1. Thread the preassembled cartridge into the fitting body until finger-tight.

2. Insert tubing into the fitting.

3. Mark the nut, then hold the body steady and tighten the nut one full turn.

4. Place a mark on the fitting body in line with one of the hex points of the nut.

5. Use the Swagelok medium-pressure gap inspection gauge to ensure that the fitting has been tightened sufficiently. See Gaugeability section for details.

Tools Required
- Swagelok FK medium-pressure gap inspection gauge
- Wrench
- Non-chloride permanent marker
- Optional: Silver Goop™ high-temperature lubricant.
  - For temperatures above 400°F (204°C), apply to fitting nut threads.

Tubing OD | 316 SS Only Required Torque | Alloy 2507 Only Required Torque
--- | --- | ---
6 mm | 25 ft-lb | 35 N·m
3/8 in. | 45 lb-ft | 60 N·m
10 mm | 100 lb-ft | 135 N·m
12 mm | 110 lb-ft | 150 N·m
1/2 in. | 140 lb-ft | 190 N·m
9/16 in. | 170 lb-ft | 230 N·m
3/4 in. | 225 lb-ft | 305 N·m

Use the Swagelok medium-pressure gap inspection gauge to ensure that the fitting has been tightened sufficiently. See Gaugeability section for details.

5. Thread the preassembled cartridge into the fitting body until finger-tight.

6. Inspect the tube end for bottoming marks. These radial indentations indicate the tubing was properly bottomed in the MHSU. If there are not four visible indentations, the preswaged assembly should not be used.

3. Insert tubing with preswaged ferrules into the fitting body until the front ferrule seats against the fitting body; rotate the nut finger-tight.

4. Mark the nut, then hold the body steady and tighten the nut one full turn.

316 SS and Alloy 2507—3/4 in.

- 316 SS and Alloy 2507—3/4 in.
- Refer to appropriate material and size.
- Hold the body steady and tighten the nut to the specified torque.

316 SS and Alloy 2507 Connections Preswaged with the MHSU (3/4 in. Size)

- 3/4 in. medium-pressure tube fittings that have been preswaged, refer to 316 SS, Alloy 2507, and Alloy 625 Connections Preswaged with the MHSU (3/4 in. Size).

1. Preswage the ferrules onto the tube using a Swagelok multthead hydraulic swaging unit (MHSU) and the appropriate medium-pressure tooling. See the Multihead Hydraulic Swaging Unit (MHSU) Setup and Operating Instructions, MS-12-37.

2. Use the Swagelok medium-pressure gap inspection gauge to ensure that the fitting has been tightened sufficiently. See Gaugeability section for details.

6. Use the Swagelok medium-pressure gap inspection gauge to ensure that the fitting has been tightened sufficiently. See Gaugeability section for details.

Instructions for Swagelok® Medium-Pressure Tube Fittings

These instructions apply to Swagelok FK series medium-pressure tube fittings as follows:

- Materials: 316 stainless steel, alloy 2507, and alloy 625
- Arbor colors: Red for fractional 316 SS; Yellow for metric 316 SS, Orange for alloy 2507 and alloy 625
- 316 SS sizes: 1/4 to 3/4 in. and 6 to 12 mm
- Alloy 2507 and alloy 625 sizes: 1/4, 3/8, 1/2, and 3/4 in.
- To install 3/4 in. medium-pressure tube fittings that have been preswaged, refer to 316 SS, Alloy 2507, and Alloy 625 Connections Preswaged with the MHSU (3/4 in. Size).
Reassembly Instructions
You may disassemble and reassemble Swagelok medium-pressure fitting many times.

1. Insert the tubing with preswaged ferrules into the fitting body until the front ferrule seats; rotate the nut finger-tight.

316 SS and Alloy 2507
2. Rotate the nut with a wrench and tighten to the specified torque.

Alternately, rotate the nut with a wrench and tighten to the previously pulled-up position. At this point, you will feel a significant increase in resistance. Tighten the nut slightly with a wrench.

Alloy 625
2. Rotate the nut with a wrench to the previously pulled-up position. At this point, you will feel a significant increase in resistance. Tighten the nut slightly with a wrench.

316 SS and Alloy 2507
Hold the body steady and tighten the plug to the specified torque.

Port Connectors Installation Instructions
For installation of the machined ferrule end of the port connector, see Plug Installation.

For installation of the pre-swaged ferrule end of the port connector, see Tube Adapters and Reducers Installation.

Reassembly Instructions
You may disassemble and reassemble Swagelok medium-pressure fitting many times.

1. Insert the tubing with preswaged ferrules into the fitting body until the front ferrule seats; rotate the nut finger-tight.

316 SS and Alloy 2507
2. Rotate the nut with a wrench and tighten to the specified torque.

Alternately, rotate the nut with a wrench and tighten to the previously pulled-up position. At this point, you will feel a significant increase in resistance. Tighten the nut slightly with a wrench.

Alloy 625
2. Rotate the nut with a wrench to the previously pulled-up position. At this point, you will feel a significant increase in resistance. Tighten the nut slightly with a wrench.

316 SS and Alloy 2507
Hold the body steady and tighten the plug to the specified torque.

Plug Installation Instructions
See instructions for medium-pressure tube fittings on the reverse side of this card.

12 mm
1/2 in.
9/16 in.
3/4 in.

Gaugeability
On initial installation, the Swagelok medium-pressure gap inspection gauge assures the installer or inspector that a fitting has been sufficiently tightened.

Position the Swagelok medium-pressure gap inspection gauge next to the gap between the nut and body.

If the gauge will not enter the gap, the fitting is sufficiently tightened.

If the gauge will enter the gap, additional tightening is required. Hold the fitting body steady and tighten the nut slightly.

Then check the gap with the gap inspection gauge. If the gap inspection gauge will still enter the gap, then slightly tighten the nut again.

Repeat the additional tightening until the gap inspection gauge will not enter the gap.

Notice: Do not use the gap inspection gauge with reassembled fittings. Use of a gap inspection gauge on reassembled fittings does not ensure sufficient tightening of fitting, potentially resulting in system leakage.

Caution: Do not mix or interchange parts with those of other manufacturers.