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NS TOOL ENDMILL CATALOG



아이콘에 대한 설명

소재 Technical Data

엔드밀에 사용하고 있는 재질을 표시합니다.

MG 초미립자 초경합금
Micro Grain Carbide

SMG 극초미립자 초경합금
Super Micro Grain Carbide

WC 초경합금
Regular Grain Carbide

CBN CBN(입방정질화붕소)
Cubic Boron Nitride

다이아몬드 단결정 다이아몬드
Monocrystalline Diamond

PCD PCD
Polycrystalline Diamond

표면처리 Coating

날부의 표면처리를 표시합니다.

무코팅 프리미엄
MUGEN-COATING PREMIUM

무코팅
MUGEN-COATING

무코팅 마이크로 코팅
MUGEN MICRO COATING

코팅(TiCN계)
X-COATING

다이아몬드 코팅
DIAMOND COATING

DLC 코팅
DLC COATING

헬릭스 각 Helix Angle

날부의 헬릭스 각을 표시합니다.

1 1날
1 Flute

2 2날
2 Flute

3 3날
3 Flute

4 4날
4 Flute

6 6날
6 Flute

8 8날
8 Flute

10 10날
10 Flute

헬릭스 각 Helix Angle

날부의 헬릭스 각을 표시합니다.

-20 좌 20°
Left 20°

-11 좌 11°
Left 11°

0 0°

12 12°

20 20°

25 25°

30 30°

35 35°

35/38 35° / 38°

40 40°

40/42 40° / 42°

45 45°

코너형상 Corner Shape

날부의 코너형상을 표시합니다.

시프엣지 킷
Sharp Edge

코너R
Corner Radius

가공 가능 경도 Cutting Possibility of Work Material Hardness

고경도재의 가공 가능 경도를 표시합니다.

~55 HRC ~55HRC까지 가공가능
Possible to cut up to 55HRC

~62 HRC ~62HRC까지 가공가능
Possible to cut up to 62HRC

~65 HRC ~65HRC까지 가공가능
Possible to cut up to 65HRC

~68 HRC ~68HRC까지 가공가능
Possible to cut up to 68HRC

전체 품목

사양 Specification			피삭재 Work Material										
사진 Photo	모델 Model	형상 Shape	단 면 가 능 성 여 부 가 능	탄 성 가 능 성 여 부 가 능	연 성 가 능 성 여 부 가 능	비 철 금 속 가 능 성 여 부 가 능	열처리강 Hardened Steel	스 테인 스 틸	티 타 늄	합 금	플 라스틱	수지(황산수지) Resin	기 타 재 질

CBN 엔드밀

	SMEZ120	1날 마이크로 플랫	○	○	○	○	○	○	○	○	○	○	○
	SMB120	1날 마이크로 볼	○	○	○	○	○	○	○	○	○	○	○
	SFB200	2날 볼	○	○	○	○	○	○	○	○	○	○	○
	SSE400	4날 플랫	○	○	○	○	○	○	○	○	○	○	○
	SSE600	6날 플랫	○	○	○	○	○	○	○	○	○	○	○
	SSB200	2날 볼	○	○	○	○	○	○	○	○	○	○	○
	SSBL200	2날 롱네 볼	○	○	○	○	○	○	○	○	○	○	○
	SSR200	2날 롱네 래디우스	○	○	○	○	○	○	○	○	○	○	○
	SHR320	3날 래디우스	○	○	○	○	○	○	○	○	○	○	○
	SSPB220	2날 볼	○	○	○	○	○	○	○	○	○	○	○
	SSPBL220	2날 롱네 볼	○	○	○	○	○	○	○	○	○	○	○
	SSPBTN220	2날 롱네이퍼네 볼	○	○	○	○	○	○	○	○	○	○	○
	SSF120	1날 래디우스	○	○	○	○	○	○	○	○	○	○	○

PCD 엔드밀

	PCDRB	볼	-	-	○	○	○	○	○	○	○	○	○
	PCDSE	2날 / 6날 플랫	-	-	-	-	-	-	○	○	○	○	○
	PCDRS	2/4/6날 래디우스	-	-	-	-	-	-	○	○	○	○	○

다이아몬드 엔드밀

	CED100	1날 플랫	○	○	○	○	○	○	○	○	○	○	○
	DCSE235	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	DCMS	6/8/10날 플랫	○	○	○	○	○	○	○	○	○	○	○

사양 Specification			피삭재 Work Material										
사진 Photo	모델 Model	형상 Shape	단 면 가 능 성 여 부 가 능	탄 성 가 능 성 여 부 가 능	연 성 가 능 성 여 부 가 능	비 철 금 속 가 능 성 여 부 가 능	열처리강 Hardened Steel	스 테인 스 틸	티 타 늄	합 금	플 라스틱	수지(황산수지) Resin	기 타 재 질

다이아몬드 엔드밀

	DCHR230	2날 롱네 플랫	○	○	○	○	○	○	○	○	○	○	○
	DCMB	2날 볼	○	○	○	○	○	○	○	○	○	○	○
	DCRB230	2날 롱네 볼	○	○	○	○	○	○	○	○	○	○	○

스퀘어 엔드밀

	MXH225	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MXH230	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MXH235	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MXH240	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MXH245	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX225	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX230	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX235	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX240	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX245	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MSE230P	2날 플랫 엣지	○	○	○	○	○	○	○	○	○	○	○
	MSE230	2날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX425	4날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX430	4날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX435	4날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX440	4날 플랫	○	○	○	○	○	○	○	○	○	○	○
	MX445	4날 플랫	○	○	○	○	○	○	○	○	○	○	○

사 알 Specification			피삭재 Work Material												
사 진 Photo	모 델 Model	형 상 Shape	단 수 Number of Flutes	안 직경 Outside Diameter	길이 Length	피삭재 Hardness	열처리 Hardening	스 티 티움 Titanium Alloy	다 락 코팅 Coating	수 지 Resin	합 금 Alloy	부 쇠 Steel	알 루미늄 Aluminum	구 리 Copper	수 지 (황 의 수지) Resin (Epoxy Resin)

스웨이 엔드밀

	MSE430P	4날 풀렛 엔지	○	○	○	○	-	○	○	○	○	○	○	○	○
	MSE430	4날 풀렛	○	○	○	○	-	○	○	○	○	○	○	○	○
	MHDH445	고경도용 4날 풀렛	○	○	○	○	○	○	○	○	○	○	○	○	○
	MHDH645	고경도용 6날 풀렛	○	○	○	○	○	○	○	○	○	○	○	○	○
	MHRH230	고경도용 2날 풀렛	○	○	○	○	○	○	○	○	○	○	○	○	○
	MHRH430	고경도용 4날 풀렛	○	○	○	○	○	○	○	○	○	○	○	○	○
	MHR230	2날 풀렛	○	○	○	○	-	○	○	○	○	○	○	○	○
	MHR430	4날 풀렛	○	○	○	○	-	○	○	○	○	○	○	○	○
	NSME100	1날 마이크로 풀렛	○	○	○	-	-	○	○	○	○	○	○	○	○
	NSME230	2날 마이크로 풀렛	○	○	○	-	-	○	○	○	○	○	○	○	○

볼 엔드밀

	MSBH230	고경도용 2날 볼	○	○	○	○	○	○	○	○	○	○	○	○	○
	MSBH345	고경도용 3날 볼	○	○	○	○	○	○	○	○	○	○	○	○	○
	MSB230	2날 볼	○	○	○	○	-	○	○	○	○	○	○	○	○
	MRBH230	고경도용 2날 풀렛 볼	○	○	○	○	○	○	○	○	○	○	○	○	○
	MRB230	2날 풀렛 볼	○	○	○	○	○	○	○	○	○	○	○	○	○

마이크로 볼 엔드밀

	NSMB100	1날 마이크로 볼	○	○	○	-	-	○	○	○	○	○	○	○	○
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나사 절삭 공구

	MMTS	마이크로 칫팅물	○	○	○	○	-	○	○	○	○	○	○	○	○
	MMTU	마이크로 칫팅물	○	○	○	○	○	○	○	○	○	○	○	○	○

사 알 Specification			피삭재 Work Material												
사 진 Photo	모 델 Model	형 상 Shape	단 수 Number of Flutes	안 직경 Outside Diameter	길이 Length	피삭재 Hardness	열처리 Hardening	스 티 티움 Titanium Alloy	다 락 코팅 Coating	수 지 Resin	합 금 Alloy	부 쇠 Steel	알 루미늄 Aluminum	구 리 Copper	수 지 (황 의 수지) Resin (Epoxy Resin)

나사 절삭 공구

	MMTM	마이크로 칫팅물	○	○	○	○	-	○	○	○	○	○	○	○	○
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초경 드릴

	NSMD-M	코팅 마이크로 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○
	NSMD-MS	숫자입 코팅 마이크로 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○
	NSPD-M	코팅 마이크로 포인트 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○
	NSMD	마이크로 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○
	NSMD-S	숫자입 마이크로 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○
	NSPD	마이크로 포인트 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○
	MDR-R	미니어처 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○
	MDR-PD	마이크로 포인트 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○
	MSDH	고경도용 마이크로 드릴	○	○	○	○	○	○	○	○	○	○	○	○	○
	MFD	코팅 풀렛 드릴	○	○	○	-	-	○	○	○	○	○	○	○	○

햄퍼 커터

	NSCV-M	코팅 햄퍼 커터	○	○	○	○	-	○	○	○	○	○	○	○	○
	NSCV	햄퍼 커터	-	-	-	-	-	-	-	-	○	○	○	○	○

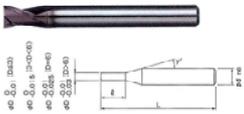
기 술 자 료

* 본 카탈로그에 수록되지 않은 다양한 엔드밀도 표준 생산되고 있으니 하기에 명기된 엔드밀의 규격 및 견적은 당사 영업부로 연락주시기 바랍니다.

- 알루미늄 가공용 엔드밀
- 동 가공용 엔드밀
- 수지 가공용 엔드밀
- SUS 가공용 엔드밀
- 테퍼 엔드밀
- 코너 레디우스 엔드밀
- 코너 역R 엔드밀
- 각종 비코팅 엔드밀

MX225 무겐 코팅 / 리드25 엔드밀 (2날)

MUGEN-COATING 2-Flute LEAD25 End Mill



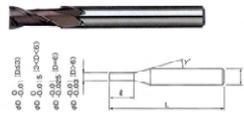
- 날칭은 날경과 같은 배수로 25° 헬릭스 각도를 적용
- 강성을 높인 설계로 홈 가공에서의 먼 떨림과 편차를 최소한으로 억제
- L/D=1 and helix 25° to increase rigidity and realize high efficient machining.
- Suppress chattering and detection in slotting process.



