



MG

DLC
Coating

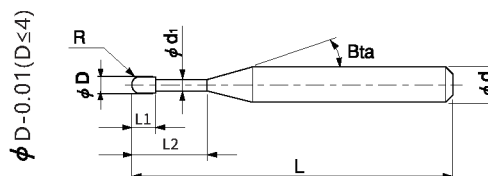
30
SD
0-0.003R
±0.005

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 geometry design, sharp cutting edge, highly efficient milling and chip evacuation;
- * The coating, with good thermal stability, makes it maintain the hardness and mechanical properties under high temperature;
- * Lower coefficient of friction reduces wear during cutting and provides better surface quality;



2 Flutes

Total 74 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
SHDLR2-002005	R0.1	0.16	0.5	12°	50	2	4	○
SHDLR2-002010	R0.1	0.16	1	12°	50	2	4	○
SHDLR2-002020	R0.1	0.16	2	12°	50	2	4	○
SHDLR2-003010	R0.15	0.25	1	12°	50	2	4	○
SHDLR2-003020	R0.15	0.25	2	12°	50	2	4	○
SHDLR2-003030	R0.15	0.25	3	12°	50	2	4	○
SHDLR2-003040	R0.15	0.25	4	12°	50	2	4	○
SHDLR2-003060	R0.15	0.25	6	12°	50	2	4	○
SHDLR2-004010	R0.2	0.32	1	12°	50	2	4	○
SHDLR2-004020	R0.2	0.32	2	12°	50	2	4	○
SHDLR2-004030	R0.2	0.32	3	12°	50	2	4	○
SHDLR2-004040	R0.2	0.32	4	12°	50	2	4	○
SHDLR2-004060	R0.2	0.32	6	12°	50	2	4	○
SHDLR2-005020	R0.25	0.4	2	12°	50	2	4	○
SHDLR2-005030	R0.25	0.4	3	12°	50	2	4	○
SHDLR2-005040	R0.25	0.4	4	12°	50	2	4	○
SHDLR2-005060	R0.25	0.4	6	12°	50	2	4	○
SHDLR2-005080	R0.25	0.4	8	12°	50	2	4	○
SHDLR2-006020	R0.3	0.45	2	12°	50	2	4	○
SHDLR2-006030	R0.3	0.45	3	12°	50	2	4	○
SHDLR2-006040	R0.3	0.45	4	12°	50	2	4	○
SHDLR2-006060	R0.3	0.45	6	12°	50	2	4	○

Long Neck
Ball

Next page →

Total 74 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
SHDLR2-006080	R0.3	0.45	8	12°	50	2	4	○
SHDLR2-006080	R0.3	0.45	10	12°	50	2	4	○
SHDLR2-008020	R0.4	0.6	2	12°	50	2	4	○
SHDLR2-008040	R0.4	0.6	4	12°	50	2	4	○
SHDLR2-008060	R0.4	0.6	6	12°	50	2	4	○
SHDLR2-008080	R0.4	0.6	8	12°	50	2	4	○
SHDLR2-008100	R0.4	0.6	10	12°	50	2	4	○
SHDLR2-010020	R0.5	0.8	2	12°	50	2	4	○
SHDLR2-010030	R0.5	0.8	3	12°	50	2	4	○
SHDLR2-010040	R0.5	0.8	4	12°	50	2	4	○
SHDLR2-010060	R0.5	0.8	6	12°	50	2	4	○
SHDLR2-010080	R0.5	0.8	8	12°	50	2	4	○
SHDLR2-010100	R0.5	0.8	10	12°	50	2	4	○
SHDLR2-010120	R0.5	0.8	12	12°	50	2	4	○
SHDLR2-010140	R0.5	0.8	14	12°	50	2	4	○
SHDLR2-010160	R0.5	0.8	16	12°	50	2	4	○
SHDLR2-015040	R0.75	1.2	4	12°	50	2	4	○
SHDLR2-015060	R0.75	1.2	6	12°	50	2	4	○
SHDLR2-015080	R0.75	1.2	8	12°	50	2	4	○
SHDLR2-015100	R0.75	1.2	10	12°	50	2	4	○
SHDLR2-015120	R0.75	1.2	12	12°	50	2	4	○
SHDLR2-015140	R0.75	1.2	14	12°	50	2	4	○
SHDLR2-015160	R0.75	1.2	16	12°	50	2	4	○
SHDLR2-020040	R1	1.6	4	12°	50	2	4	○
SHDLR2-020060	R1	1.6	6	12°	50	2	4	○
SHDLR2-020080	R1	1.6	8	12°	50	2	4	○
SHDLR2-020100	R1	1.6	10	12°	50	2	4	○
SHDLR2-020120	R1	1.6	12	12°	50	2	4	○
SHDLR2-020160	R1	1.6	16	12°	50	2	4	○
SHDLR2-020040-6	R1	1.6	4	12°	60	2	6	○
SHDLR2-020060-6	R1	1.6	6	12°	60	2	6	○
SHDLR2-020080-6	R1	1.6	8	12°	60	2	6	○
SHDLR2-020100-6	R1	1.6	10	12°	60	2	6	○
SHDLR2-020120-6	R1	1.6	12	12°	60	2	6	○

