

PEM[®]LINE

Fastening Products, Systems, and Applications from the Industry Pioneer

TWO NEW FASTENER SOLUTIONS



Type SFW



**PEM[®] SpotFast[®] fasteners
with wave washer...
*permanent attachment allowing
repeatable pivoting or hinging***

**ATLAS[®] SpinTite[®]
stainless
half-hex shank
threaded inserts...
*superior resistance to
corrosion and rotation***

Type AETHC

**SEE PAGE 3:
MORE FEATURES
AND BENEFITS FOR
BOTH NEW FASTENER
PRODUCTS**



PEMSERTER® SOLUTIONS



PEMSERTER In-Die System

CUSTOMER SUCCESS STORY:

In-Die Fastening Technology Delivers for PWO Canada

PWO Canada (Kitchener, Ontario) is a Tier One and Two stamping supplier for the automotive industry and has firsthand experience with our PEMSERTER® In-Die fastener feeding system.

The stamper uses the technology (consisting of die tooling, fastener-feeding system module, and dispensing module) for a set of German OEM parts.



One supplied part is a horseshoe-shaped mounting bracket that supports a cross-car beam and also mounts a display unit on a luxury car dashboard. Our In-Die system installs three flush-mounted M8 nuts on

the bracket in a 600-ton progressive die application at high speed.

The cold-rolled steel bracket is 1.5mm thick.

The PEMSERTER system feeds the three nuts at a time in different stations of the tool with each press stroke from the bottom up. This is not a conventional direction of feed in most applications, but has been realized with our bottom-feed process capability.

According to the customer, employing fastener insertion within the press delivers key advantages, including elimination of costly and time-consuming secondary operations, improved quality, increased productivity, reduced work in process, and reduced floor-space requirements.

Set-up was handled easily, according to PWO Canada, with a big assist from our system's use of multi-pin twist-lock connectors for "plug-and-play" operation.

PWO Canada reports that the equipment has run virtually maintenance free through insertion of more than 1 million fasteners without incident.

The customer adds that successful launch was enabled by our engineering and technical support and concise training program.

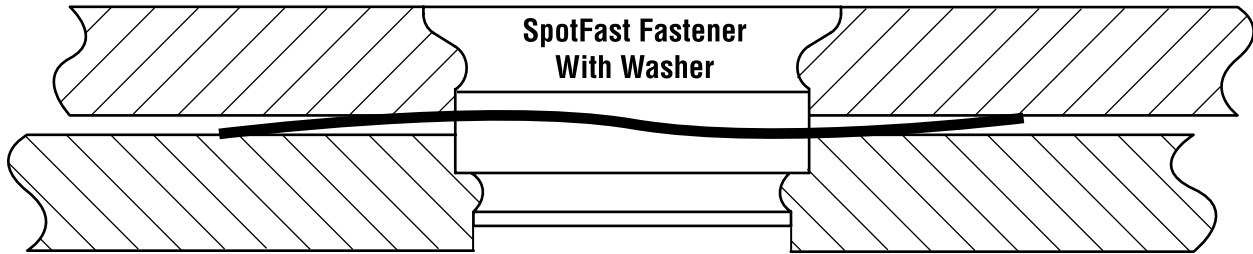
Dual-Track Feeding



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NEW PRODUCTS



QUICK LOOK:

PEM® SpotFast® Type SFW Fasteners with Wave Washer

- Washer allows pivoting with consistent force
- Fasteners install permanently into sheets as thin as .031"/0.8mm
 - Flush mounted
 - RoHS compliant

These self-clinching fasteners paired with a specially designed wave washer allow reliable attachment of two thin metal parts and ideally suit applications requiring repeatable pivoting or hinging action.

They create a flush-attachment connection without protrusions on either side and deliver consistent torsion. The steel fasteners have zinc plating with integral lubricant to promote smoother operation.



Download "Bulletin SFW":
http://www.pemnet.com/comp_lit_files
(Access 3D Drawings from PEM CAD Library)



The hex body design of these threaded inserts for installation in hex holes promotes high resistance to rotation and a low-profile head minimizes protrusions.

The stainless inserts provide ideal fastening solutions for "blind" attachment applications where only one side of a panel is accessible for assembly.

They can be used in panels of any hardness as thin as .020"/0.51mm and can be installed permanently anywhere and at any stage in the shop or field utilizing a hand-held portable spin-pull tool.

Download "Bulletin AETHC":
http://www.pemnet.com/comp_lit_files
(Access 3D Drawings from PEM CAD Library)

QUICK LOOK:

ATLAS® SpinTite® Type AETHC Stainless Steel Half-Hex Shank Threaded Inserts

- Superior corrosion resistance
- Hexagonal hole for increased spinout
- Low-profile head design
- New (even) metric hole sizes

IN THE NEWS

PEM® CHINA ZINC PLATING LINE APPROVED BY GENERAL MOTORS

Our PEM® China zinc plating line has received approval from General Motors for use in plating parts.



As an approved plating applicator for GM, PEM China and related information will be listed in the GM MATSPC system and PEM China will be able to plate parts for GM, its tier suppliers, and other major automotive OEMs.

The PEM China manufacturing facility is located in Kunshan, China. Its automated plating line became operational in April 2007.

The line is supported with a fully equipped chemical and testing lab and incorporates a highly advanced Schatz torque tension tester, which provides PEM China with highly reliable torque testing capabilities required by GM.

QSLM APPROVALS FOR CLASS 2 AND 3 THREADED FASTENERS

PennEngineering® has been approved this year by the Defense Logistics Agency as a supplier of Class 2 threaded fasteners in accordance with the stringent QSLM (Qualified Suppliers List of Manufacturers) program. This follows approval of Class 3 threaded fasteners in 2007.

The approvals authorize PennEngineering to fulfill government contracts that specify PEM® brand threaded fasteners and Atlas® brand threaded inserts.

Under the QSLM program, manufacturers are qualified, based on an assessment of their applied process controls and compliance with specific QSL criteria.

Manufacturers must demonstrate that an acceptable Quality Program is in place and in use on a routine basis, providing maximum assurance that products conform to specification requirements.

Such a program must include evidence that product is not commingled, lot traceability is maintained, and Statistical Process Control (SPC) is in use in manufacturing operations on a daily or regular basis.

The QSLM approval now extends to all Class 2 and 3 threaded fasteners manufactured at our headquarters facility in Danboro, PA, USA.

WE WANT TO HEAR FROM YOU:

**If you have a success story
using our products, tell us about it.**

**Contact Leon M. Attarian
lattarian@pemnet.com**

PennEngineering® develops and manufactures PEM® brand 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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