품번 (Code No.)	D(날경) (mm)	(H)날칭 (mm)	(L)가이드 (mm)	(S)삭삭 (mm)	(L)전장 (mm)
08-00025-00030	0.3	0.3	12°	4	45
08-00025-00040	0.4	0.4	12°	4	45
08-00025-00050	0.5	0.5	12°	4	45
08-00025-00080	0.8	0.8	12°	4	45
08-00025-00100	1	1	12°	4	45
08-00025-00120	1.2	1.2	12°	4	45
08-00025-00150	1.5	1.5	12°	4	45
08-00025-00180	1.8	1.8	12°	4	45
08-00025-00200	2	2	12°	4	45
08-00025-00250	2.5	2.5	12°	4	45
08-00025-00300	3	3	12°	6	45
08-00025-00400	4	4	12°	6	45
08-00025-00500	5	5	12°	6	50
08-00025-00600	6	6	-	6	50
08-00025-00700	7	7	12°	8	65
08-00025-00800	8	8	-	8	65
08-00025-00900	9	9	12°	10	75
08-00025-01000	10	10	-	10	75
08-00025-01200	12	12	-	12	80

MX230 무겐 코팅 / 리드30 엔드밀 (2날)

MUGEN-COATING 2-Flute LEAD30 End Mill



- 날칭은 날경의 2배로 30° 헬릭스 각도를 적용
- 홈·측면을 불문하고 모든 가공에 적용하는 표준타입
- L/D=2 and helix 30° standard type, applicable for both slotting and side milling.



품번 (Code No.)	D(날경) (mm)	(H)날칭 (mm)	(L)가이드 (mm)	(S)삭삭 (mm)	(L)전장 (mm)
08-00030-00010	0.1	0.2	12°	4	45
08-00030-00020	0.2	0.4	12°	4	45
08-00030-00030	0.3	0.6	12°	4	45
08-00030-00040	0.4	0.8	12°	4	45
08-00030-00050	0.5	1	12°	4	45
08-00030-00060	0.6	1.2	12°	4	45
08-00030-00070	0.7	1.4	12°	4	45
08-00030-00080	0.8	1.6	12°	4	45
08-00030-00090	0.9	1.8	12°	4	45
08-00030-00100	1	2	12°	4	45
08-00030-00110	1.1	2.2	12°	4	45
08-00030-00120	1.2	2.4	12°	4	45
08-00030-00130	1.3	2.6	12°	4	45
08-00030-00140	1.4	2.8	12°	4	45
08-00030-00150	1.5	3	12°	4	45
08-00030-00160	1.6	3.2	12°	4	45
08-00030-00170	1.7	3.4	12°	4	45
08-00030-00180	1.8	3.6	12°	4	45
08-00030-00190	1.9	3.8	12°	4	45
08-00030-00200	2	4	12°	4	45
08-00030-00210	2.1	4.2	12°	4	45
08-00030-00220	2.2	4.4	12°	4	45
08-00030-00230	2.3	4.6	12°	4	45
08-00030-00240	2.4	4.8	12°	4	45

MX230 무겐 코팅 / 리드30 엔드밀 (2날)

MUGEN-COATING 2-Flute LEAD30 End Mill



- 날칭은 날경의 2배로 30° 헬릭스 각도를 적용
- 홈·측면을 불문하고 모든 가공에 적용하는 표준타입
- L/D=2 and helix 30° standard type, applicable for both slotting and side milling.

품번 (Code No.)	D(날경) (mm)	(H)날칭 (mm)	(L)가이드 (mm)	(S)삭삭 (mm)	(L)전장 (mm)
08-00030-00250	2.5	5	12°	4	45
08-00030-00260	2.6	5.2	12°	4	45
08-00030-00270	2.7	5.4	12°	4	45
08-00030-00280	2.8	5.6	12°	4	46
08-00030-00290	2.9	5.8	12°	4	45
08-00030-00300	3	6	12°	6	45
08-00030-00310	3.1	6.2	12°	6	45
08-00030-00320	3.2	6.4	12°	6	45
08-00030-00330	3.3	6.6	12°	6	45
08-00030-00340	3.4	6.8	12°	6	45
08-00030-00350	3.5	7	12°	6	45
08-00030-00360	3.6	7.2	12°	6	45
08-00030-00370	3.7	7.4	12°	6	45
08-00030-00380	3.8	7.6	12°	6	45
08-00030-00390	3.9	7.8	12°	6	45
08-00030-00400	4	8	12°	6	45
08-00030-00410	4.1	8.2	12°	6	45
08-00030-00420	4.2	8.4	12°	6	45
08-00030-00430	4.3	8.6	12°	6	45
08-00030-00440	4.4	8.8	12°	6	45
08-00030-00450	4.5	9	12°	6	50
08-00030-00460	4.6	9.2	12°	6	50
08-00030-00470	4.7	9.4	12°	6	50
08-00030-00480	4.8	9.6	12°	6	50

품번 (Code No.)	D(날경) (mm)	(H)날칭 (mm)	(L)가이드 (mm)	(S)삭삭 (mm)	(L)전장 (mm)
08-00030-00490	4.9	9.8	12°	6	50
08-00030-00500	5	10	12°	6	50
08-00030-00510	5.1	10.2	12°	6	50
08-00030-00520	5.2	10.4	12°	6	50
08-00030-00530	5.3	10.6	12°	6	50
08-00030-00540	5.4	10.8	12°	6	50
08-00030-00550	5.5	11	12°	6	50
08-00030-00560	5.6	11.2	12°	6	50
08-00030-00570	5.7	11.4	12°	6	50
08-00030-00580	5.8	11.6	12°	6	50
08-00030-00590	5.9	11.8	12°	6	50
08-00030-00600	6	12	-	6	50
08-00030-00700	7	14	12°	8	65
08-00030-00800	8	16	-	8	65
08-00030-00900	9	18	12°	10	75
08-00030-01000	10	20	-	10	75
08-00030-01200	12	24	-	12	80

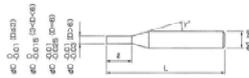
MX235 무겐 코팅 / 리드35 엔드밀 (2날)

MUGEN-COATING 2-Flute LEAD35 End Mill



- 날장은 날경의 3배로 35° 헬릭스 각도를 적용
- 2배 날장에서는 날장이 부족하고, 4배 날장은 너무 길었던 문제를 해결

• L/D-3 and helix 35° for appropriate length of cut to avoid the inconveniences in size selection.



단위 : mm
Unit (mm)

품번 Code No.	Ø날경 Dia.	(L)날장 Length of Cut	(L)가이드 Shank Dia.	(L)전장 Overall Length	
08-00035-00010	0.1	0.3	12"	4	45
08-00035-00020	0.2	0.6	12"	4	45
08-00035-00030	0.3	0.9	12"	4	45
08-00035-00040	0.4	1.2	12"	4	45
08-00035-00050	0.5	1.5	12"	4	45
08-00035-00060	0.6	1.8	12"	4	45
08-00035-00070	0.7	2.1	12"	4	45
08-00035-00080	0.8	2.4	12"	4	45
08-00035-00090	0.9	2.7	12"	4	45
08-00035-00100	1	3	12"	4	45
08-00035-00110	1.1	3.3	12"	4	45
08-00035-00120	1.2	3.6	12"	4	45
08-00035-00130	1.3	3.9	12"	4	45
08-00035-00140	1.4	4.2	12"	4	45
08-00035-00150	1.5	4.5	12"	4	45
08-00035-00160	1.6	4.8	12"	4	45
08-00035-00170	1.7	5.1	12"	4	45
08-00035-00180	1.8	5.4	12"	4	45
08-00035-00190	1.9	5.7	12"	4	45
08-00035-00200	2	6	12"	4	45
08-00035-00210	2.1	6.3	12"	4	45
08-00035-00220	2.2	6.6	12"	4	45
08-00035-00230	2.3	6.9	12"	4	45
08-00035-00240	2.4	7.2	12"	4	45
08-00035-00250	2.5	7.5	12"	4	45
08-00035-00260	2.6	7.8	12"	4	45
08-00035-00270	2.7	8.1	12"	4	45
08-00035-00280	2.8	8.4	12"	4	45
08-00035-00290	2.9	8.7	12"	4	45
08-00035-00300	3	9	12"	6	45
08-00035-00310	3.1	9.3	12"	6	45
08-00035-00320	3.2	9.6	12"	6	45
08-00035-00330	3.3	9.9	12"	6	45

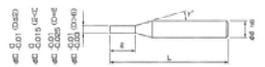
MX240 무겐 코팅 / 리드40 엔드밀 (2날)

MUGEN-COATING 2-Flute LEAD40 End Mill



- 날장은 날경의 4배로 40° 헬릭스 각도를 적용
- 깊은 가공도 스무스하게 가공할 수 있고 긴날이면서도 가공면의 편차를 최소화하여 익제 편차를 최소화하여 익제

• L/D-4 and helix 40° is suitable for deep machining with minimum deflection of cutting up-right surface.



