



Nuclear Power Products and Services





# **About Our Teaming Partner**

Curtiss-Wright has partnered with Nord-Lock to provide user-friendly, cost-effective mechanical tensioners for large bolts to the commercial nuclear, power generation, and industrial markets. Superbolt Multi-Jackbolt Tensioners (MJT) can secure any bolted joint regardless of the size, location, operating environment, preload requirement, or application. They simplify heavy-duty bolting by breaking down high preload requirements into smaller, more manageable torque values. Their design uses multiple jackbolts to evenly distribute the load, making installations easier- even for larger sizes. With the right setup, these connections stay secure indefinitely, and even massive MJTs can be installed or removed by a single worker with basic tools.

## **How It Works**

- Tightening the jackbolts creates a strong axial force, which is directed against a hardened washer.
- The force is transferred through the nut body, which is manually positioned onto the main thread.
- A washer distributes the force while also protecting the flange face from damage.
- The combined axial force from multiple jackbolts and the opposing reaction from the main bolt head generate a powerful clamping force on the flange.
- The force applied by the jackbolts creates an equal reaction force in the main bolt, maintaining a balanced and secure connection.

#### **Specifications**

• Dimension Range: M16 - M160 (3/4" - 6")

• Temperature Range: -50° to 650°

• Approximate Bolt Stress: Depending on Size: 15 to 175 ksi

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## **Key Features**

- · Reduces thread galling often caused by direct-torque methods
- Fits in restricted areas
- Minimal maintenance required
- Quick installation and removal using only hand tools
- · Minimizes risk of gasket compression, leakage, and joint failure
- Tensioners are marked for full traceability
- Custom solutions for every application

### Tension V. Torque

Bolt tensioning uses direct tension to ensure a more accurate and uniform preload by eliminating the uncertainties introduced by torque, such as rotational forces and friction. The integrity of the fastener, joint, or equipment is extended by avoiding the torsional stress associated with torque methods. Nord-Lock tensioning products are also designed with safety in mind, using smaller or remotely operated tools to apply preload on larger bolts. Ideal for critical applications where joint integrity is crucial, bolt tensioning offers superior reliability and repeatability.

#### Quality

Superbolt Multi-Jackbolt Tensioners can be supplied at any quality requirement, including 10CFR21, 10CFR50 Appendix B, ASME Section III, NCA 3300, NQA-1, ANSI N45.2, ISO 9001:2015, EPRI NP-5652, TR-102260, TR-017218-R1, MIL-1-45208, MIL-STD-45662, and MIL-STD-271.

## **Typical Applications**

- Valves
- Heaters
- Manways
- Pumps
- Turbines
- Shaftline Couplings
- Generators
- Boiler Feed Pump

- Circulating Pump
- Stay Rods
- Stop and Throttle Valves
- Heat Exchanger Heads
- Pipe Flanges
- Anchor Bolts
- Blow-Out Preventors
- Fracturing Pumps

