Swagelok

SWAGELOK VIETNAM



Engineered to perform under pressure

ABOUT SWAGELOK

Swagelok Company - A Global Leader Since 1947

Headquartered in Solon, Ohio, U.S.A, Swagelok Company is a global developer and provider of high-quality and reliable fluid system solutions including products, assemblies and services. For more than 70 years, the components we manufacture and the services we provide have remained integral to the success of our customers, and critical to the safety of those who work in high-risk environments and the environmental protection goals of their organizations. We take these responsibilities seriously and strive to provide value beyond the expected to our customers, associates, suppliers and communications every day.



MISSION

Apply our collective talents with understanding and passion to improve each day

VISION

Truly understand our customers' needs and act on them

\$2 BILLION

20
MANUFACTURING FACILITIES

\$10 MILLION

82
SALES & SERVICE CENTER
PRINCIPALS

225
SALES AND SERVICE CENTERS
WORLDWIDE

7,800 ASSOCIATES TO COUNTRIES

50 APPLICATION & FIELD ENGINEERS

6 GLOBAL TECH CENTERS

CONTINUOUS INNOVATION MEANS OUR STORY NEVER ENDS

Innovation applies to more than products.
It is the way Swagelok has conducted business since its inception in 1947.



FLUID SYSTEM SOLUTIONS FROM SWAGELOK VIETNAM

We're Listening, and We're Improving – Continually increasing the level of customer experience



Over 6000 stock items

SWAGELOK VIETNAM

Swagelok Vietnam is a leading solution provider of fluid system technologies. We are proud to be the only Swagelok authorized sales and service center servicing customers throughout Vietnam and Cambodia.

We provide the highest quality fluid system products, assemblies, and services that enable our customers to achieve their goals consistently and confidently, even in the most demanding and critical situations.

Our fluid system products and services run the range from tube fittings valves, regulators and hoses to custom solutions and more. This wide range of solutions allows our customer the convenience of a one-stop shop for their fluid system needs.

In our business, nothing is insignificant. Every second, every conversation, every product, every decimal point matters. We are here to deliver the best products and solutions possible to help our customers succeed.

The authorized Swagelok sales and service center for Swagelok Vietnam is M.J. Vietnam Co., Ltd.

milestones



M.J. VIETNAM CO., LTD.
Authorized Swagelok Sales and
Service Center (Swagelok Vietnam)



SWAGELOK VIETNAM LIMITED LIABILITY COMPANY



VIET MY CO., LTD. / SWAGELOK VIETNAM (REP OFFICE)



M.J. BANGKOK VALVES & FITTINGS (REP OFFICE)





NO MATTER YOUR INDUSTRY, WE HAVE ANSWERS FOR YOUR FLUID SYSTEM NEEDS.

- OIL AND GAS
- SEMICONDUCTOR
- ALTERNATIVE FUELS
- CHEMICAL/PETROCHEMICAL
- POWER/NUCLEAR
- ANALYTICAL INSTRUMENTATION
- AUTOMOTIVE
- FOOD, BEVERAGE AND DAIRY
- PROCESS INSTRUMENTATION
- PULP AND PAPER
- SHIPBUILDING

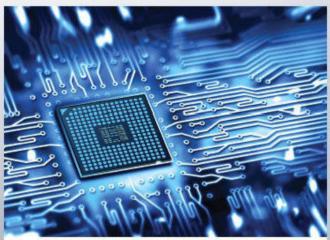
OIL & GAS



Wherever You are, We're There.

As a global organization with strong local presence, Swagelok can support you no matter whether your operating area is the Athabasca tar sands, Safaniya, Santos basin, Kashagan oil field, the South China Sea, or the Gulf Coast. Local sales and service centers deliver on personal service that leads to high-value relationships you can count on in the long run.

SEMICONDUCTOR



Meet Today's Demands. And Tomorrow's.

In the Semiconductor industry, corrosive gases, extreme temperatures, and precision are critical process variables, combined with the ever-increasing need for speed, repeatability, and cleanliness.

Count on Swagelok to help you meet your application needs today—and tomorrow. Our ongoing commitment to quality ensures throughput, consistency, and cleanliness—every time.

