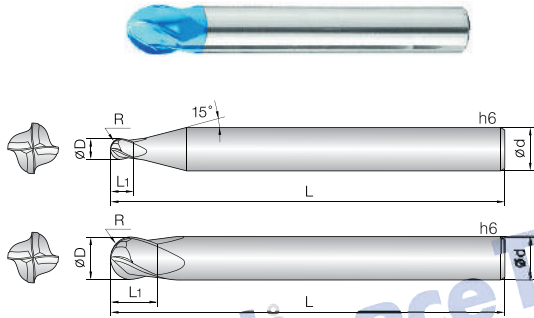


4 Flute Hard Cut Short Length Ball End Mills For Hardened Steels



4HSB

- 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 L ₁	Effective Length L ₂	Overall Length L	Shank dia d
4HSB 010 012 445	1	0.5R	1.2	-	45	4
4HSB 012 015 445	1.2	0.6R	1.5	-	45	4
4HSB 015 018 445	1.5	0.75R	1.8	-	45	4
4HSB 020 024 445	2	1R	2.4	-	45	4
4HSB 025 030 445	2.5	1.25R	3	-	45	4
4HSB 030 036 650	3	1.5R	3.6	-	50	6
4HSB 040 050 445	4	2R	5	-	45	4
4HSB 040 050 650	4	2R	5	-	50	6
4HSB 050 060 650	5	2.5R	6	-	50	6
4HSB 060 070 650	6	3R	7	-	50	6
4HSB 060 070 660	6	3R	7	-	60	6
4HSB 080 080 860	8	4R	8	-	60	8
4HSB 100 100 A60	10	5R	10	-	60	10
4HSB 120 120 C75	12	6R	12	-	75	12

ECO-CUT

WIDE-CUT

HARD-CUT

ALU-CUT

D-CUT

SUS CUT

MAGIC DRILLS