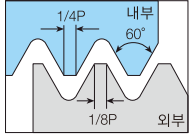
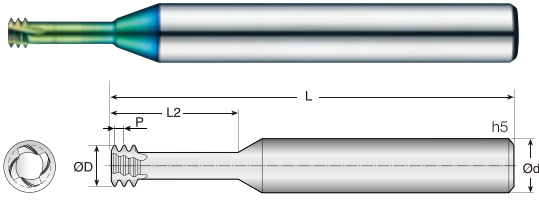


4STM 4 Flutes Short Flute Thread Mill for Generality

4날 범용 짧은 날 쓰레드밀

New



- HRc 50이하, 열처리강, 프리하든강, 합금강, 탄소강, 주철가공
- 경화강 내 나사 가공을 위한 견고하고 강력한 날 디자인.
- 향상된 절삭 및 칩 제거를 통해 공구가 구멍 안에서 끊어지는 위험을 줄입니다.
- 팁 형상은 절삭 저항을 줄이고 공구 구부림을 억제합니다.
- 공구 파손을 대폭 감소시킵니다.
- ER Chuck 사용을 권장하지 않습니다.

- Thread Mill for hardened and pre-hardened steel (~Hrc50), alloy steel, carbon steel, cast iron.
- Tough and strong edge design for threading in hardened steels.
- Deliver improved cutting and chip removal, reducing the risk of the cutting tool breaking off inside of hole.
- Tip shape reduces cutting resistance and suppresses tool bending.
- Drastically reduces tool breakage.
- We do not recommend using a ER Chuck.



382P

ISO 측정항목

단위 Unit: mm

Order Number	피치규격		날수 Flutes Z	산수 Teeth Zt	날경 Diameter D	유효장 Effective Length L2	전장 Overall Length L	샹크 Shank Dia d
	Thread	Pitch						
외부급유형 (Without coolant)								
4STM 0072 020 S04 M1	M1	0.25	4	3	0.72	2	45	4
4STM 0072 025 S04 M1	M1	0.25	4	3	0.72	2.5	45	4
4STM 009 024 S04 M012	M1.2	0.25	4	3	0.9	2.4	45	4
4STM 009 030 S04 M012	M1.2	0.25	4	3	0.9	3	45	4
4STM 0095 028 S06 M014	M1.4	0.3	4	3	0.95	2.8	50	6
4STM 0095 035 S06 M014	M1.4	0.3	4	3	0.95	3.5	50	6
4STM 011 032 S06 M016	M1.6	0.35	4	3	1.1	3.2	50	6
4STM 011 040 S06 M016	M1.6	0.35	4	3	1.1	4	50	6
4STM 012 050 S03 M016	M1.6	0.35	4	3	1.2	5	40	3
4STM 014 040 S06 M2	M2	0.4	4	3	1.4	4	50	6
4STM 014 050 S06 M2	M2	0.4	4	3	1.4	5	50	6
4STM 0155 062 S03 M2	M2	0.4	4	3	1.55	6.2	40	3
4STM 0155 062 S06 M2	M2	0.4	4	3	1.55	6.2	60	6
4STM 016 044 S06 M022	M2.2	0.45	4	3	1.6	4.4	50	6
4STM 016 055 S06 M022	M2.2	0.45	4	3	1.6	5.5	50	6
4STM 018 050 S06 M025	M2.5	0.45	4	3	1.8	5	50	6
4STM 018 0625 S06 M025	M2.5	0.45	4	3	1.8	6.25	50	6
4STM 0195 077 S03 M025	M2.5	0.45	4	3	1.95	7.7	40	3
4STM 0195 077 S06 M025	M2.5	0.45	4	3	1.95	7.7	60	6
4STM 024 060 S06 M3	M3	0.5	4	3	2.4	6	50	6
4STM 024 075 S06 M3	M3	0.5	4	3	2.4	7.5	50	6
4STM 024 092 S03 M3	M3	0.5	4	3	2.4	9.2	40	3
4STM 024 092 S06 M3	M3	0.5	4	3	2.4	9.2	60	6
4STM 0275 108 S06 M035	M3.5	0.6	4	3	2.75	10.8	60	6
4STM 031 080 S06 M4	M4	0.7	4	3	3.1	8	50	6
4STM 031 100 S06 M4	M4	0.7	4	3	3.1	10	50	6
4STM 0315 123 S06 M4	M4	0.7	4	3	3.15	12.3	60	6
4STM 038 100 S06 M5	M5	0.8	4	3	3.8	10	50	6
4STM 038 125 S06 M5	M5	0.8	4	3	3.8	12.5	50	6
4STM 0405 154 S06 M5	M5	0.8	4	3	4.05	15.4	60	6
4STM 046 120 S06 M6	M6	1	4	3	4.6	12	50	6
4STM 046 150 S06 M6	M6	1	4	3	4.6	15	50	6
4STM 048 185 S06 M6	M6	1	4	3	4.8	18.5	60	6
4STM 062 160 S10 M8	M8	1.25	4	3	6.2	16	70	10
4STM 062 200 S10 M8	M8	1.25	4	3	6.2	20	70	10
4STM 065 246 S08 M8	M8	1.25	4	3	6.5	24.6	65	8
4STM 075 200 S10 M10	M10	1.5	4	3	7.5	20	70	10
4STM 075 250 S10 M10	M10	1.5	4	3	7.5	25	70	10
4STM 082 308 S10 M10	M10	1.5	4	3	8.2	30.8	80	10
4STM 090 240 S10 M12	M12	1.75	4	3	9	24	80	10
4STM 090 300 S10 M12	M12	1.75	4	3	9	30	80	10
4STM 099 370 S10 M12	M12	1.75	4	3	9.9	37	85	10
4STM 115 320 S12 M16	M16	2	4	3	11.5	32	100	12
4STM 115 400 S12 M16	M16	2	4	3	11.5	40	100	12
4STM 119 490 S12 M16	M16	2	4	3	11.9	49	95	12

