

PEM LINE

Fastening Products, Systems, and Applications from the Industry Pioneer

New...New...New...New...Products!

NEW FASTENING SOLUTIONS

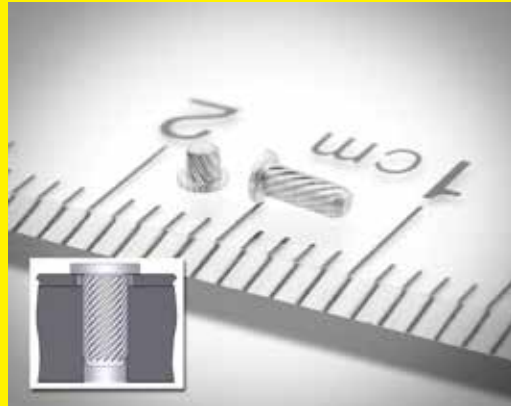
New microPEM® inserts for plastics are ideally suited for compact electronic assemblies



New microPEM® thru-threaded brass inserts for plastics introduce ideal fastener solutions to attach components in compact electronic assemblies. These fasteners with threads as small as M1 install easily and permanently in a wide range of plastic materials from ABS to polycarbonate. They promote secure and reliable attachment for devices ranging from hand-held consumer electronics to medical equipment, among many others. A single mating screw completes the joining process.

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New microPEM® TackSert™ pins introduce alternative to screws in compact electronics



New microPEM® TackSert™ pins introduce reliable fastener solutions to attach top panels securely to a base panel or chassis in compact electronic assemblies. These pins provide practical alternatives to micro screws by eliminating the typically costly issues associated with threaded hardware (including inserts, tapping, cross threading, torque control, and vibration back out). They will attach top panels (of any material as thin as 0.2mm / .008") to base panels or chassis manufactured from common aluminum or magnesium die-cast materials (such as AZ91D) or plastics (such as ABS).

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COMPANY NEWS

PennEngineering® Automotive Fastener Co. Ltd. Earns 2013 GM Supplier Quality Excellence Award

PennEngineering® Automotive Fastener Co. Ltd. (Kunshan, China), a leading supplier of fastening and assembly solutions for OEM/Tier 1 automotive and related transportation industries, has earned the “2013 GM Supplier Quality Excellence Award” from General Motors. The award recognizes suppliers demonstrating “the highest levels of quality performance over the past 12 months.” PennEngineering Automotive Fasteners (PEAF) is an operating unit of PennEngineering®, the global leader in fastening products and technologies.

GM evaluated more than 12 quality criteria month-over-month to qualify PEAF for the annual prestigious award. Requirements achieved by PEAF in 2013 included zero late deliveries, zero plant disruptions, and zero PRRs (Problem, Reporting, and Resolution). In addition, PEAF met GM’s rigorous quality standard for defects by not exceeding one per million pieces shipped.

PEAF’s plant in Kunshan, China, manufactures autoPEM® fastening hardware and make-to-print solutions and offers a wide range of expertise tailored for the automotive industry, including comprehensive design engineering capabilities, a portfolio of licensed technologies, and established quality assurance processes meeting all relevant industry certifications.

PennEngineering® Appoints The Bossard Group As An Authorised Distributor For Italy, Sweden And Denmark

PennEngineering® has expanded its distribution coverage of Italy, Sweden and Denmark by appointing The Bossard Group as an authorised distributor for PEM® brand fasteners and PEMSERTER® installation presses. Bossard will join Hans Buch A/S (Denmark), Colly Components AB (Sweden), Forind Avio Electronica (Italy) and Unifast Srl (Italy) in those countries.

Bossard is a leading supplier of intelligent solutions for industrial fastening technology. The company’s complete portfolio for fasteners includes worldwide sales, technical consulting (engineering) and inventory management (logistics).

A full list of authorized distributors is listed on our website.

