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

Z-PRO

VUPO



Z-PRO Coated Spiral Pointed Taps

Specification

HSS-P | Coating | <2D

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	Tool steels 工具鋼	Ductile cast irons 強靭鋳鉄
10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	10~30 (m/min)	5~15 (m/min)	5~15 (m/min)	10~35 (m/min)

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

Wrought aluminum アルミ圧延材	Aluminum alloy castings アルミ合金鋳物
10~35 (m/min)	10~35 (m/min)

Product Features

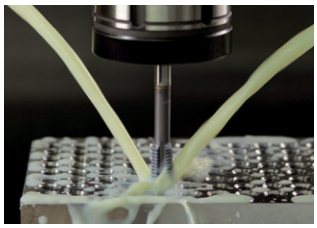
- Durability is improved by premium powder HSS and special coating.
- Chip ejection efficiency is improved and cutting resistance is reduced by the unique cutting edge shape, achieving a good internal thread and long tool life.
- Proper tool projection length is secured, achieving a good supply of water soluble cutting fluid.
- This is most suitable for tapping with water soluble cutting fluid.

Tapping Data

Tapping Conditions [M10×1.5]

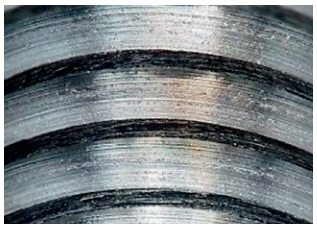
Workpiece Material	SUS304
Tapping Speed	10m/min
Machine Type	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid

Good tapping



The unique cutting edge shape and the longer projection achieve a good supply of water soluble cutting fluid.

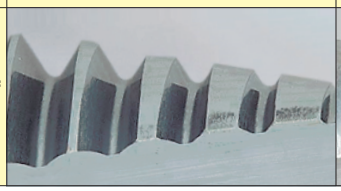
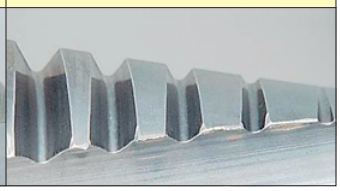
Good internal thread



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

Tapping Conditions [M10×1.5]

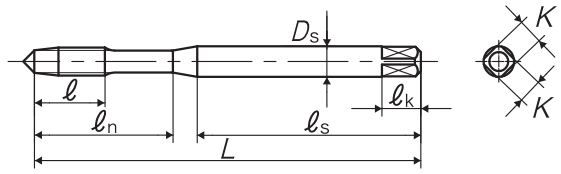
Workpiece Material	S50C
Tapping Length	20mm (2D)
Tapping Speed	20m/min
Machine Type	Machining center, vertical type
Tapping Fluid	Water soluble cutting fluid

	VUPO	Competitor's tap
After Tapping of 560 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	ℓn	ℓs	Ds	K	ℓk

TYPE: 1



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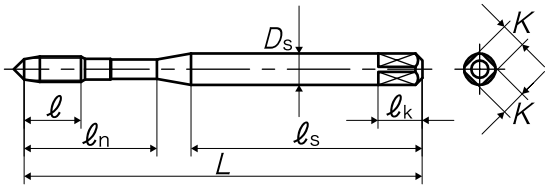

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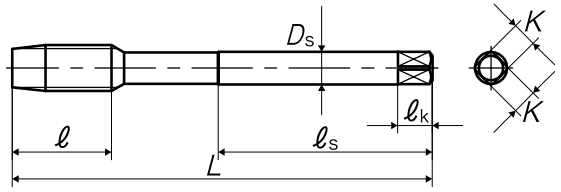

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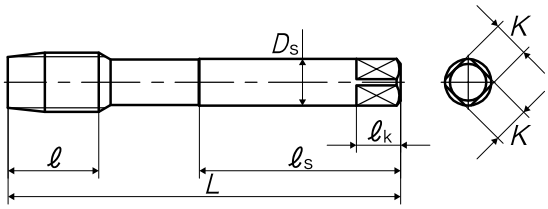

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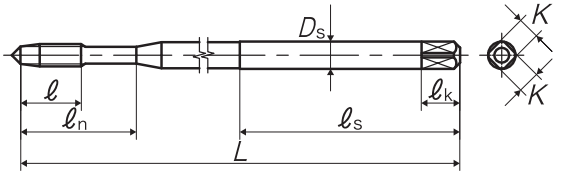

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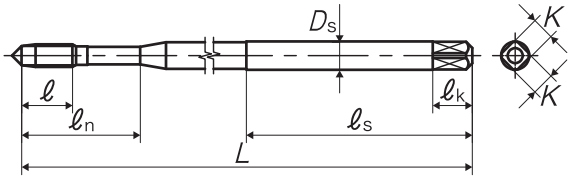

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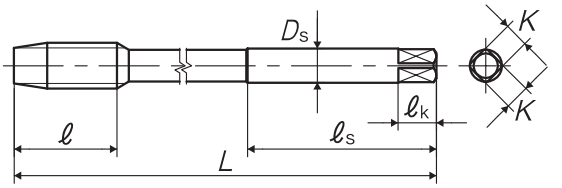

