Swagelok

Engineering Trainings

Swagelok® Engineering Trainings

Local Solution. Global Support.

Swagelok Norway

Fittings & Small Bore Tubing Systems

in accordance with Offshore Norge Guideline 143

Learn how to install and maintain small bore tubing systems with confidence and precision.

This two-day course focuses on the critical safety and performance aspects of tubing and fittings used in offshore environments - where leak prevention and system integrity are paramount. Participants gain foundational knowledge of tubing system structure, operation, testing, and maintenance, all in line with the Offshore Norge training curriculum. Through hands-on practice and expert instruction, you'll develop the skills to work safely and effectively with essential tools and components.

Topics

- Tube selection, installation and routing
- Tube preparation
- Tube fitting installation
- Leakage and safety considerations
- Taper and straight thread installation
- Plugs, caps, and tube adapters

Target Audience

Created for all personnel who will work on process and auxiliary systems in offshore operations.

Certificate of Completion

Yes (5 years)

Course Details

Duration: 2 days
Class size: Max. 12 (Stavanger)
Max. 8 (Porsgrunn)
Language: NO*
Location: NO (Stavanger, Porsgrunn)

MP/HP Cone & Thread

in accordance with Offshore Norge Guideline 143

Master the installation and maintenance of medium and high pressure fittings with confidence.

This focused training provides a comprehensive understanding of cone & thread technology and related products, equipping participants with the skills to perform correct coning and threading procedures, ensure proper installation, and troubleshoot common issues. By applying best practices, you'll help boost system efficiency and enhance safety in high-pressure environments. Delivered in accordance with the Offshore Norge training curriculum, this course is essential for professionals working in demanding offshore and industrial applications.

Topics

- Fundamentals of medium and high pressure fittings
- Correct coning and threading techniques
- Installation and maintenance best practices
- Troubleshooting and fault-finding methods
- Safety considerations and system optimization

Target Audience

Prepared for technicians and maintenance personnel handling high-pressure systems, engineers involved in system design and inspection, and offshore professionals seeking compliance with Norwegian Offshore standards.

Certificate of Completion

Yes (5 years)

Course Details

Duration: 7,5 hours
Class size: Max. 8 (Stavanger)
Max. 6 (Porsgrunn)
Language: NO
Location: NO (Stavanger, Porsgrunn)

Re-certification of Fittings & Small Bore Tubing Systems (e-learning online)

Renew your certification and keep your skills sharp with our convenient online refresher course.

Designed for participants whose training certificate has expired, this course helps you maintain compliance and confidence in your work. If the refresher is not completed within 6 months of the expiration date, a full basic course must be retaken.

What's included

- E-learning module (approx. 30 minutes)
- Online theoretical exam

Target Audience

Participants with expired certificates (within 6-month grace period)

Certificate of Completion

Yes (5 years)

Course Details

Duration: 1 hour
Class size: n/a
Language: NO / EN
Location: online

Swagelok Sweden

Swagelok Essential University Week

A comprehensive week-long training program that brings together all core Swagelok® Essentials courses into one structured learning experience. Each day focuses on a specific area of fluid system assembly and safety, combining theory with hands-on practice. This fixed weekly schedule is ideal for teams seeking broad competence development across multiple disciplines in a short time frame.

Topics

Monday: Tube Fitting Installation Essentials, Tube Fitting Inspection Essentials
Tuesday: Hose Essentials, VCO/VCR Essentials
Wednesday: Tube Bending Essentials
Thursday: Medium/High Pressure Cone and Thread Essentials, FK Essentials
Friday: Hand Torque Flanged Connections Essentials

Target Audience

Intended or professionals seeking a broad understanding of Swagelok® fluid system components and installation practices, including technicians, engineers, maintenance personnel, safety and operations staff, supervisors, and apprentices.

Certificate of Completion

Successful attendees in a theoretical examination and practical task will receive a Swagelok® Certificate of Completion which is valid for three years.

Course Details

Duration: Monday - Thursday 8.00 -16.00, Friday 8.00 -12.00
Class size: Maximum 10 participants Language: SE Location: SE (Stockholm)

Swagelok School

Three focused days of training that combine theory and practice to strengthen your skills in fluid system design, installation, and safety. Learn key techniques to prevent leakage, handle tubing, identify threads, and operate valves, while connecting with peers during a shared dinner and activity.