ALTERNATIVE FULES



Continuing Innovation

We continue to develop and refine products that help our customers achieve their goals, like the Swagelok Assembly-by-Torque (AbT) fitting. Improve the repeatability, accuracy, and speed of your tube fitting installation using a torque wrench.

CHEMICAL PETROCHEMICAL



Pressure Tested

With process and analytical instrumentation from Swagelok, you get the knowledge you need to drive solutions that optimize your process.

From maintaining accurate pressure, temperature, flow and analytical measurements to improving uptime of rotating equipment and emissions monitoring systems, the pressure to improve performance doesn't stop. For that, you don't need parts—you need partnerships. That's what you get with Swagelok.

POWER



Connect, Convey, Control, Customize. Swagelok has You Covered

No matter what segment of the power industry you operate in, Swagelok stands behind you with the highest levels of quality, reliability, and performance, backed by 65+ years in the industry, and meeting key standards, including ASME Section III and B16.34.



Tube Fittings

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

Patented Design: Excellent gas-tight sealing and tubegripping 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.



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®, and Weld





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

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



Welding System

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

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



- i ackiess vaives
- High cycle, high integrity sealing
- · High & low pressure models available
- · All metal containment in metal valves
- · Shutoff, bulk-gas distribution, & isolation service
- · High-purity stainless steels & PFA materials

Types: Belows-Sealed, Diaphragm-Sealed



Process Valves & Manifolds

- Integral tube fitting ball valves in sizes up to 2 in. & 50 mm
- Flanged process interface valves up to 2 in. (DN80)
- · Large variety of special application valves

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



Regulators

- · Instrumentation-grade & ultrahigh-purity models
- · Unique design features such as metal-to-metal seal to atmosphere
- · Process regulators up to 4 in.
- · Self-vent & captured-vent options
- · Spring, dome, & air loading, pilot operated, high sensitivity

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



Filters

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

Types: Coalescing, Particulate, High-Purity



Measurement Devices

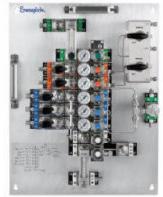
- · Vertical flow sensors
- Gauges
- Thermometers & thermowells
- Transducers
- · Variable flowmeters

Gauge Types: Clean, Dry Air, Industrial, Process, Sanitary, Panel-Builder, Ultrahigh-Purity

Transducer Types: Industrial, Explosion-Proof, Intrinsically Safe, Ultrahigh-Purity









Pre-Engineered Subsystems

- · Predesigned & preassembled subsystems
- $\bullet\,$ For use in all types of plants & facilities where fluids are being processed
- Used to create fully documented fluid sampling & control systems
- · Bring consistency to your operations
- · Easy to install & operate



- Sizes from 150 to 3785 cm3 (1 gal)
- 304L, 316, 316L, and Alloy 400
- Working pressures up to 5000psig (344 bar)
- Variety of options including integral valves, outage tubes, colour-coding, & specialty coatings

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





Smart Products

- Intrinsically Safe Pressure and Temperature Transducer (PTX Series)
- Intelligent Control Module (ICM) product
- · Digital inputs/proximity sensor ports
- Indicator LEDs for pilot valve state, network status, and module status
- Pneumatic pilot valve ports
- Analog input ports for Swagelok intrinsically safe PTX series pressure and temperature transducers or other sensors



Hoses and Flexible Tubing

- · Multiple-layered flexible conduit hose
- · Single-layered flexible conduit tubing
- · Static and dynamic applications
- Vacuum service to working pressures up to 6000 psig (413 bar)
- Temperature ranges -325 to 1000°F (-200 to 537°C)
- · ECE R110-approved hoses available

Types: Metal, PTFE, PFA, Vinyl, Nylon, Polyethylene, & Rubber Core Materials



Quick Connects

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

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



- · Stainless steel tubing
- Sizes from 1/16 to 4 in. OD and 3 to 25 mm OD
- · Standard instrumentation and ultra-high-purity tubing
- Tube support system for tube and hose sizes 1/4 to 1 in. and 6 to 25 mm
- · Tube benders & tube preparation tools
- · Variety of cutting tools, and deburring tools, Swaging units

