Wenzhou Huiyi Valve and Fittings Co.,Ltd

Compression Fittings Installation Instructions

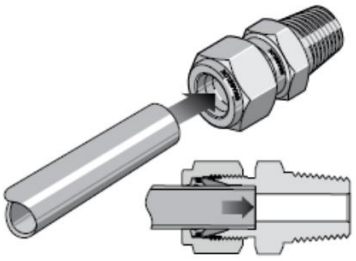
Tubing Considerations

- Metal tubing material should be softer than fitting material. For example, stainless steel tubing should not be used with brass fittings.
- When tubing and fittings are made of the same material, tubing must be fully annealed.
- Always use an insert with extremely soft or pliable plastic tubing.
- Extremes of wall thickness should always be checked against the suggested minimum and maximum wall thickness limitations.
- Surface finish is very important to proper sealing. Tubing with any kind of depression, scratch, raised portion, or other surface defect will be difficult to seal, particularly in gas service.
- Tubing that is oval and will not easily fit through fitting nuts, ferrules, and bodies should never be forced into the fitting.

Installation Instructions

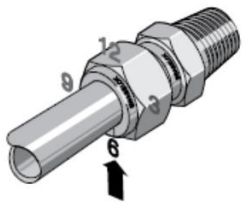
Tube Fittings Up to 1 in./25 mm

These instructions apply both to traditional fittings and to fittings with the advanced back-ferrule geometry.

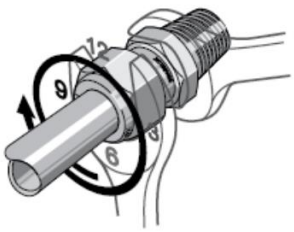


Fully insert the tube into the fitting and against the shoulder; rotate the nut finger-tight.

High-pressure applications and high safety-factor systems: *Further tighten the nut until the tube will not turn by hand or move axially in the fitting.*



Mark the nut at the 6 o'clock position.



While holding the fitting body steady, tighten the nut one and one-quarter turns to the 9 o'clock position.

For 1/16, 1/8, and 3/16 in.; 2, 3, and 4 mm tube fittings, tighten the nut only three-quarters turn to the 3 o'clock position.

Tube Fittings Over 1 in./25 mm

1. Preswage the ferrules onto the tube using a multihead hydraulic swaging unit.
2. Apply the lubricant packaged with the fitting lightly to the body threads and the rear surface of the back ferrule.
3. Insert the tube with preswaged ferrules into the fitting until the front ferrule seats against the fitting body; rotate the nut finger-tight.
4. Mark the nut at the 6 o'clock position.
5. While holding the fitting body steady, tighten the nut one-half turn to the 12 o'clock position.

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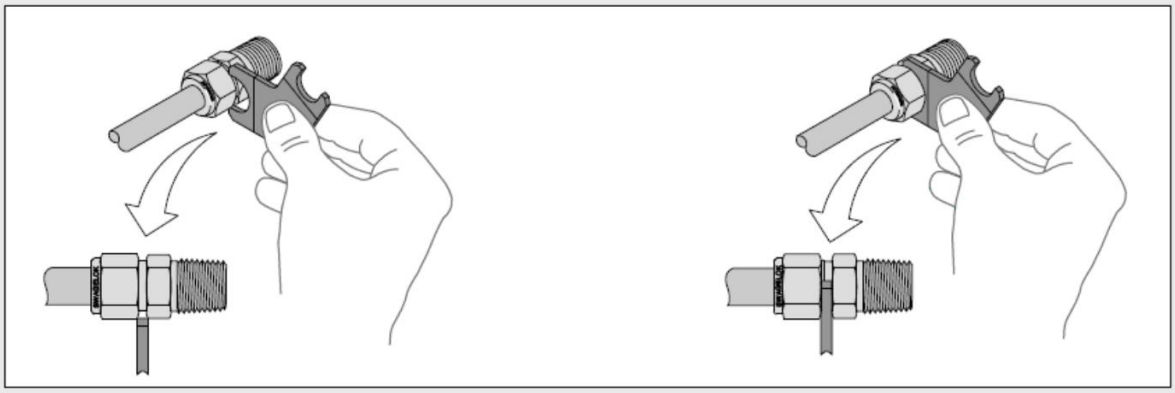
Gaugeability

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

Gap Inspection Gauges

The gap inspection gauges assure the installer or inspector that the fitting has been sufficiently pulled up on initial installation, whether using a swaging unit. or wrench tightening. All stainless tube fittings are gaugeable.

Position the Swagelok 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.**

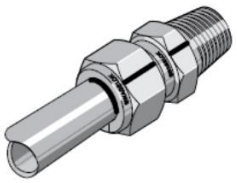
If the gauge **will** enter the gap, **additional tightening is required.**

Reassembly—All Sizes

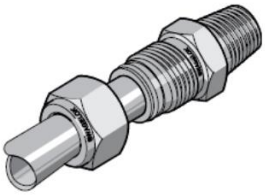
You may disassemble and reassemble tube fittings many times.

⚠ **Always depressurize the system before disassembling a tube fitting.**

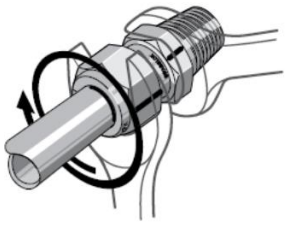
⚠ **Do not use the gap inspection gauge with reassembled fittings.**



Prior to disassembly, mark the tube at the back of the nut; mark a line along the nut and fitting body flats. *Use these marks to ensure that you return the nut to the previously pulled-up position.*



Insert the tube with preswaged ferrules into the fitting until the front ferrule seats against the fitting body.



While holding the fitting body steady, rotate the nut with a wrench to the previously pulled-up position, as indicated by the marks on the tube and flats. At this point, you will feel a significant increase in resistance. Tighten the nut slightly.