

# PEM LINE

*Fastening Products, Systems, and Applications from the Industry Pioneer*

## **NEW FASTENER SOLUTION**

### **SPINNING CLINCH BOLT WITH SELF-RETRACTING FEATURE**

- *Spring keeps screw retracted when disengaged*
- *Provides economical self-retracting captive screw*
  - *Replaces loose hardware*
- *Permanently captivates into sheets as thin as .040" / 1.02mm*
  - *Allows for close centerline-to-edge distance*

Patented PEM® spinning clinch bolts for thin metal panels have been introduced with a self-retracting feature enabling the fastener's captive screw to remain retracted when disengaged. During fastener installation, controlled clinching action permanently captivates the retractable screw-and-spring combination in the metal sheet and allows the screw to spin freely for quick attachment of mating hardware. These fasteners can replace loose hardware and serve as practical and economical alternatives to multi-component captive screw assemblies.

PEM Type SCBR™ spinning clinch bolts can permanently captivate into aluminum

or steel sheets as thin as .040" / 1.02mm (and greater) and can be specified for close centerline-to-edge applications.



**SEE PAGE 3 FOR MORE NEW PRODUCTS**

# PEM® FASTENER NEWS

## PennEngineering® ACQUIRED QRP, INC.

PennEngineering acquired QRP, Inc. (Leland, NC), which specializes in the manufacture of quick release pins, lanyards, latches, and access fastener products. QRP founded more than 30 years ago, is a leading supplier of standard and custom-designed quick release pins for the aerospace, military, automotive, and marine industries, among others. The high-quality pins are manufactured in accordance with NASM23460 and NAS1332 and meet

PAN, EFA, and AS requirements.



## ACCREDITATION UPDATES

➤ PEM China passed the Nadcap material testing audit and the PRI (Performance Review Institute) formally approved the Nadcap accreditation on September 28, 2010. The lab now as an independent party can provide most of the key fastener and material testing services meeting both automotive and aerospace industry standard, like Rockwell hardness testing, chemical analysis and neutral salt spray among others.

➤ The quality management system in PEM China and at PennEngineering's Danboro facility have been certified to AS9100. Other certifications for the PEM China facility include TS16949 and both PEM China and PennEngineering Danboro are certified to ISO9001.



## TECH TIP ZINC PLATING APPEARANCE

Occasionally we receive questions because the zinc plating is not bright and shiny or not as bright as previous shipments, other lots or from other regions. In our literature we simply call out our zinc plating as zinc plated 5µm, colorless, plus sealant/lubricant. Further, but not generally noted is that this plating meets appearance requirements as specified by ASTM B633 paragraphs 7.3 and 7.5.

Globally we utilize many different plating sources and there may occasionally be variations among them. There could also be variation from batch to batch from any one source. There is no inexpensive way to control slight color variations. We want our fasteners to look good, but they are plated primarily to protect the base metal from oxidation and corrosion. Slight variations in hue do not affect the corrosion resistance. Most parts are baked at 375° F / 190°C to relieve hydrogen embrittlement and this sometimes yellows, discolors or dulls the finish. PennEngineering® makes every effort to ensure that parts are plated in a manner that brings consistent appearance to all products whether or not they are produced in the same lots, different lots or even in different countries. In any case, it must be understood that plating appearance does not necessarily equate to plating performance. Slight variation in appearance is generally not a valid reason to reject product.

For more on zinc plating appearance consult Tech Sheet PEM - Ref/Zinc Plating Appearance at:

[http://www.pemnet.com/design\\_info/articles/Standard\\_Zinc\\_Plating.pdf](http://www.pemnet.com/design_info/articles/Standard_Zinc_Plating.pdf)

# NEW FASTENER SOLUTION

## CUSTOM COLORED PEM® C.A.P.S.™ PANEL FASTENER ASSEMBLIES

PEM C.A.P.S. captive screws can be developed for exact color matching. The colors provide the capability to designate service access levels for equipment, color-reference operating and/or maintenance instructions, or conform to end-use aesthetic requirements.



*Examples of some custom colors.*

## ATLAS® BRAND PLUS+TITE® INSERTS WITH STRAIGHT SHANK DESIGN

The family of ATLAS® Plus+Tite® blind threaded steel inserts has expanded with a newly introduced version featuring a straight shank design that will accommodate a smaller mounting hole and offer superior pullout resistance when installed permanently in plastics or thin sheet metal.



