



MG

DLC
Coating

30
SD
0-0.003

Highly recommend ★ ○ ○
/Recommend/Suggest

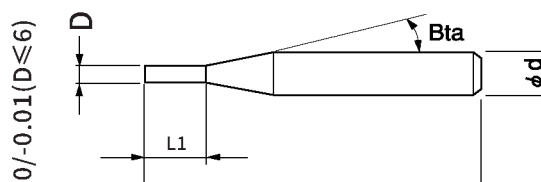
DIE STEEL	Grade
Carbon steels (S45C/S55C)	
Alloy steels (SK/SCM/SUS)	
Prehardened steels (NAK/HPM)	
Hardened steels (~55/~60/~70HRC)	
SPECIAL MATERIAL	
Aluminum alloys	○
Graphite	
Copper	★
Plastics	○
Carbon fiber	
Titanium alloys	
Heat resistant alloys	
Cemented carbide	
Hard brittle (non-metallic) material	

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 16 models

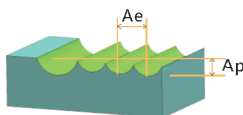
Unit (mm)

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
SHDS2-0010020	0.1	0.2	-	12°	50	2	4	○
SHDS2-0020040	0.2	0.4	-	12°	50	2	4	○
SHDS2-0030060	0.3	0.6	-	12°	50	2	4	○
SHDS2-0040080	0.4	0.8	-	12°	50	2	4	○
SHDS2-0050100	0.5	1	-	12°	50	2	4	○
SHDS2-0060150	0.6	1.5	-	12°	50	2	4	○
SHDS2-0070180	0.7	1.8	-	12°	50	2	4	○
SHDS2-0080200	0.8	2	-	12°	50	2	4	○
SHDS2-0100300	1.0	3	-	12°	50	2	4	○
SHDS2-0150400	1.5	4	-	12°	50	2	4	○
SHDS2-0200500	2.0	5	-	12°	50	2	4	○
SHDS2-0250600	2.5	6	-	12°	50	2	4	○
SHDS2-0300800-4	3	8	-	12°	50	2	4	○
SHDS2-0401000-4	4	10	-	-	50	2	4	○
SHDS2-0401000-6	4	10	-	12°	60	2	6	○
SHDS2-0601500	6	15	-	-	60	2	6	○

*New size added from this series.

○ Stocked items.

Square



Side Milling

Work Material	Oxygen-free & Copper	
(mm) Diameter	(min-1) Speed	(mm/min) Feed
D1.0	10000	150
D1.5	8000	180
D2.0	8000	200
D2.5	6000	300
D3	7000	300
D4	7000	300
D4	7000	300
D6	7000	300

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)
45HRC以下 Below 45HRC	$a_e=0.07D$ $a_p=2D$	$a_e=0.07D$ $a_p=2D$
45HRC以上 Above 45HRC	$a_e=0.03D$ $a_p=1.5D$	$a_e=0.03D$ $a_p=1.5D$

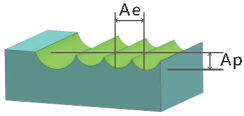
D: Diameter (mm)

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

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.



Contour Milling

Work Material	Oxygen-free & Copper	
(mm) Diameter	(min-1) Speed	(mm/min) Feed
D0.1	40000	180
D0.2	40000	300
D0.3	36000	500
D0.4	30000	700
D0.5	32000	800
D0.6	26000	800
D0.7	26000	800
D0.8	22000	1000
D1.0	18000	1200
D1.5	16000	1500
D2.0	16000	1800
D2.5	14000	1800
D3	12000	2200
D4	12000	2200
D4	12000	2200
D6	10000	2400

2 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.