

S-LOK Compression Tube Fittings

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Catalogue No. S-LOK Oct.2020

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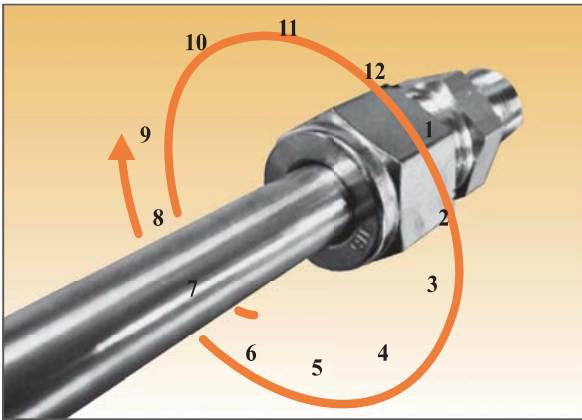
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Installation Instruction

- Fully insert the tube into the fitting and against the shoulder; tight the nut by finger-tightening.
- (**Caution** : The tube may be elliptical or have burrs; foreign material on the surface and/or inside of the tube fitting).



- Mark the nut at the 6 o'clock position before placing the spanner.



- While holding the fitting body steady, tight the nut with the spanner by turning 1-1/4 clockwise.
- Make sure that the spanner's starting point at 6 o'clock is being positioned at 9 o'clock after tightening 1-1/4 clockwise.
- Tighten the nut only 3/4 turn to the 3 o'clock position for 1/16", 1/8" and 3/16" (2mm, 3mm and 4mm) size tube fittings.
- When it was tightened 1-1/4 turn clockwise, the tube fitting has been designed to be durable even from the bursting pressure of the tube, therefore insufficient tightening against the regulation may cause the leakage and bursting while over-tightening makes the reassembly difficult due to deformity.

Gaugeability



- Gap inspection gauge assures the installer or the inspector that the instrument has been sufficiently tightened during the first installation inspection.
- Place gap inspection gauge at the gap between the nut and body.
- When the gauge does not fit into the gap, it means that the fitting is sufficiently tightened.
- When the gauge fits into the gap, it means that it needs to be tightened more.

Reassembly Instruction



- S-LOK products can be disassembled and reassembled numerous times.
- For reassembly, insert the tube with ferrules into the fitting until the front ferrule seats against the fitting body to avoid any damage from foreign objects at the disassembled area.
- After hand-tightening the nut while holding the fitting's body steady, tight the nut with a spanner to the previously pulled-up position.
- At this point, you would feel a significant increase in resistance.
- Then tight the nut slightly.

Introduction

S-LOK tube fittings are manufactured under very strict quality control to assure maximum reliable performance.

S-LOK tube fittings require no special tools assembly. Connections can be quickly and easily made by simple insertion and tightening the nuts.

S-LOK tube fittings has been specifically designed for use on instrumentation, process and control systems and equipment employed in chemical, petroleum, power generating and pulp and paper plants.

S-LOK tube fittings could also be used in extensive applications of other fields where very high quality tube fittings are required.

Construction

S-LOK tube fittings are composed of four precision part ; body, nut, front ferrule and back ferrule.

By screwing the nut onto the body, the nut is tightened against the tapered area of the body, and its edge is compressed tightly against the tube by curling inward.

The back ferrule is also located between the body and nut.

As the front ferrule rolls, the back ferrule rolls up and bites into the tube resulting in the connection of tube and the fitting as well as a non-leakage effected.

The double ferrule design achieves the leak proof sealing by assembly motion being transmitted axially through the tubing. This results in no radial movement of the tubing upon assembly. Therefore, the tube is not stressed and the mechanical integrity is maintained. This is the result of close monitoring of tolerance control in machining, and hardness of each and every part of S-LOK tube fittings.

Through this swaging action, S-LOK tube fittings are mechanically integrated with the tube connected.



Materials

S-LOK tube fittings are made of stainless steel, brass and alloy steels.

| Fitting Material | Bar Stock | Forging |
|------------------------------|-----------------------------------|------------------------------------|
| Stainless Steel 316 | ASTM A479 / A276 TYPE 316 | ASTM A182 F316 |
| Duplex Stainless Steel | ASTM A479 / A276 UNS S31803 | A182 F51 |
| Super Duplex Stainless Steel | ASTM A479 / A276 UNS S32750 | A182 F53 |
| Alloy 400 | ASTM B164 UNS N04400 | ASTM B564 UNS N04400 |
| Alloy 625 | ASTM B446 UNS N06625 | ASTM B564 UNS N06625 |
| Alloy 825 | ASTM B425 UNS N08825 | ASTM B564 UNS N08825 |
| Alloy C-276 | ASTM B574 UNS N10276 | ASTM B564 UNS N10276 |
| Carbon Steel | ASTM A108 JIS G4051 S45C | ASTM A105 JIS G4051 S45C |
| Brass | ASTM B16 C3600 JIS H3250 C3604 | ASTM B124 C3770 JIS H3250 C3771 |

Pressure Ratings

S-LOK tube fittings are rated its maximum working pressure in accordance with the maximum working pressure of recommended tubing within this catalogue.

↗ Tubing

Suitable tube selection is essential in performance of tubing system. For safe, reliable and leak-free seals tubing should be considered as a fitting component. S-LOK tube fittings perform best when good quality tubing is used. When selecting tubing material including size and wall thickness, customer must consider pressure, flow, temperature Environment and compatibility of system.

- General Rules.

1. For leak-free sealing, the tubing surface is very important. The tubing must have a good surface condition with free of scratches, draw mark, at spots or dirt.
2. In case of welded tubing, it should not have a visible poor bead on its surface.
3. Tubing and fitting material is essential for the thermal compatibility and corrosion resistance.
4. Tubing must be softer than fitting material. When tubing and fittings are made of the same material, the metal tubing must be fully annealed.
5. Tubing hardness must be selected according to the information in the table 2 to 4.
6. Do not select a too thin or too thick wall. A too thin wall may collapse, and a too thick wall may not properly be deformed by the ferrule action. Selection the wall's thickness should be based on the applicable pressure, temperature, shock and vibration.

- Consider the following in selecting tube.

1. Quality of the tubing material and manufacturing method.
2. Hardness of tube.
3. Surface treatment of tube.
4. O.D and tolerance.
5. Wall thickness and tolerance.
6. Concentricity of tube.
7. Ovality. (shape)

↗ Temperature Ranges

The maximum and minimum operating temperatures for various tubing material.

| Tubing Material | Temperature Range | Tubing Material | Temperature Range |
|---------------------|------------------------------------|-----------------|------------------------------------|
| Stainless Steel 316 | -196°C to 649°C (-321°F to 1200°F) | Alloy 600 | -130°C to 649°C (-205°F to 1200°F) |
| Carbon Steel | -53°C to 426°C (-65°F to 799°F) | Alloy C-276 | -195°C to 537°C (-320°F to 1000°F) |
| Copper | -40°C to 205°C (-40°F to 400°F) | Titanium | -195°C to 315°C (-320°F to 600°F) |
| Alloy 400 | -198°C to 427°C (-324°F to 800°F) | PTFE | -17°C to 65°C (0°F to 150°F) |

↗ Temperature De-rating Factors

The allowable working pressure is determined by various temperatures. To determine the working pressure at the specific temperatures, multiply the working pressure at ambient temperature and factor.

| Temp °F(°C) | Stainless Steel ASTM A269 | | Carbon Steel ASTM A179 | Copper ASTM B75 | Alloy 400 |
|----------------|------------------------------|------|---------------------------|--------------------|-----------|
| | 304 | 316 | | | |
| 100 (37) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 200 (93) | 1.00 | 1.00 | 0.95 | 0.80 | 0.88 |
| 300 (148) | 1.00 | 1.00 | 0.90 | 0.78 | 0.82 |
| 400 (204) | 0.93 | 0.96 | 0.86 | 0.50 | 0.79 |
| 500 (260) | 0.87 | 0.90 | 0.82 | 0.13 | 0.79 |
| 600 (315) | 0.82 | 0.85 | 0.77 | - | 0.79 |
| 700 (370) | 0.80 | 0.82 | 0.73 | - | 0.76 |
| 800 (426) | 0.76 | 0.79 | 0.59 | - | 0.76 |
| 900 (480) | 0.73 | 0.78 | - | - | - |
| 1000 (537) | 0.69 | 0.76 | - | - | - |
| 1200 (649) | 0.30 | 0.37 | - | - | - |

Example : Tube S316 3/8 O.D. x 0.035" at 700 °F

3.300psi x 0.82=2.706psi

Therefore 2.706psi is the maximum allowable working pressure of S316 3/8" O.D x 0.035" wall tubing.

↗ Stainless Steel Tubing

Fully annealed 304 or 316 high quality seamless steel tube to ASTM A269 or equivalent. Hardness : HRB 90 or less

Stainless Steel Fractional Tubing

| Tube O.D (inch) | Tube Wall Thickness (inch) | | | | | | | | | | | | | | | | | |
|-----------------|----------------------------|-------|-------|-------|--------|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|--|-------------------------|
| | 0.010 | 0.012 | 0.014 | 0.016 | 0.020 | 0.028 | 0.035 | 0.049 | 0.065 | 0.083 | 0.095 | 0.109 | 0.120 | 0.134 | 0.156 | 0.188 | | |
| 1/16 | 5,600 | 6,800 | 8,100 | 9,400 | 12,000 | | | | | | | | | | | | | |
| 1/8 | | | | | | 8,500 | 10,900 | | | | | | | | | | | Working pressure (psig) |
| 3/16 | | | | | | 5,400 | 7,000 | 10,200 | | | | | | | | | | |
| 1/4 | | | | | | 4,000 | 5,100 | 7,500 | 10,200 | | | | | | | | | |
| 5/16 | | | | | | | 4,000 | 5,800 | 8,000 | | | | | | | | | |
| 3/8 | | | | | | | 3,300 | 4,800 | 6,500 | 7500 | | | | | | | | |
| 1/2 | | | | | | | 2,600 | 3,700 | 5,100 | 6,700 | | | | | | | | |
| 5/8 | | | | | | | | 2,900 | 4,000 | 5,200 | 6,000 | | | | | | | |
| 3/4 | | | | | | | | 2,400 | 3,300 | 4,200 | 4,900 | 5,800 | | | | | | |
| 7/8 | | | | | | | | 2,000 | 2,800 | 3,600 | 4,200 | 4,800 | | | | | | |
| 1 | | | | | | | | | 2,400 | 3,100 | 3,600 | 4,200 | 4,700 | | | | | |
| 1-1/4 | | | | | | | | | | 2,400 | 2,800 | 3,300 | 3,600 | 4,100 | 4,900 | | | |
| 1-1/2 | | | | | | | | | | | 2,300 | 2,700 | 3,000 | 3,400 | 4,000 | 4,900 | | |
| 2 | | | | | | | | | | | | 2,000 | 2,200 | 2,500 | 2,900 | 3,600 | | |

Stainless Steel Metric Tubing

| Tube O.D (mm) | Tube Wall Thickness (mm) | | | | | | | | | | | | | | | | | |
|---------------|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|------------------------|
| | 0.3 | 0.8 | 1.0 | 1.2 | 1.5 | 1.8 | 2.0 | 2.2 | 2.5 | 2.8 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 | | | |
| 2 | 210 | 660 | | | | | | | | | | | | | | | | |
| 3 | | 670 | | | | | | | | | | | | | | | | Working pressure (bar) |
| 4 | | 500 | 660 | | | | | | | | | | | | | | | |
| 6 | | 310 | 420 | 540 | 710 | | | | | | | | | | | | | |
| 8 | | | 310 | 390 | 520 | | | | | | | | | | | | | |
| 10 | | | 240 | 300 | 400 | 510 | 580 | | | | | | | | | | | |
| 12 | | | 200 | 250 | 330 | 410 | 470 | | | | | | | | | | | |
| 14 | | | 160 | 200 | 270 | 340 | 380 | 430 | | | | | | | | | | |
| 15 | | | 150 | 190 | 250 | 310 | 360 | 400 | | | | | | | | | | |
| 16 | | | | 170 | 230 | 290 | 330 | 370 | 400 | | | | | | | | | |
| 18 | | | | 150 | 200 | 260 | 290 | 320 | 370 | | | | | | | | | |
| 20 | | | | 140 | 180 | 230 | 260 | 290 | 330 | 380 | | | | | | | | |
| 22 | | | | 140 | 180 | 200 | 230 | 260 | 300 | 340 | | | | | | | | |
| 25 | | | | | | 180 | 200 | 230 | 260 | 290 | 320 | | | | | | | |
| 28 | | | | | | | 180 | 200 | 230 | 260 | 280 | 330 | | | | | | |
| 30 | | | | | | | 170 | 180 | 210 | 240 | 260 | 310 | | | | | | |
| 32 | | | | | | | 160 | 170 | 200 | 220 | 240 | 290 | 330 | | | | | |
| 38 | | | | | | | | 140 | 160 | 190 | 200 | 240 | 270 | 310 | | | | |
| 50 | | | | | | | | | | | 150 | 180 | 210 | 240 | 270 | | | |

- Working pressure are based on allowable stress value of 20,000psi (137,800kPa) as specified in ASME B31.3 within the temperature range of -29°C to 37°C (-20°F to 100°F), considering ultimate tensile strength 75,000psi (516,700kPa).

- Pressure calculation are based on Maximum O.D and minimum wall thickness and no allowance is made for corrosion and erosion.

- Welded tubing Based on ASME B31.3 for weld integrity, a de-rating factor must be applied to welded tubing.

For double butt seam tubing, multiply by 0.85, For single butt seam tubing, multiply by 0.80.

Carbon Steel Tubing

Soft annealed seamless carbon steel tube to ASTM A179 or equivalent. Hardness : HRB 72 or less

Carbon Steel Fractional Tubing

| Tube O.D (inch) | Tube Wall Thickness (inch) | | | | | | | | | | | | | |
|-----------------|----------------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 0.020 | 0.028 | 0.035 | 0.049 | 0.065 | 0.083 | 0.095 | 0.109 | 0.120 | 0.134 | 0.148 | 0.165 | 0.180 | 0.220 |
| 1/16 | 9,700 | | | | | | | | | | | | | |
| 1/8 | | 8,000 | 10,200 | | | | | | | | | | | |
| 3/16 | | 5,100 | 6,600 | 9,600 | | | | | | | | | | |
| 1/4 | | 3,700 | 4,800 | 7,000 | 9,600 | | | | | | | | | |
| 5/16 | | | 3,700 | 5,500 | 7,500 | | | | | | | | | |
| 3/8 | | | 3,100 | 4,500 | 6,200 | | | | | | | | | |
| 1/2 | | | 2,300 | 3,200 | 4,500 | 5,900 | | | | | | | | |
| 5/8 | | | 1,800 | 2,600 | 3,500 | 4,600 | 5,300 | | | | | | | |
| 3/4 | | | | 2,100 | 2,900 | 3,700 | 4,300 | 5,100 | | | | | | |
| 7/8 | | | | 1,800 | 2,400 | 3,200 | 3,700 | 4,300 | | | | | | |
| 1 | | | | 1,500 | 2,100 | 2,700 | 3,200 | 3,700 | 4,100 | | | | | |
| 1-1/4 | | | | | 1,600 | 2,100 | 2,500 | 2,900 | 3,200 | 3,600 | 4,000 | 4,600 | 5,000 | |
| 1-1/2 | | | | | | 1,800 | 2,000 | 2,400 | 2,600 | 2,900 | 3,300 | 3,700 | 4,100 | 5,100 |
| 2 | | | | | | | 1,500 | 1,700 | 1,900 | 2,100 | 2,400 | 2,700 | 3,000 | 3,700 |

Carbon Steel Metric Tubing

| Tube O.D (mm) | Tube Wall Thickness (mm) | | | | | | | | | | | | | |
|---------------|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | 0.8 | 1.0 | 1.2 | 1.5 | 1.8 | 2.0 | 2.2 | 2.5 | 2.8 | 3.0 | 3.5 | 4.0 | 4.5 | |
| 3 | 630 | 790 | | | | | | | | | | | | |
| 6 | 290 | 370 | 460 | 590 | | | | | | | | | | |
| 8 | | 270 | 330 | 430 | | | | | | | | | | |
| 10 | | 210 | 260 | 330 | | | | | | | | | | |
| 12 | | 170 | 210 | 270 | 330 | 380 | 420 | | | | | | | |
| 14 | | 150 | 180 | 230 | 280 | 320 | 350 | | | | | | | |
| 15 | | 140 | 170 | 210 | 260 | 290 | 330 | | | | | | | |
| 16 | | 130 | 150 | 200 | 240 | 270 | 300 | 350 | | | | | | |
| 18 | | | 140 | 170 | 210 | 240 | 270 | 310 | | | | | | |
| 20 | | | 120 | 160 | 190 | 210 | 240 | 270 | 310 | | | | | |
| 22 | | | 110 | 140 | 170 | 190 | 210 | 240 | 280 | | | | | |
| 25 | | | 100 | 120 | 150 | 170 | 180 | 210 | 240 | 260 | | | | |
| 28 | | | | | | 150 | 160 | 190 | 210 | 230 | 270 | | | |
| 30 | | | | | | 140 | 150 | 170 | 200 | 210 | 250 | | | |
| 32 | | | | | | 130 | 140 | 160 | 180 | 200 | 230 | 270 | | |
| 38 | | | | | | | 120 | 130 | 150 | 160 | 190 | 230 | 260 | |

- Working pressure are based on allowable stress value of 15,700psi (108,200kPa) as specified in ASME B31.3 within the temperature range of -29°C to 37°C (-20°F to 100°F), considering ultimate tensile strength 47,000psi (324,000kPa).

- Pressure calculation are based on Maximum O.D and minimum wall thickness and no allowance is made for corrosion and erosion.

