

For a schedule of open enrollment classes or to bring this training to your plant or facility, contact us @

1-877-97-TRAIN

www.AmericanTrainco.com

Plumbing & Pipefitting for Plants & Buildings™

A Practical Approach to Maintenance, Troubleshooting & Repairs

Reduce Dependence On Outside Service Contractors

LEARN TO:

- Troubleshoot, Repair, Assemble & Support Piping
- Fix Common Valve Problems
- Test Wet & Dry Piping Systems
- Read Plumbing & Piping Drawings
- Test & Fix Water Pressure Problems
- Work with Backflow Devices
- Find & Follow Plumbing Codes
- Implement a Plumbing & Pipefitting Maintenance Program



- This seminar can also be presented at your facility for larger groups
- Reserve Your Space Now! Call 1-877-97-TRAIN
- Check us out online at www.AmericanTrainco.com for a complete listing of all seminars coming to your area



Real World Training...for Real World Needs™

▶ "Simple, down-to-earth explanations for everyday problems."

▶ "In just two days I was able to learn everything I needed to know about maintaining our plumbing systems."

Plumbing & Pipefitting for Plants & Buildings™

A Practical Approach to Maintenance, Troubleshooting & Repairs

PURPOSE OF TRAINING

Regardless of what type of plant or facility you operate in, plumbing and piping systems are critical to keeping your building and equipment up and running at all times. When pipes or plumbing are inoperable, it not only can effect the way an entire facility operates, but it may even shut parts of it down. The purpose of this training is to provide in-house technicians and engineers the skills they need to keep plumbing and piping systems functioning at all times and how to recognize and repair common problems found in commercial buildings.without relying on outside contractors.

We approach our students as if they were our own employees and give them the real world education they need to do their job. By the end of this seminar, students will be able to go back to their facility and immediately apply what they learned and help keep your plumbing and piping systems functioning properly and safely. Training like this never costs – it pays!

LEARNING OBJECTIVES

Upon completion of this course students will receive a training certificate and 1.4 Continuing Education Units indicating that the student has learned to:

- Identify Proper Plumbing & Pipefitting Materials & Tools
- Work Safely with Plumbing & Pipefitting
- Read Plumbing & Pipefitting Drawings and Schematics
- Find and Follow Plumbing Codes & Regulations
- Troubleshoot, Repair, Assemble and Support Piping
- Understand Test Methods for Leaks in Pipes & Valves
- Identify Various Valves & their Functions
- Troubleshoot & Repair Common Valve Problems
- Describe the Function of Various Plumbing Fixtures
- Understand Water Distribution Systems & Water Quality
- Test for Water Pressure and Flow Problems
- Understand Backflow and Protecting Potable Water Supply
- Identify Sanitary Drainage and Trap Systems
- Implement a Plumbing & Pipefitting Maintenance Program

TEACHING PHILOSOPHY

"Real World Training...for Real World Needs", is not just our slogan, but also our mission statement. At American Trainco, we approach our students as if they were our own employees. We instruct and guide them in practical knowledge that allows them to immediately go back to their workplace and apply what they have learned. Our instructors are seasoned veterans with years of *real world* experience, and the students who attend our seminars often get more from a few days of training than an entire year of reading textbooks or watching videos. How do we know? They tell us.

Anyone can teach theory, but there simply is no substitution for experience. What sets American Trainco apart is our ability to communicate that experience to our students. As one attendee told us at the end of his two-day training course, "I think I can go back to work now and teach the veterans a thing or two."

Mission accomplished.

ABOUT OUR INSTRUCTORS

All American Trainco instructors are required to have a formal education *and* real world work experience. They need to be leaders in their field. We don't hire field people without teaching experience, and we don't hire teachers without field experience. They must have both. And since attendees critique the instructor at the end of each class, a positive and enjoyable learning experience is virtually guaranteed.

TRAINING CERTIFICATE

After completion of this seminar students will receive a personalized Certificate of Completion and 1.4 CEU's (Continuing Education Units) approved by the Maintenance Training Association of the Americas.

UNAFFILIATED and NON-COMMERCIAL

Unlike some training experiences, you won't get a sales presentation at an American Trainco seminar - all

you get is an honest, commercially unbiased education. We do not engage in the practice of selling or promoting any other company's products or services, so you know that by attending one of our seminars, your time and money is well spent.

