

# 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	ℓ <sub>n</sub>	ℓ <sub>s</sub>	D <sub>s</sub>	K	ℓ <sub>k</sub>



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## Z-PRO HVSP

Z-PRO Hybrid Value Spiral Fluted Taps for Steels

### Specification

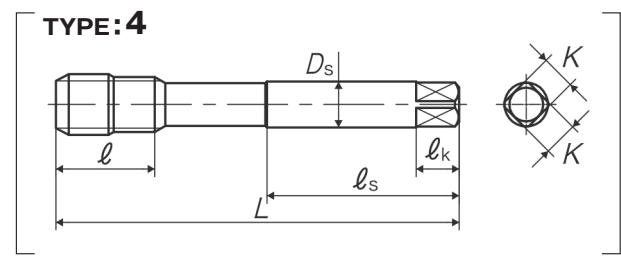
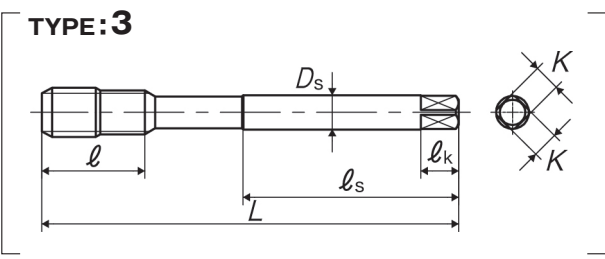
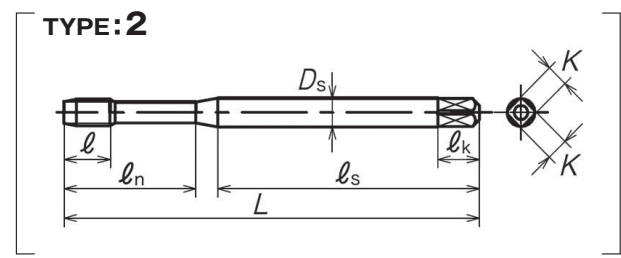
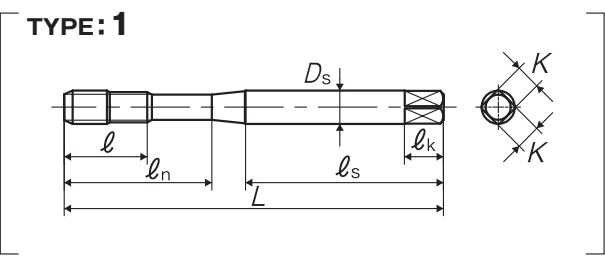


■ The HVSP is a spiral flute tap for blind hole tapping where problems existed in chipping the cutting chamfer. It enables trouble free perfect threading.

### 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	Thermal refined steels 調質鋼	Stainless steels ステンレス鋼	Cast steels 鋳鋼
3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	3~12 (m/min)	~5 (m/min)	~5 (m/min)	3~12 (m/min)

25~35HRC



Segment : 1C

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓ <sub>n</sub> (inch)	ℓ <sub>s</sub> (inch)	D <sub>s</sub> (inch)	K (inch)	ℓ <sub>k</sub> (inch)	No. of flutes	TYPE
For Metric Threads												
M3 × 0.5	D4	SS3.0G4EEXJ	2.5P	2.205	0.433	0.736	1.339	0.141	0.11	0.187	3	1
M3 × 0.35	D4	SS3.0D4EEXJ	2.5P	2.205	0.256	0.736	1.339	0.141	0.11	0.187	3	1
M4 × 0.7	D5	SS4.0I5EEXJ	2.5P	2.48	0.512	0.815	1.535	0.168	0.131	0.25	3	1
M4 × 0.5	D4	SS4.0G4EEXJ	2.5P	2.48	0.354	0.815	1.535	0.168	0.131	0.25	3	1
M5 × 0.8	D5	SS5.0K5EEXJ	2.5P	2.756	0.551	0.984	1.654	0.194	0.152	0.25	3	1
M5 × 0.5	D4	SS5.0G4EEXJ	2.5P	2.756	0.354	0.984	1.654	0.194	0.152	0.25	3	1
M6 × 1	D6	SS6.0M6EEXJ	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
M6 × 0.75	D6	SS6.0J6EEXJ	2.5P	3.15	0.591	1.181	1.713	0.255	0.191	0.312	3	1
M6 × 0.5	D4	SS6.0G4EEXJ	2.5P	3.15	0.354	1.181	1.713	0.255	0.191	0.312	3	1
M8 × 1.25	D7	SS8.0N7EEXJ	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	1
M8 × 1	D6	SS8.0M6EEXJ	2.5P	3.543	0.748	1.378	1.831	0.318	0.238	0.375	3	1
M10 × 1.5	D8	SS010O8EEXJ	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	1
M10 × 1.25	D7	SS010N7EEXJ	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	1
M10 × 1	D6	SS010M6EEXJ	2.5P	3.937	0.906	1.535	2.126	0.381	0.286	0.437	3	1
M12 × 1.75	D8	SS012P8EEXJ	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
M12 × 1.5	D7	SS012O7EEXJ	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3
M12 × 1.25	D7	SS012N7EEXJ	2.5P	4.331	1.024	-	2.205	0.367	0.275	0.437	3	3

