

HYTORC

The World's Most Trusted Industrial Bolting Systems

SERVICES BROCHURE

333 Route 17 N.
Mahwah, NJ 07430
USA

800-FOR-HYTORC
(800-367-4986)
201-512-9500

sales@hytorc.com
hytorc.com

TABLE OF CONTENTS

HYTORC Flange Manager	1
Calculation Engine	1
Tightening Specifications	1
Tool Selection	1
Joint Integrity Review	1
Documentation	1
HYTORC Mobile Services	3
Free Loaner Tools	3
Digital Calibration System	3
Fully Equipped Van Fleet with On-Board Repair Center	3
HY-CARE	4
HYTORC Equipment Rental Program	5
Total Satisfaction Guaranteed	5
Custom Engineering	6
HYTORC Bolting Institute (HBI), ASME*, and OSHA	7
HBI Courses and Certifications	8
HBI Course Curricula	8
ASME-Qualified Bolting Specialist (AQBS)	9
AQBS Flange Kits	9
AQBS Accessories Kits	10
AQBS Tool Kit	10
Mission Statement	11



HYTORC FLANGE MANAGER

The HYTORC Flange Manager is the industry's leading provider of bolted-joint integrity solutions. This bolted joint management software supports HYTORC tool operators to construct and maintain their assets more safely, more efficiently and more cost effectively.

The Flange Manager is the only software on the market that derives its bolt load calculations from the very latest standards (ASME PCC-01 & Energy Institute guidelines), placing power in the hands of HYTORC clients to make quick and safe engineering decisions.

CALCULATION ENGINE



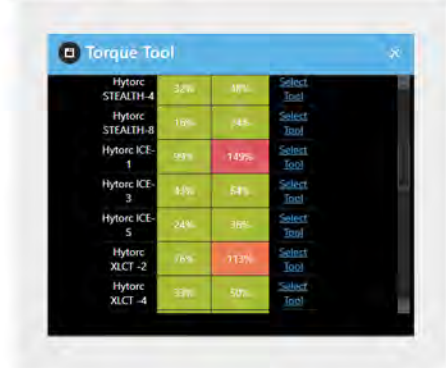
Users can carry out quick and safe calculations across thousands of combinations of flange/gasket/fasteners.

TIGHTENING SPECIFICATIONS



Instant calculation of recommended bolt-load requirements and individual tool settings and tightening pattern.

TOOL SELECTION



Users are given the option to select from the whole range of HYTORC tools.

JOINT INTEGRITY REVIEW



Unique Joint Integrity Review gives simple and clear indication of stress levels for all components during assembly and into operations. Engineering warnings give immediate advice on integrity of joint. Vastly reduce the risk of hydrocarbon leakage and damage to the flange components over time.

DOCUMENTATION



Produce auto-populated joint documents for tightening reports and procedures.



HYTORC MOBILE SERVICE

HYTORC offers mobile service, maintenance, and training to get you and your tools back on the job faster than ever before. Our on-site training and preventative maintenance ensures all of your equipment is ready when you need it and that your tool operators are trained in safe handling and operation.

FREE LOANER TOOLS



We know that your time is valuable. If a replacement tool is needed for an urgent job while your tool is being repaired, it is available free of charge.

DIGITAL CALIBRATION SYSTEM



Our mobile calibration lab provides on-site calibration of manual torque wrenches as well as hydraulic, pneumatic and electric tools with torque output up to 20,000 ft.-lbs (27116 Nm). For calibration of larger tools, our service technicians offer pickup and drop-off service.

VAN FLEET FULLY EQUIPPED WITH ON-BOARD REPAIR CENTER



Our technicians are trained to repair most brands of hydraulic, pneumatic and electric bolting systems on-site. If a repair cannot be completed, a free loaner tool will be offered while your tool is sent to our nearest service center for repair. Schedule a free visit today at: www.hytorcvan.com.



HY-CARE

HY-CARE Service Plans* provide peace of mind protection and offer a no deductible plan to protect you from unexpected bolting equipment repair costs and downtime after your standard equipment warranty expires.

The plan covers parts and labor to repair all key components for up to 5 years. Failure of covered components due to defects in materials, workmanship, or normal wear and tear are included. All repairs are performed on-site by factory trained technicians. **HY-CARE Extended Service Plan** coverage includes 24 hour loaner equipment benefits and mobile service assistance backed by our 24/7/365 live support throughout entire term.

WHAT ARE THE BENEFITS?

- Access to our 24/7/365 worldwide live support
- Greater tooling reliability that leads to:
 - Safer jobsite
 - Better joint integrity
 - Faster joint assembly
- Faster repair turnarounds with mobile service and free loaner tool program
- Maximum trade-in value
- Greater visibility on tooling service history through our TORCSAFE online portal and inventory management system

HY-CARE PREMIUM

HY-CARE PLUS

HY-CARE

*May not be available in all locations.