⚡ Copper Tubing

High quality soft annealed seamless copper tube to ASTM B75 or equivalent. Hardness : HR_{15T} 60 or less

Copper Fractional Tubing

| Tube O.D (inch) | Tube Wall Thickness (inch) | | | | | | | | | |
|-----------------|--|-------|-------|-------|-------|-------|-------------------------|-------|-------|--|
| | 0.028 | 0.030 | 0.035 | 0.049 | 0.065 | 0.083 | 0.095 | 0.109 | 0.120 | |
| 1/8 | 2,700 | 3,000 | 3,600 | | | | | | | |
| 3/16 | 1,800 | 1,900 | 2,300 | 3,400 | | | Working pressure (psig) | | | |
| 1/4 | 1,300 | 1,400 | 1,600 | 2,500 | 3,500 | | | | | |
| 5/16 | | | 1,300 | 1,900 | 2,700 | | | | | |
| 3/8 | | | 1,000 | 1,600 | 2,200 | | | | | |
| 1/2 | | | 800 | 1,100 | 1,600 | 2,100 | | | | |
| 5/8 | For gas service, applying tube wall thickness should only be selected from the outside of the shaded boundary. | | | 900 | 1,200 | 1,600 | 1,900 | | | |
| 3/4 | | | | 700 | 1,000 | 1,300 | 1,500 | 1,800 | | |
| 7/8 | | | | 600 | 800 | 1,100 | 1,300 | 1,500 | | |
| 1 | | | | 500 | 700 | 900 | 1,100 | 1,300 | 1,500 | |

Copper Metric Tubing

| Tube O.D (mm) | Tube Wall Thickness (mm) | | | | | | | | | |
|---------------|--|-----|-----|-----|-----|-----|-----|------------------------|-----|-----|
| | 0.8 | 1.0 | 1.2 | 1.5 | 1.8 | 2.0 | 2.2 | 2.5 | 2.8 | 3.0 |
| 3 | 200 | | | | | | | | | |
| 4 | 140 | 200 | | | | | | Working pressure (bar) | | |
| 6 | 110 | 140 | 170 | 220 | | | | | | |
| 8 | | 100 | 120 | 160 | | | | | | |
| 10 | | 80 | 100 | 130 | | | | | | |
| 12 | | 60 | 80 | 100 | 130 | 140 | | | | |
| 14 | | 50 | 60 | 90 | 110 | 120 | | | | |
| 15 | | | 60 | 80 | 100 | 110 | 120 | | | |
| 16 | | | | 70 | 90 | 100 | 110 | 120 | | |
| 18 | | | | 60 | 80 | 90 | 100 | 110 | | |
| 20 | For gas service, applying tube wall thickness should only be selected from the outside of the shaded boundary. | | | 60 | 70 | 80 | 90 | 100 | 110 | |
| 22 | | | | 50 | 60 | 70 | 80 | 90 | 100 | |
| 25 | | | | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| 28 | | | | | | | 40 | 50 | 60 | 70 |

- Working pressure are based on allowable stress value of 6,000psi (41,300kPa) as specified in ASME B31.3 within the temperature range of -29°C to 37°C (-20°F to 100°F), considering ultimate tensile strength 30,000psi (206,700kPa).

- Pressure calculation are based on Maximum O.D and minimum wall thickness and no allowance is made for corrosion and erosion.

↗ Alloy 400 Tubing

Fully annealed seamless Alloy 400 tube to ASTM B165 or equivalent. Hardness : HRB 75 or less

Alloy 400 Fractional Tubing

| Tube O.D (inch) | Tube Wall Thickness (inch) | | | | | | | |
|-----------------|--|--------|-------|-------|-------|-------------------------|-------|-------|
| | 0.028 | 0.035 | 0.049 | 0.065 | 0.083 | 0.095 | 0.109 | 0.120 |
| 1/8 | 7,900 | 10,100 | | | | | | |
| 3/16 | 5,100 | 6,500 | 9,500 | | | Working pressure (psig) | | |
| 1/4 | 3,700 | 4,800 | 7,000 | 9,500 | | | | |
| 5/16 | | 3,700 | 5,400 | 7,300 | | | | |
| 3/8 | | 3,100 | 4,400 | 6,100 | | | | |
| 1/2 | | 2,300 | 3,200 | 4,400 | | | | |
| 5/8 | For gas service, applying tube wall thickness should only be selected from the outside of the shaded boundary. | | 2,700 | 3,700 | 4,800 | 5,600 | | |
| 3/4 | | | 2,200 | 3,000 | 4,000 | 4,600 | | |
| 7/8 | | | 1,900 | 2,600 | 3,400 | 3,900 | 4,500 | |
| 1 | | | | 2,200 | 2,900 | 3,400 | 3,900 | 4,300 |

Alloy 400 Metric Tubing

| Tube O.D (mm) | Tube Wall Thickness (mm) | | | | | | | | | |
|---------------|--|-----|-----|-----|-----|-----|------------------------|-----|-----|-----|
| | 0.8 | 1.0 | 1.2 | 1.5 | 1.8 | 2.0 | 2.2 | 2.5 | 2.8 | 3.0 |
| 3 | 630 | | | | | | | | | |
| 4 | 400 | | | | | | Working pressure (bar) | | | |
| 6 | 310 | 390 | 490 | 620 | | | | | | |
| 8 | | 290 | 350 | 450 | | | | | | |
| 10 | | 220 | 280 | 350 | | | | | | |
| 12 | | 180 | 230 | 290 | | | | | | |
| 14 | | 180 | 190 | 240 | 270 | | | | | |
| 15 | | | 190 | 240 | 290 | 330 | 330 | | | |
| 16 | | | 170 | 220 | 270 | 310 | 320 | | | |
| 18 | | | 150 | 200 | 240 | 270 | 300 | | | |
| 20 | For gas service, applying tube wall thickness should only be selected from the outside of the shaded boundary. | | 180 | 210 | 240 | 270 | 290 | | | |
| 22 | | | 170 | 200 | 230 | 250 | 290 | 310 | | |
| 25 | | | | 170 | 190 | 210 | 240 | 270 | 290 | |
| 28 | | | | | | | | | | |

- Working pressure are based on allowable stress value of 20,000psi (137,800kPa) as specified in ASME B31.3 within the temperature range of -29°C to 37°C (-20°F to 100°F), considering ultimate tensile strength 70,000psi (482,300kPa).

- Pressure calculation are based on Maximum O.D and minimum wall thickness and no allowance is made for corrosion and erosion.

↗ Special Alloy Tubing

When special alloy tubing is selected, we recommend:

Full annealed seamless (or welded and cold-drawn, where permitted) alloy tubing to the ASTM specification as shown below.

Tubing should be free of scratches for bending of aring.

| Tube Material | ASTM code | MAX. Hardness | Tube Material | ASTM code | MAX. Hardness |
|---------------|-----------|---------------|---------------|-----------|---------------|
| Alloy C-276 | B622 | HRB 100 | Alloy 625 | B444 | HRC 25 |
| Alloy 20 | B729 | HRB 95 | Alloy 825 | B163 | HR15T 90 |
| Alloy 600 | B167 | HRB 92 | Alloy 6Mo | A269 | HRB 96 |

⚠ Cryogenic Service

S-LOK tube fittings in 316 stainless steel provide highly reliable performance from cryogenic temperatures to high temperature levels. 316 stainless steel temperature range : -196°C to 649°C (-321°F to 1200°F).

Cryogenic temperature are considered to be temperatures below : -73°C (-100°F)

⚠ Proper Tube Handling

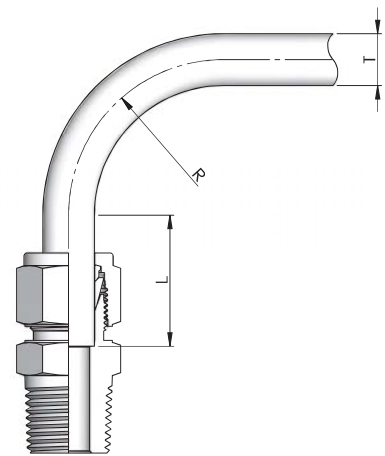
Good handling practices can greatly save the good surface finish of the supplied tube.

- Tubing should never be dragged out of a tubing rack.
- Tubing should never be dragged across cement, asphalt, gravel or any other rough surface.
- Tubing cutter wheel and hacksaw blade should always be sharp.
- Try not to take deep cuts with each turn of the cutter or stroke of the saw.
- Tube end should always be de burred.
- Tubing should be stored to avoid collection of dirt and contamination.
- If possible, tubing ends should be plugged, so any foreign materials will not fall inside.

⚠ Tube Bending

For sealing installation in case of bended tubing being near S-LOK fittings, there should be enough lineal distance from bending point to the fittings. When tube bend is too close to the fitting, the deformed section of the bend may enter the fitting, and it may result in leaking. Also the bending radius should not be too short of bending radius may affect the working pressure and may cause insufficient flow. Minimum bending radius is usually recommended by the bending manufacturer.

| Tube O.D (T) (inch) | Straight Length (L) | Tube O.D (T) (mm) | Straight Length (L) |
|------------------------|------------------------|----------------------|------------------------|
| 1/16 | 1/2 | 3 | 19 |
| 1/8 | 23/32 | 6 | 21 |
| 3/16 | 3/4 | 8 | 23 |
| 1/4 | 13/16 | 10 | 25 |
| 5/16 | 7/8 | 12 | 31 |
| 3/8 | 15/16 | 14 | 32 |
| 1/2 | 1-3/16 | 15 | 32 |
| 5/8 | 1-1/4 | 16 | 32 |
| 3/4 | 1-1/4 | 18 | 32 |
| 7/8 | 1-5/16 | 20 | 34 |
| 1 | 1-1/2 | 22 | 40 |
| 1-1/4 | 2 | 25 | 46 |
| 1-1/2 | 2-13/32 | 28 | 50 |
| 2 | 3-1/4 | 32 | 54 |
| | | 38 | 63 |
| | | 50 | 80 |



T : Tube O.D

R : Radius

Follow the bented tube vendor's recommendation.

L : Straight tubing length is required from the beginning of the bend to the tubing end.

Pressure Rating

Many S-LOK tube fittings have a male or female pipe end. These ends occasionally have a lower pressure rating than the pressure rating of the tube fitting end so consider both of the rating.

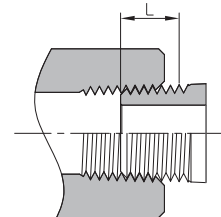
| NPT/ISO Pipe Size (inch) | Stainless Steel 316 | | | | Brass | | | | Carbon Steel | | | |
|--------------------------------|---------------------|-----|--------|-----|-------|-----|--------|-----|--------------|-----|--------|-----|
| | Male | | Female | | Male | | Female | | Male | | Female | |
| | psig | bar | psig | bar | psig | bar | psig | bar | psig | bar | psig | bar |
| 1/16 | 11,000 | 758 | 6,700 | 462 | 5,500 | 378 | 3,300 | 227 | 11,000 | 758 | 6,700 | 462 |
| 1/8 | 10,000 | 689 | 6,500 | 448 | 5,000 | 345 | 3,200 | 221 | 10,000 | 689 | 6,500 | 448 |
| 1/4 | 8,000 | 551 | 6,600 | 455 | 4,000 | 276 | 3,300 | 227 | 8,000 | 551 | 6,600 | 455 |
| 3/8 | 7,800 | 538 | 5,300 | 365 | 3,900 | 269 | 2,600 | 179 | 7,800 | 538 | 5,300 | 365 |
| 1/2 | 7,700 | 531 | 4,900 | 338 | 3,800 | 262 | 2,400 | 165 | 7,700 | 531 | 4,900 | 338 |
| 3/4 | 7,300 | 503 | 4,600 | 317 | 3,600 | 248 | 2,300 | 159 | 7,300 | 503 | 4,600 | 317 |
| 1 | 5,300 | 365 | 4,400 | 303 | 2,600 | 179 | 2,200 | 152 | 5,300 | 365 | 4,400 | 303 |
| 1-1/4 | 6,000 | 414 | 5,000 | 345 | 3,000 | 207 | 2,500 | 172 | 6,000 | 414 | 5,000 | 345 |
| 1-1/2 | 5,000 | 345 | 4,600 | 317 | 2,500 | 172 | 2,300 | 159 | 5,000 | 345 | 4,600 | 317 |
| 2 | 3,900 | 269 | 3,900 | 269 | 1,900 | 131 | 1,900 | 131 | 3,900 | 269 | 3,900 | 269 |

- The ratings shown above and based on ASME B31.3.
- Female pipe ends have lower ratings than male pipe in a given size due to the inner and outer diameters of female threads being larger than those of male pipe ends.
- The ratings shown above are reference only.

Pipe Thread Sealant

Pipe thread sealant is essential to ensure leak-free seal. Since the PTFE tape is commonly used, we provide information of recommended tape width, as well as the numbers of thread to be wrapped. The PTFE tape fills the voids between threads and prevents galling on pipe threads. The sealant usually contains a lubricant.

| Nominal Pipe Size | Recommended Tape Width | Effective Thread External Length (L) | Approx. of Thread |
|-------------------|------------------------|--------------------------------------|-------------------|
| 1/8 | 1/8 – 1/4 | 0.2639 | 7 |
| 1/4 | 1/4 | 0.4018 | 7-1/4 |
| 3/8 | 1/4 | 0.4075 | 7-1/3 |
| 1/2 | 1/4 – 1/2 | 0.5337 | 7-1/2 |
| 3/4 | 1/4 – 1/2 | 0.5457 | 7-2/3 |
| 1 | 1/4 – 1/2 | 0.6828 | 8 |



Elastomer Seal Temperature Rating

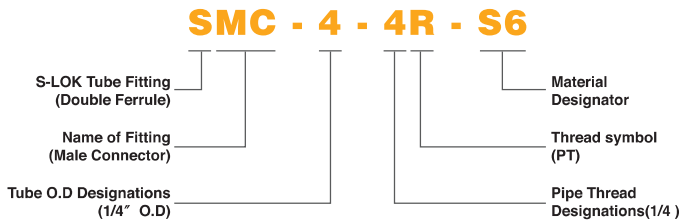
When elastomer seal is used in the fitting, care must be taken for allowable working temperature.

| Elastomer Seal Material | Temperature Range |
|-------------------------|-------------------------------|
| NBR | -20°C ~ 105°C (-4°F ~ 221°F) |
| FKM | -28°C ~ 204°C (-20°F ~ 400°F) |
| EPDM | -28°C ~ 148°C (-20°F ~ 300°F) |
| FFKM | -25°C ~ 275°C (-13°F ~ 527°F) |

Ordering Information

The symbols in the part number column on each page represent the shape and size of individual fittings.

Example 1 : Tube to Pipe ends



Example 2 : Tube to Tube ends



Example 3 : Tee & Cross

Tee & Cross are described by first the run (1 and 2) and next the branch (3 and 4)



Example 4 : Single Ferrule type

To order, use "O" as a suffix to the desired type of fitting ordering designation.

SMCO - 4 - 4R - S6

STO - 4 - S6

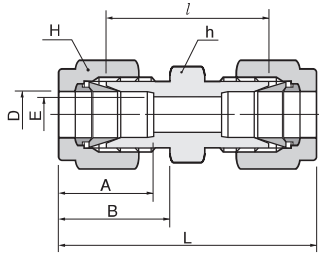
| Tube O.D Designator | | | |
|---------------------|------------|--------|------------|
| Inch | Identifier | Metric | Identifier |
| 1/16 | 1 | 3mm | 3M |
| 1/8 | 2 | 4mm | 4M |
| 3/16 | 3 | 6mm | 6M |
| 1/4 | 4 | 8mm | 8M |
| 5/16 | 5 | 10mm | 10M |
| 3/8 | 6 | 12mm | 12M |
| 1/2 | 8 | 14mm | 14M |
| 5/8 | 10 | 15mm | 15M |
| 3/4 | 12 | 16mm | 16M |
| 7/8 | 14 | 20mm | 20M |
| 1 | 16 | 22mm | 22M |
| 1-1/4 | 20 | 25mm | 25M |
| 1-1/2 | 24 | 28mm | 28M |
| 2 | 32 | 32mm | 32M |
| | | 38mm | 38M |
| | | 50mm | 50M |

| Pipe Thread Size Designator | | | |
|-----------------------------|------------|-------------------|------------|
| Nominal Pipe Size | Identifier | Nominal Pipe Size | Identifier |
| 1/8 | 2 | 1 | 16 |
| 1/4 | 4 | 1-1/4 | 20 |
| 3/8 | 6 | 1-1/2 | 24 |
| 1/2 | 8 | 2 | 32 |
| 3/4 | 12 | | |

| Fitting Material Designator | |
|-----------------------------|------------|
| Body Material | Identifier |
| Stainless Steel 316 | S6 |
| Stainless Steel 316L | S6L |
| Stainless Steel 304 | S4 |
| Carbon Steel | CS |
| Brass | BS |
| Alloy 400 | A400 |
| Alloy 625 | A625 |

| Type | Taper Threads | | Parallel Threads | |
|---------------|---|---------------------|--|------------|
| Symbol | R | N | G | U |
| Specification | ISO 7/1, BS21 (BSPT) JIS B 0203 (PT) DIN 2999 | ASME B 1.20.1 (NPT) | ISO 228/1 BS 2779 (BSPP) JIS B 0202 (PF) | ASME B 1.1 |

Union
SU



Connects fractional tube

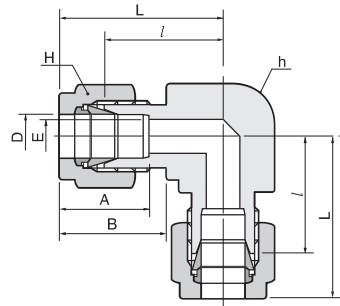
| Part No. | Tube O.D. | | E | Width across flat | | | | A | B | I | L |
|----------|-----------|-------|-------|-------------------|-------|-------|-------|-------|-------|-------|--------|
| | D | | | h | | H | | | | | |
| | in | mm | | in | mm | in | mm | | | | |
| SU-1 | 1/16 | 1.59 | 1.27 | 5/16 | 7.93 | 5/16 | 7.93 | 8.63 | 10.92 | 17.50 | 25.15 |
| SU-2 | 1/8 | 3.17 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 22.35 | 35.56 |
| SU-3 | 3/16 | 4.76 | 3.04 | 7/16 | 11.11 | 1/2 | 12.70 | 13.71 | 16.00 | 24.13 | 37.33 |
| SU-4 | 1/4 | 6.35 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 26.16 | 40.89 |
| SU-5 | 5/16 | 7.93 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 28.19 | 42.92 |
| SU-6 | 3/8 | 9.52 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 30.22 | 44.95 |
| SU-8 | 1/2 | 12.70 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 30.98 | 51.30 |
| SU-10 | 5/8 | 15.87 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 31.75 | 52.07 |
| SU-12 | 3/4 | 19.05 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 33.27 | 53.89 |
| SU-14 | 7/8 | 22.22 | 18.28 | 1-3/16 | 30.16 | 1-1/4 | 31.75 | 25.90 | 21.84 | 35.05 | 55.37 |
| SU-16 | 1 | 25.40 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 40.38 | 64.77 |
| SU-20 | 1-1/4 | 31.75 | 27.68 | 1-3/4 | 44.45 | 1-7/8 | 47.63 | 41.14 | 38.86 | 48.00 | 92.20 |
| SU-24 | 1-1/2 | 38.10 | 34.03 | 2-1/8 | 53.97 | 2-1/4 | 57.15 | 50.03 | 45.21 | 53.60 | 107.95 |
| SU-32 | 2 | 50.80 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 74.70 | 149.35 |

