PAGE SECTION

A UNIQUE SERVICE

STAR FASTENERS

Providing technical knowledge and support

As a distributor in today's market, it is not enough to simply supply a product, you need to be able to offer something unique. Thanks to their technical knowledge and flexibility, Star Fasteners have the ability to work alongside project designers and mechanical engineers from a diverse range of industries, ensuring that customers are offered the most appropriate and cost-effective technology for their application.

GLOBAL HUCK® FASTENER DISTRIBUTOR

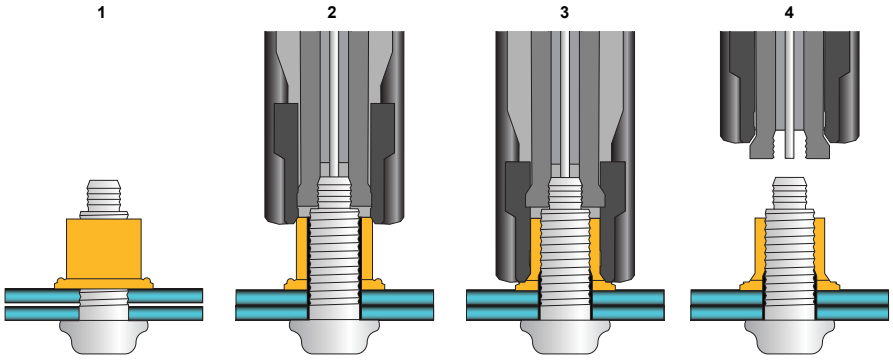
The Huck® fastener range is used where high structural strength is required. Offering a clean and safe alternative to welding and a more efficient fastening method than standard nuts and bolts, Huck Fasteners offer benefits which other fastening methods cannot. These include quick and easy installation, elimination of re-checking / replacement and ultimately cost reductions. Each Huck fastener has its own unique characteristics ensuring that there is a product for every application. The business Lou Huck founded over 60 years ago and the fasteners he designed are still solving the problem of coping with extreme stress and vibration, providing strength and facilitating lighter, stronger, more durable structures. Today the product range based on his original design has evolved to include a diverse range of LockBolts® and structural blind fasteners.

Huck Fasteners are used in a wide range of markets including truck, trailer, horseboxes, automotive, air conditioning, bus / coach, portable buildings, doors and door gear, agricultural machinery, green energy, rail; in fact, anywhere that needs a dependable fastening solution.

INTRODUCING SWAGED HUCK® LOCKBOLTS®

For years, welding was seen as the only way to ensure the integrity of joints in demanding load-bearing or high-vibration structures. Companies manufacturing heavy-duty equipment or fabricating large, metal structures employed the universally accepted process of welding joints together. However, today there are alternatives to welding, one of the foremost being direct-tension installed, swaged LockBolts.

Bobtail installation sequence



1. The pin is inserted into the prepared hole, and the collar is spun onto the pin.
2. The installation tool is applied to the annular pull grooves. When the tool is activated, a puller in the nose assembly draws the pin into the tool, causing the swaging anvil to press on the collar, drawing up any sheet gap.
3. At a predetermined force, the anvil begins to swage the collar into the pin's lockgrooves. Continued swaging elongates the collar and pin, developing precis. clamp.
4. When swaging of the collar into pin lockgrooves is complete, the tool ejects the fastener and releases the puller to complete the sequence.

Based on a typical installation of 5/8" grade 8 fastener

HuckBolts® (or Huck LockBolts) are precision engineered two-piece fasteners that, once installed, no matter how vibration-intensive the environment, do not come loose. HuckBolts provide direct metal-to-metal contact when installed, which eliminates the transverse vibration often found in conventional nuts and bolts. Engineered for a wide range of applications, HuckBolts deliver superior joining, shear, and tensile strength for an unmatched fastening solution.

HuckBolts can be used with virtually any metal; dissimilar metals, coefficients of thermal expansion, present no problems. Varying material thicknesses in a joint are readily accommodated, and surface finishes are not damaged. Most importantly, HuckBolts have proven to hold up over years of service in demanding, high-stress, high-vibration environments.

HOW LOCKBOLTS ARE INSTALLED

The pin of a LockBolts is simply inserted into the pre-prepared hole and the collar can either be placed straight onto the pin, or where project pre-assembly is required, can be pre-installed, spun by hand onto the pin (*depending on the product used). When the installation tool is applied and the tool is activated, the action of the puller engaging onto the pin, together with the anvil swaging the collar, completes the installation. The swage and eject sequence are programmed to complete the cycle without any additional installer input. The process ensures excellent gap closing capability.

