

Innovation Alley

compiled by Fastener World



PEM® PFC4™ Self-Clinching Captive Panel Screws Enable Easy Access to Stainless Steel Enclosures Without Loose-Hardware Risks

PEM® PFC4™ self-clinching captive panel screws from PennEngineering® install permanently into stainless steel enclosures to enable easy access whenever necessary and eliminate risks associated with loose screws. The captivated screw remains reliably in place where designed in a door or panel and will not loosen, fall out, or damage internal components. Expanding their application potential, these spring-loaded fastener assemblies comply with UL 60950 equipment access standards.

PFC4 captive panel screws will install successfully in stainless sheets as thin as .060" / 1.53mm with hardness up to HRB 88. A shoulder provides a positive stop during installation and the fastener ultimately will be flush on the opposite side of the sheet for a clean and unmarred appearance. A fully recessed head in the fastened position allows for tool-only access.

The fasteners are manufactured from 400 Series stainless steel providing corrosion resistance comparable to zinc-plated steel. They are available in assorted screw lengths and in thread sizes #4-40 through #10-32 and M3 through M5. All PFC4 fasteners are RoHS compliant.



Goebel Fasteners Introduces Peel Type "STAR" Rivets

Goebel's Peel Type "STAR" Rivets are designed with an aluminum body and a steel zinc plated mandrel. The aluminum body protects the rivet from corrosion.

The rivet gets its name from a special folding mechanism: when you install a STAR rivet, it folds into four separate legs, resembling a large, incandescent, luminous point in the night sky.

The special folding mechanism securely clamps two materials together. The STAR rivets are produced specifically for work with brittle and soft materials. The four legs create a large blindside bearing surface, thereby significantly lowering the risk of the rivet breaking through or sinking in thin and soft materials.

The STAR rivets are most commonly used when working with wood or plastic materials.

Customized C-Washers Available from Boker's



Boker's, a manufacturer of precision metal stampings, washers, spacers and shims, offers a wide variety of custom C-washers to its customers. C-washers obtain their name for being in the shape of a "C" as they have a slot cut from the center to the perimeter allowing the washer to be removed, replaced or inserted without completely removing the fasteners.

C-washers are designed to slide in and out of position on a bolt or shaft in a partially completed assembly. They can also be used as a retention device on a grooved shaft to keep components in place.

C-washers can be produced in over 2,000 commonly specified and difficult to find materials including low-carbon steel sheet, various spring steels, stainless steel, aluminum, brass, copper and nickel silver. Non-metallic materials include ABS, acetal, polyester, nylon, MD nylon, polycarbonate, fiber, polyethylene and various NEMA grade phenolics.

New Hydraulic Bolt Tensioners for Offshore Wind



The PGT-Series Bolt Tensioners provide high performance in tight spaces typically found in wind turbines. Key features include auto-retract pistons, over-stroke protection and auto-engage nut rundown. The FTR-Series Foundation Bolt Tensioners are designed specifically for tensioning wind tower foundation bolts. The FTE-Series Elliptical Foundation Bolt Tensioners provide a fastening solution on wind tower foundation applications where limited space between the stud and wall prevent the use of standard tools. They feature an elliptical geometry, which enables fit in narrow access foundation applications without reducing load capabilities.

Legacy Manufacturing Company Introduces Flexzilla Pro Mini Impact Wrench



This wrench has a body length of 4.4", a weight of 2.5 lbs. and breakaway torque up to 800 ft.-lbs. It will allow professional mechanics to reach areas that full-size impact wrenches just don't fit and remove even the tightest, rusted nuts. The

Flexzilla Pro Mini Impact Wrench is rated at 550 ft.-lb. of maximum reverse torque and 800 ft.-lb. of nut-busting torque.

It features an ergonomic grip with a patented forward/reverse toggle switch and torque selector that provides easy one-hand operation. A variable-speed trigger and three torque settings. The handle exhaust directs air away from the user and the built-in swivel allows the hose to rotate freely.

