For industrial bolting, tight is not good enough

HYTORC

When HYTORC was founded more than 40 years ago, tight was when the nut stopped turning. While this led to time-consuming maintenance down the road, there were not many other options available, so loosened nuts, unexpected shutdowns and flange leakage were considered to be part of the normal operation of a plant.

When HYTORC introduced the first hydraulic-powered multiplier, the game began to change. For the first time, nuts could be turned until they were too tight. With this, HYTORC began to focus on bolt load, instead of torque. Most hydraulic torque wrenches can achieve accurate torque within 3 percent, but even when the same exact torque is applied to each nut, the bolt load can vary greatly across the flange, and this can lead to much bigger issues.

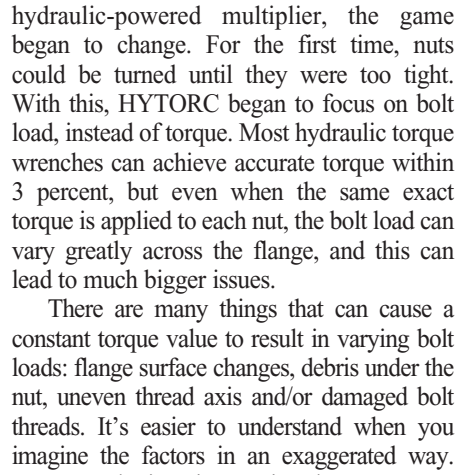
There are many things that can cause a constant torque value to result in varying bolt loads: flange surface changes, debris under the nut, uneven thread axis and/or damaged bolt threads. It's easier to understand when you imagine the factors in an exaggerated way. For example, imagine turning down two nuts with equal torque, but one has rough sandpaper underneath and the other is turning on a perfectly smooth surface. With the exact same torque, the one with sandpaper underneath will have less bolt load than the other. While you may not find sandpaper on your flange, take a close look, and you will usually see some varied imperfections under the nut seating areas.

HYTORC offers two tensioning systems that can overcome the variables that affect the final bolt load. For the first time in bolting history, you can set the desired load and achieve that load within 5 percent across the entire flange, without heating or post-tension measuring. This even and accurate bolt load is what allows HYTORC to offer a money-back guarantee on the system. If your flange is not completed faster and safer than ever before, with no leaks upon start-up, you don't pay for the job!

The patented HYTORC tensioning systems are based on fasteners known as the HYTORC Nut™ and the HYTORC Washer™. These systems are currently being used by every major energy company in countless locations around the world. Additionally, breakthrough independent studies have confirmed HYTORC tensioning systems are the safest option on certain OEM equipment and retrofit applications.

Aside from the incredible accuracy and the performance guarantee, the HYTORC tensioning systems have also been proven to reduce job time by at least half over any other bolting system. In several cases, where the HYTORC Washer was used on multiple applications during an outage, more than 24 hours of time was saved in the total bolting job time. What is an extra day of operation worth in your plant?

For more information, contact HYTORC, division of UNEX Corp., at 333 Route 17, Mahwah, N.J., 07430, call (201) 512-9500 or email info@hytorc.com. ●



The hands-free HYTORC Avanti™.