

Overall length	Thread length	Position on basic dia.	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓg	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

Z-PRO

PMSP OX Rc

Z-PRO

Spiral Fluted Taps for Taper Pipe Threads, for High Hardness Materials



Specification

HSS-P

OX
Oxide



Tapping Speeds depending on Materials

Low carbon steels
低炭素鋼
~5
(m/min)

Medium carbon steels
中炭素鋼
~5
(m/min)

High carbon steels
高炭素鋼
~5
(m/min)

Alloy steels
合金鋼
~5
(m/min)

Thermal refined steels
調質鋼
~3
(m/min)
25~35HRC

Thermal refined steels
調質鋼
~3
(m/min)
35~45HRC

Tool steels
工具鋼
~5
(m/min)

Cast steels
鑄鋼
~5
(m/min)

Cast irons
鑄鉄
~5
(m/min)

Ductile cast irons
強靱鑄鉄
~5
(m/min)

Aluminum alloy castings
アルミ合金鑄物
~7
(m/min)

Magnesium alloy die castings
マグネシウム合金鑄物
~7
(m/min)

Zinc alloy castings
亜鉛合金鑄物
~7
(m/min)

Brass
黄銅
~7
(m/min)

Brass castings
黄銅鑄物
~7
(m/min)

Product Features

- Proper tool projection length is secured, achieving an excellent chip ejection efficiency.
- Ideal for tapping hard steels from 30 to 45 HRC, such as plastic die steels.

Tapping Data

Tapping conditions

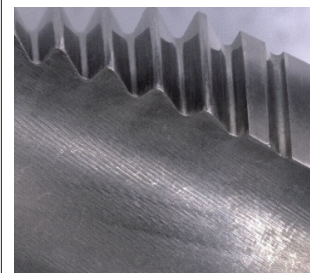
Workpiece Material	NAK55 (40HRC)
Tapping Speed	3m/min
M a c h i n e	Machining center (Vertical)
H o l d e r	With tension and compression
Tapping Fluid	Non-water soluble cutting oil

PMSP OX Rc1/4-19 (After 10 holes)

Excellent internal thread



Less damage on the edge



Comparison of Rc and PT tap dimensions

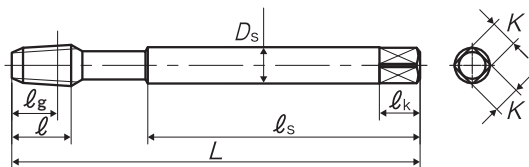
Comparison table of tap dimensions between PMSP OX Rc and "SP-PT (long thread type)"

Size	PMSP OX Rc			
	Overall length L (mm)	Thread length ℓ (mm)	Position on basic dia ℓg (mm)	Shank dia. Ds (mm)
Rc 1/16-28	90	14	10.1	8
Rc 1/8-28	90	15	10.1	8
Rc 1/4-19	100	19	15	11
Rc 3/8-19	100	21	15.4	14
Rc 1/2-14	125	26	20.5	18
Rc 3/4-14	140	28	21.8	23
Rc 1 -11	160	33	26	26

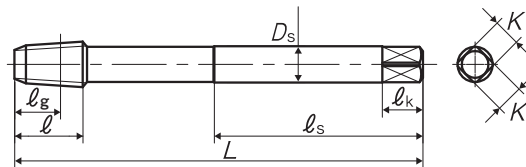
Size	SP-PT (Long (ℓg) Type)			
	Overall length L (mm)	Thread length ℓ (mm)	Position on basic dia ℓg (mm)	Shank dia. Ds (mm)
PT 1/16-28	55	19	13	8
PT 1/8-28	55	19	13	8
PT 1/4-19	62	28	21	11
PT 3/8-19	65	28	21	14
PT 1/2-14	80	35	25	18
PT 3/4-14	85	35	25	23
PT 1 -11	95	45	32	26

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

TYPE:1



TYPE:2



Segment : 1H

Size	Code	Chamfer	Basic major dia (mm)	L (mm)	ℓ (mm)	ℓg (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Pipe Threads													
Rc 1/16-28	SJRC010DPX	C(2.5P)	7.723	90	14	10.1	60	8	6	9	3	1	¥ 7,810 ※
Rc 1/8-28	SJRC020DPX	C(2.5P)	9.728	90	15	10.1	46	8	6	9	3	2	¥ 7,810 ※
Rc 1/4-19	SJRC040DPX	C(2.5P)	13.157	100	19	15.0	51	11	9	12	3	2	¥ 11,400 ※
Rc 3/8-19	SJRC060DPX	C(2.5P)	16.662	100	21	15.4	51	14	11	14	3	2	¥ 18,500 ※
Rc 1/2-14	SJRC080DPX	C(2.5P)	20.955	125	26	20.5	64	18	14	17	4	2	¥ 30,100 ※
Rc 3/4-14	SJRC120DPX	C(2.5P)	26.441	140	28	21.8	71	23	17	20	4	2	¥ 46,000 ※
Rc 1 -11	SJRC160DPX	C(2.5P)	33.249	160	33	26.0	82	26	21	24	4	2	¥ 79,700 ※