Manufacturers of heavy equipment are now using direct-tension LockBolts in their assembly process. Even taking into consideration the need to prepare a hole to take the fastener, installing a LockBolts is significantly faster than welding a joint. Once installed, a quick visual inspection is all that is required to confirm the accuracy and quality of the installation. Operators require minimal training in order to be proficient in the fastener's installation.

These unique engineered fasteners, proven in demanding applications such as truck suspensions and chassis, railroad track crossings, and heavy defence vehicles, are now being used in a wide range of of products and structures where welding was once the only option.

HIGH PERFORMANCE HUCK® LOCKBOLTS

Compared to conventional nut and bolt installations which can loosen in high-vibration environments, HuckBolt® have proven to be impervious to the effect of vibration in a number of very demanding applications. The secret to this performance difference can be found in the unique HuckBolt design, in which the collar is fully swaged into the locking grooves of the pin.

Huck® LockBolt brand names include, BobTail®, Magna-Grip®, C6L®, C50L®, C120L® and Hucktainer®; each differing in design, diameter, grip range material, plating and purpose.

HUCK BOBTAIL® - A LOCKBOLT WITHOUT A PIN-BREAK

Huck BobTail fasteners are available in a wide range of sizes (up to 1-3/8 inch). The two-part fastening system consists of a pin and a collar. These advanced fasteners are installed using a direct tension technique, in which the pin is pulled and the collar is simultaneously swaged into the locking grooves of the pin, deforming the collar into the grooves.

Declared by DIBt as “maintenance free”, the 12mm, 14mm, 16mm, 20mm and 1 inch diameter BobTail is approved to be used in both static and dynamic civil engineering applications (smaller and larger diameters are available by request).

The DIBt test confirmed that a BobTail is maintenance-free during the lifetime of the joint it is fastening, which is not the case when using traditional nut and bolt products. As a result, it can be integrated into a range of applications with complete confidence by civil engineering designers.

Through its advanced fastener design the BobTail system offers a strong connection. One key advantage of this fastener over conventional LockBolting systems is that

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it doesn’t have a pintail to break off. As a result, there is no waste material to collect and dispose of post-installation. The added benefit of this is that the tools are lighter and smaller as they do not need the force to break the pintail off, as traditional Lockbolt tools do.

The BobTail is installed using a quiet, jolt-free swaging action, eliminating the potential for repetitive stress syndrome issues. It has significantly reduced noise levels, typically less than 70dB. The elimination of the shock load and reduced noise can offer real and significant health and safety benefits.

Using the Huck BobTail in key joining applications helps remove housekeeping and safety issues that are integral to the welding process. There are no sparks to start fires or cause explosions, nor any debris on the floor that can lead to slips and falls.

INTRODUCING HUCK STRUCTURAL BLIND FASTENERS

When only one side of the joint material is accessible, performance-engineered Huck structural blind fasteners have a solution. Each designed and engineered with a unique set of features and delivering solutions to common manufacturing challenges; hole-filling, water-resistance, wide grip ranges, welding replacement, to self-grounding fastening solutions, all offering high-speed assembly. Huck structural blind fasteners are engineered with a unique locking design, an internal ‘lock’ is created during installation that virtually eliminates pin push-out by mechanically ‘locking’ the pin to the sleeve. Simple, visual inspections ensure joint integrity.

Huck® structural blind fastener brand names include, Auto-Bulb®, BOM®, FloorTight®, Hucklok®, Magna-Bulb®, Magna-Lok®, Magna-Tite®, and Penta-Lok™. Again, each differ in design, diameter, grip range, material, plating and purpose. In applications where vibration resistance, reliability, and strong-hold are critical, no fastening system is more dependable than Huck.

In-house and on-site tool repair and servicing, makes sure that customers production lines are kept rolling and fasteners are installed correctly. The in-house powder coating facility also means that fasteners can be pre-coloured to customers specifications.

Star Fasteners have a close relationship with their suppliers’ and are proactive in designing products and developing new ideas. Technology is always evolving; customers often require fasteners with specific design requirements and want to develop projects beyond the norm or to push the limits of current fastening technology. Being hands-on and keeping up with new developments is core to Star Fasteners success; any new developments are seamlessly integrated into the existing product range. Star Fasteners are definitely not just a fastener distributor, but a company that is proactive and one that offers something different; a solutions provider.

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HuckLok Structural Blind Huck Fastener

Huck Range Force Battery Tool

Huck BobTail LockBolt