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

Z-PRO

MHSP

Z-PRO
Spiral Fluted Taps for Carbon Steels of Medium hardness

Specification

Tapping Speeds depending on Materials

High carbon steels 高炭素鋼	Alloy steels 合金鋼	Thermal refined steels 調質鋼
5~20 (m/min)	5~20 (m/min)	5~15 (m/min)

25~35HRC

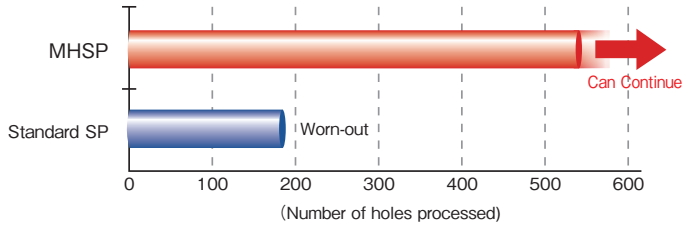
Product Features

- 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]

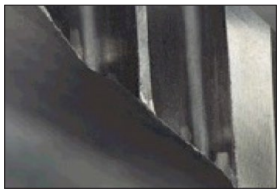
Workpiece Material	SCM440 35HRC
Tapping Length	12mm
Tapping Speed	15m/min
Machine	Machining center (Vertical)
Tapping Fluid	Water soluble cutting fluid



· Compatible with a wide range of workpiece machining.

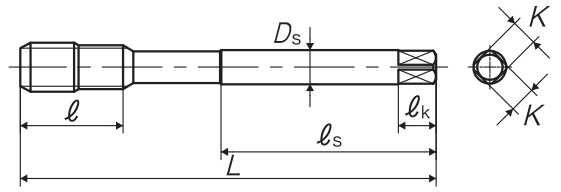
Workpiece Material	Target Tapping Speed (m/min)
High Carbon Steel/Alloy Steel S50C/SCM440 35HRC	5～15
High Carbon Steel/Alloy Steel S50C/SCM440 25HRC	5～20
High Carbon Steel/Alloy Steel S50C/SCM440 raw material	5～30

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	ℓn	ℓs	Ds	K	ℓk

TYPE : 1



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M8 × 1.25	P4	SY8.0NSOCLJ	C (2.5P)	90	19	-	46	6.2	5	8	3	1	¥ 4,960
M10 × 1.5	P4	SY010OSOCLJ	C (2.5P)	100	23	-	51	7	5.5	8	3	1	¥ 5,740
M10 × 1.25	P4	SY010NSOCLJ	C (2.5P)	100	23	-	51	7	5.5	8	3	1	¥ 5,740
M10 × 1	P4	SY010MSOCLJ	C (2.5P)	100	23	-	51	7	5.5	8	3	1	¥ 6,820
M12 × 1.75	P4	SY012PSOCLJ	C (2.5P)	110	26	-	56	8.5	6.5	9	4	1	¥ 8,230
M12 × 1.5	P4	SY012OSOCLJ	C (2.5P)	110	26	-	56	8.5	6.5	9	4	1	¥ 8,230
M12 × 1.25	P4	SY012NSOCLJ	C (2.5P)	110	26	-	56	8.5	6.5	9	4	1	¥ 8,230
M14 × 2	P5	SY014QTOCLJ	C (2.5P)	110	26	-	56	10.5	8	11	4	1	¥ 11,500
M14 × 1.5	P4	SY014OSOCLJ	C (2.5P)	110	26	-	56	10.5	8	11	4	1	¥ 11,500
M16 × 2	P5	SY016QTOCLJ	C (2.5P)	110	26	-	56	12.5	10	13	4	1	¥ 14,900
M16 × 1.5	P4	SY016OSOCLJ	C (2.5P)	110	26	-	56	12.5	10	13	4	1	¥ 14,900