

HBI CERTIFIED TRAINING COURSES



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*.

To get in touch with a certified HBI instructor, email us at: training@hytorc.com.

HBI COURSE CURRICULUM (Continued on following page)

HT 101 - BOLTING BASICS

Duration	2 hours	Course Topics		Cost
Class Size	No limit	<ul style="list-style-type: none">• Introduction to HYTORC and HBI• Bolt properties• Tightening w/ torque• Reaction forces• Friction & lubrication• Washers• Pressurized joints• Parallel Joint Closure• Power torque technology• Safety• Bolting demonstration		(Please contact HYTORC for pricing. Pricing and information are subject to change without notice.)
Certificate	HBI Training Card			
Instructor	HBI Instructor			
Location	Customer Facility			
Equipment	HYTORC Tools			
Audience	Anyone interested in an overview of bolting principles, practice and technology			

HT 102 - BASIC OPERATION AND SAFETY SCHOOL (BOSS)

Duration	2-4 hours	Course Topics	Cost
Class Size	5-10 at a time (typical)	HYTORC provides product training for each new delivery of equipment. This BOSS course provides customers with an orientation on the new equipment and ensures that everyone who will use the equipment gets hands-on training under experienced supervision.	(Please contact HYTORC for pricing. Pricing and information are subject to change without notice.)
Certificate	HBI Training Card		
Instructor	HYTORC Sales or HBI Instructor		
Location	Customer Facility		
Equipment	HYTORC Tools		
Audience	Anyone responsible for operating or supervising the use of HYTORC Tools		

*ASME and OSHA are registered and used with permission.

OSHA 7110 - SAFE BOLTING PRINCIPLES AND PRACTICES

(HYTORC EQUIVALENT: HT-200)

Duration	8 hours (1 day)	Course Topics		Cost
Class Size	10 (minimum) to 20 (maximum)	<ul style="list-style-type: none">• Overview• Principles of Bolting• Flanges• Structural Joints• Standard Fasteners• Structural Fasteners• Gaskets• Tightening w/ Torque• Tensioning• Bolting Patterns• Keeping Bolts Tight• Structural Bolts• Safety• Practical Examination		(Please contact HYTORC for pricing. Pricing and information are subject to change without notice.)
Certificate	TEEX, OSHA, HBI			
Instructor	OSHA Certified Training Instructor			
Location	Customer Facility			
Equipment	HYTORC Tools			
Audience	Technicians and bolting operators; pipefitters, construction workers, boilermakers, millwrights, iron workers, mechanics, maintenance workers, equipment operators, plant managers, line supervisors, plant engineers.			

ASME-QUALIFIED BOLTED SPECIALIST (AQBS) - BOLTING PRINCIPLES AND PROCEDURES

(HYTORC EQUIVALENT: HT-300/301)

Duration	12 hours online; 8 hours hands-on instruction and evaluation. TOTAL: 20 Hours	Course Topics	Cost
Class Part 1	Online self-paced ASME.org	Part 1: Principles of Bolted Joint Assembly Part 2: Flanges, Fasteners and Gaskets Part 3: Putting it Together/Taking it Apart Part 4: Bolting Safety and Tool Handling	(Please contact HYTORC for pricing. Pricing and information are subject to change without notice.)
Class Part 2		<ul style="list-style-type: none">• Application with 6 months verified experience• Online Final Examination	
Class Part 3	Groups 4 to 6 In-person instruction and evaluation	<ul style="list-style-type: none">• Hands-On tool demonstration and testing by an ASME-authorized testing provider• 8 hour in-person training and evaluation• Practical principles of tool operation• Safety training• Demonstrate bolting tool use and assembly	
Certs / Credits	ASME / 12 PDH's		
Instructor	ASME Approved Training Instructor		
Location	ASME Approved Location		
Equipment	HYTORC Tools		
Audience	Primarily technicians and bolting operators; anyone involved in assembly, disassembly, and quality of bolted joints; pipefitters, construction workers, boilermakers, millwrights, iron workers, mechanics, maintenance workers, equipment operators - managers, supervisors, and engineers will also benefit.		

ASME PD577 - BOLTED JOINT ASSEMBLY PRINCIPLES

(HYTORC EQUIVALENT: HT-577)

Duration	16 hours (2 days)	Course Topics	Cost
Class Size	10-20 (typical)	Day 1: <ul style="list-style-type: none">• PCC-1-2013 guidelines• Role of standards and certification• Principles of safe bolting• Principles of joint reliability• Flanges, fasteners and gaskets• Principles of torque tightening• Principles of tensioning Day 2: <ul style="list-style-type: none">• Dealing with corrosion• Bolting sequence, patterns and interaction• Multiple point torqueing• Tool setup, alignment and gasket installation• Hydraulic torqueing and disassembly• Pneumatic tensioning and disassembly• Mechanical tensioning and disassembly• Practical application	(Please contact HYTORC for pricing. Pricing and information are subject to change without notice.)
Certs / Credits	1.5 CEU's, 15 PDH's		
Instructor	ASME Approved Training Instructor		
Location	TBD		
Equipment	HYTORC Tools		
Audience	Engineers and managers; anyone specifying or managing bolting needing more in-depth knowledge of bolting theory and practice; construction, plant managers, plant engineers, design engineers, project managers, and line supervisors.		

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Headquarters:
333 Route 17 N., Mahwah, NJ 07430
+1-201-512-9500

Email:
info@hytorc.com

Phone:
1-800-FOR-HYTORC

Online:
hytorc.com