

SWAGELOK FITTINGS

Swagelok fittings come to you completely assembled, finger-tight, and ready to use.

Do not take apart the fittings before you are ready to use them; dirt can get into the fitting and cause leaks. You also risk damaging the threads of the fittings if the nuts are removed.

This is a double ferrule system. The most common installation problem encountered with Sea Frost is the incorrect assembly of the fittings. Assemble all fittings as shown in figure 1.

Note: Loosen the nut slightly before assembly, and then retighten with your fingers before tightening with a wrench. This avoids cross threading.



Figure 1 ~ Swagelok Fitting Assembly

Swagelok Installation Instructions

1. Always leave two inches of straight, undistorted copper tubing leading to all Swagelok fittings to allow proper connection. Measure the tubing the correct distance from the end and mark with a pencil. Refer to Table #1.

Table # 1 Scribe Line Measurements

Copper Tubing Diameter (Inches)	Measurement from the end of the tubing (Inches)
3/8	11/16
5/16	5/8
1/4	9/16

2. Insert the marked copper tubing, into the Swagelok tube fitting body. See figure 2. The tubing should rest firmly on the shoulder of the fitting body so that the pencil mark is flush with the nut. This mark will also show that the tube has not moved before tightening. Tighten the nut with your fingers. As you tighten the fitting, the space from the pencil mark to the shoulder increases.



Figure 2 ~ Insert Tube into Fitting Body

3. Scribe the nut at the six O'clock position. See figure 3.
4. Tighten the nut wrench snug. Wrench snug is the first point when the tube cannot be pulled from the fitting, (when the ferrules tighten enough to contact the tubing).
5. Hold the fitting body with a back-up wrench and tighten the nut one-and-one-quarter turns ($1\frac{1}{4}$) from the scribe mark.



Figure 3 ~ Scribe Fitting at Six O'clock



Figure 4 ~ Turn the Nut $1\frac{1}{4}$ Turns

Note: Make all connections with two wrenches, do not allow the fittings to turn or twist when tightening. Tighten Swagelok fittings to a torque spec, not infinite tightness. Be sure your starting point is wrench snug. A distorted tube will give a false starting point.

Reconnecting Pre-Swaged Fittings

You can disassemble and retighten Swagelok tube fittings many times.

1. Insert the tubing with pre-swaged ferrules into the fitting body until the front ferrule seats.
2. Tighten the nut by hand.
3. Tighten approximately one-quarter turn with a wrench.