



- 고경도강(HRC52~62), 프리하드강 계열의 고속 가공 엔드밀
- 실리콘계 코팅 (Si) 처리하여 내마모성이 우수합니다.
- 고정밀 공차 적용으로 초정밀 가공에 적합합니다.
- 코너R 형상을 날부치핑이 적도록 설계하였습니다.
- 다양한 코너R과 유효장으로 맞춤 가공이 가능합니다.
- 초미립자 초경합금(0.2µm)을 채택, 고속절삭시 뛰어난 성능을 발휘합니다.

Endmills for pre-hardened and hardened steels(HRC52~62)

- Good wear resistance by Si-based PVD coating.
- High precise edge tolerance.
- Designed for minimizing edge chipping by corner R shape.
- Various corner R and flute length for wide range application.
- Outstanding performance at high speed machining by ultra fine (0.2µm) WC grade.

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UWC
초미립자

TISIN
Coating

R
± 0.005

R
± 0.01

R
± 0.015

30°
Helix Angle

CUTTING
DATA

R0.02 ~ 0.5 R1 ~ 1.5 R2 ~ 3 433P

Condition	D Size		D Tolerance	
	ØD ≠ Ød	Ø0.2 ~ 16	+0 ~ -0.01mm	
ØD = Ød	Ø4 - 12		-0.005 ~ -0.015mm	
	Ø16		-0.01 ~ -0.02mm	

단위 : mm

Order Number	날경 D × R	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	샙크 Shank Dia d	비고
2CRE 002 0002 010	0.2 X R0.02	0.2	1	40	4	
2CRE 002 0002 015	0.2 X R0.02	0.2	1.5	40	4	
2CRE 002 0002 020	0.2 X R0.02	0.2	2	40	4	
2CRE 002 0005 010	0.2 X R0.05	0.2	1	40	4	
2CRE 002 0005 015	0.2 X R0.05	0.2	1.5	40	4	
2CRE 002 0005 020	0.2 X R0.05	0.2	2	40	4	
2CRE 003 0005 010	0.3 X R0.05	0.3	1	40	4	
2CRE 003 0005 020	0.3 X R0.05	0.3	2	40	4	
2CRE 003 0005 030	0.3 X R0.05	0.3	3	40	4	
2CRE 003 0005 040	0.3 X R0.05	0.3	4	40	4	
2CRE 003 0005 050	0.3 X R0.05	0.3	5	40	4	
2CRE 004 0005 010	0.4 X R0.05	0.4	1	40	4	
2CRE 004 0005 020	0.4 X R0.05	0.4	2	40	4	
2CRE 004 0005 030	0.4 X R0.05	0.4	3	40	4	
2CRE 004 0005 040	0.4 X R0.05	0.4	4	40	4	
2CRE 004 0005 050	0.4 X R0.05	0.4	5	40	4	
2CRE 004 0005 060	0.4 X R0.05	0.4	6	40	4	
2CRE 004 001 010	0.4 X R0.1	0.4	1	40	4	
2CRE 004 001 015	0.4 X R0.1	0.4	1.5	40	4	
2CRE 004 001 020	0.4 X R0.1	0.4	2	40	4	
2CRE 004 001 030	0.4 X R0.1	0.4	3	40	4	
2CRE 004 001 040	0.4 X R0.1	0.4	4	40	4	
2CRE 005 0002 010	0.5 X R0.02	0.5	1	45	4	
2CRE 005 0002 015	0.5 X R0.02	0.5	1.5	45	4	
2CRE 005 0002 020	0.5 X R0.02	0.5	2	45	4	
2CRE 005 0002 025	0.5 X R0.02	0.5	2.5	45	4	
2CRE 005 0002 030	0.5 X R0.02	0.5	3	45	4	
2CRE 005 0002 040	0.5 X R0.02	0.5	4	45	4	
2CRE 005 0002 050	0.5 X R0.02	0.5	5	45	4	
2CRE 005 0002 060	0.5 X R0.02	0.5	6	45	4	
2CRE 005 0002 080	0.5 X R0.02	0.5	8	45	4	
2CRE 005 0002 100	0.5 X R0.02	0.5	10	50	4	
2CRE 005 0005 010	0.5 X R0.05	0.5	1	45	4	
2CRE 005 0005 015	0.5 X R0.05	0.5	1.5	45	4	
2CRE 005 0005 020	0.5 X R0.05	0.5	2	45	4	
2CRE 005 0005 025	0.5 X R0.05	0.5	2.5	45	4	
2CRE 005 0005 030	0.5 X R0.05	0.5	3	45	4	
2CRE 005 0005 040	0.5 X R0.05	0.5	4	45	4	
2CRE 005 0005 050	0.5 X R0.05	0.5	5	45	4	
2CRE 005 0005 060	0.5 X R0.05	0.5	6	45	4	
2CRE 005 0005 080	0.5 X R0.05	0.5	8	45	4	
2CRE 005 0005 100	0.5 X R0.05	0.5	10	50	4	
2CRE 005 0005 120	0.5 X R0.05	0.5	12	50	4	
2CRE 005 001 010	0.5 X R0.1	0.5	1	45	4	
2CRE 005 001 015	0.5 X R0.1	0.5	1.5	45	4	
2CRE 005 001 020	0.5 X R0.1	0.5	2	45	4	
2CRE 005 001 025	0.5 X R0.1	0.5	2.5	45	4	
2CRE 005 001 030	0.5 X R0.1	0.5	3	45	4	
2CRE 005 001 040	0.5 X R0.1	0.5	4	45	4	
2CRE 005 001 050	0.5 X R0.1	0.5	5	45	4	

