



A Strategy for Success: Think Proactive

Our experience as a manufacturer, supplier, and distributor on the worldwide stage reinforces our belief that the best way to build and sustain business is by adopting a proactive approach.

Our group of companies has advanced by establishing our own operations and inventories around the world; building and reinforcing new and existing customer relationships; developing new products; streamlining distribution; creating alternative ways to manufacture for price competitiveness while improving product quality; and serving as a "solutioneering" problem-solver for our customers.

At least one other factor is fundamental to our positioning and selling strategies in today's (and tomorrow's) marketplace: reaffirming our core competencies.

No matter how often, how far, or in what ways the shape of the marketplace may shift, leading companies are those ready, willing, and capable to meet the needs of all customers (large and small) whenever and wherever their expertise is sought.

Kenneth A. Swanstrom,
Chairman and CEO
PennEngineering

HARDWARE FOR ANY CHALLENGE

For every challenge that may arise when attaching components within an assembly, a hardware solution can usually be found.

Among our solutions are threaded fasteners designed to attach thin metal and/or plastic components.

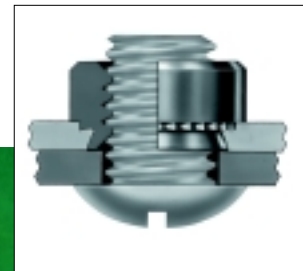
For attaching thin metal components we offer **PEM® self-clinching fasteners** and **Atlas "blind" rivet nuts**; our line of **PEM broaching fasteners** has been developed to assemble PC boards and other non-ductile material components; and for plastic assemblies our **SI® metal inserts** are ideal.

• **FASTENERS FOR THIN METALS.** Our extensive lines of fasteners for these applications provide strong threads in metal sheets too thin to tap or can serve as reliable alternatives to extruded/tapped or stamped threads.

Self-clinching steel, stainless steel, and aluminum fasteners are available in dozens of types and thousands of variations,

Continued on Page 4

PEM self-clinching fasteners for thin-metal designs



**Illustration
(above) shows
cross-section
of installed
PEM nut
and mating
screw inserted
from opposite
side of the
self-clinching
fastener**

PEMSERTER® PRODUCTS IN ACTION: *In-Die System Gets Stamp of Approval*

A new long-term project this year brought a new decision for LANEKO Engineering Co. (Fort Washington, PA):

Whether to develop its own system (as the company has in the past) to install self-clinching fasteners during the stamping process or turn instead to an outside supplier for an “In-Die” system to feed and install the fasteners in the progressive die.

LANEKO crunched the numbers, evaluated quality and reliability parameters, and opted to purchase our portable PEMSERTER® In-Die Feeding System.

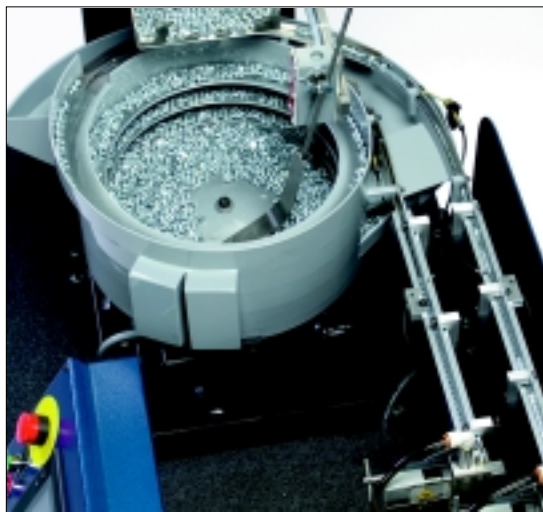
The In-Die Feeding System connects easily to LANEKO’s stamping presses and enables two operations (stamping and fastener-installation) to be performed simultaneously in the die.

“Our experience is that the PEMSERTER system is reliable, flexible, and user-friendly,” reports Jim Derrah Sr., president of LANEKO, which specializes in fabricating products for the automotive industry.

