NS TOOL

For Crafting Tomorrow

3-Flute Square End Mill for Stainless Steel Machining on CNC Sliding Head Lathe

MSUS340S NEW

Total 12 sizes

M

For CNC sliding head lathe, short cutting edge, Full length 45mm



MSUS340S New

Size ϕ0.5 ～ ϕ6

≦40 HRC

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Total 12 sizes

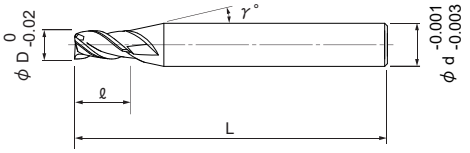
For CNC sliding head lathe, short cutting edge, Full length 45mm
Adopting unequal flute spacing and unequal helix angle design to support from roughing to finishing

MG | 3 | 40° | ϕd -0.001 -0.003

Side | Slot | Face



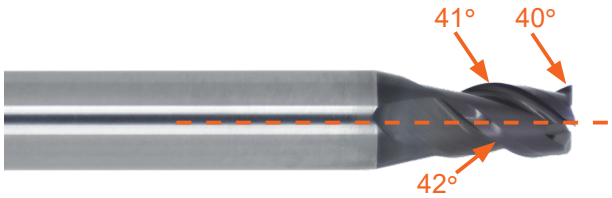




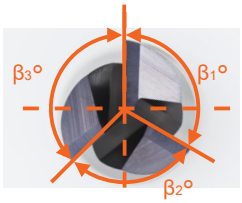
- Designed with a short cutting edge length and a total length of 45 mm to ensure smooth operation on a CNC sliding head lathe and minimize interference.
- Adopting unequal flute spacing and unequal helix angle design to support from roughing to finishing.

Work Material

Stainless Steels	M
◎	



Unequal helix angle



Unequal flute spacing

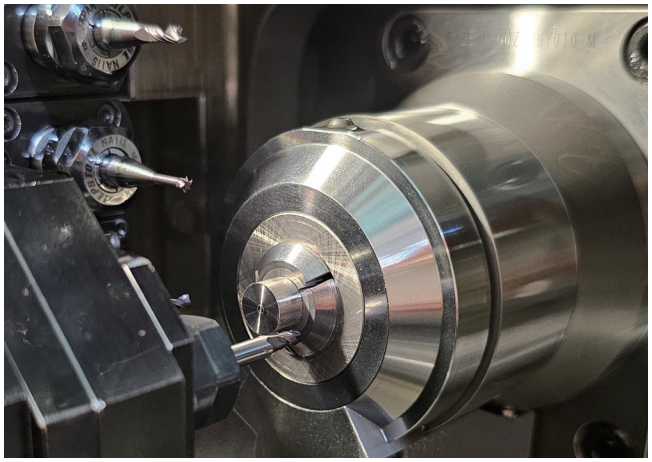
◆ Release in Jun, 2026.

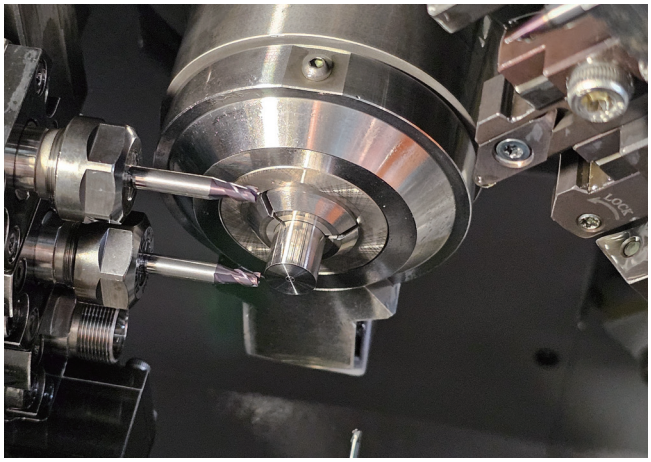
Unit [Size : mm]

Code No.	Dia. (D)	Length of Cut (ℓ)	Neck Taper Angle (γ)	Shank Dia. (d)	Overall Length (L)
◆ 08-00180-00050	**0.5**	0.75	12°	4	45
◆ 08-00180-00100	**1**	1.5	12°	4	45
◆ 08-00180-00150	**1.5**	2.3	12°	4	45
◆ 08-00180-00200	**2**	3	12°	4	45
◆ 08-00180-00250	**2.5**	3.8	12°	4	45
◆ 08-00180-00300	**3**	4.5	12°	4	45
◆ 08-00180-00350	**3.5**	5.3	12°	4	45
◆ 08-00180-00400	**4**	6	-	4	45
◆ 08-00180-00450	**4.5**	6.8	12°	6	45
◆ 08-00180-00500	**5**	7.5	12°	6	45
◆ 08-00180-00550	**5.5**	8.3	12°	6	45
◆ 08-00180-00600	**6**	9	-	6	45

How to Order — When you order, indicate MSUS340S (D).

※ (γ) is reference value.