Oversize

Segment : 1F

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M2 × 0.4	P2	1102101021	5P	45	8	15	27	3	2.5	5	2	1	¥ 3,780
M2.2 × 0.45	P2	1102101024	5P	45	9	15	27	3	2.5	5	2	1	¥ 3,550
M2.3 × 0.4	P2	1102101026	5P	45	9	15	27	3	2.5	5	2	1	¥ 3,550
M2.5 × 0.45	P2	1102101029	5P	50	8	15	32	3	2.5	5	2	1	¥ 3,200
M2.6 × 0.45	P2	1102101032	5P	50	8	15	32	3	2.5	5	2	1	¥ 3,200
M3 × 0.5	P2	1102101035	5P	56	9	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.5	P3	1102201035	5P	56	9	18	32	4	3.2	6	3	1	¥ 2,900
M3 × 0.5	P4	1102301035	5P	56	9	18	32	4	3.2	6	3	1	¥ 2,900 ※
M3 × 0.35	P2	1102101036	5P	56	6.5	18	32	4	3.2	6	3	2	¥ 4,070
M3 × 0.35	P3	1102201036	5P	56	6.5	18	32	4	3.2	6	3	2	¥ 4,070 ※
M3 × 0.35	P4	1102301036	5P	56	6.5	18	32	4	3.2	6	3	2	¥ 4,070 ※
M4 × 0.7	P3	1102101042	5P	63	13	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.7	P4	1102201042	5P	63	13	21	36	5	4	7	3	1	¥ 2,850
M4 × 0.7	P5	1102301042	5P	63	13	21	36	5	4	7	3	1	¥ 2,850 ※
M4 × 0.5	P2	1102101043	5P	63	9	21	36	5	4	7	3	2	¥ 3,560
M4 × 0.5	P3	1102201043	5P	63	9	21	36	5	4	7	3	2	¥ 3,560 ※
M4 × 0.5	P4	1102301043	5P	63	9	21	36	5	4	7	3	2	¥ 3,560 ※

※ = 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

VUPO Z-PRO Coated Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M5 × 0.8	P3	1102101049	5P	70	14	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.8	P4	1102201049	5P	70	14	25	40	5.5	4.5	7	3	1	¥ 2,880
M5 × 0.8	P5	1102301049	5P	70	14	25	40	5.5	4.5	7	3	1	¥ 2,880 ※
M5 × 0.5	P2	1102101051	5P	70	9	25	40	5.5	4.5	7	3	2	¥ 3,690
M5 × 0.5	P3	1102201051	5P	70	9	25	40	5.5	4.5	7	3	2	¥ 3,690 ※
M5 × 0.5	P4	1102301051	5P	70	9	25	40	5.5	4.5	7	3	2	¥ 3,690 ※
M6 × 1	P3	1102101055	5P	80	15	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 1	P4	1102201055	5P	80	15	30	45	6	4.5	7	3	1	¥ 3,180
M6 × 1	P5	1102301055	5P	80	15	30	45	6	4.5	7	3	1	¥ 3,180 ※
M6 × 0.75	P2	1102101056	5P	80	15	30	45	6	4.5	7	3	1	¥ 4,190
M6 × 0.75	P3	1102201056	5P	80	15	30	45	6	4.5	7	3	1	¥ 4,190 ※
M6 × 0.75	P4	1102301056	5P	80	15	30	45	6	4.5	7	3	1	¥ 4,190 ※
M6 × 0.5	P2	1102101057	5P	80	9	30	45	6	4.5	7	3	2	¥ 4,190
M6 × 0.5	P3	1102201057	5P	80	9	30	45	6	4.5	7	3	2	¥ 4,190 ※
M6 × 0.5	P4	1102301057	5P	80	9	30	45	6	4.5	7	3	2	¥ 4,190 ※
M8 × 1.25	P3	1102101064	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,190
M8 × 1.25	P4	1102201064	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,190
M8 × 1.25	P5	1102301064	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,190 ※
M8 × 1	P3	1102101065	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,950
M8 × 1	P4	1102201065	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,950 ※
M8 × 1	P5	1102301065	5P	90	19	-	46	6.2	5	8	3	3	¥ 4,950 ※
M10 × 1.5	P3	1102101078	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290
M10 × 1.5	P4	1102201078	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290
M10 × 1.5	P5	1102301078	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290 ※
M10 × 1.25	P3	1102101079	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290
M10 × 1.25	P4	1102201079	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290
M10 × 1.25	P5	1102301079	5P	100	23	-	51	7	5.5	8	3	3	¥ 5,290 ※
M10 × 1	P3	1102101080	5P	100	23	-	51	7	5.5	8	3	3	¥ 6,280
M10 × 1	P4	1102201080	5P	100	23	-	51	7	5.5	8	3	3	¥ 6,280 ※
M10 × 1	P5	1102301080	5P	100	23	-	51	7	5.5	8	3	3	¥ 6,280 ※
M12 × 1.75	P4	1102101088	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.75	P5	1102201088	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.75	P6	1102301088	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900 ※
M12 × 1.5	P3	1102101089	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.5	P4	1102201089	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.5	P5	1102301089	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900 ※
M12 × 1.25	P4	1102101090	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.25	P5	1102201090	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900
M12 × 1.25	P6	1102301090	5P	110	26	-	56	8.5	6.5	9	3	3	¥ 6,900 ※
M14 × 2	P4	1102101100	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450
M14 × 2	P5	1102201100	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450
M14 × 2	P6	1102301100	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450 ※
M14 × 1.5	P3	1102101102	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450
M14 × 1.5	P4	1102201102	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450
M14 × 1.5	P5	1102301102	5P	110	26	-	56	10.5	8	11	3	3	¥ 9,450 ※
M16 × 2	P4	1102101114	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300
M16 × 2	P5	1102201114	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300
M16 × 2	P6	1102301114	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300 ※
M16 × 1.5	P3	1102101116	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300

