03	1.25R X 2.5	15	-	80	3	
2MLB 025 200 S03	1.25R X 2.5	15	20	80	3	
2MLB 030 100 060	1.5R X 3	10	-	60	3	
2MLB 030 200 080	1.5R X 3	20	-	80	3	
2MLB 030 200 100	1.5R X 3	20	-	100	3	
2MLB 030 200 120	1.5R X 3	20	-	120	3	
2MLB 030 150 S06	1.5R X 3	15	-	100	6	
2MLB 030 200 S06	1.5R X 3	15	20	100	6	
2MLB 030 250 S06	1.5R X 3	15	25	100	6	
2MLB 030 300 S06	1.5R X 3	15	30	100	6	
2MLB 030 400 S06	1.5R X 3	15	40	100	6	
2MLB 040 200 080	2R X 4	20	-	80	4	
2MLB 040 200 100	2R X 4	20	-	100	4	
2MLB 040 200 130	2R X 4	20	-	130	4	
2MLB 040 200 S06	2R X 4	20	-	100	6	
2MLB 040 250 S06	2R X 4	20	25	100	6	
2MLB 040 300 S06	2R X 4	20	30	100	6	
2MLB 040 400 S06	2R X 4	20	40	120	6	
2MLB 040 500 S06	2R X 4	20	50	120	6	
2MLB 050 300 100	2.5R X 5	30	-	100	5	

FOR A.B.S

2날 ABS수지 가공용 마이크로 롱 볼 엔드밀

단위 : mm

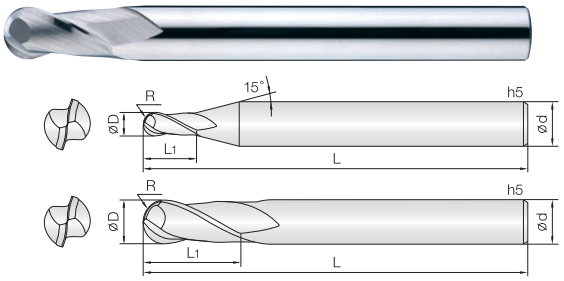
Order Number	날경 Diameter R×D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MLB 050 300 120	2.5R X 5	30	-	120	5	
2MLB 060 300 080	3R X 6	30	-	80	6	
2MLB 060 400 100	3R X 6	40	-	100	6	
2MLB 060 400 120	3R X 6	40	-	120	6	
2MLB 060 400 150	3R X 6	40	-	150	6	
2MLB 080 450 120	4R X 8	45	-	120	8	
2MLB 080 450 150	4R X 8	45	-	150	8	
2MLB 100 500 120	5R X 10	50	-	120	10	
2MLB 100 500 150	5R X 10	50	-	150	10	
2MLB 120 550 130	6R X 12	55	-	130	12	
2MLB 120 550 150	6R X 12	55	-	150	12	
2MLB 160 700 160	8R X 16	70	-	160	16	

Order Number	날경 Diameter R×D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고

FOR A.B.S

2MBE

2 Flutes Ball End Mills
2날 범용 볼 엔드밀



- **일반강, 아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 균일한 런아웃 공차관리로 떨림을 최소화 하였습니다.
- 날부인선의 조도가 뛰어나 피삭재의 면조도가 우수합니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Mild steel, Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Minimize chattering by even run-out and tolerance control.
- Very nice work surface finish.
- Excellent wear resistance by applying fine WC grade.

2 | WC 미립자 | R ±0.005 (0.05 ~ 2.5R) | R ±0.01 (3 ~ 6R) | 30° Helix Angle | CUTTING DATA 370P

D Size	D Tolerance
ø0.1~ 0.15	+0 ~ −0.005mm
ø0.2 ~ 5	+0 ~ −0.01mm
ø6 ~ 12	−0.005 ~ −0.015mm

단위 : mm

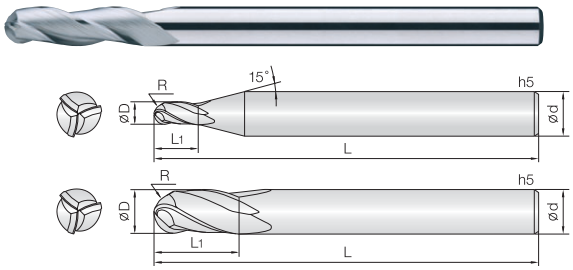
Order Number	날경 Diameter R×D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고
2MBE 001 002 S03	0.05R X 0.1	0.2	40	3	
2MBE 0015 003 S03	0.075R X 0.15	0.3	40	3	
2MBE 002 004 S03	0.1R X 0.2	0.4	40	3	
2MBE 003 006 S03	0.15R X 0.3	0.6	40	3	
2MBE 004 008 S03	0.2R X 0.4	0.8	40	3	
2MBE 005 010 S03	0.25R X 0.5	1	40	3	
2MBE 006 012 S03	0.3R X 0.6	1.2	40	3	
2MBE 007 014 S03	0.35R X 0.7	1.4	40	3	
2MBE 008 016 S03	0.4R X 0 .8	1.6	40	3	
2MBE 009 018 S03	0.45R X 0.9	1.8	40	3	
2MBE 010 025 S03	0.5R X 1	2.5	50	3	
2MBE 010 025 S06	0.5R X 1	2.5	50	6	
2MBE 010 025 100	0.5R X 1	2.5	100	6	
2MBE 011 025 S03	0.55R X 1.1	2.5	50	3	
2MBE 012 030 S03	0.6R X 1.2	3	50	3	
2MBE 015 040 S03	0.75R X 1.5	4	50	3	
2MBE 015 040 100	0.75R X 1.5	4	100	6	
2MBE 020 050 S03	1R X 2	5	50	3	
2MBE 020 050 S06	1R X 2	5	50	6	
2MBE 020 050 100	1R X 2	5	100	6	
2MBE 025 060 S03	1.25R X 2.5	6	50	3	
2MBE 025 060 100	1.25R X 2.5	6	100	6	
2MBE 030 080 S03	1.5R X 3	8	60	3	
2MBE 030 080 S06	1.5R X 3	8	60	6	
2MBE 030 080 100	1.5R X 3	8	100	6	
2MBE 035 080 S06	1.75R X 3.5	8	65	6	
2MBE 040 080 S06	2R X 4	8	70	6	
2MBE 040 080 120	2R X 4	8	120	6	
2MBE 050 120 S06	2.5R X 5	12	75	6	
2MBE 060 120 080	3R X 6	12	80	6	
2MBE 060 120 100	3RX 6	12	100	6	
2MBE 080 140 090	4R X 8	14	90	8	
2MBE 080 140 110	4RX 8	14	110	8	
2MBE 100 180 100	5R X 10	18	100	10	
2MBE 100 180 120	5RX 10	18	120	10	
2MBE 120 220 110	6R X 12	22	110	12	
2MBE 120 220 130	6RX 12	22	130	12	

