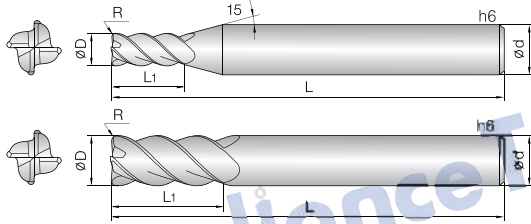


4 Flute Hard Cut 45° Helix Corner Radius End Mills For Hardened Steels



4HHR



- **Corner Radius Endmills for various work materials (HRC 52-68) Pre-hardened steels and Hardened steels.**
- Good wear resistance by high quality Si-based H coating.
- High-Precise edge tolerance.
- 45° helix design for high speed, feed condition.
- Designed for minimizing edge chipping by corner R shape.
- Good surface finish.
- Outstanding performance at high speed machining by ultra fine (0.2µm) WC grade.

Unit(mm)

Model Number	Cutting Dia. D	Corner Radius R	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HHR 010 0005 650	1	R0.05	2	-	50	6
4HHR 010 001 650	1	R0.1	2	-	50	6
4HHR 010 002 650	1	R0.2	2	-	50	6
4HHR 010 003 650	1	R0.3	2	-	50	6
4HHR 012 0005 650	1.2	R0.05	2.5	-	50	6
4HHR 012 001 650	1.2	R0.1	2.5	-	50	6
4HHR 012 002 650	1.2	R0.2	2.5	-	50	6
4HHR 012 003 650	1.2	R0.3	2.5	-	50	6
4HHR 015 0005 650	1.5	R0.05	3	-	50	6
4HHR 015 001 650	1.5	R0.1	3	-	50	6
4HHR 015 002 650	1.5	R0.2	3	-	50	6
4HHR 015 003 650	1.5	R0.3	3	-	50	6
4HHR 015 005 650	1.5	R0.5	3	-	50	6
4HHR 020 001 650	2	R0.1	5	-	50	6
4HHR 020 002 650	2	R0.2	5	-	50	6
4HHR 020 003 650	2	R0.3	5	-	50	6
4HHR 020 005 650	2	R0.5	5	-	50	6
4HHR 025 001 660	2.5	R0.1	6	-	60	6
4HHR 025 002 660	2.5	R0.2	6	-	60	6
4HHR 025 003 660	2.5	R0.3	6	-	60	6
4HHR 025 005 660	2.5	R0.5	6	-	60	6
4HHR 030 001 660	3	R0.1	6	-	60	6
4HHR 030 002 660	3	R0.2	6	-	60	6
4HHR 030 003 660	3	R0.3	6	-	60	6
4HHR 030 005 660	3	R0.5	6	-	60	6
4HHR 030 010 660	3	R1	6	-	60	6

4 Flute Hard Cut 45° Helix Corner Radius End Mills For Hardened Steels



Unit(mm)

