

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

# ANSI

## ZELX TI SP

### Spiral Fluted Taps for Titanium Alloys



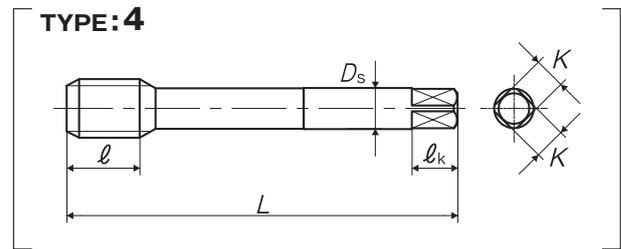
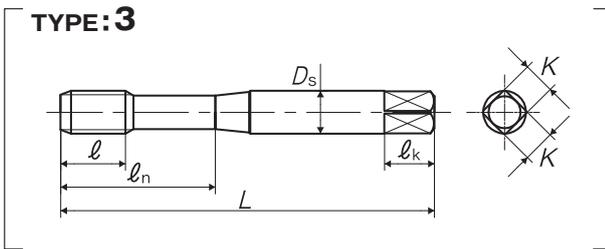
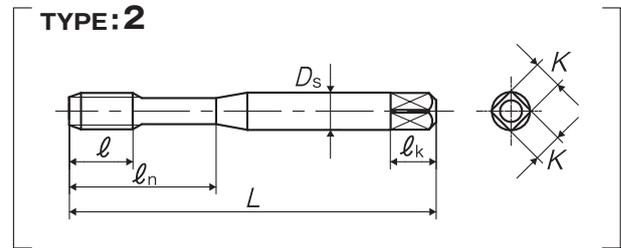
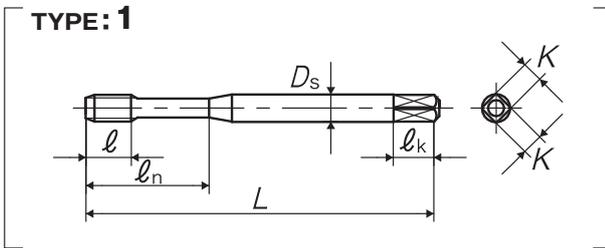
#### Specification



■ Spiral fluted tap suitable for titanium alloys which, including titanium as the main composition, are tough, light and heat resistant.

#### Tapping Speed depending on Materials

Titanium alloys  
チタン合金  
**5~10**  
(m/min)



Segment : 1D

Size	Class	Code	Chamfer	L (inch)	$\ell$ (inch)	$\ell_n$ (inch)	Ds (inch)	K (inch)	$\ell_k$ (inch)	No. of flutes	TYPE
For Metric threads											
M2.5 × 0.45	D3	Y87700	3P	1.812	0.157	0.5	0.141	0.11	0.187	3	1
M3 × 0.5	D3	Y87701	3P	1.937	0.197	0.625	0.141	0.11	0.187	3	1
M3.5 × 0.6	D4	Y87702	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
M4 × 0.7	D4	Y87703	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
M5 × 0.8	D4	Y87704	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
M6 × 1	D5	Y87705	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
M7 × 1	D5	Y87706	3P	2.718	0.433	1.125	0.318	0.238	0.375	3	3
M8 × 1.25	D5	Y87708	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M8 × 1	D5	Y87707	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
M10 × 1.5	D6	Y87710	3P	2.937	0.512	1.25	0.381	0.286	0.437	3	3
M10 × 1.25	D5	Y87709	3P	2.937	0.472	1.25	0.381	0.286	0.437	3	3
M12 × 1.75	D6	Y87712	3P	3.375	0.591	-	0.367	0.275	0.437	3	4
M12 × 1.25	D5	Y87711	3P	3.375	0.551	-	0.367	0.275	0.437	3	4

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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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# 1 Spiral Fluted Tap Series for blind hole

Overall length	Thread length	Thread + Neck length	Shank dia.	Size of square	Length of square
L	ℓ	ℓn	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

## ZELX TI SP Spiral Fluted Taps for Titanium Alloys

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
For Unified Threads											
No.2-56UNC	GH2	Y87623	3P	1.75	0.157	0.437	0.141	0.11	0.187	3	1
No.4-40UNC	GH2	Y87601	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH4	Y87612	3P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.4-40UNC	GH4	Y87001	1.5P	1.875	0.236	0.562	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y87605	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH3	Y87606	1.5P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH4	Y87608	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.6-32UNC	GH5	Y87635	3P	2	0.276	0.687	0.141	0.11	0.187	3	1
No.8-32UNC	GH3	Y87607	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH3	Y87007	1.5P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH4	Y87629	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH5	Y87637	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH6	Y87660	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.8-32UNC	GH7	Y87667	3P	2.125	0.276	0.75	0.168	0.131	0.25	3	1
No.10-24UNC	GH3	Y87609	3P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-24UNC	GH3	Y81608	1.5P	2.375	0.354	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y87610	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH3	Y87010	1.5P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH4	Y87630	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH5	Y87640	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH6	Y87661	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
No.10-32UNF	GH7	Y87670	3P	2.375	0.276	0.875	0.194	0.152	0.25	3	1
1/4-20UNC	GH3	Y87613	3P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-20UNC	GH3	Y87628	1.5P	2.5	0.433	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y87614	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH3	Y87014	1.5P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH4	Y87631	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH5	Y87644	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH6	Y87662	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
1/4-28UNF	GH7	Y87674	3P	2.5	0.354	1	0.255	0.191	0.312	3	2
5/16-18UNC	GH3	Y87615	3P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-18UNC	GH3	Y87695	1.5P	2.718	0.472	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y87616	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH3	Y87016	1.5P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH4	Y87632	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH5	Y87646	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH6	Y87663	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
5/16-24UNF	GH7	Y87676	3P	2.718	0.394	1.125	0.318	0.238	0.375	3	3
3/8-16UNC	GH3	Y87617	3P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-16UNC	GH3	Y87611	1.5P	2.937	0.551	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y87618	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH3	Y87018	1.5P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH4	Y87633	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH5	Y87648	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH6	Y87664	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
3/8-24UNF	GH7	Y87678	3P	2.937	0.394	1.25	0.381	0.286	0.437	3	3
7/16-14UNC	GH3	Y87619	3P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-14UNC	GH3	Y81629	1.5P	3.156	0.591	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH3	Y87620	3P	3.156	0.472	-	0.323	0.242	0.406	3	4

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

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

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## ZELX TI SP Spiral Fluted Taps for Titanium Alloys

Size	Class	Code	Chamfer	L (inch)	ℓ (inch)	ℓn (inch)	Ds (inch)	K (inch)	ℓk (inch)	No. of flutes	TYPE
7/16-20UNF	GH3	Y87020	1.5P	3.156	0.472	-	0.323	0.242	0.406	3	4
7/16-20UNF	GH5	Y87650	3P	3.156	0.472	-	0.323	0.242	0.406	3	4
1/2-13UNC	GH3	Y87621	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH3	Y87021	1.5P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-13UNC	GH5	Y87626	3P	3.375	0.63	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y87622	3P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH3	Y87023	1.5P	3.375	0.472	-	0.367	0.275	0.437	3	4
1/2-20UNF	GH5	Y87652	3P	3.375	0.472	-	0.367	0.275	0.437	3	4

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