Swagelok®

Onsite Engineering Expertise

Swagelok® Onsite Services

Optimize your Fluid System Performance.
Improve Safety and Environmental Impact.
Reduce Costs and Labor Time.

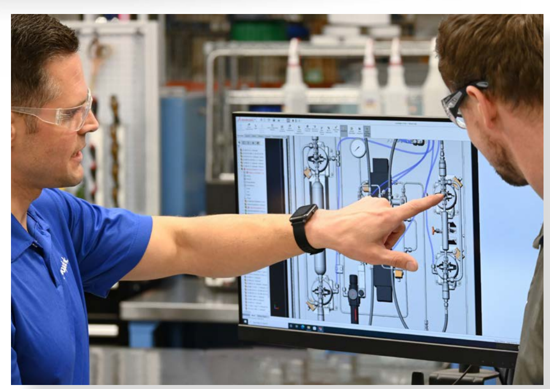
Swagelok Onsite Services

Promote Safety. Reduce Costs. Increase Uptime and Reliability. Optimize Resources.

Swagelok Onsite Services bring industry-leading fluid system expertise and application knowledge directly to your facility to help improve the safety, efficiency, and reliability of your operations. Swagelok-certified Field Engineers and fluid system specialists in system design, assembly, and maintenance, conduct detailed inspections of your fluid handling or sampling systems, advise on best installation practices, and recommend tailored system enhancements. Onsite Services are designed to help optimize system performance, eliminate costly leaks, reduce operating costs, and mitigate environmental risks, all while enhancing overall productivity and safety.

Onsite Services Help Optimize Resources

If you're being asked to do more with reduced budgets and fewer experienced staff, we can help you make the most of your limited resources. Receive recommendations to streamline system installation, lower maintenance and repair requirements, and improve system designs.



Through Onsite Services, we also offer:

- Design services
- Fabrication and assembly services
- Training on product installation and best practices
- Product selection consulting
- Bill of materials (BOM) and P&ID generation
- Leak identification and repair prioritization
- Preventative maintenance recommendations

Small Bore Tubing Inspection

Swagelok® Small Bore Tubing Inspection focuses on ensuring the integrity and safety of tubing systems, particularly in applications like oil and gas where leaks can be hazardous. Swagelok offers inspection services that include installation reviews, qualification of system integrity, and recommendations for system improvement. By utilizing these inspection methods and training programs, Swagelok helps ensure the safety and reliability of small bore tubing systems.

Key aspects of the Small Bore Tubing Inspection include:

1. **Installation Review** — Ensuring proper product selection & sizing, material compatibility choices, and installation practices are followed.
2. **System Integrity** — Evaluating the overall safety and performance of the system, including leak prevention and component suitability.
3. **Gap Gauge Inspection** — Verifying that the fitting has been sufficiently tightened during installation, ensuring a proper seal utilizing Swagelok gap inspection gauge.
4. **Operator Training** — Conducting training on tube fitting installation, maintenance, and inspection to minimize risks associated with leaks and improper assembly.
5. **Prioritized Maintenance** — Identifying areas of concern and prioritizing maintenance needs based on the inspection findings.
6. **System Optimization** — Sharing opportunities for improving system design and efficiency are identified during the inspection process.

Quickly Assess the Situation with our Comprehensive Inspection Report

The report example below is a representation of the type of information you would receive from a Swagelok inspection. Your actual report would reflect information more specific to the service being performed.


Customer Name : Site Name
Appendix C - Issues by Issue Tag ID

Issue Tag ID : 0001		Category : 2	
Plant Area:	Air Supply	Part Material:	Stainless Steel
Customer Tag ID:	PI-120C	Connection Type:	
Location:	North Side of Plant	Connection Size	1/2 in
GPS Location:			
Part Description:	0-100 PSIG Pressure Gauge		
Process Fluid:	Air	Type of Part:	Measurement Devices
Pressure:	100 psig	Manufacturer:	Unknown
Temperature:	70 F	Part Number:	
Issue:	Incorrect Part	Equiv Swagelok Part:	PGI-63C-PG100-LAOX
Description:	Gauge is being used near max range which may cause damage and over pressurization.		
Other Findings:			
Possible Solution:	Replace component(s) according to manufacturer's instructions		
Ultrasound dB:		n/a	
Ultrasound ID:		n/a	

