

NORD-LOCK
GROUP

BEST-IN-CLASS BOLTING SOLUTIONS

**FOR ADVANCED INDUSTRIES
& ADVANCED APPLICATIONS**



 **SUPERBOLT®**

BOLTIGHT®



DO YOU HAVE A SPECIALIZED BOLTING NEED?

Here at Nord-Lock Group, our decades of experience have gotten us to the top of the tensioning industry. Our experts bring practicality and a can-do mentality to conquer specialized and critical bolting challenges, from outer space to subsea. Count on our knowledge in every step of your journey – from design to testing, and installation to maintenance.

- **Innovative and expansive product offering**
- **Dedicated tech centers around the globe**
- **Fully equipped labs for rigorous testing and validation**

CRITICAL FASTENERS FOR ADVANCED INDUSTRIES AND APPLICATIONS INCLUDING:

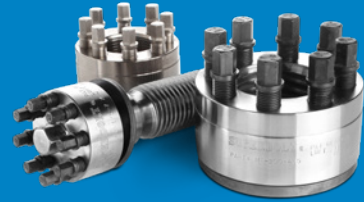
- Space and space defense
- Maritime vessels (surface and subsea)
- Semiconductors and microchip manufacturing
- Aerospace
- Government and defense
- Nuclear power generation (fission, fusion, SMR's, etc.)
- Offshore
- Advanced solutions for all commercial and industrial markets

ADDITIONAL SERVICES:

- Clean room cleaning and packaging
- Foreign object and debris prevention
- Individual packaging
- End-user specific instructions
- Torque calibration
- Finite element analysis
- Hardware (studs, nuts, washers, spacers, bolts, etc. – standard and custom)
- SMART products (remote preload monitoring, data collection, traceable fastenings, operator error-proofing, etc.)
- End-user training
- Consulting (bolted joints, fasteners, etc.)



SIMPLE TOOLS, SUPER RESULTS



Superbolt® is the industry leader in custom engineered solutions, including options for various temperature or corrosion coatings. Our products are engineered to meet the demands of high-tech industries. Whatever the size, location, operating environment,

preload requirement, or application – our industry-leading tensioning technologies secure any bolted joint. With self-imposed quality standards above industry recommendations, you won't find safer, more reliable tensioning.

SUPERBOLT OFFERS THE FOLLOWING SOLUTIONS AND MANY MORE

Exotic materials:

- Alloy steel
- Stainless steel
- Inconel
- Monel
- Nitronic

Advanced coatings and treatments:

- Xylan
- Zinc flake
- Passivation of stainless steel

Experience working with many lubricants:

- Molykote
- Loctite
- Dow
- Braycote
- Apiezon

Variety of testing:

- Ultrasonic testing for flaws
- Magnetic participle inspection
- Liquid penetrant inspection
- Salt spray testing
- Proof loading
- Load to failure
- Charpy testing

EZFIT

EzFit expansion bolts are radially expanding, axially tensioned coupling bolts. Replacing traditional fitted bolts, which are difficult to install and dismantle, ease of installation and removal is guaranteed. EzFit expansion bolts are available in standard offerings and can be custom engineered to suit your requirements.



LST/LSF

Monitor preload the smart way – Superbolt offers a range of standard and custom Load Sensing Tensioners (LST) and Load Sensing Flexnuts (LSF). As the global market leader of bolting solutions, Nord-Lock Group is dedicated to improving our already state-of-the-art products – including the integration of smart technologies.





THE FAST TRACK TO ACCURATE TENSIONING

Boltight® hydraulic tensioners can be engineered for the highest preload, the widest range of sizes, or the toughest environmental challenges. When off-the-shelf parts just won't do the job, our engineers work with you to design and manufacture exactly what you need. We respond fast to keep your downtime to a minimum and get your equipment back up and running safely, efficiently, and cost-effectively.

From our standard range, our pre-engineered range or customized solutions, we have the know-how to provide the right design for your application. Expect the best lead time on custom engineered solutions, such as unique dimensions, materials, or use cases.

