

① Spiral Fluted Tap Series for blind hole

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	ℓs	Ds	K	ℓk

JIS

①

Spiral Fluted Taps
(for blind hole)

②

Spiral Fluted Taps
(for through hole)

③

Spiral Pointed Taps
(for through hole)

④

Hand Taps

⑤

Cemented
Carbide Taps

⑥

Roll Taps

⑦

Special Thread Taps
Simple Inspection Tools

⑧

Pipe Taps

⑨

Thread Mills
Premium Thread Mills

⑩

Dies

⑪

Center Drills
Centering Tools

⑫

Precision Machinery/
Medical Surgical Instruments

JIS

①-35

Z-PRO MHSP

Z-PRO

Spiral Taps for Medium Hard Carbon Steels



Specification



Tapping Speeds depending on Materials

High carbon steels 高炭素鋼
5 ~ 20 (m/min)

Alloy steels 合金鋼
5 ~ 20 (m/min)

Thermal refined steels 調質鋼
5 ~ 15 (m/min)

25~35HRC

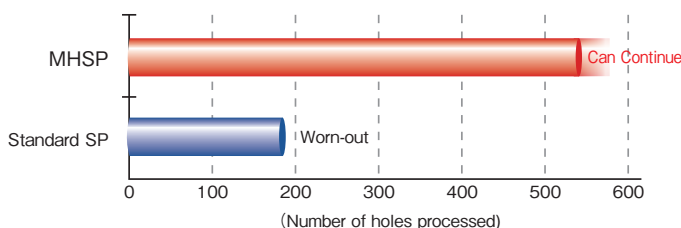
Product Features

- Ideal for forged products and tempered materials like S48C to S55C at 25 to 35HRC.
 - Utilizing a unique high speed steel material and a special coating has created an excellent wear resistance with longer tool life.
 - The special threaded portion design makes it effective against flute chipping at the full thread portion of the tap.
- This new design helps reduce tapping torque and frictional resistance to maintain the screw thread guide properties.
- The new design allows for a longer tool projection to accommodate the discharge of the chips and prevents them from being entangled with the holder.

Tapping Data

Tapping conditions [M8×1.25]

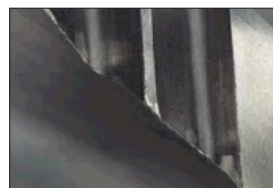
Workpiece Material	SCM440 35HRC
Tapping Length	12mm
Tapping Speed	15m/min
Machine	Machining center (Vertical)
Tapping Fluid	Water soluble cutting fluid



- Compatible with a wide range of workpiece machining.

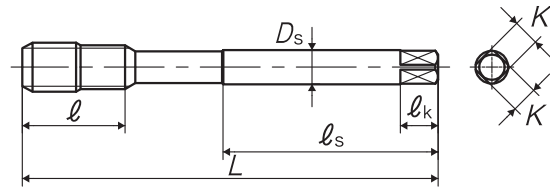
Workpiece Material	Target Tapping Speed (m/min)
High Carbon Steel/Alloy Steel S50C/SCM440 35HRC	5 ~ 15
High Carbon Steel/Alloy Steel S50C/SCM440 25HRC	5 ~ 20
High Carbon Steel/Alloy Steel S50C/SCM440 raw material	5 ~ 30

MHSP Microphotography after Tapped 550 Holes



Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓ_n	ℓ_s	Ds	K	ℓ_k

TYPE: 1



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓ_n (mm)	ℓ_s (mm)	Ds (mm)	K (mm)	ℓ_k (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M8 × 1.25	P4	SY8.0NSOCLJ	2.5P	90	19	-	46	6.2	5	8	3	1	¥ 4,720
M10 × 1.5	P4	SY010OSOCLJ	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 5,460
M10 × 1.25	P4	SY010NSOCLJ	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 5,460
M10 × 1	P4	SY010MSOCLJ	2.5P	100	23	-	51	7	5.5	8	3	1	¥ 6,490
M12 × 1.75	P4	SY012PSOCLJ	2.5P	110	26	-	56	8.5	6.5	9	4	1	¥ 7,830
M12 × 1.5	P4	SY012OSOCLJ	2.5P	110	26	-	56	8.5	6.5	9	4	1	¥ 7,830
M12 × 1.25	P4	SY012NSOCLJ	2.5P	110	26	-	56	8.5	6.5	9	4	1	¥ 7,830
M14 × 2	P5	SY014QTOCLJ	2.5P	110	26	-	56	10.5	8	11	4	1	¥ 10,900
M14 × 1.5	P4	SY014OSOCLJ	2.5P	110	26	-	56	10.5	8	11	4	1	¥ 10,900
M16 × 2	P5	SY016QTOCLJ	2.5P	110	26	-	56	12.5	10	13	4	1	¥ 14,100
M16 × 1.5	P4	SY016OSOCLJ	2.5P	110	26	-	56	12.5	10	13	4	1	¥ 14,100

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