

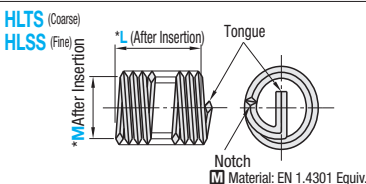
# Threaded Inserts / Tools for Inserts

# Tangless Inserts / Self-Tapping Inserts

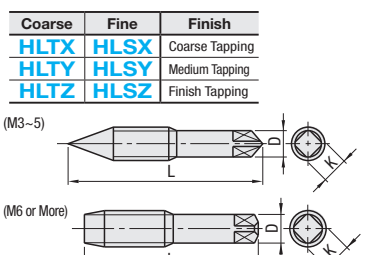
Slotted

When large quantities are needed, box package sales is more economical. P274

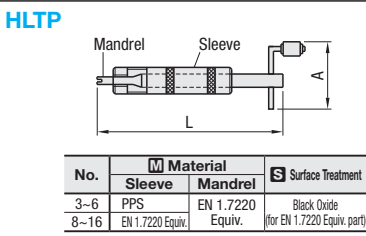
## Threaded Inserts



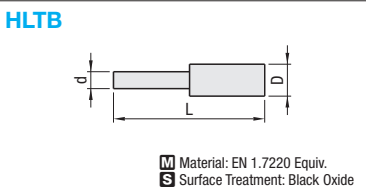
## Taps for Threaded Inserts



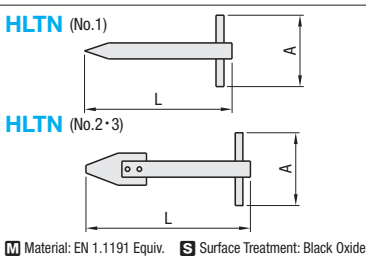
## Threaded Insert Installation Tools



## Threaded Insert Tang Break-Off Tools

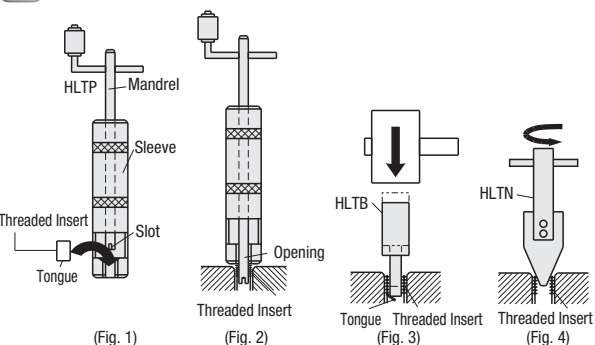


## Threaded Insert Removal Tools



Part Number	L	Pitch
HLTS3	4.5	
HLTS5	15	1.25
HLTS10	8	1.0

## How to Handle Threaded Inserts



## Threaded Inserts

Part Number	Type	* (L) After Insertion	Pitch	Tap Pilot Hole Dia. (Reference)	Unit Price	Volume Discount Rate
HLTS (Coarse)	M	3 4.5 6	0.5	3.11~3.20	1~9 pc(s)	10~19 20~49 50~100
HLTS (Fine)	M	4 6 8	0.7	4.16~4.29		
HLTS (Coarse)	M	5 7.5 10	0.8	5.18~5.33		
HLTS (Coarse)	M	6 9 12	1.0	6.22~6.40		
HLTS (Coarse)	M	8 12 16	1.25	8.28~8.48		
HLTS (Coarse)	M	10 15 20	1.5	10.33~10.56		
HLTS (Coarse)	M	12 18 24	1.75	12.38~12.64		
HLTS (Coarse)	M	16 24 32	2.0	16.44~16.73		

For orders larger than indicated quantity, please check with WOS.

Part Number	Type	* (L) After Insertion	Pitch	Tap Pilot Hole Dia. (Reference)	Unit Price	Volume Discount Rate
HLSS (Fine)	M	8 16 24	1.0	8.28~8.48	1~9 pc(s)	10~19 20~49 50~100
HLSS (Fine)	M	10 15 20	1.0	10.33~10.56		
HLSS (Fine)	M	12 18 24	1.25	12.38~12.64		

For orders larger than indicated quantity, please check with WOS.