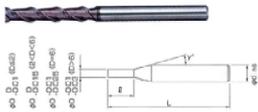
단위 : mm
Unit (mm)

품번 Code No.	Ø날경 Dia.	(L)날장 Length of Cut	(L)가이드 Shank Dia.	(L)전장 Overall Length	
08-00040-00030	0.3	1.2	12"	4	45
08-00040-00040	0.4	1.6	12"	4	45
08-00040-00050	0.5	2	12"	4	45
08-00040-00060	0.6	2.4	12"	4	45
08-00040-00070	0.7	2.8	12"	4	45
08-00040-00080	0.8	3.2	12"	4	45
08-00040-00090	0.9	3.6	12"	4	45
08-00040-00100	1	4	12"	4	45
08-00040-00110	1.1	4.4	12"	4	45
08-00040-00120	1.2	4.8	12"	4	45
08-00040-00130	1.3	5.2	12"	4	45
08-00040-00140	1.4	5.6	12"	4	45
08-00040-00150	1.5	6	12"	4	45
08-00040-00160	1.6	6.4	12"	4	45
08-00040-00170	1.7	6.8	12"	4	45
08-00040-00180	1.8	7.2	12"	4	45
08-00040-00190	1.9	7.6	12"	4	45
08-00040-00200	2	8	12"	4	45
08-00040-00210	2.1	8.4	12"	4	45
08-00040-00220	2.2	8.8	12"	4	45
08-00040-00230	2.3	9.2	12"	4	45
08-00040-00240	2.4	9.6	12"	4	45
08-00040-00250	2.5	10	12"	4	45
08-00040-00260	2.6	10.4	12"	4	50
08-00040-00270	2.7	10.8	12"	4	50
08-00040-00280	2.8	11.2	12"	4	50
08-00040-00290	2.9	11.6	12"	4	50
08-00040-00300	3	12	12"	6	50
08-00040-00310	3.1	12.4	12"	6	50
08-00040-00320	3.2	12.8	12"	6	50
08-00040-00330	3.3	13.2	12"	6	50
08-00040-00340	3.4	13.6	12"	6	50

품번 Code No.	Ø날경 Dia.	(L)날장 Length of Cut	(L)가이드 Shank Dia.	(L)전장 Overall Length	
08-00040-00350	3.5	14	12"	6	50
08-00040-00360	3.6	14.4	12"	6	50
08-00040-00370	3.7	14.8	12"	6	50
08-00040-00380	3.8	15.2	12"	6	50
08-00040-00390	3.9	15.6	12"	6	50
08-00040-00400	4	16	12"	6	55
08-00040-00410	4.1	16.4	12"	6	55
08-00040-00420	4.2	16.8	12"	6	55
08-00040-00430	4.3	17.2	12"	6	55
08-00040-00440	4.4	17.6	12"	6	55
08-00040-00450	4.5	18	12"	6	55
08-00040-00460	4.6	18.4	12"	6	55
08-00040-00470	4.7	18.8	12"	6	55
08-00040-00480	4.8	19.2	12"	6	55
08-00040-00490	4.9	19.6	12"	6	55
08-00040-00500	5	20	12"	6	60
08-00040-00510	5.1	20.4	12"	6	60
08-00040-00520	5.2	20.8	12"	6	60
08-00040-00530	5.3	21.2	12"	6	60
08-00040-00540	5.4	21.6	12"	6	60
08-00040-00550	5.5	22	12"	6	65
08-00040-00560	5.6	22.4	12"	6	65
08-00040-00570	5.7	22.8	12"	6	65
08-00040-00580	5.8	23.2	12"	6	65
08-00040-00590	5.9	23.6	12"	6	65
08-00040-00600	6	24	12"	6	65
08-00040-00700	7	28	12"	8	90
08-00040-00800	8	32	12"	8	90
08-00040-00900	9	36	12"	10	100
08-00040-01000	10	40	12"	10	100
08-00040-01200	12	48	12"	12	105

MX245 무겐 코팅 / 리드45 엔드밀 (2날)

MUGEN-COATING 2-Flute LEAD45 End Mill



- 날경은 날경의 5배로 45° 헬릭스 각도를 적용
- 21° 날경이면서 가공면의 편차를 최소화하여 미세
- L/D=5 and helix 45° to minimize the milling deflection even though the long cutting length design.



단위 : mm
Unit : mm

품번 Code No.	(D)날경 Dia.	(L)날경 Length of Cut	(F)각도 Lead Angle	(d)샤프크 Shank Dia.	(L)전장 Overall Length
08-00045-00030	0.3	1.5	12°	4	45
08-00045-00040	0.4	2	12°	4	45
08-00045-00050	0.5	2.5	12°	4	45
08-00045-00080	0.8	4	12°	4	45
08-00045-00100	1	5	12°	4	45
08-00045-00120	1.2	6	12°	4	45
08-00045-00150	1.5	7.5	12°	4	45
08-00045-00180	1.8	9	12°	4	50
08-00045-00200	2	10	12°	4	50
08-00045-00250	2.5	12.5	12°	4	50
08-00045-00300	3	15	12°	6	55
08-00045-00400	4	20	12°	6	60
08-00045-00500	5	25	12°	6	65
08-00045-00600	6	30	-	6	75
08-00045-00700	7	35	12°	8	90
08-00045-00800	8	40	-	8	90
08-00045-00900	9	45	12°	10	100
08-00045-01000	10	50	-	10	100
08-00045-01200	12	60	-	12	105

MX425 무겐 코팅 / 리드25 엔드밀 (4날)

MUGEN-COATING 4-Flute LEAD25 End Mill



- 날경은 날경과 같은 배수로 25° 헬릭스 각도를 적용
- 강성을 높인 설계로 가공면의 언뎀림과 편차를 최소화하여 미세
- L/D=1 and helix 25° type, increased the rigidity to suppress chattering and minimized finishing tolerance.

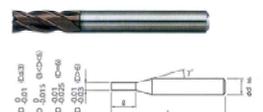


단위 : mm
Unit : mm

품번 Code No.	(D)날경 Dia.	(L)날경 Length of Cut	(F)각도 Lead Angle	(d)샤프크 Shank Dia.	(L)전장 Overall Length	피삭재 Work Material			
						탄소강 Carbon Steels	합금강·공구강 Alloy Steels·Tool Steels	프리합금강·포합금 Prehardened Steels	열처리강 Hardened Steels
08-00075-00100	1	1	12°	4	45	○	○	○	○
08-00075-00150	1.5	1.5	12°	4	45	○	○	○	○
08-00075-00200	2	2	12°	4	45	○	○	○	○
08-00075-00250	2.5	2.5	12°	4	45	○	○	○	○
08-00075-00300	3	3	12°	6	45	○	○	○	○
08-00075-00350	3.5	3.5	12°	6	45	○	○	○	○
08-00075-00400	4	4	12°	6	45	○	○	○	○
08-00075-00450	4.5	4.5	12°	6	50	○	○	○	○
08-00075-00500	5	5	12°	6	50	○	○	○	○
08-00075-00550	5.5	5.5	12°	6	50	○	○	○	○
08-00075-00600	6	6	-	6	50	○	○	○	○
08-00075-00800	8	8	-	8	65	○	○	○	○
08-00075-01000	10	10	-	10	75	○	○	○	○
08-00075-01200	12	12	-	12	80	○	○	○	○

MX430 무겐 코팅 / 리드30 엔드밀 (4날)

MUGEN-COATING 4-Flute LEAD30 End Mill



- 날경은 날경의 2배로 30° 헬릭스 각도를 적용
- 중·중·중을 불문하고 모든 가공에 적용하는 표준타입
- L/D=2 and helix 30° standard type, applicable to any milling process.

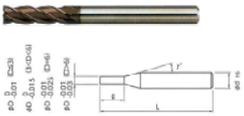


단위 : mm
Unit : mm

품번 Code No.	(D)날경 Dia.	(L)날경 Length of Cut	(F)각도 Lead Angle	(d)샤프크 Shank Dia.	(L)전장 Overall Length	피삭재 Work Material			
						탄소강 Carbon Steels	합금강·공구강 Alloy Steels·Tool Steels	프리합금강·포합금 Prehardened Steels	열처리강 Hardened Steels
08-00080-00100	1	2	12°	4	45	○	○	○	○
08-00080-00150	1.5	3	12°	4	45	○	○	○	○
08-00080-00200	2	4	12°	4	45	○	○	○	○
08-00080-00250	2.5	5	12°	4	45	○	○	○	○
08-00080-00300	3	6	12°	6	45	○	○	○	○
08-00080-00350	3.5	7	12°	6	45	○	○	○	○
08-00080-00400	4	8	12°	6	45	○	○	○	○
08-00080-00450	4.5	9	12°	6	50	○	○	○	○
08-00080-00500	5	10	12°	6	50	○	○	○	○
08-00080-00550	5.5	11	12°	6	50	○	○	○	○
08-00080-00600	6	12	-	6	50	○	○	○	○
08-00080-00800	8	16	-	8	65	○	○	○	○
08-00080-01000	10	20	-	10	75	○	○	○	○
08-00080-01200	12	24	-	12	80	○	○	○	○

MX435 무겐 코팅 / 리드35 엔드밀 (4날)

MUGEN-COATING 4-Flute LEAD35 End Mill



- 날장은 날경의 3배로 35°헬릭스 각도를 적용
- 2배 날장에서 날경이 부족하나, 4배 날장은 너무 길었던 문제를 해결
- L/D=3 and helix 35° for appropriate length of cut to avoid the inconvenience in size selection.



피삭재 Work Material					
탄소강 Carbon Steels	합금강 · 공구강 Alloy Steels · Tool Steels	표면처리강 · 조강 Prehardened Steels	열처리강 Hardened Steels		
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

단위 : mm
Unit (size:mm)

품번 Code No.	(D)날경 Dia.	(L)날장 length of cut	(r)각도 helix angle	(d)샤프크 Shank Dia.	(L)전장 Overall Length
08-00095-00100	1	3	12°	4	45
08-00095-00150	1.5	4.5	12°	4	45
08-00095-00200	2	6	12°	4	45
08-00095-00250	2.5	7.5	12°	4	45
08-00095-00300	3	9	12°	6	45
08-00095-00350	3.5	10.5	12°	6	45
08-00095-00400	4	12	12°	6	50
08-00095-00450	4.5	13.5	12°	6	50
08-00095-00500	5	15	12°	6	55
08-00095-00550	5.5	16.5	12°	6	60
08-00095-00600	6	18	-	6	60
08-00095-00650	8	24	-	8	65
08-00095-01000	10	30	-	10	75
08-00095-01200	12	36	-	12	80

MX440 무겐 코팅 / 리드40 엔드밀 (4날)

MUGEN-COATING 4-Flute LEAD40 End Mill



- 날장은 날경의 4배로 40°헬릭스 각도를 적용
- 깊은 가공도 스무스하게 가공할 수 있고 긴 날이지만 가공면의 편차를 최소한으로 억제
- L/D=4 and helix 40° is suitable for deep machining with minimum deflection of cutting up-right surface.