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



Leak Detectors, Lubricants, Sealants

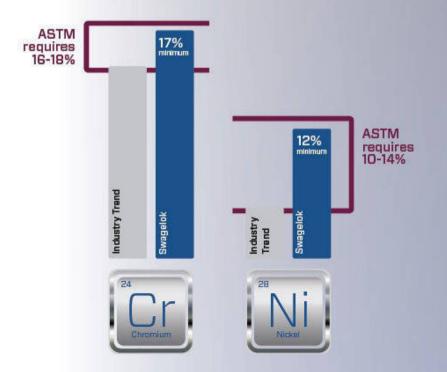
- · Liquid leak detectors, thread lubricants, and sealants
- Snoop® Liquid Leak Detectors indicate leakage with bubbling action
- Swak[®] Pipe Thread Sealants or PTFE Tape. Goop[®] Thread Lubricants make assembling pipe easier

A Material Different

WHAT'S IN YOUR STAINLESS STEEL?

YOU CAN BE CONFIDENT WE KNOW WHAT'S IN OURS.

Chromium and nickel are critical for corrosion resistance and ductility in stainless steel. Swagelok has maintained chromium content in its fittings at a minimum of 17% and nickel at a minimum of 12% for many years.



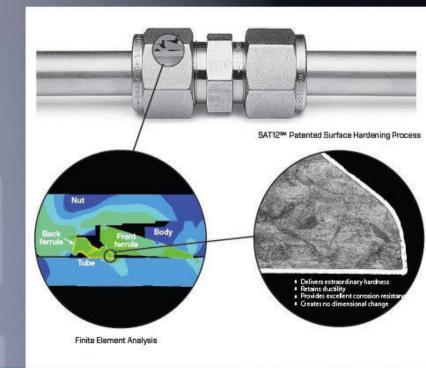


Better by Manufacturing Control

ONLY THE BEST FOR YOUR CRITICAL COMPONENTS

SAT12 is Swagelok's unique low-temperature carburization process. It achieves a phenomenal tool steel-like hardness and strength in the ferrule without sacrificing corrosion resistance or material ductility (is non-brittle). Benefits:

- · Increased surface hardness, while retaining significant ductility
- · Improved wear resistance
- · Improved fatigue resistance
- Improved corrosion resistance in certain media, such as saltwater
- · No distortion or change of shape





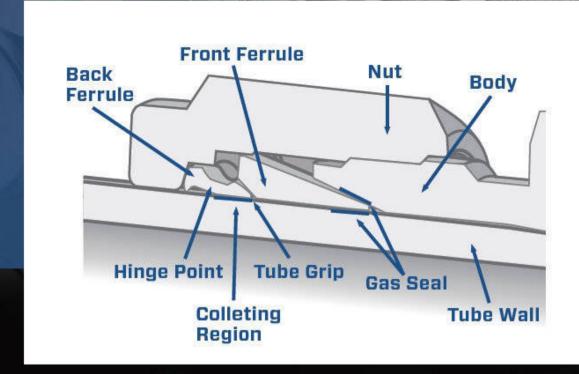
This is one of the most significant breakthroughs in material science in many decades, as well as one with many extraordinary technical implications."

—A RTHUR HEUER, PHD, KYOCERA PROFESSOR OF MATERIALS, CASE WESTERN RESERVE UNIVERSITY

HOW WE OUTPERFORM

Swagelok tube fittings have a **grip-type design** that uses a unique **"hinging and colleting"** action to achieve optimal performance in three key areas:

- Tube grip—hinging and colleting action provides more direct tube contact/gripping support.
- Gas seal—burnishing/polishing action of the front ferrule creates concentrated zones of contact on the tube and on the body bevel for a stronger seal.
- Vibration resistance—the colleting region better isolates stress risers at the tube grip to resist bending, deflection, and vibration.



