

MITSUBISHI CARBIDE

2 Flute MSTAR End Mill (L)

MS2LS

MS2MS

MS2JS

MS2SS

MS2ES

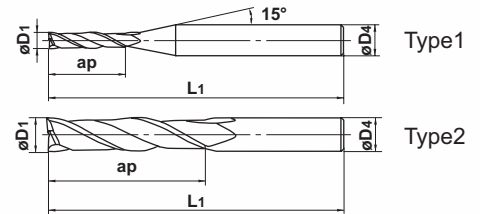
2 flute square long cut length type is now available!

MS2LS

MS2LS 
End mill, Long cut length, 2 flute



● 2 flute end mill for general use.



Unit : mm

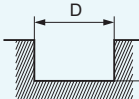
Order Number	Dia.	Length of Cut	Overall Length	Shank Dia.	No. of Flutes N	Stock	Type
	D1	ap	L1	D4			
MS2LSD0020	0.2	0.8	40	4	2	●	1
D0030	0.3	1.2	40	4	2	●	1
D0040	0.4	1.6	40	4	2	●	1
D0050	0.5	2	40	4	2	●	1
D0060	0.6	2.4	40	4	2	●	1
D0070	0.7	2.8	40	4	2	●	1
D0080	0.8	3.2	40	4	2	●	1
D0090	0.9	3.6	40	4	2	●	1
D0100	1	4	40	4	2	●	1
D0150	1.5	6	40	4	2	●	1
D0200	2	8	40	4	2	●	1
D0250	2.5	10	50	4	2	●	1
D0300	3	12	50	6	2	●	1
D0400	4	16	50	6	2	●	1
D0500	5	20	60	6	2	●	1
D0600	6	24	60	6	2	●	2
D0800	8	32	70	8	2	●	2
D1000	10	40	90	10	2	●	2
D1200	12	48	110	12	2	●	2

● : Inventory maintained.

Slotting

Work material	Carbon steel (-30HRC) AISI 1049, SCM Cast iron AISI 35			Alloy steel, Tool steel Pre-hardened steel (30-45HRC) AISI H13, NAK, HPM		
	Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of cut (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)
0.2	40,000	400	0.001	30,000	250	0.001
0.3	40,000	600	0.005	35,000	420	0.005
0.4	40,000	700	0.007	30,000	420	0.007
0.5	40,000	800	0.01	24,000	380	0.01
0.6	33,000	800	0.015	21,000	480	0.01
0.7	28,000	800	0.015	18,000	480	0.015
0.8	25,000	800	0.02	16,000	480	0.02
0.9	22,000	800	0.03	15,000	500	0.03
1	20,000	800	0.04	13,000	500	0.04
1.5	13,000	800	0.10	9,000	500	0.10
2	10,000	800	0.15	6,700	500	0.15
2.5	9,000	800	0.20	6,000	500	0.20
3	8,000	800	0.20	5,200	460	0.20
4	6,000	600	0.20	4,000	340	0.20
5	4,800	480	0.30	3,200	280	0.20
6	4,000	400	0.30	2,600	210	0.20
8	3,000	300	0.30	2,000	170	0.30
10	2,400	240	0.30	1,600	140	0.30
12	2,000	200	0.30	1,300	110	0.30

Depth of cut



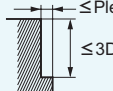
≤ Please refer to the list above for depth of cut.

Side milling

D: Dia.

Work material	Carbon steel (-30HRC) AISI 1049, SCM Cast iron AISI 35			Alloy steel, Tool steel Pre-hardened steel (30-45HRC) AISI H13, NAK, HPM		
	Dia. (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)	Depth of cut (mm)	Revolution (min ⁻¹)	Feed rate (mm/min)
3	3,500	370	0.05	2,600	250	0.03
4	2,800	370	0.06	2,100	200	0.03
5	2,200	330	0.06	1,700	160	0.03
6	1,800	300	0.06	1,500	140	0.03
8	1,600	270	0.08	1,100	140	0.04
10	1,400	240	0.10	900	140	0.05
12	1,200	200	0.10	750	120	0.06

Depth of cut



≤ Please refer to the list above for depth of cut.
≤ 3D

D: Dia.

- 1) Please use VC-LD for workpiece of 45HRC.
- 2) Vibration is liable to occur in the initial stages of machining, but after machining 1-2m the machining becomes stable and vibration could disappear.
- 3) Side milling with large depth of cuts with end mills less than $\phi 3$ is not recommended. When side milling, divide the cutting depth into several times paths.
- 4) If chattering occurs, reduce the revolution and the feed rate proportionately and also reduce the depth of cut.
- 5) When drilling, please set the feed rate at 1/3 or below the values above.

MITSUBISHI MATERIALS KOBE TOOLS



JQA-2522
JQA-EM0941

MITSUBISHI MATERIALS CORPORATION MARKETING DEPT.

KFC bldg., 8F, 1-6-1, Yokoami, Sumida-ku, Tokyo 130-0015, Japan
TEL 81-3-5819-8772 FAX 81-3-5819-8774

MMC HARTMETALL GmbH

Comeniusstr.2, 40670, Meerbusch GERMANY
TEL 49-2159-9189-0 FAX 49-2159-50462

MITSUBISHI MATERIALS U.S.A. CORPORATION Headquarters

17401, Eastman Street, Irvine, California, 92614, USA
TEL 1-949-862-5100 FAX 1-949-862-5180

MMC METAL SINGAPORE PTE LTD.

10, Arumugam Road, #04-00 Lion Industrial Bldg., 409957, SINGAPORE
TEL 65-6743-9370 FAX 65-6749-1469