



MG

HG
CoatingSD
0-0.003R
±0.005R
±0.007

R≤3

R4~10

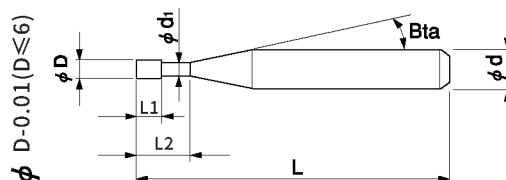


Highly recommend/Recommend/Suggest

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;
- *Excellent surface finishing;
- *Long life in cutting high hardness material of HRC48-65.



Total 31 models

Unit (mm)

Model Number	D Outside Diameter	L1 Length Of Cut	L2 Effective Length	Bta Shank Taper Angle	L Overall Length	T Number Of Flutes	D Shank Diameter	In Stock
SHHR2-002003	R0.1	0.3	—	12°	50	2	4	○
SHHR2-0030045	R0.15	0.45	—	12°	50	2	4	○
SHHR2-004006	R0.2	0.6	—	12°	50	2	4	○
SHHR2-005008	R0.25	0.8	—	12°	50	2	4	○
SHHR2-006009	R0.3	0.9	—	12°	50	2	4	○
SHHR2-008012	R0.4	1.2	—	12°	50	2	4	○
SHHR2-015015	R0.75	1.5	—	12°	50	2	4	○
SHHR2-020020	R1	2	—	12°	50	2	4	○
SHHR2-020040-6	R1	2	4	12°	60	2	6	○
SHHR2-030060-3	R1.5	3	6	—	50	2	3	○
SHHR2-030060-4	R1.5	3	6	12°	50	2	4	○
SHHR2-030060-6	R1.5	3	6	12°	60	2	6	○
SHHR2-040080	R2	4	8	—	50	2	4	○
SHHR2-040080-75	R2	4	8	—	75	2	4	○
SHHR2-040080-100	R2	4	8	—	100	2	4	○
SHHR2-040080-6	R2	4	8	12°	60	2	6	○
SHHR2-050100	R2.5	5	10	12°	60	2	6	○
SHHR2-060120	R3	6	12	—	60	2	6	○
SHHR2-060120-75	R3	6	12	—	75	2	6	○
SHHR2-060120-100	R3	6	12	—	100	2	6	○

Next page ➡

Model Number	D Outside Diameter	L1 Length Of Cut	L2 Effective Length	Bta Shank Taper Angle	L Overall Length	T Number Of Flutes	D Shank Diameter	In Stock
SHHR2-080160	R4	8	16	—	60	2	8	○
SHHR2-080160-75	R4	8	16	—	75	2	8	○
SHHR2-080160-100	R4	8	16	—	100	2	8	○
SHHR2-080160-150	R4	8	16	—	150	2	8	○
SHHR2-100200	R5	10	20	—	75	2	10	○
SHHR2-100200-100	R5	10	20	—	100	2	10	○
SHHR2-100200-150	R5	10	20	—	150	2	10	○
SHHR2-120240	R6	12	24	—	75	2	12	○
SHHR2-120240-100	R6	12	24	—	100	2	12	○
SHHR2-120240-150	R6	12	24	—	150	2	12	○

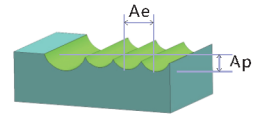
*New size added from this series.

Stocked items.

2 Flutes

Ball

Cutting Parameter



Work Material		HRC48-55 hardened steel				HRC56-60 hardened steel				HRC63-70 hardened steel			
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
R0.1	0.3	40000	250	0.01	0.03	40000	250	0.01	0.03	36000	200	0.006	0.018
R0.15	0.45	40000	400	0.01	0.03	40000	350	0.01	0.03	36000	250	0.008	0.024
R0.2	0.6	40000	600	0.015	0.045	40000	550	0.015	0.045	36000	350	0.01	0.027
R0.25	0.8	40000	900	0.02	0.065	40000	800	0.015	0.05	30000	400	0.015	0.03
R0.3	0.9	40000	1400	0.045	0.15	36000	1200	0.025	0.13	25000	600	0.02	0.1
R0.4	1.2	35000	1600	0.06	0.21	30000	1600	0.04	0.17	20000	700	0.02	0.12
R0.5	1	30000	1800	0.1	0.3	24000	2000	0.1	0.3	16000	900	0.05	0.2
R0.75	1.5	30000	2200	0.2	0.5	18000	2000	0.12	0.4	11000	900	0.06	0.25
R1	4	28000	2600	0.3	0.7	14000	2000	0.15	0.5	11000	1000	0.08	0.35
R1.5	6	21000	3000	0.4	1	12000	2200	0.2	0.7	8500	1100	0.12	0.55
R2	8	18000	3200	0.5	1.3	9000	2200	0.25	0.95	7000	1200	0.15	0.55
R2.5	10	15000	3500	0.6	1.5	8000	2500	0.25	1.05	6500	1200	0.15	0.55
R3	12	13000	3500	0.7	1.8	6500	2500	0.3	1.3	5000	1500	0.2	1
R4	16	9500	3000	0.8	2.1	5500	2200	0.4	1.7	4000	1000	0.25	1.35
R5	20	7500	2500	0.9	2.5	4500	2000	0.5	2.1	3000	800	0.3	1.7
R6	24	6500	2000	0.9	3	4500	1700	0.6	2.6	2400	800	0.35	2

Milling Amount for Side Milling(mm)

Length of Cut Work Material	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.