HIGH QUALITY PRESENTATIONS

Black and white transparencies never made it in the door at American Trainco. From the start we demanded that all our presentations would be lively, attractive, crisp and clear. Our instructors use state-of-the-art computers, projection equipment and software to bring you a high quality visual experience. And our books are designed with the maintenance person in mind too. We know that they don't always have a lot of time to read volumes of literature so our manuals are quick and to the point, providing students the same charts, descriptions, pictures and bulleted items they'll see in the presentation.

WHO SHOULD ATTEND

Attendees to this seminar come from a wide variety of industries, skill levels, company sizes and job titles, so if you're not sure you will fit in or will benefit from the class, don't worry – you will – as long as your job involves working around plumbing or piping. From the beginning multi-craft technician to the seasoned stationary engineer, the course successfully addresses the questions and concerns of all those who need plumbing and pipefitting knowledge, including:

- Multi-Craft Technicians
- Maintenance Technicians
- Boiler Operators & Technicians
- Stationary Engineers
- Mechanical & Millwright Technicians
- HVAC Technicians
- Pump System Engineers
- Water Treatment Engineers
- Building Engineers
- Plant / Facility Managers
- Plant / Facility Engineers
- Anyone Interesting In Improving Plumbing & Pipefitting Knowledge

Reserve Your Space Now! **CALL 1-877-97-TRAIN** Or Online at: **www.AmericanTrainco.com**

C O U R S E O V E R V I E W

Students who participate in this two-day program will walk away with a better understanding of plumbing & pipefitting troubleshooting, repair and maintenance for plants and facilities. The course covers the necessary requirements to follow code and safety regulations while providing the student with a practical foundation to quickly identify problems and solve them on their own, whether it's a low-pressure water supply line problem, drippy valve or a clogged drain trap. Emphasis is given to common and real-world issues as well as establishing best practices and processes for dealing with plumbing & pipefitting maintenance.

I. INTRODUCTION TO PLUMBING & PIPEFITTING

- A. Plumbing & Pipefitting Terms & Definitions
- B. Materials and Tools
- C. Safety Principles

II. READING PLUMBING & PIPEFITTING DRAWINGS

- A. Drawings & Detail Sheets
- B. Piping System Color Code Identification

III. CODES & REGULATIONS

- A. Finding & Following Plumbing Codes
- B. Sewer Requirements
- C. Prohibited Fittings & Practices
- D. Protection of Piping & Structures
- E. Seismic Restraint Requirements

IV. PIPING & PIPING SYSTEMS

- A. Piping Materials and Construction
- B. Pipe Sizing
- C. Pipe Lagging
- D. Fittings
- E. Expansion Joints
- F. Guides & Anchors
- G. Support and Labeling Requirements
- H. Excavation & Underground Systems

V. PLUMBING JOINTS & FITTINGS

- A. Types of Joints & Fittings
- B. Wiped
- C. Solvent Cement Plastic Pipe
- D. Flanged Fixture Connections
- E. Soldered Joints

VI. PIPING INSULATION

- A. Energy Loss
- B. Material Selection
- C. Sizing
- D. Asbestos Insulation
- E. Best Practices for Removing & Installing Insulation

VII. TESTING PIPING SYSTEMS & EQUIPMENT

- A. Pretests
- B. Service Flow Tests
- C. Head Pressure Tests
- D. Hydrostatic Tests
- E. Steam Blow Tests
- F. Drainage Lines

VIII. VALVE MAINTENANCE

- A. Types- Manual Control, Pilot Control & Automatic Operation
- B. Valve Storage & Handling
- C. Leakage
- D. Valve Testing
- E. Valve Maintenance – Packing, Lapping & Adjustments
- F. Gasket & Washer Maintenance

IX. HOT TAPS

- A. Hot Tap Safety
- B. Repairing & Replacing Hot Tap Fittings

X. PLUMBING FIXTURES & APPLIANCES

- A. Strainers & Strainer Maintenance
- B. Overflows
- C. Connections
- D. Wall-Hung Fixtures
 - 1. Sinks, Toilets & Water Fountains
- E. Floor Drains
- F. Shower & Emergency Wash Stalls
- G. Prohibited Fixtures