Connects metric tube

| Part No. | Tube O.D. | E | Width across flat | | A | B | I | L |
|----------|-----------|------|-------------------|----|------|------|------|-------|
| | D | | Min | h | | | | |
| SU-2M | 2 | 1.7 | 12 | 12 | 12.9 | 15.3 | 22.1 | 35.6 |
| SU-3M | 3 | 2.4 | 12 | 12 | 12.9 | 15.3 | 22.1 | 35.3 |
| SU-4M | 4 | 2.4 | 12 | 12 | 13.7 | 16.1 | 24.1 | 37.3 |
| SU-6M | 6 | 4.8 | 14 | 14 | 15.3 | 17.7 | 26.2 | 41.0 |
| SU-8M | 8 | 6.4 | 15 | 16 | 16.2 | 18.6 | 28.2 | 43.2 |
| SU-10M | 10 | 7.9 | 18 | 19 | 17.2 | 19.5 | 31.0 | 46.2 |
| SU-12M | 12 | 9.5 | 22 | 22 | 22.8 | 22.0 | 31.0 | 51.2 |
| SU-15M | 15 | 11.9 | 24 | 25 | 24.4 | 22.0 | 31.8 | 52.0 |
| SU-16M | 16 | 12.7 | 24 | 25 | 24.4 | 22.0 | 31.8 | 52.0 |
| SU-18M | 18 | 15.1 | 27 | 30 | 24.4 | 22.0 | 33.3 | 53.5 |
| SU-20M | 20 | 15.9 | 30 | 32 | 26.0 | 22.0 | 34.8 | 55.0 |
| SU-22M | 22 | 18.3 | 30 | 32 | 26.0 | 22.0 | 34.8 | 55.0 |
| SU-25M | 25 | 21.8 | 35 | 38 | 31.3 | 26.5 | 40.4 | 65.0 |
| SU-28M | 28 | 21.8 | 41 | 46 | 36.6 | 36.6 | 43.4 | 85.0 |
| SU-32M | 32 | 28.6 | 46 | 50 | 42.0 | 41.6 | 51.3 | 97.3 |
| SU-38M | 38 | 33.7 | 55 | 60 | 49.4 | 47.9 | 58.4 | 113.6 |

Union Elbow

SL



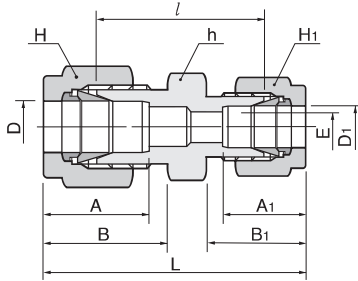
Connects fractional tube

| Part No. | Tube O.D | | E | Width across flat | | | | A | B | I | L |
|----------|----------|-------|-------|-------------------|-------|-------|-------|-------|-------|-------|--------|
| | D | | | h | | H | | | | | |
| | in | mm | Min | in | mm | in | mm | | | | |
| SL-1 | 1/16 | 1.59 | 1.27 | 3/8 | 9.52 | 5/16 | 7.93 | 8.63 | 10.92 | 14.00 | 17.88 |
| SL-2 | 1/8 | 3.17 | 2.28 | 3/8 | 9.52 | 7/16 | 11.11 | 12.70 | 15.24 | 15.74 | 22.35 |
| SL-3 | 3/16 | 4.76 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 17.78 | 24.35 |
| SL-4 | 1/4 | 6.35 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.92 |
| SL-5 | 5/16 | 7.93 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 |
| SL-6 | 3/8 | 9.52 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 |
| SL-8 | 1/2 | 12.70 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 |
| SL-10 | 5/8 | 15.87 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.70 | 38.80 |
| SL-12 | 3/4 | 19.05 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 |
| SL-14 | 7/8 | 22.22 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 |
| SL-16 | 1 | 25.40 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 |
| SL-20 | 1-1/4 | 31.75 | 27.68 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 41.14 | 38.86 | 44.50 | 66.54 |
| SL-24 | 1-1/2 | 38.10 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 50.03 | 45.21 | 50.80 | 77.97 |
| SL-32 | 2 | 50.80 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 69.80 | 107.18 |

Connects metric tube

| Part No. | Tube O.D | E | Width across flat | | A | B | I | L |
|----------|----------|------|-------------------|----|------|------|------|------|
| | D | | Min | h | | | | |
| SL-2M | 2 | 1.7 | 9.5 | 12 | 12.9 | 15.3 | 15.7 | 22.3 |
| SL-3M | 3 | 2.4 | 9.5 | 12 | 12.9 | 15.3 | 15.7 | 22.3 |
| SL-4M | 4 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 |
| SL-6M | 6 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 |
| SL-8M | 8 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 |
| SL-10M | 10 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 |
| SL-12M | 12 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 |
| SL-15M | 15 | 11.9 | 25.4 | 25 | 24.4 | 22.0 | 28.7 | 38.8 |
| SL-16M | 16 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 28.7 | 38.8 |
| SL-18M | 18 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 |
| SL-20M | 20 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 42.6 |
| SL-22M | 22 | 18.3 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 42.6 |
| SL-25M | 25 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 |
| SL-28M | 28 | 21.8 | 41.0 | 46 | 36.6 | 36.6 | 43.2 | 64.0 |
| SL-32M | 32 | 28.6 | 46.0 | 50 | 42.0 | 41.6 | 49.3 | 72.3 |
| SL-38M | 38 | 33.7 | 55.0 | 60 | 49.4 | 47.9 | 56.4 | 84.0 |

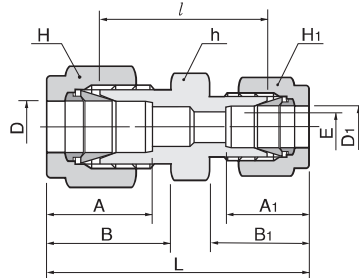
Reducing Union
SUR



Connects fractional tube

| Part No. | Tube O.D | | | | E | Width across flat | | | | | | A | A ₁ | B | B ₁ | I | L |
|-----------|----------|-------|----------------|-------|-------|-------------------|-------|-------|-------|----------------|-------|-------|----------------|-------|----------------|-------|-------|
| | D | | D ₁ | | | h | | H | | H ₁ | | | | | | | |
| | in | mm | in | mm | | in | mm | in | mm | in | mm | | | | | | |
| SUR-2-1 | 1/8 | 3.17 | 1/16 | 1.59 | 1.27 | 7/16 | 11.11 | 7/16 | 11.11 | 5/16 | 7.93 | 12.70 | 8.63 | 15.24 | 10.92 | 20.60 | 30.91 |
| SUR-3-1 | 3/16 | 4.76 | 1/16 | 1.59 | 1.27 | 7/16 | 11.11 | 1/2 | 12.70 | 5/16 | 7.93 | 13.71 | 8.63 | 16.00 | 10.92 | 21.84 | 32.25 |
| SUR-3-2 | 3/16 | 4.76 | 1/8 | 3.17 | 2.28 | 7/16 | 11.11 | 1/2 | 12.70 | 7/16 | 11.11 | 13.71 | 12.70 | 16.00 | 15.24 | 23.36 | 36.57 |
| SUR-4-1 | 1/4 | 6.35 | 1/16 | 1.59 | 1.27 | 1/2 | 12.70 | 9/16 | 14.28 | 5/16 | 7.93 | 15.24 | 8.63 | 17.78 | 10.92 | 23.11 | 34.29 |
| SUR-4-2 | 1/4 | 6.35 | 1/8 | 3.17 | 2.28 | 1/2 | 12.70 | 9/16 | 14.28 | 7/16 | 11.11 | 15.24 | 12.70 | 17.78 | 15.24 | 24.63 | 38.60 |
| SUR-4-3 | 1/4 | 6.35 | 3/16 | 4.76 | 3.04 | 1/2 | 12.70 | 9/16 | 14.28 | 1/2 | 12.70 | 15.24 | 13.71 | 17.78 | 16.00 | 25.40 | 39.37 |
| SUR-5-2 | 5/16 | 7.93 | 1/8 | 3.17 | 2.28 | 9/16 | 14.28 | 5/8 | 15.87 | 7/16 | 11.11 | 16.25 | 12.70 | 18.54 | 15.24 | 25.90 | 39.87 |
| SUR-5-4 | 5/16 | 7.93 | 1/4 | 6.35 | 4.82 | 9/16 | 14.28 | 5/8 | 15.87 | 9/16 | 14.28 | 16.25 | 15.24 | 18.54 | 17.78 | 27.43 | 42.16 |
| SUR-6-1 | 3/8 | 9.52 | 1/16 | 1.59 | 1.27 | 5/8 | 15.87 | 11/16 | 17.46 | 5/16 | 7.93 | 16.76 | 8.63 | 19.30 | 10.92 | 25.40 | 36.57 |
| SUR-6-2 | 3/8 | 9.52 | 1/8 | 3.17 | 2.28 | 5/8 | 15.87 | 11/16 | 17.46 | 7/16 | 11.11 | 16.76 | 12.70 | 19.30 | 15.24 | 26.92 | 40.89 |
| SUR-6-4 | 3/8 | 9.52 | 1/4 | 6.35 | 4.82 | 5/8 | 15.87 | 11/16 | 17.46 | 9/16 | 14.28 | 16.76 | 15.24 | 19.30 | 17.78 | 28.44 | 43.18 |
| SUR-6-5 | 3/8 | 9.52 | 5/16 | 7.93 | 6.35 | 5/8 | 15.87 | 11/16 | 17.46 | 5/8 | 15.87 | 16.76 | 16.25 | 19.30 | 18.54 | 29.46 | 44.19 |
| SUR-8-2 | 1/2 | 12.70 | 1/8 | 3.17 | 2.28 | 13/16 | 20.64 | 7/8 | 22.22 | 7/16 | 11.11 | 22.86 | 12.70 | 21.84 | 15.24 | 28.44 | 45.21 |
| SUR-8-4 | 1/2 | 12.70 | 1/4 | 6.35 | 4.82 | 13/16 | 20.64 | 7/8 | 22.22 | 9/16 | 14.28 | 22.86 | 15.24 | 21.84 | 17.78 | 29.46 | 46.99 |
| SUR-8-6 | 1/2 | 12.70 | 3/8 | 9.52 | 7.11 | 13/16 | 20.64 | 7/8 | 22.22 | 11/16 | 17.46 | 22.86 | 16.76 | 21.84 | 19.30 | 30.98 | 48.51 |
| SUR-10-6 | 5/8 | 15.87 | 3/8 | 9.52 | 7.11 | 15/16 | 23.81 | 1 | 25.40 | 11/16 | 17.46 | 24.38 | 16.76 | 21.84 | 19.30 | 31.75 | 49.27 |
| SUR-10-8 | 5/8 | 15.87 | 1/2 | 12.70 | 10.41 | 15/16 | 23.81 | 1 | 25.40 | 7/8 | 22.22 | 24.38 | 22.86 | 21.84 | 21.84 | 31.75 | 52.07 |
| SUR-12-4 | 3/4 | 19.05 | 1/4 | 6.35 | 4.82 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 9/16 | 14.28 | 24.38 | 15.24 | 21.84 | 17.78 | 31.75 | 49.27 |
| SUR-12-6 | 3/4 | 19.05 | 3/8 | 9.52 | 7.11 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 11/16 | 17.46 | 24.38 | 16.76 | 21.84 | 19.30 | 33.27 | 50.80 |
| SUR-12-8 | 3/4 | 19.05 | 1/2 | 12.70 | 10.41 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 7/8 | 22.22 | 24.38 | 22.86 | 21.84 | 21.84 | 33.27 | 53.59 |
| SUR-12-10 | 3/4 | 19.05 | 5/8 | 15.87 | 12.70 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 1 | 25.40 | 24.38 | 24.38 | 21.84 | 21.84 | 33.27 | 53.59 |
| SUR-16-8 | 1 | 25.40 | 1/2 | 12.70 | 10.41 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 7/8 | 22.22 | 31.24 | 22.86 | 26.41 | 21.84 | 40.89 | 63.24 |
| SUR-16-12 | 1 | 25.40 | 3/4 | 19.05 | 15.74 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/8 | 28.58 | 31.24 | 24.38 | 26.41 | 21.84 | 40.38 | 62.73 |

Reducing Union
SUR



Connects metric tube

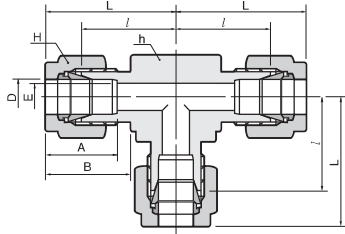
| Part No. | Tube O.D | | E | Width across flat | | | A | A ₁ | B | B ₁ | I | L |
|-------------|----------|----------------|------|-------------------|----|----------------|------|----------------|------|----------------|------|------|
| | D | D ₁ | | h | H | H ₁ | | | | | | |
| SUR-3M-2M | 3 | 2 | 1.7 | 12 | 12 | 12 | 12.9 | 12.9 | 15.3 | 15.3 | 22.1 | 35.3 |
| SUR-6M-2M | 6 | 2 | 1.7 | 14 | 14 | 12 | 15.3 | 12.9 | 17.7 | 15.3 | 24.6 | 38.6 |
| SUR-6M-3M | 6 | 3 | 2.4 | 14 | 14 | 12 | 15.3 | 12.9 | 17.7 | 15.3 | 24.6 | 38.6 |
| SUR-6M-4M | 6 | 4 | 2.4 | 14 | 14 | 12 | 15.3 | 13.7 | 17.7 | 16.1 | 25.4 | 39.4 |
| SUR-8M-6M | 8 | 6 | 4.8 | 15 | 16 | 14 | 16.2 | 15.3 | 18.6 | 17.7 | 27.4 | 42.3 |
| SUR-10M-6M | 10 | 6 | 4.8 | 18 | 19 | 14 | 17.2 | 15.3 | 19.5 | 17.7 | 29.5 | 44.5 |
| SUR-10M-8M | 10 | 8 | 6.4 | 18 | 19 | 16 | 17.2 | 16.2 | 19.5 | 18.6 | 30.3 | 45.1 |
| SUR-12M-6M | 12 | 6 | 4.8 | 22 | 22 | 14 | 22.8 | 15.3 | 22.0 | 17.7 | 29.5 | 47.0 |
| SUR-12M-8M | 12 | 8 | 6.4 | 22 | 22 | 16 | 22.8 | 16.2 | 22.0 | 18.6 | 30.2 | 47.8 |
| SUR-12M-10M | 12 | 10 | 7.9 | 22 | 22 | 19 | 22.8 | 17.2 | 22.0 | 19.5 | 31.0 | 48.7 |
| SUR-16M-10M | 16 | 10 | 7.9 | 24 | 25 | 19 | 24.4 | 17.2 | 22.0 | 19.5 | 31.8 | 49.5 |
| SUR-16M-12M | 16 | 12 | 9.5 | 24 | 25 | 22 | 24.4 | 22.8 | 22.0 | 22.0 | 31.8 | 52.0 |
| SUR-18M-12M | 18 | 12 | 9.5 | 27 | 30 | 22 | 24.4 | 22.8 | 22.0 | 22.0 | 33.3 | 53.5 |
| SUR-25M-18M | 25 | 18 | 15.1 | 35 | 38 | 30 | 31.3 | 24.4 | 26.5 | 22.0 | 38.6 | 61.0 |
| SUR-25M-20M | 25 | 20 | 15.9 | 35 | 38 | 32 | 31.3 | 26.0 | 26.5 | 22.0 | 39.9 | 62.3 |

Connects metric tube to fractional tube

| Part No. | Tube O.D | | | E | Width across flat | | | A | A ₁ | B | B ₁ | I | L |
|------------|----------|----------------|-------|------|-------------------|----|----------------|------|----------------|------|----------------|------|------|
| | D | D ₁ | | | h | H | H ₁ | | | | | | |
| | | in | mm | | | | | | | | | | |
| SUR-3M-2 | 3 | 1/8 | 3.17 | 2.4 | 12 | 12 | 11.1 | 12.9 | 12.8 | 15.3 | 15.2 | 22.1 | 35.2 |
| SUR-4M-2 | 4 | 1/8 | 3.17 | 2.4 | 12 | 12 | 11.1 | 13.7 | 12.8 | 16.1 | 15.2 | 23.4 | 36.5 |
| SUR-4M-4 | 4 | 1/4 | 6.35 | 2.4 | 14 | 12 | 14.3 | 13.7 | 15.3 | 16.1 | 17.7 | 25.4 | 39.4 |
| SUR-6M-2 | 6 | 1/8 | 3.17 | 2.4 | 14 | 14 | 11.1 | 15.3 | 12.8 | 17.7 | 15.2 | 24.6 | 38.5 |
| SUR-6M-4 | 6 | 1/4 | 6.35 | 4.8 | 14 | 14 | 14.3 | 15.3 | 15.8 | 17.7 | 17.7 | 26.2 | 41.0 |
| SUR-6M-5 | 6 | 5/16 | 7.93 | 4.8 | 14 | 14 | 15.9 | 15.3 | 16.2 | 17.7 | 18.6 | 27.4 | 42.3 |
| SUR-8M-4 | 8 | 1/4 | 6.35 | 4.8 | 15 | 16 | 14.3 | 16.2 | 15.3 | 18.6 | 17.7 | 27.4 | 42.3 |
| SUR-10M-2 | 10 | 1/8 | 3.17 | 2.4 | 18 | 19 | 11.1 | 17.2 | 12.8 | 19.5 | 15.2 | 27.7 | 41.8 |
| SUR-10M-4 | 10 | 1/4 | 6.35 | 4.8 | 18 | 19 | 14.3 | 17.2 | 15.3 | 19.5 | 17.7 | 29.5 | 44.5 |
| SUR-10M-5 | 10 | 5/16 | 7.93 | 6.4 | 18 | 19 | 15.9 | 17.2 | 16.2 | 19.5 | 18.6 | 30.3 | 45.1 |
| SUR-10M-6 | 10 | 3/8 | 9.52 | 7.1 | 18 | 19 | 17.5 | 17.2 | 16.9 | 19.5 | 18.6 | 31.0 | 45.9 |
| SUR-12M-5 | 12 | 5/16 | 7.93 | 6.4 | 22 | 22 | 15.9 | 22.8 | 16.2 | 22.0 | 18.6 | 30.2 | 47.8 |
| SUR-12M-6 | 12 | 3/8 | 9.52 | 7.1 | 22 | 22 | 17.5 | 22.8 | 16.9 | 22.0 | 19.2 | 31.0 | 48.4 |
| SUR-12M-8 | 12 | 1/2 | 12.70 | 9.5 | 22 | 22 | 22.2 | 22.8 | 22.8 | 22.0 | 22.0 | 31.0 | 51.2 |
| SUR-15M-8 | 15 | 1/2 | 12.70 | 10.3 | 24 | 25 | 22.2 | 24.4 | 22.8 | 22.0 | 22.0 | 31.8 | 52.0 |
| SUR-16M-10 | 16 | 5/8 | 19.05 | 12.7 | 24 | 25 | 25.4 | 24.4 | 24.4 | 22.0 | 22.0 | 31.8 | 52.0 |
| SUR-18M-12 | 18 | 3/4 | 19.05 | 15.1 | 27 | 30 | 28.6 | 24.4 | 24.4 | 22.0 | 22.0 | 33.3 | 53.5 |
| SUR-20M-12 | 20 | 3/4 | 19.05 | 15.9 | 30 | 32 | 28.6 | 26.0 | 24.4 | 22.0 | 22.0 | 34.8 | 54.9 |
| SUR-20M-16 | 20 | 1 | 25.40 | 15.9 | 34.9 | 32 | 38.1 | 26.0 | 31.2 | 22.0 | 26.4 | 38.0 | 60.3 |
| SUR-22M-16 | 22 | 1 | 25.40 | 18.3 | 34.9 | 32 | 38.1 | 26.0 | 31.2 | 22.0 | 26.4 | 38.2 | 60.3 |

