

# 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

- 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 VUSP



### Z-PRO Coated Spiral Fluted Taps

#### Specification



#### Tapping Speeds depending on Materials

Low carbon steels 低炭素鋼 10~20 (m/min)	Medium carbon steels 中炭素鋼 10~30 (m/min)	High carbon steels 高炭素鋼 10~30 (m/min)	Alloy steels 合金鋼 10~20 (m/min)	Stainless steels ステンレス鋼 3~10 (m/min)	Tool steels 工具鋼 5~10 (m/min)	Ductile cast irons 強靱鑄鉄 10~30 (m/min)
Wrought aluminum アルミ圧延材 10~30 (m/min)	Aluminum alloy castings アルミ合金鑄物 10~35 (m/min)					

\*For long shank type, the recommended cutting speed is 30% less than the above.

#### 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.
- Proper tool projection length is secured, preventing chips from interfering with the holder.
- This is most suitable for tapping with water soluble cutting fluid.

#### Tapping Data

##### Tapping conditions [M8×1.25]

Work Material	SUS304
Tapping Length	16mm
Tapping Speed	10m/min
Machine	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid

**Good tapping**

The unique cutting edge shape and the long overall-length tap prevent chips from interfering with the holder. They also ensure a good supply of water soluble cutting fluid.

**Good internal thread**

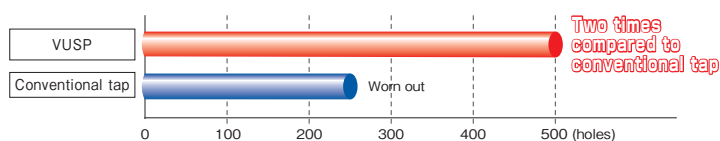
In tapping of SUS304, good internal thread surface is obtained even in tapping environments that use water soluble cutting fluid.

##### Tapping conditions [M3×0.5]

Work Material	S50C
Tapping Length	4.5mm
Tapping Speed	20m/min
Machine	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid



Close-up of VUSP after Tapping of 250 Holes



#### ●Compatible with a wide range of work materials

This is compatible with a wide range of steel work materials including general structural steel, carbon steel, and alloy steel.

Overall length	Thread length	Thread + Neck length	Shank length	Shank dia.	Size of square	Length of square
L	ℓ	ℓ <sub>n</sub>	ℓ <sub>s</sub>	D <sub>s</sub>	K	ℓ <sub>k</sub>

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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

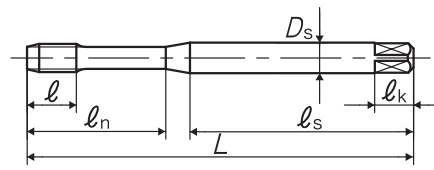
Dies ⑩

Center Drills  
Centering Tools ⑪Precision Machinery/  
Metal Surgical Instruments ⑫

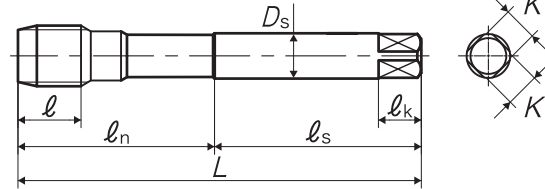
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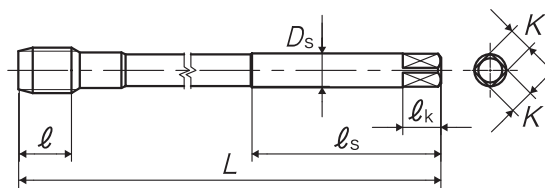
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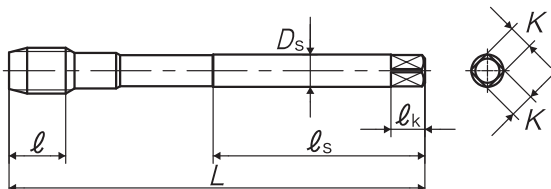
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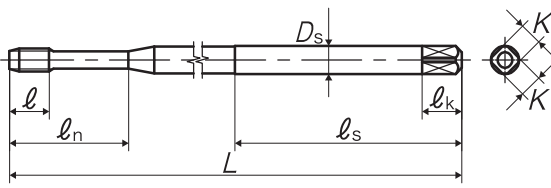
TYPE: 5