TESTED TO EXTREMES

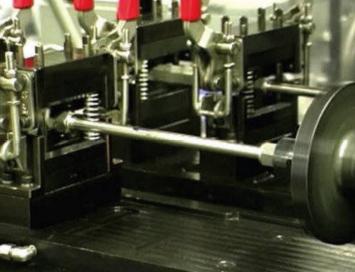
CONSTANTLY EVALUATING THE PERFORMANCE OF OUR PRODUCTS MEANS CUSTOMERS NEVER NEED TO RE-EVALUATE THEIR CHOICES.

Swagelok performs CONTINUOUS, RIGOROUSTESTING ON THOUSANDS OF SAMPLES of production tube fittings to ensure only highly reliable components.

OUR PASSION FOR PERFECTION:

- We publish the most comprehensive book of tube fitting Product Test
 Reports (PTRs) in the industry
- Ongoing validation tests ensure fittings consistently meet our most stringent standards
- We conduct customized testing, Customer Test Reports (CTRs) for customers in our state-of-the-art labs, replicating specific conditions for any application







Swagelok fittings are subjected to extreme burn, rotary flex, impulse, corrosion, and shock impact testing; some tests take as many as 10 million cycles to complete

NEVER INTERMIX/INTERCHANGE FITTINGS

It is a **poor practice to intermix/interchange tube fittings** from different manufacturers.

There is no industrywide commercial design standard for fittings, meaning:

- Each manufacturer follows its own standards and processes
- An intermixed/interchanged fitting is essentially a new untested design
- The user accepts full responsibility for performance and outcome
- Voids Swagelok's Limited Lifetime Warranty

Avoid possible performance issues, leaks, costs, and safety concerns—NEVER intermix/interchange tube fittings.

NO MANUFACTURER CAN RELIABLY AND UNIFORMLY REPLICATE THE PRODUCTS OF ANOTHER.

THE SWAGELOK LIMITED LIFETIME WARRANTY A PROMISE AS STRONG AS OUR PRODUCTS

Swagelok and its authorized distributors hereby warrant to the purchaser of their Products that the non-electrical components shall be free from defects in material and workmanship for the life of the Products. All electrical components installed in or on the Product are warranted to be free from defects in material and workmanship for twelve months from the date of purchase.

The purchaser's remedies shall be limited to replacement and, in non-ground-vehicle applications, installation of any parts that fail through a defect in material or workmanship. Liability for installation is limited to reasonable costs that have been approved in advance and in writing by Swagelok. All customer-specified components carry the applicable manufacturer's warranty.

Warranty coverage hereunder only applies to Products purchased directly from either Swagelok or its authorized distributors and representatives. All other purchases are specifically excluded from any warranty coverage

ALL OTHER REPRESENTATIONS, EXPRESS OR IMPLIED, WARRANTY, OR LIABILITY RELATING TO THE CONDITION OR USE OF THE PRODUCT ARE SPECIFICALLY DISAVOWED, AND IN NO EVENT SHALL SWAGELOK AND ITS AUTHORIZED DISTRIBUTORS BE LIABLE TO PURCHASER, OR ANY THIRD PARTY, FOR ANY DIRECT OR INDIRECT CONSEQUENTIAL OR INCIDENTAL DAMAGES.

PROTECT YOUR FLUID SYSTEM INVESTMENT FROM INSTALLATION TO EVERYTHING AFTER.

SWAGELOK® CUSTOM SOLUTIONS LET US BE YOUR HIGH-PERFORMANCE TECHNICAL PARTNER

No one knows the inner workings and intricacies of fluid system components better than Swagelok.

We can build custom assemblies to meet specifications for many industries. You will find no higher quality or expertise anywhere.

All assemblies:

- · Use only high-quality components
- · Are built by Swagelok-certified assemblers
- Are backed by the Swagelok Limited Lifetime Warranty
- · Are pressure- and/or leak-tested

From quote to delivery, we can also provide the detailed support you need, including CAD drawings, piping and instrumentation diagrams (P&ID), and a bill of materials.

Whatever your idea...



We'll help you design it...



create the CAD...



build it...



and warranty it...











Swagelok® Quality System (SQS)

- Compatible with ISO 9001-2000.
- Ensures any product or service you receive is consistent, high-level quality.

