



MG

HG
Coating

20

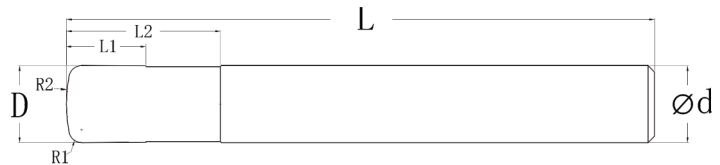
SD
0-0.005

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

- *Special coating + bar for high hard hardened materials;
- *Special arc design at the blade bottom offers excellent roughing;
- *Especially suitable for milling mold steel of high hardness HRC48-65, titanium alloy, stainless steel, heat resistant alloys and so on.



4 Flutes

Total 12models

Unit (mm)

Model Number	D Outside Diameter	R1	R2	L1 Length Of Cut	L2 Effective Length	Bta Shank Taper Angle	L Overall Length	T Number Of Flutes	D Shank Diameter	In Stock
SHTISR4-06010120	6	R1	R12	6	12	—	60	4	6	○
SHTISR4-06015120	6	R1.5	R7.5	6	12	—	60	4	6	○
SHTISR4-08010160-75	8	R1	R20	8	16	—	75	4	8	○
SHTISR4-08020160-75	8	R2	R10.5	8	16	—	75	4	8	○
SHTISR4-10010200	10	R1	R35	10	20	—	75	4	10	○
SHTISR4-10020200	10	R2	R19	10	20	—	75	4	10	○
SHTISR4-10010200-100	10	R1	R35	10	20	—	100	4	10	○
SHTISR4-10020200-100	10	R2	R19	10	20	—	100	4	10	○
SHTISR4-12010240	12	R1	R42	12	24	—	75	4	12	○
SHTISR4-12020240	12	R2	R26	12	24	—	75	4	12	○
SHTISR4-12010240-100	12	R1	R42	12	24	—	100	4	12	○
SHTISR4-12020240-100	12	R2	R26	12	24	—	100	4	12	○

Radius

*New size added from this series.

Stocked items.

Work Material			HRC48-55 hardened steel				HRC56-62 hardened steel				HRC63-70 hardened steel			
Diameter	Radius of Ball Nose	Effective Length (mm)	(min-1) Speed	(mm/min) Feed	(mm) Axial depth	(mm) Radial depth	(min-1) Speed	(mm/min) Feed	(mm) Axial depth	(mm) Radial depth	(min-1) Speed	(mm/min) Feed	(mm) Axial depth	(mm) Radial depth
D6	R0.5	—	4200	4000	0.2	3.3	3200	2500	0.12	3.3	2500	1000	0.08	3
D6	R1	—	4200	4000	0.2	2	3200	2500	0.12	2	2500	1000	0.08	2
D6	R1.5	—	4200	4000	0.2	1.5	3200	2500	0.12	1.5	2500	1000	0.08	1.5
D8	R1	—	3200	5000	0.3	3	2400	2800	0.15	3	1800	1200	0.1	3
D8	R2	—	3200	5000	0.3	2	2400	2800	0.15	2	1800	1200	0.1	2
D10	R1	—	2500	5000	0.3	4	2000	2800	0.2	4	1600	1600	0.15	4
D10	R2	—	2500	5000	0.3	3	2000	2800	0.2	3	1600	1600	0.15	3
D12	R1	—	2100	5000	0.4	5	1600	2500	0.25	6	1300	1600	0.15	5
D12	R2	—	2100	5000	0.4	4	1600	2500	0.25	6	1300	1600	0.15	4

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)
Below 45HRC		$a_e=0.07D$ $a_p=2D$	$a_e=0.07D$ $a_p=2D$
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)

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;
- *When the material hardness is greater than HRC58 degrees, it is recommended to use air blow cooling for roughing and oil mist or air blow cooling for finishing.