THREAD MILL

ISO 측정항목

단위 Unit: mm

Order Number	피치규격		날수 Flutes Z	산수 Teeth Zt	날경 Diameter D	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d
	Thread	Pitch						
외부 급유형 (Without coolant)								
4STM 140 360 S16 M18	M18	2.5	4	3	14	36	135	16
4STM 140 450 S16 M18	M18	2.5	4	3	14	45	135	16
4STM 150 400 S16 M20	M20	2.5	4	3	15	40	135	16
4STM 150 500 S16 M20	M20	2.5	4	3	15	50	135	16
4STM 159 613 S16 M20	M20	2.5	4	3	15.9	61.3	115	16

내부 급유형 (With coolant)								
4STM 031 080 S06 M4C	M4	0.7	4	3	3.1	8	50	6
4STM 031 100 S06 M4C	M4	0.7	4	3	3.1	10	50	6
4STM 038 100 S06 M5C	M5	0.8	4	3	3.8	10	50	6
4STM 038 125 S06 M5C	M5	0.8	4	3	3.8	12.5	50	6
4STM 046 120 S06 M6C	M6	1	4	3	4.6	12	50	6
4STM 046 150 S06 M6C	M6	1	4	3	4.6	15	50	6
4STM 048 185 S06 M6C	M6	1	4	3	4.8	18.5	60	6
4STM 062 160 S10 M8C	M8	1.25	4	3	6.2	16	70	10
4STM 062 200 S10 M8C	M8	1.25	4	3	6.2	20	70	10
4STM 065 246 S08 M8C	M8	1.25	4	3	6.5	24.6	65	8
4STM 075 200 S10 M10C	M10	1.5	4	3	7.5	20	70	10
4STM 075 250 S10 M10C	M10	1.5	4	3	7.5	25	70	10
4STM 082 308 S10 M10C	M10	1.5	4	3	8.2	30.8	80	10
4STM 090 240 S10 M12C	M12	1.75	4	3	9	24	80	10
4STM 090 300 S10 M12C	M12	1.75	4	3	9	30	80	10
4STM 099 370 S10 M12C	M12	1.75	4	3	9.9	37	85	10
4STM 115 320 S12 M16C	M16	2	4	3	11.5	32	100	12
4STM 115 400 S12 M16C	M16	2	4	3	11.5	40	100	12
4STM 119 490 S12 M16C	M16	2	4	3	11.9	49	95	12
4STM 140 360 S16 M18C	M18	2.5	4	3	14	36	135	16
4STM 140 450 S16 M18C	M18	2.5	4	3	14	45	135	16
4STM 150 400 S16 M20C	M20	2.5	4	3	15	40	135	16
4STM 150 500 S16 M20C	M20	2.5	4	3	15	50	135	16
4STM 159 613 S16 M20C	M20	2.5	4	3	15.9	61.3	115	16