Order Number	날경 D × R	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	샙크 Shank Dia d	비고
2CRE 005 001 060	0.5 X R0.1	0.5	6	45	4	
2CRE 005 001 080	0.5 X R0.1	0.5	8	45	4	
2CRE 005 001 100	0.5 X R0.1	0.5	10	50	4	
2CRE 005 001 120	0.5 X R0.1	0.5	12	50	4	
2CRE 006 0002 020	0.6 X R0.02	0.6	2	45	4	
2CRE 006 0002 030	0.6 X R0.02	0.6	3	45	4	
2CRE 006 0002 040	0.6 X R0.02	0.6	4	45	4	
2CRE 006 0002 060	0.6 X R0.02	0.6	6	45	4	
2CRE 006 0002 080	0.6 X R0.02	0.6	8	45	4	
2CRE 006 0002 100	0.6 X R0.02	0.6	10	50	4	
2CRE 006 0005 020	0.6 X R0.05	0.6	2	45	4	
2CRE 006 0005 030	0.6 X R0.05	0.6	3	45	4	
2CRE 006 0005 040	0.6 X R0.05	0.6	4	45	4	
2CRE 006 0005 060	0.6 X R0.05	0.6	6	45	4	
2CRE 006 0005 080	0.6 X R0.05	0.6	8	45	4	
2CRE 006 0005 100	0.6 X R0.05	0.6	10	50	4	
2CRE 006 0005 120	0.6 X R0.05	0.6	12	50	4	
2CRE 006 001 020	0.6 X R0.1	0.6	2	45	4	
2CRE 006 001 030	0.6 X R0.1	0.6	3	45	4	
2CRE 006 001 040	0.6 X R0.1	0.6	4	45	4	
2CRE 006 001 060	0.6 X R0.1	0.6	6	45	4	
2CRE 006 001 080	0.6 X R0.1	0.6	8	45	4	
2CRE 006 001 100	0.6 X R0.1	0.6	10	50	4	
2CRE 006 001 120	0.6 X R0.1	0.6	12	50	4	
2CRE 007 001 020	0.7 X R0.1	0.7	2	45	4	
2CRE 007 001 040	0.7 X R0.1	0.7	4	45	4	
2CRE 007 001 060	0.7 X R0.1	0.7	6	45	4	
2CRE 007 001 080	0.7 X R0.1	0.7	8	45	4	
2CRE 007 001 100	0.7 X R0.1	0.7	10	45	4	
2CRE 008 0002 020	0.8 X R0.02	0.8	2	45	4	
2CRE 008 0002 040	0.8 X R0.02	0.8	4	45	4	
2CRE 008 0002 060	0.8 X R0.02	0.8	6	45	4	
2CRE 008 0002 080	0.8 X R0.02	0.8	8	45	4	
2CRE 008 0002 100	0.8 X R0.02	0.8	10	50	4	
2CRE 008 0005 020	0.8 X R0.05	0.8	2	45	4	
2CRE 008 0005 040	0.8 X R0.05	0.8	4	45	4	
2CRE 008 0005 060	0.8 X R0.05	0.8	6	45	4	
2CRE 008 0005 080	0.8 X R0.05	0.8	8	45	4	
2CRE 008 0005 100	0.8 X R0.05	0.8	10	50	4	
2CRE 008 0005 120	0.8 X R0.05	0.8	12	50	4	
2CRE 008 001 020	0.8 X R0.1	0.8	2	45	4	
2CRE 008 001 040	0.8 X R0.1	0.8	4	45	4	
2CRE 008 001 060	0.8 X R0.1	0.8	6	45	4	
2CRE 008 001 080	0.8 X R0.1	0.8	8	45	4	
2CRE 008 001 100	0.8 X R0.1	0.8	10	50	4	
2CRE 008 001 120	0.8 X R0.1	0.8	12	50	4	
2CRE 008 001 140	0.8 X R0.1	0.8	14	50	4	
2CRE 008 002 020	0.8 X R0.2	0.8	2	45	4	
2CRE 008 002 040	0.8 X R0.2	0.8	4	45	4	
2CRE 008 002 060	0.8 X R0.2	0.8	6	45	4	

