# HELISOLID® Threaded Inserts


## PERMANENT THREAD FOR BASE MATERIALS

- MILD STEEL
- ALUMINIUM
- CAST IRON
- PLASTIC
- BRASS
- WOOD
- LIGHT ALLOY

## Available in Materials

- STEEL HARDENED
- STAINLESS STEEL
- BRASS

# NAVBHARAT ENGINEERS

C-23, Blg No 3, Shivnath Piramal Nagar, S. V. Road Goregaon (W)
Mumbai 400104, INDIA | Tel: +919820364580 / +91 9082972702 / +91 9833069101
E-mail : sales@ne-india.com / navengg@outlook.in / Net : www.navbharatengineers.com

# HELISOLID® Threaded Inserts

## Self Tapping Threaded Inserts

- Specially designed to cut their own threads as they are being driven into a drilled hole. The thread cutting action is performed by the cutting slots or holes on the insert.
- Ideal for thread reinforcement, especially when the mating stud or bolt will be removed frequently. They provide strong, permanent steel threads in a weaker parent material — ferrous, non-ferrous, or non-metallic. Helisolid Self Tapping Threaded Inserts are also well suited for quick repair of stripped, damaged, or worn threads.
- Installation is simple and quick, using only one tool, which lowers installation cost. By tapping its own thread, the self tapping insert eliminates the need for base material to have pre-tapping.

  Unlike coil inserts, which require a special tap and installation tool, Helisolid Self Tapping Threaded Inserts for metal are installed using standard tools. Simply drill the appropriately sized hole with a standard drill and turn in the Helisolid Self Tapping Threaded Inserts like an ordinary fastener with a Helisolid installation tool.

- Solid, one-piece threaded insert construction provides a high degree of pull-out strength
- Provide a positive mechanical lock which prevents rotation due to vibration or torsion
- Easy threaded insert installation and removal
- Installed with standard drills and taps
- No pre-winder tool required
- No tang to break off
- Full range of Inch and Metric sizes in coarse or fine pitch threads
- Industrial Style Threaded inserts can be purchased in bulk quantities or kits
- These inserts are also available as per leading Aerospace & Defence specifications (MS/NAS Style)

*** Thread repair kit containing 100 Nos. Inserts size M3 to M16 are available**



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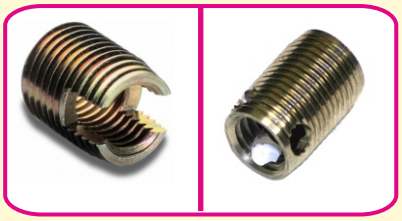
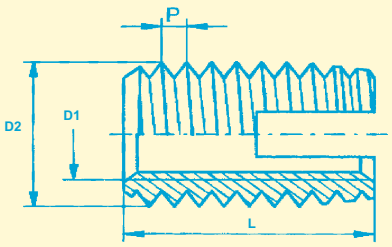
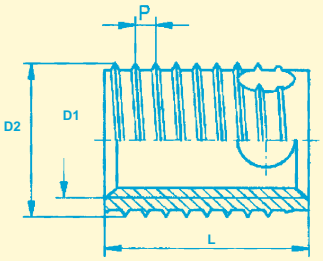
# TECHNICAL SHEET



# Self Tapping Threaded Inserts




| Internal Thread D1 (mm) | External Thread D2 (mm) | Length L (mm) | Appro. Hole Size (for reference only) | Ordering No. (Slotted Type) | Ordering No. (3Hole Type) |
|---|---|---|---|---|---|
| M3 | 5 | 6 | 4.5 to 4.8 | A030M | AH030M |
| M4 | 7 | 8 | 6.5 to 6.8 | A040M | AH040M |
| M5 | 8 | 10 | 7.5 to 7.6 | A050M | AH050M |
| M6 | 10 | 14 | 9.2. to 9.4 | A060M | AH060M |
| M8 | 12 | 15 | 11.2 to 11.4 | A080M | AH080M |
| M10 | 14 | 18 | 13.2 to 13.4 | A100M | AH100M |
| M12 | 16 | 22 | 15.2 to 15.4 | A120M | AH120M |
| M14 | 18 | 24 | 17.2 to 17.4 | A140M | AH140M |
| M16 | 20 | 22 | 19.2 to 19.4 | A160M | AH160M |
| M18 | 22 | 24 | 21.2 to 21.4 | A180M | AH180M |
| M20 | 26 | 27 | 25.2 to 25.4 | A200M | AH200M |
| M22 | 26 | 30 | 25.2 to 25.4 | A220M | AH220M |
| M24 | 30 | 30 | 29.2 to 29.4 | A240M | AH240M |
| M27 | 34 | 30 | 33.2 to 33.4 | A270M | AH270M |
| M30 | 36 | 40 | 35.2 to 35.4 | A300M | AH300M |

