

Fastener Innovation Alley

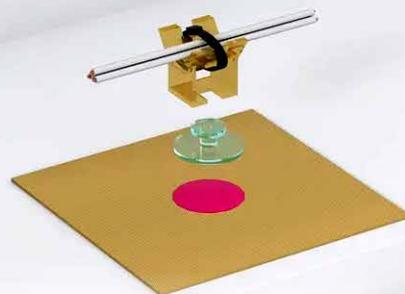
Lightweight Aerospace Interior Fastening Solution

German fastening company Böllhoff has collaborated with high-performance adhesive specialist DELO to develop an aviation-grade lightweight fastening system. **Böllhoff's ONCERT fastening element paired with DELO PHOTOBOND FB4151 light-curing adhesive creates material-friendly, flame-retardant compliant joints for aircraft interiors, offering an efficient alternative to conventional screws and rivets.**

DELO PHOTOBOND FB4151, designed specifically for aviation interiors, cures in seconds to achieve 20MPa strength on aerospace plastics and metals with 80% elongation at break as well as flexibility. Operating from -40°C to +120°C, it meets FAR 25.853 fire standards, ABD0031, low outgassing requirements, is solvent-free, and RoHS compliant.

ONCERT technology integrates adhesive bonding with mechanical fastening, eliminating the need for drilling to prevent damage to composite materials. It cures in just 8 seconds and supports automated mass production. Transparent plastic components directly bond to lightweight materials, allowing easy snap-in installation into functional parts like cable fasteners after curing, offering exceptional design flexibility.

Böllhoff product manager Franz Druke stated: "This combination creates the ideal mass-production technology for aircraft interiors." DELO product manager Sebastian Stasch added: "Light-curing adhesives enable shorter cycle times and greater design flexibility." The technology has been applied to securing Recaro business-class seat cables, with qualification testing underway for other cabin components.



Magnetic Hanging Rail Socket to Prevent Nut Drops

Top Kogyo released the "ECS-17LTM" magnetic socket for use with hanging rails. This product targets the frequent "nut drop" issue at construction sites, developed specifically to enhance safety and work efficiency.

Key specifications include 17mm across flats dimension, 115mm total length, 70mm depth, and hexagonal surface socket design. **Dual neodymium magnets securely hold nuts, preventing drops during removal. It's optimized for D-1 and D-2 rails as well as low-height hanging rails, and functions with both power and manual tools. Compatible with 13mm ratchet wrenches and box-end wrenches.**

This innovative design significantly reduces high-altitude work risks, ideal for cable rails installations. The company leverages its manufacturing expertise through magnetic technology to solve industry pain points, earning widespread praise from field workers.

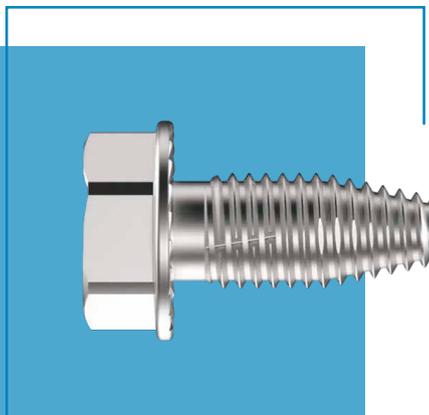
Sport Compact Cylinder Head Bolt Stud Kits

U.S.-based PRW Power has announced that its new Head Bolt Stud Kits for sport compact applications are now in stock and shipping. Tailored for performance engine builders and speed shops, these kits deliver the strength, consistency, and reliability essential for critical cylinder head assemblies.

Precision thread engagement ensures accurate torque retention and uniform clamping force, enhancing head gasket sealing in boosted and high-compression builds. Each complete kit includes studs, hardened washers, and 12-point nuts to boost clamping load and simplify installation. **Made from 8740 chromoly steel with 200,000 PSI tensile strength for superior wear resistance.**

PRW's sport compact head stud kits offer premium quality and performance at competitive prices, creating strong value and margin opportunities in today's performance fastener market.





SFS TDBL-nonut® Fastener

UK-based SFS Group Fastening Technology's TDBL-nonut® fastener, with ETA-11/0191 approval, **features a patented thread shape, under-head locking detail, and tri-lobular geometry that ensures it stays firmly secured without loosening—revolutionizing alternatives to traditional nuts and bolts.** Single-sided installation is simple and backed by full testing, increasingly favored by cladding specialists to meet Building Safety Act (BSA) goals and efficient workflows.

Key design highlights include tri-lobular start to reduce operator torque load on hands and arms; full 360° thread engagement for effective bite; and impact overdrive for reliable, warranted connections. Case-hardened thread forming enhances durability. Available in 8.6mm dia. x 16mm length, 10.6mm dia. x 23/30/50mm lengths, plus new low-profile flat-head versions, ideal for steel frames and substrates.

A recent two-storey commercial office case study demonstrates: Replacing traditional "tech screws" in curtain wall-to-steel frame fastening, TDBL-nonut® provides robust BSA Golden Thread data for performance certainty. SFS UK Marketing Head Vincent Matthews noted: "This design delivers complete technical proof from installation to verification, supporting Golden Thread and BSA requirements."

The project team praised: "SFS experts guided calculations and selection. Its 'drill, drive, tighten' simplicity is reliable and time-saving, backed by excellent support." This product bolsters building safety and efficiency.

Ground Screws to Accelerate U.S. Solar Projects

Vertically integrated manufacturer American Steel and Aluminum (ASA) has introduced its domestic **steel ground screws, providing solar EPC contractors and developers with reliable infrastructure to meet growing demand for predictable timelines.** Fully U.S.-produced, it shortens lead times, reduces risk, and ensures long-term durability for energy infrastructure.

Designed by ASA's experienced engineering and solar team, the ground screw addresses critical construction delays. Featuring full traceability and domestic manufacturing, **it's compatible with most tracker systems, fixed-tilt racking, and cable management platforms, with A-frame assemblies available.** Backed by 20+ years of partnerships in data storage, energy storage, shipbuilding, and industrial equipment.

Business Development Director Robert Souliere stated: "The ground screw targets early-stage delays and supply chain risks, offering full production visibility and customization flexibility." President Sam Blatchford added: "Our New Hampshire facility delivers high-quality, traceable production perfectly suited to domestic solar growth."

ASA is ready to ship to EPCs, developers, installers, distributors, and OEMs for the 2026 construction season.



Revolutionary Permanent Fastener

Global aerospace and transportation engineering solutions leader Howmet Aerospace has unveiled the Huck® Bobtail® R fastener, a breakthrough in fastening technology that **combines the permanence of traditional lockbolts with easy removal using standard torque tools, resolving engineers' longstanding trade-off between durability and serviceability.**

This latest lockbolt iteration provides robust vibration-resistant fastening that can be quickly disassembled without specialized equipment, unlike conventional threaded fasteners or welding. Its intuitive installation tools address global manufacturing skills gaps. Howmet's Engineering and Technology Director Jonathan Craven stated: "Bobtail® R extends the immense value of Huck® lockbolts to broader users—permanent like any Huck® lockbolt, yet safely removable with conventional tools when needed."

Key features include reduced maintenance costs by preventing loosening under stress; simplified training; joint strength up to five times the fatigue life of traditional bolts; and easy removal with standard torque wrenches. Ideal for marine, heavy machinery, support vehicles, and structures requiring safety, reliability, and serviceability.

Craven added: "This is more than a fastener—it's a productivity tool: maintenance-free, vibration-resistant, with simple, reliable installation like traditional Huck® lockbolts." Available now in various diameters and coatings, with custom options. ■