단위 : mm

Order Number	날경 Diameter D×R	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	샙크 Dia d	비고	Order Number	날경 Diameter D×R	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	샙크 Dia d	비고
2CRE 008 002 080	0.8 X R0.2	0.8	8	45	4		2CRE 012 003 120	1.2 X R0.3	1.2	12	50	4	
2CRE 008 002 100	0.8 X R0.2	0.8	10	50	4		2CRE 012 003 140	1.2 X R0.3	1.2	14	50	4	
2CRE 008 002 120	0.8 X R0.2	0.8	12	50	4		2CRE 012 003 160	1.2 X R0.3	1.2	16	50	4	
2CRE 008 002 140	0.8 X R0.2	0.8	14	50	4		2CRE 012 003 200	1.2 X R0.3	1.2	20	50	4	
2CRE 010 0005 040	1 X R0.05	1	4	45	4		2CRE 015 001 040	1.5 X R0.1	1.5	4	45	4	
2CRE 010 0005 060	1 X R0.05	1	6	45	4		2CRE 015 001 060	1.5 X R0.1	1.5	6	45	4	
2CRE 010 0005 080	1 X R0.05	1	8	45	4		2CRE 015 001 080	1.5 X R0.1	1.5	8	45	4	
2CRE 010 0005 100	1 X R0.05	1	10	50	4		2CRE 015 001 100	1.5 X R0.1	1.5	10	50	4	
2CRE 010 0005 120	1 X R0.05	1	12	50	4		2CRE 015 001 120	1.5 X R0.1	1.5	12	50	4	
2CRE 010 0005 140	1 X R0.05	1	14	50	4		2CRE 015 001 140	1.5 X R0.1	1.5	14	50	4	
2CRE 010 0005 160	1 X R0.05	1	16	50	4		2CRE 015 001 160	1.5 X R0.1	1.5	16	50	4	
2CRE 010 0005 200	1 X R0.05	1	20	50	4		2CRE 015 001 200	1.5 X R0.1	1.5	20	50	4	
2CRE 010 0005 220	1 X R0.05	1	22	60	4		2CRE 015 001 220	1.5 X R0.1	1.5	22	60	4	
2CRE 010 0005 250	1 X R0.05	1	25	60	4		2CRE 015 001 250	1.5 X R0.1	1.5	25	60	4	
2CRE 010 001 040	1 X R0.1	1	4	45	4		2CRE 015 002 040	1.5 X R0.2	1.5	4	45	4	
2CRE 010 001 060	1 X R0.1	1	6	45	4		2CRE 015 002 060	1.5 X R0.2	1.5	6	45	4	
2CRE 010 001 080	1 X R0.1	1	8	45	4		2CRE 015 002 080	1.5 X R0.2	1.5	8	45	4	
2CRE 010 001 100	1 X R0.1	1	10	50	4		2CRE 015 002 100	1.5 X R0.2	1.5	10	50	4	
2CRE 010 001 120	1 X R0.1	1	12	50	4		2CRE 015 002 120	1.5 X R0.2	1.5	12	50	4	
2CRE 010 001 140	1 X R0.1	1	14	50	4		2CRE 015 002 140	1.5 X R0.2	1.5	14	50	4	
2CRE 010 001 160	1 X R0.1	1	16	50	4		2CRE 015 002 160	1.5 X R0.2	1.5	16	50	4	
2CRE 010 001 200	1 X R0.1	1	20	50	4		2CRE 015 002 200	1.5 X R0.2	1.5	20	50	4	
2CRE 010 001 220	1 X R0.1	1	22	60	4		2CRE 015 002 220	1.5 X R0.2	1.5	22	60	4	
2CRE 010 001 250	1 X R0.1	1	25	60	4		2CRE 015 002 250	1.5 X R0.2	1.5	25	60	4	
2CRE 010 002 040	1 X R0.2	1	4	45	4		2CRE 015 003 040	1.5 X R0.3	1.5	4	45	4	
2CRE 010 002 060	1 X R0.2	1	6	45	4		2CRE 015 003 060	1.5 X R0.3	1.5	6	45	4	
2CRE 010 002 080	1 X R0.2	1	8	45	4		2CRE 015 003 080	1.5 X R0.3	1.5	8	45	4	
2CRE 010 002 100	1 X R0.2	1	10	50	4		2CRE 015 003 100	1.5 X R0.3	1.5	10	50	4	
2CRE 010 002 120	1 X R0.2	1	12	50	4		2CRE 015 003 120	1.5 X R0.3	1.5	12	50	4	
2CRE 010 002 140	1 X R0.2	1	14	50	4		2CRE 015 003 140	1.5 X R0.3	1.5	14	50	4	
