



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	

MG

HG
Coating

30

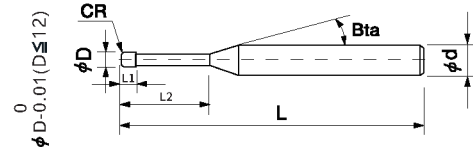
SD
0-0.003R
±0.005R
±0.007

D≤6

D8~12

Specialty

- *Special coating + bar for high hard hardened materials;
- *Excellent surface finishing for surface and contour milling;
- *Long life in cutting high hardness material of HRC48-65.



The shank taper angle shown is not an exact value and to avoid contact with the workpiece, we recommend the user controls the precise value of this angle. Shank taper angle should not make contact with the workpiece.

Total 72 models

Unit (mm)

	Model Number	D Outside Diameter	Radius	L1 Length Of Cut	L2 Effective Length	Bta Shank Taper Angle	L Overall Length	T Number Of Flutes	D Shank Diameter	In Stock
Radius	SHHSR4-010005030	1	R0.05	1	3	12°	50	4	4	○
	SHHSR4-01001030	1	R0.1	1	3	12°	50	4	4	○
	SHHSR4-01002030	1	R0.2	1	3	12°	50	4	4	○
	SHHSR4-01501045	1.5	R0.1	1.5	4.5	12°	50	4	4	○
	SHHSR4-01502045	1.5	R0.2	1.5	4.5	12°	50	4	4	○
	SHHSR4-02001060	2	R0.1	2	6	12°	50	4	4	○
	SHHSR4-02002060	2	R0.2	2	6	12°	50	4	4	○
	SHHSR4-02003060	2	R0.3	2	6	12°	50	4	4	○
	SHHSR4-02005060	2	R0.5	2	6	12°	50	4	4	○
	SHHSR4-03001090	3	R0.1	3	9	12°	50	4	4	○
	SHHSR4-03002090-3	3	R0.2	3	9	12°	50	4	4	○
	SHHSR4-03002090	3	R0.2	3	9	12°	50	4	4	○
	SHHSR4-03003090	3	R0.3	3	9	12°	50	4	4	○
	SHHSR4-03005090-3	3	R0.5	3	9	12°	50	4	4	○
	SHHSR4-03005090	3	R0.5	3	9	12°	50	4	4	○
	SHHSR4-04001120	4	R0.1	4	12	—	50	4	4	○
	SHHSR4-04002120	4	R0.2	4	12	—	50	4	4	○
	SHHSR4-04003120	4	R0.3	4	12	—	50	4	4	○
	SHHSR4-04005120	4	R0.5	4	12	—	50	4	4	○
	SHHSR4-04005120-75	4	R0.5	4	12	—	75	4	4	○

