



MG

HB
Coating

42~43

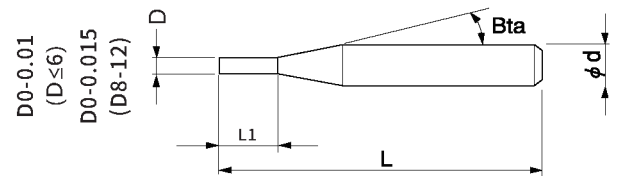
SD
0-0.003不等分
Variable
pitch不等螺
Unequal
spiral

Highly recommend ★ ○ ○
/Recommend/Suggest

DIE STEEL	Grade
Carbon steels (S45C/S55C)	○
Alloy steels (SK/SCM/SUS)	○
Prehardened steels (NAK/HPM)	○
Hardened steels (~55/~60/~70HRC)	○
SPECIAL MATERIAL	
Aluminum alloys	○
Graphite	
Copper	○
Plastics	
Carbon fiber	
Titanium alloys	○
Heat resistant alloys	
Cemented carbide	
Hard brittle (non-metallic) material	

Specialty

- *Unique U-shaped chip removal groove design can effectively reduce cutting load, have better chip removal performance, and obtain higher metal removal rate.
- *Unique HB series coating for more wear resistance and higher heat resistance.
- *Suitable for HRC28~ 52 die steel, stainless steel processing.



Total 32 models

Unit (mm)

Model Number	D Outside Diameter	L1 Length Of Cut	Bta Shank Taper Angle	L Overall Length	T Number Of Flutes	d Shank Diameter	In Stock
SHBS4-0100300	1.0	3	12°	50	4	4	○
SHBS4-0150400	1.5	4	12°	50	4	4	○
SHBS4-0200600	2.0	6	12°	50	4	4	○
SHBS4-0250650	2.5	6.5	12°	50	4	4	○
SHBS4-0300800-3	3	8	-	50	4	3	○
SHBS4-0300800-4	3	8	12°	50	4	4	○
SHBS4-0300800-6	3	8	12°	50	4	6	○
SHBS4-0401000-4	4	10	-	50	4	4	○
SHBS4-0401000-6	4	10	12°	50	4	6	○
SHBS4-0401200-75	4	12	-	75	4	4	○
SHBS4-0501300	5	13	12°	50	4	6	○
SHBS4-0601500	6	15	-	50	4	6	○
SHBS4-0601500-75	6	15	-	75	4	6	○
SHBS4-0601500-100	6	15	-	100	4	6	○
SHBS4-0802000	8	20	-	60	4	8	○
SHBS4-0802000-75	8	20	-	75	4	8	○

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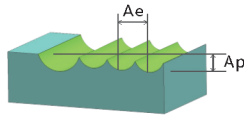
Model Number	D Outside Diameter	L1 Length Of Cut	Bta Shank Taper Angle	L Overall Length	T Number Of Flutes	d Shank Diameter	In Stock
SHBS4-0802000-100	8	20	-	100	4	8	○
SHBS4-0802000-150	8	20	-	150	4	8	○
SHBS4-1002500	10	25	-	75	4	10	○
SHBS4-1002500-100	10	25	-	100	4	10	○
SHBS4-1002500-150	10	25	-	150	4	10	○
SHBS4-1203000	12	30	-	75	4	12	○
SHBS4-1203000-100	12	30	-	100	4	12	○
SHBS4-1203000-150	12	30	-	150	4	12	○
SHBS4-1403500-100	14	35	-	100	4	14	○
SHBS4-1405500-150	14	55	-	150	4	14	○
SHBS4-1604000-100	16	40	-	100	4	16	○
SHBS4-1606000-150	16	60	-	150	4	16	○
SHBS4-1804500-150	18	45	-	100	4	18	○
SHBS4-1806500-150	18	65	-	150	4	18	○
SHBS4-2005000-100	20	50	-	100	4	20	○
SHBS4-2007000-150	20	70	-	150	4	20	○

*New size added from this series.

○ Stocked items.

4 Flutes

Square



Side Milling

Work Material	Oxygen-free Copper Red Copper		HRC30-45 carbon steel and prehardened steel		HRC45-55 hardened steel	
	(mm) Diameter	(min-1) Speed	(mm/min) Feed	(min-1) Speed	(mm/min) Feed	(min-1) Speed
4 Flutes	D1.0	10000	220	10000	100	8000
	D1.5	8000	240	8000	120	6000
	D2.0	8000	300	6000	150	4500
	D2.5	8000	300	5000	150	4000
	D 3	7000	400	5000	150	4000
	D 4	7000	500	4000	200	3000
	D 5	7000	500	3500	300	3000
	D 6	7000	500	3500	300	3000
	D 8	6500	600	3000	300	2500
	D 10	6000	600	2500	300	2500
Square	D 12	6000	600	2000	250	2000
	D 14	4000	600	2000	350	2000
	D 16	4000	600	1800	350	1800
	D 18	3000	400	1600	350	1600
	D 20	3000	400	1200	350	1200

Milling Amount for Side Milling(mm)

Work Material	Length of Cut	
	2.5D (Length of Cut=Diameter*2.5)	4D (Length of Cut=Diameter*4)
45HRC以下 Below 45HRC	$a_e=0.07D$ $a_p=2D$	$a_e=0.07D$ $a_p=2D$
45HRC以上 Above 45HRC	$a_e=0.03D$ $a_p=1.5D$	$a_e=0.03D$ $a_p=1.5D$

D: Diameter(mm)

 a_p : Axial Depth (mm) a_e : Radial Depth (mm)

Contour Milling

Work Material	Oxygen-free Copper Red Copper		HRC30-45 carbon steel and prehardened steel		HRC45-55 hardened steel	
(mm) Diameter	(min-1) Speed	(mm/min) Feed	(min-1) Speed	(mm/min) Feed	(min-1) Speed	(mm/min) Feed
D1.0	13000	1000	13000	1000	13000	1000
D1.5	13000	1200	13000	1200	13000	1200
D2.0	12000	1500	12000	1500	12000	1500
D2.5	12000	1500	12000	1500	12000	1500
D 3	11000	1800	11000	1800	11000	1800
D 4	10000	2200	10000	2200	10000	2200
D 5	9000	2500	9000	2500	9000	2500
D 6	9000	2500	9000	2500	9000	2500
D 8	8000	2500	8000	2500	8000	2500
D10	7000	2500	7000	2500	7000	2500
D12	6000	2500	6000	2500	6000	2500
D14	4000	2200	4000	2200	4000	2200
D16	3500	2200	3500	2200	3500	2200
D18	3000	2000	3000	2000	3000	2000
D20	2500	2000	2500	2000	2500	2000

4 Flutes

Square

Note:

*Decrease both spindle speed and feed rate proportionally when the milling parameters exceed the machine's maximum spindle speed;

*Recommend oil coolant for Stainless Steels and Heat Resistance Alloys;

*Recommend using a non-contact measuring device to avoid damaging the precision tip point;

*Decrease both spindle speed and feed rate proportionally in case of chattering.