Topics

- Leakage prevention and system safety
- Tubing types, preparation, and handling
- Tube connections and assembly procedures
- Tube bending techniques and best practices
- Thread identification and compatibility
- Valve types and functionality
- Final theoretical and practical certification exam

Target Audience

Designed for professionals involved in fluid system design, assembly, operation or procurement, such as technicians, engineers, supervisors, and purchasers.

Certificate of Completion

Successful attendees in a theoretical examination and practical task will receive a Swagelok® Certificate of Completion which is valid for three years.

Course Details

Duration: Tuesday - Thursday, 8.00 -16.00
Class size: Maximum 8 participants Language: SE* Location: SE (Stockholm)
Extras: Participants will attend a dinner and activity together on Tuesday evening

STS Training

Raise awareness and knowledge among personnel handling Swagelok® products to reduce operating errors, fluid system leakage, downtime, and accidents. This interactive course combines theory and practice to help participants understand leakage causes, tubing standards, assembly procedures, thread sealing, and routing techniques. The seminar is designed to improve safety and reduce related costs through hands-on learning and expert guidance.

Topics

- Leakage and its causes
- Tubing standards, handling, preparation
- Tube connections: functions, materials, and assembly procedures
- Thread standards, sealing principles, and adapter solutions
- Tube routing and bending
- Safety considerations
- Final theoretical certification exam

Target Audience

Tailored for personnel involved in fluid system design, assembly, and operation, such as designers, supervisors, assemblers, technicians, operators, and purchasers.

Certificate of Completion

Successful attendees in a theoretical examination and practical task will receive a Swagelok® Certificate of Completion which is valid for three years.

Course Details

Duration: 7- 8 hours
Class size: Maximum 10 participants
Language: SE*
Location: SE (Stockholm, Göteborg)
SE Customer on-site

**We are able to provide the course in English once the course capacity is filled. Ask our sales representatives for details*

Tube Fitting Installation Essentials

Build a strong foundation in tube fitting practices to ensure system integrity and minimize leakage risks. In this practical course, you will learn how to select, cut and prepare tubing correctly, assemble Swagelok® tube fittings with confidence, and verify proper installation using gauging techniques. With hands-on exercises and expert instruction, you will gain the knowledge and skills to make every connection secure, reliable and leak-tight.

Topics

- Tube selection, installation and routing
- Tube preparation
- Tube fitting installation
- Leakage and safety considerations
- Taper and straight thread installation
- Plugs, caps, and tube adapters

Target Audience

Suited for individuals responsible for assembling, maintaining, or troubleshooting fluid systems, including technicians, engineers, field and service professionals, new hires, apprentices, and supervisors.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 4 hours
Class size: Max. 10 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

Tube Bending Essentials

Discover how to make your fluid systems safer, more reliable and more efficient. In this hands-on course, you will learn the fundamentals of precise hand tube bending, reducing mechanical connections and minimizing potential leak points. Under expert guidance, you will practice using the Swagelok® Hand Tube Bender to create accurate 45°, 90° and 180° bends across multiple planes and offsets. By the end of the course, you will be prepared to measure, plan and bend tubing perfectly, even for complex internal and external installations.

Topics

- Tube preparation
- Hand tube bender
- Bending methods
- Offset bends
- Bend defects
- Practical exercises

Target Audience

Best for technicians, engineers, and maintenance personnel who design, assemble, or maintain fluid systems and want to enhance their tube bending skills and confidence.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 4-6 hours
Class size: Max. 10 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

Tube Fitting Installation Inspection Essentials

Ensure the safety and reliability of your fluid systems through proper inspection techniques. In this hands-on course, you will learn how to recognize correct tube system placement, verify proper Swagelok® tube fitting installation, and identify common issues that can lead to leaks or system inefficiencies. By developing strong inspection habits, you will be better equipped to detect faults early, prevent costly downtime, and maintain the highest standards of system integrity.

Topics

- Why do we inspect?
- Have a plan
- Visual inspection
- Troubleshooting
- Fault identification

Target Audience

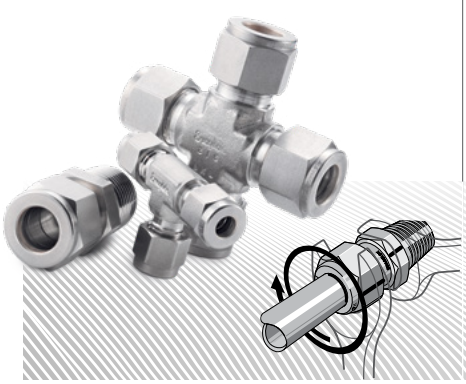
Intended for professionals ensuring the safety and reliability of fluid systems, including installation and maintenance staff, QA/QC inspectors, supervisors, and managers.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 4 hours
Class size: Max. 10 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site



Medium & High Pressure Cone & Thread Essentials

Gain the knowledge and confidence to work safely and effectively with medium- and high-pressure systems. In this comprehensive, hands-on course, you will learn the correct procedures for coning and threading, installation and maintenance of Swagelok® medium- and high-pressure fittings. Through practical exercises, you will learn to use specialized tools, apply correct sealing methods and torque values, and identify and prevent common issues - ensuring safe, leak-tight and reliable system performance.

