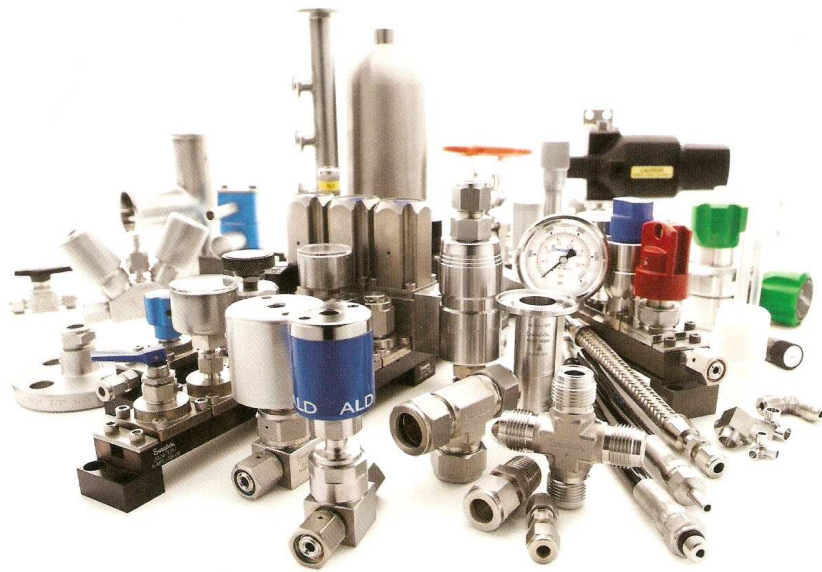
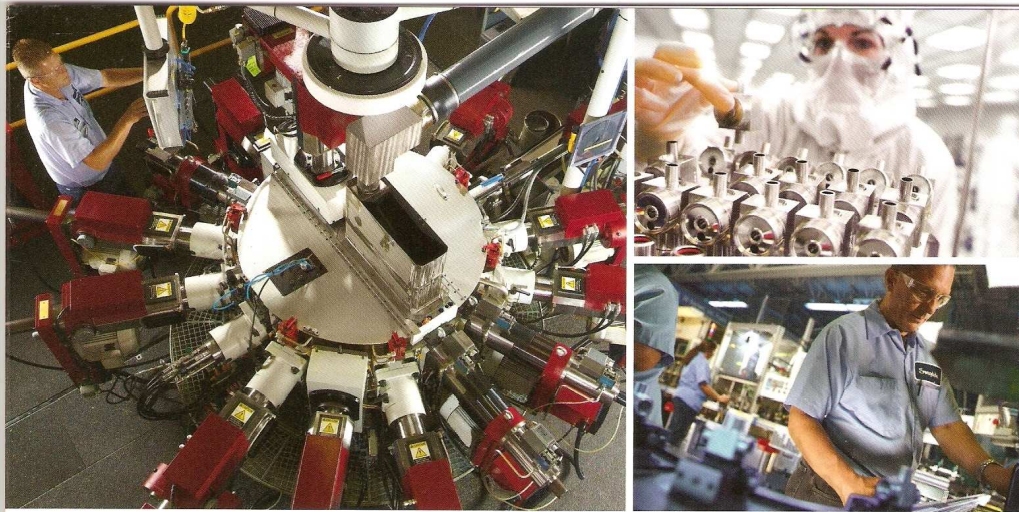


A Quick Look at Fluid System Solutions



Swagelok
MEET THE CHALLENGE™



Who We Are

Swagelok Company is a major developer and provider of fluid system solutions, including products, assemblies, and services for the research, instrumentation, pharmaceutical, oil and gas, power, petrochemical, alternative fuels, and semiconductor industries. Our manufacturing, research, technical support, and distribution facilities support a global network of more than 200 authorized sales and service centers in 57 countries.

People Behind the Product

Our highly educated team of metallurgists, polymer scientists, chemical engineers, and physicists are supported with state-of-the-art laboratories to ensure you receive the highest levels of quality, reliability, and performance in every Swagelok® product.

We are dedicated to understanding customer challenges and meeting them with new product development, continued refinement and adaptation of existing products, engineered-to-order products, custom configurations, subassemblies, and more.

Swagelok Company currently has over 400 patents in force and pending worldwide.

We employ proactive process control in the manufacturing of our products. This prevention-based quality management, combined with our stringent material selection processes and the high expectations to which we hold our suppliers, provides you the assurance that our products will meet your expectations for reliable performance and quality.

Swagelok Company's
expanding portfolio
of products,
assemblies, and
services helps you
solve your fluid
system problems.

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Tube Fittings

- Available in tube sizes 1/16 to 2 in. and 2 to 50 mm
- Consistent gaugeability upon initial installation
- Easy to disconnect and retighten
- Wide variety of materials and configurations

Patented Design: Excellent gas-tight sealing and tube-gripping action, easily achieved proper installation, consistent remakes, excellent vibration fatigue resistance and tube support, full compatibility with original Swagelok stainless steel tube fittings of identical sizes.