Think threads with YAMAWA

※ = 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

VUPO Z-PRO Coated Spiral Pointed Taps

Size	Class	Code	Chamfer	L (mm)	ℓ (mm)	ℓn (mm)	ℓs (mm)	Ds (mm)	K (mm)	ℓk (mm)	No. of flutes	TYPE	MSRP
For Metric Threads													
M16 × 1.5	P4	1102201116	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300
M16 × 1.5	P5	1102301116	5P	110	26	-	56	12.5	10	13	3	3	¥ 12,300 ※
M18 × 2.5	P5	1102101128	5P	125	33	-	64	14	11	14	3	3	¥ 15,500
M18 × 1.5	P4	1102101130	5P	125	33	-	64	14	11	14	3	3	¥ 15,500
M20 × 2.5	P5	1102101141	5P	140	33	-	71	15	12	15	3	4	¥ 22,400
M20 × 1.5	P4	1102101144	5P	140	33	-	71	15	12	15	3	4	¥ 22,400
M22 × 2.5	P5	1102101156	5P	140	33	-	71	17	13	16	3	4	¥ 27,000
M22 × 1.5	P4	1102101158	5P	140	33	-	71	17	13	16	3	4	¥ 27,000
M24 × 3	P5	1102101167	5P	160	37	-	82	19	15	18	3	4	¥ 32,900
M24 × 1.5	P4	1102101170	5P	160	37	-	82	19	15	18	3	4	¥ 32,900
Long shank, for Metric Threads													
M3 × 0.5	P2	2102101035	5P	100	9	18	32	4	3.2	6	3	5	¥ 5,260
M3 × 0.35	P2	2102101036	5P	100	6.5	18	32	4	3.2	6	3	6	¥ 7,370 ※
M4 × 0.7	P3	2102101042	5P	100	11	21	36	5	4	7	3	5	¥ 4,800
M4 × 0.5	P2	2102101043	5P	100	9	21	36	5	4	7	3	6	¥ 6,240 ※
M5 × 0.8	P3	2102101049	5P	100	13	25	40	5.5	4.5	7	3	5	¥ 4,310
M5 × 0.5	P2	2102101051	5P	100	9	25	40	5.5	4.5	7	3	6	¥ 5,390 ※
M6 × 1	P3	2102101055	5P	100	15	30	45	6	4.5	7	3	5	¥ 4,410
M6 × 0.75	P2	2102101056	5P	100	15	30	45	6	4.5	7	3	5	¥ 5,520
M6 × 0.5	P2	2102101057	5P	100	9	30	45	6	4.5	7	3	6	¥ 5,520 ※
M8 × 1.25	P3	2102101064	5P	150	19	-	46	6.2	5	8	3	7	¥ 7,600
M8 × 1	P3	2102101065	5P	150	19	-	46	6.2	5	8	3	7	¥ 8,740
M10 × 1.5	P3	2102101078	5P	150	23	-	51	7	5.5	8	3	7	¥ 8,890
M10 × 1.25	P3	2102101079	5P	150	23	-	51	7	5.5	8	3	7	¥ 8,890
M10 × 1	P3	2102101080	5P	150	23	-	51	7	5.5	8	3	7	¥ 10,300
M12 × 1.75	P4	2102101088	5P	150	26	-	56	8.5	6.5	9	3	7	¥ 10,600
M12 × 1.5	P3	2102101089	5P	150	26	-	56	8.5	6.5	9	3	7	¥ 10,600
M12 × 1.25	P4	2102101090	5P	150	26	-	56	8.5	6.5	9	3	7	¥ 10,600
M14 × 2	P4	2102101100	5P	150	26	-	56	10.5	8	11	3	7	¥ 14,200
M14 × 1.5	P3	2102101102	5P	150	26	-	56	10.5	8	11	3	7	¥ 14,200
M16 × 2	P4	2102101114	5P	150	26	-	56	12.5	10	13	3	7	¥ 14,900
M16 × 1.5	P3	2102101116	5P	150	26	-	56	12.5	10	13	3	7	¥ 14,900

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