2CRE 010 002 160	1 X R0.2	1	16	50	4		2CRE 015 003 160	1.5 X R0.3	1.5	16	50	4	
2CRE 010 002 200	1 X R0.2	1	20	50	4		2CRE 015 003 200	1.5 X R0.3	1.5	20	50	4	
2CRE 010 002 220	1 X R0.2	1	22	60	4		2CRE 015 003 220	1.5 X R0.3	1.5	22	60	4	
2CRE 010 002 250	1 X R0.2	1	25	60	4		2CRE 015 003 250	1.5 X R0.3	1.5	25	60	4	
2CRE 010 003 040	1 X R0.3	1	4	45	4		2CRE 015 005 040	1.5 X R0.5	1.5	4	45	4	
2CRE 010 003 060	1 X R0.3	1	6	45	4		2CRE 015 005 060	1.5 X R0.5	1.5	6	45	4	
2CRE 010 003 080	1 X R0.3	1	8	45	4		2CRE 015 005 080	1.5 X R0.5	1.5	8	45	4	
2CRE 010 003 100	1 X R0.3	1	10	50	4		2CRE 015 005 100	1.5 X R0.5	1.5	10	50	4	
2CRE 010 003 120	1 X R0.3	1	12	50	4		2CRE 015 005 120	1.5 X R0.5	1.5	12	50	4	
2CRE 010 003 140	1 X R0.3	1	14	50	4		2CRE 015 005 140	1.5 X R0.5	1.5	14	50	4	
2CRE 010 003 160	1 X R0.3	1	16	50	4		2CRE 015 005 160	1.5 X R0.5	1.5	16	50	4	
2CRE 010 003 200	1 X R0.3	1	20	50	4		2CRE 015 005 200	1.5 X R0.5	1.5	20	50	4	
2CRE 010 003 220	1 X R0.3	1	22	60	4		2CRE 015 005 220	1.5 X R0.5	1.5	22	60	4	
2CRE 010 003 250	1 X R0.3	1	25	60	4		2CRE 015 005 250	1.5 X R0.5	1.5	25	60	4	
2CRE 012 001 040	1.2 X R0.1	1.2	4	45	4		2CRE 020 001 060	2 X R0.1	2	6	45	4	
2CRE 012 001 060	1.2 X R0.1	1.2	6	45	4		2CRE 020 001 080	2 X R0.1	2	8	45	4	
2CRE 012 001 080	1.2 X R0.1	1.2	8	45	4		2CRE 020 001 100	2 X R0.1	2	10	50	4	
2CRE 012 001 100	1.2 X R0.1	1.2	10	50	4		2CRE 020 001 120	2 X R0.1	2	12	50	4	
2CRE 012 001 120	1.2 X R0.1	1.2	12	50	4		2CRE 020 001 140	2 X R0.1	2	14	50	4	
2CRE 012 001 140	1.2 X R0.1	1.2	14	50	4		2CRE 020 001 160	2 X R0.1	2	16	50	4	
2CRE 012 001 160	1.2 X R0.1	1.2	16	50	4		2CRE 020 001 200	2 X R0.1	2	20	50	4	
2CRE 012 001 200	1.2 X R0.1	1.2	20	50	4		2CRE 020 001 250	2 X R0.1	2	25	60	4	
2CRE 012 002 040	1.2 X R0.2	1.2	4	45	4		2CRE 020 001 300	2 X R0.1	2	30	70	4	
2CRE 012 002 060	1.2 X R0.2	1.2	6	45	4		2CRE 020 001 350	2 X R0.1	2	35	80	4	
2CRE 012 002 080	1.2 X R0.2	1.2	8	45	4		2CRE 020 001 400	2 X R0.1	2	40	80	4	
2CRE 012 002 100	1.2 X R0.2	1.2	10	50	4		2CRE 020 002 060	2 X R0.2	2	6	45	4	
2CRE 012 002 120	1.2 X R0.2	1.2	12	50	4		2CRE 020 002 080	2 X R0.2	2	8	45	4	
2CRE 012 002 140	1.2 X R0.2	1.2	14	50	4		2CRE 020 002 100	2 X R0.2	2	10	50	4	
2CRE 012 002 160	1.2 X R0.2	1.2	16	50	4		2CRE 020 002 120	2 X R0.2	2	12	50	4	
2CRE 012 002 200	1.2 X R0.2	1.2	20	50	4		2CRE 020 002 140	2 X R0.2	2	14	50	4	
2CRE 012 003 040	1.2 X R0.3	1.2	4	45	4		2CRE 020 002 160	2 X R0.2	2	16	50	4	
2CRE 012 003 060	1.2 X R0.3	1.2	6	45	4		2CRE 020 002 200	2 X R0.2	2	20	50	4	
2CRE 012 003 080	1.2 X R0.3	1.2	8	45	4		2CRE 020 002 250	2 X R0.2	2	25	60	4	
2CRE 012 003 100	1.2 X R0.3	1.2	10	50	4		2CRE 020 002 300	2 X R0.2	2	30	70	4	