| TYPE | MATERIAL : | HOLE DEPTH : | Wall Thickness (Min) |
|---|---|---|---|
| A = SLOTTED<br>AH= 3 HOLE | M = Steel hardened<br>B = Brass<br>S = Stainless Steel | Blanck = 1.2 x Insert Length<br>(Minimum) Through = Insert Length + 1mm | C.L. = 0.4 x D2<br>METAL = 0.35 x D2<br>PLASTIC = 0.6 x D2 |

- **Material: Stainless Steel / Steel Hardened / Brass**
- **Tolerances: +/- 0.25mm unless sepecified otherwise**
- **BSW, BSF, UNC & UNF Thread Series Available**
- **Steel Hardened Coating: Zinc Yellow Plated / Backodising**
- **Thin & Thick wall thickness inserts also available**
- **We also manufacture Non-Standard inserts as per specifications/drawing**

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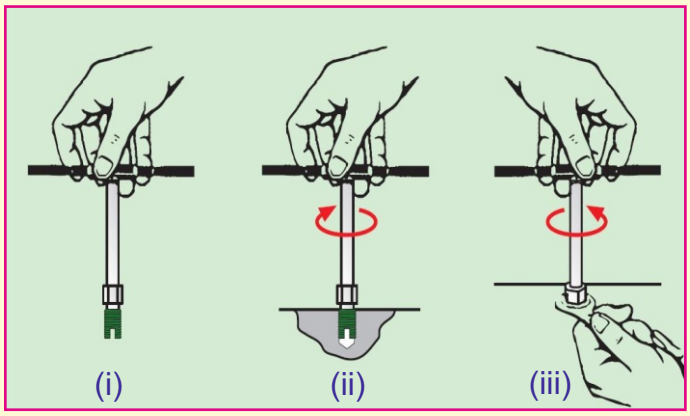
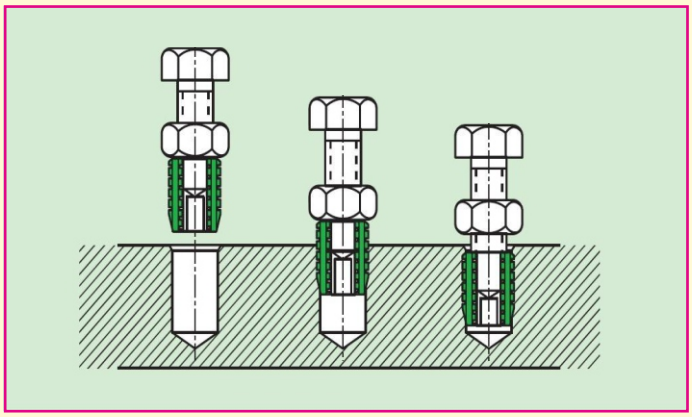
## Self Tapping Threaded Inserts

### INSTALLATION

1. From the thread size find the diameter of hole to be drilled in the base material as given in the technical sheet.
2. Hold the insert in the wrench and turn it in the hole as shown in (fig.ii)
3. Hold Hex nut with spanner to break lock. Unscrew the wrench leaving insert installed in base material (fig. iii)
4. Incase of smaller size or hard base material 1st tap (out of 3) can be passed before installation of insert.



### INSERTION (FITTING) TOOLS

Tool size confirms to internal of insert. Wrench type fools can be used by hand for small sizes and less quantity (Fig. a). In production assembly tools can be used (Fig. b).