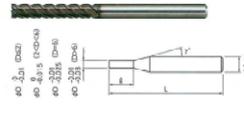
피삭재 Work Material					
탄소강 Carbon Steels	합금강 · 공구강 Alloy Steels · Tool Steels	표면처리강 · 조강 Prehardened Steels	열처리강 Hardened Steels		
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

단위 : mm
Unit (size:mm)

품번 Code No.	(D)날경 Dia.	(L)날장 length of cut	(r)각도 helix angle	(d)샤프크 Shank Dia.	(L)전장 Overall Length
08-00090-00100	1	4	12°	4	45
08-00090-00150	1.5	6	12°	4	45
08-00090-00200	2	8	12°	4	45
08-00090-00250	2.5	10	12°	4	45
08-00090-00300	3	12	12°	6	50
08-00090-00350	3.5	14	12°	6	50
08-00090-00400	4	16	12°	6	55
08-00090-00450	4.5	18	12°	6	55
08-00090-00500	5	20	12°	6	60
08-00090-00550	5.5	22	12°	6	65
08-00090-00600	6	24	-	6	65
08-00090-00650	8	32	-	8	90
08-00090-01000	10	40	-	10	100
08-00090-01200	12	48	-	12	105

MX445 무겐 코팅 / 리드45 엔드밀 (4날)

MUGEN-COATING 4-Flute LEAD45 End Mill



- 날장은 날경의 5배로 45°헬릭스 각도를 적용
- 긴 날장인면서 가공면의 편차를 최소화하여 억제
- L/D=5 and helix 45° to minimize the milling deflection even though the long cutting length design.



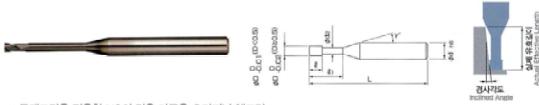
피삭재 Work Material					
탄소강 Carbon Steels	합금강 · 공구강 Alloy Steels · Tool Steels	표면처리강 · 조강 Prehardened Steels	열처리강 Hardened Steels		
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○
○	○	○	○	○	○

단위 : mm
Unit (size:mm)

품번 Code No.	(D)날경 Dia.	(L)날장 length of cut	(r)각도 helix angle	(d)샤프크 Shank Dia.	(L)전장 Overall Length
08-00095-00100	1	5	12°	4	45
08-00095-00150	1.5	7.5	12°	4	45
08-00095-00200	2	10	12°	4	50
08-00095-00250	2.5	12.5	12°	4	50
08-00095-00300	3	15	12°	6	55
08-00095-00350	3.5	17.5	12°	6	60
08-00095-00400	4	20	12°	6	60
08-00095-00450	4.5	22.5	12°	6	65
08-00095-00500	5	25	12°	6	65
08-00095-00550	5.5	27.5	12°	6	75
08-00095-00600	6	30	-	6	75
08-00095-00650	8	40	-	8	90
08-00095-01000	10	50	-	10	100
08-00095-01200	12	60	-	12	105

MHR230 무전코팅 / 2날 홈내 엔드밀

MUGEN-COATING 2-Flute Long Neck End Mill



- 무전코팅을 적용한 NS의 깊은 가공용 오리지널 엔드밀
- 홈과 깊은 가공에 적합한 타입
- 총 217 사이즈
- MUGEN-COATING has been cut on our original end mill for deep rib.
- It is very suitable for cutting on narrow and deep rib by long neck end mill.
- Total 217 sizes



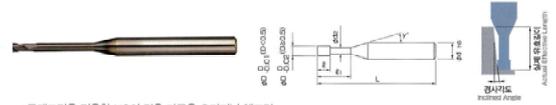
단위 : mm
Unit : mm

NEW SIZE

종번 Code No.	Ø nominal Dia.	Ø nominal Block Length	Ø nominal Length of Cut	Ø nominal Neck Dia.	Ø nominal Neck Length	Ø nominal Shank Dia.	Ø nominal Shank Length	경사각도에 따른 실제 유효길이 Actual effective length according to taper angle											
								30°	1°	1°30'	2°	3°							
08-00200-01803	0.1	0.15	0.085	12°	4			45	0.34	0.36	0.38	0.40	0.44						
08-00200-01805								45	0.55	0.58	0.61	0.64	0.71						
08-00200-01807								45	0.82	0.86	0.90	0.94	1.05						
08-00200-01810	1							45	1.07	1.12	1.18	1.23	1.37						
08-00200-01803	0.3	0.2	0.13	12°	4			45	0.36	0.38	0.40	0.42	0.46						
08-00200-01805								45	0.57	0.60	0.62	0.66	0.73						
08-00200-01807								45	0.83	0.87	0.91	0.96	1.06						
08-00200-01810	1							45	1.09	1.14	1.20	1.25	1.39						
08-00200-01815	1.5							45	1.61	1.69	1.77	1.85	2.06						
08-00200-01818	0.5							45	0.57	0.59	0.62	0.65	0.72						
08-00200-02007	0.75							45	0.83	0.87	0.91	0.96	1.06						
08-00200-02010	1							45	1.09	1.14	1.19	1.26	1.38						
08-00200-02015	1.5							45	1.61	1.68	1.76	1.85	2.05						
08-00200-02020	0.2	0.3	0.18	12°	4			45	2.13	2.23	2.33	2.44	2.71						
08-00200-02025	2.5													45	2.65	2.77	2.90	3.04	3.36
08-00200-02030	3													45	3.17	3.31	3.47	3.64	4.04
08-00200-02035	3.5							45	3.69	3.86	4.04	4.24	4.70						
08-00200-02040	4							45	4.22	4.40	4.61	4.84	5.37						
08-00200-02010	1							45	1.09	1.14	1.19	1.25	1.38						
08-00200-02015	1.5							45	1.61	1.68	1.76	1.85	2.05						
08-00200-02020	2							45	2.13	2.23	2.33	2.44	2.71						
08-00200-02025	2.5							45	2.65	2.77	2.90	3.04	3.38						
08-00200-03000	0.3	0.4	0.28	12°	4			45	3.17	3.31	3.47	3.64	4.04						
08-00200-03040	4													45	4.22	4.40	4.61	4.84	5.37
08-00200-03050	5													45	5.26	5.49	5.75	6.03	6.69
08-00200-03060	6							45	6.30	6.58	6.89	7.23	8.02						
08-00200-03080	9							45	9.43	9.85	10.31	10.82	12.00						
08-00200-04010	1							45	1.11	1.16	1.22	1.28	1.42						
08-00200-04015	1.5							45	1.64	1.71	1.79	1.88	2.09						
08-00200-04020	2							45	2.15	2.26	2.36	2.47	2.74						
08-00200-04025	2.5							45	2.68	2.80	2.93	3.08	3.42						
08-00200-04030	0.4	0.6	0.37	12°	4			45	3.20	3.34	3.50	3.67	4.07						
08-00200-04035	3.5													45	3.72	3.89	4.06	4.28	4.75
08-00200-04040	4													45	4.24	4.43	4.64	4.87	5.40
08-00200-04050	5							45	5.28	5.52	5.78	6.06	6.72						
08-00200-04060	6							45	6.33	6.61	6.92	7.26	8.05						

MHR230 무전코팅 / 2날 홈내 엔드밀

MUGEN-COATING 2-Flute Long Neck End Mill



- 무전코팅을 적용한 NS의 깊은 가공용 오리지널 엔드밀
- 홈과 깊은 가공에 적합한 타입
- 총 217 사이즈
- MUGEN-COATING has been cut on our original end mill for deep rib.
- It is very suitable for cutting on narrow and deep rib by long neck end mill.
- Total 217 sizes



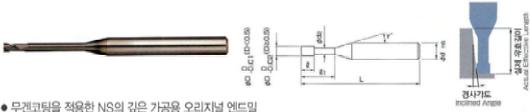
단위 : mm
Unit : mm

NEW SIZE

종번 Code No.	Ø nominal Dia.	Ø nominal Block Length	Ø nominal Length of Cut	Ø nominal Neck Dia.	Ø nominal Neck Length	Ø nominal Shank Dia.	Ø nominal Shank Length	경사각도에 따른 실제 유효길이 Actual effective length according to taper angle											
								30°	1°	1°30'	2°	3°							
08-00200-04070	0.4	0.6	0.37	12°	4			45	7.37	7.70	8.06	8.46	9.38						
08-00200-04080								8						45	8.41	8.79	9.20	9.65	10.71
08-00200-04090								9						45	9.45	9.88	10.34	10.85	12.03
08-00200-04100	10							45	10.50	10.97	11.48	12.05	13.36						
08-00200-04120	12							45	12.68	13.15	13.76	14.44	16.02						
08-00200-05010	1							45	1.14	1.19	1.24	1.30	1.45						
08-00200-05013	1.5							45	1.60	1.74	1.82	1.91	2.12						
08-00200-05020	2							45	2.18	2.28	2.38	2.50	2.77						
08-00200-05023	2.5							45	2.71	2.83	2.96	3.11	3.45						
08-00200-05030	3							45	3.22	3.37	3.52	3.70	4.10						
08-00200-05035	3.5							45	3.75	3.92	4.10	4.31	4.78						
08-00200-05040	4							45	4.26	4.46	4.66	4.89	5.43						
08-00200-05045	4.5	0.7	0.46	12°	4			45	4.79	5.01	5.24	5.50	6.12						
08-00200-05050	5													45	5.31	5.54	5.80	6.09	6.76
08-00200-05060	6													45	6.35	6.63	6.95	7.29	8.08
08-00200-05070	7							45	7.39	7.72	8.09	8.48	9.41						
08-00200-05080	8							50	8.44	8.81	9.23	9.68	10.74						
08-00200-05090	9							50	9.48	9.90	10.37	10.88	12.07						
08-00200-05100	10							50	10.52	10.99	11.51	12.07	13.39						
08-00200-05120	12							50	12.61	13.17	13.79	14.47	16.05						
08-00200-05150	15							50	15.74	16.44	17.21	18.06	20.03						
08-00200-06015	1.5							45	1.66	1.74	1.82	1.91	2.12						
08-00200-06020	2							45	2.18	2.28	2.38	2.50	2.77						
08-00200-06030	3							45	3.22	3.37	3.52	3.70	4.10						
08-00200-06040	4							45	4.26	4.46	4.66	4.89	5.43						
08-00200-06050	5							45	5.31	5.54	5.80	6.09	6.76						
08-00200-06060	6							45	6.35	6.63	6.95	7.29	8.08						
08-00200-06070	7	0.9	0.56	12°	4			45	7.39	7.72	8.09	8.48	9.41						
08-00200-06080	8													50	8.44	8.81	9.23	9.68	10.74
08-00200-06090	9													50	9.48	9.91	10.38	10.90	12.10
08-00200-06100	10							50	10.52	10.99	11.51	12.07	13.39						
08-00200-06120	12							50	12.61	13.17	13.79	14.47	16.05						
08-00200-06150	15							50	15.74	16.44	17.21	18.06	20.03						
08-00200-06180	18							50	18.80	19.71	20.03	21.05	24.01						
08-00200-07020	2	0.7	1	0.66	12°	4		45	2.18	2.28	2.38	2.50	2.77						
08-00200-07040	4													45	4.26	4.46	4.66	4.89	5.43