TYPE: 2



TYPE: 4



Oversize

Segment : 1D

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓ <sub>n</sub> (mm)	ℓ <sub>s</sub> (mm)	D <sub>s</sub> (mm)	K (mm)	ℓ <sub>k</sub> (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M3 × 0.5	P2	1101101035	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.5	P3	1101201035	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.5	P4	1101301035	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 2,900 <sup>**</sup>
M3 × 0.35	P2	1101101036	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 4,070
M3 × 0.35	P3	1101201036	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 4,070 <sup>**</sup>
M3 × 0.35	P4	1101301036	2.5P	56	5	18	32	4	3.2	6	3	1	¥ 4,070 <sup>**</sup>
M4 × 0.7	P2	1101101042	2.5P	63	7	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.7	P3	1101201042	2.5P	63	7	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.7	P4	1101301042	2.5P	63	7	21	36	5	4	7	3	1	¥ 2,850 <sup>**</sup>
M4 × 0.5	P2	1101101043	2.5P	63	5	21	36	5	4	7	3	1	¥ 3,560
M4 × 0.5	P3	1101201043	2.5P	63	5	21	36	5	4	7	3	1	¥ 3,560 <sup>**</sup>
M4 × 0.5	P4	1101301043	2.5P	63	5	21	36	5	4	7	3	1	¥ 3,560 <sup>**</sup>
M5 × 0.8	P2	1101101049	2.5P	70	9	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.8	P3	1101201049	2.5P	70	9	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.8	P4	1101301049	2.5P	70	9	25	40	5.5	4.5	7	3	1	¥ 2,880 <sup>**</sup>
M5 × 0.5	P2	1101101051	2.5P	70	6	25	40	5.5	4.5	7	3	1	¥ 3,690
M5 × 0.5	P3	1101201051	2.5P	70	6	25	40	5.5	4.5	7	3	1	¥ 3,690 <sup>**</sup>
M5 × 0.5	P4	1101301051	2.5P	70	6	25	40	5.5	4.5	7	3	1	¥ 3,690 <sup>**</sup>
M6 × 1	P2	1101101055	2.5P	80	11	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 1	P3	1101201055	2.5P	80	11	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 1	P4	1101301055	2.5P	80	11	30	45	6	4.5	7	3	1	¥ 3,180 <sup>**</sup>
M6 × 0.75	P2	1101101056	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190
M6 × 0.75	P3	1101201056	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 <sup>**</sup>
M6 × 0.75	P4	1101301056	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 <sup>**</sup>
M6 × 0.5	P2	1101101057	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190
M6 × 0.5	P3	1101201057	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 <sup>**</sup>
M6 × 0.5	P4	1101301057	2.5P	80	8	30	45	6	4.5	7	3	1	¥ 4,190 <sup>**</sup>