HARD series

단위 : mm

HARD series

Order Number	날경 Diameter D×R	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고	Order Number	날경 Diameter D×R	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	생크 Shank Dia d	비고
2CRE 020 003 060	2 X R0.3	2	6	45	4		2CRE 030 003 350	3 X R0.3	3	35	75	6	
2CRE 020 003 080	2 X R0.3	2	8	45	4		2CRE 030 003 400	3 X R0.3	3	40	80	6	
2CRE 020 003 100	2 X R0.3	2	10	50	4		2CRE 030 005 100	3 X R0.5	3	10	50	6	
2CRE 020 003 120	2 X R0.3	2	12	50	4		2CRE 030 005 120	3 X R0.5	3	12	55	6	
2CRE 020 003 140	2 X R0.3	2	14	50	4		2CRE 030 005 160	3 X R0.5	3	16	55	6	
2CRE 020 003 160	2 X R0.3	2	16	50	4		2CRE 030 005 200	3 X R0.5	3	20	60	6	
2CRE 020 003 200	2 X R0.3	2	20	50	4		2CRE 030 005 250	3 X R0.5	3	25	65	6	
2CRE 020 003 250	2 X R0.3	2	25	60	4		2CRE 030 005 300	3 X R0.5	3	30	70	6	
2CRE 020 003 300	2 X R0.3	2	30	70	4		2CRE 030 005 350	3 X R0.5	3	35	75	6	
2CRE 020 005 060	2 X R0.5	2	6	45	4		2CRE 030 005 400	3 X R0.5	3	40	80	6	
2CRE 020 005 080	2 X R0.5	2	8	45	4		2CRE 030 005 450	3 X R0.5	3	45	90	6	
2CRE 020 005 100	2 X R0.5	2	10	50	4		2CRE 030 005 500	3 X R0.5	3	50	100	6	
2CRE 020 005 120	2 X R0.5	2	12	50	4		2CRE 030 010 100	3 X R1	3	10	50	6	
2CRE 020 005 140	2 X R0.5	2	14	50	4		2CRE 030 010 120	3 X R1	3	12	55	6	
2CRE 020 005 160	2 X R0.5	2	16	50	4		2CRE 030 010 160	3 X R1	3	16	55	6	
2CRE 020 005 200	2 X R0.5	2	20	50	4		2CRE 030 010 200	3 X R1	3	20	60	6	
2CRE 020 005 250	2 X R0.5	2	25	60	4		2CRE 030 010 250	3 X R1	3	25	65	6	
2CRE 020 005 300	2 X R0.5	2	30	70	4		2CRE 030 010 300	3 X R1	3	30	70	6	
2CRE 020 005 350	2 X R0.5	2	35	80	4		2CRE 030 010 350	3 X R1	3	35	75	6	
2CRE 020 005 400	2 X R0.5	2	40	80	4		2CRE 030 010 400	3 X R1	3	40	80	6	
2CRE 025 001 100	2.5 X R0.1	2.5	10	50	4		2CRE 040 001 050	4 X R0.1	4	12	50	4	
2CRE 025 001 160	2.5 X R0.1	2.5	16	50	4		2CRE 040 001 070	4 X R0.1	4	20	70	4	
2CRE 025 001 200	2.5 X R0.1	2.5	20	50	4		2CRE 040 001 120	4 X R0.1	4	12	55	6	
2CRE 025 001 250	2.5 X R0.1	2.5	25	60	4		2CRE 040 001 160	4 X R0.1	4	16	55	6	
2CRE 025 001 300	2.5 X R0.1	2.5	30	70	4		2CRE 040 001 200	4 X R0.1	4	20	60	6	
2CRE 025 002 100	2.5 X R0.2	2.5	10	50	4		2CRE 040 001 250	4 X R0.1	4	25	65	6	
2CRE 025 002 160	2.5 X R0.2	2.5	16	50	4		2CRE 040 001 300	4 X R0.1	4	30	70	6	
2CRE 025 002 200	2.5 X R0.2	2.5	20	50	4		2CRE 040 001 350	4 X R0.1	4	35	75	6	
2CRE 025 002 250	2.5 X R0.2	2.5	25	60	4		2CRE 040 001 400	4 X R0.1	4	40	80	6	
2CRE 025 002 300	2.5 X R0.2	2.5	30	70	4		2CRE 040 001 450	4 X R0.1	4	45	90	6	
2CRE 025 003 100	2.5 X R0.3	2.5	10	50	4		2CRE 040 001 500	4 X R0.1	4	50	100	6	
