

# 8 Pipe Tap Series

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

- 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



## Z-PRO AUSP G



Z-PRO  
Coated Spiral Fluted Taps for Parallel Pipe Threads

### 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 アルミ合金鑄物	Zinc alloy castings 亜鉛合金鑄物
5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	5~15 (m/min)	~3 (m/min)	5~15 (m/min)	5~15 (m/min)

### Product Features

- New shape is adopted. Proper tool projection length is secured, achieving a good chip ejection efficiency.
- Good internal thread surface and long tool life are achieved by the adoption of the unique cutting edge shape and special coating.

### Tapping Data

#### Tapping conditions [AUSP G 1/4-19]

Workpiece Materials	SUS304
Tapping Speed	5m/min
Machine	Machining center
Holder	Fixed
Tapping Fluid	Water soluble cutting fluid

Chips Do Not Interfere with the Holder.



Good Internal Thread

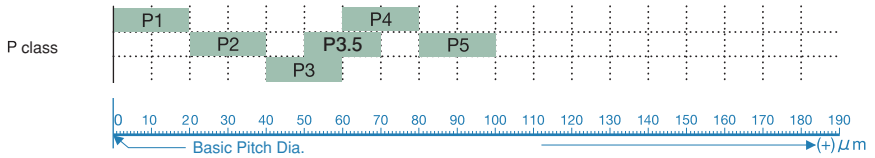


- Compatible with tapping of a wide range of work materials

#### AUSP G Standard tapping conditions

Workpiece Materials	Standard Tapping Speed (m/min)
Stainless Steels SUS304	~ 3
Alloy Steels SCM/SCr	5 ~ 15
High Carbon Steels S45C ~	5 ~ 15
Medium Carbon Steels S25C ~ S45C	5 ~ 15
Low Carbon Steels ~ S20C/SS400	5 ~ 15
Aluminum Alloy Casting/ Zinc Alloy Casting	5 ~ 15

#### • Tap class and internal thread class

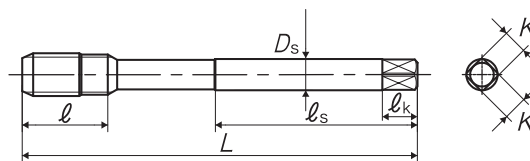


Nominal size	Basic Major Dia.	Internal Thread Class	Basic Pitch Dia. (μm)
G 1/8-28	9.147	P3	107
G 1/4-19	12.301	P3.5	125
G 3/8-19	15.806	P3.5	125
G 1/2-14	19.793	P4	142
G 3/4-14	25.279	P4	142
G 1-11	31.770	P5	180

Pitch diameter tolerance zone of JIS (ISO) internal thread (JIS B 0202)

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

TYPE: 1



Segment : 1G

Size	Class	Code	Chamfer	Basic major dia (mm)	L (mm)	$\ell$ (mm)	$\ell_s$ (mm)	Ds (mm)	K (mm)	$\ell_k$ (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
G 1/8-28	P3	SJG0020FET	2.5P	9.728	90	15	46	8	6	9	3	1	¥ 5,060
G 1/4-19	P3.5	SJG0040FET	2.5P	13.157	100	19	51	11	9	12	3	1	¥ 7,530
G 3/8-19	P3.5	SJG0060FET	2.5P	16.662	100	21	51	14	11	14	3	1	¥ 11,900
G 1/2-14	P4	SJG0080FET	2.5P	20.955	125	26	64	18	14	17	4	1	¥ 18,700
G 3/4-14	P4	SJG0120FET	2.5P	26.441	140	28	71	23	17	20	4	1	¥ 31,000
G 1 -11	P5	SJG0160FET	2.5P	33.249	160	33	82	26	21	24	4	1	¥ 55,600

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/  
Metal Surgical Instruments ⑫