Next page ➡

2 Flutes

Long Neck Ball

Total 74 models

Unit (mm)

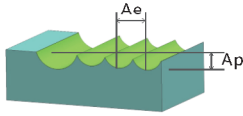
Model Number	D Outside Diameter	L1 Length Of Cut	L2 Effective Length	BTa Shank Taper Angle	L Overall Length	T Number Of Flutes	d Shank Diameter	In Stock
SHDLR2-020140-6	R1	1.6	16	12°	60	2	6	○
SHDLR2-030060	R1.5	2.4	6	12°	50	2	4	○
SHDLR2-030080	R1.5	2.4	8	12°	50	2	4	○
SHDLR2-030100	R1.5	2.4	10	12°	50	2	4	○
SHDLR2-030120	R1.5	2.4	12	12°	50	2	4	○
SHDLR2-030160	R1.5	2.4	16	12°	50	2	4	○
SHDLR2-030200	R1.5	2.4	20	12°	50	2	4	○
SHDLR2-030060-6	R1.5	2.4	6	12°	60	2	6	○
SHDLR2-030080-6	R1.5	2.4	8	12°	60	2	6	○
SHDLR2-030100-6	R1.5	2.4	10	12°	60	2	6	○
SHDLR2-030120-6	R1.5	2.4	12	12°	60	2	6	○
SHDLR2-030160-6	R1.5	2.4	16	12°	60	2	6	○
SHDLR2-030200-6	R1.5	2.4	20	12°	60	2	6	○
SHDLR2-040080-6	R2	4	8	12°	60	2	6	○
SHDLR2-040100-6	R2	4	10	12°	60	2	6	○
SHDLR2-040120-6	R2	4	12	12°	60	2	6	○
SHDLR2-040160-6	R2	4	16	12°	60	2	6	○
SHDLR2-040200-6	R2	4	20	12°	60	2	6	○

*New size added from this series.

○ Stocked items.

