# Swagelok



# Swagelok® Medium - High Pressure Products (FK Series)

Create strong, reliable connections faster—even in high-risk, high-vibration environments. Swagelok delivers high-quality performance when the pressure is at its highest. Our patented FK series medium pressure fittings provide reliable, leak tight performance in high-vibration environments. Looking to maintain your traditional cone and thread system?

Swagelok carries a range of options in various alloys and sizes up to 1½ inches, and anti-vibration options to help ensure a leak-tight system.

| Product Type   | Maximum Working Pressure, psig (bar) |                      |
|--|--------------------------------------|----------------------|
|  | Medium Pressure                      | High Pressure        |
| Ball Valves  | Up to 20 000 (1 378)                 |                      |
| Check Valves   |                                      | Up to 60 000 (4 134) |
| Cone & Thread Fittings, Adapters, and Couplings          |                                      | Up to 60 000 (4 134) |
| Double Block & Bleed Valves                              |                                      |                      |
| FK Medium-Pressure Gaugeable Tube Fittings               |                                      |                      |
| Needle Valves  |                                      | Up to 60 000 (4 134) |
| Relief Valves  |                                      |                      |
| Tubing   |                                      | Up to 60 000 (4 134) |
| FK Medium-Pressure Gaugeable Tube Fittings in 2507 Alloy | Up to 22 500 (1 551)                 |                      |

## The Advantage of FK Series

#### Reduce installation cost

- Installs approximately 5x faster than cone and thread connections.
- Requires common tools, simple assembly methods, and minimal.

#### Improve uptime

- Reduces unplanned maintenance with no leaks during use.
- Provides reliable performance in dynamic (vibrating) systems.

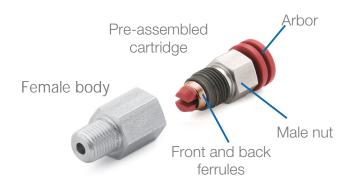
# Boost safety and environmental compliance

 Avoids environmental noncompliance and costs with leak-tight design and offers proven reliability, with more than 100,000 connections installed.

#### **Features**

The simple two-piece design of the Swagelok® medium pressure fittings (FK series) and adapters consists of a female fittings body and pre-assembled cartridge containing the male nut and color-coded front and back ferrules on a disposable plastic arbour.

The pre-assembled cartridge ensures installers correct ferrule orientation, visual confirmation of ferrule presence, and proper installation into the female body. Components are released only after the nut is threaded finger-tight on the fittings body.



| Component     | Material/ASTM Specification |  |
|---------------|-----------------------------|--|
| Body          | 316 SS/A276, A479           |  |
| Front ferrule | 316 SS/A276                 |  |
| Nut¹          | 316 SS/A276, A479           |  |
| Back ferrule  | 316 SS/A276                 |  |

Wetted components listed in *italics*.

1 Molybdenum disulfide-based lubricant

# Additional features of this novel tube fittings technology include

- Patented low-temperature case hardening processing of the ferrules, plus the specially designed ferrule geometry, promotes a patented hinging-colleting™ action.
- Easy installation, by specified turns or torque.
- Simple two-piece construction, body and cartridge.
- Leak-tight performance on a variety of tubing types and materials.
- Strain-hardened stainless-steel bodies offer lightweight, space-saving designs.
- Extensive Swagelok product test reports and third-party test reports.



## The Anatomy of Swagelok® FK Series Fittings

Swagelok® FK series fittings engineered for reliable performance that your mobility applications Uncompromising demand. Vibration Resistance The FK series fittings maintain grip and force even under high vibration and loading via two-ferrule, hinging-colleting™ action. Reliable Grip Performance Up to **Gas Seal** Two contact zones, along the tube and Low-temperature, case-hardened ferrules another along the fittings body, deliver outstanding leak-tightness. create high pressure ratings ideal for medium high pressure application. Chromium An innovative design allows far faster assembly than minimum traditional cone and thread fittings. A preassembled Protects against common corrosion. Defends against cartridge enables installers to use common tools and hydrogen embrittlement. requires minimal training.

# **Fittings**

# Swagelok<sup>®</sup> Medium Pressure Gaugeable Fittings for FK Series



Simple and easy to install Swagelok® innovative FK medium pressure compression fittings and adapters offer leak-tight gas seal and vibration resistance in applications up to 20,000 psig (1,378 bar).

FK fittings are offered in 316 stainless steel, alloy 2507 super duplex (NACE and NORSOK compliant), and alloy 625 (NACE compliant) with proven performance on a variety of tubing types and materials.

## **Valves**

### Swagelok® Ball Valves for FK Series



Swagelok® ball valves offer smooth quarter turn operation in a compact design, providing positive shutoff in applications up to 20,000 psig (1,378 bar). Air actuated options available.



## **Tubing**

# Swagelok® Medium-Pressure **Tubing for FK Series**



Put it all together with heavy-wall annealed or cold-drawn, 1/8 hard 316 stainless steel tubing. Enhanced corrosion protection can be realized by using annealed alloy 2507 super duplex tubing.

With its increased material strength that allows for reduced wall thickness and enhanced ow through the same diameter tube, this is the perfect match for the Swagelok® FK fitting made in either 316 stainless steel or alloy 2507 super duplex. Swagelok® medium-pressure tubing handles pressure up to 20,000 psig (1,378 bar).

# Training, Tools, and **Accessories**

Complete your assembly capabilities with training, tools, and accessories regardless the connection type integrated within your system. Ensure simple and safe installation of our FK fittings with these convenient tools and accessories.

#### **Training**

· Swagelok® FK essentials training.

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#### Tools and Accessories



· Depth marking tool.



· Preswagging tool.



 Medium-pressure gap inspection gauge.



 Multihead hydraulic swagging unit for 3/4 in. (12FK).



 Multihead hydraulic swagging unit for 1 in. (16FK).



Please scan to explore more about medium - high pressure products.

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