Union Tee

ST



Connects fractional tube

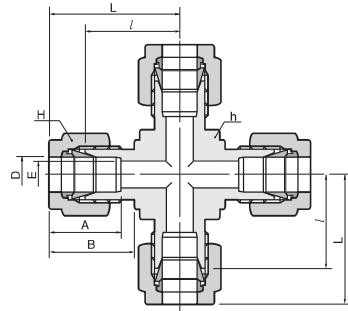
| Part No. | Tube O.D | | E | Width across flat | | | | A | B | I | L |
|----------|----------|-------|-------|-------------------|-------|-------|-------|-------|-------|-------|--------|
| | D | | | h | | H | | | | | |
| | in | mm | Min. | in | mm | in | mm | | | | |
| ST-1 | 1/16 | 1.59 | 1.27 | 3/8 | 9.52 | 5/16 | 7.93 | 8.63 | 10.92 | 14.00 | 17.88 |
| ST-2 | 1/8 | 3.17 | 2.28 | 3/8 | 9.52 | 7/16 | 11.11 | 12.70 | 15.24 | 15.74 | 22.35 |
| ST-3 | 3/16 | 4.76 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 17.78 | 24.35 |
| ST-4 | 1/4 | 6.35 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.92 |
| ST-5 | 5/16 | 7.93 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 |
| ST-6 | 3/8 | 9.52 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 |
| ST-8 | 1/2 | 12.70 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 |
| ST-10 | 5/8 | 15.87 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.70 | 38.80 |
| ST-12 | 3/4 | 19.05 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 |
| ST-14 | 7/8 | 22.22 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 |
| ST-16 | 1 | 25.40 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 |
| ST-20 | 1-1/4 | 31.75 | 27.68 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 41.14 | 38.86 | 44.50 | 66.54 |
| ST-24 | 1-1/2 | 38.10 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 50.03 | 45.21 | 50.80 | 77.97 |
| ST-32 | 2 | 50.80 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 69.80 | 107.18 |

Connects metric tube

| Part No. | Tube O.D | E | Width across flat | | A | B | I | L |
|----------|----------|------|-------------------|----|------|------|------|------|
| | D | | Min. | h | | | | |
| ST-2M | 2 | 1.7 | 9.5 | 12 | 12.9 | 15.3 | 15.7 | 22.3 |
| ST-3M | 3 | 2.4 | 9.5 | 12 | 12.9 | 15.3 | 15.7 | 22.3 |
| ST-4M | 4 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 |
| ST-6M | 6 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 |
| ST-8M | 8 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 |
| ST-10M | 10 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 |
| ST-12M | 12 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 |
| ST-15M | 15 | 11.9 | 25.4 | 25 | 24.4 | 22.0 | 28.7 | 38.8 |
| ST-16M | 16 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 28.7 | 38.8 |
| ST-18M | 18 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 |
| ST-20M | 20 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 42.6 |
| ST-22M | 22 | 18.3 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 42.6 |
| ST-25M | 25 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 |
| ST-28M | 28 | 21.8 | 41.0 | 46 | 36.6 | 36.6 | 43.2 | 64.0 |
| ST-32M | 32 | 28.6 | 46.0 | 50 | 42.0 | 41.6 | 49.3 | 72.3 |
| ST-38M | 38 | 33.7 | 55.0 | 60 | 49.4 | 47.9 | 56.4 | 84.0 |

Union Cross

SX



Connects fractional tube

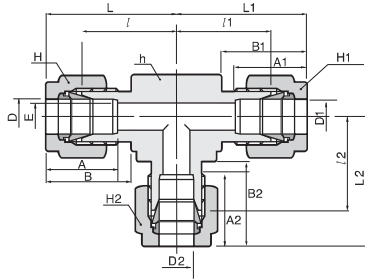
| Part No. | Tube O.D | | E | Width across flat | | | | A | B | I | L |
|----------|----------|-------|-------|-------------------|-------|-------|-------|-------|-------|-------|--------|
| | D | | | h | | H | | | | | |
| | in | mm | Min. | in | mm | in | mm | | | | |
| SX-1 | 1/16 | 1.59 | 1.27 | 3/8 | 9.52 | 5/16 | 7.93 | 8.63 | 10.92 | 14.00 | 17.88 |
| SX-2 | 1/8 | 3.17 | 2.28 | 3/8 | 9.52 | 7/16 | 11.11 | 12.70 | 15.24 | 15.74 | 22.35 |
| SX-3 | 3/16 | 4.76 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 17.78 | 24.35 |
| SX-4 | 1/4 | 6.35 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.92 |
| SX-5 | 5/16 | 7.93 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 |
| SX-6 | 3/8 | 9.52 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 |
| SX-8 | 1/2 | 12.70 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 |
| SX-10 | 5/8 | 15.87 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.70 | 38.80 |
| SX-12 | 3/4 | 19.05 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 |
| SX-14 | 7/8 | 22.22 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 |
| SX-16 | 1 | 25.40 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 |
| SX-20 | 1-1/4 | 31.75 | 27.68 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 41.14 | 38.86 | 44.50 | 66.54 |
| SX-24 | 1-1/2 | 38.10 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 50.03 | 45.21 | 50.80 | 77.97 |
| SX-32 | 2 | 50.80 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 69.80 | 107.18 |

Connects metric tube

| Part No. | Tube O.D | E | Width across flat | | A | B | I | L |
|----------|----------|------|-------------------|----|------|------|------|------|
| | D | | Min. | h | | | | |
| SX-2M | 2 | 1.7 | 9.5 | 12 | 12.9 | 15.3 | 15.7 | 22.3 |
| SX-3M | 3 | 2.4 | 9.5 | 12 | 12.9 | 15.3 | 15.7 | 22.3 |
| SX-4M | 4 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 |
| SX-6M | 6 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 |
| SX-8M | 8 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 |
| SX-10M | 10 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 |
| SX-12M | 12 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 |
| SX-15M | 15 | 11.9 | 25.4 | 25 | 24.4 | 22.0 | 28.7 | 38.8 |
| SX-16M | 16 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 28.7 | 38.8 |
| SX-18M | 18 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 |
| SX-20M | 20 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 42.6 |
| SX-22M | 22 | 18.3 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 42.6 |
| SX-25M | 25 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 |
| SX-28M | 28 | 21.8 | 41.0 | 46 | 36.6 | 36.6 | 43.2 | 64.0 |
| SX-32M | 32 | 28.6 | 46.0 | 50 | 42.0 | 41.6 | 49.3 | 72.3 |
| SX-38M | 38 | 33.7 | 55.0 | 60 | 49.4 | 47.9 | 56.4 | 84.0 |

Reducing Union Tee

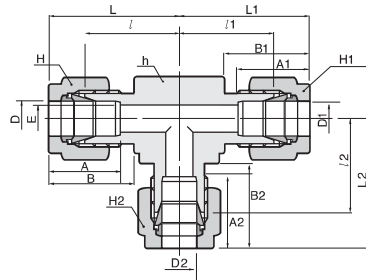
STR



Connects fractional tube

| Part No. | Tube O.D | | | | | | | | Width across flat | | | | | | | | | | | | | | | | | | |
|--------------|----------|-------|----------------|-------|----------------|-------|-------|-------|-------------------|----------------|-------|----------------|----------------|---------|-------|-------|----------------|----------------|-------|-------|-------|----------------|----------------|-------|----------------|----------------|-------|
| | D | | D ₁ | | D ₂ | | E | | A | | | B | | | h | | | H | | | I | l ₁ | l ₂ | L | L ₁ | L ₂ | |
| | in | mm | in | mm | in | mm | Min. | | A ₁ | A ₂ | B | B ₁ | B ₂ | h | mm | H | H ₁ | H ₂ | in | mm | | | | | | | in |
| STR-4-2 | 1/4 | 6.35 | 1/4 | 6.35 | 1/8 | 3.17 | 2.28 | 15.24 | 15.24 | 12.70 | 17.78 | 17.78 | 15.24 | 1/2 | 12.70 | 9/16 | 14.28 | 9/16 | 14.28 | 7/16 | 11.11 | 19.55 | 19.55 | 17.90 | 26.91 | 26.91 | 24.50 |
| STR-4-6 | 1/4 | 6.35 | 1/4 | 6.35 | 3/8 | 9.52 | 4.82 | 15.24 | 15.24 | 16.76 | 17.78 | 17.78 | 19.30 | 5/8 | 15.87 | 9/16 | 14.28 | 9/16 | 14.28 | 11/16 | 17.46 | 21.92 | 21.92 | 23.10 | 29.28 | 29.28 | 30.46 |
| STR-4-8-8 | 1/4 | 6.35 | 1/2 | 12.70 | 1/2 | 12.70 | 4.82 | 15.24 | 22.86 | 22.86 | 17.78 | 21.84 | 21.84 | 13/16 | 20.64 | 9/16 | 14.28 | 7/8 | 22.22 | 7/8 | 22.22 | 24.40 | 25.90 | 25.90 | 31.76 | 36.06 | 36.06 |
| STR-6-4-6 | 3/8 | 9.52 | 1/4 | 6.35 | 3/8 | 9.52 | 4.82 | 16.76 | 15.24 | 16.76 | 19.30 | 17.78 | 19.30 | 5/8 | 15.87 | 11/16 | 17.46 | 9/16 | 14.28 | 11/16 | 17.46 | 23.10 | 21.92 | 23.10 | 30.46 | 29.28 | 30.46 |
| STR-6-4 | 3/8 | 9.52 | 3/8 | 9.52 | 1/4 | 6.35 | 4.82 | 16.76 | 16.76 | 15.24 | 19.30 | 19.30 | 17.78 | 5/8 | 15.87 | 11/16 | 17.46 | 11/16 | 17.46 | 9/16 | 14.28 | 23.10 | 23.10 | 21.92 | 30.46 | 30.46 | 29.28 |
| STR-6-8 | 3/8 | 9.52 | 3/8 | 9.52 | 1/2 | 12.70 | 7.11 | 16.76 | 16.76 | 22.86 | 19.30 | 19.30 | 21.84 | 13/16 | 20.64 | 11/16 | 17.46 | 11/16 | 17.46 | 7/8 | 22.22 | 25.90 | 25.90 | 25.90 | 33.26 | 33.26 | 36.06 |
| STR-8-4-6 | 1/2 | 12.70 | 1/4 | 6.35 | 3/8 | 9.52 | 4.82 | 22.86 | 15.24 | 16.76 | 21.84 | 17.78 | 19.30 | 13/16 | 20.64 | 7/8 | 22.22 | 9/16 | 14.28 | 11/16 | 17.46 | 25.90 | 25.90 | 25.90 | 36.06 | 33.26 | 33.26 |
| STR-8-4-8 | 1/2 | 12.70 | 1/4 | 6.35 | 1/2 | 12.70 | 4.82 | 22.86 | 15.24 | 22.86 | 21.84 | 17.78 | 21.84 | 13/16 | 20.64 | 7/8 | 22.22 | 9/16 | 14.28 | 7/8 | 22.22 | 25.90 | 24.40 | 25.90 | 36.06 | 31.76 | 36.06 |
| STR-8-6-6 | 1/2 | 12.70 | 3/8 | 9.52 | 3/8 | 9.52 | 7.11 | 22.86 | 16.76 | 16.76 | 21.84 | 19.30 | 19.30 | 13/16 | 20.64 | 7/8 | 22.22 | 11/16 | 17.46 | 11/16 | 17.46 | 25.90 | 25.90 | 25.90 | 36.06 | 33.26 | 33.26 |
| STR-8-4 | 1/2 | 12.70 | 1/2 | 12.70 | 1/4 | 6.35 | 4.82 | 22.86 | 22.86 | 15.24 | 21.84 | 21.84 | 17.78 | 13/16 | 20.64 | 7/8 | 22.22 | 7/8 | 22.22 | 9/16 | 14.28 | 25.90 | 25.90 | 24.40 | 36.06 | 36.06 | 31.76 |
| STR-8-6 | 1/2 | 12.70 | 1/2 | 12.70 | 3/8 | 9.52 | 7.11 | 22.86 | 22.86 | 16.76 | 21.84 | 21.84 | 19.30 | 13/16 | 20.64 | 7/8 | 22.22 | 7/8 | 22.22 | 11/16 | 17.46 | 25.90 | 25.90 | 25.90 | 36.06 | 36.06 | 33.26 |
| STR-10-6 | 5/8 | 15.87 | 5/8 | 15.87 | 3/8 | 9.52 | 7.11 | 24.38 | 24.38 | 16.76 | 21.84 | 21.84 | 19.30 | 15/16 | 23.81 | 1 | 25.40 | 1 | 25.40 | 11/16 | 17.46 | 28.70 | 28.70 | 28.70 | 38.86 | 38.86 | 36.06 |
| STR-12-8-12 | 3/4 | 19.05 | 1/2 | 12.70 | 3/4 | 19.05 | 10.41 | 24.38 | 22.86 | 24.38 | 21.84 | 21.84 | 21.84 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 7/8 | 22.22 | 1-1/8 | 28.58 | 29.71 | 29.71 | 29.71 | 39.87 | 39.87 | 39.87 |
| STR-12-4 | 3/4 | 19.05 | 3/4 | 19.05 | 1/4 | 6.35 | 4.82 | 24.38 | 24.38 | 15.24 | 21.84 | 21.84 | 17.78 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 9/16 | 14.28 | 29.71 | 29.71 | 28.21 | 39.87 | 39.87 | 35.57 |
| STR-12-6 | 3/4 | 19.05 | 3/4 | 19.05 | 3/8 | 9.52 | 7.11 | 24.38 | 24.38 | 16.76 | 21.84 | 21.84 | 19.30 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 11/16 | 17.46 | 29.71 | 29.71 | 29.71 | 39.87 | 39.87 | 35.57 |
| STR-12-8 | 3/4 | 19.05 | 3/4 | 19.05 | 1/2 | 12.70 | 10.41 | 24.38 | 24.38 | 22.86 | 21.84 | 21.84 | 21.84 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 7/8 | 22.22 | 29.71 | 29.71 | 29.71 | 39.87 | 39.87 | 38.37 |
| STR-12-16 | 3/4 | 19.05 | 3/4 | 19.05 | 1 | 25.40 | 15.74 | 24.38 | 24.38 | 31.24 | 21.84 | 21.84 | 26.41 | 1-3/8 | 34.92 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 1-1/2 | 38.10 | 34.43 | 34.43 | 36.83 | 49.02 | 49.02 | 45.70 |
| STR-12-20 | 3/4 | 19.05 | 3/4 | 19.05 | 1-1/4 | 31.75 | 15.74 | 24.38 | 24.38 | 41.14 | 21.84 | 21.84 | 38.86 | 1-11/16 | 42.86 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 1-7/8 | 47.63 | 39.41 | 39.41 | 44.45 | 49.57 | 49.57 | 66.55 |
| STR-14-8 | 7/8 | 22.22 | 7/8 | 22.22 | 1/2 | 12.70 | 10.41 | 25.90 | 25.90 | 22.86 | 21.84 | 21.84 | 21.84 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 7/8 | 22.22 | 34.54 | 34.54 | 34.54 | 44.70 | 44.70 | 44.70 |
| STR-16-12-12 | 1 | 25.40 | 3/4 | 19.05 | 3/4 | 19.05 | 15.74 | 31.24 | 24.38 | 24.38 | 26.41 | 21.84 | 21.84 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 36.83 | 35.54 | 35.54 | 49.02 | 45.70 | 45.70 |
| STR-16-4 | 1 | 25.40 | 1 | 25.40 | 1/4 | 6.35 | 4.82 | 31.24 | 31.24 | 15.24 | 26.41 | 26.41 | 17.78 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 9/16 | 14.28 | 36.83 | 36.83 | 33.04 | 49.02 | 49.02 | 40.40 |
| STR-16-6 | 1 | 25.40 | 1 | 25.40 | 3/8 | 9.52 | 7.11 | 31.24 | 31.24 | 16.76 | 26.41 | 26.41 | 19.30 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 11/16 | 17.46 | 36.83 | 36.83 | 34.54 | 49.02 | 49.02 | 41.90 |
| STR-16-8 | 1 | 25.40 | 1 | 25.40 | 1/2 | 12.70 | 10.41 | 31.24 | 31.24 | 22.86 | 26.41 | 26.41 | 21.84 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 7/8 | 22.22 | 36.83 | 36.83 | 34.54 | 49.02 | 49.02 | 44.70 |
| STR-16-12 | 1 | 25.40 | 1 | 25.40 | 3/4 | 19.05 | 15.74 | 31.24 | 31.24 | 24.38 | 26.41 | 26.41 | 21.84 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 1-1/8 | 28.58 | 36.83 | 36.83 | 35.54 | 49.02 | 49.02 | 45.70 |
| STR-20-12-12 | 1-1/4 | 31.75 | 3/4 | 19.05 | 3/4 | 19.05 | 15.74 | 41.14 | 24.38 | 24.38 | 38.86 | 21.84 | 21.84 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 44.45 | 39.41 | 39.41 | 66.55 | 49.57 | 49.57 |
| STR-20-12 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 3/4 | 19.05 | 15.74 | 41.14 | 41.14 | 24.38 | 38.86 | 38.86 | 21.84 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 1-1/8 | 28.58 | 44.45 | 44.45 | 39.41 | 66.55 | 66.55 | 49.57 |
| STR-24-20-20 | 1-1/2 | 38.10 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 27.68 | 50.03 | 41.14 | 41.14 | 45.21 | 38.86 | 38.86 | 2 | 50.80 | 2-1/4 | 57.15 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 50.80 | 49.62 | 49.62 | 77.97 | 71.72 | 71.72 |
| STR-24-8 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 1/2 | 12.70 | 10.41 | 50.03 | 50.03 | 22.86 | 45.21 | 45.21 | 21.84 | 2 | 50.80 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 7/8 | 22.22 | 50.80 | 50.80 | 44.58 | 77.97 | 77.97 | 54.74 |
| STR-24-12 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 3/4 | 19.05 | 15.74 | 50.03 | 50.03 | 24.38 | 45.21 | 45.21 | 21.84 | 2 | 50.80 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 1-1/8 | 28.58 | 50.80 | 50.80 | 44.58 | 77.97 | 77.97 | 54.74 |
| STR-24-16 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 1 | 25.40 | 22.35 | 50.03 | 50.03 | 31.24 | 45.21 | 45.21 | 26.41 | 2 | 50.80 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 1-1/2 | 38.10 | 50.80 | 50.80 | 47.75 | 77.97 | 77.97 | 59.94 |