STAHLWILLE Rolls out the First Electromechanical Torque Screwdriver to the World



TORSIOTRONIC is the first electromechanical torque screwdriver on the market – combines the accuracy of electronic measurement with the convenience of the "click" from mechanical trigger mechanisms. The patented trigger system trips with audible and tactile signals when the target torque is reached. The tool measures as accurately as only an electronic torque tool can. Integrated ratcheting bit-holder with 80 teeth that provide a particularly small ratchet angle of only 4.5° and thus enable particularly sensitive working – ideal for hard-to-reach fasteners. The fine-tooth ratchet, a wide range of programming options and a micro-USB interface make the TORSIOTRONIC the ideal tool when it comes to logging work steps, applying very small torques or following complex tightening sequences. Available in four versions for different torque ranges: 12–120 cN·m, 30–300 cN·m, 60–600 cN·m and 100–1000 cN·m.



Böllhoff Introduces ECOSIT® Supply Systems with Increased Efficiency

With the new ECOSIT® supply systems, the focus is on the specific requirements and individual wishes of our customers.

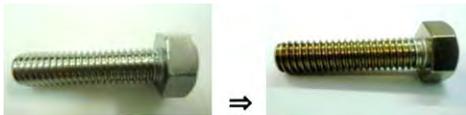
Bundling services, lowering costs. With its ECOSIT® systems the company increases the efficiency of the entire value chain and guarantee the highest quality and transparency, successfully harnessing the latest RFID technology.

The ECOSIT® service package allows Böllhoff to take charge of the entire supply chain for customers: materials planning, procurement, quality management, stock-keeping and internal goods distribution right through to the production line.

Advantages

- Orderly and tidy storage
- Substantial time savings
- Reduced inventory and safety stocks
- 100% availability
- Online control of all ordering processes
- Modern RFID technology

Japanese Yudensha Rolls out New Functional Oxide Film Forming Technology



Features:

1. Bigger contact angle with excellent water repellence.
2. Forming fine and delicate oxide films that improve corrosion resistance.
3. Good slidability with little surface friction.
4. Unlike anti-seizure electroplating, Yudensha's technology prevents the film from flaking when used on bolts and nuts.
5. Unlike electroplating and resin coating, the film is extremely thin so it barely changes the end product's sizes.

This technology is best suited for bolts, nuts, stainless steel and iron components.

Japanese BCS Rolls out "NS · PIN 4" Anti-loosening Ring



BCS Co., Ltd. develops springs and supplies automotive clips. Now it is tapping into the fastener field. The automotive products take

up 85% of the company's product line and are supplied to domestic mainstream carmakers. BSC has good sales performance and expects itself to transition to supplying electric vehicle products in the future. The president of BCS has expressed his will to enter other fields. His current target is to supply "NS·PIN 4", an anti-loosening ring for bolts and nuts used on railways and electric towers. The front end of the ring snatches the thread root to prevent the nut from loosening. Without using hand tools, the operator can assemble the ring to the nut with one push. Furthermore, the ring is reusable. It embeds itself in the outer diameter of the thread, so the nut can be re-fastened even with the ring attached.



Japanese Audec Offers Rust-proof Blackening Coating Applicable to Fasteners

The Audec "Ultra Black Super" blackening coating features the following:

1. Forming an Fe3O4 coat on steel and cast parts at boiling temperature.
2. Rarely producing irritant gas, significantly reducing impact on the human body.
3. Improving working environment.
4. The blackening coat gives the materials a glossy look and its thickness does not interfere with size precision of steel and cast parts. It resists abrasion and does not fall off from friction.
5. The coat contains rust inhibitor with excellent indoor rust resistance.
6. Applicable to mechanical elements like fasteners as well as components.

Japanese Yamanaka Provides PiezoBolt Embedded with Load Sensor



Yamanaka Eng Co., Ltd's patented PiezoBolt has an embedded sensor that detects the surrounding load during fastening. With mechanical joining technology, the company can embed the sensor without the use of adhesives. Users can connect the bolt with a specialized measuring software through wire connection to assess anomalies or problems. Without a highly polymerized compound blocking the load transmission, the load will directly reach the sensor to enable high-precision load measurement. Furthermore, the sensor has excellent durability and impact resistance and therefore is suitable for water, oil, powder and dust-filled environment.

Japanese Matsumoto Sangyo Provides S0.5-M4 Small Screws



Matsumoto Sangyo provides special screws for the medical industry. It specializes in S0.5-M4 micro-screws and miniature screws used in new territories like the aerospace machinery and medical industries. A few years ago it started to supply stainless steel special screws to an academic lab conducting brainwave research. The screws are used to assist the electrodes inserted into the brains of lab mice.



We manufacture & export specialty fasteners to global markets.