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

FOR A.B.S

3MBE

3 Flutes Ball End Mills
3날 범용 볼엔드밀



- **일반강, 아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 균일한 런아웃 공차관리로 떨림을 최소화 하였습니다.
- 날부인선의 조도가 뛰어나 피삭재의 면조도가 우수합니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Mild steel, Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Minimize chattering by even run-out and tolerance control.
- Very nice work surface finish.
- Excellent wear resistance by applying fine WC grade.

3 | WC 미립자 | R ±0.005 (0.15R ~ 2R) | R ±0.01 (3R) | 30° Helix Angle | CUTTING DATA (370P)

D Size	D Tolerance
ø0.3 ~ 4	+0~ -0.01mm
ø6	-0.005 ~ -0.015mm

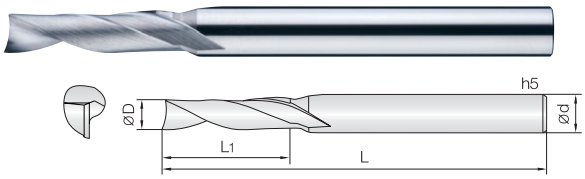
단위 : mm

Order Number	날경 Diameter R×D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고
3MBE 003 008 S04	0.15R X 0.3	0.8	40	4	
3MBE 003 012 S04	0.15R X 0.3	1.2	40	4	
3MBE 004 010 S04	0.2R X 0.4	1	40	4	
3MBE 004 015 S04	0.2R X 0.4	1.5	40	4	
3MBE 005 013 S04	0.25R X 0.5	1.3	45	4	
3MBE 005 020 S04	0.25R X 0.5	2	45	4	
3MBE 006 015 S04	0.3R X 0.6	1.5	45	4	
3MBE 006 024 S04	0.3R X 0.6	2.4	45	4	
3MBE 007 018 S04	0.35R X 0.7	1.8	45	4	
3MBE 007 028 S04	0.35R X 0.7	2.8	45	4	
3MBE 008 020 S04	0.4R X 0.8	2	45	4	
3MBE 008 032 S04	0.4R X 0.8	3.2	45	4	
3MBE 009 025 S04	0.45R X 0.9	2.5	50	4	
3MBE 009 036 S04	0.45R X 0.9	3.6	50	4	
3MBE 010 025 S04	0.5R X 1	2.5	50	4	
3MBE 010 040 S04	0.5R X 1	4	50	4	
3MBE 010 060 S04	0.5R X 1	6	60	4	
3MBE 012 030 S04	0.6R X 1.2	3	50	4	
3MBE 012 050 S04	0.6R X 1.2	5	50	4	
3MBE 012 070 S04	0.6R X 1.2	7	60	4	
3MBE 015 040 S04	0.75R X 1.5	4	50	4	
3MBE 015 060 S04	0.75R X 1.5	6	50	4	
3MBE 015 090 S04	0.75R X 1.5	9	60	4	
3MBE 020 050 S04	1R X 2	5	50	4	
3MBE 020 080 S04	1R X 2	8	50	4	
3MBE 020 100 S04	1R X 2	10	60	4	
3MBE 025 060 S04	1.25R X 2.5	6	50	4	
3MBE 025 100 S04	1.25R X 2.5	10	60	4	
3MBE 025 150 S04	1.25R X 2.5	15	70	4	
3MBE 030 080 S04	1.5R X 3	8	50	4	
3MBE 030 120 S04	1.5R X 3	12	60	4	
3MBE 030 150 S04	1.5R X 3	15	80	4	
3MBE 040 100 S04	2R X 4	10	60	4	
3MBE 040 150 S04	2R X 4	15	80	4	
3MBE 060 200 S06	3R X 6	20	80	6	
3MBE 060 300 S06	3R X 6	30	110	6	

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

FOR A.B.S

1MEM 1 Flute End Mills 1날 엔드밀



- **아크릴, ABS, 목업, 알루미늄 등 비철, 비금속 피삭재 전용 엔드밀**
- 헬릭스 1날 타입으로 칩 배출이 우수하여 비철,비금속 피삭재의 절단 작업 및 측벽 작업에 적합합니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Excellent chip removing by a helix 1flute design. Optimum for cut-off and wall machining.
- Excellent wear resistance by applying fine WC grade.

