

PennEngineering®

PEM[®]LINE

Fastening Products, Systems, and Applications from the Industry Pioneer

NEW FREE SERVICE: PEM[®] 'COST SAVINGS INVESTIGATION' PROGRAM CAN DETECT WAYS TO REDUCE COSTS OF ASSEMBLIES

The PEM[®] Cost Savings Investigation (CSISM) Program introduces a free service to assist companies in potentially reducing their total "assembled cost" of products and designs. The CSI Program is an exclusive resource supported by the global fastening expertise of PennEngineering[®] to provide focused product analysis and identify "better ways" to achieve assembly-related economies and efficiencies.

Here's how CSI works: Program teams will completely disassemble any supplied product and document every procedural step in writing and with photographs as evidence. When the investigation is concluded, a comprehensive and confidential report is developed and submitted with recommendations to help improve overall assembly costs. Strategies may include reductions in loose hardware, production steps, and/or assembly time, among others.

Expert CSI teams experienced across industries are located strategically in regions around the world, including Danboro, PA, USA; Galway, Ireland; and Kunshan, China. The service is free of charge with no obligation to specify or purchase PennEngineering products.

Learn more about the CSI Program by downloading a free brochure at http://www.pemnet.com/fastening_products/pdf/csidata.pdf or email csi@pemnet.com



NEW FASTENER SOLUTIONS



PEM[®] C.A.P.S.[™] Panel Fasteners
with plastic colored cap



Type TP4[™] Pins for installation
into stainless steel sheets

SEE PAGE 3 FOR MORE FEATURES AND BENEFITS

www.pemnet.com

IN THE NEWS

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

PEM® threaded captive panel screws are specifically designed to be installed permanently into thin metal panels. This makes them ideal for addressing Machinery Directive 2006/42/EC which requires fixing systems to remain attached to guards or machinery when the guards are removed. The directive goes into effect on 29th, December 2009.



PEM® panel fasteners eliminate loose screws which will no longer be acceptable to retain fixed guards. The elimination of loose screws also speeds maintenance and insures against lost hardware either inside or outside the machine. Certain PEM® panel fasteners also have a standard anti cross-threading feature to protect from damage which may occur with improper thread engagement.

Detailed specifications can be found online in PEM® bulletin PF and free part drawings and models (PEM CAD Library) can be found at www.pemnet.com.

3V FASTENERS COMPANY APPROVED AS DELEGATED SUPPLIER FOR BOEING COMMERCIAL AIRPLANES (BCA)



3V Fasteners Company, Inc., a PEM® Company, has been approved as a participating supplier in the Delegation Program for Boeing Commercial Airplanes (BCA). This approval authorizes 3V Fasteners to ship procured products directly to Boeing's commercial programs without requiring source inspections.

According to Boeing, participation is offered only to "an elite group of suppliers who have proven themselves as high-quality performers." The program specifically

recognizes 3V Fasteners for "consistently high-quality products manufactured under a strong quality-control system focused on continual quality improvement."

As a delegated supplier, 3V Fasteners will perform in-process inspection and final acceptance of procured products on behalf of BCA. Boeing will perform periodic maintenance verification assessments to ensure continued compliance to quality systems and contractual requirements.

SETTLEMENT AGREEMENT ANNOUNCED

Penn Engineering & Manufacturing Corp. (Danboro, PA) and Shanghai Jingyang Import & Export Co., Ltd., have announced a settlement agreement. The settlement resolves PennEngineering's lawsuit against Jingyang for alleged infringement of certain patents and trademarks.

The original complaint was filed against Jingyang on November 13, 2007, in the United States District Court in Nevada. While the terms of the settlement are confidential, PennEngineering and Jingyang are confident that the agreement fully addresses each of the points outlined in the Complaint, Answer and Counterclaims. According to Mark Petty, President of PennEngineering, the lawsuit was filed to protect its intellectual property rights, as PennEngineering invests heavily in innovation to provide its customers with leading edge products.