Reducing Union Tee

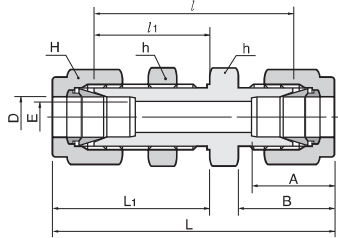
STR

Connects metric tube

| Part No. | Tube O.D | | | E Min. | A | A ₁ | A ₂ | B | B ₁ | B ₂ | Width across flat | | | | I | l ₁ | l ₂ | L | L ₁ | L ₂ |
|-----------------|----------|----------------|----------------|-----------|------|----------------|----------------|------|----------------|----------------|-------------------|----|----------------|----------------|------|----------------|----------------|------|----------------|----------------|
| | D | D ₁ | D ₂ | | | | | | | | h | H | H ₁ | H ₂ | | | | | | |
| STR-3M-6M | 3 | 3 | 6 | 2.4 | 12.9 | 12.9 | 15.3 | 15.3 | 15.3 | 17.7 | 12.7 | 12 | 12 | 14 | 18.0 | 18.0 | 19.6 | 24.6 | 24.6 | 27.0 |
| STR-8M-6M | 8 | 8 | 6 | 4.8 | 16.2 | 16.2 | 15.3 | 18.6 | 18.6 | 17.7 | 15 | 16 | 16 | 14 | 21.3 | 21.3 | 20.5 | 28.8 | 28.8 | 28.0 |
| STR-10M-6M | 10 | 10 | 6 | 4.8 | 17.2 | 17.2 | 15.3 | 19.5 | 19.5 | 17.7 | 17.4 | 19 | 19 | 14 | 23.9 | 23.9 | 22.4 | 31.5 | 31.5 | 29.8 |
| STR-10M-12M | 10 | 10 | 12 | 7.9 | 17.2 | 17.2 | 22.8 | 19.5 | 19.5 | 22.0 | 20.6 | 19 | 19 | 22 | 25.9 | 25.9 | 25.9 | 33.5 | 33.5 | 36.0 |
| STR-12M-6M-10M | 12 | 6 | 10 | 4.8 | 22.8 | 15.3 | 17.2 | 22.0 | 17.7 | 19.5 | 20.6 | 22 | 14 | 19 | 25.9 | 24.4 | 25.9 | 36.0 | 31.8 | 33.5 |
| STR-12M-6M-12M | 12 | 6 | 12 | 4.8 | 22.8 | 15.3 | 22.8 | 22.0 | 17.7 | 22.0 | 20.6 | 22 | 14 | 22 | 25.9 | 24.4 | 25.9 | 36.0 | 31.8 | 36.0 |
| STR-12M-10M-10M | 12 | 10 | 10 | 7.9 | 22.8 | 17.2 | 17.2 | 22.0 | 19.5 | 19.5 | 20.6 | 22 | 19 | 19 | 25.9 | 25.9 | 25.9 | 36.0 | 33.5 | 33.5 |
| STR-12M-10M | 12 | 12 | 10 | 7.9 | 22.8 | 22.8 | 17.2 | 22.0 | 22.0 | 19.5 | 20.6 | 22 | 22 | 19 | 25.9 | 25.9 | 25.9 | 36.0 | 36.0 | 33.5 |
| STR-12M-6M | 12 | 12 | 6 | 4.8 | 22.8 | 22.8 | 15.3 | 22.0 | 22.0 | 17.7 | 20.6 | 22 | 22 | 14 | 25.9 | 25.9 | 24.4 | 36.0 | 36.0 | 31.8 |
| STR-15M-12M | 15 | 15 | 12 | 9.8 | 24.4 | 24.4 | 22.8 | 28.7 | 28.7 | 22.0 | 25.4 | 25 | 25 | 22 | 28.7 | 28.7 | 28.7 | 38.8 | 38.8 | 38.8 |
| STR-16M-12M | 16 | 16 | 12 | 9.8 | 24.4 | 24.4 | 22.8 | 28.7 | 28.7 | 22.0 | 25.4 | 25 | 25 | 22 | 28.7 | 28.7 | 28.7 | 38.8 | 38.8 | 38.8 |
| STR-18M-12M | 18 | 18 | 12 | 9.8 | 24.4 | 24.4 | 22.8 | 29.7 | 29.7 | 22.0 | 27.0 | 30 | 30 | 22 | 29.7 | 29.7 | 29.5 | 39.8 | 39.8 | 39.6 |
| STR-20M-12M-20M | 20 | 12 | 20 | 9.8 | 26.0 | 22.8 | 26.0 | 34.5 | 22.0 | 34.5 | 34.9 | 32 | 22 | 32 | 32.5 | 32.5 | 32.5 | 42.6 | 42.6 | 42.6 |
| STR-20M-6M | 20 | 20 | 6 | 4.8 | 26.0 | 26.0 | 15.3 | 34.5 | 34.5 | 17.7 | 34.9 | 32 | 32 | 14 | 32.5 | 32.5 | 31.0 | 42.6 | 42.6 | 38.4 |
| STR-20M-10M | 20 | 20 | 10 | 7.9 | 26.0 | 26.0 | 17.2 | 34.5 | 34.5 | 19.5 | 34.9 | 32 | 32 | 19 | 32.5 | 32.5 | 32.5 | 42.6 | 42.6 | 40.1 |
| STR-20M-12M | 20 | 20 | 12 | 9.8 | 26.0 | 26.0 | 22.8 | 34.5 | 34.5 | 22.0 | 34.9 | 32 | 32 | 22 | 32.5 | 32.5 | 32.5 | 42.6 | 42.6 | 42.6 |
| STR-20M-25M | 20 | 20 | 25 | 15.9 | 26.0 | 26.0 | 31.3 | 34.5 | 34.5 | 26.5 | 34.9 | 32 | 32 | 38 | 34.3 | 34.3 | 36.8 | 44.4 | 44.4 | 49.1 |
| STR-20M-32M | 20 | 20 | 32 | 15.9 | 26.0 | 26.0 | 42.0 | 34.5 | 34.5 | 41.6 | 46.0 | 32 | 32 | 50 | 42.5 | 42.5 | 49.3 | 52.6 | 52.6 | 72.3 |
| STR-22M-12M | 22 | 22 | 12 | 9.8 | 26.0 | 26.0 | 22.8 | 34.5 | 34.5 | 22.0 | 34.9 | 32 | 32 | 22 | 32.5 | 32.5 | 32.5 | 42.6 | 42.6 | 42.6 |
| STR-25M-20M-20M | 25 | 20 | 20 | 15.9 | 31.3 | 26.0 | 26.0 | 26.5 | 34.5 | 34.5 | 34.9 | 38 | 32 | 32 | 36.8 | 34.3 | 34.3 | 49.1 | 44.4 | 44.4 |
| STR-25M-10M | 25 | 25 | 10 | 7.9 | 31.3 | 31.3 | 17.2 | 26.5 | 26.5 | 19.5 | 34.9 | 38 | 38 | 19 | 36.8 | 36.8 | 34.3 | 49.1 | 49.1 | 38.9 |
| STR-25M-12M | 25 | 25 | 12 | 9.8 | 31.3 | 31.3 | 22.8 | 26.5 | 26.5 | 22.0 | 34.9 | 38 | 38 | 22 | 36.8 | 36.8 | 34.3 | 49.1 | 49.1 | 44.4 |
| STR-25M-20M | 25 | 25 | 20 | 15.9 | 31.3 | 31.3 | 26.0 | 26.5 | 26.5 | 34.5 | 34.9 | 38 | 38 | 32 | 36.8 | 36.8 | 34.3 | 49.1 | 49.1 | 44.4 |
| STR-32M-20M | 32 | 32 | 20 | 15.9 | 42.0 | 42.0 | 26.0 | 41.6 | 41.6 | 34.5 | 46.0 | 38 | 38 | 32 | 49.3 | 49.3 | 42.5 | 72.3 | 72.3 | 52.6 |
| STR-38M-32M-32M | 38 | 32 | 32 | 28.6 | 49.4 | 42.0 | 42.0 | 47.9 | 41.6 | 41.6 | 50.8 | 60 | 38 | 38 | 56.4 | 54.7 | 54.7 | 84.0 | 77.7 | 77.7 |
| STR-38M-20M | 38 | 38 | 20 | 15.9 | 49.4 | 49.4 | 26.0 | 47.9 | 47.9 | 34.5 | 50.8 | 60 | 60 | 32 | 56.4 | 56.4 | 47.9 | 84.0 | 84.0 | 58.0 |
| STR-38M-25M | 38 | 38 | 25 | 21.8 | 49.4 | 49.4 | 31.3 | 47.9 | 47.9 | 26.5 | 50.8 | 60 | 60 | 38 | 56.4 | 56.4 | 50.4 | 84.0 | 84.0 | 62.7 |

Bulkhead Union

SUB



Connects fractional tube

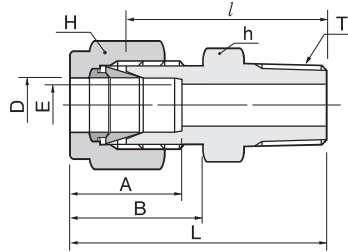
| Part No. | Tube O.D | | E | Width across flat | | | | A | B | I | I ₁ | L | L ₁ | Panel Hole Drill Size | Panel Max. Thickness |
|----------|----------|-------|-------|-------------------|-------|-------|-------|-------|-------|--------|----------------|--------|----------------|-----------------------|----------------------|
| | D | | | h | | H | | | | | | | | | |
| | in | mm | | in | mm | in | mm | | | | | | | | |
| SUB-1 | 1/16 | 1.59 | 1.27 | 3/8 | 9.52 | 5/16 | 7.93 | 8.63 | 10.92 | 23.87 | 13.46 | 31.50 | 17.27 | 5.16 | 3.05 |
| SUB-2 | 1/8 | 3.17 | 2.28 | 3/8 | 9.52 | 7/16 | 11.11 | 12.70 | 15.24 | 38.10 | 24.63 | 51.30 | 31.24 | 8.33 | 12.70 |
| SUB-3 | 3/16 | 4.76 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 40.38 | 25.40 | 53.59 | 32.00 | 9.92 | 12.70 |
| SUB-4 | 1/4 | 6.35 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 42.92 | 26.16 | 57.65 | 33.52 | 11.50 | 10.16 |
| SUB-5 | 5/16 | 7.93 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 45.97 | 28.44 | 60.70 | 35.81 | 13.09 | 11.17 |
| SUB-6 | 3/8 | 9.52 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 47.49 | 29.46 | 62.23 | 36.83 | 14.68 | 11.17 |
| SUB-8 | 1/2 | 12.70 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 50.80 | 31.75 | 41.12 | 41.91 | 19.44 | 12.70 |
| SUB-10 | 5/8 | 15.87 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 52.32 | 32.51 | 72.64 | 42.67 | 22.62 | 12.70 |
| SUB-12 | 3/4 | 19.05 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 58.67 | 37.33 | 78.99 | 47.49 | 25.79 | 16.76 |
| SUB-14 | 7/8 | 22.22 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 64.26 | 42.92 | 84.58 | 53.08 | 28.97 | 19.05 |
| SUB-16 | 1 | 25.40 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 71.37 | 45.21 | 95.75 | 57.40 | 33.73 | 19.05 |
| SUB-20 | 1-1/4 | 31.75 | 27.68 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 41.14 | 38.86 | 78.99 | 47.75 | 123.19 | 69.85 | 41.67 | 19.05 |
| SUB-24 | 1-1/2 | 38.10 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 50.03 | 45.21 | 84.83 | 49.27 | 139.19 | 76.45 | 49.61 | 19.05 |
| SUB-32 | 2 | 50.80 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 105.66 | 56.38 | 180.34 | 93.72 | 57.94 | 19.05 |

Connects metric tube

| Part No. | Tube O.D | | E | Width across flat | | A | B | I | I ₁ | L | L ₁ | Panel Hole Drill Size | Panel Max. Thickness |
|----------|----------|------|------|-------------------|----|------|------|------|----------------|-------|----------------|-----------------------|----------------------|
| | D | Min. | | h | H | | | | | | | | |
| SUB-3M | 3 | 2.4 | 2.4 | 9.5 | 12 | 12.9 | 15.3 | 38.1 | 24.6 | 51.3 | 31.2 | 8.3 | 12.7 |
| SUB-4M | 4 | 2.4 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 40.4 | 25.4 | 53.6 | 32.0 | 9.9 | 12.7 |
| SUB-6M | 6 | 4.8 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 42.9 | 26.2 | 57.7 | 33.6 | 11.5 | 10.2 |
| SUB-8M | 8 | 6.4 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 46.0 | 28.6 | 61.0 | 36.1 | 13.1 | 11.2 |
| SUB-10M | 10 | 7.9 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 48.5 | 29.4 | 63.7 | 37.0 | 16.2 | 11.2 |
| SUB-12M | 12 | 9.5 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 50.8 | 31.8 | 71.0 | 41.9 | 19.5 | 12.7 |
| SUB-15M | 15 | 11.9 | 11.9 | 25.4 | 25 | 24.4 | 22.0 | 52.3 | 32.5 | 72.5 | 42.6 | 22.8 | 12.7 |
| SUB-16M | 16 | 12.7 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 52.3 | 32.5 | 72.5 | 42.6 | 22.8 | 12.7 |
| SUB-18M | 18 | 15.1 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 58.7 | 37.3 | 78.9 | 47.4 | 26.0 | 16.8 |
| SUB-20M | 20 | 15.9 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 64.3 | 42.9 | 84.5 | 53.0 | 29.0 | 17.0 |
| SUB-22M | 22 | 18.3 | 18.3 | 31.8 | 32 | 26.0 | 22.0 | 64.3 | 42.9 | 84.5 | 53.0 | 29.0 | 19.1 |
| SUB-25M | 25 | 21.8 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 71.4 | 45.2 | 95.9 | 57.5 | 33.7 | 19.1 |
| SUB-32M | 32 | 28.6 | 28.6 | 46.0 | 50 | 42.0 | 41.6 | 82.3 | 49.5 | 128.3 | 72.5 | 42.5 | 19.0 |
| SUB-38M | 38 | 33.7 | 33.7 | 55.0 | 60 | 49.4 | 47.9 | 89.4 | 51.5 | 144.6 | 79.1 | 50.5 | 19.0 |

Male Connector

SMC-N

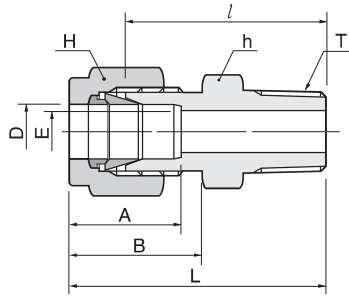


Connects fractional tube to female NPT thread

| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | | | A | B | I | L |
|------------|----------|-------|-------------|-----------|-------------------|-------|-------|-------|-------|-------|-------|--------|
| | D | | | | h | | H | | | | | |
| | in | mm | | | in | mm | in | mm | | | | |
| SMC-1-1N | 1/16 | 1.59 | 1/16 | 1.27 | 5/16 | 7.93 | 5/16 | 7.93 | 8.63 | 10.92 | 20.00 | 23.83 |
| SMC-1-2N | 1/16 | 1.59 | 1/8 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 22.35 | 26.23 |
| SMC-1-4N | 1/16 | 1.59 | 1/4 | 1.27 | 9/16 | 14.28 | 5/16 | 7.93 | 8.63 | 10.92 | 27.17 | 30.98 |
| SMC-2-1N | 1/8 | 3.17 | 1/16 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 23.11 | 29.71 |
| SMC-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 23.87 | 30.48 |
| SMC-2-4N | 1/8 | 3.17 | 1/4 | 2.28 | 9/16 | 14.28 | 7/16 | 11.11 | 12.70 | 15.24 | 28.95 | 35.56 |
| SMC-2-6N | 1/8 | 3.17 | 3/8 | 2.28 | 11/16 | 17.46 | 7/16 | 11.11 | 12.70 | 15.24 | 29.21 | 35.381 |
| SMC-2-8N | 1/8 | 3.17 | 1/2 | 2.28 | 7/8 | 22.22 | 7/16 | 11.11 | 12.70 | 15.24 | 35.56 | 42.16 |
| SMC-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 7/16 | 11.11 | 1/2 | 12.70 | 13.71 | 16.00 | 24.63 | 31.24 |
| SMC-3-4N | 3/16 | 4.76 | 1/4 | 3.04 | 9/16 | 14.28 | 1/2 | 12.70 | 13.71 | 16.00 | 29.71 | 36.32 |
| SMC-4-1N | 1/4 | 6.35 | 1/16 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 25.40 | 32.76 |
| SMC-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 25.40 | 32.76 |
| SMC-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 30.48 | 37.84 |
| SMC-4-6N | 1/4 | 6.35 | 3/8 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 30.98 | 38.35 |
| SMC-4-8N | 1/4 | 6.35 | 1/2 | 4.82 | 7/8 | 22.22 | 9/16 | 14.28 | 15.24 | 17.78 | 37.33 | 44.70 |
| SMC-4-12N | 1/4 | 6.35 | 3/4 | 4.82 | 1-1/16 | 26.98 | 9/16 | 14.28 | 15.24 | 17.78 | 38.86 | 46.22 |
| SMC-5-2N | 5/16 | 7.93 | 1/8 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 26.67 | 34.03 |
| SMC-5-4N | 5/16 | 7.93 | 1/4 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 31.24 | 38.60 |
| SMC-5-6N | 5/16 | 7.93 | 3/8 | 6.35 | 11/16 | 17.46 | 5/8 | 15.87 | 16.25 | 18.54 | 31.75 | 39.11 |
| SMC-5-8N | 5/16 | 7.93 | 1/2 | 6.35 | 7/8 | 22.22 | 5/8 | 15.87 | 16.25 | 18.54 | 38.11 | 45.60 |
| SMC-6-2N | 3/8 | 9.52 | 1/8 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 27.94 | 35.30 |
| SMC-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 32.51 | 39.87 |
| SMC-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 32.51 | 39.87 |
| SMC-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 7/8 | 22.22 | 11/16 | 17.46 | 16.76 | 19.30 | 38.86 | 46.22 |
| SMC-6-12N | 3/8 | 9.52 | 3/4 | 7.11 | 1-1/16 | 26.98 | 11/16 | 17.46 | 16.76 | 19.30 | 40.38 | 47.75 |
| SMC-8-2N | 1/2 | 12.70 | 1/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 28.70 | 38.86 |
| SMC-8-4N | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 33.27 | 43.43 |
| SMC-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 33.27 | 43.43 |
| SMC-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 38.86 | 49.02 |
| SMC-8-12N | 1/2 | 12.70 | 3/4 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 40.38 | 50.54 |
| SMC-8-16N | 1/2 | 12.70 | 1 | 10.41 | 1-3/8 | 34.92 | 7/8 | 22.22 | 22.86 | 21.84 | 46.99 | 57.15 |
| SMC-10-6N | 5/8 | 15.87 | 3/8 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 34.03 | 44.19 |
| SMC-10-8N | 5/8 | 15.87 | 1/2 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 38.86 | 49.02 |
| SMC-10-12N | 5/8 | 15.87 | 3/4 | 12.70 | 1-1/16 | 26.98 | 1 | 25.40 | 24.38 | 21.84 | 40.38 | 50.54 |
| SMC-12-8N | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 40.38 | 50.54 |
| SMC-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 40.38 | 50.54 |
| SMC-12-16N | 3/4 | 19.05 | 1 | 15.74 | 1-3/8 | 34.92 | 1-1/8 | 28.58 | 24.38 | 21.84 | 46.99 | 57.15 |
| SMC-14-12N | 7/8 | 22.22 | 3/4 | 18.28 | 1-3/16 | 30.16 | 1-1/4 | 31.75 | 25.90 | 21.84 | 40.38 | 50.54 |
| SMC-14-16N | 7/8 | 22.22 | 1 | 18.28 | 1-3/8 | 34.92 | 1-1/4 | 31.75 | 25.90 | 21.84 | 46.99 | 57.15 |
| SMC-16-8N | 1 | 25.40 | 1/2 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 45.21 | 57.40 |
| SMC-16-12N | 1 | 25.40 | 3/4 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 45.21 | 57.40 |
| SMC-16-16N | 1 | 25.40 | 1 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 50.03 | 62.23 |
| SMC-20-16N | 1-1/4 | 31.75 | 1 | 27.68 | 1-3/4 | 44.45 | 1-7/8 | 47.63 | 41.14 | 38.86 | 55.11 | 77.21 |
| SMC-20-20N | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 1-3/4 | 44.45 | 1-7/8 | 47.63 | 41.14 | 38.86 | 55.11 | 77.21 |
| SMC-20-24N | 1-1/4 | 31.75 | 1-1/2 | 27.68 | 1-3/4 | 44.45 | 1-7/8 | 47.63 | 41.14 | 38.86 | 60.54 | 82.64 |
| SMC-24-20N | 1-1/2 | 38.10 | 1-1/4 | 34.03 | 2-1/8 | 53.98 | 2-1/4 | 57.15 | 50.03 | 45.21 | 59.42 | 86.60 |
| SMC-24-24N | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2-1/8 | 53.98 | 2-1/4 | 57.15 | 50.03 | 45.21 | 61.72 | 88.90 |
| SMC-24-32N | 1-1/2 | 38.10 | 2 | 34.03 | 2-3/4 | 69.85 | 2-1/4 | 57.15 | 50.03 | 45.21 | 62.42 | 99.75 |
| SMC-32-8N | 2 | 50.80 | 1/2 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 68.40 | 105.73 |
| SMC-32-20N | 2 | 50.80 | 1-1/4 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 71.40 | 108.73 |
| SMC-32-24N | 2 | 50.80 | 1-1/2 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 75.50 | 112.83 |
| SMC-32-32N | 2 | 50.80 | 2 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 76.20 | 113.53 |