1 | WC 미립자 | D +0 −0.01 Ø0.2 ~ 5 | D −0.01 −0.025 Ø6 ~ 12 | 30° Helix Angle | Sharp Edge | CUTTING DATA 371P

D Size	D Tolerance
Ø0.2 ~ 5	+0 ~ −0.01mm
Ø6 ~ 12	−0.01 ~ −0.025mm

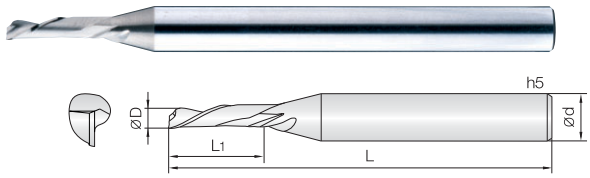
단위 : mm

Order Number	날경 Diameter D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고
1MEM 002 004 S04	0.2	0.4	40	4	
1MEM 002 005 S04	0.2	0.5	40	4	
1MEM 003 006 S04	0.3	0.6	40	4	
1MEM 003 009 S04	0.3	0.9	40	4	
1MEM 004 008 S04	0.4	0.8	40	4	
1MEM 004 012 S04	0.4	1.2	40	4	
1MEM 005 010 S04	0.5	1	40	4	
1MEM 005 015 S04	0.5	1.5	40	4	
1MEM 006 012 S04	0.6	1.2	40	4	
1MEM 006 018 S04	0.6	1.8	40	4	
1MEM 007 014 S04	0.7	1.4	40	4	
1MEM 007 021 S04	0.7	2.1	40	4	
1MEM 008 016 S04	0.8	1.6	40	4	
1MEM 008 024 S04	0.8	2.4	40	4	
1MEM 009 018 S04	0.9	1.8	40	4	
1MEM 009 027 S04	0.9	2.7	40	4	
1MEM 010 025 S06	1	2.5	45	6	
1MEM 010 030 S06	1	3	45	6	
1MEM 010 035 S06	1	3.5	45	6	
1MEM 010 045 S06	1	4.5	45	6	
1MEM 010 060 S06	1	6	50	6	
1MEM 010 070 S06	1	7	50	6	
1MEM 012 030 S06	1.2	3	45	6	
1MEM 012 050 S06	1.2	5	45	6	
1MEM 012 060 S06	1.2	6	50	6	
1MEM 015 040 S06	1.5	4	45	6	
1MEM 015 060 S06	1.5	6	50	6	
1MEM 015 080 S06	1.5	8	50	6	
1MEM 015 100 S06	1.5	10	50	6	
1MEM 015 120 S06	1.5	12	50	6	
1MEM 020 060 S06	2	6	50	6	
1MEM 020 080 S06	2	8	50	6	
1MEM 020 100 S06	2	10	50	6	
1MEM 020 120 S06	2	12	50	6	
1MEM 020 140 S06	2	14	55	6	
1MEM 020 160 S06	2	16	60	6	
New 1MEM 025 080 S06	2.5	8	50	6	
New 1MEM 025 100 S06	2.5	10	50	6	
New 1MEM 025 120 S06	2.5	12	50	6	
New 1MEM 025 160 S06	2.5	16	60	6	
1MEM 030 080 S06	3	8	50	6	
1MEM 030 120 S06	3	12	50	6	
1MEM 030 150 S06	3	15	50	6	
1MEM 030 200 S06	3	20	60	6	
1MEM 030 250 S06	3	25	70	6	
1MEM 040 100 S06	4	10	50	6	
1MEM 040 150 S06	4	15	50	6	
1MEM 040 200 S06	4	20	60	6	
1MEM 040 250 S06	4	25	70	6	
1MEM 040 300 S06	4	30	75	6	

Order Number	날경 Diameter D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고
1MEM 050 130 S06	5	13	60	6	
1MEM 050 200 S06	5	20	60	6	
1MEM 050 250 S06	5	25	60	6	
1MEM 050 300 S06	5	30	75	6	
1MEM 060 150 S06	6	15	60	6	
1MEM 060 200 S06	6	20	60	6	
1MEM 060 250 S06	6	25	60	6	
1MEM 060 300 S06	6	30	70	6	
1MEM 060 410 S06	6	41	90	6	
1MEM 080 190 S08	8	19	70	8	
1MEM 080 250 S08	8	25	75	8	
1MEM 080 300 S08	8	30	80	8	
1MEM 080 410 S08	8	41	90	8	
1MEM 100 220 S10	10	22	75	10	
1MEM 100 300 S10	10	30	80	10	
1MEM 100 410 S10	10	41	100	10	
1MEM 120 260 S12	12	26	75	12	
1MEM 120 350 S12	12	35	90	12	
1MEM 120 510 S12	12	51	110	12	

FOR A.B.S

1REM 1날 역날 엔드밀



- **아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 전용 엔드밀**
- 역 헬릭스 타입으로 칩 배출이 아래 방향으로 배출되어, 작업시 피삭재가 떠오르는 현상이 없습니다.
- 피삭재에 상면 버가 발생하지 않습니다.
- 피삭재의 정착이 불안정한 경우 적합합니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Downward chip direction by reverse helix design helps chip control.
- No burr in work materials.
- Optimum for unstable work clamping.
- Excellent wear resistance by applying fine WC grade.