4ETM Cutting Condition

피삭재 Material	합금강/ 공구강 Alloy Steel/ Tool Steel		고경도강 Hardened Steels		알루미늄 Aluminum		스테인레스강 Stainless Steel	
경도 Hardness	~ 30HRC		35 ~ 45HRC					
TAP	V/C	FZ	V/C	FZ	V/C	FZ	V/C	FZ
M3	50 ~ 70	0.01 ~ 0.02	45 ~ 55	0.005 ~ 0.01	100 ~ 130	0.03 ~ 0.04	70 ~ 80	0.015 ~ 0.025
M4	50 ~ 70	0.01 ~ 0.02	45 ~ 55	0.005 ~ 0.01	100 ~ 130	0.03 ~ 0.04	70 ~ 80	0.015 ~ 0.025
M5	50 ~ 70	0.01 ~ 0.02	45 ~ 55	0.005 ~ 0.01	100 ~ 130	0.03 ~ 0.04	70 ~ 80	0.015 ~ 0.025
M6	50 ~ 70	0.02 ~ 0.03	45 ~ 55	0.01 ~ 0.015	100 ~ 130	0.04 ~ 0.05	70 ~ 80	0.025 ~ 0.035
M8	50 ~ 70	0.02 ~ 0.03	45 ~ 55	0.01 ~ 0.015	100 ~ 130	0.04 ~ 0.05	70 ~ 80	0.03 ~ 0.04
M10	50 ~ 70	0.02 ~ 0.03	45 ~ 55	0.015 ~ 0.02	100 ~ 130	0.05 ~ 0.06	70 ~ 80	0.03 ~ 0.04
M12	50 ~ 70	0.03 ~ 0.04	45 ~ 55	0.02 ~ 0.025	100 ~ 130	0.06 ~ 0.07	70 ~ 80	0.03 ~ 0.04
M16	50 ~ 70	0.03 ~ 0.04	45 ~ 55	0.02 ~ 0.025	100 ~ 130	0.06 ~ 0.07	70 ~ 80	0.04 ~ 0.05

4MTM Cutting Condition

피삭재 Material	합금강/ 공구강 Alloy Steel/ Tool Steel		고경도강 Hardened Steels		알루미늄 Aluminum		스테인레스강 Stainless Steel	
경도 Hardness	~ 30HRC		35 ~ 45HRC					
TAP	V/C	FZ	V/C	FZ	V/C	FZ	V/C	FZ
M1	50 ~ 70	0.005 ~ 0.01	55 ~ 65	0.005 ~ 0.01	100 ~ 130	0.02 ~ 0.34	70 ~ 85	0.005 ~ 0.01
M2	50 ~ 70	0.005 ~ 0.01	55 ~ 65	0.005 ~ 0.01	100 ~ 130	0.02 ~ 0.34	70 ~ 85	0.005 ~ 0.01
M3	50 ~ 70	0.01 ~ 0.02	55 ~ 65	0.01 ~ 0.02	100 ~ 130	0.02 ~ 0.34	70 ~ 85	0.005 ~ 0.01
M4	50 ~ 70	0.01 ~ 0.02	55 ~ 65	0.01 ~ 0.02	100 ~ 130	0.04 ~ 0.05	70 ~ 85	0.01 ~ 0.02
M5	50 ~ 70	0.02 ~ 0.03	55 ~ 65	0.02 ~ 0.03	100 ~ 130	0.04 ~ 0.05	70 ~ 85	0.01 ~ 0.02
M6	50 ~ 70	0.02 ~ 0.03	55 ~ 65	0.02 ~ 0.03	100 ~ 130	0.05 ~ 0.06	70 ~ 85	0.02 ~ 0.03