PennEngineering® Expands Authorized Distributor Network Canada

PennEngineering® has expanded distribution coverage in Canada. As a newly authorized distributor for the Ontario and Quebec provinces, Hi-Tech Fasteners Inc. joins Wesco Aircraft and Fastbolt Corp. as designated sources for genuine PEM® fasteners in Canada.

NEW PRODUCTS

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The microPEM® (Type MSIB™) inserts will install in either straight or tapered mounting holes and their symmetrical design saves time during production by eliminating any need for insert orientation prior to installation.



Installation is achieved by pressing the insert into a mounting hole using either ultrasonic insertion equipment or a thermal press. When installed ultrasonically, the frictional heat caused by the vibration then melts the plastic surrounding the insert and, when the vibration ceases, the plastic solidifies to lock the insert into place. Use of a thermal press will melt the plastic surrounding the insert to result in permanent installation.

The microPEM® inserts are available in thread sizes M1 to M1.6 and in several lengths.

[View here](#)

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Their unique diagonal knurl effectively holds the top panel to a base panel or chassis by broaching into the base panel/chassis using a simple press-in action without heat or ultrasonics.

TackSert™ (Type TK™) pins install quickly and easily by preparing properly sized mounting holes in the top sheet and base panel, placing the pin through the hole in the top sheet and into the mounting hole of the base panel, and applying sufficient squeezing force using a punch and anvil until the head of the pin contacts the top sheet. During the process, the fastener's tapered tip assists in location and a firm interference fit eliminates hole-tolerance issues. Pins can be installed automatically for high-volume applications.



[View animation](#)

Designers can specify Type TK4 (400 Series stainless steel) pins for broaching into castings and similar materials or Type TKA (aluminum) pins for broaching into plastic applications. All are RoHS-compliant and available in a variety of lengths. [View product here](#)

[Click here](#) to see TackSert™ product highlighted on Design News magazine blog entitled “Fasteners, Adhesives Hold Things Together at MD&M West.”

PEMspec™ App

The PEMspec app includes all of the newest PEM specifications and photos. [Click here](#) to take a look.



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TECH TIPS AND SOLUTIONS

Inserts for plastics - Lead free alternatives

While leaded brass has long been the “standard” material for most inserts, this unfortunately is no longer viable in applications where totally lead free fasteners are required. However, there are standard material lead free options available.



Several PennEngineering® SI® inserts for plastics which are available in brass are also offered in stainless steel which is lead free. These would include ultrasonic/heat staking types IUC, IUTC and ISC. Molded-in versions would include types IBC, IBLC, ITC and STKC.

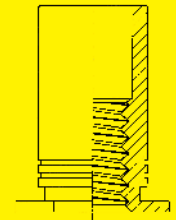
In addition, you may also want to consider Type NFP inserts. Type NFPA inserts are lead free aluminum, while the Type NFPC are stainless steel. These can be installed without the need for heat or ultrasonics. They are simply pressed into a properly sized mounting hole.

[You can view the literature here.](#)

Consider thread axial position when choosing standoffs

The threaded portion of thru-hole standoffs (Types SO) is at the head (hex) end of the standoff. Shorter standoffs up to .312” / 8 mm in length are thru-threaded.

If you require threads on the barrel end of longer standoffs, consider PEM® Types TSO threaded standoffs. These fasteners are for installation into sheets as thin as .025” / 0.63 mm. The threaded portion of these standoffs is at the barrel end for all styles.



The threaded portion on the blind standoffs (Types BSO) start at the barrel end. The threaded length depends on the overall length of the standoff.

For further information and reference photos go to Tech Sheet [PEM®- Ref/ Standoff Basics](#). For complete standoff specifications click [here](#) to view literature.

Article: In-die fastener Installation - Published in The Stamping Journal

Troubleshooting in-die fastening . . .

To uncover root causes, look at the fasteners, the feed system, and the in-die tools.

[Click here to read.](#)

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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