Ø0.5 ~ 5 Ø6 ~ 12 Sharp Edge 371P

D Size	D Tolerance
Ø0.5 ~ 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
1REM 005 010 S04	0.5	1	45	4	
1REM 005 015 S04	0.5	1.5	45	4	
1REM 005 020 S04	0.5	2	45	4	
1REM 006 012 S04	0.6	1.2	45	4	
1REM 006 018 S04	0.6	1.8	45	4	
1REM 006 025 S04	0.6	2.5	45	4	
1REM 007 014 S04	0.7	1.4	45	4	
1REM 007 021 S04	0.7	2.1	45	4	
1REM 008 016 S04	0.8	1.6	45	4	
1REM 008 024 S04	0.8	2.4	45	4	
1REM 008 030 S04	0.8	3	45	4	
1REM 009 018 S04	0.9	1.8	45	4	
1REM 010 030 S06	1	3	50	6	
1REM 010 040 S06	1	4	50	6	
1REM 010 050 S06	1	5	50	6	
1REM 010 060 S06	1	6	60	6	
1REM 012 040 S06	1.2	4	50	6	
1REM 012 060 S06	1.2	6	50	6	
1REM 015 040 S06	1.5	4	50	6	
1REM 015 060 S06	1.5	6	50	6	
1REM 015 080 S06	1.5	8	50	6	
1REM 020 060 S06	2	6	60	6	
1REM 020 080 S06	2	8	60	6	
1REM 020 100 S06	2	10	60	6	
1REM 020 120 S06	2	12	60	6	
1REM 025 060 S06	2.5	6	60	6	
1REM 025 080 S06	2.5	8	60	6	
1REM 025 100 S06	2.5	10	60	6	
1REM 030 080 S06	3	8	60	6	
1REM 030 120 S06	3	12	65	6	
1REM 030 160 S06	3	16	70	6	
1REM 040 120 S06	4	12	65	6	
1REM 040 160 S06	4	16	70	6	
1REM 040 200 S06	4	20	70	6	
1REM 050 150 S06	5	15	70	6	
1REM 050 220 S06	5	22	75	6	
1REM 060 270 S06	6	27	75	6	
1REM 080 260 S08	8	26	80	8	
1REM 080 320 S08	8	32	90	8	
1REM 100 300 S10	10	30	90	10	
1REM 120 350 S12	12	35	100	12	

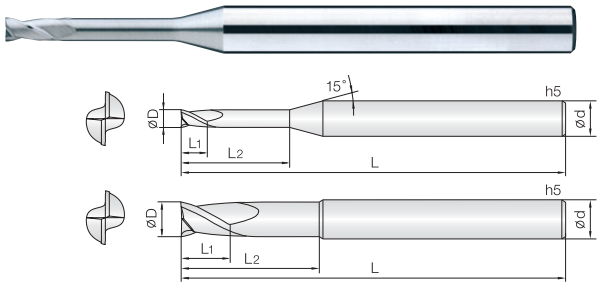
Order Number	날경 Diameter D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고

FOR A.B.S

2MRE

2 Flutes Micro Rib End Mills

2날 범용 마이크로 리브 엔드밀



- **아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 짧은 날장 채택으로 떨림을 최소화 하였습니다
- 고속, 고이송 작업시 짧은 날장을 채택하여 공구의 강성이 우수합니다.
- 인선부 강성을 보강하여 날부치핑을 최소화 하였습니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Minimize chattering by short flute design.
- Excellent tool rigidity by short flute design at high speed, feed machining.
- Reinforced edge design for preventing edge chipping.
- Excellent wear resistance by applying fine WC grade.

2 | WC 미립자 | D +0 −0.01 Ø0.2 ~ 5 | D −0.01 −0.025 Ø6 | 30° Helix Angle Sharp Edge | CUTTING DATA 372P

D Size	D Tolerance
Ø0.2 ~ 5	+0 ~ −0.01mm
Ø6	−0.01 ~ −0.025mm

단위 : mm

Order Number	날경 Diameter D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MRE 002 005 S04	0.2	0.3	0.5	40	4	
2MRE 002 010 S04	0.2	0.3	1	40	4	
2MRE 002 015 S04	0.2	0.3	1.5	40	4	
2MRE 002 020 S04	0.2	0.3	2	40	4	
2MRE 003 010 S04	0.3	0.45	1	40	4	
2MRE 003 020 S04	0.3	0.45	2	40	4	
2MRE 003 030 S04	0.3	0.45	3	40	4	
2MRE 003 050 S04	0.3	0.45	5	40	4	
2MRE 004 020 S04	0.4	0.6	2	40	4	
2MRE 004 030 S04	0.4	0.6	3	40	4	
2MRE 004 040 S04	0.4	0.6	4	40	4	
2MRE 004 050 S04	0.4	0.6	5	40	4	
2MRE 004 060 S04	0.4	0.6	6	40	4	
2MRE 005 020 S04	0.5	1	2	45	4	
2MRE 005 040 S04	0.5	1	4	45	4	
2MRE 005 060 S04	0.5	1	6	45	4	
2MRE 005 080 S04	0.5	1	8	45	4	
2MRE 005 100 S04	0.5	1	10	45	4	
2MRE 006 020 S04	0.6	1.2	2	45	4	
2MRE 006 040 S04	0.6	1.2	4	45	4	
2MRE 006 060 S04	0.6	1.2	6	45	4	
2MRE 006 080 S04	0.6	1.2	8	45	4	
2MRE 006 100 S04	0.6	1.2	10	45	4	
2MRE 007 040 S04	0.7	1.4	4	45	4	
2MRE 007 060 S04	0.7	1.4	6	45	4	
2MRE 007 080 S04	0.7	1.4	8	45	4	
2MRE 007 100 S04	0.7	1.4	10	45	4	
2MRE 008 040 S04	0.8	1.6	4	45	4	
2MRE 008 060 S04	0.8	1.6	6	45	4	
2MRE 008 080 S04	0.8	1.6	8	45	4	
2MRE 008 100 S04	0.8	1.6	10	45	4	
2MRE 008 120 S04	0.8	1.6	12	45	4	
2MRE 009 060 S04	0.9	1.8	6	45	4	
2MRE 009 100 S04	0.9	1.8	10	45	4	
2MRE 009 120 S04	0.9	1.8	12	45	4	
2MRE 010 060 S04	1	2	6	50	4	
2MRE 010 080 S04	1	2	8	50	4	
2MRE 010 100 S04	1	2	10	50	4	
2MRE 010 120 S04	1	2	12	50	4	
2MRE 010 160 S04	1	2	16	50	4	
2MRE 010 200 S04	1	2	20	60	4	
2MRE 010 250 S04	1	2	25	60	4	
2MRE 012 060 S04	1.2	2.4	6	50	4	
2MRE 012 080 S04	1.2	2.4	8	50	4	
2MRE 012 100 S04	1.2	2.4	10	50	4	
2MRE 012 120 S04	1.2	2.4	12	50	4	
2MRE 012 160 S04	1.2	2.4	16	50	4	
2MRE 014 060 S04	1.4	2.8	6	50	4	
2MRE 014 100 S04	1.4	2.8	10	50	4	
2MRE 014 160 S04	1.4	2.8	16	50	4	

