

# UNBRAKO® Engineered Fasteners

*The World Leader in Designing  
Cost Effective Solutions for Your  
Fastening Applications.*



ISO 9001 ISO 9002  
ISO 9001 ISO 9003

# UNBRAKO Engineered Fasteners

## *Securing your success.*

You may consider fasteners to be a small part of your product. But chances are, their performance plays a far bigger role in its success than you may think.

The fact is, improperly specified and designed fasteners represent a leading cause of product recall and affect other performance issues, such as warranty, liability and production efficiency. A custom fastening system designed specifically for your product can deliver the top performance that you expect and your customers demand. That's where we come in.

### **Innovative engineering solutions for your fastening challenges.**

UNBRAKO Engineered Fasteners, a capability of SPS Technologies' Industrial Fasteners Group, specializes in developing custom fastening solutions for one-of-a-kind, high-volume applications. Our engineered fastener systems extend cycle life, cut long-term production costs, reduce recalls and provide liability protection. In short, our fastening systems ensure you a superior, safer product - at a lower total cost.

### **A full range of production capabilities.**

UNBRAKO's Engineered Fasteners team can design and manufacture virtually any fastener, in any size or configuration, to solve your toughest fastening problems.

Our worldwide production facilities and distribution channels give you the capacity you need to ensure a timely supply for even the highest-volume OEM applications.



We offer:

- Hexagon sockets, TORX® drive configurations, 12-point, hex drives
- Internal and external threads
- Full threaded and double-ended studs
- Alloy steel, stainless steel, carbon steel and exotic alloys
- Large sizes
- Cold forging to 1-1/2" (36mm) diameter
- Lengths up to 144" (3600mm)
- Thread rolling capability through 3" (75mm) diameter
- Micro sizes
- Specific thread designs and root radius run-outs
- Cadmium, zinc, tin, chemical black oxide, phosphate, Teflon®-based coatings and organic platings (standard, propriety and unique-to-application coatings)

### **Expertise that gives you peace of mind.**

Your UNBRAKO engineered fastening system will be designed specifically for its application by a team of professionals with specialized expertise and an in-depth knowledge of your manufacturing process. Our unique perspective lets us offer innovative concepts that safely and effectively resolve even your most challenging fastener and joint issues.

Utilizing our state-of-the-art facilities, we'll work with your engineers to evaluate design feasibility, conduct mechanical/metallurgical testing, and provide failure and joint analysis. We'll also prototype and fully test each new design, prior to manufacture at our ISO9001 certified facility.

To further assure quality and safety, our engineered fastening systems are available with UNBRAKO E-CODE™ LOT CODE™ head markings for lot traceability and total control.

### **Proven performance.**

For more than half a century, UNBRAKO Engineered Fasteners have been put to the extreme test in such performance-sensitive areas as small engines, braking systems, power generating equipment, heavy manufacturing, and commercial printing equipment. Our proven engineered fasteners consistently perform where others have failed. We look forward to putting our expertise to work for you.



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## Cost effective solutions for fastening applications.

Detailed information on these examples available on request.

Engineered cadmium plated life safety socket head cap screw designed for the car body lift arm of a popular amusement park ride. Meets strict vibration and cleaning chemical corrosion resistance criteria, resulting in improved passenger safety and life protection.

Low profile special head diameter socket head cap screw designed for alternating compression and tension loads as well as corrosion in paper mill wood crushing roll equipment. Fastener exceeds life of plates preventing premature failure, damage to equipment and processing down time.

Special diameter forged and machined high-grade alloy steel shoulder bolt designed to secure two section back-up mechanical brake system on hydraulic elevator. Bolt performs to stated criteria for endurance, safety and liability coverage.

New design engine stud for major snowmobile manufacturer holds upper and lower castings of the engine together in a high vibration corrosive environment. Product more than doubled performance criteria specified by customer thereby increasing safety and reducing warranty costs in excess of \$8 million.

**SPS Technologies' Engineered Fasteners Group** is a global leader in the production and manufacturing of quality fasteners and precision components. UNBRAKO Engineered Fasteners specializes in developing custom fastening systems for one-of-a-kind, high volume applications. Services include engineering, manufacturing, accredited quality control and post-delivery liability insurance supporting protection of the manufacturer.

**SPS**  
TECHNOLOGIES

The SPS global service network includes facilities in Ireland, England, Mexico, Brazil, Australia, China, Singapore and Japan.

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