

PennEngineering®

PEM LINE

Fastening Products, Systems, and Applications from the Industry Pioneer

This year marks the 70th anniversary of the founding of PennEngineering. Penn Engineering & Manufacturing Corp. was established in 1942 by K.A. Swanstrom who introduced a revolutionary new product: an easy-to-install, self-clinching fastener. While that original self-clinching concept has changed little over the years, that one idea has



PennEngineering®
70 YEARS
OF EXCELLENCE
1942-2012

grown into thousands of variations, creating the foundation of the global corporation you see today. Thank you for your business!

[Click here for more information on our Company History](#)

NEW EQUIPMENT FOR INSTALLING **SELF-CLINCHING FASTENERS**

PEMSERTER® SERIES 4® AUTOMATIC FEED PRESS

The PEMSERTER® Series 4® automatic feed press introduces a cost-effective and low-maintenance solution for installing self-clinching fasteners quickly and reliably. The automatic feed technology facilitates easy operation and accurate fastener insertions. This latest addition to the extensive line of PEMSERTER equipment provides a practical alternative to more complex and more costly fastener-installation press systems.

The PEMSERTER Series 4 automatic press delivers adjustable insertion force from 1.8 kN to 53.4 kN / 400 lbs. to 6 tons and features 45.7cm / 18" throat depth providing clearance for a wide variety of chassis configurations. The press is designed to install self-clinching nuts, studs, and standoffs in sizes M2.5 to M6 / #2-56 to 1/4".

See page 3 for more information



www.pemnet.com

WEBSITE ADDITIONS

New designer's tool

PennEngineering® has launched the new PEMspec™ app available in the iTunes® app store for free download. Formatted to be viewed on the iPhone®, the app also can be handled with an iPad®.

This new app is designed to enable users to access critical installation dimensions for a selected PEM® fastener from the complete line of PEM brand self-clinching, flaring, broaching, surface mount, and weld fastener products. After selection, returned data includes mounting hole size, minimum sheet thickness, and installed height above sheet, among many other criteria.

The app allows users to search for products in two ways, either by choosing a fastener family ("Product" search) and drilling through to the part number or by selecting the "Search" function and entering the part number directly. The "About" section of the app contains pertinent contact information and links. The app is expected to evolve and integrate additional functionality consistent with marketplace preferences and needs.

You can find the app by searching for "PEMspec" in the iTunes store.



New aeroPEM™ product web page

The PennEngineering® aeroPEM™ brand offers aircraft / aerospace equipment manufacturer's highly engineered fastener solutions to meet or exceed their industry's specific requirements. With our significant technical expertise and ISO 9001, AS 9100 and QSLM certified and approved production facilities we can provide innovative, premier quality fasteners and components that will meet the demands of this dynamic, global marketplace. [Click here to see more about aeroPEM products.](#)

aeroPEM™ FASTENERS

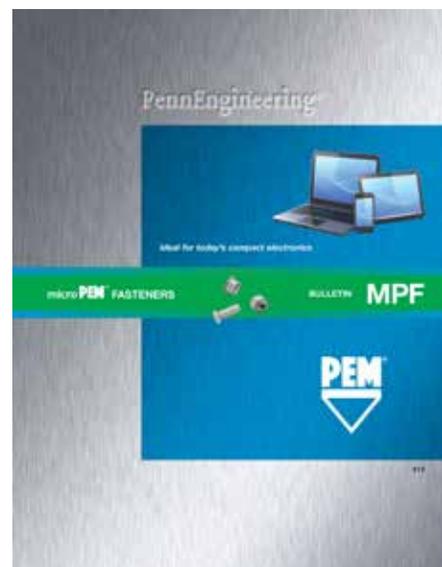


New product bulletin presents complete line of microPEM™ fasteners

New bulletin MPF1012 brings the entire line of microPEM fasteners together into one comprehensive brochure. The 10 page bulletin includes all specifications and installation data for these fasteners which include microPEM nuts, standoffs, pins, screws and inserts.

microPEM fasteners are ideal solutions for compact electronic assemblies.

