S-LOK Tube Fittings Assembly User Manual

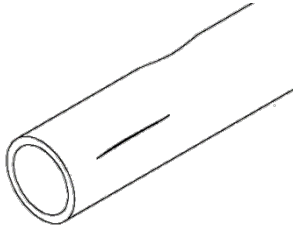
Human & Nature, Engineering Partner

S-LOK®

1 Tube preparation

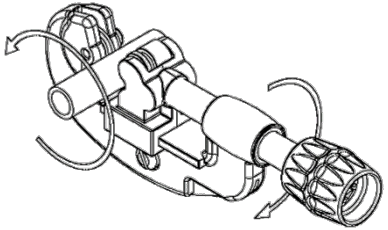
1.1 Tube treatment

- Be careful not to cause any defects such as scratches, notches, etc. when transporting the tubes.
- Check for foreign substances inside and outside the tube.
- Check the roundness.



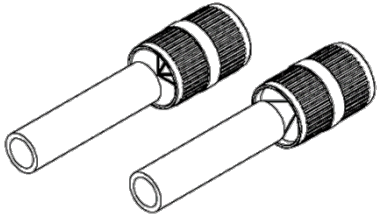
1.2 Tube cutting

- Tighten the tube securely.
- Turn the tube cutter and knob until they are cut.
- Stainless steel and steel tube rotate 1/8 turn after Tube Cutter 2 turns.
- Flexible tube is 1/8 turn of handle after 1 turn of Tube Cutter.
- Tube cutting angle tolerance is 90 ° ± 0.5 °



1.3 Tube Burr remove

- Tube is tightly attached to the outer diameter deburring tool, and the outer diameter burr is removed.
- Tube is tightly attached to the inner diameter deburring tool, and the inner diameter burr is removed by turning it.

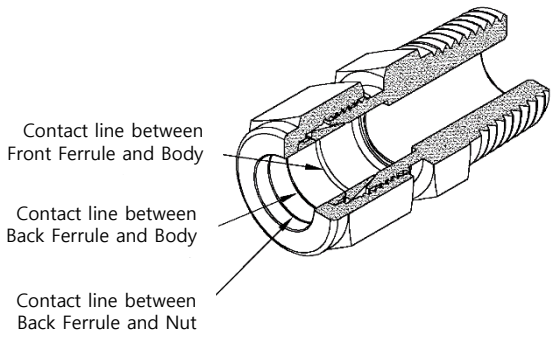


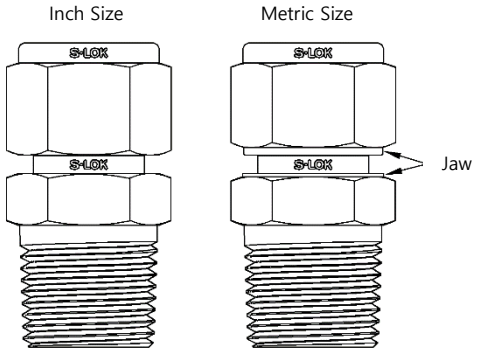
2 Tube Fittings prepare

2.1 Tube Fittings visual inspection

- Make sure you see the three lines.
- Verify that Front Ferrule and Back Ferrule are in place.

※ The product is provided in an assembled condition and can be used immediately after tightening by hand.
Be careful that foreign materials or dust may enter the product when disassembling, which may interfere with the seal.





3 Tube Fittings direct assembly

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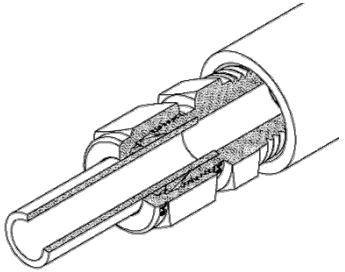
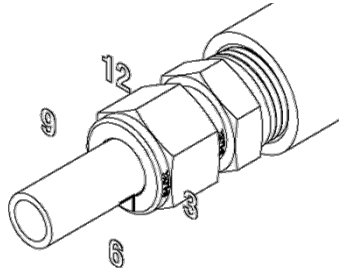
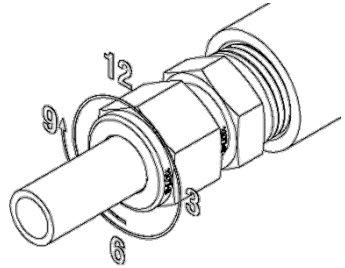


Fully insert the tube into the fitting and against the shoulder. Turn nut until finger tight and the tubing will not twist easily by hand.



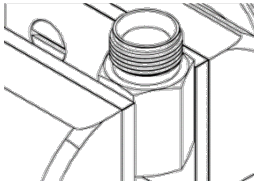
Locate **Arrow Mark** on face of nut. Note the position as a reference.