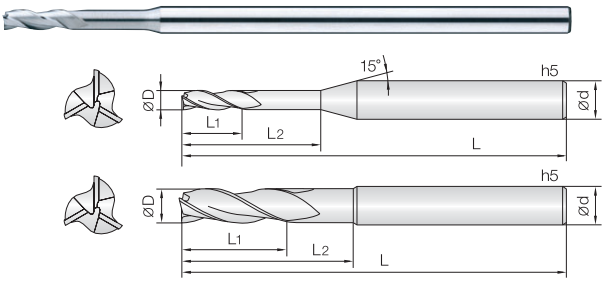
Order Number	날경 Diameter D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MRE 015 060 S04	1.5	3	6	50	4	
2MRE 015 100 S04	1.5	3	10	50	4	
2MRE 015 140 S04	1.5	3	14	50	4	
2MRE 015 160 S04	1.5	3	16	50	4	
2MRE 015 200 S04	1.5	3	20	60	4	
2MRE 015 250 S04	1.5	3	25	60	4	
2MRE 015 300 S04	1.5	3	30	70	4	
2MRE 016 060 S04	1.6	3.2	6	50	4	
2MRE 020 080 S04	2	4	8	50	4	
2MRE 020 100 S04	2	4	10	50	4	
2MRE 020 120 S04	2	4	12	50	4	
2MRE 020 140 S04	2	4	14	50	4	
2MRE 020 160 S04	2	4	16	50	4	
2MRE 020 180 S04	2	4	18	50	4	
2MRE 020 200 S04	2	4	20	60	4	
2MRE 020 250 S04	2	4	25	60	4	
2MRE 020 300 S04	2	4	30	70	4	
2MRE 020 350 S04	2	4	35	80	4	
2MRE 020 400 S04	2	4	40	80	4	
2MRE 025 120 S04	2.5	5	12	60	4	
2MRE 025 200 S04	2.5	5	20	60	4	
2MRE 030 080 S06	3	6	8	70	6	
2MRE 030 120 S06	3	6	12	70	6	
2MRE 030 160 S06	3	6	16	70	6	
2MRE 030 200 S06	3	6	20	70	6	
2MRE 030 250 S06	3	6	25	70	6	
2MRE 030 300 S06	3	6	30	80	6	
2MRE 030 400 S06	3	6	40	90	6	
2MRE 030 450 S06	3	6	45	90	6	
2MRE 040 120 S06	4	8	12	70	6	
2MRE 040 160 S06	4	8	16	70	6	
2MRE 040 200 S06	4	8	20	70	6	
2MRE 040 250 S06	4	8	25	70	6	
2MRE 040 300 S06	4	8	30	70	6	
2MRE 040 350 S06	4	8	35	80	6	
2MRE 040 400 S06	4	8	40	80	6	
2MRE 040 500 S06	4	8	50	100	6	
2MRE 050 160 S06	5	10	16	80	6	
2MRE 050 250 S06	5	10	25	80	6	
2MRE 050 350 S06	5	10	35	80	6	
2MRE 060 250 S06	6	12	25	80	6	
2MRE 060 350 S06	6	12	35	80	6	
2MRE 060 500 S06	6	12	50	120	6	
2MRE 060 600 S06	6	12	60	120	6	

FOR A.B.S

3MRE

3 Flutes Micro Rib End Mills

3날 범용 마이크로 리브 엔드밀



- **아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 짧은 날장 채택으로 떨림을 최소화 하였습니다
- 고속, 고이송 작업시 짧은 날장을 채택하여 공구의 강성이 우수합니다.
- 인선부 강성을 보강하여 날부치핑을 최소화 하였습니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Minimize chattering by short flute design.
- Excellent tool rigidity by short flute design at high speed, feed machining.
- Reinforced edge design for preventing edge chipping.
- Excellent wear resistance by applying fine WC grade.

3 | WC 미립자 | D +0 −0.01 Ø1 ~ 4 | D −0.01 −0.025 Ø6 ~ 12 | D −0.015 −0.03 Ø16 | 30° Helix Angle | Sharp Edge | CUTTING DATA 371P

D Size	D Tolerance
ø1 ~ 4	+0~ −0.01mm
ø6 ~ 12	−0.01 ~ -0.025mm
ø16	−0.015 ~ −0.03mm

단위 : mm

Order Number	날경 Diameter D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
3MRE 010 050 S04	1	3	5	70	4	
3MRE 010 100 S04	1	3	10	70	4	
3MRE 010 150 S04	1	3	15	70	4	
3MRE 010 200 S04	1	3	20	70	4	
3MRE 010 250 S04	1	3	25	70	4	
3MRE 015 100 S04	1.5	4.5	10	70	4	
3MRE 015 150 S04	1.5	4.5	15	70	4	
3MRE 015 200 S04	1.5	4.5	20	70	4	
3MRE 015 250 S04	1.5	4.5	25	70	4	
3MRE 015 300 S04	1.5	4.5	30	70	4	
3MRE 020 100 S04	2	6	10	70	4	
3MRE 020 150 S04	2	6	15	70	4	
3MRE 020 200 S04	2	6	20	70	4	
3MRE 020 250 S04	2	6	25	70	4	
3MRE 020 300 S04	2	6	30	70	4	
3MRE 030 200 080	3	15	20	80	3	
3MRE 030 200 S04	3	9	20	80	4	
3MRE 030 300 100	3	15	30	100	3	
3MRE 030 300 S04	3	9	30	80	4	
3MRE 040 200 080	4	12	20	80	4	
3MRE 040 300 100	4	12	30	100	4	
3MRE 060 300 100	6	18	30	100	6	
3MRE 060 400 150	6	18	40	150	6	
3MRE 080 400 120	8	24	40	120	8	
3MRE 080 500 150	8	24	50	150	8	
3MRE 100 500 120	10	30	50	120	10	
3MRE 100 600 150	10	30	60	150	10	
3MRE 120 600 150	12	36	60	150	12	
3MRE 160 700 160	16	54	70	160	16	

