

# ② Spiral Fluted Tap Series for through hole

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	$\ell$	$\ell_n$	$\ell_s$	Ds	K	$\ell_k$

DIN

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

DIN

②-11

Z-PRO

## MHSL

Z-PRO Spiral Fluted Taps for Carbon Steels of Medium Hardness, Through Hole Use (with LH Spiral Flutes)

Specification



■ Suitable for through hole tapping of medium hardness steels such as forgings of high carbon steels and thermal refined steels. (25HRC ~ 35HRC)

Tapping Speeds depending on Materials

M1.8 ~ M5 × 0.5

Medium carbon steels  
中炭素鋼  
**2~16**  
(m/min)

High carbon steels  
高炭素鋼  
**2~16**  
(m/min)

Alloy steels  
合金鋼  
**2~16**  
(m/min)

Thermal refined steels  
調質鋼  
**2~16**  
(m/min)  
25~35HRC

Thermal refined steels  
調質鋼  
**1~12**  
(m/min)  
35~45HRC

Tool steels  
工具鋼  
**1~12**  
(m/min)

M6 ~ M16

Medium carbon steels  
中炭素鋼  
**10~20**  
(m/min)

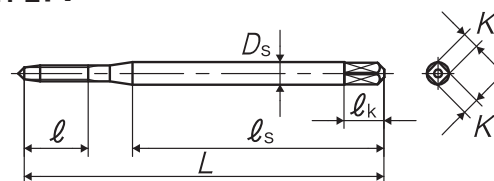
High carbon steels  
高炭素鋼  
**10~20**  
(m/min)

Alloy steels  
合金鋼  
**10~20**  
(m/min)

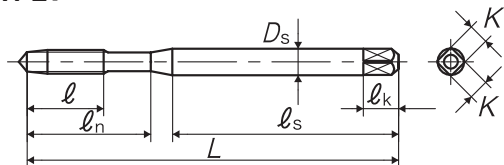
Thermal refined steels  
調質鋼  
**10~20**  
(m/min)  
25~35HRC

Tool steels  
工具鋼  
**5~15**  
(m/min)

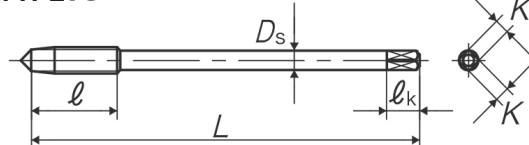
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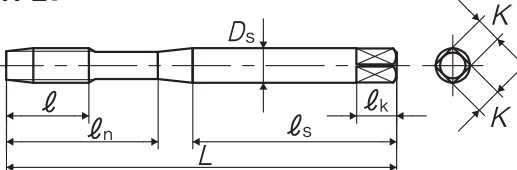
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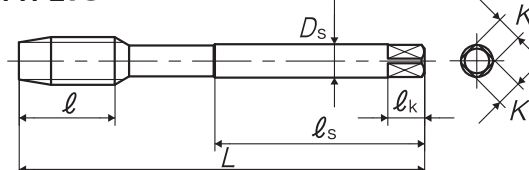
TYPE: 3



TYPE: 4



TYPE: 5



Segment : 1T

Size	Class	Code	Chamfer	L (mm)	$\ell$ (mm)	$\ell_n$ (mm)	$\ell_s$ (mm)	Ds (mm)	K (mm)	$\ell_k$ (mm)	No. of flutes	TYPE
For Metric Threads												
M1.8 × 0.35	ISO2X	3109101017	B(5P)	40	8	-	28.5	2.5	2.1	5	2	1
M2 × 0.4	ISO2X	3109101021	5P	45	8	-	32	2.8	2.1	5	2	1
M2.2 × 0.45	ISO2X	3109101024	B(5P)	45	9	-	32.5	2.8	2.1	5	3	1
M2.5 × 0.45	ISO2X	3109101029	5P	50	8	15	33	2.8	2.1	5	3	2
M3 × 0.5	ISO2X	3109101035	5P	56	9	18	34	3.5	2.7	6	3	2
M3.5 × 0.6	ISO2X	3109101038	5P	56	11	20	32	4	3	6	3	2
M4 × 0.7	ISO2X	3109101042	5P	63	13	21	38	4.5	3.4	6	3	2
M4.5 × 0.75	ISO2X	3109101045	5P	70	14	24	39	6	4.9	8	3	2
M5 × 0.8	ISO2X	3109101049	5P	70	14	25	39	6	4.9	8	3	2
M5 × 0.5	ISO2X	3109101051	5P	70	11	-	-	3.5	2.7	6	3	3

Think threads with  
**YAMAWA**

· This product is different from JIS products in shape and dimensions, please be careful when using.

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

2

DIN

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE
M6 × 1	ISO2X	LD6.0MBFCL5	5P	80	15	30	45	6	4.9	8	3	2
M8 × 1.25	ISO2X	LD8.0NBFCL5	5P	90	19	35	47	8	6.2	9	3	4
M10 × 1.5	ISO2X	LD010OBFCL5	5P	100	23	39	52.5	10	8	11	3	4
M10 × 1.25	ISO2X	LM010NBFCL5	5P	100	23	-	51	7	5.5	8	3	5
M12 × 1.75	ISO2X	LG012PBFCL5	5P	110	26	-	56	9	7	10	4	5
M12 × 1.5	ISO2X	LM012OBFCL5	5P	100	21	-	51	9	7	10	4	5
M12 × 1.25	ISO2X	LM012NBFCL7	7P	100	21	-	51	9	7	10	4	5
M14 × 1.5	ISO2X	LM014OBFCL7	7P	100	21	-	51	11	9	12	4	5
M16 × 1.5	ISO2X	LM016OBFCL7	7P	100	21	-	51	12	9	12	4	5

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DIN

②-12