8 ADVANTAGES THAT SET UNBRAKO SOCKET SCREWS OVER ANY OTHER MANUFACTURERS:

1. ALL SOCKET CAP SCREWS HAVE FORGED HEADS AND HEX SOCKETS

In all sizes, the ASTM A574 (inch and metric) specifications permit hex sockets to be forged or machined. All Unbrako socket cap screw heads and their hex sockets are forged, resulting in increased strength, better installation ability, and a longer product life.

2. ALL SOCKET CAP SCREWS HAVE ROLLED THREADS

Cut threads interrupt the grain flow of the material and result in weaker threads. Conversely, roll threads compresses the material's grain flow and enhances fatigue resistance. Because of that benefit, all Unbrako socket cap screws are roll threaded.

3. HIGHER MINIMUM TENSILE STRENGTHS

The ASTM A574 (inch and metric) specifications require minimum tensile strength of 180,000 psi through 1/2", and 170,000 psi for 5/8" sizes larger, and the appropriate metric equivalents as well as corresponding requirements for core hardness. Unbrako tensile specifications are 10,000 psi higher than standards—while maintaining the core hardness range. To exceed such standard, we had to exert extremely tight controls on our heat treatment process.

4. E-CODE™ LOT CODE™ HEAD MARKINGS

This patented alpha numeric head marking system allows each fastener to be traced to its original manufacturing lot, raw material chemistry, and performance test results. This marking system generates codes found on top of the heads of all inch and metric socket cap screws, 1/4" or 6mm and larger. It is the ultimate in product tracking.

5. COMPOUND FILLET RADIUS

Each size of socket screw has a specially designed compound fillet radius that blends 2 different radii within the ASME B18.3 standard fillet "envelope". This design change alone is responsible for doubling tension-tension fatigue life, the most common loading in application.

6. RADIUSED ROOT THREAD RUN-OUT

Thread specs MIL-S-8879 for aircraft fasteners state that the run-out threads must have root radii as large or larger than the normal root radius of the threads. The purpose was to strengthen the specific area where most fastener failures occurred. Though this type of requirement never became a commercial fastener standard, Unbrako saw the merits of this technological advancement and decided to make a standard feature on all its socket cap screws.

7. "WR" THREAD FORM

This is an exclusive Unbrako design. "WR" stands for WIDE ROOT. 'WR" provides the strongest UNR thread form with the greatest opportunity to maximize fatigue resistance, It is achieved by first making the root of the thread as wide as the UNTS permits, and then by restricting the tolerance of the root radius to the upper, largest 30% of the specification. Only by having our own thread roll die manufacturing plants can we implement such a design.

8. ETCHING FOR THREAD LAPS

When threads are rolled onto our products, random samples are being etched in heated acid, and then examined under a stereo microscope to detect flaws such as thread laps. Tedious microscopic reviews are the best way to detect thread laps and their unwanted consequences: fatigue cracking which leads to fastener failures. Because of these efforts, we can certify to ASTM F788, Supplemental Requirement S1, for assemblies subject to severe dynamic stresses on all Unbrako socket cap screws.

Unbrako THE WORLD LEADER

DFL DEEPAK FASTENERS LTD.

As the largest industrial fastener manufacturer in India since 1956, and as the proud Worldwide owner of UNBRAKO, Deepak Fasteners Limited is committed to quality and delivery at the best possible price. Since its establishment, Deepak Fasteners Limited has pro-actively implemented global strategies to create an internationally integrated business structure.

Deepak Fasteners Limited has set-up a new state-of-the-art plant in Bhopal, India, which will become the largest fastener facility in Asia, with an estimated production of 600 tones per day. In addition to the existing plants in Ireland and India, this new facility will cater to the U.S and European markets.

As part of its global strategy, Deepak Fasteners Ltd. has opened an Unbrako distribution warehouse in Southern California, the first of many in the United States.
Unbrako LLC is dedicated to providing its high performance products to the U.S market through distribution only.