SWAGELOK® GRAB SAMPLING SYSTEMS

CONFIGURABLE, LOCAL, RELIABLE.

Swagelok now offers standard grab sample panel designs that can be customized to your specific needs.

What is Grab Sampling?

Grab sampling, also known as lab sampling or spot sampling, is the collecting of a sample of fluid or gas in a pipeline, tank, or system with the intent of transporting the sample to a laboratory for analysis.

Did you know?

A key feature of the GSM is the switching valve that directs flow. Using the Swagelok 40G series ball valve for this switching valve, the GSM is available in either 2- or 3- valve configurations. This allows for simultaneous control of fluid routing, reducing the number of sequencing steps required to draw a sample. The likelihood of errant sampling is reduced and a clear indication of sequencing is provided to the operator. This valve assembly is a standard on all GSM panels as well as fixed volume GSL panels.

SWAGELOK OFFERS TWO CATEGORIES OF GRAB SAMPLING SYSTEMS

BOTTLE SAMPLERS



SYLINDER SAMPLERS



Training

STRONG TODAY. STRONGER TOMORROW.

Build an even better workforce today with Swagelok training. Choose from expert-led, Swagelok-certified training at your site, or online classes via Swagelok® University. All designed to help you maximize today—and strengthen tomorrow.

Our training and education programs cover many areas, from trends and technology to installation and safety. For example:

- Swagelok® Tube Fittings Installation Essentials Training
- Swagelok® Tube Bending Inspection Essentials Training
- Swagelok® Tube Bending Essentials Training
- Swagelok® Hose Essentials Training
- . Swagelok® Medium & High Pressure Cone &Thread Essentials Training

Cost-saving Improve safety Minimize errors Increase productivity



"Top performing companies not only recognize the importance of their people but also the need to provide the right skills to enable their people."

—IBM Corporation, The Value of Training, 2014

Training: Analytical Instrumentation

PROCESS ANALYZER SAMPLING SYSTEMS (PASS)

Improve process accuracy and optimize analyzer performance by:

- · Recognizing and diagnosing sample transport problems
- · Calculating pressure drop in a fast loop or return line
- · Preventing or controlling phase separation
- · Reading and creating sample system schematics
- Designing and building your own sample system

This class is appropriate for: Engineers, Chemists, Technicians, or those involved in the design, building, operation, or maintenance of process, analyzer sample systems.

Class duration: 5 days

SAMPLE SYSTEM PROBLEM SOLVING AND MAINTENANCE

Improve sample system performance by:

- · Calculating and optimizing sample transport lag (time delay) for liquids and gases
- · Selecting and maintaining sample system hardware
- Troubleshooting and improving existing sample system designs

This class is appropriate for: Analyzer Technicians, Maintenance Personnel, and those new to sample systems

Class duration: 2 days

ON-SITE INSPECTION SERVICES

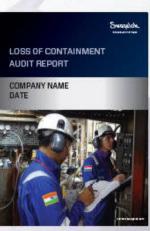
WORLD-CLASS, UNBIASED, UN-PARALLELED.

What to expect from this service:

- · A thorough discussion of your facility's goals
- A visual analysis of all instrumentation or small bore systems
- · Detailed, expert-reviewed reports containing:
- On-site service work pack: scope of service, safety, tools, personnel and PPE
- _ Daily progress report: progress, weather, personnel and challenges or issue
- Preliminary report: summary of findings with serial No.
- On-site service technical report: details findings with evidences
- A product update with our survey findings or creation of a new database, depending on your facility's needs.









IMPROVE PLANT MAINTENANCE



ASSET INTEGRITY SMALL BORE TUBING (AISBT)

- Installation review, highlight incorrect application of products and materials choice, variation in installation practice
- · Qualification of system integrity, safety and performance
- · Priority based maintenance requirement
- · Installer training and development
- .. Opportunities for system improvement and optimization.

