

# 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

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

①-21

S

Z-PRO

## VUSP CH

Z-PRO

Coated Spiral Fluted Taps with Coolant Through Hole



### Specification



### Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼 <b>10~20</b> (m/min)	Medium carbon steels 中炭素鋼 <b>10~30</b> (m/min)	High carbon steels 高炭素鋼 <b>10~30</b> (m/min)	Alloy steels 合金鋼 <b>10~20</b> (m/min)	Stainless steels ステンレス鋼 <b>3~10</b> (m/min)	Tool steels 工具鋼 <b>5~10</b> (m/min)	Ductile cast irons 強靱鑄鉄 <b>10~20</b> (m/min)
Wrought aluminum アルミ圧延材 <b>10~20</b> (m/min)	Aluminum alloy castings アルミ合金鋳物 <b>10~20</b> (m/min)					

### Product Features

- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.
- Appropriate tool projection length is secured, preventing chips from interfering with the holder.
- Best suitable for tapping with water soluble cutting fluid.
- VUSP CH has the most effective coolant through hole size for internal lubrication that can supply adequate cutting fluid to the chamfer part. This leads to high performance of cooling, prevention of welding and wear resistance, and achieves the excellent thread surface finish. Chips are smoothly ejected from bored holes to ensure consecutive tapping.

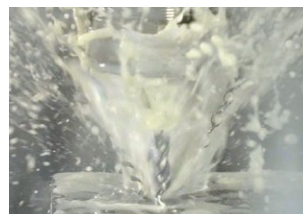
### ■ Situations by different pressures



1.5 Mpa



3 Mpa



6 Mpa



### Tapping Data

#### Tapping conditions [M6×1]

Workpiece Material	S50C
Tapping Length	12mm
Tapping Speed	20m/min
Machinery Type	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid
Internal Coolant Pressure	1.5MPa

#### Tapping conditions [M10×1.5]

Workpiece Material	S50C
Tapping Length	20mm
Tapping Speed	20m/min
Machinery Type	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid
Internal Coolant Pressure	1.5MPa

#### After 500 holes (Can continue to be used)

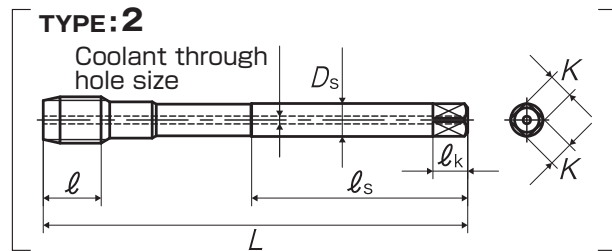
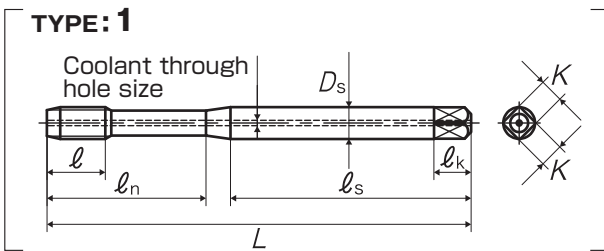
Excellent thread surface	Less damage on the edge	Uniform chips' shape

#### After 420 holes (Can continue to be used)

Excellent thread surface	Less damage on the edge	Uniform chips' shape

Think threads with  
**YAMAWA**

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



Segment : 1D

Size	Class	Code	Chamfer	L (mm)	$\ell$ (mm)	$\ell_n$ (mm)	$\ell_s$ (mm)	Ds (mm)	K (mm)	$\ell_k$ (mm)	No. of flutes	Coolant hole size (mm)	TYPE	MSRP
For Metric Threads														
M6 × 1	P2	1201101055	C (2.5P)	80	11	30	45	6	4.5	7	3	1	1	¥ 5,010
M8 × 1.25	P3	1201101064	C (2.5P)	90	12	-	46	6.2	5	8	3	1	2	¥ 6,610
M8 × 1	P3	1201101065	C (2.5P)	90	12	-	46	6.2	5	8	3	1	2	¥ 7,810 *
M10 × 1.5	P3	1201101078	C (2.5P)	100	13	-	51	7	5.5	8	3	1.5	2	¥ 8,340
M10 × 1.25	P3	1201101079	C (2.5P)	100	13	-	51	7	5.5	8	3	1.5	2	¥ 8,340
M10 × 1	P3	1201101080	C (2.5P)	100	13	-	51	7	5.5	8	3	1.5	2	¥ 9,900 *
M12 × 1.75	P4	1201101088	C (2.5P)	110	15	-	56	8.5	6.5	9	3	2	2	¥ 11,000
M12 × 1.5	P3	1201101089	C (2.5P)	110	15	-	56	8.5	6.5	9	3	2	2	¥ 11,000 *
M12 × 1.25	P3	1201101090	C (2.5P)	110	15	-	56	8.5	6.5	9	3	2	2	¥ 11,000
M14 × 2	P4	1201101100	C (2.5P)	110	18	-	56	10.5	8	11	3	2	2	¥ 15,000
M14 × 1.5	P3	1201101102	C (2.5P)	110	14	-	56	10.5	8	11	3	2	2	¥ 15,000
M16 × 2	P4	1201101114	C (2.5P)	110	18	-	56	12.5	10	13	3	2	2	¥ 19,500
M16 × 1.5	P3	1201101116	C (2.5P)	110	14	-	56	12.5	10	13	3	2	2	¥ 19,500

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\* = Specified Distribution Items. Made to order products.

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