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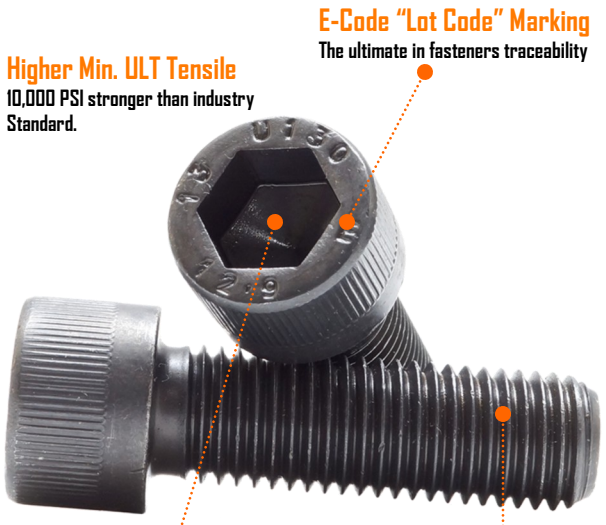
Unbrako® THE WORLD LEADER

PREMIUM SOCKET CAP SCREWS



Unbrako is the World's leading socket screw brand with more than **100** years experience of supplying to high-end industries, such as the automotive , aerospace, petrochemical, heavy machinery and military sectors.

CELEBRATING 1911 100 YEARS 2011 OF LEADERSHIP

COMMERCIAL FASTENERS:

Unbrako®
THE WORLD LEADER

☐ Hex Bolts/Cap Screws

- ☐ A307 Machine Bolts Plain/Zinc/HDG
- ☐ A307 Carriage Bolts Plain/Zinc/HDG
- ☐ Grade 5 Carriage Bolts Plain/Zinc
- ☐ Grade 5 Plain/Zinc (SAE J429)
- ☐ Grade 8 Plain/Zinc Yellow (SAE J429)
- ☐ Metric Plain 8.8 and 10.9 (DIN 933/931)

☐ Washers

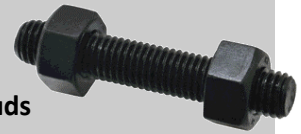
- ☐ USS/SAE Plain & Zinc
- ☐ SAE Thru Hardened Washers Zinc Yellow
- ☐ Medium Split Lock Washers Plain & Zinc
- ☐ F436 Plain Washers

☐ Durlok® Products

- ☐ DURLOK Bolts (with serrations)
- ☐ DURLOK Nuts (with serrations)
- ☐ DURLOK Washers (with serrations)

☐ Structural & Petrochemical

- ☐ A325 Heavy Hex Head (type 1) Plain
- ☐ A490 Heavy Hex Head (type 1) Plain
- ☐ A194 2H Heavy Hex Nuts Plain
- ☐ A563 Grade C Heavy Nuts (Plain and HDG)
- ☐ A563 Grade DH (HDG)
- ☐ A193 B7 Fully Threaded Studs
- ☐ A193 B7 Fully Threaded Studs with Nuts



☐ Nuts

- ☐ Grade 2,5, & 8, finished Hex Nut
- ☐ Hex Coupling Nuts
- ☐ Nylon Insert Lock Nuts
- ☐ Serrated Flange Lock Nuts
- ☐ DIN 934 Hex Class 8 & 10
- ☐ DIN 985 Nylon Insert Lock Nuts Class 8 & 10
- ☐ DIN 982 Heavy Nylon Insert Lock Nuts Class 8 & 10

12833 South Spring Street, Los Angeles, CA 90061
Phone: 310-817-2400 Fax: 310-817-2399

☐ Threaded Rods

- ☐ B7 Alloy (A193) - 3' and 12'
- ☐ A307 - 3',10', and 12'

☐ Stainless Steel

(18-8/A2/316/A4)

Coming SOON

- ☐ Socket Head Cap Screws
- ☐ Socket Set Screws
- ☐ Countersunk Socket Head Screws
- ☐ Button Head Socket Screws
- ☐ Socket Head Shoulder Screws
- ☐ Hex Heads
- ☐ Hex Nuts
- ☐ Flat Washers
- ☐ Commercial Washer
- ☐ Spring Washers
- ☐ Spring Washers

Unbrako manufacturing facilities are approved to: ISO 9001:2008, ISO/TS 16949:2009, ISO/TS 140001:2004, BS OHSAS 18001:2007, EN 14399 & 15048, ISO/TS166949