



Customized Excellence



*Are your current in-house Fabrication processes taking too long?
Costing too much?
Putting your personnel, assets, and site at too great a risk?*

Your local Swagelok

DESIGN & BUILD MASTER CRAFTERS

are your ideal, trusted, and proven solution when production schedules get tight. Our safety-first, Swagelok-trained-and-certified technicians will work closely with you at every phase of your project – the simplest assembly to the most complex panel, skid, or enclosure...all fully warranted by Swagelok Company and tested, inspected, and professionally labeled and packaged before going out the door. Installation and maintenance are quick and problem-free. Plus, each shipment arrives as a single part number to minimize reorder and overall administration headaches.

We specialize in certain critical tasks, too: Orbital Welds, Large-Diameter Tube Bending, Coiling, Relief Valve Presetting, Industrial Hose and Sample Cylinder Maintenance Programs, even CAD and P&ID Support.



To learn more about how we can help significantly boost your system performance and reduce your engineering, scrap, rework, and inventory costs, contact Tim Davis at tim.davis@swagelok.com or 412.761.3212

Some Thing(s) to Think About

WHEN CHOOSING AND APPLYING INDUSTRIAL HOSE FOR YOUR FLUID-SYSTEM APPLICATIONS, CONSIDER:

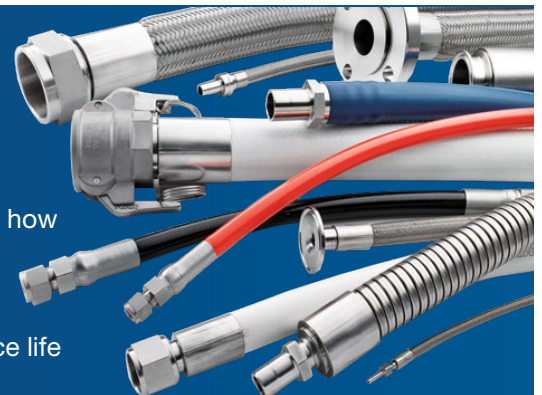
- Selecting a product with sufficient conductivity to ground the static electricity that is generated when fluid passes through a hose
- Selecting a core type that's flexible, drains easily, and is chemically compatible for your intended usage
- Knowing the true amount and severity of your system vibration
- Determining your hose length based on potential movement, system pressurization, and thermal expansion
- Relieving hose strain by employing elbows and adapters
- Resolving space constraints by using elbows and union ball joints



ENROLL IN OUR HALF-DAY *Industrial Hose Essentials* course

You will graduate knowing:

- Critical hose terminology, key hose-choice variables, inspection guidelines, and how to set up a preventative maintenance program
- Exactly why, when, and how to apply hose throughout your operations
- How to properly size, clean, inspect, and store hose to achieve maximum service life



SIGN UP FOR OUR HALF-DAY *Swagelok Hose Advisory:*

Our certified Hose expert and your local Swagelok sales rep will walk the floor with you to analyze your current hose applications. They'll follow their visit with a comprehensive printed report that will not only detail your problem areas...but will be packed with trusted recommendations on precisely how to improve and sustain your hose safety and health.

Our audit will specifically look for:

- | | | |
|--------------------------|-----------------------------|---|
| • Broken Wires | • Cover Blisters | • Correct Type for Application |
| • Abrasion | • Kinks/Flat Spots | • Cleaning and Storage Practices |
| • Corrosion | • Leakage | • Operating Conditions:
Pressure, Temperature, Flow... |
| • Ovality | • Improper Sizing | • Environmental Factors:
Temperature, Humidity... |
| • Stiffness/
Hardness | • Damaged
Reinforcements | •and so much more! |
| • Color Changes | • Motion | |



Mike Gagel
Strategic Services Specialist

For more product
information, to sign up for a
survey, or to register for an
upcoming class, text or call
412.439.1706

A PERFECT FIT(TING)



Get leak-tight, ultra-reliable performance each and every application – no matter what your industry or how severe your operating conditions – with world-renowned Swagelok Mechanical Grip-Type, Hinging Collecting Tube Fittings.

Easy to install with just standard wrenches, our components offer more direct tube contact and support, create a superior gas seal, and create optimal isolation of stress risers at the tube grip to resist bending, deflection, and vibration.