Male Connector

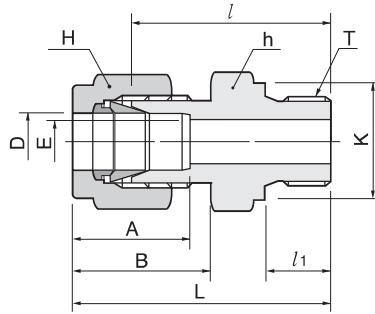
SMC-R



Connects metric tube to female ISO taper thread

| Part No. | Tube O.D | T | E | Width across flat | | A | B | I | L |
|-------------|----------|-------|------|-------------------|----|------|------|------|------|
| | D | R(PT) | Min. | h | H | | | | |
| SMC-2M-2R | 2 | 1/8 | 1.7 | 12 | 12 | 12.9 | 15.3 | 23.1 | 29.7 |
| SMC-3M-2R | 3 | 1/8 | 2.4 | 12 | 12 | 12.9 | 15.3 | 23.1 | 29.7 |
| SMC-3M-4R | 3 | 1/4 | 2.4 | 14 | 12 | 12.9 | 15.3 | 29.0 | 35.6 |
| SMC-4M-2R | 4 | 1/8 | 2.4 | 12 | 12 | 13.7 | 16.1 | 24.6 | 31.2 |
| SMC-4M-4R | 4 | 1/4 | 2.4 | 14 | 12 | 13.7 | 16.1 | 29.7 | 36.3 |
| SMC-6M-2R | 6 | 1/8 | 4.8 | 14 | 14 | 15.3 | 17.7 | 25.4 | 32.8 |
| SMC-6M-4R | 6 | 1/4 | 4.8 | 14 | 14 | 15.3 | 17.7 | 30.2 | 37.6 |
| SMC-6M-6R | 6 | 3/8 | 4.8 | 8 | 14 | 15.3 | 17.7 | 31.0 | 38.4 |
| SMC-6M-8R | 6 | 1/2 | 4.8 | 22 | 14 | 15.3 | 17.7 | 36.6 | 44.0 |
| SMC-8M-2R | 8 | 1/8 | 6.4 | 15 | 16 | 16.2 | 18.6 | 26.7 | 34.2 |
| SMC-8M-4R | 8 | 1/4 | 6.4 | 15 | 16 | 16.2 | 18.6 | 31.2 | 38.7 |
| SMC-8M-6R | 8 | 3/8 | 6.4 | 18 | 16 | 16.2 | 18.6 | 31.8 | 39.2 |
| SMC-8M-8R | 8 | 1/2 | 6.4 | 22 | 16 | 16.2 | 18.6 | 37.3 | 44.8 |
| SMC-10M-2R | 10 | 1/8 | 7.9 | 18 | 19 | 17.2 | 19.5 | 28.7 | 36.3 |
| SMC-10M-4R | 10 | 1/4 | 7.9 | 18 | 19 | 17.2 | 19.5 | 33.3 | 40.9 |
| SMC-10M-6R | 10 | 3/8 | 7.9 | 18 | 19 | 17.2 | 19.5 | 33.3 | 40.9 |
| SMC-10M-8R | 10 | 1/2 | 7.9 | 22 | 19 | 17.2 | 19.5 | 38.1 | 45.7 |
| SMC-12M-4R | 12 | 1/4 | 9.5 | 22 | 22 | 22.8 | 22.0 | 33.3 | 43.4 |
| SMC-12M-6R | 12 | 3/8 | 9.5 | 22 | 22 | 22.8 | 22.0 | 33.3 | 43.4 |
| SMC-12M-8R | 12 | 1/2 | 9.5 | 22 | 22 | 22.8 | 22.0 | 38.1 | 48.2 |
| SMC-12M-12R | 12 | 3/4 | 9.5 | 27 | 22 | 22.8 | 22.0 | 38.9 | 49.0 |
| SMC-15M-8R | 15 | 1/2 | 11.9 | 24 | 25 | 24.4 | 22.0 | 38.9 | 49.0 |
| SMC-16M-4R | 16 | 1/4 | 12.7 | 24 | 25 | 24.4 | 22.0 | 34.0 | 44.1 |
| SMC-16M-6R | 16 | 3/8 | 12.7 | 24 | 25 | 24.4 | 22.0 | 34.0 | 44.1 |
| SMC-16M-8R | 16 | 1/2 | 12.7 | 24 | 25 | 24.4 | 22.0 | 38.9 | 49.0 |
| SMC-16M-12R | 16 | 3/4 | 12.7 | 27 | 25 | 24.4 | 22.0 | 38.9 | 49.0 |
| SMC-18M-8R | 18 | 1/2 | 15.1 | 27 | 30 | 24.4 | 22.0 | 40.4 | 50.5 |
| SMC-18M-12R | 18 | 3/4 | 15.1 | 27 | 30 | 24.4 | 22.0 | 40.4 | 50.5 |
| SMC-20M-8R | 20 | 1/2 | 15.9 | 30 | 32 | 26.0 | 22.0 | 42.2 | 52.3 |
| SMC-20M-12R | 20 | 3/4 | 15.9 | 30 | 32 | 26.0 | 22.0 | 42.2 | 52.3 |
| SMC-22M-12R | 22 | 3/4 | 18.3 | 30 | 32 | 26.0 | 22.0 | 42.2 | 52.3 |
| SMC-22M-16R | 22 | 1 | 18.3 | 35 | 32 | 26.0 | 22.0 | 47.8 | 57.9 |
| SMC-25M-12R | 25 | 3/4 | 21.8 | 35 | 38 | 31.3 | 26.5 | 45.2 | 57.5 |
| SMC-25M-16R | 25 | 1 | 21.8 | 35 | 38 | 31.3 | 26.5 | 50.0 | 62.3 |
| SMC-28M-16R | 28 | 1 | 21.8 | 41 | 46 | 36.6 | 36.6 | 51.6 | 72.4 |
| SMC-28M-20R | 28 | 1-1/4 | 21.8 | 46 | 46 | 36.6 | 36.6 | 52.3 | 73.1 |
| SMC-32M-20R | 32 | 1-1/4 | 28.6 | 46 | 50 | 42.0 | 41.6 | 56.6 | 79.6 |
| SMC-38M-24R | 38 | 1-1/2 | 33.7 | 55 | 60 | 49.4 | 47.9 | 64.0 | 91.6 |

Male Connector
for Bonded Seal
SMC-G



Connects fractional tube to female ISO parallel thread

| Part No. | Tube O.D | | T | E | Width across flat | | | A | B | I | I ₁ | L | K | |
|------------|----------|-------|-------|-------|-------------------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|
| | D | | | | h | H | | | | | | | | |
| | in | mm | G(PF) | Min. | in | mm | in | mm | | | | | | |
| SMC-2-2G | 1/8 | 3.17 | 1/8 | 2.28 | 9/16 | 14.28 | 7/16 | 11.11 | 12.70 | 15.24 | 23.37 | 7.11 | 29.97 | 13.72 |
| SMC-2-4G | 1/8 | 3.17 | 1/4 | 2.28 | 3/4 | 19.05 | 7/16 | 11.11 | 12.70 | 15.24 | 28.70 | 11.18 | 35.31 | 18.03 |
| SMC-2-6G | 1/8 | 3.17 | 3/8 | 2.28 | 7/8 | 22.22 | 7/16 | 11.11 | 12.70 | 15.24 | 29.72 | 11.18 | 36.21 | 21.84 |
| SMC-4-2G | 1/4 | 6.35 | 1/8 | 4.82 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 24.89 | 7.11 | 32.26 | 13.72 |
| SMC-4-4G | 1/4 | 6.35 | 1/4 | 4.82 | 3/4 | 19.05 | 9/16 | 14.28 | 15.24 | 17.78 | 30.23 | 11.18 | 37.59 | 18.03 |
| SMC-4-6G | 1/4 | 6.35 | 3/8 | 4.82 | 7/8 | 22.22 | 9/16 | 14.28 | 15.24 | 17.78 | 61.50 | 11.18 | 38.86 | 21.84 |
| SMC-4-8G | 1/4 | 6.35 | 1/2 | 4.82 | 1-1/16 | 26.98 | 9/16 | 14.28 | 15.24 | 17.78 | 37.34 | 14.22 | 44.70 | 25.91 |
| SMC-6-4G | 3/8 | 9.52 | 1/4 | 7.11 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 19.30 | 31.75 | 11.18 | 39.12 | 18.03 |
| SMC-6-6G | 3/8 | 9.52 | 3/8 | 7.11 | 7/8 | 22.22 | 11/16 | 17.46 | 16.76 | 19.30 | 33.02 | 11.18 | 40.39 | 21.84 |
| SMC-6-8G | 3/8 | 9.52 | 1/2 | 7.11 | 1-1/16 | 26.98 | 11/16 | 17.46 | 16.76 | 19.30 | 38.86 | 14.22 | 46.23 | 25.91 |
| SMC-8-4G | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 32.51 | 11.18 | 42.67 | 18.03 |
| SMC-8-6G | 1/2 | 12.70 | 3/8 | 10.41 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 33.02 | 11.18 | 43.18 | 21.84 |
| SMC-8-8G | 1/2 | 12.70 | 1/2 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 38.86 | 14.22 | 49.02 | 25.91 |
| SMC-12-8G | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 38.86 | 14.22 | 49.02 | 25.91 |
| SMC-12-12G | 3/4 | 19.05 | 3/4 | 15.74 | 1-5/16 | 33.33 | 1-1/8 | 28.58 | 24.38 | 21.84 | 42.67 | 15.75 | 52.83 | 32.00 |
| SMC-16-8G | 1 | 25.40 | 1/2 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 43.69 | 14.22 | 55.88 | 25.91 |
| SMC-16-16G | 1 | 25.40 | 1 | 22.35 | 1-5/8 | 41.27 | 1-1/2 | 38.10 | 31.24 | 26.41 | 47.75 | 18.29 | 59.94 | 39.12 |
| SMC-20-20G | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 2 | 50.80 | 1-7/8 | 47.63 | 41.14 | 38.86 | 51.16 | 20.00 | 73.26 | 49.00 |
| SMC-24-24G | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 50.03 | 45.21 | 57.57 | 22.00 | 84.75 | 55.00 |

Connects metric tube to female ISO parallel thread

| Part No. | Tube O.D | | T | E | Width across flat | | | A | B | I | I ₁ | L | K |
|-------------|----------|--|-------|------|-------------------|----|------|------|------|------|----------------|------|---|
| | D | | | | h | H | | | | | | | |
| | | | G(PF) | Min. | h | H | | | | | | | |
| SMC-2M-2G | 2 | | 1/8 | 1.7 | 14 | 12 | 12.9 | 15.3 | 23.4 | 7.1 | 30.0 | 13.8 | |
| SMC-3M-2G | 3 | | 1/8 | 2.4 | 14 | 12 | 12.9 | 15.3 | 23.4 | 7.1 | 30.0 | 13.8 | |
| SMC-3M-4G | 3 | | 1/4 | 2.4 | 19 | 12 | 12.9 | 15.3 | 28.7 | 11.2 | 35.3 | 18.0 | |
| SMC-4M-2G | 4 | | 1/8 | 2.4 | 14 | 12 | 13.7 | 16.1 | 24.1 | 7.1 | 30.7 | 13.8 | |
| SMC-4M-4G | 4 | | 1/4 | 2.4 | 19 | 12 | 13.7 | 16.1 | 29.4 | 11.2 | 36.0 | 18.0 | |
| SMC-6M-2G | 6 | | 1/8 | 4.8 | 14 | 14 | 15.3 | 17.7 | 24.9 | 7.1 | 32.3 | 13.8 | |
| SMC-6M-4G | 6 | | 1/4 | 4.8 | 19 | 14 | 15.3 | 17.7 | 30.2 | 11.2 | 37.6 | 18.0 | |
| SMC-6M-6G | 6 | | 3/8 | 4.8 | 22 | 14 | 15.3 | 17.7 | 31.5 | 11.2 | 38.9 | 21.8 | |
| SMC-6M-8G | 6 | | 1/2 | 4.8 | 27 | 14 | 15.3 | 17.7 | 37.3 | 14.2 | 44.7 | 26.0 | |
| SMC-8M-2G | 8 | | 1/8 | 6.4 | 15 | 16 | 16.2 | 18.6 | 25.7 | 7.1 | 33.2 | 13.8 | |
| SMC-8M-4G | 8 | | 1/4 | 6.4 | 19 | 16 | 16.2 | 18.6 | 31.0 | 11.2 | 38.5 | 18.0 | |
| SMC-8M-6G | 8 | | 3/8 | 6.4 | 22 | 16 | 16.2 | 18.6 | 32.3 | 11.2 | 39.8 | 21.8 | |
| SMC-8M-8G | 8 | | 1/2 | 6.4 | 27 | 16 | 16.2 | 18.6 | 38.1 | 14.2 | 45.6 | 26.0 | |
| SMC-10M-4G | 10 | | 1/4 | 7.9 | 19 | 19 | 17.2 | 19.5 | 31.8 | 11.2 | 39.4 | 18.0 | |
| SMC-10M-6G | 10 | | 3/8 | 7.9 | 22 | 19 | 17.2 | 19.5 | 33.0 | 11.2 | 40.6 | 21.8 | |
| SMC-10M-8G | 10 | | 1/2 | 7.9 | 27 | 19 | 17.2 | 19.5 | 38.9 | 14.2 | 46.5 | 26.0 | |
| SMC-12M-4G | 12 | | 1/4 | 9.5 | 22 | 22 | 22.8 | 22.0 | 32.5 | 11.2 | 42.6 | 18.0 | |
| SMC-12M-6G | 12 | | 3/8 | 9.5 | 22 | 22 | 22.8 | 22.0 | 33.0 | 11.2 | 43.1 | 21.8 | |
| SMC-12M-8G | 12 | | 1/2 | 9.5 | 27 | 22 | 22.8 | 22.0 | 38.9 | 14.2 | 49.0 | 26.0 | |
| SMC-12M-12G | 12 | | 3/4 | 9.5 | 35 | 22 | 22.8 | 22.0 | 42.7 | 15.7 | 52.8 | 32.0 | |
| SMC-16M-6G | 16 | | 3/8 | 12.7 | 24 | 25 | 24.4 | 22.0 | 33.8 | 11.2 | 43.9 | 21.8 | |
| SMC-16M-8G | 16 | | 1/2 | 12.7 | 27 | 25 | 24.4 | 22.0 | 38.9 | 14.2 | 49.0 | 26.0 | |
| SMC-18M-8G | 18 | | 1/2 | 15.1 | 27 | 30 | 24.4 | 22.0 | 38.9 | 14.2 | 49.0 | 26.0 | |
| SMC-18M-12G | 18 | | 3/4 | 15.1 | 35 | 30 | 24.4 | 22.0 | 42.7 | 15.7 | 52.8 | 32.0 | |
| SMC-20M-8G | 20 | | 1/2 | 15.9 | 30 | 32 | 26.0 | 22.0 | 40.4 | 14.2 | 50.5 | 26.0 | |
| SMC-20M-12G | 20 | | 3/4 | 15.9 | 35 | 32 | 26.0 | 22.0 | 42.7 | 15.7 | 52.8 | 32.0 | |
| SMC-22M-12G | 22 | | 3/4 | 18.3 | 35 | 32 | 26.0 | 22.0 | 42.7 | 15.7 | 52.8 | 32.0 | |
| SMC-22M-16G | 22 | | 1 | 18.3 | 41 | 32 | 26.0 | 22.0 | 45.2 | 18.3 | 55.3 | 39.0 | |
| SMC-25M-12G | 25 | | 3/4 | 21.8 | 35 | 38 | 31.3 | 26.5 | 45.2 | 15.7 | 57.5 | 32.0 | |
| SMC-25M-16G | 25 | | 1 | 21.8 | 41 | 38 | 31.3 | 26.5 | 47.8 | 18.3 | 60.1 | 39.0 | |
| SMC-28M-16G | 28 | | 1 | 21.8 | 41 | 46 | 36.6 | 36.6 | 49.3 | 18.3 | 70.1 | 39.0 | |
| SMC-28M-20G | 28 | | 1-1/4 | 21.8 | 50 | 46 | 36.6 | 36.6 | 53.1 | 19.8 | 73.9 | 49.0 | |
| SMC-32M-20G | 32 | | 1-1/4 | 28.6 | 50 | 50 | 42.0 | 41.6 | 55.9 | 19.8 | 78.9 | 49.0 | |
| SMC-38M-24G | 38 | | 1-1/2 | 33.7 | 55 | 60 | 49.4 | 47.9 | 63.2 | 22.1 | 90.8 | 54.7 | |

Thermocouple Connector
SMCT



S-LOK thermocouple connector has no shoulder nor sizing angle inside the fitting; the features enable thermocoupler to go through the fitting's thread end.