MHR230 무겐코팅 / 2날 뿔네 엔드밀

MUGEN-COATING 2-Flute Long Neck End Mill



- 무겐코팅을 적용한 NS의 깊은 가공용 오리지널 엔드밀
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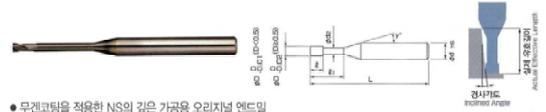


● NEW SIZE

품번 Code No.	D(날경) Dia.	L(총길이) Length of Cut	L1(날경) Neck Dia.	L2(머리두께) Neck Dia.	L3(가공) Shank Dia.	L4(전장) Total Length	경사각도에 따른 실제 유효길이 Actual Effective Length according to the angle of chamfer					
							30°	1°	1.30°	2°	3°	
08-00200-07000	0.7	6	1	0.666	12°	4	45	6.35	6.63	6.95	7.29	8.08
08-00200-07080		8				50	8.44	8.81	9.23	9.68	10.74	
08-00200-07100		10				50	10.52	10.99	11.51	12.07	13.39	
08-00200-08030		3				45	3.23	3.37	3.53	3.71	4.12	
08-00200-08040		4				45	4.26	4.46	4.66	4.89	5.43	
08-00200-08050		5				45	5.31	5.55	5.81	6.10	6.70	
08-00200-08060		6				45	6.35	6.63	6.95	7.29	8.08	
08-00200-08080		8				50	8.44	8.81	9.23	9.68	10.74	
08-00200-08100	0.8	10	1.2	0.76	12°	4	50	10.52	10.99	11.51	12.07	13.39
08-00200-08120		12				50	12.61	13.17	13.79	14.47	16.05	
08-00200-08140		14				50	14.69	15.35	16.07	16.86	18.70	
08-00200-08160		16				50	16.78	17.53	18.36	19.25	21.36	
08-00200-08200		20				60	20.95	21.89	22.91	24.04	26.66	
08-00200-08240		24				60	25.12	26.24	27.47	28.83	Free	
08-00200-09040		4				45	4.26	4.46	4.66	4.89	5.43	
08-00200-09060		6				45	6.35	6.63	6.95	7.29	8.08	
08-00200-09080		8				50	8.44	8.81	9.23	9.68	10.74	
08-00200-09100	0.9	10	1.4	0.96	12°	4	50	10.52	10.99	11.51	12.07	13.39
08-00200-09120		12				50	12.61	13.18	13.80	14.49	16.10	
08-00200-09150		15				60	15.74	16.44	17.21	18.06	20.03	
08-00200-10020		2				50	2.21	2.31	2.42	2.54	2.82	
08-00200-10030		3				50	3.25	3.39	3.55	3.73	4.13	
08-00200-10040		4				50	4.29	4.48	4.69	4.92	5.46	
08-00200-10050		5				50	5.33	5.57	5.83	6.12	6.79	
08-00200-10060		6				50	6.37	6.66	6.97	7.32	8.11	
08-00200-10070		7				50	7.42	7.75	8.11	8.51	9.44	
08-00200-10080		8				50	8.46	8.84	9.25	9.71	10.77	
08-00200-10090		9				50	9.50	9.93	10.39	10.91	12.10	
08-00200-10100	1	10	1.5	0.95	12°	4	50	10.55	11.02	11.53	12.10	13.42
08-00200-10120		12				50	12.63	13.20	13.82	14.49	16.08	
08-00200-10140		14				50	14.72	15.38	16.10	16.89	18.73	
08-00200-10160		16				60	16.80	17.55	18.38	19.28	21.39	
08-00200-10180		18				60	18.89	19.73	20.66	21.67	24.04	
08-00200-10200		20				60	20.97	21.91	22.94	24.07	26.70	
08-00200-10220		22				60	23.06	24.09	25.22	26.46	Free	
08-00200-10240		25				70	26.19	27.36	28.64	30.05	Free	

MHR230 무겐코팅 / 2날 뿔네 엔드밀

MUGEN-COATING 2-Flute Long Neck End Mill



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- 홈과 깊은 가공에 적합한 타입
- 총 217 사이즈
- MUGEN-COATING has been put on our original end mill for deep rib.
- It is very suitable for cutting on narrow and deep rib by long neck end mill.
- Total 217 sizes!



● NEW SIZE

품번 Code No.	D(날경) Dia.	L(총길이) Length of Cut	L1(날경) Neck Dia.	L2(머리두께) Neck Dia.	L3(가공) Shank Dia.	L4(전장) Total Length	경사각도에 따른 실제 유효길이 Actual Effective Length according to the angle of chamfer					
							30°	1°	1.30°	2°	3°	
08-00200-10300	1	30	1.5	0.95	12°	4	70	31.40	32.81	34.34	36.03	Free
08-00200-12060		6				50	4.29	4.48	4.69	4.92	5.46	
08-00200-12080		8				50	6.37	6.66	6.97	7.32	8.11	
08-00200-12100	1.2	10	1.8	1.15	12°	4	50	8.46	8.84	9.25	9.71	10.77
08-00200-12150		15				50	10.55	11.02	11.53	12.10	13.42	
08-00200-12160		16				50	12.63	13.20	13.82	14.49	16.08	
08-00200-12180		18				60	16.80	17.55	18.38	19.28	21.39	
08-00200-12200		20				60	20.97	21.91	22.94	24.07	26.70	
08-00200-14080		8				50	6.37	6.66	6.97	7.32	8.11	
08-00200-14100		10				50	8.46	8.84	9.25	9.71	10.77	
08-00200-14180		18				50	10.55	11.02	11.53	12.10	13.42	
08-00200-14130	1.4	12	2.1	1.35	12°	4	50	12.63	13.20	13.82	14.49	16.08
08-00200-14140		14				60	14.72	15.38	16.10	16.89	18.73	
08-00200-14160		16				60	16.80	17.55	18.38	19.28	21.39	
08-00200-14220		22				60	23.06	24.09	25.22	26.46	Free	
08-00200-15040		4				50	4.29	4.48	4.69	4.92	5.46	
08-00200-15060		6				50	6.37	6.66	6.97	7.32	8.11	
08-00200-15080		8				50	8.46	8.84	9.25	9.71	10.77	
08-00200-15100	1.5	10	2.3	1.45	12°	4	50	10.55	11.02	11.53	12.10	13.42
08-00200-15120		12				50	12.63	13.20	13.82	14.49	16.08	
08-00200-15140		14				60	14.72	15.38	16.10	16.89	18.73	
08-00200-15160		16				60	16.80	17.55	18.38	19.28	21.39	
08-00200-15180		18				60	18.89	19.73	20.66	21.67	24.04	
08-00200-15200		20				60	20.97	21.91	22.94	24.07	Free	
08-00200-15220		25				70	26.19	27.36	28.64	30.05	Free	
08-00200-15300		30				70	31.40	32.81	34.34	36.03	Free	
08-00200-15330		35				80	36.62	38.25	40.05	Free	Free	
08-00200-15380		38				80	39.74	41.52	43.47	Free	Free	
08-00200-15400		40				80	41.83	43.70	45.75	Free	Free	
08-00200-15450		45				80	47.04	49.15	Free	Free	Free	
08-00200-16060		6				50	6.37	6.66	6.97	7.32	8.11	
08-00200-16080		8				50	8.46	8.84	9.25	9.71	10.77	
08-00200-16100	1.6	10	2.4	1.55	12°	4	50	10.55	11.02	11.53	12.10	13.42
08-00200-16120		12				50	12.63	13.20	13.82	14.49	16.08	
08-00200-16140		14				60	14.72	15.38	16.10	16.89	18.73	
08-00200-16160		16				60	16.80	17.55	18.38	19.28	21.39	

MHR230 무겐 코팅 / 2날 롱넥 엔드밀

MUGEN-COATING 2-Flute Long Neck End Mill



- 무겐코팅을 적용한 NS의 깊은 가공용 오리지널 엔드밀
- 좁고 깊은 가공에 적합한 타입
- 총 217 사이즈
- MUGEN-COATING has been put on our original end mill for deep rib.
- It is very suitable for cutting on narrow and deep rib by long neck end mill.
- Total 217 sizes!