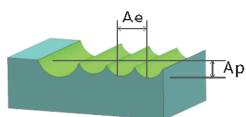
2 Flutes

Long Neck Ball



Work Material	Oxygen-free & Copper				
	(mm) Diameter	(mm) Effective Length	(min-1) Speed	(mm/min) Feed	Ap(mm) Axial depth Ae(mm) Radial depth
2 Flutes	D 0.2	0.5	30000	150	0.006
	D 0.2	1	30000	100	0.006
	D 0.2	1.5	30000	100	0.003
	D 0.3	1	28000	300	0.01
	D 0.3	1.5	28000	300	0.008
	D 0.3	2	24000	200	0.007
	D 0.3	3	20000	100	0.005
	D 0.3	3	20000	100	0.005
	D 0.4	1	24000	600	0.01
	D 0.4	2	24000	400	0.01
	D 0.4	3	20000	300	0.008
	D 0.4	4	18000	150	0.005
	D 0.4	4	18000	150	0.005
	D 0.5	1	22000	800	0.015
	D 0.5	2	22000	800	0.015
	D 0.5	4	18000	400	0.01
	D 0.5	6	14000	200	0.005
	D 0.5	8	14000	100	0.003
	D 0.6	2	20000	1000	0.02
	D 0.6	4	17000	500	0.015
Long Neck Ball	D 0.6	6	15000	400	0.01
	D 0.6	8	14000	200	0.005
	D 0.6	8	14000	200	0.005
	D 0.6	8	14000	200	0.005
	D 0.8	2	18000	1200	0.03
	D 0.8	4	18000	800	0.02
	D 0.8	6	14000	500	0.01
	D 0.8	8	14000	300	0.01
	D 0.8	8	14000	300	0.01
	D 1.0	2	16000	1500	0.03
	D 1.0	4	16000	1300	0.03
	D 1.0	4	16000	1300	0.03
	D 1.0	6	16000	1000	0.03
	D 1.0	8	14000	500	0.02
	D 1.0	10	12000	400	0.01

Next page ➡

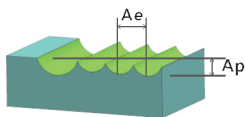


Work Material	Oxygen-free & Copper				
(mm) Diameter	(mm) Effective Length	(min-1) Speed	(mm/min) Feed	Ap(mm) Axial depth	Ae(mm) Radial depth
D1.0	12	11000	300	0.01	0.02
D1.0	14	10000	250	0.01	0.02
D1.0	16	10000	200	0.01	0.01
D1.5	4	16000	1600	0.03	0.06
D1.5	6	16000	1400	0.03	0.06
D1.5	8	16000	1200	0.03	0.05
D1.5	10	12000	800	0.02	0.05
D1.5	12	10000	500	0.02	0.04
D1.5	14	10000	400	0.01	0.03
D1.5	16	8000	300	0.01	0.03
D2	4	16000	1800	0.03	0.06
D2	6	15000	1800	0.03	0.06
D2	8	15000	1800	0.03	0.06
D2	10	15000	1800	0.03	0.06
D2	12	13000	1600	0.03	0.06
D2	16	10000	1000	0.02	0.06
D2	4	16000	1800	0.03	0.06
D2	6	15000	1800	0.03	0.06
D2	8	15000	1800	0.03	0.06
D2	10	15000	1800	0.03	0.06
D2	12	13000	1600	0.03	0.06
D2	16	10000	1000	0.02	0.06
D3	6	14000	2200	0.05	0.07
D3	8	14000	2200	0.05	0.07
D3	10	14000	2200	0.05	0.07
D3	12	14000	2200	0.04	0.07
D3	16	12000	2000	0.03	0.07
D3	20	11000	1000	0.03	0.07
D3	6	14000	2200	0.05	0.07
D3	8	14000	2200	0.05	0.07
D3	10	14000	2200	0.05	0.07
D3	12	14000	2200	0.04	0.07
D3	16	12000	2000	0.03	0.07
D3	20	11000	1000	0.03	0.07
D4	8	14000	2400	0.05	0.07

2 Flutes

Long Neck
Ball

Next page →



Work Material	Oxygen-free & Copper				
	(mm) Diameter	(mm) Effective Length	(min-1) Speed	(mm/min) Feed	Ap(mm) Axial depth
					Ae(mm) Radial depth
	D 4	10	14000	2400	0.05
	D 4	12	14000	2400	0.05
	D 4	16	14000	2200	0.04
	D 4	20	12000	2000	0.04

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.

2 Flutes

Long Neck
Ball