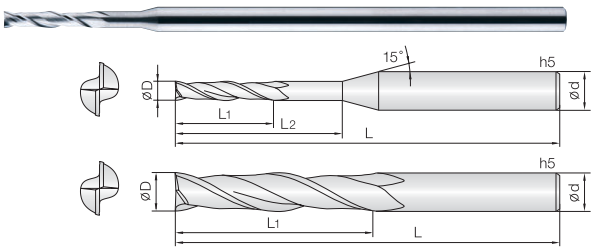
Order Number	날경 Diameter D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고

FOR A.B.S

2MLE

2 Flutes Micro Long End Mills

2날 ABS수지 가공용 마이크로 롱 엔드밀



- **아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 전용 엔드밀**
- 균일한 런아웃 공차관리로 떨림을 최소화 하였습니다.
- 깊은 피삭재 가공시 긴 날장을 채택하여 가공이 용이하며, 칩배출이 좋습니다.
- 인선부 강성을 보강하여 날부치핑을 최소화 하였습니다.
- 미립자 초경합금을 채택하여 내마모성이 좋습니다.

- **Endmills for Acryl, A.B.S, Aluminum, non-ferrous and non-metallic materials.**
- Minimize chattering by even run-out and tolerance control.
- Long flute helps chip control in deep groove machining.
- Reinforced edge design for preventing edge chipping.
- Excellent wear resistance by applying fine WC grade.

2 | WC 미립자 | D +0 −0.01 Ø0.2 ~ 5 | D −0.01 −0.025 Ø6 ~ 12 | D −0.015 −0.03 Ø16 | 30° Helix Angle | Sharp Edge | CUTTING DATA 370P

D Size	D Tolerance
ø0.2 ~ 5	+0 ~ −0.01mm
ø6 ~ 12	−0.01 ~ −0.025mm
ø16	−0.015 ~ −0.03mm

단위 : mm

Order Number	날경 Diameter D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MLE 002 010 S03	0.2	0.4	1	40	3	
2MLE 002 015 S03	0.2	0.4	1.5	40	3	
2MLE 002 020 S03	0.2	0.4	2	40	3	
2MLE 003 010 S03	0.3	1	-	45	3	
2MLE 003 015 S03	0.3	1	1.5	45	3	
2MLE 003 018 S03	0.3	1.8	-	45	3	
2MLE 003 020 S03	0.3	1	2	45	3	
2MLE 003 025 S03	0.3	1	2.5	45	3	
2MLE 003 030 S03	0.3	1	3	45	3	
2MLE 003 040 S03	0.3	1	4	45	3	
2MLE 004 012 S03	0.4	1.2	-	45	3	
2MLE 004 020 S03	0.4	2	-	45	3	
2MLE 004 030 S03	0.4	1.2	3	45	3	
2MLE 004 040 S03	0.4	1.2	4	45	3	
2MLE 004 050 S03	0.4	1.2	5	45	3	
2MLE 005 015 S03	0.5	1.5	-	50	3	
2MLE 005 020 S03	0.5	2	-	50	3	
2MLE 005 030 S03	0.5	1.5	3	50	3	
2MLE 005 040 S03	0.5	1.5	4	50	3	
2MLE 005 050 S03	0.5	1.5	5	50	3	
2MLE 005 060 S03	0.5	1.5	6	50	3	
2MLE 005 080 S03	0.5	1.5	8	50	3	
2MLE 005 100 S03	0.5	1.5	10	50	3	
2MLE 006 030 S03	0.6	3	-	50	3	
2MLE 006 060 S03	0.6	3	6	50	3	
2MLE 006 080 S03	0.6	3	8	50	3	
2MLE 006 100 S03	0.6	3	10	50	3	
2MLE 007 030 S03	0.7	3	-	50	3	
2MLE 007 070 S03	0.7	3	7	50	3	
2MLE 007 100 S03	0.7	3	10	50	3	
2MLE 007 120 S03	0.7	3	12	50	3	
2MLE 008 040 S03	0.8	4	-	50	3	
2MLE 008 080 S03	0.8	4	8	50	3	
2MLE 008 100 S03	0.8	4	10	50	3	
2MLE 008 120 S03	0.8	4	12	50	3	
2MLE 009 040 S03	0.9	4	-	50	3	
2MLE 009 060 S03	0.9	4	6	50	3	
2MLE 009 080 S03	0.9	4	8	50	3	
2MLE 009 100 S03	0.9	4	10	50	3	
2MLE 010 050 S03	1	5	-	80	3	
2MLE 010 050 S04	1	5	-	80	4	
2MLE 010 100 S03	1	5	10	80	3	
2MLE 010 100 S04	1	5	10	80	4	
2MLE 010 150 S03	1	5	15	80	3	
2MLE 010 150 S04	1	5	15	80	4	
2MLE 010 200 S03	1	5	20	80	3	
2MLE 010 200 S04	1	5	20	80	4	
2MLE 010 250 S03	1	5	25	80	3	
2MLE 010 250 S04	1	5	25	80	4	
2MLE 010 300 S03	1	5	30	80	3	