Available in tube sizes 1/16" to 2", in a vast variety of materials and configurations, Swagelok fittings are simple to disassemble and reassemble. They're made of a unique special-recipe "Swagelok" 316 stainless steel that exceeds the ASTM minimum requirement for nickel and chromium, resulting in exceptional corrosion resistance and ductility.

In fact, in extensive Chloride Stress Corrosion Cracking tests versus 110 nuts of competitive brands, Swagelok had ZERO cracks or leaks; 39% of the "others" failed.

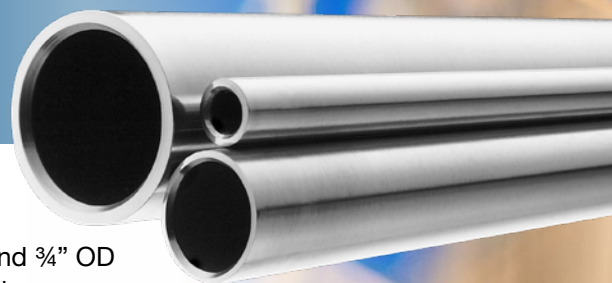
In addition, we own our entire manufacturing process – forging, machining, electro-polishing, welding, assembly, testing – with all such activities done only by us, on our equipment, in our facilities, under our unparalleled and strict total quality system.



To supplement our tube fittings, we also offer

TUBING

- Made of instrumentation-grade seamless stainless steel
- Offered in numerous wall thicknesses
- Available in fractional, metric, and imperial sizes, most commonly 1/4", 3/8", 1/2", and 3/4" OD
- Chemically cleaned and passivated to ASTM G93 Level A and CGA 4.1 standards
- Thermocouple-cleaned per ASTM A632-S3 standards
- Marked for size, material, specification, and heat number



And, for effectively combatting the damaging effects of line pulse and vibration, consider our

Swagelok Tube Support Systems:

- Bolted, heavy-duty plastic construction
- Superior shock absorption
- Highly resistant to ultraviolet light and most chemicals and corrosives
- Drastically reduce overall componentry stress
- Enhance total system reliability
- Simplifies installation and maintenance
- Temperature rating: -22°F to 194°F



Single Support



Twin Support



Stacked Support
(up to 3)



Making Our Case

Another recent example of Swagelok Products and/or Support Services making a genuine difference in a customer's safety, productivity, efficiency, and profitability:



Challenge

A major Electric Power customer had multiple high-voltage transformers – insulated with non-toxic, nonflammable, non-corrosive SF6 gas for its exceptional thermal conductivity and chemical stability – that required routine monitoring to check moisture levels. But SF6 (Sulfur Hexafluoride) is also a greenhouse gas with the potential for extremely dangerous emissions.

The account's maintenance technicians struggled with establishing secure connections between the site's monitoring equipment and the various transformers. A standardized adapter solution was needed that could be effectively employed universally.

Solution

Swagelok Quick-Connects, because of their easy installation and globally renowned reputation for minimal spillage and air inclusion, were swiftly agreed upon as the answer. Swagelok Engineers then visited each transformer location to provide expert technical support and to ensure a safe, leak-free assembly to protect all involved insulating systems.



We're your one-stop resource for leak-tight, premium-quality Instrumentation Panels and other assemblies. For more details, call or email Tim Davis, Application Engineer: 412.761.3212 or tim.davis@swagelok.com



DID YOU KNOW...

that every **Swagelok Rental Tool** comes nicely and securely packaged in a case that includes a QR Code with complete How to Use videos and instructions?

All you do is scan the large, easy-to-find decal...to be more confident on how to employ the Benchtop Bender, Multi-Head Hydraulic Swaging Unit, or Orbital Welding System you lease from us – for the day, week, month, or entire length of your project.

One more reason to ask yourself “Why Buy New?” when your expected use is short-term or infrequent.

For complete details, call Mike Gagel: 412.761.3212



Services Spotlight: Advanced Tube Bending Training

Your choice of course length:

2.5-Day Course

Learn at a comfortable pace, with plenty of time for hands-on exercises and personal tutoring.