Instrumentation Valves

- Variety of end connections including integral Swagelok tube fitting
- Broad operating temperature range
- Large selection of sizes and materials
- Minimal dead volume and entrapment zones

Types: Ball, Needle, Check, Relief, Plug, Metering, Toggle, Manifold, Bleed and Purge



General Industrial Fittings

- Available in sizes 1/16 to 2 in. and 2 to 50 mm
- Wide variety of materials and configurations
- Pressures from vacuum to 60 000 psi (4134 bar)
- NPT, ISO/BSP, and SAE threads

Types: Pipe, Weld, Vacuum, Flange, Medium-Pressure



High-Purity Fittings

- Available in sizes 1/16 to 1 in. and 6 to 18 mm
- High-purity stainless steels and other materials
- Wide variety of configurations

Types: VCR® Face Seal, VCO® Face Seal, Micro-Fit®, Weld



Process Valves and Manifolds

- Integral tube fitting ball valves in sizes up to 2 in. and 50 mm
- Flanged process valves up to 3 in. (DN80)
- A large variety of special application valves

Types: Ball, Needle, Single Block, Single Block and Bleed, Double Block and Bleed, Manifold



Packless Valves

- High cycle, high-integrity sealing
- Low- and high-pressure models available
- All metal containment
- Shutoff, bulk-gas distribution, and isolation service
- High-purity stainless steels and other materials

Types: Bellows-Sealed, Diaphragm-Sealed



Plastic Products

- Innovative CR-288® concentration monitor provides process monitoring for inline liquid chemical applications
- Wide variety of PFA tube fittings and valves
- UHP fluoropolymer diaphragm valves
- High-purity PFA fine thread flare fittings

Types: PFA and Vinyl Tubing, PFA Plug Valves, PFA Needle Valves, Modified PTFE Diaphragm Valves and Concentration Monitor, PFA Check Valves and Fittings



Regulators

- Instrumentation-grade and ultrahigh-purity models
- Unique design features such as metal-to-metal seal to atmosphere
- Self-vent and captured-vent options

Types: Diaphragm Sensing, Piston Sensing, Pressure Reducing, Back Pressure, Vaporizing, Ultrahigh-Purity, Modular



Sanitary Products

- Exceptional range of 3A-compliant products
- Common configurations and special fabrications
- Large selection of valves, fittings, pumps, and accessories
- Designed for easy cleaning and draining

Types: BPE Fittings, TS Fittings, DR Radial Diaphragm Valves, Weir-Style Diaphragm Valves, Pumps, Block Body Valves, Skid-Mounted Systems, Tubing



Welding System

- Cost effective and reliable gas tungsten arc welds
- Lightweight, portable power supply
- Meets ASME-BPE 2002 welding standards

Types and Accessories: Traditional and High-Purity Power Supplies, Weld Heads, Fixture Blocks, Side Plates, Plenum, and Collets



Gauges and Transducers

- Swagelok tube adapter and Swagelok VCR end connections available for easy positioning
- A variety of mounting options
- Meet ASME, EN, and JIS standards

Gauge Types: Industrial, Process, Safety, Miniature, Low-Pressure, High-Purity
Transducer Types: Industrial, Explosion-Proof, Ultrahigh-Purity



Hoses

- Custom lengths and other end connection combinations available
- Wide variety of types and materials
- Broad operating pressure and temperature range
- Available in hose sizes 1/8 to 2 in. and 3 to 50 mm

Types: All-Metal, PTFE-Lined/Metal, Thermoplastic, Rubber, Vinyl, PFA



Modular Solutions

- O-ring and metal-to-metal sealing technologies suitable for instrumentation and ultrahigh-purity applications
- Compact footprint
- Lightweight, easy-to-assemble
- Wide variety of surface-mount components available

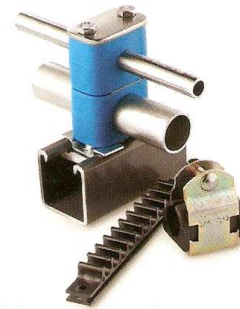
Types: Analytical MPC, Ultrahigh-Purity, IGCI[®], Modular Components, Configuration Software, System Assembly



Sample Cylinders

- Sizes from 10 to 3785 cm³ (1 gal)
- 304L, 316, 316L, and Alloy 400
- Working pressures up to 5000 psig (344 bar)
- Variety of options including integral valves, outage tubes, color-coding, and specialty coatings

Types: Sampling, Transportation-Compliant (DOT, TPED, Transport Canada, CCC), Single- and Double-Ended



Tubing and Tube Supports

- Stainless steel, copper, and PFA tubing
- Sizes from 1/16 to 4 in. OD and 3 to 25 mm OD
- Standard instrumentation and ultrahigh-purity tubing
- Tube support system for tube and hose sizes 1/4 to 1 in. and 6 to 25 mm