Order Number	날경 Diameter D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MLE 010 300 S04	1	5	30	80	4	
2MLE 010 350 S04	1	5	35	100	4	
2MLE 010 400 S04	1	5	40	100	4	
2MLE 015 100 S03	1.5	10	-	80	3	
2MLE 015 100 S04	1.5	10	-	80	4	
2MLE 015 150 S03	1.5	10	15	80	3	
2MLE 015 150 S04	1.5	10	15	80	4	
2MLE 015 200 S03	1.5	10	20	80	3	
2MLE 015 200 S04	1.5	10	20	80	4	
2MLE 015 250 S03	1.5	10	25	80	3	
2MLE 015 250 S04	1.5	10	25	80	4	
2MLE 015 300 S03	1.5	10	30	80	3	
2MLE 015 300 S04	1.5	10	30	80	4	
2MLE 015 350 S04	1.5	10	35	100	4	
2MLE 015 400 S04	1.5	10	40	100	4	
2MLE 020 100 S03	2	10	-	80	3	
2MLE 020 100 S04	2	10	-	80	4	
2MLE 020 150 S03	2	10	15	80	3	
2MLE 020 150 S04	2	10	15	80	4	
2MLE 020 200 S03	2	10	20	80	3	
2MLE 020 200 S04	2	10	20	80	4	
2MLE 020 250 S03	2	10	25	80	3	
2MLE 020 250 S04	2	10	25	80	4	
2MLE 020 300 S03	2	10	30	80	3	
2MLE 020 300 S04	2	10	30	80	4	
2MLE 020 350 S03	2	10	35	80	3	
2MLE 020 350 S04	2	10	35	100	4	
2MLE 020 400 S03	2	10	40	80	3	
2MLE 020 400 S04	2	10	40	100	4	
2MLE 025 100 S03	2.5	10	-	80	3	
2MLE 025 150 S03	2.5	15	-	80	3	
2MLE 025 200 S03	2.5	15	20	80	3	
2MLE 030 100 060	3	10	-	60	3	
2MLE 030 200 080	3	20	-	80	3	
2MLE 030 200 100	3	20	-	100	3	
2MLE 030 200 120	3	20	-	120	3	
2MLE 030 150 S06	3	15	-	100	6	
2MLE 030 200 S06	3	15	20	100	6	
2MLE 030 250 S06	3	15	25	100	6	
2MLE 030 300 S06	3	15	30	100	6	
2MLE 040 200 080	4	20	-	80	4	
2MLE 040 200 100	4	20	-	100	4	
2MLE 040 200 130	4	20	-	130	4	
2MLE 040 200 S06	4	20	-	100	6	
2MLE 040 250 S06	4	20	25	100	6	
2MLE 040 300 S06	4	20	30	100	6	
2MLE 040 400 S06	4	20	40	120	6	
2MLE 050 200 S06	5	20	-	100	6	
2MLE 050 300 100	5	30	-	100	5	
2MLE 050 300 120	5	30	-	120	5	

FOR A.B.S

단위 : mm

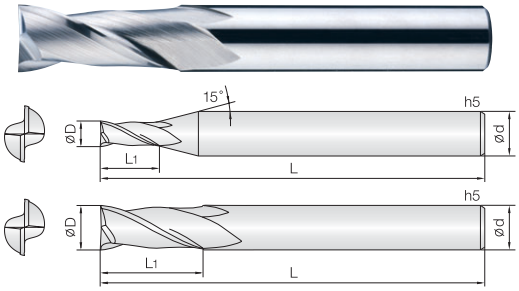
Order Number	날경 Diameter D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2MLE 060 250 080	6	25	-	80	6	
2MLE 060 300 080	6	30	-	80	6	
2MLE 060 400 100	6	40	-	100	6	
2MLE 060 400 120	6	40	-	120	6	
2MLE 060 400 150	6	40	-	150	6	
2MLE 080 300 080	8	30	-	80	8	
2MLE 080 350 090	8	35	-	90	8	
2MLE 080 400 100	8	40	-	100	8	
2MLE 080 450 120	8	45	-	120	8	
2MLE 080 450 150	8	45	-	150	8	
2MLE 100 300 080	10	30	-	80	10	
2MLE 100 350 090	10	35	-	90	10	
2MLE 100 400 100	10	40	-	100	10	
2MLE 100 500 120	10	50	-	120	10	
2MLE 100 500 150	10	50	-	150	10	
2MLE 120 300 090	12	30	-	90	12	
2MLE 120 400 100	12	40	-	100	12	
2MLE 120 500 110	12	50	-	110	12	
2MLE 120 550 130	12	55	-	130	12	
2MLE 120 550 150	12	55	-	150	12	
2MLE 160 700 160	16	70	-	160	16	

Order Number	날경 Diameter D	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고

FOR A.B.S

2MEM

2 Flutes End Mills
2날 범용 엔드밀



- **일반강, 아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 인선부 강성을 보강하여 날부치핑을 최소화 하였습니다.
- 균일한 런아웃 공차관리로 공구의 성능을 향상 시켰습니다.
- 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.
- Improved tool performance by even run-out and tolerance control.
- Excellent wear resistance by applying fine WC grade.

2 | WC 미립자 | D +0 −0.005 | D +0 −0.01 | D −0.01 −0.025 | 30° Helix Angle | Sharp Edge | CUTTING DATA

ø0.1 ~ 0.15 ø0.2 ~ 5 ø6 ~ 12 373P

D Size	D Tolerance
ø0.1 ~ 0.15	+0 ~ −0.005mm
ø0.2 ~ 5	+0 ~ −0.01mm
ø6 ~ 12	−0.01 ~ −0.025mm