Work Material		Stainless Steels SUS304						
		Side Milling				Slotting		
Dia.	Length of Cut	Spindle Speed	Feed	Depth of Cut		Spindle Speed	Feed	Depth of Cut
		min^{-1}	mm/min	ap mm	ae mm	min^{-1}	mm/min	ap mm
0.5	**0.75**	6,000	50	0.75	0.1	6,000	40	0.25
1	**1.5**	6,000	100	1.5	0.2	6,000	80	0.5
1.5	**2.3**	5,000	100	2.3	0.3	5,000	80	0.75
2	**3**	4,300	140	3	0.4	4,300	110	1
2.5	**3.8**	4,000	150	3.8	0.5	4,000	120	1.25
3	**4.5**	3,500	190	4.5	0.6	3,500	140	1.5
3.5	**5.3**	3,000	190	5.3	0.7	3,000	140	1.75
4	**6**	2,600	210	6	0.8	2,600	160	2
4.5	**6.8**	2,300	210	6.8	0.9	2,300	160	2.25
5	**7.5**	2,100	220	7.5	1	2,100	180	2.5
5.5	**8.3**	1,900	220	8.3	1.1	1,900	180	2.75
6	**9**	1,700	240	9	1.2	1,700	200	3

Note

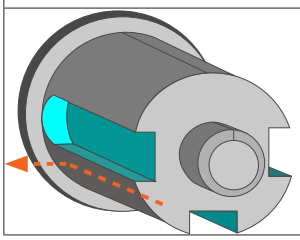
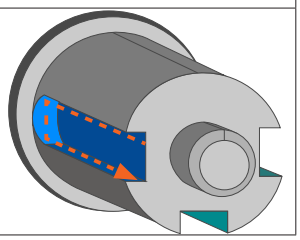
※1 Depth of Cut : ap = Axial Depth of Cut / ae = Radial Depth of Cut.
※2 These cutting conditions assume a tool overhang of 23 mm on a CNC sliding head lathe.
※3 Adjust milling condition conforming with machine rigidity and clamping condition.Final milling conditions are subject to machining profile, purpose and machine status.
※4 In case high-efficient machining, increase spindle speed and feed rate at the same rate.
※5 If the maximum spindle speed of the machine tool is lower than the reference value, please reduce the spindle speed and feed rate at the same rate. Also, reduce both spindle speed and feed rate at the same ratio if chattering occurs.
※6 Recommended to use either water-insoluble fluid or water soluble fluid.
※7 Adjust milling condition with caution for chip evacuation and smoke generation when milling with water-insoluble fluid.
※8 Use a rigid and precise machine and chuck holder.

■ Result from slotting to side milling

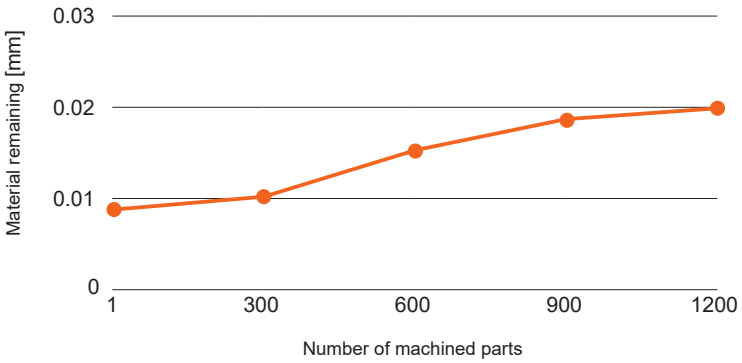
Tool：MSUS340S φ3

Work material：SUS304

Coolant：Water-insoluble fluid

Slotting (Roughing)	Side milling (Finishing)
	

Remaining material after side milling(Finishing), on the climb side in Slotting



Process	Slotting	Side milling
Cutting speed [m/min]	33	
Spindle speed [min^{-1}]	3,500	
Feed [mm/min]	140	80
Depth of cut [mm]	ap 1.5	ap 1.58 × ae 0.08

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CAUTION **Attention on Safety**

1) When removing tools from cases, be careful of getting-out of tools and don't touch directly the cutting edges.
2) Never touch the cutting edges directly with bare hand.
3) Use safety covers and eye protection, as tools may be broken.
4) Use holders, etc. that match the tools and nature of the processing operations. The tool should be firmly attached to the holder to prevent shaking.
5) The work materials clamp firmly.
6) Make sure of dimensions of tools and work pieces before starting operation.
7) It is necessary to adjust conditions according to the dimensions of work materials and the machine.
8) Select a cutting fluid appropriate to the particular usage. Using a non-water cutting fluid could lead to fires due to sparks generated during processing or heat caused by breakage. Ensure that you take proper fire-prevention measures.
9) If abnormal sound, etc. occurs during processing, stop the machine immediately.
10) Don't modify tools.

ISO 9001 JQA-QM6096 ISO 14001 JQA-EM3712

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■Specifications may change without notice for improvement.
■This print uses environmentally friendly inks.