

# Spiral Fluted Tap Series

Spiral Fluted Taps  
(for blind hole)

Spiral Fluted Taps  
(for through hole)

Spiral Pointed Taps  
(for through hole)

Hand Taps

Cemented Carbide Taps

Roll Taps

Special Thread Taps  
Simple Inspection Tools

Pipe Taps

Thread Mills

Dies

Center Drills

Centering Tools

## AU+SP

Plus Series Spiral Fluted Taps, Coated  
Specification



Recommended Tapping Speeds depending on Materials

Free cutting and structural steel ISO P1 <b>10~20</b> (m/min)	Carbon steel and low alloy steel ISO P2 <b>10~20</b> (m/min)	Medium alloy steel and heat treated steel ISO P3 <b>10~20</b> (m/min)	High alloy steel ISO P4 <b>10~20</b> (m/min)
Ferritic and austenitic stainless steel ISO M1~M3 <b>5~10</b> (m/min)	Aluminum alloy (<12% Si) ISO N1 <b>20~30</b> (m/min)	Aluminum alloy (>12% Si) ISO N2 <b>20~30</b> (m/min)	

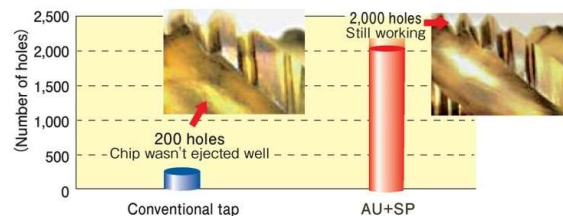
For icon explanation, refer to P.50

### Tapping data

Tapping condition (M6×1)

Work material	42 CrMo 4
Tapping speed	10m/min
Hole diameter	φ5.0
Tapping length	9mm, blind hole
Machine	Machining center vertical type (Floating holder used)
Tapping fluid	Water soluble cutting oil (Chlorine-free, 20 fold dilution)

Obtainable from  
Video site shown in right



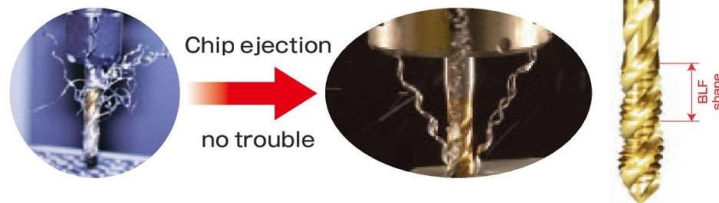
### Product features

**BLF (thread portion of special design) + proprietary flute design :**  
**Great improvement in chip ejection efficiency.**

● AU+SP has a special thread portion design with thread crests ground off and a few full threads after chamfer left unchanged.

● Effects of AU+SP are as follows:

- Prevention of chipping trouble at full thread portion
- Reduction of tapping torque and tapping friction
- Good chip ejection



### Change of marking position from shank into square portion

Laser marking can roughen the shank surface.

In order to keep high accuracy of shank circularity and diameter, marking has been transferred from shank to square portion.



### For wide range of materials

Adopting the flute of special design which enables the coating (features: wear resistance, heat resistance, and welding resistance) to work most efficiently, AU+SP is suitable for the wide range of materials and is well applicable under water soluble oil.

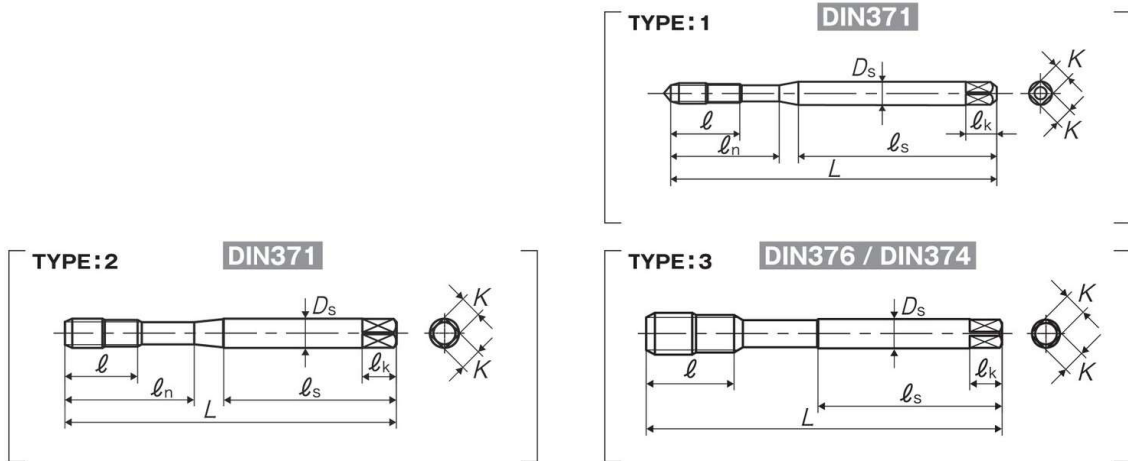
DIN

SP-14

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Think threads with  
**YAMAWA**

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



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	l (mm)	ln (mm)	ls (mm)	Ds (mm)	K (mm)	lk (mm)	No. of flutes	Type	Stock
For Metric Threads													
M3 × 0.5	IS02	SE3.0GANEV	2.5P	56	9	10	34	3.5	2.7	6	3	1	●
M4 × 0.7	IS02	SE4.0IANEV	2.5P	63	13	21	38	4.5	3.4	6	3	1	●
M5 × 0.8	IS02	SE5.0KANEV	2.5P	70	14	25	39	6	4.9	8	3	1	●
M6 × 1	IS02	SE6.0MANEV	2.5P	80	15	30	45	6	4.9	8	3	1	●
M8 × 1.25	IS02	SE8.0NANEV	2.5P	90	19	35	47	8	6.2	9	3	2	●
M8 × 1	IS02	SN8.0MANEV	2.5P	90	19	-	46	6	4.9	8	3	3	●
M10 × 1.5	IS02	SE0100ANEV	2.5P	100	23	39	52	10	8	11	4	2	●
M10 × 1.25	IS02	SN010NANEV	2.5P	100	23	-	51	7	5.5	8	4	3	●
M10 × 1	IS02	SN010MANEV	2.5P	90	19	-	46	7	5.5	8	4	3	●
M12 × 1.75	IS02	SH012PANEV	2.5P	110	26	-	56	9	7	10	4	3	●
M12 × 1.5	IS02	SN0120ANEV	2.5P	100	21	-	51	9	7	10	4	3	●
M12 × 1.25	IS02	SN012NANEV	2.5P	100	21	-	51	9	7	10	4	3	●
M14 × 2	IS02	SH014QANEV	2.5P	110	26	-	56	11	9	12	4	3	●
M14 × 1.5	IS02	SN0140ANEV	2.5P	100	21	-	51	11	9	12	4	3	●
M16 × 2	IS02	SH016QANEV	2.5P	110	26	-	56	12	9	12	4	3	●
M16 × 1.5	IS02	SN0160ANEV	2.5P	100	21	-	51	12	9	12	4	3	●
M18 × 2.5	IS02	SH018RANEV	2.5P	125	33	-	64	14	11	14	4	3	●
M18 × 1.5	IS02	SN0180ANEV	2.5P	110	24	-	56	14	11	14	4	3	●
M20 × 2.5	IS02	SH020RANEV	2.5P	140	33	-	71	16	12	15	4	3	●
M20 × 1.5	IS02	SN0200ANEV	2.5P	125	24	-	64	16	12	15	4	3	●

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