NEW PRODUCTS



PEM® C.A.P.S.™ (Colored Access Panel Screws) PANEL FASTENER ASSEMBLIES

PEM® C.A.P.S.™ access hardware incorporates a captive screw and plastic colored cap in a spring-loaded assembly to promote secure attachment and enable subsequent access. Their captive-screw design reduces parts count, minimizes handling issues, and prevents screws from falling out or damaging internal components. The fasteners are offered in self-clinching, flaring, and floating mounting styles to install permanently in the widest range of panel materials and hardness.

PEM C.A.P.S. access hardware can be specified in eight standard colors. 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, among others. Custom colors can be developed for exact color matching.

The panel fasteners are installed simply by pressing them into properly prepared mounting holes. Their integrated anti cross-threading screw technology corrects off-angle installations and ensures proper alignment. Fasteners are available in multiple screw lengths with thread sizes from #4-40 through #10-32 and M3 through M5 and feature standard #2 Phillips drive for tool access and a robust knurled plastic cap for hand operation.

Detailed specifications (PEM C.A.P.S. Bulletin) and free part drawings (PEM CAD Library) for these fasteners can be accessed at www.pemnet.com



TYPE TP4™ PINS CLINCH PERMANENTLY INTO STAINLESS STEEL SHEETS

*Ideal for Positioning, Pivot and
Alignment Applications*

PEM® Type TP4™ self-clinching flush-head pins can be installed permanently in stainless steel sheets as thin as .040"/1mm and help contribute to thinner, lighter stainless designs. They satisfy a wide range of positioning, pivot and alignment applications. The pin's chamfered end makes alignment of the mating hole easy.

Offering a practical alternative to welding, these self-clinching flush-head pins are manufactured from 400 Series stainless steel, resist corrosion, and are heat-treated for use in sheet hardness of HRB 92 / HB 192 or less.

Installation is quick and easy. Pins are placed in prepared mounting holes and then squeezed with sufficient force using a PEMSERTER® or standard press. Once installed, the pins create a flush-head assembly and lock securely with high pushout resistance. They become a permanent part of the stainless assembly.

Detailed specifications (Bulletin TP4) and free part drawings (PEM CAD Library) for these fasteners can be accessed at www.pemnet.com



TECH TIP

PEM® BLIND NUTS HELP CUSTOMER TO MEET IEC 60065 REQUIREMENTS

One of our customers has provided this suggestion concerning the use of our PEM Type B, Blind nut.

He points out that Section (17.3) in IEC (International Electrotechnical Commission) 60065 deals with screw lengths with regard to clearances and creepage distances for accessible conductive parts and hazardous live parts.

He suggests using PEM blind nuts as a solution – limiting screw penetration - saving space and saving re-arrangement of internal component layout to accommodate the 10-times-diameter requirement (as specified in Section 17.3).

Lastly, especially for high-voltage equipment that attracts dust, the blind PEM nuts prevent entry of dust and other foreign matter. This helps increase durability and reliability.

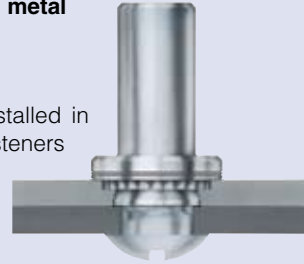


PEM® self-clinching blind fasteners provide permanently mounted blind threads in metal sheets as thin as .040"/1 mm.

- Provides barrier to protect threads against foreign matter.
- Protects internal components from intrusion of extra long screws.

PEM blind fasteners employ the proved PEM self-clinching design and are easily installed in properly sized holes. Shanks of PEM fasteners act as their own pilots. PEM blind fasteners can be installed with any standard press applying squeezing forces between parallel surfaces. Installation is inexpensive and requires no previous skills or experience.

PEM self-clinching blind fasteners are available in thread sizes from #4-40 through 1/4-20 / M3 through M6 in carbon or stainless steel.



We hope his experience provides some useful information for other designers out there. If you have similar knowledge to share please let us know.

For more information on this PEM product please refer to PEM bulletin B. This can be found on our website at http://www.pemnet.com/fastening_products/pdf/bdata.pdf.

PennEngineering® develops and manufactures PEM® brand fasteners, 3V™ brand precision aerospace fasteners, SI® inserts for plastics, and Atlas® blind threaded inserts.

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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