4STM Cutting Condition

피삭재 Material	합금강/ 공구강 Alloy Steel/ Tool Steel		고경도강 Hardened Steels		알루미늄 Aluminum		스테인레스강 Stainless Steel	
경도 Hardness	~ 30HRC		35 ~ 45HRC					
TAP	V/C	FZ	V/C	FZ	V/C	FZ	V/C	FZ
M3	50 ~ 70	0.01 ~ 0.02	55 ~ 65	0.008 ~ 0.01	100 ~ 130	0.03 ~ 0.04	70 ~ 85	0.01 ~ 0.02
M4	50 ~ 70	0.01 ~ 0.02	55 ~ 65	0.008 ~ 0.01	100 ~ 130	0.03 ~ 0.04	70 ~ 85	0.01 ~ 0.02
M5	50 ~ 70	0.01 ~ 0.02	55 ~ 65	0.01 ~ 0.02	100 ~ 130	0.03 ~ 0.04	70 ~ 85	0.01 ~ 0.02
M6	50 ~ 70	0.01 ~ 0.02	55 ~ 65	0.01 ~ 0.02	100 ~ 130	0.04 ~ 0.05	70 ~ 85	0.02 ~ 0.03
M8	50 ~ 70	0.02 ~ 0.03	55 ~ 65	0.02 ~ 0.03	100 ~ 130	0.04 ~ 0.05	70 ~ 85	0.02 ~ 0.03
M10	50 ~ 70	0.02 ~ 0.03	55 ~ 65	0.02 ~ 0.03	100 ~ 130	0.05 ~ 0.06	70 ~ 85	0.03 ~ 0.04
M12	50 ~ 70	0.02 ~ 0.03	55 ~ 65	0.02 ~ 0.03	100 ~ 130	0.06 ~ 0.07	70 ~ 85	0.05 ~ 0.06
M16	50 ~ 70	0.03 ~ 0.04	55 ~ 65	0.03 ~ 0.04	100 ~ 130	0.06 ~ 0.07	70 ~ 85	0.05 ~ 0.06

4HTM Cutting Condition

피삭재 Material	합금강/ 공구강 Alloy Steel/ Tool Steel		고경도강 Hardened Steels		알루미늄 Aluminum		스테인레스강 Stainless Steel	
경도 Hardness	~ 30HRC		35 ~ 45HRC					
TAP	V/C	FZ	V/C	FZ	V/C	FZ	V/C	FZ
M3	50 ~ 70	0.01 ~ 0.02	50 ~ 60	0.005 ~ 0.008	100 ~ 130	0.03 ~ 0.04	70 ~ 85	0.01 ~ 0.02
M4	50 ~ 70	0.01 ~ 0.02	50 ~ 60	0.005 ~ 0.008	100 ~ 130	0.03 ~ 0.04	70 ~ 85	0.01 ~ 0.02
M5	50 ~ 70	0.01 ~ 0.02	50 ~ 60	0.01 ~ 0.02	100 ~ 130	0.03 ~ 0.04	70 ~ 85	0.01 ~ 0.02
M6	50 ~ 70	0.01 ~ 0.02	50 ~ 60	0.01 ~ 0.02	100 ~ 130	0.04 ~ 0.05	70 ~ 85	0.02 ~ 0.03
M8	50 ~ 70	0.02 ~ 0.03	50 ~ 60	0.02 ~ 0.03	100 ~ 130	0.04 ~ 0.05	70 ~ 85	0.02 ~ 0.03
M10	50 ~ 70	0.02 ~ 0.03	50 ~ 60	0.02 ~ 0.03	100 ~ 130	0.05 ~ 0.06	70 ~ 85	0.03 ~ 0.04
M12	50 ~ 70	0.02 ~ 0.03	50 ~ 60	0.02 ~ 0.03	100 ~ 130	0.06 ~ 0.07	70 ~ 85	0.05 ~ 0.06
M16	50 ~ 70	0.03 ~ 0.04	50 ~ 60	0.03 ~ 0.04	100 ~ 130	0.06 ~ 0.07	70 ~ 85	0.05 ~ 0.06

- 가급적 열박음 척을 추천합니다.
- 공구 진입시 이송 f (mm/tooth)를 나사가공 이송 대비 30% 수준으로 낮춰 주십시오.
- 상기 절삭조건은 참고 수치이므로, 실 가공시 가공 형상, 가공 목적, 적용 기계에 따라 조건변경 요망 합니다.
- 절삭시 내,외부 급유형 쿨런트 사용을 추천합니다.
- Using shrink-fit chuck is recommended.
- When the tool approaches the work material, reduce the feed by 30%.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- Internal and external coolants are recommended for milling.

