

THE SOLUTION TO BOLTING PROBLEMS



SUPERBOLT®

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Why Superbolt® Tensioners?



An Old Problem:

Large diameter bolting presents several problems. The strength of a screw fastener increases with the square of its diameter, however, the torque required increases with the third power.

Because of this, bolts with a diameter greater than 1 inch cannot be effectively torqued to capacity with hand tools. Achieving proper preload levels

requires some form of high energy equipment.

Slugging wrenches and crane wrenches are dangerous and thermal tightening can be time consuming. Hydraulic wrenching can be expensive, time consuming, inaccurate and can lead to thread galling. Hydraulic tensioning also shares some of these problems and adds problems with field retrofit.



Hydraulic Tensioning



Hydraulic Wrench



Thermal Tightening



Crane Wrench

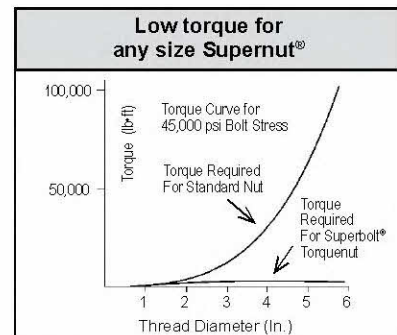


Sledgehammer



The Simple Solution:

Superbolt® Tensioners are designed as direct replacements for standard bolting. They can be threaded onto a new or existing bolt, stud, threaded rod or shaft. With our products, bolting is fast, safe, easy and accurate.



Benefits:

Only Hand Tools Required

Standard torque wrenches/small air tools can generate higher bolt tensions than any other bolting method available.

Time and Labor Savings

Vast time savings during installation/removal have been realized. Multiple workers and air tools can be used for even faster installation and removal.

Holding Power

Superbolt® products will not loosen on properly designed joints when correctly torqued. Prestressed tensioners on bolts or studs remain tight on vibrating, pulsating, or reciprocating equipment, eliminating downtime due to bolting.

Safe To Use

Eliminate common injuries associated with other bolting methods. Our products can be used in awkward locations such as overhead bolts, on top of large equipment, and also in hazardous environments such as nuclear power plants.

Accurate Preload

Our products provide precise tightening control, which is critical for sensitive applications such as gasketed flanges. Consistent tension from stud to stud is achieved.

Fits In Restricted Areas

Most applications can utilize standard Superbolt® products. However, specials can be designed to fit a wide variety of limited space applications.

Flexing - Adds Elasticity

Superbolt® Tensioners add elasticity to any bolted joint (see page 22). The joint becomes more resistant to thermal or dynamic cycles.

Flexing Can Eliminate Bolt Breakage

Flexing removes stress concentrations in the first few threads. Precise load control and reduced thread stress can eliminate bolt breakage problems.

Tightens In Pure Tension

Thread galling and stud seizure is eliminated due to tightening in pure tension. This prevents the difficulties associated with removing frozen studs.

Economical / Reusable

Superbolt® products are simple mechanical devices which cost comparatively less than other bolting methods.