Example : SMCT 8-8N-S6 for ordering Thermocouple connector
O.D 1/2"× 1/2"NPT S316

Assembly Instructions

1. Position the length of the Thermocouple passed through fitting's thread end and hold it to prevent shifting during assembly.
2. Turn the nut 1-1/4 after finger tight with a wrench by holding the body with a back up wrench for size 1/4"(6mm) or above.

ISO Pipe Thread

The International Standards Organization created the ISO 228/1 and 7/1 threads to standardize the nomenclature of several international pipe threads.

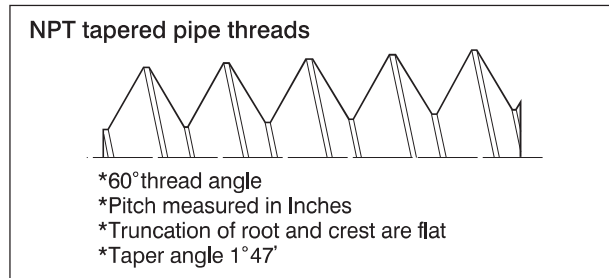
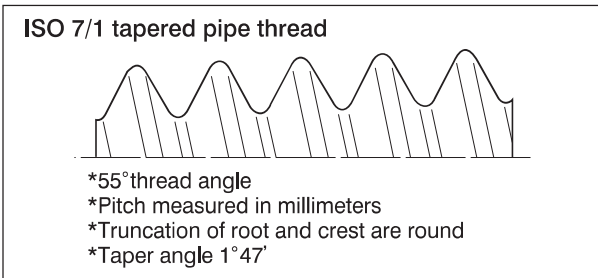
ISO 7/1

The ISO 7/1 is a tapered thread that is sealing threads working by interference fit. This still requires thread sealant for pressure-tight seal by filling the voids between threads, and further, this prevents galling on piping threads. The sealant usually contains a lubricant.

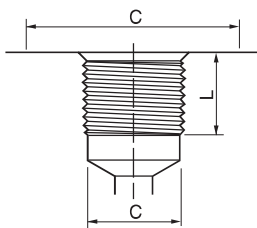
The ISO 7/1 is described in following codes.

1. BS 21(BSPT)
2. JIS B0203(PT)
3. ISO 7/1
4. DIN 2999 (male thread only)

The ISO 7/1 looks similar to the NPT thread. See how different they are as illustrated below.



ISO Internal Parallel Pipe Thread



| S-LOK Pipe Thread Designator | ISO Female Parallel Pipe Size | Minimum Full Thread Depth L | Thread Minor Diameter D | Minimum Flat Diameter for SGB & SGC C |
|------------------------------|-------------------------------|-----------------------------|-------------------------|---------------------------------------|
| 2 | 1/8 | 0.31 | 0.337 / 0.348 | 0.59 |
| 4 | 1/4 | 0.47 | 0.450 / 0.468 | 0.75 |
| 6 | 3/8 | 0.47 | 0.588 / 0.606 | 0.91 |
| 8 | 1/2 | 0.55 | 0.733 / 0.755 | 1.06 |
| 12 | 3/4 | 0.63 | 0.949 / 0.971 | 1.30 |
| 16 | 1 | 0.71 | 1.193 / 1.218 | 1.57 |

ISO 228/1

ISO 228/1 is parallel thread that has no sealing threads. The pressure tight seal is usually made metal to metal against the female port or with a gasket.

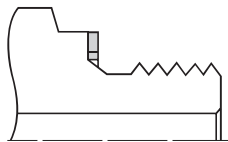
ISO 228/1 is described in following codes.

1.BS 2779(BSPP) 2.DIN-ISO 228/1 3.JIS B0202(PF) 4.ISO 228/1

The ISO 228/1 threads sealing available in S-LOK are listed below.

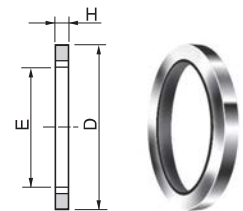
A self-centering taper is constructed at the hex. This taper centers a bonded washer to seal to the surface surrounding the female thread.

SGB Bonded Seal Gasket
(Buna inner ring bonded to carbon steel outer ring)



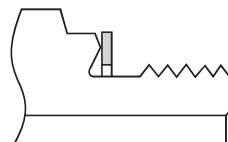
Sealing by compression against face of body
Reference DIN 3852 Type A

| Ordering Number | E | | H | | D | |
|-----------------|------|------|------|-----|------|------|
| | in | mm | in | mm | in | mm |
| SGB-2- | 0.41 | 10.4 | 0.08 | 2.0 | 0.63 | 16.0 |
| SGB-4- | 0.54 | 13.7 | 0.08 | 2.0 | 0.81 | 20.6 |
| SGB-6- | 0.68 | 17.3 | 0.08 | 2.0 | 0.94 | 23.9 |
| SGB-8- | 0.85 | 21.6 | 0.10 | 2.5 | 1.13 | 28.7 |
| SGB-12- | 1.06 | 27.2 | 0.10 | 2.5 | 1.38 | 35.1 |
| SGB-16- | 1.33 | 33.8 | 0.10 | 2.5 | 1.69 | 42.9 |
| SGB-20- | 1.67 | 42.4 | 0.10 | 2.5 | 2.01 | 51.1 |
| SGB-24- | 1.92 | 48.8 | 0.10 | 2.5 | 2.33 | 59.2 |



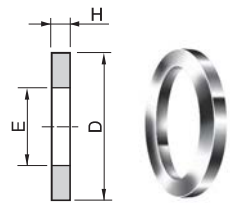
A metal gasket performs the sealing between the reverse bevel of the fitting and the face of the female threaded component.

SGC Copper Gasket



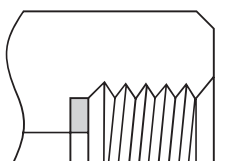
Sealing by gasket (washer)
Reference DIN 3852 Type B

| Ordering Number | E | | H | | D | |
|-----------------|------|------|------|-----|------|------|
| | in | mm | in | mm | in | mm |
| SGC-2- | 0.39 | 9.9 | 0.04 | 1.0 | 0.59 | 15.0 |
| SGC-4- | 0.52 | 13.2 | 0.06 | 1.5 | 0.75 | 19.1 |
| SGC-6- | 0.66 | 16.8 | 0.06 | 1.5 | 0.91 | 23.1 |
| SGC-8- | 0.83 | 21.1 | 0.06 | 1.5 | 1.06 | 26.9 |
| SGC-12- | 1.05 | 26.7 | 0.08 | 2.0 | 1.30 | 33.0 |
| SGC-16- | 1.31 | 33.3 | 0.08 | 2.0 | 1.58 | 40.1 |
| SGC-20- | 1.66 | 42.2 | 0.08 | 2.0 | 1.96 | 49.8 |
| SGC-24- | 1.89 | 48.0 | 0.08 | 2.0 | 2.30 | 58.4 |



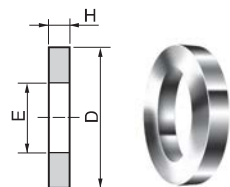
A gasket is dropped into the flat bottom of the female thread. The face of the male thread exerts load on the gasket to seal.

SGG Copper Gasket



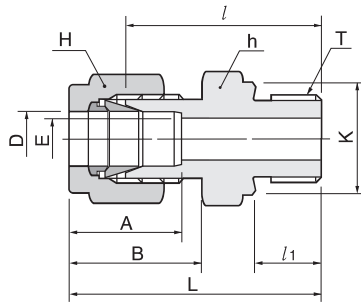
Sealing by gasket.
Reference DIN 3852 Type Y

| Ordering Number | E | | H | | D | |
|-----------------|------|-----|------|-----|------|------|
| | in | mm | in | mm | in | mm |
| SGG-4- | 0.30 | 7.6 | 0.08 | 2.0 | 0.42 | 10.7 |
| SGG-6- | 0.34 | 8.6 | 0.10 | 2.5 | 0.56 | 14.2 |
| SGG-8- | 0.36 | 9.1 | 0.10 | 2.5 | 0.70 | 17.8 |



Male Connector
for Metal Gasket

SOM



Connects fractional tube to female ISO parallel thread

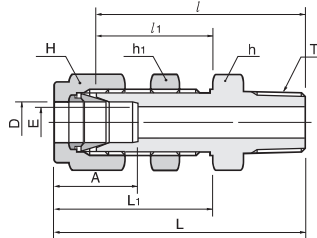
| Part No. | Tube O.D | | T | E | Width across flat | | | A | B | I | I ₁ | L | K | |
|------------|----------|-------|-------|-------|-------------------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|
| | in | mm | | | G(PF) | Min. | h | | | | | | | H |
| SOM-2-2G | 1/8 | 3.17 | 1/8 | 2.28 | 9/16 | 14.28 | 7/16 | 11.11 | 12.70 | 15.24 | 23.37 | 7.11 | 29.97 | 13.72 |
| SOM-2-4G | 1/8 | 3.17 | 1/4 | 2.28 | 3/4 | 19.05 | 7/16 | 11.11 | 12.70 | 15.24 | 28.70 | 11.18 | 35.31 | 18.03 |
| SOM-2-6G | 1/8 | 3.17 | 3/8 | 2.28 | 7/8 | 22.22 | 7/16 | 11.11 | 12.70 | 15.24 | 29.72 | 11.18 | 36.21 | 21.84 |
| SOM-4-2G | 1/4 | 6.35 | 1/8 | 4.82 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 24.89 | 7.11 | 32.26 | 13.72 |
| SOM-4-4G | 1/4 | 6.35 | 1/4 | 4.82 | 3/4 | 19.05 | 9/16 | 14.28 | 15.24 | 17.78 | 30.23 | 11.18 | 37.59 | 18.03 |
| SOM-4-6G | 1/4 | 6.35 | 3/8 | 4.82 | 7/8 | 22.22 | 9/16 | 14.28 | 15.24 | 17.78 | 31.50 | 11.18 | 38.86 | 21.84 |
| SOM-4-8G | 1/4 | 6.35 | 1/2 | 4.82 | 1-1/16 | 26.98 | 9/16 | 14.28 | 15.24 | 17.78 | 37.34 | 14.22 | 44.70 | 25.91 |
| SOM-6-4G | 3/8 | 9.52 | 1/4 | 7.11 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 19.30 | 31.75 | 11.18 | 39.12 | 18.03 |
| SOM-6-6G | 3/8 | 9.52 | 3/8 | 7.11 | 7/8 | 22.22 | 11/16 | 17.46 | 16.76 | 19.30 | 33.02 | 11.18 | 40.39 | 21.84 |
| SOM-6-8G | 3/8 | 9.52 | 1/2 | 7.11 | 1-1/16 | 26.98 | 11/16 | 17.46 | 16.76 | 19.30 | 38.86 | 14.22 | 46.23 | 25.91 |
| SOM-8-4G | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 32.51 | 11.18 | 42.67 | 18.03 |
| SOM-8-6G | 1/2 | 12.70 | 3/8 | 10.41 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 33.02 | 11.18 | 43.18 | 21.84 |
| SOM-8-8G | 1/2 | 12.70 | 1/2 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 38.86 | 14.22 | 49.02 | 25.91 |
| SOM-12-8G | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 38.86 | 14.22 | 49.02 | 25.91 |
| SOM-12-12G | 3/4 | 19.05 | 3/4 | 15.74 | 1-5/16 | 33.33 | 1-1/8 | 28.58 | 24.38 | 21.84 | 42.67 | 15.75 | 52.83 | 32.00 |
| SOM-16-8G | 1 | 25.40 | 1/2 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 43.69 | 14.22 | 55.88 | 25.91 |
| SOM-16-16G | 1 | 25.40 | 1 | 22.35 | 1-5/8 | 41.27 | 1-1/2 | 38.10 | 31.24 | 26.41 | 47.75 | 18.29 | 59.94 | 39.12 |
| SOM-20-20G | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 2 | 50.80 | 1-7/8 | 47.63 | 41.14 | 38.86 | 51.16 | 20.00 | 73.26 | 49.00 |
| SOM-24-24G | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 50.03 | 45.21 | 57.57 | 22.00 | 84.75 | 55.00 |

Connects metric tube to female ISO parallel thread

| Part No. | Tube O.D | | T | E | Width across flat | | | A | B | I | I ₁ | L | K |
|-------------|----------|-------|------|----|-------------------|------|------|------|------|------|----------------|---|---|
| | in | mm | | | G(PF) | Min. | h | | | | | | |
| SOM-3M-2G | 3 | 1/8 | 2.4 | 14 | 12 | 12.9 | 15.3 | 23.4 | 7.1 | 30.0 | 13.8 | | |
| SOM-3M-4G | 3 | 1/4 | 2.4 | 19 | 12 | 12.9 | 15.3 | 28.7 | 11.2 | 35.3 | 18.0 | | |
| SOM-4M-2G | 4 | 1/8 | 2.4 | 14 | 12 | 13.7 | 16.1 | 24.1 | 7.1 | 30.7 | 13.8 | | |
| SOM-6M-2G | 6 | 1/8 | 4.8 | 14 | 14 | 15.3 | 17.7 | 24.9 | 7.1 | 32.3 | 13.8 | | |
| SOM-6M-4G | 6 | 1/4 | 4.8 | 19 | 14 | 15.3 | 17.7 | 30.2 | 11.2 | 37.6 | 18.0 | | |
| SOM-6M-6G | 6 | 3/8 | 4.8 | 22 | 14 | 15.3 | 17.7 | 31.5 | 11.2 | 38.9 | 21.8 | | |
| SOM-6M-8G | 6 | 1/2 | 4.8 | 27 | 14 | 15.3 | 17.7 | 37.3 | 14.2 | 44.7 | 26.0 | | |
| SOM-8M-2G | 8 | 1/8 | 6.4 | 15 | 16 | 16.2 | 18.6 | 25.7 | 7.1 | 33.2 | 13.8 | | |
| SOM-8M-4G | 8 | 1/4 | 6.4 | 19 | 16 | 16.2 | 18.6 | 31.0 | 11.2 | 38.5 | 18.0 | | |
| SOM-8M-6G | 8 | 3/8 | 6.4 | 22 | 16 | 16.2 | 18.6 | 32.3 | 11.2 | 39.8 | 21.8 | | |
| SOM-8M-8G | 8 | 1/2 | 6.4 | 27 | 16 | 16.2 | 18.6 | 38.1 | 14.2 | 45.6 | 26.0 | | |
| SOM-10M-4G | 10 | 1/4 | 7.9 | 19 | 19 | 17.2 | 19.5 | 31.8 | 11.2 | 39.4 | 18.0 | | |
| SOM-10M-6G | 10 | 3/8 | 7.9 | 22 | 19 | 17.2 | 19.5 | 33.0 | 11.2 | 40.6 | 21.8 | | |
| SOM-10M-8G | 10 | 1/2 | 7.9 | 27 | 19 | 17.2 | 19.5 | 38.9 | 14.2 | 46.5 | 26.0 | | |
| SOM-12M-4G | 12 | 1/4 | 9.5 | 22 | 22 | 22.8 | 22.0 | 32.5 | 11.2 | 42.6 | 18.0 | | |
| SOM-12M-6G | 12 | 3/8 | 9.5 | 22 | 22 | 22.8 | 22.0 | 33.0 | 11.2 | 43.1 | 21.8 | | |
| SOM-12M-8G | 12 | 1/2 | 9.5 | 27 | 22 | 22.8 | 22.0 | 38.9 | 14.2 | 49.0 | 26.0 | | |
| SOM-12M-12G | 12 | 3/4 | 9.5 | 35 | 22 | 22.8 | 22.0 | 42.7 | 15.7 | 52.8 | 32.0 | | |
| SOM-16M-6G | 16 | 3/8 | 12.7 | 24 | 25 | 24.4 | 22.0 | 33.8 | 11.2 | 43.9 | 21.8 | | |
| SOM-16M-8G | 16 | 1/2 | 12.7 | 27 | 25 | 24.4 | 22.0 | 38.9 | 14.2 | 49.0 | 26.0 | | |
| SOM-18M-8G | 18 | 1/2 | 15.1 | 27 | 30 | 24.4 | 22.0 | 38.9 | 14.2 | 49.0 | 26.0 | | |
| SOM-18M-12G | 18 | 3/4 | 15.1 | 35 | 30 | 24.4 | 22.0 | 42.7 | 15.7 | 52.8 | 32.0 | | |
| SOM-20M-8G | 20 | 1/2 | 15.9 | 30 | 32 | 26.0 | 22.0 | 40.4 | 14.2 | 50.5 | 26.0 | | |
| SOM-20M-12G | 20 | 3/4 | 15.9 | 35 | 32 | 26.0 | 22.0 | 42.7 | 15.7 | 52.8 | 32.0 | | |
| SOM-22M-12G | 22 | 3/4 | 18.3 | 35 | 32 | 26.0 | 22.0 | 42.7 | 15.7 | 52.8 | 32.0 | | |
| SOM-22M-16G | 22 | 1 | 18.3 | 41 | 32 | 26.0 | 22.0 | 45.2 | 18.3 | 55.3 | 39.0 | | |
| SOM-25M-12G | 25 | 3/4 | 21.8 | 35 | 38 | 31.3 | 26.5 | 45.2 | 15.7 | 57.5 | 32.0 | | |
| SOM-25M-16G | 25 | 1 | 21.8 | 41 | 38 | 31.3 | 26.5 | 47.8 | 18.3 | 60.1 | 39.0 | | |
| SOM-28M-16G | 28 | 1 | 21.8 | 41 | 46 | 36.6 | 36.6 | 49.3 | 18.3 | 70.1 | 39.0 | | |
| SOM-28M-20G | 28 | 1-1/4 | 21.8 | 50 | 46 | 36.6 | 36.6 | 53.1 | 19.8 | 73.9 | 49.0 | | |
| SOM-32M-20G | 32 | 1-1/4 | 28.6 | 50 | 50 | 42.0 | 41.6 | 55.9 | 19.8 | 78.9 | 49.0 | | |
| SOM-38M-24G | 38 | 1-1/2 | 33.7 | 55 | 60 | 49.4 | 47.9 | 61.7 | 20.6 | 89.3 | 54.7 | | |