2CRE 025 003 160	2.5 X R0.3	2.5	16	50	4		2CRE 040 002 050	4 X R0.2	4	12	50	4	
2CRE 025 003 200	2.5 X R0.3	2.5	20	50	4		2CRE 040 002 070	4 X R0.2	4	20	70	4	
2CRE 025 003 250	2.5 X R0.3	2.5	25	60	4		2CRE 040 002 120	4 X R0.2	4	12	55	6	
2CRE 025 003 300	2.5 X R0.3	2.5	30	70	4		2CRE 040 002 160	4 X R0.2	4	16	55	6	
2CRE 025 005 100	2.5 X R0.5	2.5	10	50	4		2CRE 040 002 200	4 X R0.2	4	20	60	6	
2CRE 025 005 160	2.5 X R0.5	2.5	16	50	4		2CRE 040 002 250	4 X R0.2	4	25	65	6	
2CRE 025 005 200	2.5 X R0.5	2.5	20	50	4		2CRE 040 002 300	4 X R0.2	4	30	70	6	
2CRE 025 005 250	2.5 X R0.5	2.5	25	60	4		2CRE 040 002 350	4 X R0.2	4	35	75	6	
2CRE 025 005 300	2.5 X R0.5	2.5	30	70	4		2CRE 040 002 400	4 X R0.2	4	40	80	6	
2CRE 030 001 100	3 X R0.1	3	10	50	6		2CRE 040 002 450	4 X R0.2	4	45	90	6	
2CRE 030 001 120	3 X R0.1	3	12	55	6		2CRE 040 002 500	4 X R0.2	4	50	100	6	
2CRE 030 001 160	3 X R0.1	3	16	55	6		2CRE 040 003 050	4 X R0.3	4	12	50	4	
2CRE 030 001 200	3 X R0.1	3	20	60	6		2CRE 040 003 070	4 X R0.3	4	20	70	4	
2CRE 030 001 250	3 X R0.1	3	25	65	6		2CRE 040 003 120	4 X R0.3	4	12	55	6	
2CRE 030 001 300	3 X R0.1	3	30	70	6		2CRE 040 003 160	4 X R0.3	4	16	55	6	
2CRE 030 001 350	3 X R0.1	3	35	75	6		2CRE 040 003 200	4 X R0.3	4	20	60	6	
2CRE 030 001 400	3 X R0.1	3	40	80	6		2CRE 040 003 250	4 X R0.3	4	25	65	6	
2CRE 030 002 100	3 X R0.2	3	10	50	6		2CRE 040 003 300	4 X R0.3	4	30	70	6	
2CRE 030 002 120	3 X R0.2	3	12	55	6		2CRE 040 003 350	4 X R0.3	4	35	75	6	
2CRE 030 002 160	3 X R0.2	3	16	55	6		2CRE 040 003 400	4 X R0.3	4	40	80	6	
2CRE 030 002 200	3 X R0.2	3	20	60	6		2CRE 040 003 450	4 X R0.3	4	45	90	6	
2CRE 030 002 250	3 X R0.2	3	25	65	6		2CRE 040 003 500	4 X R0.3	4	50	100	6	
2CRE 030 002 300	3 X R0.2	3	30	70	6		2CRE 040 005 050	4 X R0.5	4	12	50	4	
2CRE 030 002 350	3 X R0.2	3	35	75	6		2CRE 040 005 070	4 X R0.5	4	20	70	4	
2CRE 030 002 400	3 X R0.2	3	40	80	6		2CRE 040 005 120	4 X R0.5	4	12	55	6	
2CRE 030 002 450	3 X R0.2	3	45	90	6		2CRE 040 005 160	4 X R0.5	4	16	55	6	
2CRE 030 002 500	3 X R0.2	3	50	100	6		2CRE 040 005 200	4 X R0.5	4	20	60	6	
2CRE 030 003 100	3 X R0.3	3	10	50	6		2CRE 040 005 250	4 X R0.5	4	25	65	6	
2CRE 030 003 120	3 X R0.3	3	12	55	6		2CRE 040 005 300	4 X R0.5	4	30	70	6	
2CRE 030 003 160	3 X R0.3	3	16	55	6		2CRE 040 005 350	4 X R0.5	4	35	75	6	
2CRE 030 003 200	3 X R0.3	3	20	60	6		2CRE 040 005 400	4 X R0.5	4	40	80	6	
2CRE 030 003 250	3 X R0.3	3	25	65	6		2CRE 040 005 450	4 X R0.5	4	45	90	6	
2CRE 030 003 300	3 X R0.3	3	30	70	6		2CRE 040 005 500	4 X R0.5	4	50	100	6	