3-Day Course

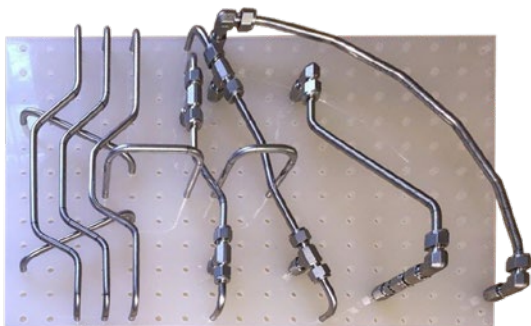
Everything described in the 2.5-day course, but with our renowned **Tube Fitting Installation Safety** primer.

3.5-Day Course

Everything from our 3-Day course, but with added practice time to make challenging bends within a large electrical box to simulate real on-the-job conditions.

YOUR
BEST
OVERALL
VALUE

MASTER THESE CHALLENGING BENDS through practice, practice, practice:



- **Offsets** – Learn to change the centerline of a tubing run.
- **Custom Offsets** – Figure out a bend angle less than 22.5° to enable you to make an offset bend.
- **Off-Plane** – For those times when bends must be rolled to a particular angle. See how to mark the tube before positioning it in the hand bender – to drastically reduce mistakes/waste.
- **Rolling Offset** – Know what to do if your tubing run is offset in the horizontal plane AND, at the same time, in the vertical plane? We can help you solve such a seemingly difficult challenge!
- **Segmented** – Have any idea how to bend a 1" tube around a 6' tank? See how to calculate equal leg lengths so you can ultimately make a 90° bend using four 22.5° bends. Yes, that certainly sounds complicated; we'll show you why it's not.



Product Spotlight: Low-Emissions Valves

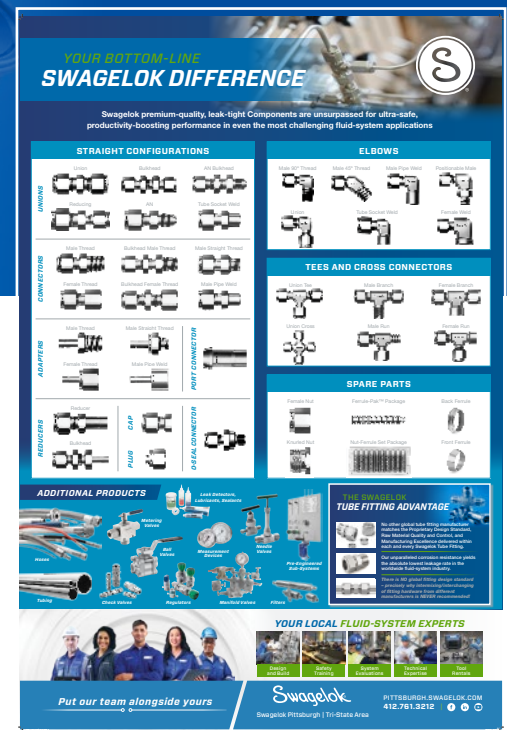
Leak-tight. Premium-quality. Passed the American Petroleum Institute's rigid fugitive emissions tests without a single design modification or special ordering instructions – with **ZERO** leaks in excess of 100 ppm methane during thermal or pressure cycles.

Your affordable solution to avoid hefty non-compliance penalties!

Yours for the Asking

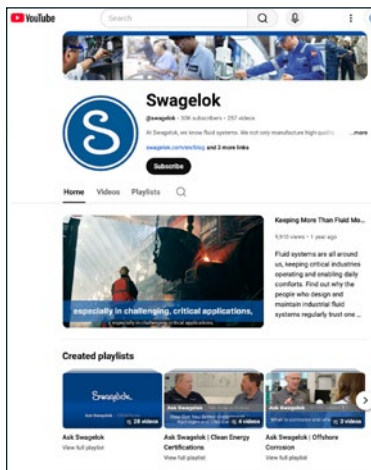
Email rudy.frank@swagelok.com OR ask your local Swagelok Field or Inside Sales Representative for your **FREE** copy of our brand-new *Your Bottom-Line Swagelok Difference* wall poster! If you need more for other areas of your site, just ask!