Model Number	Cutting Dia. D	Corner Radius R	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HHR 040 001 660	4	R0.1	8	-	60	6
4HHR 040 002 660	4	R0.2	8	-	60	6
4HHR 040 003 660	4	R0.3	8	-	60	6
4HHR 040 005 660	4	R0.5	8	-	60	6
4HHR 040 010 660	4	R1	8	-	60	6
4HHR 050 001 675	5	R0.1	10	-	75	6
4HHR 050 002 675	5	R0.2	10	-	75	6
4HHR 050 003 675	5	R0.3	10	-	75	6
4HHR 050 005 675	5	R0.5	10	-	75	6
4HHR 050 010 675	5	R1	10	-	75	6
4HHR 060 001 660	6	R0.1	12	-	60	6
4HHR 060 001 675	6	R0.1	15	-	75	6
4HHR 060 002 660	6	R0.2	12	-	60	6
4HHR 060 002 675	6	R0.2	15	-	75	6
4HHR 060 003 660	6	R0.3	12	-	60	6
4HHR 060 003 675	6	R0.3	15	-	75	6
4HHR 060 005 660	6	R0.5	12	-	60	6
4HHR 060 005 675	6	R0.5	15	-	75	6
4HHR 060 010 660	6	R1	12	-	60	6
4HHR 060 010 675	6	R1	15	-	75	6
4HHR 060 015 660	6	R1.5	12	-	60	6
4HHR 060 015 675	6	R1.5	15	-	75	6
4HHR 060 020 660	6	R2	12	-	60	6
4HHR 060 020 675	6	R2	15	-	75	6
4HHR 080 002 875	8	R0.2	16	-	75	8
4HHR 080 002 8A0	8	R0.2	19	-	100	8
4HHR 080 003 875	8	R0.3	16	-	75	8
4HHR 080 003 8A0	8	R0.3	19	-	100	8
4HHR 080 005 875	8	R0.5	16	-	75	8
4HHR 080 005 8A0	8	R0.5	19	-	100	8
4HHR 080 010 875	8	R1	16	-	75	8
4HHR 080 010 8A0	8	R1	19	-	100	8
4HHR 080 015 875	8	R1.5	16	-	75	8
4HHR 080 015 8A0	8	R1.5	19	-	100	8
4HHR 080 020 875	8	R2	16	-	75	8
4HHR 080 020 8A0	8	R2	19	-	100	8
4HHR 100 002 A75	10	R0.2	20	-	75	10

ECO-CUT

WIDE-CUT

HARD-CUT

ALU-CUT

D-CUT

SUS CUT

MAGIC DRILLS

4 Flute Hard Cut 45° Helix Corner Radius End Mills For Hardened Steels



Unit(mm)

Model Number	Cutting Dia. D	Corner Radius R	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HHR 100 002 AA0	10	R0.2	23	-	100	10
4HHR 100 003 A75	10	R0.3	20	-	75	10
4HHR 100 003 AA0	10	R0.3	23	-	100	10
4HHR 100 005 A75	10	R0.5	20	-	75	10
4HHR 100 005 AA0	10	R0.5	23	-	100	10
4HHR 100 010 A75	10	R1	20	-	75	10
4HHR 100 010 AA0	10	R1	23	-	100	10
4HHR 100 015 A75	10	R1.5	20	-	75	10
4HHR 100 015 AA0	10	R1.5	23	-	100	10
4HHR 100 020 A75	10	R2	20	-	75	10
4HHR 100 020 AA0	10	R2	23	-	100	10
4HHR 120 003 C75	12	R0.3	23	-	75	12
4HHR 120 003 CA0	12	R0.3	27	-	100	12
4HHR 120 005 C75	12	R0.5	23	-	75	12
4HHR 120 005 CA0	12	R0.5	27	-	100	12
4HHR 120 010 C75	12	R1	23	-	75	12
4HHR 120 010 CA0	12	R1	27	-	100	12
4HHR 120 015 C75	12	R1.5	23	-	75	12
4HHR 120 015 CA0	12	R1.5	27	-	100	12
4HHR 120 020 C75	12	R2	23	-	75	12
4HHR 120 020 CA0	12	R2	27	-	100	12
4HHR 120 030 C75	12	R3	23	-	75	12
4HHR 120 030 CA0	12	R3	27	-	100	12
4HHR 140 005 EA0	14	R0.5	30	-	100	14
4HHR 140 010 EA0	14	R1	30	-	100	14
4HHR 140 020 EA0	14	R2	30	-	100	14
4HHR 160 005 GC0	16	R0.5	32	-	120	16
4HHR 160 010 GC0	16	R1	32	-	120	16
4HHR 160 020 GC0	16	R2	32	-	120	16
4HHR 160 030 GC0	16	R3	32	-	120	16
4HHR 200 005 KF0	20	R0.5	38	-	150	20
4HHR 200 010 KF0	20	R1	38	-	150	20
4HHR 200 020 KF0	20	R2	38	-	150	20
4HHR 200 030 KF0	20	R3	38	-	150	20
4HHR 200 040 KF0	20	R4	38	-	150	20