

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

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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/Metal Surgical Instruments

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①-93



AU+SP

Plus Series Spiral Fluted Taps, Optimum Coating for the Tapping



Specification



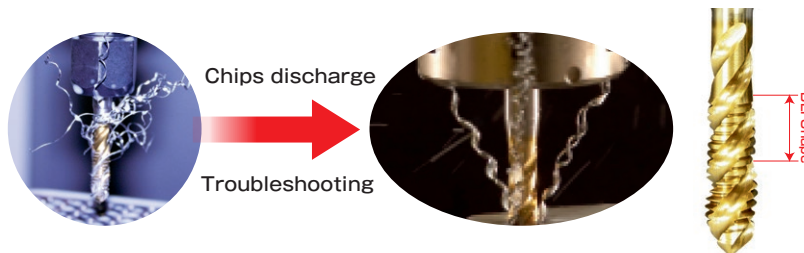
Tapping Speed depending on Materials

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

BLF (Special shape of threaded part) + Significant improvements in chip discharge performance from a unique flute shape.

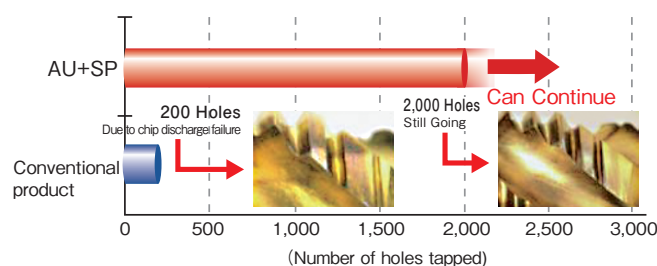
- The AU+SP tap has a special shape that has the first few threads at full size and reduces the remainder to half of the screw thread height.
- The special flute shape offers the following performance effects;
 1. Prevents chipping of the complete threads.
 2. Reduces the tapping torque and frictional resistance.
 3. Creates a smooth discharge of chips.



Tapping Data

Tapping conditions [M6×1]

Workpiece Material	SCM440
Bore Hole Size	φ5.0
Tapping Length	9mm, blind hole
Tapping Speed	10m/min
Machinery Type	Vertical machining center (using floating holder)
Tapping Fluid	Water soluble cutting fluid (chlorine-free 20 to 1 dilution)



Moving the identification markings to the square end of the tap generates a roundness with higher precision, a better surface finish on the taps shank diameter and improves the accuracy of the tap. Minute burrs can occur during marking, even with laser engraving, therefore moving the identification markings to the square improves the overall quality and performance of the tap.



The AU+SP is applicable to a wide range of work materials. It utilizes a flute shape that can maximize the features of the coating (wear resistance, heat resistance, resistance to welding) and can handle a wide range of work materials. It is also ideal for water soluble cutting fluids.

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

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Spiral Fluted Taps
(for blind hole) ①Spiral Fluted Taps
(for through hole) ②Spiral Pointed Taps
(for through hole) ③

Hand Taps ④

Cemented Carbide Taps ⑤

Roll Taps ⑥

Special Thread Taps
Simple Inspection Tools ⑦

Pipe Taps ⑧

Thread Mills
Premium Thread Mills ⑨

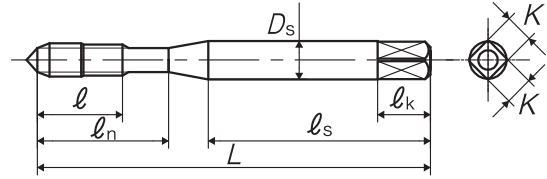
Dies ⑩

Center Drills
Centering Tools ⑪Precision Machinery/
Medical Surgical Instruments ⑫

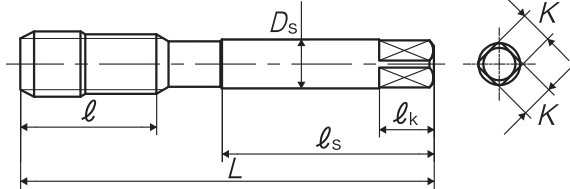
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①-94

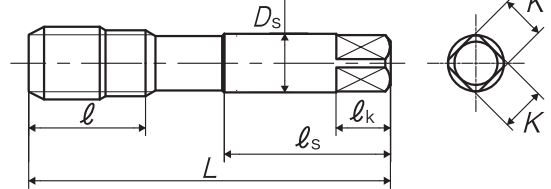
TYPE: 1



TYPE: 2



TYPE: 3



Segment : 1C

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													
M2 × 0.4	P2	VSAPQ2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 3,820
M2.5 × 0.45	P2	VSAPQ2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 3,290
M2.6 × 0.45	P2	VSAPQ2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 3,290
M3 × 0.5	P2	VSAPQ3.0G	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 2,800
M4 × 0.7	P2	VSAPQ4.0I	2.5P	52	11	17	29	5	4	7	3	1	¥ 2,800
M5 × 0.8	P2	VSAPQ5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 2,850
M6 × 1	P2	VSAPQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,880
M8 × 1.25	P3	VSAPR8.0N	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 4,160
M8 × 1	P3	VSAPR8.0M	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 4,700
M10 × 1.5	P3	VSAPR010O	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 4,870
M10 × 1.25	P3	VSAPR010N	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 4,870
M10 × 1	P3	VSAPR010M	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 5,350
M12 × 1.75	P3	VSAPR012P	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 6,440
M12 × 1.5	P3	VSAPR012O	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 6,440
M12 × 1.25	P3	VSAPR012N	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 6,440
M14 × 2	P3	VSAPR014Q	2.5P	88	26	-	45	10.5	8	11	4	2	¥ 8,870
M14 × 1.5	P3	VSAPR014O	2.5P	88	26	-	45	10.5	8	11	4	2	¥ 8,870
M16 × 2	P3	VSAPR016Q	2.5P	95	26	-	48	12.5	10	13	4	2	¥ 12,000
M16 × 1.5	P3	VSAPR016O	2.5P	95	26	-	48	12.5	10	13	4	2	¥ 12,000
M18 × 2.5	P4	VSAPS018R	2.5P	100	33	-	51	14	11	14	4	2	¥ 15,700
M18 × 1.5	P4	VSAPS018O	2.5P	100	33	-	51	14	11	14	4	2	¥ 15,700
M20 × 2.5	P4	VSAPS020R	2.5P	105	33	-	50	15	12	15	4	3	¥ 19,800
M20 × 1.5	P4	VSAPS020O	2.5P	105	33	-	50	15	12	15	4	3	¥ 19,800