Installation and service

Our team of bolting experts can help you every step of the way to ensure safe and reliable bolting:

- **Optimization**
  We support in the design and calculation of bolted joints.
- **Special designs**
  We develop customized solutions to meet your specific application needs.
- **Training**
  We provide training to your personnel to ensure correct installation and removal of Superbolt products.

Accessories
Installation and removal can be improved with high quality Superbolt accessories. They enhance product installation and removal, thereby protecting your investment in safe bolted connections.

Installation support
You too can profit from our expertise for the installation of your Superbolt tensioners. Our trained staff can provide the following services:

- Support for your staff during installation.
- Installation training for your staff.
- Complete installation of Superbolt products.

Advantages

- **Only hand tools needed**
  Ordinary hand wrenches or pneumatic wrenches are the only tools required to generate immense bolt stresses.
- **Increased safety**
  Installations are safe because only small hand tools are required. This means no safety hazards from extreme hydraulic pressures, pinching hazards, lifting of heavy and large tools, or sockets breaking under high pressure.
- **Save time**
  Superbolt tensioners can be tightened in a fraction of the time compared to most other methods. Even though there are multiple jackbolts to tighten, field experience has proven that by using air tools installation times are fast and easy.
- **Higher preloads**
  Tightening in pure tension allows higher preloads on the same size bolt versus other tightening methods.
- **Elasticity**
  Added elasticity increases the bolted joint fatigue life.
- **Accuracy**
  Accurate and even tension across bolted joints reduces the tendency for leakages or uneven loading of adjacent fasteners.
- **Reusable**
  Superbolt tensioners can easily be reused.
- **Certifications**
  Superbolt tensioners have been tested and approved by several certification institutes.

NORD-LOCK GROUP

AUTHORISED DISTRIBUTOR

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SUPERBOLT

Multi-jackbolt tensioners (MJT)

SUPERBOLT™

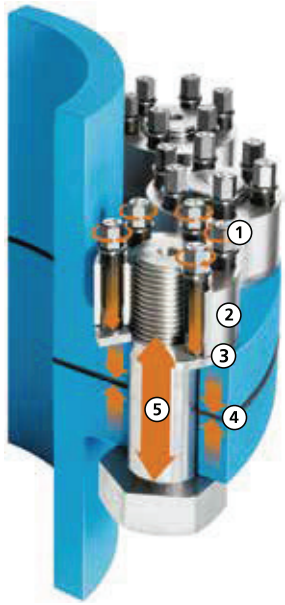
The innovative bolting solution

What is Superbolt?

Superbolt tensioners from the Nord-Lock Group are designed as direct replacements for conventional nuts and bolts. These devices can be threaded onto a new or existing bolt, stud, threaded rod or shaft. The main thread serves to position the tensioner on the bolt or stud against the hardened washer and the load bearing surface. Once it is positioned, actual tensioning of the bolt or stud is accomplished with simple hand tools by torquing the jackbolts which encircle the main thread. The jackbolts transfer the preload evenly into the main thread and, consequently, onto the joint. The main thread is tightened in pure tension.

How Superbolt tensioners work:

1. *By tightening the jackbolts, a strong thrust (axial) force is generated. This thrust force is directed against a hardened washer. Jackbolts have a small friction diameter and can therefore create a high thrust force with relatively little torque input.*
2. *The loads are transferred through the nut body which is positioned on the main thread by hand.*
3. *A hardened washer is used to transfer the force while protecting the flange face.*
4. *The thrust (axial) force of many jackbolts and the opposite reaction force of the main bolt head create a strong clamping force on the flange.*
5. *The thrust (axial) force from the jackbolt creates an equally strong reaction force in the main bolt.*



The solution to bolting problems

Nut-Style tensioners

Superbolt multi-jackbolt tensioners replace your existing hex nuts. Only hand tools are required for removal and installation of any size tensioner. Besides vastly increasing worker safety, our nut-style tensioners are accurate, economical and come in a wide range to meet your unique needs.

Product line **Main characteristics**	**Nut-style tensioners** Standard	 High strength
Series	MT 	CY 
Dimensional range **- Metric** **- Imperial**	M16 - M160 3/4" - 6"	M16 - M160 3/4" - 6"
Approximate bolt stress depending on size	450 to 700 N/mm^2 60 to 100 ksi	500 to 900 N/mm^2 70 to 130 ksi
Temperature range	-10 to 250 °C 0 to 500°F	-40 to 250 °C -50 to 500°F *Lower temperatures on demand*
Surface treatment	Optional	Optional

Flexnuts

For through hole applications we have developed the Superbolt Flexnut, which is a reactive nut that is able to flex elastically. Utilizing a Flexnut provides the same advantages as the MJT on the reactive side.

Superbolt Flexnut Advantages:

- Under load they ensure an equal load distribution on the thread of the bolt/stud.
- Adds elasticity in the joint.
- Increases the fatigue life of the bolt/stud.

Bolt-style tensioners

Superbolt bolt-style tensioners are used in a wide variety of applications where a nut-style tensioner and stud combination does not fit or is not the preferred solution.

Incorporating multi-jackbolt technology into a bolt:

- Has all of the preload and low torque advantages of the MJT nuts.
- Requires less head diameter and therefore less space than nut-style MJTs.
- Reduces the number of parts versus stud and nuts.
- Small head dimensions can fit into tight countersinks or space restrictions.

Proven in the field

Oil & Gas

Mining

Power Generation

Gas Compression

Presses

Steel Mills

We also offer a wide range of pre-engineered solutions, including special materials and designs. Our team of engineers can work with you to find the perfect solution.