Issue tag IDs sorted numerically

Concerns categorized by severity

Locations called out within plant

Issues quickly identified

Analyzer Sampling System Evaluation and Advisory Services

Reduce time delay, ensure representativeness of the sample, and deliver a compatible sample to the analyzer for analysis with our expert, in-depth analysis of every sampling system component and subsystem, from tap to analyzer and through to disposal. Through Swagelok® Analyzer Sampling System Evaluation and Advisory Services, our local Swagelok analytical sampling specialists visit your facility to conduct in-depth analysis of your sampling systems. The results can include increased productivity, reduced operating expenses and maintenance costs, and identification of unseen opportunities for overall system improvement.

We Document Your Existing Systems and Provide a Detailed Report, Helping You:

- Eliminate causes of poor sample quality, such as blockage or moisture carryover
- Reduce required maintenance and analyzer downtime by optimizing system design, including proper probe design and tap location
- Resolve issues caused by high particulate loads by implementing filter and separator best practices and calculating sample transport times
- Reduce time delay by implementing an improved system with time delay calculations showing expected transit times

Swagelok Field Engineering evaluates analyzer sampling system performance at a petrochemical facility.

Key Elements of a Swagelok Evaluation Report

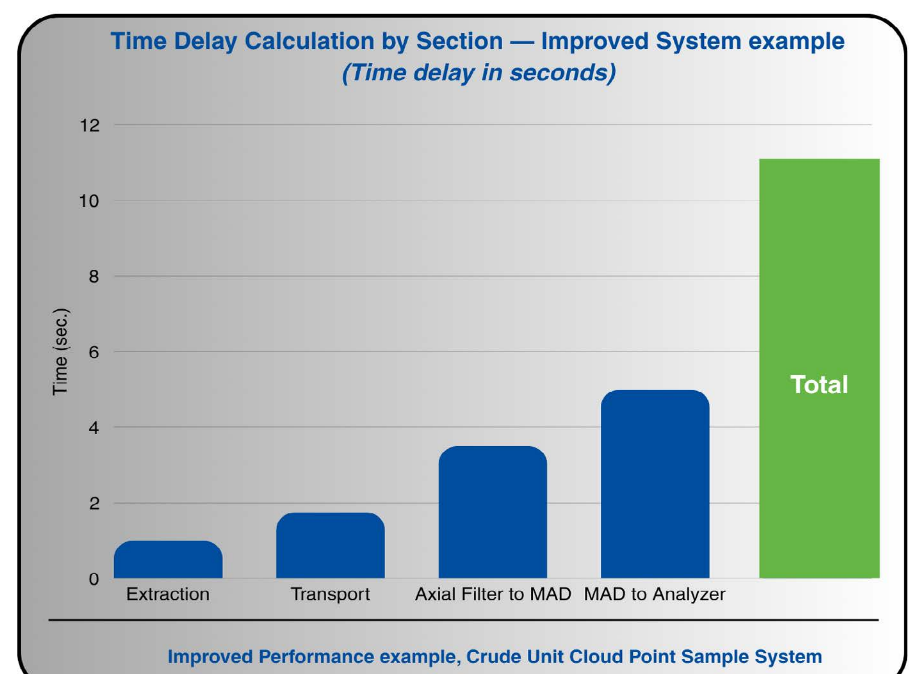
The evaluation report that is completed by our Swagelok-certified engineering team is a comprehensive deliverable that summarizes the findings from the performed advisory service.

Our report deliverable typically includes:

- System overview
- Assessment findings
- Identified risks
- Performance improvement recommendations
- Photographic documentation
- Priority ranking and next steps

Improvement Roadmap example — Crude Unit Cloud Point

IMPROVEMENT	PRIORITY	ESTIMATED VALUE	COST TO IMPLEMENT
Install sample recovery system for spent analyzer sample per P&ID.	1	▲▲▲▲▲	$$$
Install flowmeter with needle valve on the bypass line after axial filter. Set flow to 2.5L/min.	1	▲▲▲▲▲	$
Increase flow on the MAD filter bypass to 20 gallons per hour.	1	▲▲▲▲	$
Replace 1/4" tubing on transport and return - bypass lines with 3/8" x .035.	2	▲▲	$
Install probes at taps.	2	▲▲▲	$$
Move tap location closer to the tower.	3	▲▲▲	$$$



Grab Sampling System Evaluation and Advisory Services

Produce More Accurate, Compliant, and Safe Samples.

