



**HYTORC**  
**Barbarino & Kilp GmbH**

Justus-von-Liebig-Ring 17  
D - 82152 Krailling / München – Germany

**Telefon: +49 (0) 89 / 230 999 - 0**

**Telefax: +49 (0) 89 / 230 999 - 12**

**E-Mail: [info@hytorc.de](mailto:info@hytorc.de)**

**Internet: [www.hytorc.de](http://www.hytorc.de)**

**Internet: [www.devotec.de](http://www.devotec.de)**

**Internet: [www.vt-forum.de](http://www.vt-forum.de)**

### **Hydraulic and pneumatic Bolting-Technologies from 60Nm to 190.000 Nm for safety, quality and schedule**

Since 1968 HYTORC is the worldwide leading brand-name for mobile hydraulic and pneumatic Bolting-Technology beginning from 60 Nm to 190.000 Nm. Also HYTORC is one of the world's leading brand names in torque-controlled, precision pre-tension bolting technology. Renowned industrial companies trust our competence in providing all-round solutions, high-quality products, and consistent customer service. Our numerous patents demonstrate our innovative lead in the market, and stand for proven added value in sustainable cost-utility optimisation. They also exemplify our endeavours towards attaining process and work safety.

#### **HYTORC Technology:**

- Eliminates hazardous Reaction Arms, Backup Wrenches and Pullers
- Assures hands-free bolting from a safe distance even on inverted jobs
- Reduces disassembly time in excess of induction heating
- Features the only Torque/Tension tool for the highest cost efficiency
- Provides unprecedented, measurement-free bolt load precision of less than 10%
- Guarantees leak- and failure-free joints on startup or your money-back.

Recent recommendations by ASME and TUV suggest the use of a washer underneath all nuts to better control turning friction and to avoid surface galling. To meet these recommendations, HYTORC made the usual washer more accommodating for hydraulic and pneumatic torque tools. Reaction arms and backup tools are eliminated, safety, speed, job and tool reliability are optimized to the point that the usual 1 year HYTORC tool warranty is extended to 3 years when used in conjunction with the HYTORC-Washer = DISC.

**HYTORC hydraulic Square-Drive or Low Clearance Ratchet-Tools:** Multifunctional tightening and stretching with eight different tightening processes in one tool for reliable, durable bolted assemblies Hands-free, safe tightening with the CLAMP™ stretch nut or the DISC™ reaction washer – including overhead, and with several tools at the same time Torque continuously adjustable from 150 to 190,000 Nm. This innovative multifunction stretch & torque wrench is compact and very easy to use.

**Conventional Tightening:** Conventional calibrated torque-controlled tightening of standard nuts with reaction arm, inline rails or customised arms.

**Tightening with the DISC:** Hands-free, safe tightening of standard nuts with precise preload force by remote control without the need for reaction arms or retainers. The tool can be suspended for overhead applications.

**Tightening with the CLAMP or SmartStud:** Calibrated, precise stretching of standard bolts: torsion and side load-free, reaction-free, fast and repeatable with maximum preload force accuracy.



**HYTORC-Simultorc**: Instant, durable sealing of flange joints. The even, gentle load on the seal and flange plates ensures optimum sealing of the flanges. This is a major contribution to compliance with TA Luft requirements (German Clean Air Act).

**Comprehensive Documentation**: Quality hydraulic pumps with a documentation option allow torque-based, torque-controlled/rotation angle-monitored, torque/rotation-angle and yield point-based assembly processes to be carried out reliably on the basis of pre-configured parameters.

With the **SmartPump**, the first mobile hydraulic pump for controlling and documenting all modern bolting-joint procedures like Torque-controlled-; Torque-controlled rotation angle-monitored-; Torque/rotation angle-controlled- and Yield point-controlled process. HYTORC offers a solution which is both practical and safe. The pump was developed as a drive unit for hydraulic torque wrenches of up to 85,000Nm, and its integrated  $\mu$ Controller logs every bolting-procedure on site without the need for a computer on the field.

**The new HYTORC J-GUN** air torque precision Wrench fulfils all of the demands relevant to industrial activities. The required torque is set using a small ground maintenance unit; the torque is attained with a high level of accuracy. When the required torque is reached, the Wrench stops automatically. The torque is applied smoothly and continuously. This means that no impact energy is created when using the HYTORC air torque Wrench and the user is not exposed to any hand or arm vibrations. It also means that rust or dirt particles do not so easily become detached from the screw, and are unable to cause injury, particularly to the eyes. Noise emissions are well below 78 dB(A), meaning that no noise protection measures are necessary when working with the **HYTORC J-GUN**. The patented reaction sleeve ensures that it remains on the current screw in working mode and does not spin in an uncontrolled manner. The unit is bidirectional and can therefore also be used to remove screws. The working speed of the precision Wrench is in line with that of other impact Slugging Wrenches.

**PROJECT AND SYSTEM ADVICE**: Major projects call for working in partnership. Our service packages and wide variety of services make us reliable partners for industry.

**24 HOUR CUSTOMER SERVICE**: Good products deserve the best service, and that's what you get, both from our headquarters and directly on site from our field service. Reliable and fast. Service hotline within Germany: +49 (0)800/500 58 88, service telephone number from outside Germany: +49 (0)89/23 09 99-0.

**CAD DESIGN CENTRE**: Powerful CAD systems give perfect results before the start of series production. We make CAD data available and provide design support.

**MEASUREMENT AND TEST CENTRE**: Theory and practice have to be right. To make sure they are, we use simple, reliable methods to determine the preload forces in bolted assemblies and check torque and rotation angles.

**TRAINING**: Trained staff give you a competitive edge. That's why we offer tailored training courses and practical seminars – including some in accordance with EN 1591 Part 4 – at our HYTORC Competence Centre in Augsburg (Bäckergasse 8a, Town Centre) or next to your facility.

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