STEAM SERVICES

- Establishing an efficient leak detection and repair program for steam and compressed gas systems
- · Documenting conditions / actions
- · Reducing downtime
- · Quantifiable results; lowering overall system costs and increasing profitability
- · Decreasing maintenance costs
- · Developing installation core skills
- · Increasing safety and regulatory compliance
- · Lowering emissions
- · Reducing carbon footprint.



HOSE ADVISORY SERVICE (HAS)

- · Analysis of all hose systems
- Detailed, expert-reviewed report containing overall findings
- Prioritized improvement and suggested replacement options
- Preventative maintenance schedules and hose inspection recommendations for your specific facility
- Hose register update with our survey findings or creation of a new database, dependant on your facility needs.



Global System/Product Approvals and Certifications

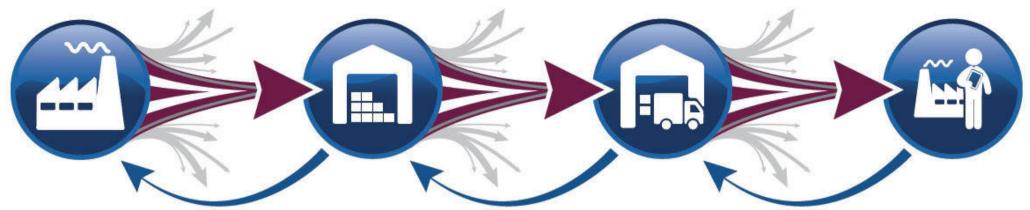
ISO 9001 Quality System | ISO 14001 Environmental Management System | Vd TÜV, ASME N and NPT Certificates | European Pressure Equipment Directive (PED) | METI/KHK | Det Norske Veritas (DNV) | Nippon Kaiji Kyokai (NK) | American Bureau of Shipping (ABS) | Lloyd's Register (LR) | United States Department 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





A STRONGER SUPPLY CHAIN

Swagelok Vietnam can support your success wherever it takes you. With our distribution network, inventory and availability, you are never far from the products you need, when you need them.



20 Swagelok's Manufacturing Centers

 2 shipments from Swagelok per week

The Swagelok Advantage starts with highly reliable components machined from high-quality raw materials.

Local Warehouses & Bonded Warehouse

- 500S of standard products in inventory
- In 2017, we hold almost 10% our annual usage of Swagelok products
- 02 warehouses in Ho Chi Minh and Ha Noi Availability is a critical part of our brand promise.

We ensure our distributors have the right level of inventory for the products you need immediately.

Fast & Accurate Delivery

- 60-80 shipments per month
- 720-960shipments per year.
- 100% inventory accuracy
- 97% on time and accurate DELIVERY LEAD TIME
- · Standard Product:
- Deliver within 2 days to Ho Chi Minh area and 5 dasy to other areas if stock available
- Deliver within 2-3 weeks if no stock
- · ATO, MTO, ETOP:
- As Swagelok duration +2 weeks delivery

Deliver at Place & Multi-modal delivery

- 15 delivery routes per month
- Multi-modal delivery with many type of transportations and forwarding couriers

SWAGELOK VIETNAM OFFICES AND WAREHOUSES LOCATION





Office Hours: Mon-Fri, 8:00 - 17:00

HO CHI MINH HEAD OFFICE & WAREHOUSE:

3E/16 Pho Quang Street, Ward 2, Tan Binh District

Ho Chi Minh City, Vietnam Tel: (84) 28 3842 0504 Fax: (84) 28 3842 0704





HA NOI OFFICE & WAREHOUSE:

TT3-B30, Van Quan Residence Zone Phuc La Ward, Ha Dong District, Ha Noi City, Vietnam

Tel: (84) 24 7107 6688 Fax: (84) 28 3842 0704



SWAGELOK IN INDOCHINA

Swagelok in Indochina is serviced primarily by M.J. Group, which is under the same ownership of Monsit Tayarajkul.

We operate under O2 independent companies: M.J. Bangkok

Valve & Fittings Co. Ltd. and M.J. Vietnam Co., Ltd.

We are proud to be The Only Authorized Swagelok Sales and Service Centers servicing customers in Thailand, Myanmar, Laos, Vietnam and Cambodia.

SERVICE AREAS