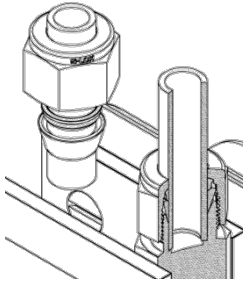
While holding body steady tighten nut 0ne and one-quarter turns from the **Arrow Mark** starting point.

For sizes below ¼ inch or 4mm, follow the same procedure except tighten nut 3/4 turns from finger tight **Arrow Mark** starting point.

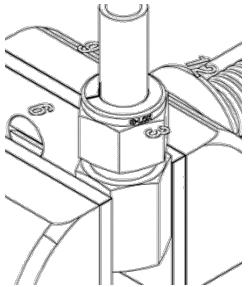
4 Tube Fittings Preswaging



Secure the Preswaging Tool to Vise.



In a tube, place the Nut, Back Ferrule, and Front Ferrule (note the direction and order), and fully insert it into the body of the Preswaging Tool until the tube touches its shoulder.



Turn nut until finger tight and the tubing will not twist easily by hand. Locate **Arrow Mark** on the face of nut. Note position as a reference.

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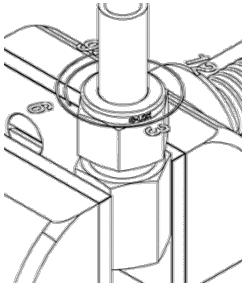
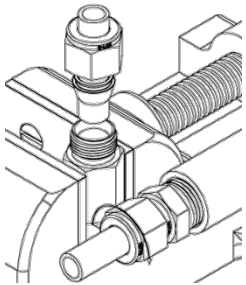


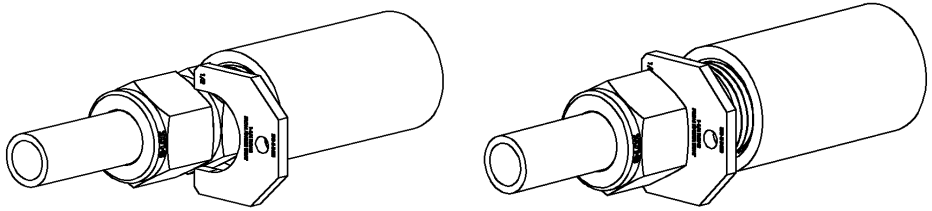
Tighten nut 0ne and one-quarter turns from the **Arrow Mark** starting point.
For sizes below ¼ inch or 4mm, follow the same procedure except tighten nut 3/4 turns from finger tight **Arrow Mark** starting point.



For actual assembly, there would be a point at which the torque increases as you tighten the nut to its previous position. At this point, turn it about 1/8 to 1/4 turn further.

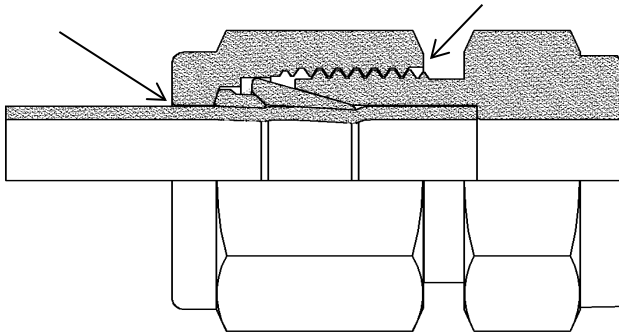
※ Sometimes the tubes may not be pulled out well. In this case, do not use any other tools, just gently shake it back and forth.

5 Inspection after Assembly



Correct [Fig. 1] Incorrect

1. Assembly Inspection : Use a gap inspection gauge into the fitting body as Fig.1 to make sure the fitting is sufficiently tightened. If the gap inspection gauge does not fits between the nut and body , the fitting is sufficiently tightened



[Fig. 2]

2.1. Pressure Inspection : Set a test pressure according to user's working pressure. Ensure safety during all test procedure.

2.1 : Hydraulic Test : Check all connections for leakage. (See Fig.2, arrow area)

2.2 : Gas Leakage Test : Use **S-Detec** (leak detection fluid) at all connections for leakage. (See Fig.1, arrow area)

* Inert gases such as nitrogen or helium should be used. Air is acceptable. Do not use activated gases. It is responsibility of the user for explosion or fire by using activated gases for test the fitting.

* It is not recommended to use a gas detector which contains surfactant such as soapy water, detergent. S-LOK do not guarantee the corrosion occurred by using a gas detector containing surfactant.

* * Please contact the manufacturer if any problem occurs during the test

Thank you.

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