ANSI Think threads with YAMAWA

This product is different from JIS products in shape and dimensions, please be careful when using.

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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Spiral Fluted Taps  
(for blind hole) ①

Spiral Fluted Taps  
(for through hole) ②

Spiral 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 ⑪

Precision Machinery/  
Metal Surgical Instruments ⑫

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Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
M14 × 2	D9	SS014Q9EEXJ	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
M14 × 1.5	D8	SS014O8EEXJ	2.5P	4.331	1.024	-	2.205	0.429	0.322	0.5	3	3
M16 × 2	D9	SS016Q9EEXJ	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
M16 × 1.5	D8	SS016O8EEXJ	2.5P	4.331	1.024	-	2.205	0.48	0.36	0.562	3	3
M18 × 2.5	D9	SS018R9EEXJ	2.5P	4.921	1.299	-	2.52	0.542	0.406	0.625	4	3
M18 × 1.5	D8	SS018O8EEXJ	2.5P	4.921	0.945	-	2.52	0.542	0.406	0.625	4	3
M20 × 2.5	D9	SS020R9EEXJ	2.5P	5.512	1.299	-	2.795	0.652	0.489	0.687	4	4
M20 × 1.5	D8	SS020O8EEXJ	2.5P	5.512	0.945	-	2.795	0.652	0.489	0.687	4	4
M22 × 2.5	D9	SS022R9EEXJ	2.5P	5.512	1.299	-	2.795	0.697	0.523	0.75	4	4
M22 × 1.5	D8	SS022O8EEXJ	2.5P	5.512	0.945	-	2.795	0.697	0.523	0.75	4	4
M24 × 3	D9	SS024S9EEXJ	2.5P	6.299	1.457	-	3.228	0.76	0.57	0.75	4	4
M24 × 1.5	D8	SS024O8EEXJ	2.5P	6.299	1.063	-	3.228	0.76	0.57	0.75	4	4
M27 × 3	D10	SS027SOEEXJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	4
M27 × 1.5	D8	SS027O8EEXJ	2.5P	7.087	1.063	-	3.622	0.896	0.672	0.875	4	4
M30 × 3.5	D10	SS030TOEEXJ	2.5P	7.087	1.732	-	3.622	1.021	0.766	1	4	4
M30 × 3	D10	SS030SOEEXJ	2.5P	7.087	1.732	-	3.622	1.021	0.766	1	4	4
M30 × 1.5	D8	SS030O8EEXJ	2.5P	7.087	1.063	-	3.622	1.021	0.766	1	4	4
M33 × 3.5	D10	SS033TOEEXJ	2.5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	4
M33 × 3	D10	SS033SOEEXJ	2.5P	7.087	1.732	-	3.622	1.108	0.831	1.062	4	4
M36 × 4	D10	SS036UOEEXJ	2.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	4
M36 × 3	D10	SS036SOEEXJ	2.5P	7.874	2.047	-	4.016	1.233	0.925	1.125	4	4
M39 × 4	D10	SS039UOEEXJ	2.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	4
M39 × 3	D10	SS039SOEEXJ	2.5P	7.874	2.047	-	4.016	1.305	0.979	1.125	4	4
M42 × 4.5	D10	SS042VOEEXJ	2.5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	4
M42 × 3	D10	SS042SOEEXJ	2.5P	7.874	2.047	-	4.016	1.43	1.072	1.25	4	4
M48 × 5	D11	SS048W-EEXJ	2.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	4
M48 × 3	D10	SS048SOEEXJ	2.5P	9.843	2.559	-	5.039	1.644	1.233	1.375	4	4
For Unified Threads												
No.5-40UNC	2BX	SSUN5HYEEXJ	2.5P	2.205	0.197	0.736	1.339	0.141	0.11	0.187	4	2