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

Think threads with  
**YAMAWA**

# 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

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## VUSP Z-PRO Coated Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M8 × 1.25	P3	1101101064	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,190
M8 × 1.25	P4	1101201064	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,190
M8 × 1.25	P5	1101301064	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,190 <sup>**</sup>
M8 × 1	P3	1101101065	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,950
M8 × 1	P4	1101201065	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,950 <sup>**</sup>
M8 × 1	P5	1101301065	2.5P	90	12	-	46	6.2	5	8	3	2	¥ 4,950 <sup>**</sup>
M10 × 1.5	P3	1101101078	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.5	P4	1101201078	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.5	P5	1101301078	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290 <sup>**</sup>
M10 × 1.25	P3	1101101079	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.25	P4	1101201079	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290
M10 × 1.25	P5	1101301079	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 5,290 <sup>**</sup>
M10 × 1	P3	1101101080	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 6,280
M10 × 1	P4	1101201080	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 6,280 <sup>**</sup>
M10 × 1	P5	1101301080	2.5P	100	13	-	51	7	5.5	8	3	2	¥ 6,280 <sup>**</sup>
M12 × 1.75	P4	1101101088	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.75	P5	1101201088	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.75	P6	1101301088	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900 <sup>**</sup>
M12 × 1.5	P3	1101101089	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.5	P4	1101201089	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.5	P5	1101301089	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900 <sup>**</sup>
M12 × 1.25	P3	1101101090	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.25	P4	1101201090	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900
M12 × 1.25	P5	1101301090	2.5P	110	15	-	56	8.5	6.5	9	3	2	¥ 6,900 <sup>**</sup>
M14 × 2	P4	1101101100	2.5P	110	18	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 2	P5	1101201100	2.5P	110	18	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 2	P6	1101301100	2.5P	110	18	-	56	10.5	8	11	3	2	¥ 9,450 <sup>**</sup>
M14 × 1.5	P3	1101101102	2.5P	110	14	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 1.5	P4	1101201102	2.5P	110	14	-	56	10.5	8	11	3	2	¥ 9,450
M14 × 1.5	P5	1101301102	2.5P	110	14	-	56	10.5	8	11	3	2	¥ 9,450 <sup>**</sup>
M16 × 2	P4	1101101114	2.5P	110	18	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 2	P5	1101201114	2.5P	110	18	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 2	P6	1101301114	2.5P	110	18	-	56	12.5	10	13	3	2	¥ 12,300 <sup>**</sup>
M16 × 1.5	P3	1101101116	2.5P	110	14	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 1.5	P4	1101201116	2.5P	110	14	-	56	12.5	10	13	3	2	¥ 12,300
M16 × 1.5	P5	1101301116	2.5P	110	14	-	56	12.5	10	13	3	2	¥ 12,300 <sup>**</sup>
M18 × 2.5	P5	1101101128	2.5P	125	20	-	64	14	11	14	4	2	¥ 15,500
M18 × 1.5	P4	1101101130	2.5P	125	14	-	64	14	11	14	3	2	¥ 15,500
M20 × 2.5	P5	1101101141	2.5P	140	20	-	71	15	12	15	4	3	¥ 22,400
M20 × 1.5	P4	1101101144	2.5P	140	14	-	71	15	12	15	3	3	¥ 22,400
M22 × 2.5	P5	1101101156	2.5P	140	20	-	71	17	13	16	4	3	¥ 27,000
M22 × 1.5	P4	1101101158	2.5P	140	14	-	71	17	13	16	3	3	¥ 27,000
M24 × 3	P5	1101101167	2.5P	160	25	-	82	19	15	18	4	3	¥ 32,900
M24 × 1.5	P4	1101101170	2.5P	160	18	-	82	19	15	18	3	3	¥ 32,900
Long shank, for Metric Threads													
M3 × 0.5	P2	2101101035	2.5P	100	5	18	32	4	3.2	6	3	4	¥ 5,260
M3 × 0.35	P2	2101101036	2.5P	100	5	18	32	4	3.2	6	3	4	¥ 7,370 <sup>**</sup>
M4 × 0.7	P2	2101101042	2.5P	100	7	21	36	5	4	7	3	4	¥ 4,800
M4 × 0.5	P2	2101101043	2.5P	100	5	21	36	5	4	7	3	4	¥ 6,240 <sup>**</sup>
M5 × 0.8	P2	2101101049	2.5P	100	9	25	40	5.5	4.5	7	3	4	¥ 4,310

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

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<sup>\*\*</sup> = Specified Distribution Items. Made to order products.

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

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## VUSP Z-PRO Coated Spiral Fluted Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
M5 × 0.5	P2	2101101051	2.5P	100	6	25	40	5.5	4.5	7	3	4	¥ 5,390 *
M6 × 1	P2	2101101055	2.5P	100	11	30	45	6	4.5	7	3	4	¥ 4,410
M6 × 0.75	P2	2101101056	2.5P	100	8	30	45	6	4.5	7	3	4	¥ 5,520
M6 × 0.5	P2	2101101057	2.5P	100	8	30	45	6	4.5	7	3	4	¥ 5,520 *
M8 × 1.25	P3	2101101064	2.5P	150	12	-	46	6.2	5	8	3	5	¥ 7,600
M8 × 1	P3	2101101065	2.5P	150	12	-	46	6.2	5	8	3	5	¥ 8,740
M10 × 1.5	P3	2101101078	2.5P	150	13	-	51	7	5.5	8	3	5	¥ 8,890
M10 × 1.25	P3	2101101079	2.5P	150	13	-	51	7	5.5	8	3	5	¥ 8,890
M10 × 1	P3	2101101080	2.5P	150	13	-	51	7	5.5	8	3	5	¥ 10,300
M12 × 1.75	P4	2101101088	2.5P	150	15	-	56	8.5	6.5	9	3	5	¥ 10,600
M12 × 1.5	P3	2101101089	2.5P	150	15	-	56	8.5	6.5	9	3	5	¥ 10,600
M12 × 1.25	P3	2101101090	2.5P	150	15	-	56	8.5	6.5	9	3	5	¥ 10,600
M14 × 2	P4	2101101100	2.5P	150	18	-	56	10.5	8	11	3	5	¥ 14,200
M14 × 1.5	P3	2101101102	2.5P	150	14	-	56	10.5	8	11	3	5	¥ 14,200
M16 × 2	P4	2101101114	2.5P	150	18	-	56	12.5	10	13	3	5	¥ 14,900
M16 × 1.5	P3	2101101116	2.5P	150	14	-	56	12.5	10	13	3	5	¥ 14,900

Spiral Fluted Taps  
(for blind hole) ①Spiral Fluted Taps  
(for through hole) ②Spiral Pointed Taps  
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Hand Taps ④

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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

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 Think threads with  
**YAMAWA**