“The PEMSERTER In-Die Feeding System gives us the capability and the performance we need without the typically huge investment,” he adds.

Our System consists of in-press removable die tooling, fastener-feeding system, and in-die sensing system.

LANEKO utilizes the equipment to install three PEM® self-clinching nuts (thread size M6) into each assembly of a new trunk-safety latch for cars. The safety latch allows a trunk to be opened from the inside if necessary and will soon be standard in a variety of new-car models.



Track system properly orients fasteners



In-Die Feeding System on the job at LANEKO

The PEM (Type S) nuts are automatically installed into a 1mm-thick HSLA cold-finished steel stamping. Press speed averages 1,500 strokes per hour while inserting fasteners at the rate of 4,500 pieces per hour.

According to Derrah, “hookup time is minimal” (three minutes) and “diagnostics are optimal,” providing LANEKO with an ability to change programs as needed.

Integrated sensors track fasteners throughout the system during feeding, installation, and after insertion to verify presence, which can reduce scrap rate and increase uptime.

Operators are guided by a touch-screen (for set-up and operation) and an online library of fault/help screens to help keep learning curves short and promote real-time troubleshooting.

LANEKO reports full PEMSERTER support beginning with die design and beyond.

“Training and service have been superb,” Derrah confirms.

ATTACHMENT BY DESIGN: 'On the Road' with Hardware Solution



The new "Speed Director" (*shown at left*) from WANCO, Inc. (Arvada, CO) utilizes radar to clock a driver's speed and displays the number to the passing motorist to heighten awareness.

The highway-safety product is driven by sophisticated electronics and computer controls.

With this technology comes a need to mount internal bundled cables and wires quickly, reliably, and securely.

"In the past we would use plastic adhesive-mounted bases," recalls Geoffrey Culver, an engineer at WANCO. "But, ultimately, we found that adhesive mounts would fail and fall out, and wires would move out-of-position."

Culver cites "heat" as the primary cause for potential adhesive-mount failure, especially since the black background on WANCO's message boards is a natural absorber.

Time and temperature cycling also influence the performance of adhesive cable-tie mounts.

Culver arrived at a solution to the problem of adhesive-mount failure by specifying PEM® TY-D® self-clinching cable tie-mount hardware (*shown installed below*).

Inside the "Speed Director," PEM TY-D cable tie-mounts install permanently without loose screws (or adhesives) at specific locations to provide secure attachment points for wire mounting.

Once PEM TY-D self-clinching hardware is installed in steel or aluminum sheets as thin as .040"/1.02mm or thick as .125"/3.18mm, ties will slide easily through the hardware's "eye" for fast bundled-wire mounting.

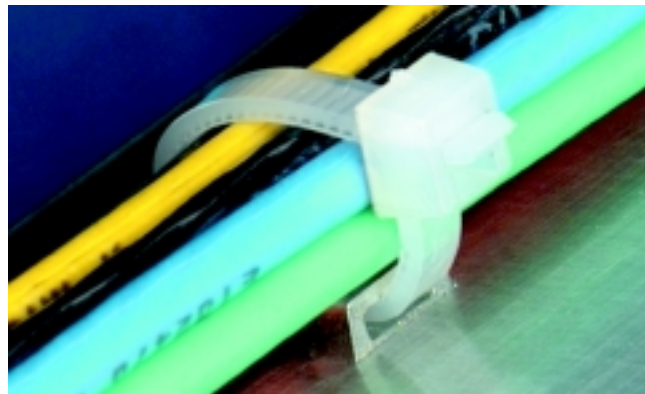
"For us the hardware's permanence once installed inside our units was perhaps the most relevant factor," says Culver.

"An added advantage," he reports, "has been our ability to locate and place these mounts where designed instead of relegating such decisions to various operators handling the assembly."