● NEW SIZE

품번 Cat. No.	D(날경) Dia.	L(날길이) Length of Cut	L1(날경) Dia. Dia.	L2(날경) Dia. Dia.	L3(날경) Dia. Dia.	L4(날경) Dia. Dia.	L5(날경) Dia. Dia.	경사각도에 따른 실제 유효길이 Actual Effective Length according to the angle					
								30°	1°	1'30"	2°	3°	
08-00200-18180	1.8							60	18.89	19.73	20.66	21.67	Free
08-00200-18200	1.6	2.4	1.65	12°	4			60	20.97	21.91	22.94	24.07	Free
08-00200-18260	2.6							60	27.23	28.45	29.78	31.26	Free
08-00200-18060	6							50	8.37	8.66	8.97	7.32	8.11
08-00200-18080	8							50	8.46	8.84	9.25	9.71	10.77
08-00200-18100	10							50	10.55	11.02	11.53	12.10	13.42
08-00200-18120	12							50	12.63	13.20	13.82	14.49	16.08
08-00200-18140	1.8	2.7	1.75	12°	4			50	14.72	15.38	16.10	16.89	18.73
08-00200-18160	1.6							60	16.80	17.55	18.38	19.28	21.39
08-00200-18180	1.8							60	18.89	19.73	20.66	21.67	Free
08-00200-18200	2.0							60	20.97	21.91	22.94	24.07	Free
08-00200-18250	2.5							70	26.19	27.38	28.64	30.05	Free
08-00200-20040	4							50	4.32	4.51	4.73	4.96	5.51
08-00200-20060	6							50	6.40	6.69	7.00	7.34	8.15
08-00200-20080	8							50	8.48	8.86	9.28	9.74	10.60
08-00200-20100	10							50	10.57	11.04	11.56	12.13	13.45
08-00200-20120	12							50	12.66	13.22	13.84	14.52	16.11
08-00200-20140	1.4							60	14.74	15.40	16.12	16.92	18.76
08-00200-20160	1.6							60	16.83	17.58	18.40	19.31	Free
08-00200-20180	1.8	3	1.94	12°	4			60	18.91	19.76	20.69	21.70	Free
08-00200-20200	2.0							60	21.00	21.94	22.97	24.10	Free
08-00200-20250	2.5							70	26.21	27.30	28.67	Free	Free
08-00200-20300	3.0							70	31.43	32.63	34.07	Free	Free
08-00200-20350	3.5							80	36.04	38.23	Free	Free	Free
08-00200-20400	4.0							90	41.85	43.73	Free	Free	Free
08-00200-20500	5.0							100	52.28	54.62	Free	Free	Free
08-00200-20600	6.0							110	62.71	Free	Free	Free	Free
08-00200-20080	8							50	8.58	8.97	9.39	9.85	10.93
08-00200-25100	10							50	10.67	11.15	11.67	12.24	13.58
08-00200-25120	12							50	12.75	13.32	13.95	14.64	Free
08-00200-25140	1.4							50	14.84	15.50	16.23	17.03	Free
08-00200-25160	1.6	3.7	2.4	12°	4			60	16.93	17.68	18.51	19.42	Free
08-00200-25180	1.8							60	19.01	19.86	20.79	21.82	Free
08-00200-25200	2.0							60	21.10	22.04	23.07	Free	Free
08-00200-25250	2.5							70	26.31	27.49	28.78	Free	Free
08-00200-25300	3.0							70	31.52	32.94	Free	Free	Free

MHR230 무겐 코팅 / 2날 롱넥 엔드밀

MUGEN-COATING 2-Flute Long Neck End Mill



- 무겐코팅을 적용한 NS의 깊은 가공용 오리지널 엔드밀
- 좁고 깊은 가공에 적합한 타입
- 총 217 사이즈
- MUGEN-COATING has been put on our original end mill for deep rib.
- It is very suitable for cutting on narrow and deep rib by long neck end mill.
- Total 217 sizes!



품번 Cat. No.	D(날경) Dia.	L(날길이) Length of Cut	L1(날경) Dia. Dia.	L2(날경) Dia. Dia.	L3(날경) Dia. Dia.	L4(날경) Dia. Dia.	L5(날경) Dia. Dia.	경사각도에 따른 실제 유효길이 Actual Effective Length according to the angle					
								30°	1°	1'30"	2°	3°	
08-00200-25400	2.5	4.0	3.7	2.4	12°	4		90	41.95	43.83	Free	Free	Free
08-00200-25500	5.0							100	52.38	Free	Free	Free	Free
08-00200-30080	8							50	8.71	9.10	9.52	9.99	11.08
08-00200-30100	10							50	10.79	11.27	11.80	12.38	13.74
08-00200-30120	12							50	12.88	13.45	14.08	14.78	16.39
08-00200-30140	1.4							50	14.96	15.63	16.36	17.17	19.04
08-00200-30160	1.6							60	17.05	17.81	18.65	19.66	21.70
08-00200-30180	1.8							60	19.13	19.99	20.93	21.96	24.35
08-00200-30200	2.0							60	21.22	22.17	23.21	24.35	27.01
08-00200-30250	2.5							70	26.43	27.62	28.91	30.33	Free
08-00200-30300	3.0							70	31.65	33.06	34.61	36.31	Free
08-00200-30350	3.5							90	36.86	38.51	40.32	42.30	Free
08-00200-30400	4.0							90	42.08	43.96	46.02	Free	Free
08-00200-30500	5.0							100	52.50	54.85	57.42	Free	Free
08-00200-40120	1.2							60	13.00	13.58	14.22	14.92	16.55
08-00200-40160	1.6							60	17.17	17.94	18.78	19.70	Free
08-00200-40200	2.0							60	21.34	22.30	23.34	24.49	Free
08-00200-40250	2.5							70	26.50	27.74	29.04	Free	Free
08-00200-40300	3.0							70	31.77	33.19	34.75	Free	Free
08-00200-40350	3.5	6	3.8	12°	6			80	36.98	38.64	Free	Free	Free
08-00200-40400	4.0							90	42.20	44.09	Free	Free	Free
08-00200-40450	4.5							90	47.41	49.53	Free	Free	Free
08-00200-40500	5.0							100	52.63	54.98	Free	Free	Free
08-00200-40600	6.0							110	63.05	Free	Free	Free	Free
08-00200-50160	1.6							60	17.17	17.94	18.78	Free	Free
08-00200-50200	2.0							60	21.04	22.00	Free	Free	Free
08-00200-50250	2.5							70	26.50	27.74	Free	Free	Free
08-00200-50300	3.0							80	31.77	Free	Free	Free	Free
08-00200-50350	3.5	7.5	4.8	12°	6			80	36.98	Free	Free	Free	Free
08-00200-50400	4.0							90	42.20	Free	Free	Free	Free
08-00200-50500	5.0							110	52.63	Free	Free	Free	Free
08-00200-50600	6.0							120	Free	Free	Free	Free	Free
08-00200-60200	2.0							90	Free	Free	Free	Free	Free
08-00200-60300	3.0							90	Free	Free	Free	Free	Free
08-00200-60400	4.0	9	5.8	-	6			100	Free	Free	Free	Free	Free
08-00200-60500	5.0							110	Free	Free	Free	Free	Free
08-00200-60600	6.0							120	Free	Free	Free	Free	Free

MHR430 무겐 코팅 / 4날 롱네크 엔드밀

MUGEN-COATING 4-Flute Long Neck End Mill



- 무겐코팅을 적용한 NS의 깊은 가공용 오리지널 엔드밀
- 좁고 깊은 가공에 적합한 타입

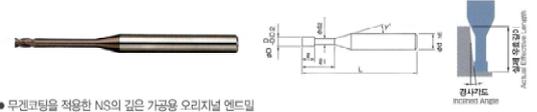
● MUGEN-COATING has been put on our original end mill for deep rib.
● It is very suitable for cutting on narrow and deep rib by long neck end mill.



용번 (Order No.)	D(날경) (Dia.)	L(총길이) (Total Length)	L(날경길이) (Length of Dia.)	L(목부재) (Neck Dia.)	(7)각도 (Taper Angle)	대칭도 (Symmetry)	L(전장) (Overall Length)	경사각도에 따른 실제 유효길이 (Actual effective length depending on inclined angle of subtip)				
								30°	1°	1°30'	2°	3°
08-00210-01001	4						50	4.29	4.48	4.69	4.92	5.46
08-00210-01006	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01008	8						50	8.46	8.84	9.25	9.71	10.77
08-00210-01010	10						50	10.55	11.02	11.53	12.10	13.42
08-00210-01012	12						50	12.63	13.20	13.82	14.49	16.08
08-00210-01016	16						50	16.80	17.55	18.38	19.28	21.39
08-00210-01106	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01110	10						50	10.55	11.02	11.53	12.10	13.42
08-00210-01116	16						50	16.80	17.55	18.38	19.28	21.39
08-00210-01206	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01208	8						50	8.46	8.84	9.25	9.71	10.77
08-00210-01210	10						50	10.55	11.02	11.53	12.10	13.42
08-00210-01212	12						50	12.63	13.20	13.82	14.49	16.08
08-00210-01216	16						50	16.80	17.55	18.38	19.28	21.39
08-00210-01300	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01312	12						50	12.63	13.20	13.82	14.49	16.08
08-00210-01318	18						50	18.99	19.73	20.66	21.67	24.04
08-00210-01406	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01408	8						50	8.46	8.84	9.25	9.71	10.77
08-00210-01410	10						50	10.55	11.02	11.53	12.10	13.42
08-00210-01412	12						50	12.63	13.20	13.82	14.49	16.08
08-00210-01414	14						60	14.72	15.38	16.10	16.89	18.73
08-00210-01416	16						60	16.80	17.55	18.38	19.28	21.39
08-00210-01422	22						60	23.06	24.09	25.22	26.46	Free
08-00210-01506	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01508	8						50	8.46	8.84	9.25	9.71	10.77
08-00210-01510	10						50	10.55	11.02	11.53	12.10	13.42
08-00210-01512	12						50	12.63	13.20	13.82	14.49	16.08
08-00210-01514	14						60	14.72	15.38	16.10	16.89	18.73
08-00210-01516	16						60	16.80	17.55	18.38	19.28	21.39
08-00210-01518	18						60	18.99	19.73	20.66	21.67	24.04
08-00210-01520	20						60	20.97	21.91	22.94	24.07	Free
08-00210-01606	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01608	8						50	8.46	8.84	9.25	9.71	10.77
08-00210-01610	10						50	10.55	11.02	11.53	12.10	13.42

MHR430 무겐 코팅 / 4날 롱네크 엔드밀

MUGEN-COATING 4-Flute Long Neck End Mill



- 무겐코팅을 적용한 NS의 깊은 가공용 오리지널 엔드밀
- 좁고 깊은 가공에 적합한 타입

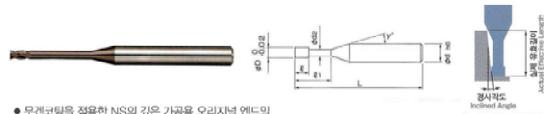
● MUGEN-COATING has been put on our original end mill for deep rib.
● It is very suitable for cutting on narrow and deep rib by long neck end mill.



