

# WIND POWER

Torque and Tension Systems for  
Wind Energy Projects Worldwide



## Innovative Tool Technology & Wind Power Solutions



**24 Hour SERVICE**

**800-FOR-HYTORC**

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

**HYTORC™**

**WIND, LLC**

218 Island Rd., Mahwah, New Jersey 07430

## TORQUE/TENSION TOOLS



### AVANTI™ SERIES MULTIFUNCTIONAL SQUARE DRIVE TOOL

The AVANTI™ sets the trend for hydraulic tools. For the first time, a square drive torque wrench can be used for torque as well as tension. This makes hydraulic tensioners unnecessary. The AVANTI™ sets new standards in job safety and works on any bolting application, hands-free, with the push of a button. Only one technician is needed to tighten and loosen even complex inverted bolting applications.

### TRADITIONAL TORQUE

Traditional torque can be applied with a standard reaction arm or custom reaction fixtures. The reaction arm connects at the square drive to prevent internal torsion, which can reduce the life of the tool.



### 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.

### LOAD ACCURATE TENSION

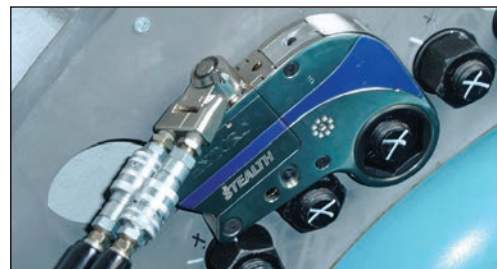
The HYTORC Nut™ replaces traditional hex nuts for the highest level of load accuracy available today. Achieve straight-pull tensioning with less than 10K psi without hand torquing, applying heat or taking measurements.



### STEALTH™ SERIES MULTIFUNCTIONAL LOW CLEARANCE HEX LINK TOOL

The STEALTH™ tool has the same height as the hex link and is equipped with a dual piston system which increases the bolting speed tremendously.

When the tool operates in the low torque range, only one of the two pistons is engaged so the high oil flow of the HYTORC® hydraulic pumps can be converted into the perfect bolting speed.



### TWIN-TORQUE™ TOOL SYSTEM TWICE THE SPEED WITH NO BOLT GALLING & NO PINCH POINTS



Twin-Torque™ is the simultaneous use of two tools connected with a patented, adjustable inter-reaction fixture.

This system cuts bolting time in half while increasing safety and reducing damage to bolt threads.

With no external reaction, there are no dangerous pinch points and operator safety is dramatically increased.



## MECHANICAL TENSIONERS



### HYTORC NUT™ SERIES

The HYTORC Nut™ is the modern day replacement of multi-jack-screw nuts and hydraulic bolt tensioners for a hands-free safe bolt load accuracy within 7%!



### HYTORC WASHER™ SERIES

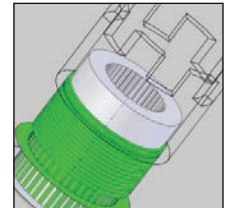
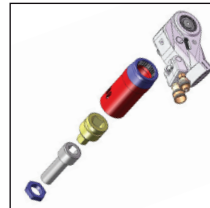
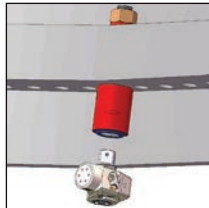
A cost effective way to remove the need for external reaction arms and backup wrenches. This improves operator safety and makes it possible to achieve calibrated bolt load accuracy without measurements.

## ENGINEERING SUPPORT & CAD SERVICES

### High-capacity CAD-Systems ensure perfect results before mass production starts.

HYTORC provides CAD-data and helps with design engineering. We can provide 3D drawings in all of the most common file formats. We have trained, experienced technicians, specialized equipment and engineering support available to evaluate, develop and implement bolting programs for all types of applications.

- Industry leading innovation team to bring your ideas to life
- Customized wrenches to fit your needs
- A project office that hears your request
- Quality development thanks to new CAO (Computer-Aided Optimization) techniques



## CALIBRATION SERVICES

### Our calibration service enables you to verify the torque applied by your wrench

Our calibration service enables you to verify the torque applied by your wrench. We can issue a verification certificate including calibration after disassembly and lubrication of your wrenches. On-site calibration is available in many areas - visit [www.hyorcvan.com](http://www.hyorcvan.com) for more information.



### PERRY JOHNSON LABORATORY ACCREDITATION

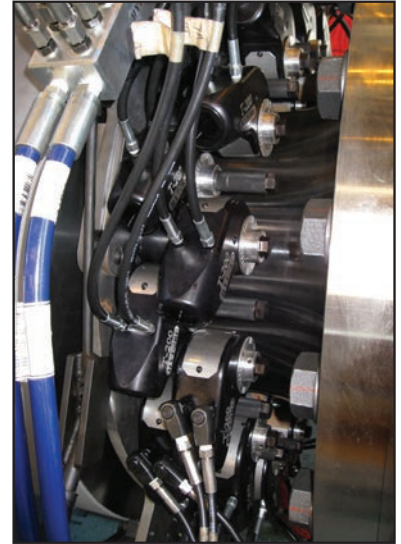
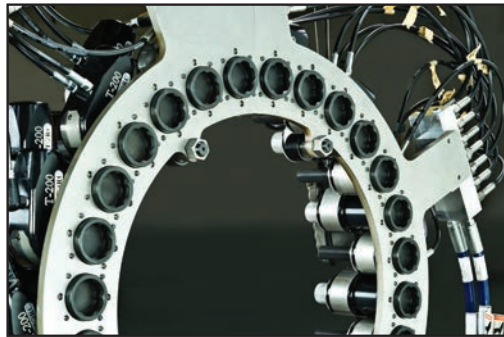
HYTORC is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005



## MULTI TOOL SHRINK DISC CUSTOM APPLICATION

When a wind turbine manufacturer was looking to cut down an assembly time of nearly 9 hours for the shrink disc connection, they contacted HYTORC for a solution.

The shrink ring has multiple torque tools that operate simultaneously. The ring eliminates long assembly processes and bottlenecks in the manufacturing environment.



## HYDRAULIC DATA RECORDING UNITS



DOCUMENTATION CASE FA1

The Documentation Case is an external data recording device. It is used for gauge calibration and for recording bolting data. Data can be saved to a USB memory stick or printed out.

### FEATURES

- Fully Automatic Operation
- External Documentation Case
- Connects directly to Hydraulic Pump
- Remote Control
- Data can be saved to USB memory stick
- Data can be printed out



JETSTREAM 115/230-TASD SCAN/DOC. PUMP

For Torque-Controlled tightening and Torque & Angle-Controlled tightening.

### FEATURES

- Three-stage hydraulic unit
- Class 1.0 analog gauge
- Fully-automatic function
- Oil cooler
- One (1) tool, fully-automatic shutdown when torque/angle is reached
- Shutdown signal: via optical display and sound
- Data entry via remote control and/or **barcode scanner (Patent pending)**
- Output report on USB flash drive; can be tailored to customer requirements
- Voltage: 115/230 Volt, 50-60 Hz, 1 ph
- Dimensions (L x W x H) mm: 490 x 280 x 390, inches: 19 x 11 x 15
- Weight excluding oil: 28 kg, 61 lbs.
- Remote control: 24 Volt, cable length 5 m or 15 ft.