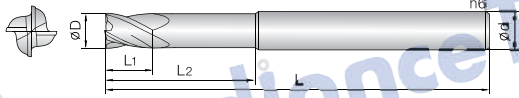
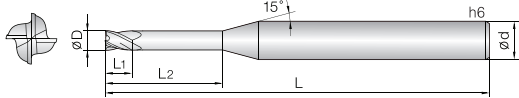


4 Flutes Hard Cut Rib End Mills For Hardened Steels



4HRE

- 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.
- Reinforced edge design for preventing edge chipping.
- Good surface finish.
- Outstanding performance at high speed machining by ultra fine (0.2µm) WC grade.

Unit(mm)

Model Number	Cutting Dia. D	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HRE 005 010 445	0.5	0.5	1	45	4
4HRE 005 020 445	0.5	0.5	2	45	4
4HRE 005 030 445	0.5	0.5	3	45	4
4HRE 005 040 445	0.5	0.5	4	45	4
4HRE 005 050 445	0.5	0.5	5	45	4
4HRE 005 060 445	0.5	0.5	6	45	4
4HRE 005 080 445	0.5	0.5	8	45	4
4HRE 005 100 450	0.5	0.5	10	50	4
4HRE 006 010 445	0.6	0.6	1	45	4
4HRE 006 020 445	0.6	0.6	2	45	4
4HRE 006 030 445	0.6	0.6	3	45	4
4HRE 006 040 445	0.6	0.6	4	45	4
4HRE 006 050 445	0.6	0.6	5	45	4
4HRE 006 060 445	0.6	0.6	6	45	4
4HRE 006 080 445	0.6	0.6	8	45	4
4HRE 006 100 450	0.6	0.6	10	50	4
4HRE 006 120 450	0.6	0.6	12	50	4
4HRE 007 020 445	0.7	0.7	2	45	4
4HRE 007 040 445	0.7	0.7	4	45	4
4HRE 007 060 445	0.7	0.7	6	45	4
4HRE 007 080 445	0.7	0.7	8	45	4
4HRE 007 100 450	0.7	0.7	10	50	4
4HRE 008 010 445	0.8	0.8	1	45	4
4HRE 008 020 445	0.8	0.8	2	45	4
4HRE 008 030 445	0.8	0.8	3	45	4
4HRE 008 040 445	0.8	0.8	4	45	4

4 Flutes Hard Cut Rib End Mills For Hardened Steels



Unit(mm)

Model Number	Cutting Dia. D	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HRE 008 050 445	0.8	0.8	5	45	4
4HRE 008 060 445	0.8	0.8	6	45	4
4HRE 008 080 445	0.8	0.8	8	45	4
4HRE 008 100 450	0.8	0.8	10	50	4
4HRE 008 120 450	0.8	0.8	12	50	4
4HRE 008 160 450	0.8	0.8	16	50	4
4HRE 010 020 445	1	1	2	45	4
4HRE 010 030 445	1	1	3	45	4
4HRE 010 040 445	1	1	4	45	4
4HRE 010 060 445	1	1	6	45	4
4HRE 010 080 445	1	1	8	45	4
4HRE 010 100 450	1	1	10	50	4
4HRE 010 120 450	1	1	12	50	4
4HRE 010 140 450	1	1	14	50	4
4HRE 010 160 450	1	1	16	50	4
4HRE 010 180 460	1	1	18	60	4
4HRE 010 200 460	1	1	20	60	4
4HRE 012 040 445	1.2	1.2	4	45	4
4HRE 012 060 445	1.2	1.2	6	45	4
4HRE 012 080 445	1.2	1.2	8	45	4
4HRE 012 100 450	1.2	1.2	10	50	4
4HRE 012 120 450	1.2	1.2	12	50	4
4HRE 012 160 450	1.2	1.2	16	50	4
4HRE 012 180 460	1.2	1.2	18	60	4
4HRE 012 200 460	1.2	1.2	20	60	4
4HRE 014 060 445	1.4	1.4	6	45	4
4HRE 014 080 445	1.4	1.4	8	45	4
4HRE 014 100 450	1.4	1.4	10	50	4
4HRE 014 120 450	1.4	1.4	12	50	4
4HRE 014 140 450	1.4	1.4	14	50	4
4HRE 014 160 450	1.4	1.4	16	50	4
4HRE 015 040 445	1.5	1.5	4	45	4
4HRE 015 060 445	1.5	1.5	6	45	4
4HRE 015 080 445	1.5	1.5	8	45	4
4HRE 015 100 450	1.5	1.5	10	50	4
4HRE 015 120 450	1.5	1.5	12	50	4
4HRE 015 160 450	1.5	1.5	16	50	4

ECO-CUT

WIDE-CUT

HARD-CUT

ALU-CUT

D-CUT

SUS CUT

MAGIC DRILLS

4 Flutes Hard Cut Rib End Mills For Hardened Steels



Unit(mm)