용번 (Order No.)	D(날경) (Dia.)	L(총길이) (Total Length)	L(날경길이) (Length of Dia.)	L(목부재) (Neck Dia.)	(7)각도 (Taper Angle)	대칭도 (Symmetry)	L(전장) (Overall Length)	경사각도에 따른 실제 유효길이 (Actual effective length depending on inclined angle of subtip)				
								30°	1°	1°30'	2°	3°
08-00210-01612	12						50	12.63	13.20	13.82	14.49	16.08
08-00210-01614	14						60	14.72	15.38	16.10	16.89	18.73
08-00210-01616	16						60	16.80	17.55	18.38	19.28	21.39
08-00210-01618	18						60	18.99	19.73	20.66	21.67	Free
08-00210-01620	20						60	20.97	21.91	22.94	24.07	Free
08-00210-01626	26						70	27.23	28.45	29.78	31.25	Free
08-00210-01706	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01714	14						60	14.72	15.38	16.10	16.89	18.73
08-00210-01724	24						70	25.15	26.27	27.50	28.85	Free
08-00210-01806	6						50	6.37	6.66	6.97	7.32	8.11
08-00210-01808	8						50	8.46	8.84	9.25	9.71	10.77
08-00210-01810	10						50	10.55	11.02	11.53	12.10	13.42
08-00210-01812	12						50	12.63	13.20	13.82	14.49	16.08
08-00210-01814	14						60	14.72	15.38	16.10	16.89	18.73
08-00210-01816	16						60	16.80	17.55	18.38	19.28	21.39
08-00210-01818	18						60	18.99	19.73	20.66	21.67	Free
08-00210-01820	20						60	20.97	21.91	22.94	24.07	Free
08-00210-01825	25						70	26.19	27.36	28.64	30.05	Free
08-00210-01906	6						50	6.40	6.69	7.00	7.34	8.15
08-00210-01914	14						60	16.83	17.58	18.40	19.31	Free
08-00210-01920	20						70	23.34	24.25	25.22	26.25	Free
08-00210-02006	6						50	6.40	6.69	7.00	7.34	8.15
08-00210-02008	8						50	8.48	8.86	9.28	9.74	10.80
08-00210-02010	10						50	10.57	11.04	11.56	12.13	13.45
08-00210-02012	12						50	12.66	13.22	13.84	14.52	16.11
08-00210-02014	14						60	14.74	15.40	16.12	16.92	18.76
08-00210-02016	16						60	16.83	17.58	18.40	19.31	Free
08-00210-02018	18						60	18.91	19.76	20.69	21.70	Free
08-00210-02020	20						60	21.00	21.94	22.97	24.10	Free
08-00210-02025	25						70	26.21	27.39	28.67	Free	Free
08-00210-02030	30						70	31.43	32.83	34.37	Free	Free
08-00210-02036	36						50	8.58	8.97	9.39	9.85	10.93
08-00210-02512	12						50	12.75	13.32	13.95	14.64	Free
08-00210-02516	16						60	16.93	17.68	18.51	19.42	Free
08-00210-02520	20						60	21.10	22.04	23.07	Free	Free

MHR430 무겐 코팅 / 4날 롱넥 엔드밀

MUGEN-COATING 4-Flute Long Neck End Mill



- 무겐코팅을 적용한 NS의 길은 가공용 오리지널 엔드밀
- 좁고 깊은 가공에 적합한 타입

• MUGEN-COATING has been put on our original end mill for demo file.
 • It is very suitable for cutting on narrow and deep rib by long neck end mill.



종번 Cob. No.	D날경 Dia.	R(윤곽경) R Dia.	L날경 Length Dia.	L(7)각도 Cut Dia.	L(7)각도 Cut Dia.	L(7)각도 Cut Dia.	L(7)각도 Cut Dia.	경사각도에 따른 실제 유효길이				
								30°	1°	1.50°	2°	3°
08-00210-00525	2.5	25	3.7	2.4	12°	4	70	26.31	27.49	28.78	Free	Free
							50	8.71	9.10	9.52	9.99	11.08
							30	12.88	13.45	14.08	14.78	16.39
							15	17.05	17.81	18.65	19.56	21.70
							7.5	21.22	22.17	23.21	24.36	27.01
08-00210-00625	3	16	4.5	2.85	12°	6	70	26.43	27.62	28.91	30.33	Free
							50	31.65	33.06	34.61	36.31	Free
							30	16.01	16.72	17.50	18.37	20.37
							15	26.43	27.62	28.91	30.33	Free
							7.5	36.86	38.51	40.32	Free	Free
08-00210-00825	3.5	25	5.5	3.35	12°	6	70	13.00	13.58	14.22	14.92	16.55
							50	17.17	17.94	18.78	19.70	Free
							30	21.34	22.30	23.34	24.49	Free
							15	26.56	27.74	29.04	Free	Free
							7.5	31.77	33.19	34.75	Free	Free
08-00210-01025	4	30	6	3.8	12°	6	70	36.98	38.64	Free	Free	Free
							50	42.20	44.09	Free	Free	Free
							30	47.41	49.53	Free	Free	Free
							15	52.63	54.98	Free	Free	Free
							7.5	58.00	60.58	Free	Free	Free
08-00210-01225	5	25	7.5	4.8	12°	6	70	17.17	17.94	18.78	Free	Free
							50	20.50	21.74	Free	Free	Free
							30	26.56	Free	Free	Free	Free
							15	31.77	Free	Free	Free	Free
							7.5	37.00	Free	Free	Free	Free
08-00210-01425	6	30	9	5.8	-	6	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00210-01625	8	50	12	7.8	-	8	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00210-01825	10	60	15	9.8	-	10	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free

MSB230 무겐 코팅 / 2날 볼엔드밀

MUGEN-COATING 2-Flute Ball End Mill



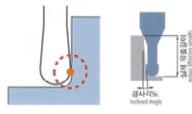
- 저속부터 고속까지의 3차원 정밀가공에 적당
- Suitable for precision three-dimensional cutting in the low to high speed range.



종번 Cob. No.	R(윤곽경) R Dia.	L날경 Length Dia.	L(7)각도 Cut Dia.	경사각도에 따른 실제 유효길이								
								30°	1°	1.50°	2°	3°
08-00230-00005	R0.05	0.1	0.1	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00010	R0.05	0.1	0.1	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00015	R0.05	0.15	0.15	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00020	R0.05	0.15	0.15	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00025	R0.05	0.2	0.2	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00030	R0.1	0.2	0.2	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00035	R0.15	0.3	0.3	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00040	R0.15	0.3	0.3	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00045	R0.2	0.6	0.4	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00050	R0.2	0.6	0.4	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00055	R0.25	0.8	0.5	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00060	R0.25	0.8	0.5	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00065	R0.3	0.9	0.6	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00070	R0.3	0.9	0.6	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00075	R0.35	1.1	0.7	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00080	R0.4	1.2	0.8	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00085	R0.4	1.2	0.8	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00090	R0.45	1.4	0.9	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00095	R0.5	1.5	1	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00100	R0.5	1.5	1	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00105	R0.55	1.7	1.1	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00110	R0.6	1.8	1.2	15°	4	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00115	R0.6	1.8	1.2	15°	6	50	70	Free	Free	Free	Free	Free
							50	Free	Free	Free	Free	Free
							30	Free	Free	Free	Free	Free
							15	Free	Free	Free	Free	Free
							7.5	Free	Free	Free	Free	Free
08-00230-00120	R0.65	2	1.3	15°								

MRBH230 고정도용 2날 롱네 볼엔드밀

2-Flute Long Neck Ball End Mill for Hardened Steels



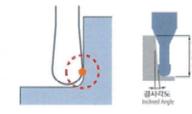
단위 : mm
Unit : (mm)

★ 재연타 가능

품번 Code No.	외경반경 Radius	외경길이 Flute Length	외경직경 Length of Cut	외경직경 Dia.	외경두께 Neck Dia.	외경길이 Ball Tip Length	외경직경 Shank Dia.	외경길이 Overall Length	공작재에 따른 실제 유효길이 Actual effective length dependent on material & angle of workpiece	30°	1°	1°30'	2°	3°
08-0527-01001	16	0.75	1	0.95	12°	4	50	16.78	17.51	18.31	19.18	21.23		
08-0527-01002	18	0.75	1	0.95	12°	4	55	18.87	19.69	20.59	21.58	23.88		
08-0527-01011	20	0.75	1	0.95	12°	4	55	20.95	21.87	22.87	23.97	26.54		
08-0528-01004	22	0.75	1	0.95	12°	6	60	22.82	23.59	24.43	25.33	27.34		
08-0527-01000	2.4	0.9	1.2	1.15	12°	4	45	2.59	2.68	2.78	2.89	3.15		
08-0527-01001	4	0.9	1.2	1.15	12°	4	45	4.26	4.43	4.61	4.81	5.27		
08-0527-01002	6	0.9	1.2	1.15	12°	4	45	6.35	6.61	6.89	7.20	7.92		
08-0527-01003	8	0.9	1.2	1.15	12°	4	45	8.43	8.79	9.17	9.59	10.58		
08-0527-01004	10	0.9	1.2	1.15	12°	4	45	10.52	10.96	11.45	11.99	13.23		
08-0527-01005	12	0.9	1.2	1.15	12°	4	45	12.61	13.14	13.73	14.38	15.89		
08-0527-01006	14	0.9	1.2	1.15	12°	4	50	14.69	15.32	16.01	16.77	18.54		
08-0527-01007	16	0.9	1.2	1.15	12°	4	50	16.78	17.50	18.29	19.17	21.20		
08-0527-01008	8	1	1.4	1.35	12°	4	45	8.44	8.78	9.17	9.59	10.57		
08-0527-01001	12	1	1.4	1.35	12°	4	50	12.61	13.14	13.73	14.38	15.90		
08-0527-01002	16	1	1.4	1.35	12°	4	50	16.78	17.50	18.30	19.17	21.22		
08-0527-01003	3	1.1	1.5	1.45	12°	4	45	3.21	3.33	3.45	3.58	3.89		
08-0527-01004	4	1.1	1.5	1.45	12°	4	45	4.26	4.41	4.59	4.78	5.22		
08-0527-01005	6	1.1	1.5	1.45	12°	4	45	6.34	6.59	6.87	7.17	7.88		
08-0528-01013	8	1.1	1.5	1.45	12°	6	50	8.43	8.77	9.15	9.56	10.53		
08-0528-01015	8	1.1	1.5	1.45	12°	6	50	8.43	8.77	9.15	9.56	10.53		
08-0527-01007	10	1.1	1.5	1.45	12°	4	45	10.51	10.95	11.43	11.96	13.10		
08-0527-01008	12	1.1	1.5	1.45	12°	4	45	12.60	13.13	13.71	14.35	15.84		
08-0527-01009	14	1.1	1.5	1.45	12°	4	50	14.69	15.31	15.99	16.74	18.49		
08-0527-01010	16	1.1	1.5	1.45	12°	4	50	16.77	17.49	18.27	19.14	21.15		
08-0527-01011	18	1.1	1.5	1.45	12°	4	55	18.86	19.68	20.57	21.56	23.87		
08-0527-01012	20	1.1	1.5	1.45	12°	4	55	20.94	21.85	22.84	23.92	Free		
08-0527-01013	22	1.1	1.5	1.45	12°	4	60	23.03	24.02	25.12	26.32	Free		
08-0527-01014	30	1.1	1.5	1.45	12°	4	70	31.37	32.74	34.24	35.89	Free		
08-0527-01015	8	1.2	1.6	1.55	12°	4	45	8.43	8.77	9.14	9.55	10.51		
08-0527-01016	12	1.2	1.6	1.55	12°	4	45	12.60	13.13	13.70	14.34	15.82		
08-0527-01017	16	1.2	1.6	1.55	12°	4	50	16.77	17.48	18.27	19.13	21.13		
08-0527-01018	20	1.2	1.6	1.55	12°	4	55	20.94	21.84	22.83	23.91	Free		