PEM® Fastening Systems

*To learn more...
visit our
Web site*

www.pemnet.com



PRODUCT LINE PROFILE:

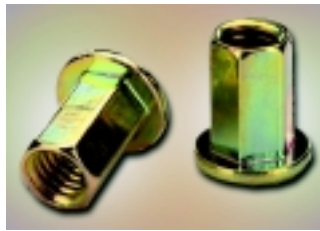
Atlas MaxTite™ Full-Hex Inserts

Atlas MaxTite™ full-hex blind threaded steel inserts feature a full-hex body design, thick head, and heavy wall to resist torque-out even in the most demanding high-load applications.

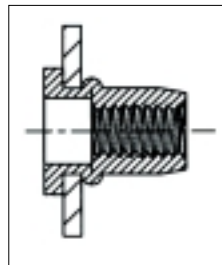
These inserts are ideal for applications wherever there is a need for permanent metal threads with holding power in components offering limited or restricted access. They can serve as practical alternatives to tapped holes, weld nuts, rivets, and self-drilling or tapping screws.

MaxTite full-hex inserts can be installed permanently in sheets, panels, or closed-end structures as thin as .010". Available unified thread sizes range from #10-32 through 5/16-18.

The inserts install quickly and easily from the accessible "front" side of a workpiece by inserting them into properly sized hex holes and utilizing spin/pull



MaxTite™ Full-Hex Inserts



tooling. Only a mating screw is required to complete final component assembly, which helps keep hardware to a minimum.

Applications for Atlas MaxTite full-hex blind threaded inserts can be found in a wide range of industries (from electronics and aerospace to

automotive and appliance), wherever there is a need for permanent threads with holding power in components offering limited or restricted access.

Atlas Engineering

To learn more...
visit our Web site

www.atlas-eng.com

HARDWARE FOR ANY CHALLENGE

Continued from Page 1

including free-running, self-locking, floating, and blind hole types meeting unified, ISO, and MIL standards. They install permanently in metal sheets as thin as .020"/0.50mm.

For those instances where there is access from only one side, "blind" applications, Atlas threaded rivet nuts (also known as blind threaded rivets, blind rivet nuts, and threaded inserts) can provide a solution.

With inaccessibility no longer an obstacle, aluminum, brass, steel, or stainless steel threaded rivet nuts (whether "standard" or "heavy duty") are ideally suited (where other permanently installed threaded hardware is not) for tubing, extrusion, and other similar types of applications.

Installation from the accessible "front" side of a workpiece (as thin as .010") can be handled with spin/spin or spin/pull tooling anywhere in a shop without requiring product-dedicated assembly locations, or the fasteners can be installed in the field.

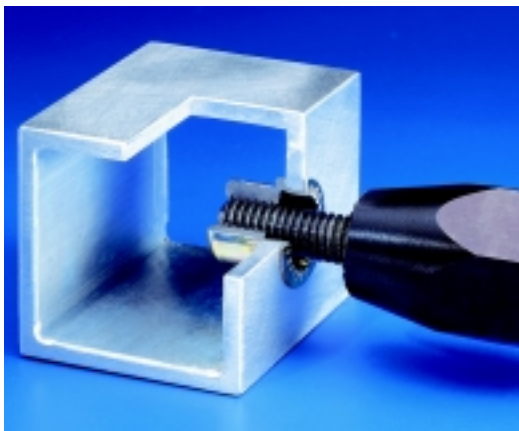
• FASTENERS FOR NON-DUCTILE MATERIALS.

Offered in a wide variety of types, sizes, and finishes, these broaching types are among the hardware solutions for component-to-board, board-to-board, and board-to-chassis fastening applications.

Broaching fasteners will install permanently in all types of PC boards, as well as in those components made from acrylics or polycarbonates. Installation is accomplished by pressing the fastener into a punched or drilled hole in the material.

• FASTENERS FOR PLASTICS.

SI brass, steel, or aluminum inserts provide strong, durable metal threads in plastics and will serve as a practical alternative to permanently bonded adhesives or rivets in plastic-assembly applications by allowing for disassembly and reassembly of components.



"Cutaway" photo shows installation of Atlas rivet nut