## Taps for Threaded Inserts

Part Number	Type	No.	Applicable Threaded Insert M	L	D	K	Unit Price	Volume Discount Rate
HLTX	M	3	3	55	5	4	1~9 pc(s)	10~20
HLTX	M	4	4	61	5.5	4.5		
HLTX	M	5	5	67	6	5		
HLTX	M	6	6	65	6.2	5		
HLTX	M	8	8	75	7	5.5		
HLTX	M	10	10	82	8.5	6.5		
HLTX	M	12	12	88	10.5	8		
HLTX	M	16	16	105	14	11		

For orders larger than indicated quantity, please check with WOS.

Part Number	Type	No.	Pitch	L	D	K	Unit Price	Volume Discount Rate
HLTX	M	8	1.0	75	7	5.5	1~9 pc(s)	10~20
HLTX	M	10	1.0	82	8.5	6.5		
HLTX	M	12	1.25	88	10.5	8		

For orders larger than indicated quantity, please check with WOS.

Part Number	Type	No.	Applicable Threaded Insert M	L	A	Unit Price	Volume Discount Rate
HLTP	M	3	3	80		1~9 pc(s)	10~20
HLTP	M	4	4	150			
HLTP	M	5	5				
HLTP	M	6	6	165	103		
HLTP	M	8	8	175			
HLTP	M	10	10	180			
HLTP	M	12	12	200	124		
HLTP	M	16	16	210			

For orders larger than indicated quantity, please check with WOS.

Part Number	Type	No.	Applicable Threaded Insert M	L	D	d	Unit Price	Volume Discount Rate
HLTB	M	3	3	6	1.8		1~9 pc(s)	10~20
HLTB	M	4	4	9	2.6			
HLTB	M	5	5	10	3.5			
HLTB	M	6	6	10	4.2			
HLTB	M	8	8	12	5.5			
HLTB	M	10	10	110	14	7.5		
HLTB	M	12	12	115	16	8.5		
HLTB	M	16	16	114	20	12		

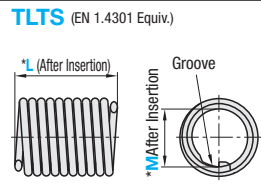
For orders larger than indicated quantity, please check with WOS.

Part Number	Type	No.	Applicable Threaded Insert M	L	A	Unit Price	Volume Discount Rate
HLTN	M	1	3~4.5	92	60	1~9 pc(s)	10~20
HLTN	M	2	6~8~10	109	75		
HLTN	M	3	12~16	117	100		

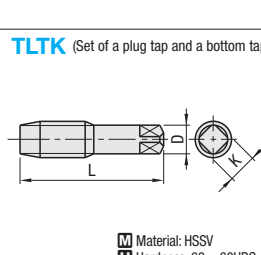
For orders larger than indicated quantity, please check with WOS.

When large quantities are needed, box package sales is more economical. P274

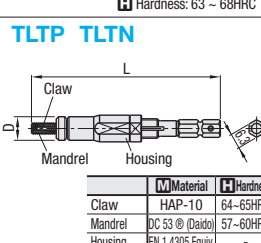
## Tangless Inserts



## Tangless Insert Hand Taps

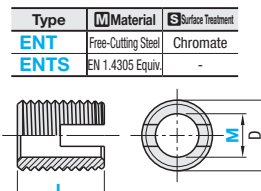


## Tangless Insert Removal Tools



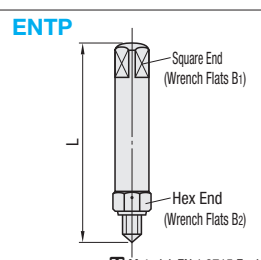
Caps are removable.

## Self-Tapping Inserts Slotted



The hex chrome content for surface treatment is within threshold value.

## Self-Tapping Inserts Hand Tools for Self-Tapping Inserts



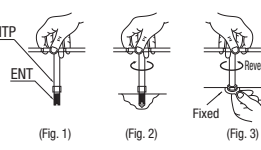
Part Number	L
TLTS2.5	5
ENT3	6
ENTP5	
TLTP10	

## Features of Self-Tapping Inserts

Slotted tap inserts with both external and internal threads. This fastener components reinforce relatively low mechanical thread strength and allow skipping of the pre-tapping.