If you are using grab sampling systems as part of your sampling process, Swagelok's local team can visit your facilities to inspect and identify issues affecting sample quality and opportunities for enhancing system performance. Without proper grab sampling system design and maintenance, critical actions like capturing, handling, or analyzing samples can be difficult to achieve.

Work with our grab sampling experts to produce more accurate, compliant, safe samples while reducing your costs. Findings during the inspection will be documented using Swagelok's proprietary onsite inspection mobile application.

Our team of certified grab sampling experts can:

- Identify issues affecting sample quality and compliance and improve operational performance
- Eliminate potential operator safety and environmental concerns
- Reduce required maintenance and panel downtime by optimizing system design
- Design and assemble reliable, tested grab sampling systems

Swagelok Grab Sampling Systems ensure operator safety and efficiency.

Grab Sampling System Standardization

Standardizing your selection of grab sampling panels can also benefit your overall operations. Particularly in large facilities, there are often many locations where grab sampling is regularly performed. Using standardized grab sampling panel designs for all of your sampling points can help eliminate potential confusion and promote a consistent process at every location.

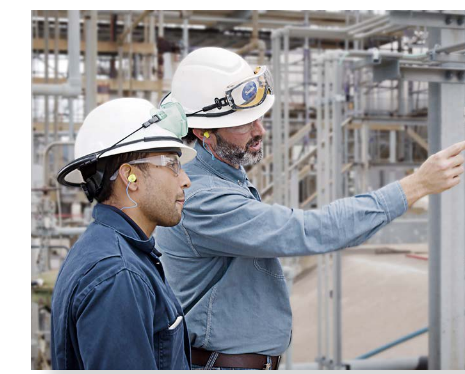
Fluid System Installation Oversight (FSIO)

As new industrial facilities are being constructed, owners are increasingly attempting to minimize capital project delays and mitigate operating risks by demanding greater onsite support and improved process efficiency from EPCs (Engineering, Procurement, and Construction), package vendors, and component suppliers. Sub-standard installation of small-bore fluid systems is a common cause for re-work and delay, as construction contractors may not know or follow best practices for system installation—resulting in significant ongoing costs.

FSIO is a preventative service that occurs during the construction / installation phase of a project.

The Swagelok Fluid System Installation Oversight (FSIO) service helps facility owners and asset owners reduce cost and time required for proper fluid system installation by ensuring packages arrive leak free, improving quality, safety, and reliability of these systems once installed.

This unique service provided by your local Swagelok team bridges the gap between early consultation and training and our traditional reactive services (after a facility is in operation), enabling a complete solution for the customer.



Through Fluid System Installation Oversight, Swagelok Field Engineers help address concerns related to cost, quality, and time by providing:

- Fluid system installation and design advice
- Quality checks of system installation during construction
- Onsite guidance and training

Here's What to Expect

Swagelok Field Engineers will consult with you through the engineering, design, construction, hook-up and commissioning stages of new capital development projects, providing value that lasts for the lifecycle of the asset. As part of that process, we can help installers not only minimize installation errors and rework during construction, but also train them according to best practices to improve future outcomes, as well.

Utilize the Swagelok Fluid System Installation Oversight service during:

- System Hookups
- Vendor Package integration
- Utility Gas supply and delivery
- Construction
- Facility retrofit
- Plant turnarounds
- Maintenance upgrades
- Drydock work

Result:
An increase in safety and reliability of your fluid systems while achieving reduced rework, reduced cost overruns, and reduced schedule delays.

WE’RE GLOBAL.
WE’RE LOCAL.

Together, we’re Swagelok MENA.

Swagelok MENA operates sales and service centers across 15 countries in the Middle East North Africa region. Our local Swagelok Field Engineers and fluid system experts are ready to collaborate with you to evaluate your systems and advise on enhancements that will improve your operations.

Achieve More with the Help of Swagelok Onsite Services

Find out how Swagelok Onsite Services can help you achieve the fluid system performance you need.
Contact your local branch today to schedule an appointment.

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