Next page →

Model Number	D Outside Diameter	Radius	L1 Length Of Cut	L2 Effective Length	Bta Shank Taper Angle	L Overall Length	T Number Of Flutes	D Shank Diameter	In Stock
SHHSR4-04005120-100	4	R0.5	4	12	—	100	4	4	○
SHHSR4-04010120	4	R1	4	12	—	50	4	4	○
SHHSR4-04002120-6	4	R0.2	4	12	12°	60	4	6	○
SHHSR4-04005120-6	4	R0.5	4	12	12°	60	4	6	○
SHHSR4-05002150	5	R0.2	5	15	12°	60	4	6	○
SHHSR4-05005150	5	R0.5	5	15	12°	60	4	6	○
SHHSR4-06002200	6	R0.2	6	20	—	60	4	6	○
SHHSR4-06003200	6	R0.3	6	20	—	60	4	6	○
SHHSR4-06005200	6	R0.5	6	20	—	60	4	6	○
SHHSR4-06010200	6	R1	6	20	—	60	4	6	○
SHHSR4-06002200-75	6	R0.2	6	20	—	75	4	6	○
SHHSR4-06003200-75	6	R0.3	6	20	—	75	4	6	○
SHHSR4-06005200-75	6	R0.5	6	20	—	75	4	6	○
SHHSR4-06010200-75	6	R1	6	20	—	75	4	6	○
SHHSR4-06002200-100	6	R0.2	6	20	—	100	4	6	○
SHHSR4-06003200-100	6	R0.3	6	20	—	100	4	6	○
SHHSR4-06005200-100	6	R0.5	6	20	—	100	4	6	○
SHHSR4-06010200-100	6	R1	6	20	—	100	4	6	○
SHHSR4-08002240	8	R0.2	8	24	—	60	4	8	○
SHHSR4-08003240	8	R0.3	8	24	—	60	4	8	○
SHHSR4-08005240	8	R0.5	8	24	—	60	4	8	○
SHHSR4-08010240	8	R1	8	24	—	60	4	8	○
SHHSR4-08002240-75	8	R0.2	8	24	—	75	4	8	○
SHHSR4-08003240-75	8	R0.3	8	24	—	75	4	8	○
SHHSR4-08005240-75	8	R0.5	8	24	—	75	4	8	○
SHHSR4-08010240-75	8	R1	8	24	—	75	4	8	○
SHHSR4-08002240-100	8	R0.2	8	24	—	100	4	8	○
SHHSR4-08003240-100	8	R0.3	8	24	—	100	4	8	○
SHHSR4-08005240-100	8	R0.5	8	24	—	100	4	8	○
SHHSR4-08010240-100	8	R1	8	24	—	100	4	8	○
SHHSR4-08002240-150	8	R0.2	8	24	—	150	4	8	○
SHHSR4-08003240-150	8	R0.3	8	24	—	150	4	8	○
SHHSR4-08005240-150	8	R0.5	8	24	—	150	4	8	○
SHHSR4-08010240-150	8	R1	8	24	—	150	4	8	○

4 Flutes

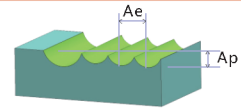
Radius

Next page ➡

Model Number	D Outside Diameter	Radius	L1 Length Of Cut	L2 Effective Length	Bta Shank Taper Angle	L Overall Length	T Number Of Flutes	D Shank Diameter	In Stock
SHHSR4-10002300	10	R0.2	10	30	—	75	4	10	○
SHHSR4-10005300	10	R0.5	10	30	—	75	4	10	○
SHHSR4-10010300	10	R1	10	30	—	75	4	10	○
SHHSR4-10002300-100	10	R0.2	10	30	—	100	4	10	○
SHHSR4-10005300-100	10	R0.5	10	30	—	100	4	10	○
SHHSR4-10010300-100	10	R1	10	30	—	100	4	10	○
SHHSR4-10002300-150	10	R0.2	10	30	—	150	4	10	○
SHHSR4-10005300-150	10	R0.5	10	30	—	150	4	10	○
SHHSR4-10010300-150	10	R1	10	30	—	150	4	10	○
SHHSR4-12002360	12	R0.2	12	36	—	75	4	12	○
SHHSR4-12005360	12	R0.5	12	36	—	75	4	12	○
SHHSR4-12010360	12	R1	12	36	—	75	4	12	○
SHHSR4-12002360-100	12	R0.2	12	36	—	100	4	12	○
SHHSR4-12005360-100	12	R0.5	12	36	—	100	4	12	○
SHHSR4-12010360-100	12	R1	12	36	—	100	4	12	○
SHHSR4-12002360-150	12	R0.2	12	36	—	150	4	12	○
SHHSR4-12005360-150	12	R0.5	12	36	—	150	4	12	○
SHHSR4-12010360-150	12	R1	12	36	—	150	4	12	○

*New size added from this series.

Stocked items.