Types: Chemically Cleaned and Passivated Tubing, Sanitary Tubing, Ultrahigh-Purity Stainless Steel Tubing, Medium-Pressure Heavy-Walled Annealed Tubing



Filters

- Available for liquid and gas service
- Welded, inline, and tee-type configurations
- Wide variety of filter media available
- Membralox[®] ceramic filtering technology for high-purity applications

Types: Coalescing, Particulate, High-Purity



Quick-Connects

- Designed to minimize spillage and air inclusion
- Push-to-connect design enables quick, simple operation. No twisting, turning, or wrenching necessary
- Wide variety of configurations, end connections, and stem and body connectors

Types: Instrumentation, Single-End Shutoff, Double-End Shutoff, Full-Flow, Miniature, PTFE-Sealed



Tools and Accessories

- Tube benders, swaging units, gap inspection gauges
- Variety of wrenches, cutting tools, and deburring tools
- Liquid leak detectors, thread lubricants, and sealants

Types: Electric, Bench-Top, and Hand Tube Benders, Hydraulic Swaging Units, Snoop[®] and Goop[®] Products



Axess® Service

Axess is a convenient sourcing service available from your local Swagelok sales and service center to provide you products that complement Swagelok products. Axess is a chance to reduce suppliers, consolidate purchases, and leverage a trusted service channel for complementary products. We are responding to your changing business needs for a broader product range.

Products offered through Axess are supported by the customer service, product support resources, and warranty of the original manufacturer. To aid you in your selection and purchase, we offer the literature, product specifications, and availability information you need.

Applications Support

Whether you are an original equipment manufacturer or responsible for optimizing the daily maintenance, repair, and operation of your facility, you can count on us for knowledgeable support with technical information, product selection, and fluid system design.

eBusiness

Research, specify, and purchase Swagelok fluid system components in local language and currency.

- eCommerce and EDI
- CAD Templates
- Sales Drawings
- Configuration Tools and Calculators
- Multilingual Literature and Catalogs
- Online Quoting and Ordering

Integrated Services

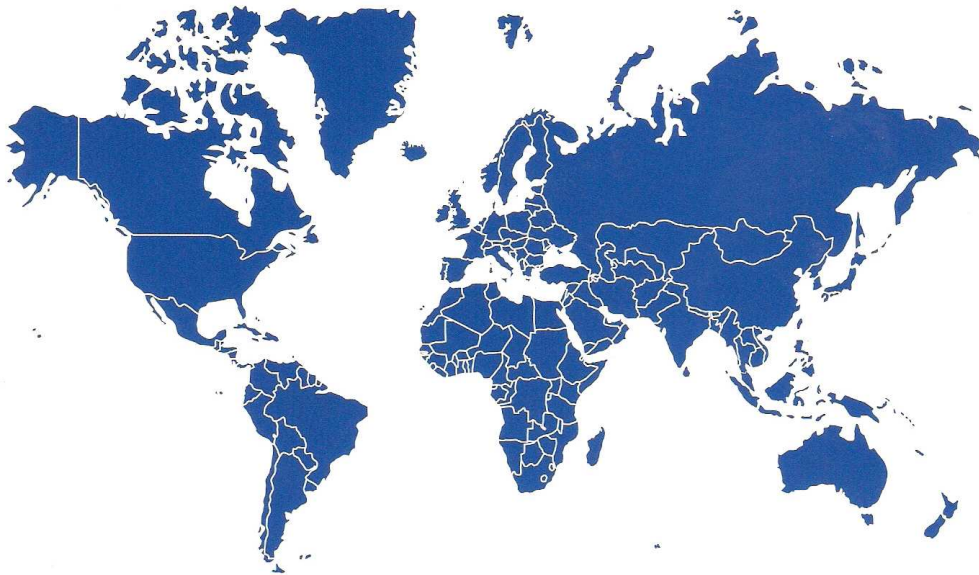
Reduce your planning, assembly, and purchasing costs by taking advantage of our many flexible assembly services.

Training and Education

Improve the overall safety of the work environment, increase productivity, and keep abreast of the latest fluid system technologies with our comprehensive customer training and education programs.

Global System/Product Approvals and Certifications

▪ ISO 9001 Quality System ▪ ISO 14001 Environmental Management System ▪ Vd TÜV ▪ ASME N and NPT Certificates ▪ European Pressure Equipment Directive (PED) ▪ METI/KHK ▪ Det Norske Veritas (DNV) ▪ Nippon Kaiji Kyokai (NK) ▪ American Bureau of Shipping (ABS) ▪ Lloyd's Register (LR) ▪ United States Department of the Navy ▪ ECE R110 and NGV 3.1/4.6 ▪ 3A Certifications ▪ Canadian Registration Numbers (CRNs) ▪ Chinese Compulsory Certificates (CCC) ▪ European Transportable Pressure Equipment Directives (TPED) ▪ Transport Canada (TC) ▪ U.S. Department of Transportation (DOT) ▪ GOST R and RTN



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