Please visit hytorc.com/hy-care or contact your local HYTORC representative for more information. Never settle for less.



HYTORC EQUIPMENT RENTAL PROGRAM

From individual tools to customized bolting systems, HYTORC has the largest stock of rental equipment in the industry, available worldwide. Strategically located at service centers around the globe, our experienced representatives will work with you to determine the most cost-effective solution for your job. Your HYTORC rental also entitles you to a free safety and operational training to ensure that your crew gets the most out of each rental. With over 50 years of experience in this industry, you can rest assured that we have a solution for your bolting challenge!



TOTAL SATISFACTION GUARANTEED

- 100% rental credit* towards purchase
- Rent only the equipment you need on a daily, weekly or monthly basis
- Complimentary safety and operational training with all rentals
- Worldwide availability of all bolting systems
- Improve safety, speed, and accuracy with custom tool kit rentals
- Tool containers for large jobs are available for monthly rentals
- All rental equipment is inspected and re-certified before its next rental

*All rental credits are available to use within six months after the rental.



CUSTOM ENGINEERING

With over 50 years of experience dedicated to industrial bolting, we have solved almost every bolting challenge imaginable. Let our engineering team show you the possibilities. For the highest level of productivity improvement, HYTORC offers free engineering consultation to propose the most efficient solution for your bolting challenges. After an on-site survey with application measurements or shared CAD files, our engineering team will design a solution custom fit for your job. Upon completion of design, an FEA analysis and other computer-assisted stress testing will ensure durability and longevity of the solution, and a 3D printed mock-up will be created to test operation and fit. Once the design is perfected, the final product will be tested thoroughly under load to assure safe and efficient operation on the job.

HYTORC
Bolting Institute

+

ASME
SETTING THE STANDARD



HYTORC BOLTING INSTITUTE (HBI)

HYTORC has a goal to educate all those engaged in industrial bolting in the principles and practices that significantly improve safety, quality, and efficiency of bolting operations. We regularly conduct training classes that are designed for a variety of job functions ranging from operators and technicians to managers and engineers. Classes range from a few hours to a few days and can be customized to meet your schedule and specific application focus. In most cases we bring the class to you in order to make training as convenient and economical as possible. HBI offers free courses in Bolting Basics and Basic Operation and Safety and formal fee-based training with certificates from ASME* and OSHA*.

*ASME and OSHA are registered and used with permission.



HBI COURSES AND CERTIFICATIONS

HYTORC offers various levels of training from free on-site and web-based training to OSHA-certified and ASME-approved bolting courses. Well-trained tool operators are not only safer, but have also been proven to get the job done faster and more accurately than an untrained or poorly trained counterpart. Many companies are now requiring the completion of certain levels of training for tool operators before they are permitted to work on the job. Whether it's a simple on-site training on safe and proper tool handling or a comprehensive classroom training, HYTORC is your partner for improving productivity.

HBI COURSE CURRICULA

COURSE ID	HT 101	HT 102	OSHA 7110	AQBS	ASME PD577
COURSE NAME	Bolting Basics	Basic Operation and Safety School	Safe Bolting Principles and Practices	ASME-Qualified Bolting Specialist	Bolted Joint Assembly Principles
COURSE DURATION	2 hours	2-4 hours	8 hours (1 day)	20 hours (12 hours online plus 8 hours hands-on)	16 hours (2 days)
COST	(Please contact HYTORC for pricing. Pricing and information are subject to change without notice.)				
CLASS SIZE	No limit	5-10 students	10-20 students (max.)	Online individual and self-paced. Hands-On in groups sized 4-6.	10-20 students
CERTIFICATE	HBI Training Card	HBI Training Card	TEEX, OSHA	ASME	ASME
INSTRUCTOR	HYTORC Sales Representative or HBI Instructor	HYTORC Sales Representative or HBI Instructor	HBI Instructor and OSHA Training Instructor	HBI Instructor and ASME-Approved Training Instructor	HBI Instructor and ASME-Approved Training Instructor
LOCATION	Customer Facility	Customer Facility	Customer Facility	ASME-Approved Training Provider location	TBD
EQUIPMENT	HYTORC Tools	HYTORC Tools	HYTORC Tools	HYTORC Tools	N/A

To learn more about HBI courses and certifications please visit www.hytorc.com/bolting-institute.

ASME-QUALIFIED BOLTING SPECIALIST (AQBS)

The AQBS Program qualifies bolting personnel based on criteria in ASME PCC-1 Guidelines for Pressure Boundary Bolted Flange Joint Assembly. The training exposes participants to the very latest bolting tools, fixtures, instruments, materials and standard ANSI/ASME flanges configured to train personnel according best current practices. HYTORC makes all of the tools, flanges and accessories used in this training program available as kits to those interested in training at their own facility and/or with their own instructors.