Work Material		HRC48-55 hardened steel				HRC56-62 hardened steel				HRC63-70 hardened steel			
Diameter	Radius (CR)	(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
1	R0.05	21000	1800	0.04	0.3	18000	1500	0.03	0.25	14000	1100	0.02	0.2
1	R0.1	21000	1800	0.04	0.3	18000	1500	0.03	0.25	14000	1100	0.02	0.2
1	R0.2	21000	1800	0.04	0.3	18000	1500	0.03	0.25	14000	1100	0.02	0.2
1.5	R0.1	19000	1800	0.045	0.5	16000	1500	0.03	0.4	13000	1100	0.02	0.3
1.5	R0.2	19000	1800	0.045	0.5	16000	1500	0.03	0.4	13000	1100	0.02	0.3
2	R0.1	18000	2100	0.06	0.6	15000	1800	0.05	0.5	12000	1300	0.03	0.35
2	R0.2	18000	2100	0.06	0.6	15000	1800	0.05	0.5	12000	1300	0.03	0.35
2	R0.3	18000	2100	0.06	0.6	15000	1800	0.05	0.5	12000	1300	0.03	0.35
2	R0.5	18000	2100	0.06	0.6	15000	1800	0.05	0.5	12000	1300	0.03	0.35
3	R0.1	11000	1700	0.09	0.8	9500	1400	0.06	0.7	7500	1000	0.04	0.6
3	R0.2	11000	1700	0.09	0.8	9500	1400	0.06	0.7	7500	1000	0.04	0.6
3	R0.3	11000	1700	0.09	0.8	9500	1400	0.06	0.7	7500	1000	0.04	0.6
3	R0.5	11000	1700	0.09	0.8	9500	1400	0.06	0.7	7500	1000	0.04	0.6
4	R0.1	10000	2100	0.15	1.2	8500	1800	0.08	1	7000	1300	0.06	0.8
4	R0.2	10000	2100	0.15	1.2	8500	1800	0.08	1	7000	1300	0.06	0.8
4	R0.3	10000	2100	0.15	1.2	8500	1800	0.08	1	7000	1300	0.06	0.8
4	R0.5	10000	2100	0.15	1.2	8500	1800	0.08	1	7000	1300	0.06	0.8
4	R1	10000	2100	0.15	1.2	8500	1800	0.08	1	7000	1300	0.06	0.8
5	R0.2	8000	2600	0.18	1.5	6000	2200	0.12	1.3	5000	1500	0.08	1
5	R0.5	8000	2600	0.18	1.5	6000	2200	0.12	1.3	5000	1500	0.08	1
6	R0.2	8000	2600	0.18	1.8	6000	2200	0.12	1.5	5000	1500	0.08	1.2
6	R0.3	8000	2600	0.18	1.8	6000	2200	0.12	1.5	5000	1500	0.08	1.2
6	R0.5	8000	2600	0.18	1.8	6000	2200	0.12	1.5	5000	1500	0.08	1.2
6	R1	8000	2600	0.18	1.8	6000	2200	0.12	1.5	5000	1500	0.08	1.2
8	R0.2	6000	2600	0.2	2.4	5000	2200	0.16	1.8	4000	1500	0.1	1.5
8	R0.3	6000	2600	0.2	2.4	5000	2200	0.16	1.8	4000	1500	0.1	1.5
8	R0.5	6000	2600	0.2	2.4	5000	2200	0.16	1.8	4000	1500	0.1	1.5
8	R1	6000	2600	0.2	2.4	5000	2200	0.16	1.8	4000	1500	0.1	1.5
10	R0.2	5000	2600	0.2	3	4000	2200	0.15	2.4	3000	1500	0.1	1.8
10	R0.3	5000	2600	0.2	3	4000	2200	0.15	2.4	3000	1500	0.1	1.8
10	R0.5	5000	2600	0.2	3	4000	2200	0.15	2.4	3000	1500	0.1	1.8
10	R1	5000	2600	0.2	3	4000	2200	0.15	2.4	3000	1500	0.1	1.8
12	R0.2	4000	3000	0.2	3.5	3000	2600	0.1	2.6	2000	1500	0.1	2
12	R0.3	4000	3000	0.2	3.5	3000	2600	0.1	2.6	2000	1500	0.1	2
12	R0.5	4000	3000	0.2	3.5	3000	2600	0.1	2.6	2000	1500	0.1	2
12	R1	4000	3000	0.2	3.5	3000	2600	0.1	2.6	2000	1500	0.1	2

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;

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

4 Flutes

Radius