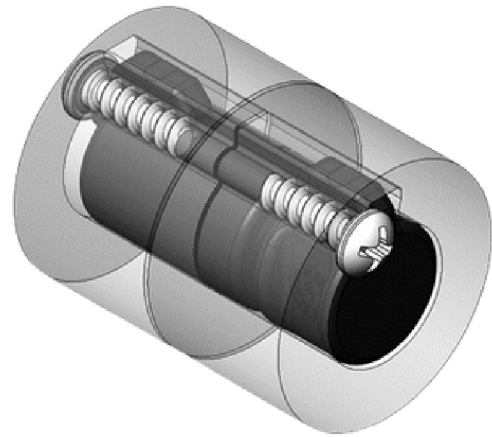


# TI-140 REMOVABLE INSTALLATION GUIDE



Reell's TI-140 Torque Inserts, originally designed for permanent press fit installation, may also be slip fit into alternative geometry and secured with fasteners. This alternative method provides a removable design option for prototyping to test alternative torque values, or for production in applications where disassembly is required. For the standard press fit installation guidelines, refer to the TI-140 Sales Drawing.

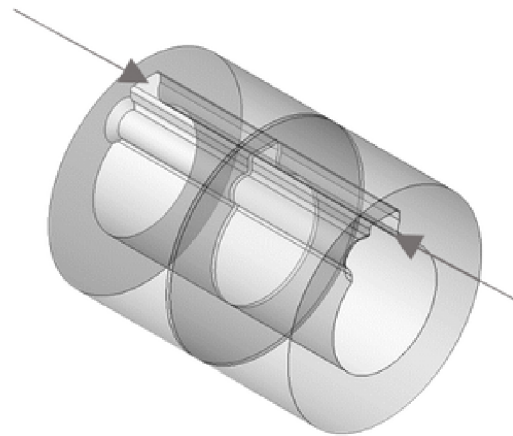


## INSTALLATION PROCESS

Follow this simple, 4 step process to correctly install and secure TI-140 with fasteners for applications where disassembly is desired.

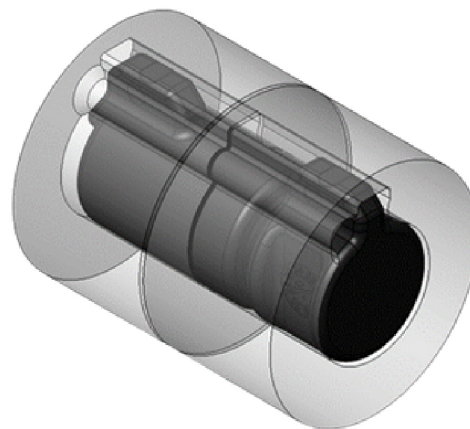
### STEP 1:

Position mating brackets with the fins aligned. Refer to page 3 for correct port geometry.



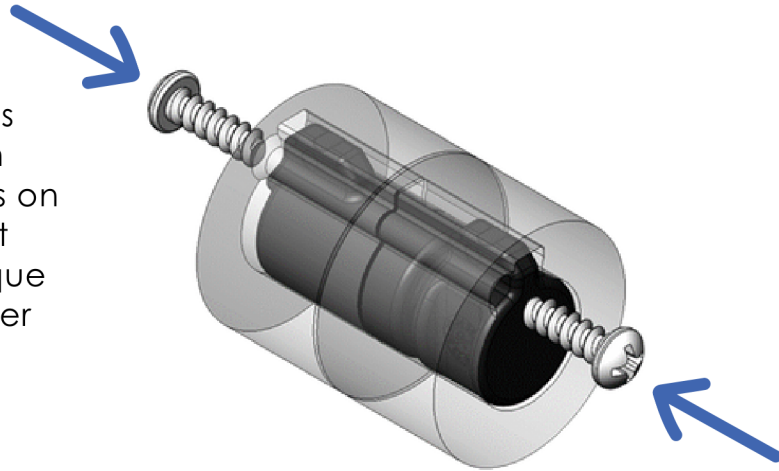
### STEP 2:

Insert TI-140 into the aligned brackets for proper slip fit installation.

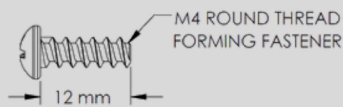


## STEP 3:

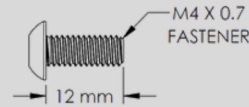
While supporting the brackets and torque insert to maintain axial position, install fasteners on each side of the torque insert tab. Fastener installation torque will vary with material, fastener and interference.