[Click here to view this literature.](#)



UPDATES, NEWS AND TIPS

PEMSERTER® Series 4® automatic feed press

(Continued from page 1)

The press is pneumatically powered for speed, consistency, and simple operation; features an onboard Programmable Logic Controller (PLC), operator-friendly touch screen, and vibratory fastener feeder bowl; and integrates a built-in point-of-operation safety for increased operator confidence and overall system integrity. The press also utilizes tooling components from other PEMSERTER automatic presses.

Other standard features include laser pointer, stroke counter, and lockable cabinet for storage of tools and accessories. Available options include specialized tooling.

Detailed specifications can be found in the online in [Bulletin PS4AF](#).



Article published in recent issue of Electronics Protection magazine

[“Key Drivers When Turning to Captive Panel Screws”](#) has been published in the September/October 2012 issue of Electronics Protection magazine.



TECH TIP

Do any of the self-clinching fasteners offer a water tight seal?

The only self-clinching fasteners that will provide a complete water tight seal are the CH line of concealed head studs and standoffs. These fasteners are clinched (pressed) into a blind hole, thereby keeping the reverse side of the sheet undisturbed and free of any voids that might allow any liquid to seep through. Please see PEM® bulletin CH for specifications.

Upcoming trade shows

Come visit us at the following tradeshow:

- FABTECH – Las Vegas – Nov.12 to 14 – PEMSERTER / PEM / ATLAS
- Fastener Fair – Sao Paulo, Brazil – Nov. 20 to 21 – PEM / PEMSERTER
- Swisstech – Basel, Switzerland – Nov. 20 to 23 – PEM / PEMSERTER
- Electropack – Tel Aviv, Israel – Dec. 19 – PEM / PEMSERTER

[Click here to see details and other shows.](#)

UPDATES, NEWS AND TIPS

User case history

microPEM™ Fasteners Reduce Keyboard-Assembly Costs

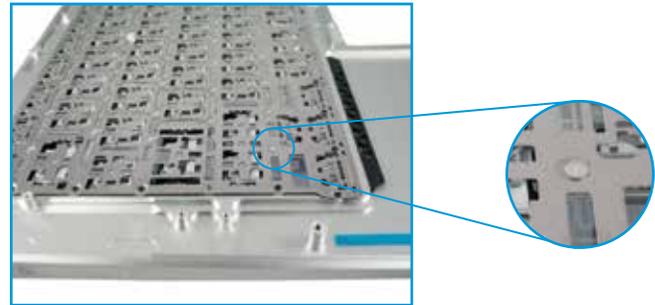
Compact electronic assemblies can present big attachment challenges. Miniature threaded screws traditionally have served by default in many applications, but associated problems persist. New microPEM™ TackPin™ fasteners can tackle vexing screw-related issues and save time and money, too.

Case in point: A keyboard-assembly application. This keyboard historically required over 80 M1.2 screws and over 80 tapped holes in each assembly. Handling of dozens of tiny screws for each unit without the benefit of automation proved time-consuming and tedious; threads or drives would strip when the screws were not properly driven; and locking patches applied over screw threads to provide a tight interference fit contributed additional cost.

A switch to self-clinching microPEM™ TackPin™ (Type T™) aluminum fasteners eliminated all tapping operations, the potential for stripped hardware, any need for patches, and all other screw-related concerns. TackPin™ fasteners ideally serve to attach super-thin membranes to very thin cosmetic substrates (such as keyboards) reliably and permanently.

TackPin™ fasteners install into properly sized mounting holes in the sheet to be attached and the base

panel. After insertion into these holes, the fastener is pressed into place. The fastener clinches into the base panel and the fastener's head subsequently holds the top sheet (as thin as 0.2mm) firmly and permanently in place. The fastener's tapered tip assists in location, interference fit eliminates hole-tolerance issues, and the self-clinching action results in full 360° metal contact. Upon installation, loosening due to vibration or other factors is not a concern.



microPEM™ FASTENERS

Podcast now available

["No Strings Attached"](#) Podcast Presented by Wireless Design & Development, microPEM™ Fasteners, with Jay McKenna of PennEngineering.

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PennEngineering® develops and manufactures PEM® brand fasteners, 3V® brand precision aerospace fasteners, SI® inserts for plastics, ATLAS® blind threaded inserts and QRP® brand quick release pins.

Fastener installation systems include PEMSERTER® automatic and manual precision presses, In-Die and robotics capabilities, and the StickScrew® System for small-screw insertion.

PennEngineering®



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