Topics

- Medium- and high-pressure tubing
- Coned and threaded connections
- Medium & high pressure sealing method
- Assembly procedure and torque values
- Component identification
- Needle, ball, and check valves
- Safety considerations
- Tube preparation and handling
- Coning, threading, and installation practical activities

Target Audience

Focused on technicians, maintenance, and engineering personnel involved in the installation, maintenance, inspection, and design of medium- and high-pressure coned and threaded tubing systems.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 4-6 hours
Class size: Max. 8 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

FK Fitting Essentials

Understand the design, preparation, and installation of Swagelok® FK Series medium-pressure fittings – engineered for performance in systems up to 20 000 psi. This focused course gives you the knowledge and hands-on skills to work confidently with FK tube fittings in both gas and liquid applications. You will explore key design characteristics, learn how to prepare tubing, and practice proper assembly, disassembly, and preswaging techniques to ensure safe, leak-tight connections.

Topics

- Design features of FK medium-pressure tube fittings
- Tube selection and variable considerations
- Tube preparation and cutting best practices
- Initial assembly, disassembly, and reassembly techniques
- Preswaging procedures for consistent performance
- Final theoretical and practical exam

Target Audience

Made for technicians, maintenance, and engineering personnel involved in the installation, maintenance, inspection, and design of medium-pressure tubing systems.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 4 hours
Class size: Max. 10 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

Hand Torque Flange Connections Essentials

Gain the essential knowledge and hands-on skills to assemble flanged connections safely and effectively. This practical course teaches you how to prepare and align flanges, apply proper bolt-tightening techniques, and work confidently with the right tools and PPE. You'll explore key standards, material compatibility, and proven troubleshooting methods to prevent leaks and failures in the field.

Topics

- Fundamentals of flanged connections
- Preparation and inspection
- Working safely
- Hand torque bolt tightening techniques
- Practical assembly and disassembly activity
- Troubleshooting common issues
- Fault-finding activity
- Knowledge assessment

Target Audience

Designed for technicians, maintenance, and engineering personnel involved in the installation, maintenance, inspection, and design of tubing systems.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 4 hours
Class size: Max. 6 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)

Hydrogen Tubing System Training

Master industry best practices for building high-integrity tubing systems in this globally standardized workshop. Gain practical skills through a combination of theory, demonstrations, and hands-on exercises led by Swagelok®-certified experts. Learn how to install two ferrule tube fittings, perform inspections, bend tubing correctly, and apply proven techniques for safe and reliable systems.

Topics

- Ferrule tube fitting installation
- Tube inspection and validation
- Tube bending techniques
- Best practices for tubing systems
- Theoretical and practical certification exam

Target Audience

Ideal for professionals responsible for designing, installing, maintaining, or inspecting tubing systems, such as installers, engineers, designers and QC/QA inspectors.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 1,5 day
Class size: Max. 6 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

Hydrogen Tubing System Training + MP/HP Module

Master industry best practices for building high-integrity tubing systems in this globally standardized workshop. Gain practical skills through a combination of theory, demonstrations, and hands-on exercises led by Swagelok®-certified experts. Learn how to install two ferrule tube fittings, perform inspections, bend tubing correctly, FK Fitting, FK Series, Cone and Thread fitting installation, and apply proven techniques for safe and reliable systems.

Topics

- Ferrule tube fitting installation
- Tube inspection and validation
- Tube bending techniques
- Best practices for tubing systems
- Theoretical and practical certification exam
- FK Fitting, FK Series, Cone and Thread fitting installation

Target Audience

Ideal for professionals responsible for designing, installing, maintaining or inspecting tubing systems, such as installers, engineers, designers and QC/QA inspectors.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 2 days
Class size: Max. 6 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

Hoses Essentials

Extend hose life, enhance safety and reduce total cost of ownership by mastering the fundamentals of hose selection, installation and maintenance. In this hands-on course, you will learn how to choose the right hose for each application, understand the key variables that impact performance and apply best practices for inspection and preventive maintenance. With practical demonstrations and expert guidance, you will gain the confidence to make informed decisions that ensure your systems operate safely and efficiently.