## RECOMMENDED FASTENERS



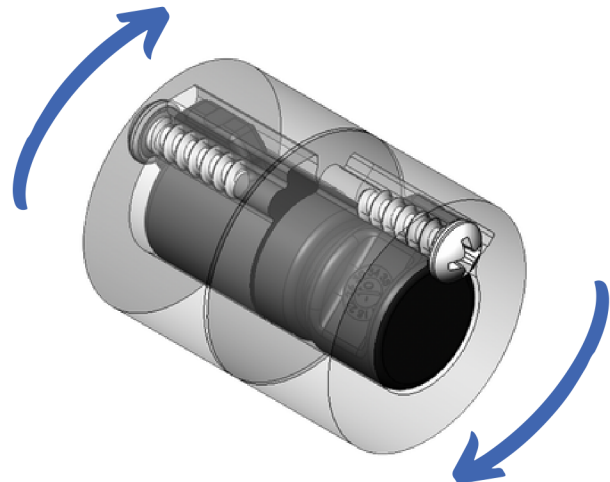
OR



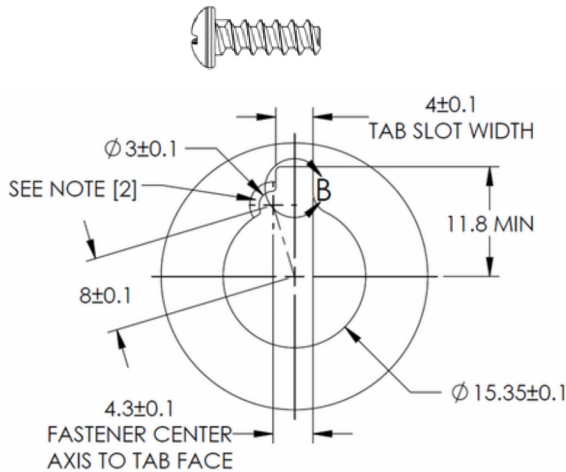
12mm fastener length may decrease system stiffness vs. 10mm fastener. Select correct port geometry from guidelines on page 3.

## STEP 4:

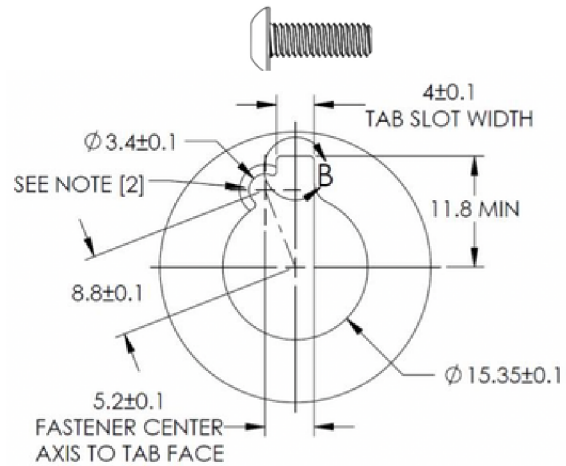
Rotate brackets to ensure free rotation and secure retention.



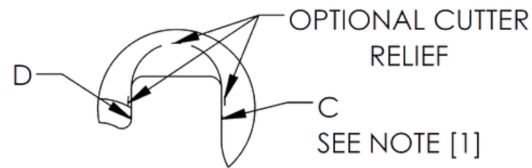
# INSTALLATION PORT GEOMETRY GUIDELINES



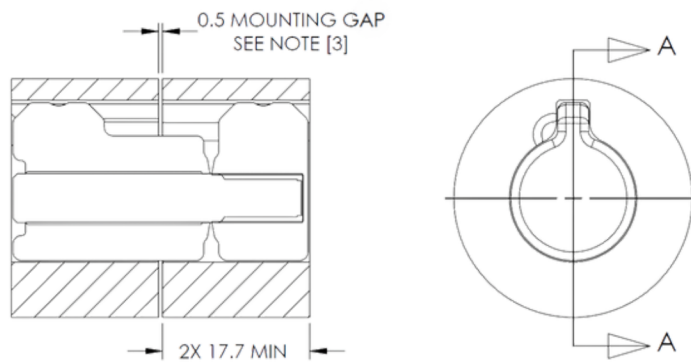
**M4 ROUND THREAD FORMING FASTENER**



**M4 X 0.7 FASTENER**



**DETAIL B**



**SECTION A-A**

## NOTES:

1. Geometry between points C & D may vary if desired (Optional cutter relief)
2. 1.5 mm x 45° counter sink, assists with fastener installation
3. Locate mounting gap over hinge body for additional support

## ADDITIONAL NOTES AND GUIDELINES

1. Cycle life, when tested in plastic material with a yield strength of 40MPa and a flexural modulus of 3GPa shows similar life cycle performance compared to the permanent press fit installation (see Reell TI-140 Sales Drawing at [www.Reell.com](http://www.Reell.com)). Because many factors may impact final product performance, Reell strongly advises customer to test our product in their end use application to confirm acceptable performance.
2. The fastener may be applied to either side of the fins as shown in Figures 1 and 2. Port geometry must be reversed for one of the fasteners in this case:

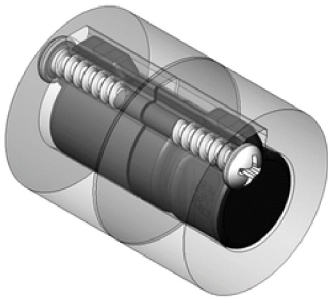


Figure 1: Same Fin Side Installation

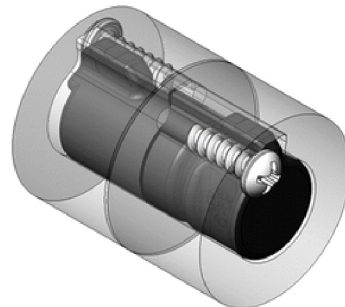


Figure 2: Opposite Fin Side Installation

3. Torque Insert end(s) can be covered if there is a hole for fastener access as shown in Figure 3. Including a counterbore provides a recess for the fastener head if desired. In addition, one fin can be press fit while the second fin is retained with a fastener. If using a single fastener on one half, perform the press fit operation first into the proper press fit geometry (see Reell TI-140 Sales Drawing at [www.Reell.com](http://www.Reell.com)), then secure the second fin with a fastener and installation geometry per this guide



Figure 3: Installation with fastener access hole