No.5-44UNF	2BX	SSUN5GYEEXJ	2.5P	2.205	0.197	0.736	1.339	0.141	0.11	0.187	4	2
No.6-32UNC	2BX	SSUN6JYEEXJ	2.5P	2.205	0.276	0.748	1.339	0.141	0.11	0.187	4	2
No.6-40UNF	2BX	SSUN6HYEEXJ	2.5P	2.205	0.276	0.748	1.339	0.141	0.11	0.187	4	2
No.8-32UNC	2BX	SSUN8JYEEXJ	2.5P	2.48	0.276	0.827	1.535	0.168	0.131	0.25	4	2
No.8-36UNF	2BX	SSUN8IYEEXJ	2.5P	2.48	0.276	0.827	1.535	0.168	0.131	0.25	4	2
No.10-24UNC	2BX	SSUNAMYEEXJ	2.5P	2.756	0.354	0.945	1.654	0.194	0.152	0.25	4	2
No.10-32UNF	2BX	SSUNAJYEEXJ	2.5P	2.756	0.354	0.945	1.654	0.194	0.152	0.25	4	2
1/4-20UNC	2BX	SSU04NYEEXJ	2.5P	3.15	0.433	1.181	1.693	0.255	0.165	0.281	4	2
1/4-28UNF	2BX	SSU04KYEEXJ	2.5P	3.15	0.433	1.181	1.693	0.255	0.165	0.281	4	2
1 -8UNC	2BX	SSU16XYEEXCJ	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	4
1 -12UNF	2BX	SSU16SYEEXCJ	2.5P	6.299	1.457	-	3.228	0.8	0.6	0.812	4	4
1 1/8-7UNC	2BX	SSU18YIEEXCJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	4
1 1/8-8UN	2BX	SSU18XYEEXCJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	4
1 1/8-12UNF	2BX	SSU18SYEEXCJ	2.5P	7.087	1.732	-	3.622	0.896	0.672	0.875	4	4
1 1/4-7UNC	2BX	SSU20YIEEXCJ	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	4
1 1/4-8UN	2BX	SSU20XYEEXCJ	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	4
1 1/4-12UNF	2BX	SSU20SYEEXCJ	2.5P	7.087	1.929	-	3.622	1.021	0.766	1	4	4
1 3/8-6UNC	2BX	SSU22ZYEEXCJ	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	4
1 3/8-8UN	2BX	SSU22XYEEXCJ	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	4
1 3/8-12UNF	2BX	SSU22SYEEXCJ	2.5P	7.874	2.165	-	4.016	1.108	0.831	1.062	4	4
1 1/2-6UNC	2BX	SSU24ZYEEXCJ	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	4

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# 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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## HVSP Z-PRO Hybrid Value Spiral Fluted Taps for Steels

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	ℓs (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
1 1/2-8UN	2BX	SSU24XYEEXCJ	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	4
1 1/2-12UNF	2BX	SSU24SYEEXCJ	2.5P	7.874	2.323	-	4.016	1.233	0.925	1.125	4	4
1 3/4-5UNC	2BX	SSU280YEEXCJ	2.5P	8.661	2.559	-	4.409	1.43	1.072	1.25	4	4
1 3/4-8UN	2BX	SSU28XYEEXCJ	2.5P	8.661	2.559	-	4.409	1.43	1.072	1.25	4	4
1 3/4-12UN	2BX	SSU28SYEEXCJ	2.5P	8.661	2.559	-	4.409	1.43	1.072	1.25	4	4
2 -4 1/2UNC	2BX	SSU329YEEXCJ	2.5P	9.843	2.874	-	5.039	1.644	1.233	1.375	4	4
2 -8UN	2BX	SSU32XYEEXCJ	2.5P	9.843	2.874	-	5.039	1.644	1.233	1.375	4	4

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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