These inserts install permanently into single, variable, or multiple-thickness materials as thin as .020" / 0.50mm.

They install from the accessible "front" side of a component. Installation can be accomplished anywhere and at any stage in the shop or field using a spin-pull tool. The shoulder serves as a self-locating feature.

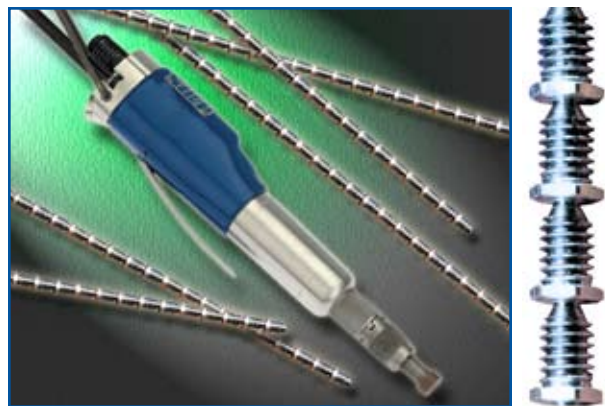
## PEM® BRAND STICKSCREW® SYSTEM

The PEM® StickScrew® System for small-screw insertion has been re-engineered with a new lower-cost StickShooter™ driver offering the capability to accommodate interchangeable nose assemblies and allow for quick tooling changeover. The self-contained system combines the lightweight air-powered driver with "sticks" of serially connected hex head screws enabling automatic screw installation without handling loose screws or driving them manually. The system can serve as a practical alternative to custom-engineered and higher-cost automated screw-driving systems.

Among other benefits, the StickScrew System promotes torque reliability (due to seating torque built into the screw), increased productivity, and safer screw insertion. The system can be up-and-running with minimal operator training.

The standard (in stock) product line

includes thread-cutting screws from #2-56 to #6-32 and M3 in 400 series stainless steel. Other available types and sizes include machine screws and thread-forming screws in a variety of materials, including steel, brass, and aluminum, and in thread sizes from #0-80 to #8-32 and M1 to M4. Screws can be plated, black oxidized, hardened, and otherwise customized to meet application requirements.



# UPDATES

## NEW APPOINTMENTS

**Liam Foy** has been appointed to the position of PEM Director of Sales and Marketing with territorial responsibility for Europe, Middle East, and Africa.

**Piotr Streiss** as joined the PEM Europe as the Territory Manager for Poland.

**Ed Kruse** has joined PennEngineering as a Territory Manager for the central region of the USA.

**Mike Cornelius** joined 3V Fasteners in July as Chief Engineer.

**ChemSys Industrial (S) Pte. Ltd.** is a new authorized PEM distributor in Singapore.

**EMT Engineering Sales Inc.** is a new PEM representative for Alberta and British Columbia, Canada.

## PEMNET.COM

The PEMSERTER ToolPro™ dynamic online tooling selector is an interactive tool that displays details of tooling required to install fasteners using PEMSERTER presses. Go to:

[www.pemnet.com/presses/operation.html](http://www.pemnet.com/presses/operation.html) and click on the "PEMSERTER ToolPro™ - Dynamic Online Tooling Selector" link.

**PEMSERTER**  
This tool displays details of tooling required to install fasteners using PEMSERTER presses

Step 1 Select Fastener type    Step 2 Select Size    Step 3 Select Length    Step 4 View Data

Select Fastener type using the drop down boxes in each of the 3 cells below

FASTENER TYPE	SIZE	LENGTH
FH	M4	20

[View Data Sheet](#)

## UPCOMING TRADE SHOWS

**FABTECH**  
NOVEMBER 2-4, 2010  
Georgia World Congress Center  
Atlanta, Georgia

**It's time 2010**  
27 Oct - 2 Nov, Düsseldorf, Germany  
International Trade Fair  
No. 1 for Plastics and Rubber Worldwide

**Elmia** 9 - 12 November 2010  
Jönköping, Sweden

16 - 19 November 2010 Messe Basel, Switzerland  
**swiss tech**

**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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