

MHSL

Taps for through hole of medium hardness carbon steel.

• Medium Hardness SL Taps=MHSL •

MHSL

Medium Hardness



For details on
how-to-use,
refer to You tube



Feature of products

For carbon steel of medium hardness,
for through hole tapping

MHSL M6~M16X1.5



Features

- **Long tool life**.....Combination of Co-HSS (featuring wear resistance) and special coating realizes high durability.
- **Improved chip ejection**.....Having Yamawa's special flute design, MHSL accomplishes splendid chip ejection performance.
- **Good surface roughness**.....Superior cutting performance results in preferable surface roughness.

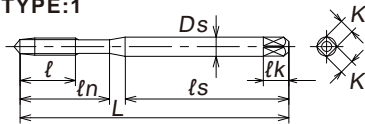
[Example of tapping]



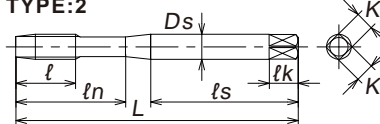
MHSL has attained very high durability in through hole tapings of steel product of medium hardness, such as automobile component-Hub bearings.

Table of dimensions and sizes

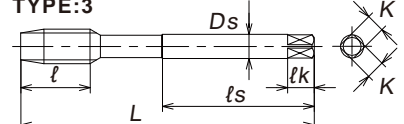
TYPE:1



TYPE:2



TYPE:3



Size	Class	Code	Chamfer	L (mm)	l (mm)	ln (mm)	ls (mm)	Ds (mm)	K (mm)	lk (mm)	No.of flutes
M6X1	P3	MHSLR6.0M5	5P	62	15	26	33	6	4.5	7	3
M8X1.25	P4	MHSLS8.0N5	5P	70	19	-	36	6.2	5	8	3
M10X1.5	P4	MHSLS010O5	5P	75	23	-	38	7	5.5	8	3
M10X1.25	P4	MHSLS010N5	5P	75	23	-	38	7	5.5	8	3
M12X1.75	P5	MHSLT012P5	5P	82	26	-	42	8.5	6.5	9	4
M12X1.5	P5	MHSLT012O5	5P	82	26	-	42	8.5	6.5	9	4
M12X1.25	P5	MHSLT012N7	7P	82	26	-	42	8.5	6.5	9	4
M14X1.5	P5	MHSLT014O7	7P	88	26	-	45	10.5	8	11	4
M16X1.5	P5	MHSLT016O7	7P	95	26	-	48	12.5	10	13	4



Flute Form

To improve chip ejection, MHSL have 2-step-flute taper.



2-step-flute taper pushes out chips smoothly. Cross section of 2-step-flute taper.

Tapping data

Improved wear resistance feature

Due to wear, tap having old design caused noise at 1239 tapping



SL +TiCN 1239 holes still NG

tapping condition

size	M12X1.25
material	S53C(25HRC)
thread length	13mm
tapping speed	30m/min
machine	machining center
cutting oil	water soluble (external)

Good!

MHSL 2800 holes still running



Improved surface roughness



PO no surface treatment first tapping internal screw thread



SL + TIN coating first tapping internal screw thread

Good!

MHSL first tapping internal screw thread. As a result of high cutting performance, MHSL produces far better internal screws with good surface roughness.



Warning

- ◆Tools may shatter. Wear cover or eye glasses to avoid injury during tapping.
- ◆Tools may shatter. Use tools under the proper tapping condition.
- ◆Never wear gloves during turning operations as the gloves may get caught with the tools.
- ◆Wear safety shoes to avoid injuring yourself by the falling tools.
- ◆On attaching tools to the machine, fasten firmly to avoid chattering and run-out.
- ◆Fasten the work pieces firmly so that they never move during operation. Never use worn tools or damaged tools with chipping.
- ◆Take a special care to fire trouble. High temperature during machining may cause fire.

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JQA-QMA14664



JQA-EM3465