

Tangless Inserts / Self-Tapping Inserts

Slotted

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

Tangless Inserts

TLTS (SUS304)




RoHS 10



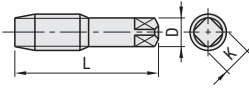
*L (After Insertion)
*M After Insertion
Groove

Tangless Insert Hand Taps

TLTK (Set of a plug tap and a bottom tap)




RoHS 10



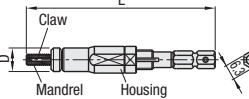
L
D
K

Tangless Insert Insertions / Removal Tools

TLTP TLTN



RoHS 10




Claw
Mandrel
Housing
L

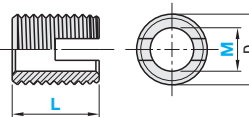
✎ Caps are removable.

Self-Tapping Inserts Slotted

Type	Material	Surface Treatment
ENT	Free-Cutting Steel	Chromate
ENTS	SUS303	-



RoHS 10




L
D
M

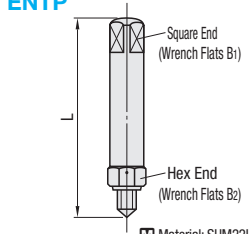
✎ Part Numbers in (yellow cells) are not RoHS compliant. The hex chrome content for surface treatment is within threshold value.

Self-Tapping Inserts Hand Tools for Self-Tapping Inserts

ENTP



RoHS 10



Square End (Wrench Flats B1)
Hex End (Wrench Flats B2)
Material: SUM22L

Ordering Example

Part Number - L

TLTS2.5 - 5

ENT3 - 6

ENTP5 - 6

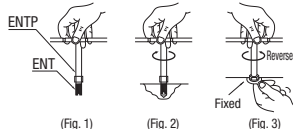
TLTP10 - 6

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 slanted, 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.



Tangless Inserts

Part Number Type	*M	*(L)After Insertion				Tap Pilot Hole Dia. (Reference)	Unit Price 1 ~ 49 pc(s).	Volume Discount Rate 50~100
		2.5	3	3.8	5			
TLTS	2.5	2.5	3.8	5	2.60~2.65			
	3	3	4.5	6	3.12~3.20			
	4	4	6	8	4.17~4.30			
	5	5	7.5	10	5.16~5.33			
	6	6	9	12	6.25~6.42			
	8	8	12	16	8.31~8.52			
	10	10	15	20	10.37~10.62			

* M (Coarse Thread) and L are the sizes after insertion. ✎ 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 1 ~ 3 pc(s).	Volume Discount Rate 4 pcs.
TLTK	3	3	52	4	3.2		
	4	4	60	5.5	4.5		
	5	5	62	6	4.5		
	6	6	70	6.2	5		
	8	8	75	7	5.5		
	10	10	82	8.5	6.5		

Insertions / Removal Tools

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

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

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

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

- No damages on the threads and bodies at removal.
- No need for breaking tangs off and looking for broken tangs, or checking gauge positions.

Part Number Type	M (Coarse)	Tap Pilot Hole Dia. (Reference)						D (Outer Screw)	ENT	ENTS
		Softer		Mating Material - Harder		O.D.	Pitch			
		Soft Plastic, Hardwood	Hard Plastic Cast Iron - HB200	Cast Iron - HB200 ~ HB200 ~	Light Metal such as Aluminum Alloy Tensile Strength: ~ 350N/mm ²					
ENT ENTS	3	6	4.5	4.6	4.7	4.8	5	0.5		
	4	8	5.9	6.0	6.1	6.2	6.5	0.75		
	5	10	7.2	7.3	7.5	7.6	8	1.0		
	6	14	8.8	9.0	9.2	9.4	10	1.5		
	8	15	10.8	11.0	11.2	11.4	12	1.5		
	10	18	12.8	13.0	13.2	13.4	14	1.5		
	12	22	14.8	15.0	15.2	15.4	16	1.5		

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

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

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

✎ 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.

