

SWAGelok® TRAINING PROGRAMS

TUBE FITTING INSTALLATION SEMINAR

Learn how to install tube fittings correctly and consistently every time. This course includes correct pull-up instruction, use of the Swagelok inspection gauge, disassembly and remake, and safety considerations for tube systems. 60 minutes

- Tubing preparation
- Installation and remake
- Adapter fittings
- Troubleshooting

THREAD IDENTIFICATION SEMINAR

Learn how to identify a thread to apply the correct fitting for the job. This course teaches participants how to distinguish between different types of threads and sealing methods. 30 minutes

- Identify NPT, ISO, Metric
- Straight vs. tapered
- Measuring threads
- Thread sealants

VCR® METAL GASKET FACE SEAL FITTING INSTALLATION SEMINAR

The VCR fitting must maintain a leak tight seal on highly toxic, corrosive, and flammable fluids. In this course, participants learn about face seal components, proper makes and breaks, and how to avoid common installation errors. 60 minutes

- Design
- Typical assemblies
- Gasket options
- Proper assembly
- Installation considerations

HOSE SELECTION SEMINAR

Grow your expertise in the hose selection process to assure safe, leak-free, and long-lasting installations. 60 minutes

- Hose construction
- Selection criteria
- End connection options
- Installation considerations

VALVE SELECTION SEMINAR

With all of the choices available, selecting the right valve can be challenging. During this course, participants learn a step-by-step process that will help eliminate the guesswork in valve selection. 60 minutes

- Valve functions
- Valve types
- System conditions
- Flow considerations
- Troubleshooting

REGULATOR SELECTION SEMINAR

Learn what factors affect regulator performance and how to properly select a regulator for your application. 60 minutes

- Regulator operation
- Types of regulators
- Selection criteria
- Regulator troubleshooting (supply pressure effect, creep, droop, lock up, hysteresis)
- Safe manifold design

INTRODUCTION TO UHP GAS SYSTEM COMPONENTS SEMINAR

Gain an understanding of common UHP components. 60 minutes

- Cleaning standards
- Testing and leak rates
- Valve designs/configurations
- Modular surface mount designs

ORBITAL WELDING ESSENTIALS

Gain a basic understanding of orbital welding principles, processes, and equipment. 4 hours

- Introduction to Orbital Welding
- Shielding/Purge Gas Fundamentals
- Swagelok M200 Power Supply Operation
- Electrode Gap Setting
- Weld Head and Fixture Block Set Up
- Purge Set Up
- Weld Condition Variables and Evaluation of Weld Quality
- Weld Practice
- Tube Prep

ORBITAL WELDING TRAINING WITH ASME SECTION IX QUALIFICATION

Make the most of what modern orbital welding offers with a week-long course that includes ASME Section IX Weld Certification. 5-Day

- An understanding of welding principles
- Instructions for setup and operation of the orbital welding system
- Troubleshooting for frequently encountered welding problems
- An emphasis on operational issues through hands-on experience

TUBE FITTING INSTALLATION AND TUBE BENDING ESSENTIALS

Learn essential, practical skills for tube fitting installation and tube bending to work effectively, safely, with less scrap and rework. 1-Day

- Properly cut and deburr tubing
- Correctly assemble Swagelok tube fittings
- Gauge tube fitting assemblies
- Remake a tube fitting assembly
- Identify thread types and installation practices
- Properly set up and use a hand tube bender
- Practice the measure-bend method through a variety of hands-on exercises
- Apply tube bending concepts necessary to complete quality 45°, 90°, 180° and offset bends
- Practical project assembly
- Inspection and leak test

ADVANCED TUBE BENDING

Learn multiple methods of tube bending for both simple and complex bends with hand and bench top tube benders. 2- or 3-Day

- 2-Day Course: Receive full instruction on using hand tube benders up to 1/2" diameter
- 3-Day Course: Add detailed education on using bench-top tube benders

ADVANCED MATERIALS SCIENCE

Learn how to choose the right corrosion-resistant materials to keep fluid systems leak tight, operating efficiently, and aligned with industry standards. 1-Day

- Choose proper materials to keep your fluid systems leak tight and operating efficiently.
- Learn how specific alloys resist corrosion, how materials behave and how industry standards impact your material choice.

STEAM SERVICES

Learn to properly design, operate, and maintain a steam system for improved energy efficiency, productivity, and safety, as well as reduced emissions. 1-, 2-, or 3-Day

- Gain an understanding of steam system management customized to your industry and specific training needs
- Learn how to properly operate, design, and maintain a steam system to improve energy efficiency and safety, increase productivity and reduce emissions

PROCESS ANALYZER SAMPLING SYSTEM (PASS)

Gain a high-level understanding of sampling systems while designing and building an optimized system that delivers timely, accurate results. 5-Day

- Learn how to prevent costly sampling system errors through sound design principles
- Design and build an optimized process analyzer sampling system that delivers timely, accurate results

PROCESS ANALYZER SAMPLING SYSTEM (PASS) SUBSYSTEMS

Sharpen your design skills by breaking sampling systems down into subsystems and their discrete function blocks to learn how each subsystem impacts analyzer results. 5-Day

- Understand complex system subassemblies and build them into a complete, optimized sampling system
- Sharpen your sampling system design skills

SAMPLING SYSTEM PROBLEM SOLVING AND MAINTENANCE (SSM)

Learn how to troubleshoot a variety of common and complex design issues from the process line through sample disposal. 2-Day