MRBH230 고정도용 2날 롱네 볼엔드밀

2-Flute Long Neck Ball End Mill for Hardened Steels



품번 Code No.	외경반경 Radius	외경길이 Flute Length	외경직경 Length of Cut	외경직경 Dia.	외경두께 Neck Dia.	외경길이 Ball Tip Length	외경직경 Shank Dia.	외경길이 Overall Length	공작재에 따른 실제 유효길이 Actual effective length dependent on material & angle of workpiece	30°	1°	1°30'	2°	3°
08-0527-01001	3	1.5	2	1.94	12°	4	45	3.23	3.33	3.44	3.56	3.85		
08-0527-01002	4	1.5	2	1.94	12°	4	45	4.27	4.42	4.58	4.76	5.17		
08-0528-01002	4	1.5	2	1.94	12°	6	50	4.27	4.42	4.58	4.76	5.17		
08-0527-01004	6	1.5	2	1.94	12°	4	45	6.36	6.60	6.86	7.15	7.83		
08-0528-01004	6	1.5	2	1.94	12°	6	50	6.36	6.60	6.86	7.15	7.83		
08-0527-01006	8	1.5	2	1.94	12°	4	45	8.44	8.78	9.14	9.54	10.68		
08-0528-01006	8	1.5	2	1.94	12°	6	50	8.44	8.78	9.14	9.54	10.68		
08-0527-01008	10	1.5	2	1.94	12°	4	45	10.53	10.95	11.42	11.94	13.14		
08-0528-01008	10	1.5	2	1.94	12°	6	50	10.53	10.95	11.42	11.94	13.14		
08-0527-01010	12	1.5	2	1.94	12°	4	45	12.61	13.13	13.70	14.33	15.79		
08-0527-01010	12	1.5	2	1.94	12°	4	45	12.61	13.13	13.70	14.33	15.79		
08-0527-01010	13	1.5	2	1.94	12°	4	45	13.66	14.23	14.86	15.55	17.16		
08-0527-01011	14	1.5	2	1.94	12°	4	50	14.70	15.31	15.98	16.72	18.45		
08-0527-01012	16	1.5	2	1.94	12°	4	50	16.78	17.49	18.27	19.12	Free		
08-0528-01012	16	1.5	2	1.94	12°	6	60	16.78	17.49	18.27	19.12	Free		
08-0527-01013	18	1.5	2	1.94	12°	4	55	18.87	19.67	20.55	21.51	Free		
08-0527-01014	20	1.5	2	1.94	12°	4	55	20.96	21.85	22.83	23.90	Free		
08-0527-01015	22	1.5	2	1.94	12°	4	60	23.04	24.03	25.11	26.30	Free		
08-0527-01016	25	1.5	2	1.94	12°	4	65	26.17	27.30	28.53	29.89	Free		
08-0528-01016	25	1.5	2	1.94	12°	6	80	26.17	27.30	28.53	29.89	Free		
08-0527-01017	30	1.5	2	1.94	12°	4	70	31.38	32.74	34.21	35.89	Free		
08-0527-01018	35	1.5	2	1.94	12°	4	70	36.60	38.19	39.93	Free	Free		
08-0527-01019	40	1.5	2	1.94	12°	4	90	41.81	43.64	Free	Free	Free		
08-0527-01250	6	2.3	2.5	2.4	12°	4	45	6.45	6.68	6.94	7.27	7.89		
08-0527-01251	8	2.3	2.5	2.4	12°	4	45	8.54	8.86	9.22	9.62	10.55		
08-0527-01252	10	2.3	2.5	2.4	12°	4	45	10.62	11.04	11.49	12.00	13.18		
08-0527-01253	15	2.3	2.5	2.4	12°	4	50	15.83	16.48	17.20	17.98	Free		
08-0527-01254	20	2.3	2.5	2.4	12°	4	55	21.04	21.93	22.90	Free	Free		
08-0527-01255	25	2.3	2.5	2.4	12°	4	65	26.26	27.38	28.60	Free	Free		
08-0527-01256	30	2.3	2.5	2.4	12°	4	70	31.47	32.82	Free	Free	Free		
08-0527-01257	35	2.3	2.5	2.4	12°	4	70	36.69	38.27	Free	Free	Free		
08-0527-01501	6	2.5	3	2.85	12°	6	60	6.56	6.78	7.03	7.31	7.95		
08-0527-01502	8	2.5	3	2.85	12°	6	60	8.64	8.96	9.31	9.70	10.60		
08-0527-01503	10	2.5	3	2.85	12°	6	60	10.73	11.14	11.59	12.09	13.26		
08-0527-01504	12	2.5	3	2.85	12°	6	60	12.81	13.32	13.88	14.49	15.91		
08-0527-01505	14	2.5	3	2.85	12°	6	60	14.90	15.50	16.16	16.88	18.57		
08-0527-01506	16	2.5	3	2.85	12°	6	60	16.98	17.68	18.44	19.27	21.22		
08-0527-01508	20	2.5	3	2.85	12°	6	65	21.16	22.04	23.00	24.06	26.53		
08-0527-01509	25	2.5	3	2.85	12°	6	65	26.37	27.40	28.70	30.04	Free		
08-0527-01510	30	2.5	3	2.85	12°	6	70	31.58	32.93	34.40	36.03	Free		
08-0527-01511	35	2.5	3	2.85	12°	6	80	36.80	38.38	40.11	42.01	Free		
08-0527-01512	40	2.5	3	2.85	12°	6	90	42.01	43.83	45.81	Free	Free		

MRBH230 고정도용 2날 롱넥 볼엔드밀

2-Flute Long Neck Ball End Mill for Hardened Steels



*재언어가능

품번 Code No.	외경 Radius	내경 Flute Length	외경 Length	외경 Dia.	외경 Neck Dia.	외경 Ball Dia.	외경 Shank Dia.	외경 Shank Length	경사각도에 따른 실제 유효길이				
									30°	1°	1°30'	2°	3°
R1.75	15	2.0	3.5	3.35	12°	6	60	15.94	16.50	17.20	10.05	19.06	
	20	2.8	3.5	3.35	12°	6	65	21.14	22.01	22.96	24.01	Free	
	25	2.8	3.5	3.35	12°	6	65	26.37	27.47	28.69	30.03	Free	
	30	2.8	3.5	3.35	12°	6	70	31.57	32.91	34.37	35.98	Free	
	35	2.8	3.5	3.35	12°	6	80	36.79	38.37	40.10	41.98	Free	
R2	14	3	4	3.8	12°	6	65	15.00	15.58	16.22	16.92	18.56	
	15	3	4	3.8	12°	6	65	16.04	16.67	17.36	18.12	19.89	
	20	3	4	3.8	12°	6	65	21.26	22.12	23.06	24.10	Free	
	25	3	4	3.8	12°	6	70	26.47	27.57	28.77	30.09	Free	
	30	3	4	3.8	12°	6	70	31.68	33.01	34.47	36.07	Free	
R2.5	10	3.5	5	4.8	12°	6	70	10.81	11.18	11.59	12.04	Free	
	15	3.5	5	4.8	12°	6	70	16.02	16.63	17.29	Free	Free	
	20	3.5	5	4.8	12°	6	70	21.24	22.08	Free	Free	Free	
	25	3.5	5	4.8	12°	6	70	26.45	27.52	Free	Free	Free	
	30	3.5	5	4.8	12°	6	80	31.66	Free	Free	Free	Free	
R3	10	6	6	5.7	—	6	70	Free	Free	Free	Free	Free	
	15	6	6	5.7	—	6	70	Free	Free	Free	Free	Free	
	20	6	6	5.7	—	6	70	Free	Free	Free	Free	Free	
	25	6	6	5.7	—	6	70	Free	Free	Free	Free	Free	
	30	6	6	5.7	—	6	80	Free	Free	Free	Free	Free	
R3	35	6	6	5.7	—	6	85	Free	Free	Free	Free	Free	
	40	6	6	5.7	—	6	90	Free	Free	Free	Free	Free	
	50	6	6	5.7	—	6	120	Free	Free	Free	Free	Free	
	50	6	6	5.7	—	6	120	Free	Free	Free	Free	Free	
	60	6	6	5.7	—	6	120	Free	Free	Free	Free	Free	

End Mill for Medical Application

Tools for Artificial Hip Joint

- MSXH440R**
φ3xR0.3-φ1.2xR2 Total 19 sizes
- MSBH345**
R0.5-R3 Total 26 sizes
- MRBSH230SF**
R0.05-R3 Total 83 sizes
- MSUS2440-LN**
φ1-φ6 Total 33 sizes

Tools for Knee Replacement Implant

- MSXH440R**
φ3xR0.3-φ1.2xR2 Total 19 sizes
- MSBSH330-5X**
R0.1-R1 Total 8 sizes
- RSB230**
R0.1-R3 Total 63 sizes
- MSUS2440**
φ1-φ6 Total 62 sizes

Tools for Bone Plate

- MSXH440R**
φ3xR0.3-φ1.2xR2 Total 19 sizes
- MRBSH330**
R0.1-R1 Total 22 sizes
- MACH225**
R0.1-R3 Total 26 sizes
- MFD**
φ0.1-φ6 Total 69 sizes

Tools for Dental Application

- MRBTH230**
R0.05x3°-R2x1° Total 209 sizes
- MSTNR230**
φ0.2xR0.05x1°-φ3xR0.5x1° Total 165 sizes
- DCHR230**
φ0.5-φ6 Total 19 sizes
- DCRB230**
R0.2-R3 Total 25 sizes