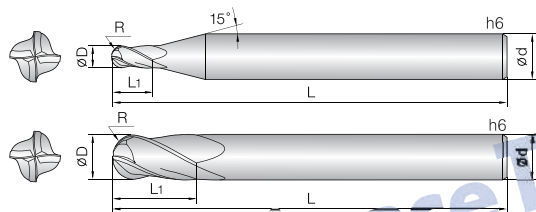


4 Flute Hard Cut Standard Length Ball End Mills For Hardened Steels



4HPB

- Ball 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.
- Four flutes ball edge design for high speed, feed condition.
- Good surface finish.



Unit(mm)

Model Number	Cutting Dia. D	Radius of BN R	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HPB 010 025 650	1	0.5R	2.5	-	50	6
4HPB 010 025 675	1	0.5R	2.5	-	75	6
4HPB 012 030 650	1.2	0.6R	3	-	50	6
4HPB 015 040 650	1.5	0.75R	4	-	50	6
4HPB 015 040 675	1.5	0.75R	4	-	75	6
4HPB 020 050 650	2	1R	5	-	50	6
4HPB 020 050 675	2	1R	5	-	75	6
4HPB 025 070 650	2.5	1.25R	7	-	50	6
4HPB 025 070 675	2.5	1.25R	7	-	75	6
4HPB 030 080 660	3	1.5R	8	-	60	6
4HPB 030 080 6A0	3	1.5R	8	-	100	6
4HPB 040 080 460	4	2R	8	-	60	4
4HPB 040 080 4A0	4	2R	8	-	100	4
4HPB 040 080 660	4	2R	8	-	60	6
4HPB 040 080 6A0	4	2R	8	-	100	6
4HPB 050 100 675	5	2.5R	10	-	75	6
4HPB 050 100 6A0	5	2.5R	10	-	100	6
4HPB 060 120 6A0	6	3R	12	-	100	6
4HPB 080 140 8A0	8	4R	14	-	100	8
4HPB 080 140 8F0	8	4R	14	-	150	8
4HPB 100 180 AA0	10	5R	18	-	100	10
4HPB 100 180 AF0	10	5R	18	-	150	10
4HPB 120 220 CA0	12	6R	22	-	100	12
4HPB 120 220 CF0	12	6R	22	-	150	12
4HPB 140 240 EA0	14	7R	24	-	100	14
4HPB 160 300 GC0	16	8R	30	-	120	16

4 Flute Hard Cut Standard Length Ball End Mills For Hardened Steels



Unit(mm)

Model Number	Cutting Dia. D	Radius Of BN R	Length Of Cut L1	Effective Length L2	Overall Length L	Shank dia d
4HPB 160 300 GF0	16	8R	30	-	150	16
4HPB 200 400 KF0	20	10R	40	-	150	20
4HPB 200 400 KK0	20	10R	40	-	200	20

ECO-CUT

WIDE-CUT

HARD-CUT

ALU-CUT

D-CUT

SUS CUT

MAGIC DRILLS