

PEM[®]LINE

Fastening Products, Systems, and Applications from the Industry Pioneer

NEW FASTENER SOLUTIONS

PEM[®] MICRO SELF-CLINCHING PILOT PINS

- Available pin diameters 1mm to 2mm in a variety of lengths.
- Flush mounts into stainless steel panels HRB 92 or less and HB 195 or less
- Flush-head for sheet thickness of 0.5 mm and greater.
- Satisfies a wide range of positioning, pivot, and alignment applications.
- Chamfered end makes mating hole location easy.



ATLAS[®] FM[™] FULL METRIC INSERTS

- Install into metric size round or hex holes.
- Available in thread sizes M3 to M10.
- Available in a variety of head styles: Flat, thin, and countersunk.
- Available in a variety of body types: Round (smooth and knurled), half hex, and full hex.
- Available in a variety of materials: Steel, stainless steel, aluminum, and brass.



SEE PAGE 3 FOR MORE INFORMATION

PEM® FASTENER SOLUTION

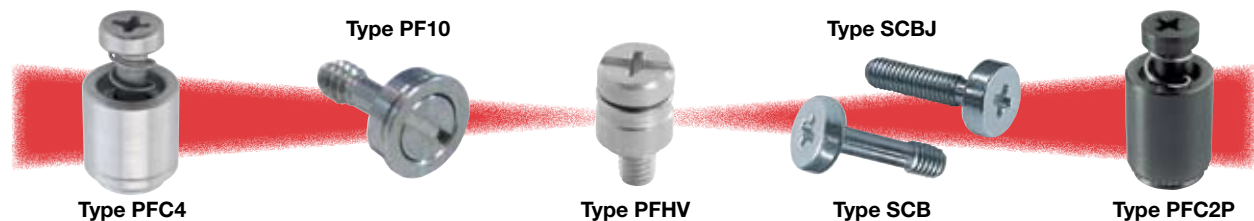
PEM® PANEL FASTENERS PROVIDE FIXED SCREW SOLUTIONS FOR EC MACHINERY DIRECTIVE

PEM® panel fasteners designed specifically for tool-only access applications provide fixed screw solutions for a new EC machinery directive imposing strict safety requirements for machine guarding and the ergonomics of operator equipment. Their captive screws conform with Machinery Directive 2006/42/EC, which relates to tool-only access fasteners and requires such fasteners to remain attached to fixed guards or machinery when guards are removed. Loose screws no longer are acceptable in such assemblies, effective this year.

These PEM panel fasteners with threaded captive screws have been engineered to

install permanently into thin metal panels. Their elimination of loose screws promotes speedier maintenance of machines without a need to handle hardware and prevents screws from becoming lost either inside or outside a machine. An added benefit is that the fasteners are UL-approved.

Installation is accomplished quickly and easily by placing the panel fastener in a prepared mounting hole and applying sufficient squeezing force using any type of parallel acting press. Most types are flush on the backside of the panel for a clean appearance.



APPLICATION NOTES

Problem: A major telecom company specified PEM® C.A.P.S.™, Type PF11 captive panel screws for a cell phone tower application. To work properly the captive panel screw needed to be completely watertight in order to withstand all effects of weather.

Solution: By simply adding a standard O-ring to the panel fastener's retainer, we could offer a completely weather tight fastener to meet their strict requirements. Tightening the screw, compresses the O-ring, thereby sealing

the fastener. The effectiveness of the O-ring was confirmed by the telecom company's own environmental testing.

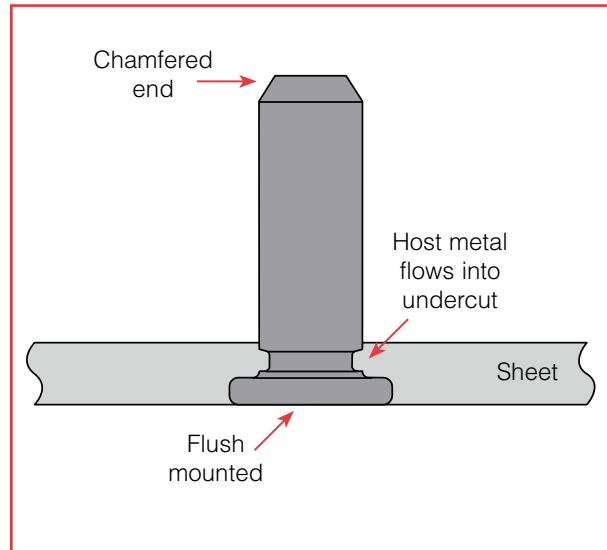
For more details contact us at:
techsupport@pemnet.com