단위 : mm

Order Number	날경 D × R	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	샙크 Dia d	비고	Order Number	날경 D × R	날장 Length of cut L1	유효장 Effective Length L2	전장 Overall Length L	샙크 Dia d	비고
2CRE 040 010 050	4 X R1	4	12	50	4		2CRE 100 015 240	10 X R1.5	11	24	70	10	
2CRE 040 010 070	4 X R1	4	20	70	4		2CRE 100 015 450	10 X R1.5	11	45	100	10	
2CRE 040 010 120	4 X R1	4	12	55	6		2CRE 100 020 240	10 X R2	11	24	70	10	
2CRE 040 010 160	4 X R1	4	16	55	6		2CRE 100 020 450	10 X R2	11	45	100	10	
2CRE 040 010 200	4 X R1	4	20	60	6		2CRE 120 002 260	12 X R0.2	13	26	80	12	
2CRE 040 010 250	4 X R1	4	25	65	6		2CRE 120 002 500	12 X R0.2	13	50	110	12	
2CRE 040 010 300	4 X R1	4	30	70	6		2CRE 120 003 260	12 X R0.3	13	26	80	12	
2CRE 040 010 350	4 X R1	4	35	75	6		2CRE 120 003 500	12 X R0.3	13	50	110	12	
2CRE 040 010 400	4 X R1	4	40	80	6		2CRE 120 005 260	12 X R0.5	13	26	80	12	
2CRE 040 010 450	4 X R1	4	45	90	6		2CRE 120 005 500	12 X R0.5	13	50	110	12	
2CRE 040 010 500	4 X R1	4	50	100	6		2CRE 120 005 700	12 X R0.5	13	70	130	12	
2CRE 050 002 150	5 X R0.2	6	15	60	6		2CRE 120 010 260	12 X R1	13	26	80	12	
2CRE 050 002 250	5 X R0.2	6	25	70	6		2CRE 120 010 500	12 X R1	13	50	110	12	
2CRE 050 002 300	5 X R0.2	6	30	70	6		2CRE 120 010 700	12 X R1	13	70	130	12	
2CRE 050 002 400	5 X R0.2	6	40	80	6		2CRE 120 015 260	12 X R1.5	13	26	80	12	
2CRE 050 002 500	5 X R0.2	6	50	100	6		2CRE 120 015 500	12 X R1.5	13	50	110	12	
2CRE 050 005 150	5 X R0.5	6	15	60	6		2CRE 120 020 260	12 X R2	13	26	80	12	
2CRE 050 005 250	5 X R0.5	6	25	70	6		2CRE 120 020 500	12 X R2	13	50	110	12	
2CRE 050 005 300	5 X R0.5	6	30	70	6		2CRE 120 030 260	12 X R3	13	26	80	12	
2CRE 050 005 400	5 X R0.5	6	40	80	6		2CRE 120 030 500	12 X R3	13	50	110	12	
2CRE 050 005 500	5 X R0.5	6	50	100	6		2CRE 160 005 110	16 X R0.5	20	40	110	16	
2CRE 050 010 150	5 X R1	6	15	60	6		2CRE 160 005 160	16 X R0.5	20	60	160	16	
2CRE 050 010 250	5 X R1	6	25	70	6		2CRE 160 010 110	16 X R1	20	40	110	16	