XI. SANITARY & STORM DRAINAGE SYSTEMS

- A. ABS, PVC, Cast Iron & Other Materials
- B. Fittings
- C. Assigning Fixture Units to Plumbing Fixtures
- D. Sizing Drainage Lines and Venting the Piping Systems

XII. TRAPS

- A. Trap Seals
- B. Floor Drain Traps
- C. Prohibited Traps

XIII. CLEANOUTS

- A. Sizing and Location of Cleanouts
- B. Cleanout Maintenance

XIV. WATER DISTRIBUTION SYSTEMS

- A. Municipal Services
- B. Pressure
- C. Backflow-prevention
- D. Flushometer valves
- E. Water Pressure Regulation
- F. Water Hammer
- G. Water Conservation Equipment
- H. Potable Water Supply & Distribution
- I. Water Quality Problems & Solutions

XV. PLUMBING & PIPEFITTING MAINTENANCE PROGRAM

- A. Best Practices in Plumbing & Pipefitting Maintenance

SEMINAR AGENDA

7:30 am	Registration
8:00am	Class Begins
12:00-1:00pm	Lunch (on your own)
4:30pm	Class Ends

SEMINAR FEES: \$990 Both Days

NO RISK REGISTRATION & MONEY-BACK GUARANTEE

If you're not sure you'll be able to attend this seminar, you can still make a reservation to hold your space in class. While payment is due prior to the start of the seminar, you may choose a full refund or credit for cancellations made at least 24 hours in advance. Student substitutions can also be freely made at any time prior to the start of the seminar. Refunds will not be issued for registered attendees who fail to show up and have not given a notice of cancellation. In the rare event that you do not receive the expected value after attending our seminar, simply notify us in writing of your reasons and your money will be promptly refunded.

IN-HOUSE TRAINING

You can bring this or any other maintenance training program directly to your facility. Simply give us a call, tell us what you're looking for, and we'll provide you a quote. We also provide custom training for courses not listed in this brochure.

Call **1-877-97-TRAIN** and ask for Dan or Adam, or email AdamC@AmericanTrainco.com.

Visit us on the web at www.AmericanTrainco.com

OTHER SEMINARS

American Trainco presents a variety of maintenance training seminars throughout the country on a regular basis. Contact us to find out more about the training courses coming to your area, including:

- **Basic Electricity for the Non-Electrician™**
- **Electrical Troubleshooting**
- **Air Conditioning & Refrigeration**
- **Boiler Operation, Maintenance & Safety™**
- **Arc Flash Protection & Electrical Safety™**
- **2011 National Electrical Code®**

And 20+ other courses in the following areas:

- **Electrical / Electrical Controls**
- **HVACR**
- **Mechanical**
- **Facility & Plant Management**
- **Fluid Power**
- **Pumps / Piping**
- **Codes / Standards / Safety**

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REGISTRATION

Plumbing & Pipefitting for Plants & Buildings™

SEMINAR FEE
\$990 Both Days

FIVE EASY WAYS TO REGISTER:

- 1) **Internet** www.AmericanTrainco.com
- 2) **Fax** (303) 531-4565
- 3) **Phone** Toll Free 1-877-97-TRAIN 1-877-978-7246 or (303) 531-4560
- 4) **Mail** this form to: American Trainco, Inc. P.O. Box 3397 Englewood, CO 80155
- 5) **E-mail** the information requested on this form to: Sales@AmericanTrainco.com

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“Plumbing & pipefitting skills are something every maintenance technician should have.”

Authorizing Person/Supervisor: Name _____

Title _____ Company Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____ Email _____

Seminar Attendees:	Name	Title	E-Mail	Seminar City

Billing Information: (Please fill out this section only if the "Bill To" name and address is different than the Authorizing Person's name and address above.)

Individual's Name	Title	Company Name
Address	City	State Zip
Phone	Fax	Email

Payment Method:

Visa Card Number: _____

MasterCard Expiration Date: _____

Discover Name on Card: _____

American Express Signature: _____

Check Enclosed (Make payable to: American Trainco, Inc.) _____

Bill Purchase Order #: _____



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