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

AU+SP

Plus Series Spiral Fluted Taps, Optimum Coating for the Tapping

Specification

Tapping Speed depending on Materials

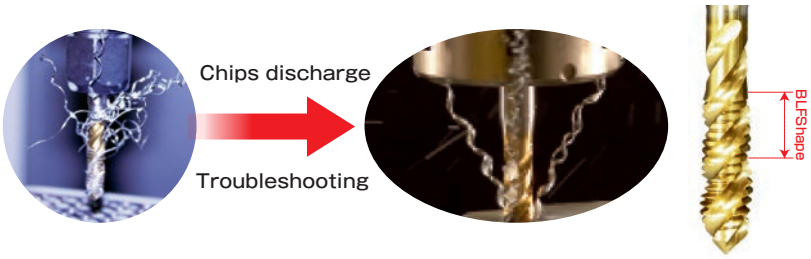
Low carbon steels 低炭素鋼	Medium carbon steels 中炭素鋼	High carbon steels 高炭素鋼	Alloy steels 合金鋼	Stainless steels ステンレス鋼	Aluminum alloy castings アルミ合金鋳物	Zinc alloy castings 亜鉛合金鋳物
10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	10~20 (m/min)	5~10 (m/min)	20~30 (m/min)	20~30 (m/min)

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;

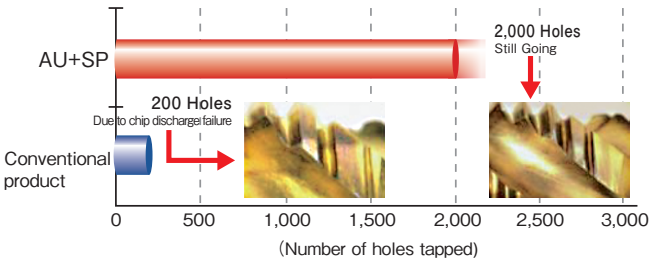
1. Prevents chipping of the complete threads.
2. Reduces the tapping torque and frictional resistance.
3. Creates a smooth discharge of chips.



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)

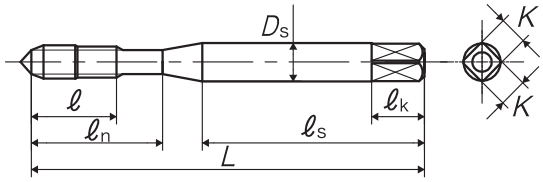


Moving the identification markings to the square end of the tap generates a roundness with higher precision, a better surface finish on the taps shank diameter and improves the accuracy of the tap. Minute burrs can occur during marking, even with laser engraving, therefore moving the identification markings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

TYPE : 1



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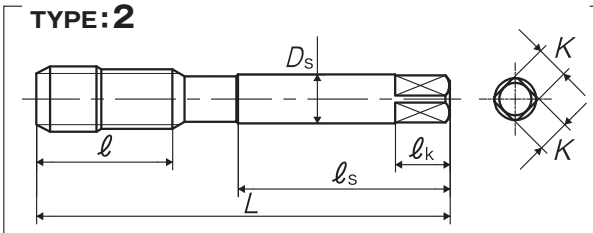
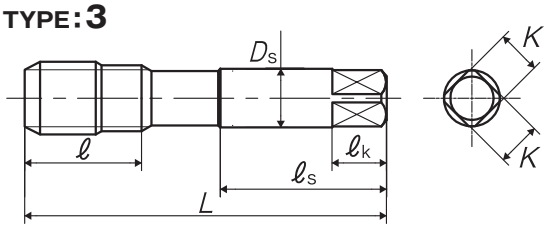


TYPE : 3



Segment : 1C

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													
M2 × 0.4	P2	VSAPQ2.0E	2.5P	42	7.2	12	27	3	2.5	5	2	1	¥ 3,630
M2.5 × 0.45	P2	VSAPQ2.5F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 3,130
M2.6 × 0.45	P2	VSAPQ2.6F	2.5P	46	8.1	14	29	3	2.5	5	2	1	¥ 3,130
M3 × 0.5	P2	VSAPQ3.0G	2.5P	46	9	14	26	4	3.2	6	3	1	¥ 2,660
M4 × 0.7	P2	VSAPQ4.0I	2.5P	52	11	17	29	5	4	7	3	1	¥ 2,660
M5 × 0.8	P2	VSAPQ5.0K	2.5P	60	13	22	33	5.5	4.5	7	3	1	¥ 2,710
M6 × 1	P2	VSAPQ6.0M	2.5P	62	15	26	33	6	4.5	7	3	1	¥ 2,740
M8 × 1.25	P3	VSAPR8.0N	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 3,580
M8 × 1	P3	VSAPR8.0M	2.5P	70	19	-	36	6.2	5	8	3	2	¥ 4,050
M10 × 1.5	P3	VSAPR010O	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 4,190
M10 × 1.25	P3	VSAPR010N	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 4,190
M10 × 1	P3	VSAPR010M	2.5P	75	23	-	38	7	5.5	8	4	2	¥ 4,610
M12 × 1.75	P3	VSAPR012P	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 5,550
M12 × 1.5	P3	VSAPR012O	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 5,550
M12 × 1.25	P3	VSAPR012N	2.5P	82	26	-	42	8.5	6.5	9	4	2	¥ 5,550
M14 × 2	P3	VSAPR014Q	2.5P	88	26	-	45	10.5	8	11	4	2	¥ 7,640
M14 × 1.5	P3	VSAPR014O	2.5P	88	26	-	45	10.5	8	11	4	2	¥ 7,640
M16 × 2	P3	VSAPR016Q	2.5P	95	26	-	48	12.5	10	13	4	2	¥ 10,300
M16 × 1.5	P3	VSAPR016O	2.5P	95	26	-	48	12.5	10	13	4	2	¥ 10,300
M18 × 2.5	P4	VSAPS018R	2.5P	100	33	-	51	14	11	14	4	2	¥ 13,500
M18 × 1.5	P4	VSAPS018O	2.5P	100	33	-	51	14	11	14	4	2	¥ 13,500
M20 × 2.5	P4	VSAPS020R	2.5P	105	33	-	50	15	12	15	4	3	¥ 17,000
M20 × 1.5	P4	VSAPS020O	2.5P	105	33	-	50	15	12	15	4	3	¥ 17,000