

## **PEMSERT® Self-Clinching Stainless Steel Flush Nuts for Thin Metal Sheets Provide Strong Threads without Protruding or Marring Assemblies**

PEMSERT® self-clinching flush nuts from PennEngineering® ideally suit attachment applications where a thin metal sheet requires load-bearing threads stronger than tapped holes but must remain flat without any protrusions on either side of the sheet. They can be installed before sheet bending and forming to provide threads for mating hardware in sections that otherwise would be inaccessible for fastener installation after chassis are formed. Their uniquely designed hexagonal head and clinch technology ensures high axial and torsional strength in service. Ultimately, the nuts install permanently, will never loosen or fall out, and leave surfaces unmarred to enhance the functional and cosmetic qualities of assemblies.

The product line includes PEMSERT F™ 300 Series stainless steel types for installation into steel or aluminum sheets and PEMSERT F4™ heat-treated 400 Series stainless steel versions specifically designed for installation into 300 Series stainless steel sheets. Both types are available in thread sizes #2-56 through ¼-20 and M2 through M6. Sheets can be as thin as .060"/1.53mm. For aerospace applications, F nuts can be ordered to conform with US NASM45938/4 aerospace standards.

Installation is accomplished easily by squeezing the nut into a round hole using sufficient force to embed its hexagonal head flush in the sheet. The metal displaced by the head then flows evenly around the back-tapered shank of the fastener to securely lock the nut permanently into place. Both the hexagonal head and the fastener's self-clinching design combine to deliver high pullout and torque out resistances. Only a mating screw is required to complete final component attachment.

Detailed technical literature (PEM® Bulletin F), individual fastener drawings, and CAD models for these RoHS-compliant fasteners can be downloaded at [www.pemnet.com](http://www.pemnet.com).

Founded in 1942 and celebrating 75 years, PennEngineering (Danboro, PA, USA) is a global leader in the fastening industry with technical and manufacturing facilities in North America, Europe, and Asia supported by a global engineering-focused sales force and a worldwide network of authorized distributors.

For more information, visit [www.pemnet.com](http://www.pemnet.com), email [info@pemnet.com](mailto:info@pemnet.com), or contact Michael J. Rossi, PennEngineering®, 5190 Old Easton Road, Danboro, PA 18916-1000 USA. Tel: 800.237.4736 (toll-free in the U.S.) and 215.766.8853.