AQBS FLANGE KITS



The AQBS Flange Kit provides a complete solution for training on standard ANSI/ASME flanges according to ASME PCC-1-2013. The kit (pictured here) offers a compact and mobile test fixture with multiple flanges for flexible and comprehensive instruction. The flange kit provides the following training configurations:

- (2) ANSI/ASME Class 600 Flanges, raised face, 16 holes for 1-1/4" bolts, used for assembly with spiral wound gasket
- (1) ANSI/ASME Class 300 Flange, raised face, 12 holes for 3/4" bolts, used for assembly with spiral wound gaskets
- (1) Rectangular flange, 4 holes for 1-1/2" bolts,
- Mounting for Skidmore Torque-Load measurement
- Mounting for Norbar Torque verification instruments
- Mounting space for other test instruments

This kit is used for training on Hydraulic, Pneumatic, Electronic and Manual Torque Tools, Mechanical and Hydraulic Tensioning and Gasket Sealing.

Model Number	Description	Usage
AQBS-FK1D	Flange Kit	Equipped with integrated davit arm to position flanges

AQBS ACCESSORIES KITS

HYTORC provides a full range of accessories for use with the AQBS flange kit and associated AQBS training tools, procedures and courses.

Model Number	Description	Usage
AQBS-BK1A	Bolt Kit	Kit contains all nuts and bolts for assembling the AQBS flange kit in these sizes: 1-1/4", 3/4", and 1-1/2"
AQBS-SKID1A	Skidmore Test Unit	(1) Skidmore Test Unit for Torque-Load exercises
AQBS-SKID-GK	Skidmore Gasket Kit	(1) Compression Plate, (8) PTFE Gaskets, (8) Hochdruck Gaskets
AQBS-SKID-FK	Skidmore Fastener Kit	(50) 3/8" Fasteners, Bolts, Nuts, Washers
AQBS-TC1A	Norbar Test Unit	Torque Check Plus - Torque-load verification unit
AQBS-GK1A	Gasket Identification Kit	Sample of 11 most commonly used gaskets.

AQBS TOOL KIT



The AQBS Tool kit is configured to provide all the Tools and materials that will allow training centers or organizations to quickly conduct training to the ASME Qualified Bolting Specialist criteria in PCC-1-2013.

- (2) Manual torque wrenches
- Assorted manual tools and measurement instruments used in the course of training exercises
- (4) STEALTH® Hydraulic Torque Wrenches
- (1) ICE® Hydraulic Torque Wrench with drives for standard torque and mechanical tensioning
- (1) HY-115 Hydraulic pump, oil, and hoses
- (1) jGun® Pneumatic Torque Tool and Filter Regulator Lubricator for pneumatic torque exercises
- (1) LITHIUM SERIES® Electric Torque Tool
- (1) Hydraulic Tensioner air-driven pump & hoses
- (8) Hydraulic Tensioners and hoses
- (1) Manual Hydraulic Tensioning pump
- (1) Skidmore Unit, initial fasteners and gaskets
- (1) Norbar Unit
- (20) HYTORC Reaction washers and (20) Back washers
- (1) HYTORC Nut & Driver for mechanical tensioning
- (3) Spiral Wound Gaskets for Sealing
- (11) Different gaskets for gasket training
- Lubrication and cleaning materials
- All tool sockets, drivers and accessories to carry out the training exercises
- Personal Protective Equipment (PPE), gloves, glasses, ear protection, hard hats, etc.

Model Number	Description	Usage
AQBS-TK1A	Tool Kit	KNAACK Box containing a complete set of bolting tools, Instruments and initial materials for conducting training on bolting operations with the AQBS flange.

MISSION STATEMENT



OUR MISSION IS TO OPTIMIZE SAFETY, QUALITY AND SCHEDULE IN INDUSTRIAL BOLTING THROUGH INNOVATIVE SOLUTIONS AND AN UNYIELDING COMMITMENT TO WORLD CLASS CUSTOMER SERVICE.

WITH OVER 50 YEARS OF EXPERIENCE FOCUSED ENTIRELY ON DEVELOPING THE HIGHEST QUALITY INDUSTRIAL BOLTING SYSTEMS, HYTORC IS THE MOST TRUSTED NAME IN THE INDUSTRY.

HYTORC WORLD HEADQUARTERS

333 Route 17 North, Mahwah, NJ 07430 • +201-512-9500 • 800-FOR-HYTORC



THE HYTORC UNIVERSE IS MADE UP OF
OVER 1,000 TRAINED BOLTING SPECIALISTS
TO SUPPORT YOUR BOLTING NEEDS IN
OVER 100 COUNTRIES.

Locate your nearest HYTORC representative:

[HYTORC.COM/WORLD](https://www.hytorc.com/world)