2CRE 050 010 300	5 X R1	6	30	70	6		2CRE 160 010 160	16 X R1	20	60	160	16	
2CRE 050 010 400	5 X R1	6	40	80	6								
2CRE 050 010 500	5 X R1	6	50	100	6								
2CRE 060 001 200	6 X R0.1	7	20	60	6								
2CRE 060 001 400	6 X R0.1	7	40	90	6								
2CRE 060 002 200	6 X R0.2	7	20	60	6								
2CRE 060 002 400	6 X R0.2	7	40	90	6								
2CRE 060 002 600	6 X R0.2	7	60	110	6								
2CRE 060 003 200	6 X R0.3	7	20	60	6								
2CRE 060 003 400	6 X R0.3	7	40	90	6								
2CRE 060 005 200	6 X R0.5	7	20	60	6								
2CRE 060 005 400	6 X R0.5	7	40	90	6								
2CRE 060 005 600	6 X R0.5	7	60	110	6								
2CRE 060 010 200	6 X R1	7	20	60	6								
2CRE 060 010 400	6 X R1	7	40	90	6								
2CRE 060 010 600	6 X R1	7	60	110	6								
2CRE 060 015 200	6 X R1.5	7	20	60	6								
2CRE 060 015 400	6 X R1.5	7	40	90	6								
2CRE 080 002 220	8 X R0.2	9	22	65	8								
2CRE 080 002 400	8 X R0.2	9	40	100	8								
2CRE 080 003 220	8 X R0.3	9	22	65	8								
2CRE 080 003 400	8 X R0.3	9	40	100	8								
2CRE 080 005 220	8 X R0.5	9	22	65	8								
2CRE 080 005 400	8 X R0.5	9	40	100	8								
2CRE 080 005 600	8 X R0.5	9	60	120	8								
2CRE 080 010 220	8 X R1	9	22	65	8								
2CRE 080 010 400	8 X R1	9	40	100	8								
2CRE 080 010 600	8 X R1	9	60	120	8								
2CRE 080 015 220	8 X R1.5	9	22	65	8								
2CRE 080 015 400	8 X R1.5	9	40	100	8								
2CRE 100 002 240	10 X R0.2	11	24	70	10								
2CRE 100 002 450	10 X R0.2	11	45	100	10								
2CRE 100 002 600	10 X R0.2	11	60	120	10								
2CRE 100 003 240	10 X R0.3	11	24	70	10								
2CRE 100 003 450	10 X R0.3	11	45	100	10								
2CRE 100 005 240	10 X R0.5	11	24	70	10								
2CRE 100 005 450	10 X R0.5	11	45	100	10								
2CRE 100 005 600	10 X R0.5	11	60	120	10								
2CRE 100 010 240	10 X R1	11	24	70	10								
2CRE 100 010 450	10 X R1	11	45	100	10								
2CRE 100 010 600	10 X R1	11	60	120	10								

HARD series