

AEHH Presents

Torque vs Tension Cart

Large diameter fasteners often require physically demanding, labor intensive installation tactics such as; induction heating, giant cheater bars, sledge hammering or heavy and bulky hydraulic wrenches. The problem is that even with these tactics, often the bolts still are not tightened accurately or require a routine check to ensure they are not loosening. This is commonly experienced when building and maintaining large factory equipment like Presses, Blowers, Pumps, Motors, Gearboxes and many other pieces of equipment with large diameter nuts and bolts.



AEHH offers solutions through BOLTIGHT, DUROFIX, NORD-LOCK and SUPERBOLT that will insure that your fasteners stay secure until you want them to be removed. The most effective way to explain this is by using our Torque vs Tension cart where we tighten a 1.25" diameter nut using torque and pure tension. This shows the difference in load generated by a 3/4" battery impact wrench limiting the applied torque on a 1.25" fastener to 500 FT LBS, generating a load of roughly 10,000 LBF. A SUPERBOLT GT tensioner at 20 FT LBS jackbolt torque, generating a load of roughly 30,000 LBF. The Superbolt tensioner allows you to use simple hand tools decreasing the torque input by 96% to create 3X the preload!

Check out how it works on the opposite side!

Why 500 FT LBS result in such less load?

While this is the most common method to secure large diameter fasteners, it also proves to be the most difficult and inconsistent. 90% of your force generated is lost between friction under the bolt head and during the rundown. This is why such large power tools are required to perform these tasks. Many applications allow for a battery impact wrench to access the bolts and in those situations, DUROFIX has ½, ¾" and 1" Drive 60V Tools that can generate up to 3000 FT LBS of torque to keep your fasteners secure.

Torque can generally control your preload generated within a 30 – 50% Tolerance.



Why 20 FT LBS with Superbolt result in such greater load generation?

The Superbolt tensioner stretches the stud or bolt under pure tension. This means the fastener is being stretched without torsional influence. The result is a faster, easier, and more accurate load generation with 96% reduction in effort. When you are securing fasteners with thread sizes from 0.75" – 22.00" or M16 – M500, Superbolt is without question the most accurate and safest way to secure those bolted connections.

All tensioners are designed to control preload from 5-10% even on large custom sizes.



Contact us today to schedule a time for our sales group to bring the Torque vs Tension Cart to your location!

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