INSTALLATION INSTRUCTIONS FOR THREADED INSERTS INTO THIN SHEET METAL PARTS

This instruction serves as a guideline for installing threaded inserts into thin sheet metal where access to the back of the sheet metal is prohibited. There are tools available that set these inserts, but it is possible to set them without this tool. Follow along as we show you how.

1. Drill a hole in the sheet metal the approximate size according to the insert being used. Sometimes a drilled hole in sheet metal will not be perfectly round so you may need to file it slightly to fit the insert. You may avoid this by using what is called a step bit or uni-bit. These tools drill much smoother holes than standard bits.

2. If using a standard bit, deburr the hole so that the insert can be pushed into the hole. The insert must be installed so that its’ flange is against the sheet metal surface.

3. Select a grade 5 or 8 high strength hex bolt and hex nut with the same thread size as the insert to be installed. Lubricate the threads of the bolt and thread the hex nut fully onto the bolt. After the hex nut, place a grade 5 or 8 flat washer on the bolt.

4. Obtain a scrap piece of sheet metal approximately 6” x 1” and drill a hole in the end the same size as the bolt.

5. Place this scrap metal on the bolt below the washer. This scrap metal will serve as a handle to keep the insert from spinning as it is being installed.
6. Thread the insert onto the bolt with its' flange toward the bolt head. Thread it all the way until finger tight against the scrap metal piece installed in step #5.

7. Push the threaded insert into the drilled hole in the sheet metal of the body. Make sure that the insert goes all the way in until the flange of the insert is flush with the sheet metal. Tap the insert in with a hammer if needed. Hold it firmly in place and flat against the body.

8. For this step, you may need a helper. Use a wrench to keep the bolt head from turning and hold the scrap piece of metal. With another wrench, start to back the hex nut off of the bolt. The hex nut will draw the bolt outward while compressing the insert behind the sheet metal panel.

9. The insert will bulge out around its sides causing the insert to clamp down around the hole. Make sure to keep this assembly tight against the panel until the insert is fully squeezed and locked in place. The hex nut will be fairly hard to turn, so be prepared to exert some force on the nut. Turn the nut until it will not turn any more and the insert will be fully installed. Now remove the bolt, hex nut, washer, and sheet metal handle.