Model Number	Cutting Dia. D	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HRE 015 180 460	1.5	1.5	18	60	4
4HRE 015 200 460	1.5	1.5	20	60	4
4HRE 015 250 460	1.5	1.5	25	60	4
4HRE 015 300 475	1.5	1.5	30	75	4
4HRE 016 060 445	1.6	1.6	6	45	4
4HRE 016 080 445	1.6	1.6	8	45	4
4HRE 016 100 450	1.6	1.6	10	50	4
4HRE 016 120 450	1.6	1.6	12	50	4
4HRE 016 140 450	1.6	1.6	14	50	4
4HRE 016 160 450	1.6	1.6	16	50	4
4HRE 016 180 460	1.6	1.6	18	60	4
4HRE 016 200 460	1.6	1.6	20	60	4
4HRE 016 250 475	1.6	1.6	25	75	4
4HRE 018 060 445	1.8	1.8	6	45	4
4HRE 018 080 445	1.8	1.8	8	45	4
4HRE 018 100 450	1.8	1.8	10	50	4
4HRE 018 120 450	1.8	1.8	12	50	4
4HRE 018 160 450	1.8	1.8	16	50	4
4HRE 018 200 460	1.8	1.8	20	60	4
4HRE 018 250 475	1.8	1.8	25	75	4
4HRE 020 040 445	2	2	4	45	4
4HRE 020 060 445	2	2	6	45	4
4HRE 020 080 445	2	2	8	45	4
4HRE 020 100 450	2	2	10	50	4
4HRE 020 120 450	2	2	12	50	4
4HRE 020 140 450	2	2	14	50	4
4HRE 020 160 450	2	2	16	50	4
4HRE 020 180 450	2	2	18	50	4
4HRE 020 200 450	2	2	20	50	4
4HRE 020 220 460	2	2	22	60	4
4HRE 020 250 460	2	2	25	60	4
4HRE 020 300 475	2	2	30	75	4
4HRE 025 100 450	2.5	2.5	10	50	4
4HRE 025 120 450	2.5	2.5	12	50	4
4HRE 025 160 450	2.5	2.5	16	50	4
4HRE 025 200 450	2.5	2.5	20	50	4
4HRE 025 250 460	2.5	2.5	25	60	4

4 Flutes Hard Cut Rib End Mills For Hardened Steels



Unit(mm)

Model Number	Cutting Dia. D	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HRE 025 300 475	2.5	2.5	30	75	4
4HRE 030 060 650	3	3	6	50	6
4HRE 030 080 650	3	3	8	50	6
4HRE 030 100 650	3	3	10	50	6
4HRE 030 120 650	3	3	12	50	6
4HRE 030 160 650	3	3	16	50	6
4HRE 030 200 660	3	3	20	60	6
4HRE 030 250 660	3	3	25	60	6
4HRE 030 300 675	3	3	30	75	6
4HRE 030 350 675	3	3	35	75	6
4HRE 030 400 675	3	3	40	75	6
4HRE 030 450 6A0	3	3	45	100	6
4HRE 030 500 6A0	3	3	50	100	6
4HRE 030 600 6A0	3	3	60	100	6
4HRE 035 120 650	3.5	3.5	12	50	6
4HRE 035 160 650	3.5	3.5	16	50	6
4HRE 035 200 660	3.5	3.5	20	60	6
4HRE 035 250 660	3.5	3.5	25	60	6
4HRE 035 300 675	3.5	3.5	30	75	6
4HRE 035 350 675	3.5	3.5	35	75	6
4HRE 035 400 675	3.5	3.5	40	75	6
4HRE 040 060 650	4	4	6	50	6
4HRE 040 080 650	4	4	8	50	6
4HRE 040 100 650	4	4	10	50	6
4HRE 040 120 650	4	4	12	50	6
4HRE 040 160 650	4	4	16	50	6
4HRE 040 200 660	4	4	20	60	6
4HRE 040 250 660	4	4	25	60	6
4HRE 040 300 675	4	4	30	75	6
4HRE 040 400 675	4	4	40	75	6
4HRE 040 450 6A0	4	4	45	100	6
4HRE 040 500 6A0	4	4	50	100	6
4HRE 040 600 6A0	4	4	60	100	6
4HRE 045 120 650	4.5	4.5	12	50	6
4HRE 045 160 650	4.5	4.5	16	50	6
4HRE 045 200 660	4.5	4.5	20	60	6
4HRE 045 250 660	4.5	4.5	25	60	6

ECO-CUT

WIDE-CUT

HARD-CUT

ALU-CUT

D-CUT

SUS CUT

MAGIC DRILLS

4 Flutes Hard Cut Rib End Mills For Hardened Steels



Unit(mm)

Model Number	Cutting Dia. D	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HRE 045 300 675	4.5	4.5	30	75	6
4HRE 045 400 675	4.5	4.5	40	75	6
4HRE 050 160 660	5	5	16	60	6
4HRE 050 200 660	5	5	20	60	6
4HRE 050 250 660	5	5	25	60	6
4HRE 050 300 675	5	5	30	75	6
4HRE 050 400 675	5	5	40	75	6
4HRE 050 500 6A0	5	5	50	100	6
4HRE 050 600 6A0	5	5	60	100	6
4HRE 060 200 660	6	6	20	60	6
4HRE 060 300 675	6	6	30	75	6
4HRE 060 400 675	6	6	40	75	6
4HRE 060 500 6A0	6	6	50	100	6
4HRE 060 600 6A0	6	6	60	100	6
4HRE 080 250 875	8	12	25	75	8
4HRE 080 400 8A0	8	12	40	100	8
4HRE 080 500 8A0	8	12	50	100	8
4HRE 100 300 A75	10	15	30	75	10
4HRE 100 500 AA0	10	15	50	100	10
4HRE 100 600 AC0	10	15	60	120	10
4HRE 120 400 C75	12	18	40	75	12
4HRE 120 600 CA0	12	18	60	100	12
4HRE 120 700 CF0	12	18	70	150	12