Topics

- Hose and flexible tubing construction
- The components of a hose assembly
- Hose assembly identification
- Hose selection considerations
- Hose inspection considerations
- Troubleshooting and examples of bad practice
- Hose installation and inspection practical activity in line with industry guidelines

Target Audience

Perfect for technicians, maintenance, and engineering personnel who need awareness of hose and flexible tubing selection, installation, and inspection best practices

Certificate of Completion

Yes (3 years)

Course Details

Duration: 4 hours
Class size: Max. 12 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

VCO® and VCR® Fittings Essentials

Unlock the secrets to flawless sealing in demanding applications. In this hands-on course, you'll discover the key differences between Swagelok VCR® metal gasket face seal fittings and VCO® O-ring face seal fittings – two industry-leading solutions for tight spaces and frequent maintenance. Learn where and why each fitting excels, how to identify components and markings, and gain practical skills for proper installation and troubleshooting. Whether you're maintaining critical systems or designing new ones, this training gives you the tools to ensure reliability and performance.

Topics

- Applications
- Fitting components
- Design features
- Correct assembly
- Installation best practices
- Troubleshooting

Target Audience

Recommended for technicians, maintenance, and engineering personnel involved in the installation, maintenance, inspection, and design of tubing systems.

Certificate of Completion

Yes (3 years)

Course Details

Duration: 4 hours
Class size: Max. 12 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

Regulators Seminar

Increase your understanding of pressure regulators and their impact on fluid system performance. This course is part of our Safety Training Seminars (STS) and is designed to raise the knowledge level of anyone who handles Swagelok® products. By mastering regulator principles, participants help reduce operating errors, prevent leaks, and minimize costly downtime and accidents. Through a structured two-step approach, you'll explore regulator construction, performance phenomena, and system integration - building the confidence to select, install, and troubleshoot regulators effectively.

Topics

- Basic regulator construction, functions, and performance factors
- Types of regulators: pressure-reducing and back-pressure
- Key performance issues: lock-up, droop, hysteresis, choking, optimal flow, SPE
- Physical phenomena: creep, Joule-Thomson effect, CV, noise
- System data and regulator selection for different applications

Target Audience

Created for designers, supervisors, engineers, assemblers, technicians, operators, purchasers and anyone involved in fluid system specification or maintenance.

Certificate of Completion

No

Course Details

Duration: 6 hours
Class size: Max. 12 participants
Language: SE / NO
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

Valves Seminar

Improve safety and system reliability by learning how to select the right valve for your application. This seminar focuses on understanding system data and applying it to valve selection, helping participants reduce operating errors, leakage, and downtime. The course combines theory with practical insights to support better decision-making and safer installations.

Topics

- Valve selection methodology
- Leakage and its causes
- Features and functions of different valve types
- System data considerations
- Flow capacity calculation

Target Audience

Tailored for designers, supervisors, engineers, assemblers, technicians, operators, purchasers, and anyone involved in fluid system specification or maintenance.

Certificate of Completion

No

Course Details

Duration: 4 hours
Class size: Max. 12 participants
Language: SE / EN
Location: SE (Stockholm, Gothenburg)
NO (Stavanger, Porsgrunn)
SE / NO Customer on-site

Put our team alongside yours

Swagelok® training programs provide a range of valuable and practical tools for meeting day-to-day challenges related to fluid system and sampling system design, operation, and maintenance. In-depth, hands-on courses taught by experienced instructors help both new team members and industry veterans. Whether you need to build a foundational understanding of fluid and sampling systems or you want to stay up to date on the latest technologies and best practices, Swagelok® offers robust training options.

Swagelok Global Sampling System Training

Learn how to design effective sampling systems and resolve issues that impact accuracy and efficiency. All while reducing costs. This course provides practical strategies for diagnosing and eliminating problems in existing systems, helping you achieve reliable performance and lower operating expenses.

Based on the technical reference book Industrial Sampling Systems authored by Tony Waters, the training is delivered by certified Swagelok® experts with extensive industry experience. Through a combination of expert instruction and hands-on exercises, you'll gain the knowledge and skills to optimize sampling systems for any application, regardless of your industry or level of experience. Choose your training:

PASS - Process Analyzer Sampling System
PASS2 - Process Analyzer Sampling System Subsystems
SSM - Sampling System Problem Solving and Maintenance

Our Training Centers

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Ask our team for training on your site

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