Examples of modifications include:

- High- and low-temperature tensioners
- Small and large size tensioners
- Subsea tensioners
- Material requirements
- Corrosion protection
- Low-radial clearance
- Space restrictions
- Unique, industry-specific requirements

HYFIT

The Superbolt HyFit can be designed for any requirement. The system incorporates a Boltight hydraulic bolt tensioner and hydraulic nut. Superbolt HyFit is ideal for steam turbines, gas turbines, marine propulsion drives, and all heavy rotating equipment

Unlike traditional hydraulically actuated coupling bolts, Superbolt HyFit:

- Uses two separate dimensionally different heads and just one operating pressure, eliminating the risk of using the wrong pressure during operation.
- Uses heads that have a unique design so there is no way to use them incorrectly during the procedure.
- Has a HyFit nut which is used to tension the bolt, so it can be retrofitted to any existing coupling bolt and used with the HyFit system.



MULTI-STUD TENSIONERS

Multi-stud tensioners (MSTs) enable the simultaneous tightening of all bolts in a joint, significantly speeding up installation time. This process requires fewer hydraulic hoses and connections, resulting in notable time savings for critical applications such as nuclear and subsea operations. MSTs can be designed to meet specific application needs, available in both complete ring and segmented configurations.

Designed for applications including:

- Manway covers
- Hand hole covers
- Subsea flanges
- Vessel lids





QUALITY

- Most comprehensive range of both hydraulic and mechanical tensioners on the market
- Industry leader in custom engineered solutions, including options for various temperature or corrosion coatings
- Engineered for the highest preload, the largest sizes, or the toughest environmental challenges
- Industry-leading warranty based on usage



EXPERTISE

- Dedicated tech centers equipped with advanced tools and resources to support finding the most effective solutions
- Fully-equipped labs enable rigorous testing, validation, and analysis to ensure our products perform under diverse conditions
- Commitment to innovating and improving our product offering to meet industry demands



AVAILABILITY

- Standard tensioners can be manufactured quickly and shipped directly from our nearest North American, European, or Asian distribution center
- Best in industry for lead time on custom engineered solutions, such as unique dimensions, materials, or use cases
- Global network of distribution partners with representation in 65+ countries and growing every year

SUPERBOLT® POWER IN SIMPLICITY



Superbolt multi-jackbolt tensioners use mechanical tensioning to break down high preload requirements into lighter torque values. With this masterfully simple design, everyday hand tools suffice to overcome any bolting challenge.

- Easier, safer, and faster than torquing large fasteners, using only hand tools
- A single worker can torque the largest Superbolt assemblies without specialized skills or heavy equipment
- Eliminate dangerous pinch points, heavy equipment lifts, or high system stress
- Even load distribution across the joint reduces the risk of gasket compression, leakage, and joint failure
- Multi-jackbolt tensioner assemblies are marked for full traceability

BOLTIGHT® PERFORMANCE UNDER PRESSURE



Hydraulic tensioning that combines speed and accuracy for your preload requirements. With Boltight, multiple tensioners operate in unison, resulting in faster operations while ensuring even preload.

- Time and labor savings of days or weeks of time for one maintenance period
- Multiple tensioners can be used simultaneously, increasing efficiency and offering a more uniform tightening procedure than other methods
- Kitted solutions and rental fleets available to maintenance companies when they need it
- High bolt-load accuracies often 5% or better
- Preload is very accurately controlled, as it is directly proportional to the pressure applied by the tensioner

NORD-LOCK GROUP HOME OF INNOVATIONS AND ENGINEERING



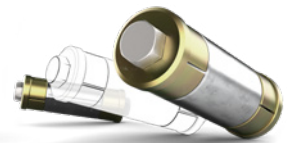
NORD-LOCK



SUPERBOLT



BOLTIGHT



Expander

Nord-Lock Group is a global leader in bolted solutions. In 1982, the original Nord-Lock® wedge-locking technology that safely secures bolted joints was developed. Since then, our range of innovative bolting technologies and expertise has grown to be the most comprehensive on the market, incorporating Superbolt® mechanical tensioners, Boltight® hydraulic tensioners and Expander System® pivot pins.

All solutions are developed and manufactured in-house, ensuring they meet the highest standards in the industry. Our team of dedicated experts work closely with customers all over the world.

Nord-Lock Group is an **ISO:9001** manufacturer.

CAGE codes:

Nord-Lock = 1PUD1

Expander = 9CPW3

Superbolt = 0S9Z9