

Torque and Tension Systems for the

# STEAM INDUSTRY

Applications and Case Studies  
for the Steam Industry



**24 Hour SERVICE**

**800-FOR-HYTORC**

[www.hytorc.com](http://www.hytorc.com)

**HYTORC**<sup>®</sup>  
Since 1968

333 RT. 17 N. MAHWAH, NJ 07430



## Hands-Free Remote Operation on Horizontal, Vertical & Inverted Applications.

### HORIZONTAL JOINT



**SAFE BOLTING:** Exposure to high pressure bolting equipment is a thing of the past. Hands-Free Remote Operation on horizontal, vertical and inverted applications.

### STEAM TURBINE



IN SERVICE FOR 14 YEARS WITH THE HYTORC-NUT  
**DISASSEMBLY TIME, FREE OF INJURY:** 4 HRS 26 MIN.  
**ASSEMBLY TIME WITHOUT A SINGLE NUT REPLACEMENT:** 3 HRS.

### COMPLETE LP TURBINE



(82) INTERNAL/EXTERNAL BOLTS  
**OLD METHOD:** 21 HOURS 50 MINUTES - **NEW METHOD:** 3 HOURS  
**NEARLY 20 HOURS OF TIME SAVED!**

### CROSS-OVER FLANGES



**NEW METHOD:** HYTORC NUT/COLD STRETCH (60) 2" BOLTS -  
**NEW TIME:** 2 HOURS 15 MIN.  
**OLD METHOD-PREVIOUS TIME:** 5 HOURS  
**NEARLY 3 HOURS OF TIME SAVED!**

Applications set into a pocket or a counter bore situation pose a problem with conventional tooling. Standard drive extensions and machined down accessories compromise the safety of the operator! The design and the mechanics of the HYTORC Nut™ allows positioning of the torque wrench away from the conflict area!

### 4 TYPES OF HYTORC NUT™

The HYTORC NUT™ is the highest level of bolting optimization. By replacing the nut with one that turns in itself at a known friction, with no side load or torsion, bolt stretching to the desired bolt load has become reality. For all critical applications and the ultimate in peace of mind!



The CN line offers users the speed of regular torque with unmatched repeatability and precision.

TN Series Clamps combine durability, efficiency & the ability to fit in tight spaces.

The SN Series clamp line covers a wide range of sizes and applications, specified to overcome tight overhead restrictions.

The Smart Stud's compact geometry makes it a suitable replacement for any fastener regardless of load or temperature.



### 1 TRADITIONAL TORQUE

Traditional torque can be applied with a standard reaction arm or custom reaction fixtures.

### 2 HANDS-FREE TORQUE

Safe, accurate and hands-free; adding the HYTORC Washer™ under your hex nut eliminates the need for reaction arms and backup wrenches.

### 3 LOAD ACCURATE TENSION

The HYTORC Nut™ replaces traditional hex nuts for the highest level of load accuracy available today. Achieve straight-pull tensioning without hand torquing, applying heat or taking measurements.

### MAIN STOP VALVES



**NEW METHOD:** HYTORC NUT/COLD STRETCH (16) 2-3/4" BOLTS - **NEW TIME:** 35 MIN.  
**OLD METHOD-PREVIOUS TIME:** 4 HOURS 30 MIN.  
**NEARLY 4 HOURS OF TIME SAVED!**

### BOILER FEED PUMP MAIN HEAD



**NEW METHOD:** HYTORC-NUT/COLD STRETCH (16) 2-1/2" BOLTS - **NEW TIME:** 1 HOUR 20 MIN.  
**OLD METHOD-PREVIOUS TIME:** 8 HOURS 10 MIN.  
**NEARLY 7 HOURS OF TIME SAVED!**