## Machining Procedure and Precautions for Use

- Drill a pilot hole in the workpiece within the appropriate limit of tap pilot hole diameters shown in the above table. When the tapped material has high hardness, drill a pilot hole of slightly larger diameter within the range.
- With the slot facing down, fit the self-tapping insert all the way onto the tip of the hand tool (Fig. 1). Put the insert vertically into the pilot hole by turning the tool handle. (Fig. 2)
- If the pilot hole diameter is too small, it may cause a lag in pitch or looseness, and can damage tools.
- At the start of tapping (1 to 2 pitches), check to see if the tools are aligned straight with the pilot hole.
- If the insert is going in started, stop turning the tool and re-align. Realignment after inserting almost halfway (1/3 to 1/2) is too late. Do not reverse the rotation during the insertion as that will cause damages.
- When the insert has arrived at a predetermined depth, tighten the hex part of the tool with a wrench, and then turn the handle counterclockwise to separate the tool from the workpiece. (Fig. 3)
- Further turning a tool when already in contact with the workpiece can damage the self-tapping part of the insert and result in a loose fit.
- Before the first use, please select a proper pilot hole dia. through trials.



When large quantities are needed, box package sales is more economical. P274

## Tangless Inserts

Part Number	Type	* (L) After Insertion	Tap Pilot Hole Dia. (Reference)	Unit Price	Volume Discount Rate
TLTS	M	2.5 3 4.5 6	2.60~2.65	1~49 pc(s)	50~100
TLTS	M	3 4 6 8	3.12~3.20		
TLTS	M	4 6 8 10	4.17~4.30		
TLTS	M	5 7.5 10	5.16~5.33		
TLTS	M	6 9 12	6.25~6.42		
TLTS	M	8 12 16	8.31~8.52		
TLTS	M	10 15 20	10.37~10.62		

For orders larger than indicated quantity, please check with WOS.

L dimension before insertion is shorter than that after insertion.

These specialized tools allow insertion and removal of tangless inserts, reducing working human hours.

## Hand Taps for Tangless Inserts

Part Number	Type	No.	Applicable Threaded Insert M	L	D	K	Unit Price	Volume Discount Rate
TLTK	M	2.5	2.5	46	4	3.2	1~3 pc(s)	4 pcs.
TLTK	M	3	3	52	4	3.2		
TLTK	M	4	4	60	5.5	4.5		
TLTK	M	5	5	62	6	4.5		
TLTK	M	6	6	70	6.2	5		
TLTK	M	8	8	75	7	5.5		
TLTK	M	10	10	82	8.5	6.5		

For orders larger than indicated quantity, please check with WOS.

## Insertions / Removal Tools

Part Number	Type	No.	D	L	Unit Price	Volume Discount Rate
TLTP	M	2.5	6.0	69.0	1~3 pc(s)	4 pcs.
TLTP	M	3	6.8	68.5		
TLTP	M	4	9.0	75.8		
TLTP	M	5	9.7	78.6		
TLTP	M	6	11.0	78.1		
TLTP	M	8	13.0	98.4		
TLTP	M	10	15.5	104.4		

For orders larger than indicated quantity, please check with WOS.

TLTP and TLTN are not RoHS compliant, but the content of hex chrome for surface treatment is within threshold value.

No damages on the threads and bodies at removal.

No need for breaking tangs off and looking for broken tangs, or checking gauge positions.

(Outer Screw)		ENT		ENTS	
h					
O.D.	Pitch	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
s		1 - 99 pcs/s	100-300	1 - 99 pcs/s	100-300
5	0.5				
6	0.75				
8	1.0				
10	1.5				
12	1.5				
14	1.5				
16	1.5				

For orders larger than indicated quantity, please check with WOS.

Part Number	Type	No.	Applicable Threaded Insert M	L	B1	B2	Unit Price	Volume Discount Rate
ENTP	M	3	3	55	5	7	1~9 pc(s)	10~20
ENTP	M	4	4	60	5	7		
ENTP	M	5	5	75	8	13		
ENTP	M	6	6	75	8	13		
ENTP	M	8	8	75	8	13		
ENTP	M	10	10	95	12.5	19		
ENTP	M	12	12	95	12.5	19		

For orders larger than indicated quantity, please check with WOS.

Do not use this for difficult-to-cut high strength Aluminum (Duralumin etc.)

When the tapped material has high hardness, drill a pilot hole of slightly larger diameter within the range.

For orders larger than indicated quantity, please check with WOS.

## How to Use a Bolt and a Nut

Use a hex nut and a Self-Tapping Insert in a double-nut arrangement as shown below.

Do not obstruct the first thread or the 3-holes with the bolt. After the insertion is complete, loosen the hex nut while holding the bolt head.