NEW FASTENER SOLUTION

PEM® MICRO SELF-CLINCHING PILOT PINS

PEM Type MPP, self-clinching micro pins are ideal for today's compact electronic assemblies. Simply pressed into a properly sized mounting hole, these micro pins clinch permanently into place. They can be installed into a variety of sheet materials up to HRB 92/ HB 195 in hardness and they offer excellent corrosion resistance.



ATLAS® FM™ BLIND THREADED INSERTS INTRODUCE FULL METRIC FASTENING SOLUTIONS



New ATLAS® FM™ blind threaded inserts introduce full metric fastening solutions for “blind” attachment applications where only one side of a panel is accessible for hardware installation. These inserts install quickly and easily from the accessible “front” side with only a single mating screw required to complete final component attachment. Their introduction extends the traditional ATLAS product line of inserts featuring unified or metric threads.

The “blind” attachment capability ideally suits one-sided access applications such as tubing and extrusions, among others. These fasteners offer practical alternatives to tapped holes, weld nuts, rivets, and self-drilling or tapping screws, and can satisfy close-to-edge mounting challenges.

ATLAS FM inserts install into metric size round or hex holes in panels of any hardness as thin as 0.51mm. They are available in

thread sizes M3 to M10 and can be specified in a variety of head styles (flat, thin, or countersunk), body types (round smooth or knurled, half hex, or full hex), and materials (steel, stainless steel, aluminum, or brass). The inserts can be installed permanently anywhere and at any stage in the shop or field using a spin/pull action tool.



UPDATES

PEMNET.COM

A NEW Literature Finder tool feature is now available on the product literature page. Just click on the product type and the literature for that product automatically opens. Hopefully this will let you find information faster and easier. Remember that our online literature is constantly updated to reflect the latest additions, corrections and new products.



PEM® K BULLETIN

A new 20-page K Bulletin (available online and in print) profiles PEM® surface mount and broaching fasteners designed specifically for use with PC boards. These various fastener products provide ideal solutions to satisfy component-to-board, board-to-board, and board-to-chassis attachment needs.



Bulletin K includes a “Quick Reference Chart” (covering fastener types, mounting methods, and primary uses) and provides detailed information and specs on fastener materials, finishes, installation procedures, and performance, among other data.

TERRITORY SALES MANAGER

Ed Kruse has taken the position of Territory Sales Manager for the Chicago, IL and surrounding area. Ed has a Bachelor of Arts degree from the University of Iowa and has 20 years experience in field sales and sales management in dealing in fasteners and sheet metal fabrication. His last company was a major user of PEM® products which provided Ed with an appreciation of our products and technology from a customer perspective.

TECH TIP

Determining thread position of installed self-clinching fasteners relative to mounting hole center

Self-clinching fasteners are not inherently self-centering in a mounting hole into which they are installed. This results from the fact that the installation forces are so high relative to the force produced by the metal flowing into the undercut of the fastener, that friction between the face of the punch and anvil and the panel and fastener prevent the fastener from sliding sideways as would be required for it to center itself in the hole. There are five factors which must be properly accounted for if one is to do a thorough analysis of the tolerance between thread centers for two installed self-clinching fasteners. For details on these factors go to:

www.pemnet.com/design_info/articles/ThreadPosition.pdf

PennEngineering®



North America: Danboro, PA USA • E-mail: info@pemnet.com • Tel: +1-215-766-8853 • Fax: +1-215-766-0143 • 800-237-4736 (USA Only)
Europe: Galway, Ireland • E-mail: europe@pemnet.com • Tel: +353-91-751714 • Fax: +353-91-753541
Asia/Pacific: Singapore • E-mail: singapore@pemnet.com • Tel: +65-6-745-0660 • Fax: +65-6-745-2400
Shanghai, China • E-mail: china@pemnet.com • Tel: +86-21-5868-3688 • Fax: +86-21-5868-3988

Visit our PEMNET™ Resource Center at www.pemnet.com