This is your easy-to-reference, all-in-one guide to the most common Tube Fitting Straight Configurations, Elbows, Tees, Cross Connectors, and Spare Parts we offer. **ACT NOW!**



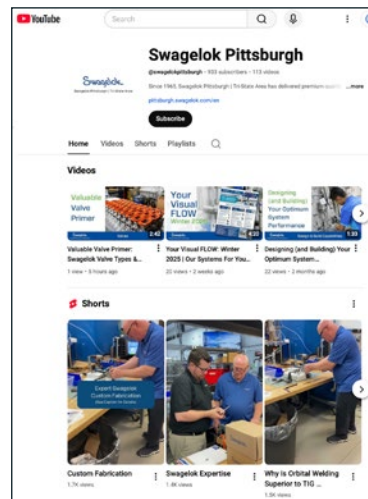
DOUBLE your DAILY VIEWING PLEASURE

visit: youtube.com/@swagelok
to watch the latest
Swagelok Corporate Global Happenings and Insights



Watch our renowned **Ask Swagelok** podcasts where product managers, market managers, and engineers explain how you can optimize your fluid systems in even the most daunting application challenges.

visit: youtube.com/@swagelokpittsburgh
to watch Your Local
Swagelok Pittsburgh Sales & Service Center Videos



Our brand-new **product and services videos** and short clips provide the know-how you need to become safer, more productive, more efficient, and, thus, more profitable.

Our Components Speak for Themselves



Fittings

For unparalleled leak-tight connections between fluid-system componentry since 1947



Valves

Reliably control flow across a broad range of working pressures, temperatures, and operating conditions



Regulators

Consistently and accurately maintain pressure levels over extended operating lifespans



Hoses

Available in a vast array of materials, pressure ratings, and flexibility degrees



Assemblies

Designed, built, and tested by Swagelok-certified engineers and technicians

LOST PRODUCTIVITY

Any media leak negatively impacts your overall profitability. Over time, even the smallest emissions due to under- or over-tightened connections could potentially lead to safety issues, off-spec product, premature equipment wear/damage, major fines for noncompliance regulations, perhaps a total system shutdown for repairs.

But there are multiple ways we can help you return to optimum system health:

- Our premium-quality **Componentry** is globally renowned for unparalleled performance in even the most challenging Oil and Gas, Chemical, Steel, Clean Energy, Power, General Industrial, and Research-and-Development applications
- Our **Design-and-Build Shop** produces instrumentation panels, sub-assemblies, skids, and enclosures that are leak-tight, tested, inspected, and professionally packaged for simple installation and maintenance
- Our **Customer Safety Training** programs ensure that your technicians – new hires to veterans – know how to safely and properly pull up tube fittings and bend tubing of various lengths and materials



- Our **Energy-Loss Evaluations** provide you a comprehensive snapshot of faulty connections and dangerous leak points in your lines – with expert recommendations on how to quickly remedy the issues that are costing you the most time, money, and worry
- Our **Industrial Hose Advisories** will give you an accurate assessment of current sizing, routing, and storage practices and concerns, plus offer ideal going-forward suggestions on which type of hose to use for which applications
- Our vast **Technical Application Know-How**, through your local Swagelok representative or our inside sales and service team, will help you consider and choose the “right” tool for the job



A Full Array

No matter what your job title, we have a Swagelok Sampling System training course for you:

Analytical Technician Training 2-Day Course

Particularly relevant for those new to sampling, even Analyzer and Lab Technicians

- Hands-on learning to hone your ability to find and address root causes of issues
- Evaluate an existing sample and applied learned knowledge to reverse-engineer a system

Sampling System Problem-Solving & Maintenance (SSM) 2-Day Course

Ideal for Technicians, Maintenance Personnel, System Engineers

- Know how to troubleshoot a vast variety of common sampling problems – process line through disposal
- Recognize and diagnose design flaws that cause excessive time delay/poor samples

Process Analyzer Sampling Systems (PASS1) 5-Day Course

Suited for System/Design Engineers, Chemists, and Integrators

- Apply our expert design principles to prevent costly problems
- Learn how a sampling system functions – process line and tap through transport lines and stream switching, sample conditioning, and analyzer/disposal procedures

Process Analyzer Sampling Subsystems (PASS2) 5-Day Course

Meant for experienced Sampling/Design Engineers and Technicians

- Develop an understanding of complex subassemblies
- Learn how to design and build subsystems into complete, optimized sampling systems

For our upcoming schedule, email rudy.frank@swagelok.com

SWAGELOK PITTSBURGH | TRI-STATE AREA
YOUR LOCAL FLUID-SYSTEM EXPERTS

PITTSBURGH.SWAGELOK.COM | 412.761.3212 |   

All service marks and trademarks shown are owned and registered by Swagelok Company. © 2026 Swagelok Company. www.swagelok.com