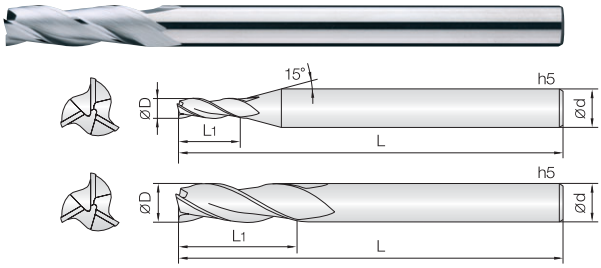
단위 : mm

Order Number	날경 Diameter D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고
2MEM 001 002 S03	0.1	0.2	40	3	
2MEM 0015 003 S03	0.15	0.3	40	3	
2MEM 002 004 S03	0.2	0.4	40	3	
2MEM 003 006 S03	0.3	0.6	40	3	
2MEM 004 008 S03	0.4	0.8	40	3	
2MEM 005 010 S03	0.5	1	40	3	
2MEM 006 012 S03	0.6	1.2	40	3	
2MEM 007 014 S03	0.7	1.4	40	3	
2MEM 008 016 S03	0.8	1.6	40	3	
2MEM 009 018 S03	0.9	1.8	40	3	
2MEM 010 025 S03	1	2.5	40	3	
2MEM 010 025 S06	1	2.5	40	6	
2MEM 011 025 S03	1.1	2.5	40	3	
2MEM 012 035 S03	1.2	3.5	40	3	
2MEM 013 040 S03	1.3	4	40	3	
2MEM 014 040 S03	1.4	4	40	3	
2MEM 015 040 S03	1.5	4	40	3	
2MEM 015 040 S06	1.5	4	40	6	
2MEM 016 040 S03	1.6	4	40	3	
2MEM 017 050 S03	1.7	5	40	3	
2MEM 018 055 S03	1.8	5.5	40	3	
2MEM 019 060 S03	1.9	6	40	3	
2MEM 020 060 S03	2	6	40	3	
2MEM 020 060 S06	2	6	40	6	
2MEM 025 080 S03	2.5	8	40	3	
2MEM 025 080 S06	2.5	8	40	6	
2MEM 030 080 S03	3	8	45	3	
2MEM 030 080 S06	3	8	45	6	
2MEM 035 100 S06	3.5	10	45	6	
2MEM 040 110 S06	4	11	45	6	
2MEM 045 110 S06	4.5	11	45	6	
2MEM 050 130 S06	5	13	50	6	
2MEM 060 130 S06	6	13	50	6	
2MEM 070 160 S08	7	16	60	8	
2MEM 080 190 S08	8	19	60	8	
2MEM 090 190 S10	9	19	70	10	
2MEM 100 220 S10	10	22	70	10	
2MEM 120 260 S12	12	26	75	12	

3MEM

3 Flutes End Mills

3날 범용 엔드밀



- **일반강, 아크릴, ABS, 목업, 알루미늄 등 비철,비금속 피삭재 가공**
- 인선부 강성을 보강하여 날부치핑을 최소화 하였습니다.
- 짧은 날장 채택으로 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 short flute design
- Excellent wear resistance by applying fine WC grade.

3 | WC 미립자 | D +0 −0.01 Ø0.3 ~ 4 | D −0.01 −0.025 Ø6 | 30° Helix Angle | Sharp Edge | CUTTING DATA 373P

D Size	D Tolerance
Ø0.3 ~ 4	+0~ −0.01mm
Ø6	−0.01 ~ −0.025mm

단위 : mm

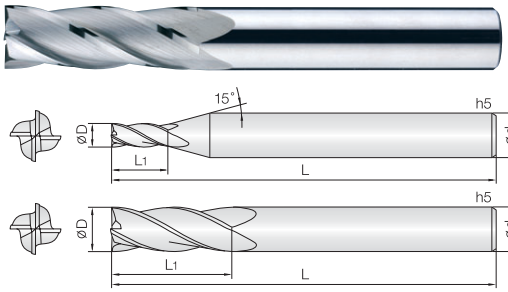
Order Number	날경 Diameter D	날장 Length of cut L1	전장 Overall Length L	생크 Shank Dia d	비고
3MEM 003 008 S04	0.3	0.8	40	4	
3MEM 003 012 S04	0.3	1.2	40	4	
3MEM 004 010 S04	0.4	1	40	4	
3MEM 004 015 S04	0.4	1.5	40	4	
3MEM 005 013 S04	0.5	1.3	40	4	
3MEM 005 020 S04	0.5	2	45	4	
3MEM 006 015 S04	0.6	1.5	40	4	
3MEM 006 024 S04	0.6	2.4	45	4	
3MEM 007 018 S04	0.7	1.8	40	4	
3MEM 007 028 S04	0.7	2.8	45	4	
3MEM 008 020 S04	0.8	2	40	4	
3MEM 008 032 S04	0.8	3.2	45	4	
3MEM 009 025 S04	0.9	2.5	40	4	
3MEM 009 036 S04	0.9	3.6	45	4	
3MEM 010 025 S04	1	2.5	40	4	
3MEM 010 040 S04	1	4	45	4	
3MEM 010 060 S04	1	6	50	4	
3MEM 012 030 S04	1.2	3	40	4	
3MEM 012 050 S04	1.2	5	40	4	
3MEM 012 070 S04	1.2	7	50	4	
3MEM 015 040 S04	1.5	4	40	4	
3MEM 015 060 S04	1.5	6	40	4	
3MEM 015 090 S04	1.5	9	60	4	
3MEM 020 050 S04	2	5	40	4	
3MEM 020 080 S04	2	8	50	4	
3MEM 020 100 S04	2	10	60	4	
3MEM 025 060 S04	2.5	6	45	4	
3MEM 025 100 S04	2.5	10	50	4	
3MEM 025 150 S04	2.5	15	60	4	
3MEM 030 080 S04	3	8	50	4	
3MEM 030 120 S04	3	12	60	4	
3MEM 030 150 S04	3	15	80	4	
3MEM 040 100 S04	4	10	50	4	
3MEM 040 150 S04	4	15	80	4	
3MEM 060 200 S06	6	20	80	6	
3MEM 060 300 S06	6	30	110	6	

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

FOR A.B.S

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	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							

FOR A.B.S