

# 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	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

②-15



## AU+SL

Spiral Fluted Taps, Coated, Through Hole Use (with LH Spiral Flutes)



### Specification



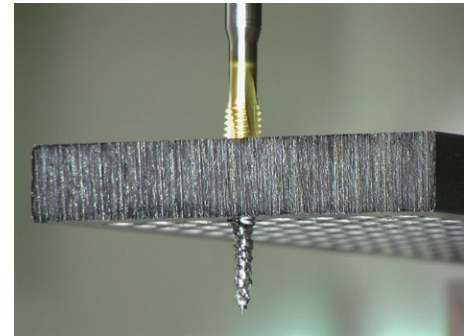
### Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	5~10 (m/min)	20~30 (m/min)	20~30 (m/min)

### Product Features

- The AU+SL utilizing a left hand spiral flute to achieve stable chip discharge performance even at high spindle speed tapping.
- Offers good chip discharge in a wide range of work materials from steel to stainless steel.
- The laser marking has been moved to the square area of the shank to insure a fine surface on the shank diameter. Burrs can be generated and the precision of the shank can be impaired by placing the markings on the shank's diameter. To maintain the precision and the circularity of the finished shank diameter and maintain the high accuracy, the taps size and limits are now marked on the square portion of the tap.
- The AU+SL is applicable to a wide range of work materials. It utilizes a flute shape that can maximize the features of the wear and heat resistance by coating. The coating offers an adhesion resistance, and can handle a wide range of work materials. It is also ideal for water soluble cutting fluids.

### Good chips discharge

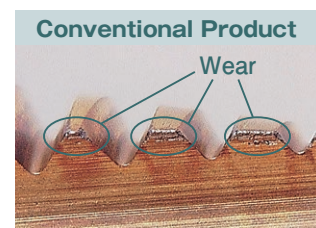


### Tapping Data

#### Tapping Conditions [M6×1]

Workpiece Material	SCM440
Bored Hole Size	φ5.0
Tapping Length	9mm through hole
Tapping Speed	15m/min
Machinery Type	Vertical machining center
Tapping Fluid	Water soluble cutting fluid (chlorine-free 20 to 1 dilution)

#### Cutting Edge after 3,000 Holes.



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	$\ell_k$

2

JIS

Spiral Fluted Taps  
(for blind hole)

①

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Center Drills  
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⑪

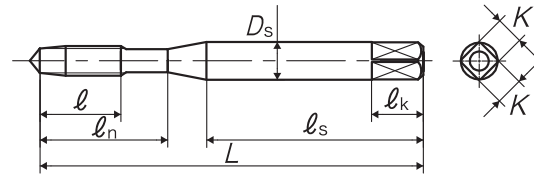
Precision Machinery/  
Medical Surgical Instruments

⑫

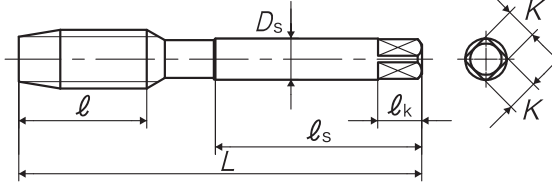
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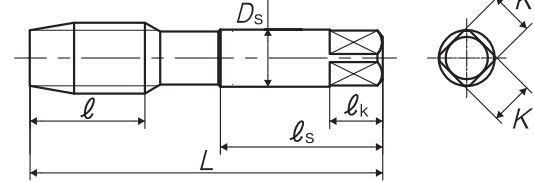
TYPE: 1



TYPE: 2



TYPE: 3



Segment : 1S

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	MSRP
For Metric Threads													
M3 × 0.5	P2	VSAPQ3.0GL	5P	46	9	14	26	4	3.2	6	3	1	¥ 2,800
M4 × 0.7	P3	VSAPR4.0IL	5P	52	11	17	29	5	4	7	3	1	¥ 2,800
M5 × 0.8	P3	VSAPR5.0KL	5P	60	13	22	33	5.5	4.5	7	3	1	¥ 2,850
M6 × 1	P3	VSAPR6.0ML	5P	62	15	26	33	6	4.5	7	3	1	¥ 2,880
M8 × 1.25	P3	VSAPR8.0NL	5P	70	19	-	36	6.2	5	8	3	2	¥ 4,160
M8 × 1	P3	VSAPR8.0ML	5P	70	19	-	36	6.2	5	8	3	2	¥ 4,700
M10 × 1.5	P3	VSAPR010OL	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,870
M10 × 1.25	P3	VSAPR010NL	5P	75	23	-	38	7	5.5	8	3	2	¥ 4,870
M10 × 1	P3	VSAPR010ML	5P	75	23	-	38	7	5.5	8	3	2	¥ 5,350
M12 × 1.75	P4	VSAPS012PL	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,440
M12 × 1.5	P3	VSAPR012OL	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,440
M12 × 1.25	P3	VSAPR012NL	5P	82	26	-	42	8.5	6.5	9	3	2	¥ 6,440
M14 × 2	P4	VSAPS014QL	5P	88	26	-	45	10.5	8	11	3	2	¥ 8,870
M14 × 1.5	P3	VSAPR014OL	5P	88	26	-	45	10.5	8	11	3	2	¥ 8,870
M16 × 2	P4	VSAPS016QL	5P	95	26	-	48	12.5	10	13	3	2	¥ 12,000
M16 × 1.5	P3	VSAPR016OL	5P	95	26	-	48	12.5	10	13	3	2	¥ 12,000
M18 × 2.5	P4	VSAPS018RL	5P	100	33	-	51	14	11	14	4	2	¥ 15,700
M18 × 1.5	P4	VSAPS018OL	5P	100	33	-	51	14	11	14	4	2	¥ 15,700
M20 × 2.5	P4	VSAPS020RL	5P	105	33	-	50	15	12	15	4	3	¥ 19,800
M20 × 1.5	P4	VSAPS020OL	5P	105	33	-	50	15	12	15	4	3	¥ 19,800