Bulkhead
Male Connector

SMCB

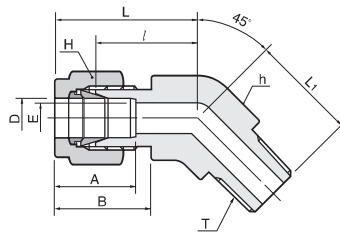


Connects fractional tube to female NPT thread

| Part No. | Tube O.D. | | T | E | Width across flat | | | | | | A | I | I ₁ | L | L ₁ | Panel Hole Drill Size | Panel Max. Thickness |
|-------------|-----------|-------|-------|-------|-------------------|-------|----------------|-------|-------|-------|-------|--------|----------------|--------|----------------|-----------------------|----------------------|
| | D | | | | h | | h ₁ | | H | | | | | | | | |
| | in | mm | | | in | mm | in | mm | in | mm | | | | | | | |
| SMCB-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 1/2 | 12.70 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 39.87 | 24.63 | 46.48 | 31.24 | 8.33 | 12.70 |
| SMCB-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 5/8 | 15.87 | 5/8 | 15.87 | 9/16 | 14.28 | 15.24 | 42.16 | 26.16 | 49.53 | 33.52 | 11.50 | 10.16 |
| SMCB-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 5/8 | 15.87 | 5/8 | 15.87 | 9/16 | 14.28 | 15.24 | 45.97 | 26.16 | 53.34 | 33.52 | 11.50 | 10.16 |
| SMCB-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 3/4 | 19.05 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 50.03 | 29.46 | 57.40 | 36.83 | 14.68 | 11.17 |
| SMCB-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 3/4 | 19.05 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 50.03 | 29.46 | 57.40 | 36.83 | 14.68 | 11.17 |
| SMCB-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 7/8 | 22.22 | 7/8 | 22.22 | 11/16 | 17.46 | 16.76 | 56.38 | 29.46 | 63.75 | 36.83 | 14.68 | 11.17 |
| SMCB-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 15/16 | 23.81 | 15/16 | 23.81 | 7/8 | 22.22 | 22.86 | 53.08 | 31.75 | 63.24 | 41.91 | 19.44 | 12.70 |
| SMCB-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 15/16 | 23.81 | 15/16 | 23.81 | 7/8 | 22.22 | 22.86 | 58.67 | 31.75 | 68.83 | 41.91 | 19.44 | 12.70 |
| SMCB-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-3/16 | 30.16 | 1-3/16 | 30.16 | 1-1/8 | 28.58 | 24.38 | 66.04 | 37.33 | 76.20 | 47.49 | 25.76 | 16.76 |
| SMCB-16-16N | 1 | 25.40 | 1 | 22.35 | 1-5/8 | 41.28 | 1-5/8 | 41.28 | 1-1/2 | 38.10 | 31.24 | 81.02 | 45.21 | 93.21 | 57.40 | 33.73 | 19.05 |
| SMCB-20-20N | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 41.14 | 85.97 | 47.75 | 108.07 | 69.85 | 41.67 | 19.05 |
| SMCB-24-24N | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 50.03 | 93.03 | 49.27 | 120.21 | 76.45 | 49.61 | 19.05 |
| SMCB-32-32N | 2 | 50.80 | 2 | 45.97 | 2-3/4 | 69.85 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 107.29 | 56.38 | 144.62 | 93.71 | 16.27 | 19.05 |

45° Male Elbow

SLBM

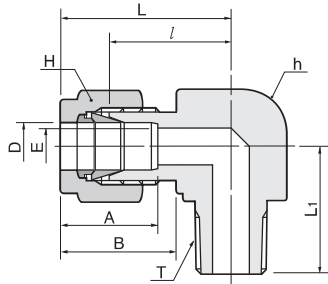


Connects fractional tube to female NPT thread

| Part No. | Tube O.D. | | T | E | Width across flat | | | | | | A | B | I | L | L ₁ |
|-------------|-----------|-------|-----|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|---|----------------|
| | D | | | | h | | H | | | | | | | | |
| | in | mm | | | in | mm | in | mm | | | | | | | |
| SLBM-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 17.27 | 24.63 | 16.51 | | |
| SLBM-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 17.27 | 24.63 | 21.08 | | |
| SLBM-6-2N | 3/8 | 9.52 | 1/8 | 4.82 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 20.57 | 27.94 | 18.28 | | |
| SLBM-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 20.57 | 27.94 | 22.86 | | |
| SLBM-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 21.84 | 29.21 | 24.13 | | |
| SLBM-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 21.84 | 32.00 | 24.13 | | |
| SLBM-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 21.84 | 32.00 | 28.95 | | |
| SLBM-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 23.87 | 34.03 | 30.98 | | |
| SLBM-16-16N | 1 | 25.40 | 1 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 28.19 | 40.38 | 37.84 | | |

Male Elbow

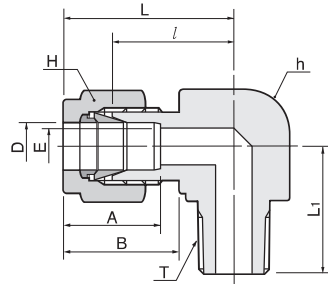
SLM



Connects fractional tube to female NPT thread

| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | | | A | B | I | L | L ₁ |
|------------|----------|-------|-------------|-----------|-------------------|-------|-------|-------|-------|-------|-------|--------|----------------|
| | D | | | | h | H | | | | | | | |
| | in | mm | | | | | in | mm | | | | | |
| SLM-1-1N | 1/16 | 1.59 | 1/16 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 15.24 | 19.05 | 17.78 |
| SLM-1-2N | 1/16 | 1.59 | 1/8 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 15.24 | 19.05 | 17.78 |
| SLM-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.30 | 24.91 | 18.90 |
| SLM-2-4N | 1/8 | 3.17 | 1/4 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.30 | 24.91 | 23.36 |
| SLM-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 18.79 |
| SLM-3-4N | 3/16 | 4.76 | 1/4 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 23.36 |
| SLM-4-1N | 1/4 | 6.35 | 1/16 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.90 | 18.79 |
| SLM-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.10 | 26.47 | 19.10 |
| SLM-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.10 | 26.47 | 19.10 |
| SLM-4-6N | 1/4 | 6.35 | 3/8 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 22.35 | 29.71 | 26.20 |
| SLM-4-8N | 1/4 | 6.35 | 1/2 | 4.82 | 13/16 | 20.64 | 9/16 | 14.28 | 15.24 | 17.78 | 24.60 | 31.97 | 33.02 |
| SLM-5-2N | 5/16 | 7.93 | 1/8 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 | 19.81 |
| SLM-5-4N | 5/16 | 7.93 | 1/4 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 29.77 | 24.50 |
| SLM-5-6N | 5/16 | 7.93 | 3/8 | 6.35 | 11/16 | 17.46 | 5/8 | 15.87 | 16.25 | 18.54 | 23.11 | 30.48 | 26.20 |
| SLM-6-2N | 3/8 | 9.52 | 1/8 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 | 20.60 |
| SLM-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 | 25.40 |
| SLM-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 23.87 | 31.24 | 26.20 |
| SLM-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 13/16 | 20.64 | 11/16 | 17.46 | 16.76 | 19.30 | 25.90 | 31.42 | 33.02 |
| SLM-6-12N | 3/8 | 9.52 | 3/4 | 7.11 | 1-1/16 | 26.98 | 11/16 | 17.46 | 16.76 | 19.30 | 29.71 | 37.08 | 36.83 |
| SLM-8-4N | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 28.30 |
| SLM-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 28.30 |
| SLM-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 33.02 |
| SLM-8-12N | 1/2 | 12.70 | 3/4 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 29.71 | 39.87 | 36.83 |
| SLM-10-6N | 5/8 | 15.87 | 3/8 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.00 | 37.06 | 30.22 |
| SLM-10-8N | 5/8 | 15.87 | 1/2 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.00 | 37.06 | 35.10 |
| SLM-10-12N | 5/8 | 15.87 | 3/4 | 12.70 | 1-1/16 | 26.98 | 1 | 25.40 | 24.38 | 21.84 | 29.71 | 39.87 | 36.83 |
| SLM-12-8N | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 37.00 |
| SLM-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 36.83 |
| SLM-14-12N | 7/8 | 22.22 | 3/4 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 | 41.65 |
| SLM-16-12N | 1 | 25.40 | 3/4 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 42.20 |
| SLM-16-16N | 1 | 25.40 | 1 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 49.70 |
| SLM-20-20N | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 41.14 | 38.86 | 44.50 | 66.54 | 49.75 |
| SLM-24-24N | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 50.03 | 45.21 | 50.80 | 77.97 | 60.45 |
| SLM-32-32N | 2 | 50.80 | 2 | 45.97 | 2-3/4 | 69.82 | 3 | 76.20 | 67.56 | 62.54 | 69.80 | 107.18 | 70.61 |

Male Elbow

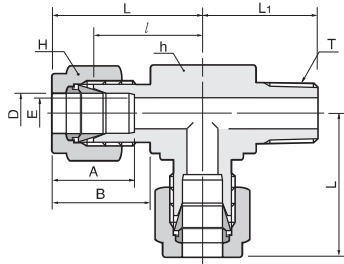
SLM

Connects metric tube to female ISO taper thread

| Part No. | Tube O.D | T | E | Width across flat | | A | B | I | L | L ₁ |
|-------------|----------|-------|------|-------------------|----|------|------|------|------|----------------|
| | D | R(PT) | Min. | h | H | | | | | |
| SLM-3M-2R | 3 | 1/8 | 2.4 | 12.7 | 12 | 12.9 | 15.3 | 17.0 | 23.6 | 17.8 |
| SLM-3M-4R | 3 | 1/4 | 2.4 | 12.7 | 12 | 12.9 | 15.3 | 18.0 | 24.6 | 23.4 |
| SLM-4M-2R | 4 | 1/8 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 | 18.8 |
| SLM-4M-4R | 4 | 1/4 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 | 23.4 |
| SLM-6M-2R | 6 | 1/8 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 18.8 |
| SLM-6M-4R | 6 | 1/4 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 23.4 |
| SLM-6M-6R | 6 | 3/8 | 4.8 | 17.5 | 14 | 15.3 | 17.7 | 22.4 | 29.8 | 26.2 |
| SLM-6M-8R | 6 | 1/2 | 4.8 | 20.6 | 14 | 15.3 | 17.7 | 24.4 | 31.8 | 33.0 |
| SLM-8M-2R | 8 | 1/8 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 | 19.8 |
| SLM-8M-4R | 8 | 1/4 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 | 24.4 |
| SLM-8M-6R | 8 | 3/8 | 6.4 | 17.5 | 16 | 16.2 | 18.6 | 23.1 | 30.6 | 26.2 |
| SLM-8M-8R | 8 | 1/2 | 6.4 | 20.6 | 16 | 16.2 | 18.6 | 25.1 | 32.6 | 33.0 |
| SLM-10M-2R | 10 | 1/8 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 23.6 |
| SLM-10M-4R | 10 | 1/4 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 26.2 |
| SLM-10M-6R | 10 | 3/8 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 26.2 |
| SLM-10M-8R | 10 | 1/2 | 7.9 | 20.6 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 33.0 |
| SLM-12M-2R | 12 | 1/4 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 23.6 |
| SLM-12M-4R | 12 | 1/4 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 28.2 |
| SLM-12M-6R | 12 | 3/8 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 28.2 |
| SLM-12M-8R | 12 | 1/2 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 33.0 |
| SLM-12M-12R | 12 | 3/4 | 9.5 | 27.0 | 22 | 22.8 | 22.0 | 29.7 | 39.8 | 36.8 |
| SLM-16M-6R | 16 | 3/8 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 27.9 | 38.0 | 30.2 |
| SLM-16M-8R | 16 | 1/2 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 27.9 | 38.0 | 35.1 |
| SLM-16M-12R | 16 | 3/4 | 12.7 | 27.0 | 25 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| SLM-18M-8R | 18 | 1/2 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| SLM-18M-12R | 18 | 3/4 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| SLM-20M-8R | 20 | 1/2 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| SLM-20M-12R | 20 | 3/4 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| SLM-22M-12R | 22 | 3/4 | 18.3 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| SLM-22M-16R | 22 | 1 | 18.3 | 34.9 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 46.5 |
| SLM-25M-12R | 25 | 3/4 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 | 41.7 |
| SLM-25M-16R | 25 | 1 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 | 46.5 |

Male Run Tee

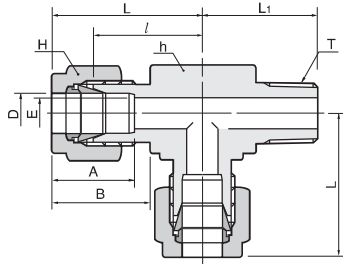
STRM



Connects fractional tube to female NPT thread

| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | | | A | B | I | L | L ₁ |
|-------------|----------|-------|-------------|-----------|-------------------|-------|-------|-------|-------|-------|-------|--------|----------------|
| | D | | | | h | | H | | | | | | |
| | in | mm | | | in | mm | in | mm | | | | | |
| STRM-1-1N | 1/16 | 1.59 | 1/16 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 15.24 | 19.05 | 17.78 |
| STRM-1-2N | 1/16 | 1.59 | 1/8 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 15.24 | 19.05 | 17.78 |
| STRM-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.30 | 24.91 | 18.90 |
| STRM-2-4N | 1/8 | 3.17 | 1/4 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.30 | 24.91 | 23.36 |
| STRM-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 18.79 |
| STRM-3-4N | 3/16 | 4.76 | 1/4 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 23.36 |
| STRM-4-1N | 1/4 | 6.35 | 1/16 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.90 | 18.79 |
| STRM-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.10 | 26.47 | 19.10 |
| STRM-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.81 | 27.18 | 23.87 |
| STRM-4-6N | 1/4 | 6.35 | 3/8 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 22.35 | 29.71 | 26.20 |
| STRM-4-8N | 1/4 | 6.35 | 1/2 | 4.82 | 13/16 | 20.64 | 9/16 | 14.28 | 15.24 | 17.78 | 24.60 | 31.97 | 33.02 |
| STRM-5-2N | 5/16 | 7.93 | 1/8 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 | 19.81 |
| STRM-5-4N | 5/16 | 7.93 | 1/4 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 29.77 | 24.50 |
| STRM-5-6N | 5/16 | 7.93 | 3/8 | 6.35 | 11/16 | 17.46 | 5/8 | 15.87 | 16.25 | 18.54 | 23.11 | 30.48 | 26.20 |
| STRM-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 | 25.40 |
| STRM-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 23.87 | 31.24 | 26.20 |
| STRM-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 13/16 | 20.64 | 11/16 | 17.46 | 16.76 | 19.30 | 25.90 | 31.42 | 33.02 |
| STRM-6-12N | 3/8 | 9.52 | 3/4 | 7.11 | 1-1/16 | 26.98 | 11/16 | 17.46 | 16.76 | 19.30 | 29.71 | 37.08 | 36.83 |
| STRM-8-4N | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 28.30 |
| STRM-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 28.30 |
| STRM-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 33.02 |
| STRM-8-12N | 1/2 | 12.70 | 3/4 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 29.71 | 39.87 | 36.83 |
| STRM-10-6N | 5/8 | 15.87 | 3/8 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.00 | 37.06 | 30.22 |
| STRM-10-8N | 5/8 | 15.87 | 1/2 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.00 | 37.06 | 35.10 |
| STRM-10-12N | 5/8 | 15.87 | 3/4 | 12.70 | 1-1/16 | 26.98 | 1 | 25.40 | 24.38 | 21.84 | 29.71 | 39.87 | 36.83 |
| STRM-12-8N | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 37.00 |
| STRM-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 36.83 |
| STRM-14-12N | 7/8 | 22.22 | 3/4 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 | 41.65 |
| STRM-16-12N | 1 | 25.40 | 3/4 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 42.20 |
| STRM-16-16N | 1 | 25.40 | 1 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 49.70 |
| STRM-20-20N | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 41.14 | 38.86 | 44.50 | 66.54 | 49.75 |
| STRM-24-24N | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 50.03 | 45.21 | 50.80 | 77.97 | 60.45 |
| STRM-32-32N | 2 | 50.80 | 2 | 45.97 | 2-3/4 | 69.82 | 3 | 76.20 | 67.56 | 62.54 | 69.80 | 107.18 | 70.61 |

Male Run Tee

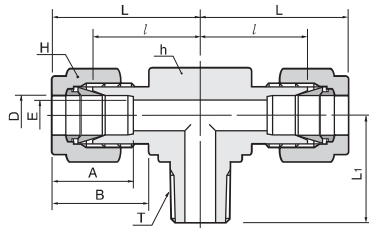
STRM

Connects metric tube to female ISO taper thread

| Part No. | Tube O.D | T | E | Width across flat | | A | B | I | L | L ₁ |
|--------------|----------|-------|------|-------------------|----|------|------|------|------|----------------|
| | D | R(PT) | Min. | h | H | | | | | |
| STRM-3M-2R | 3 | 1/8 | 2.4 | 12.7 | 12 | 12.9 | 15.3 | 17.0 | 23.6 | 17.8 |
| STRM-3M-4R | 3 | 1/4 | 2.4 | 12.7 | 12 | 12.9 | 15.3 | 18.0 | 24.6 | 23.4 |
| STRM-4M-2R | 4 | 1/8 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 | 18.8 |
| STRM-4M-4R | 4 | 1/4 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 | 23.4 |
| STRM-6M-2R | 6 | 1/8 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 18.8 |
| STRM-6M-4R | 6 | 1/4 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 23.4 |
| STRM-6M-6R | 6 | 3/8 | 4.8 | 17.5 | 14 | 15.3 | 17.7 | 22.4 | 29.8 | 26.2 |
| STRM-6M-8R | 6 | 1/2 | 4.8 | 20.6 | 14 | 15.3 | 17.7 | 24.4 | 31.8 | 33.0 |
| STRM-8M-2R | 8 | 1/8 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 | 19.8 |
| STRM-8M-4R | 8 | 1/4 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 | 24.4 |
| STRM-8M-6R | 8 | 3/8 | 6.4 | 17.5 | 16 | 16.2 | 18.6 | 23.1 | 30.6 | 26.2 |
| STRM-8M-8R | 8 | 1/2 | 6.4 | 20.6 | 16 | 16.2 | 18.6 | 25.1 | 32.6 | 33.0 |
| STRM-10M-2R | 10 | 1/8 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 23.6 |
| STRM-10M-4R | 10 | 1/4 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 26.2 |
| STRM-10M-6R | 10 | 3/8 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 26.2 |
| STRM-10M-8R | 10 | 1/2 | 7.9 | 20.6 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 33.0 |
| STRM-12M-4R | 12 | 1/4 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 28.2 |
| STRM-12M-6R | 12 | 3/8 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 28.2 |
| STRM-12M-8R | 12 | 1/2 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 33.0 |
| STRM-12M-12R | 12 | 3/4 | 9.5 | 27.0 | 22 | 22.8 | 22.0 | 29.7 | 39.8 | 36.8 |
| STRM-16M-6R | 16 | 3/8 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 27.9 | 38.0 | 30.2 |
| STRM-16M-8R | 16 | 1/2 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 27.9 | 38.0 | 35.1 |
| STRM-16M-12R | 16 | 3/4 | 12.7 | 27.0 | 25 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| STRM-18M-8R | 18 | 1/2 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| STRM-18M-12R | 18 | 3/4 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| STRM-20M-8R | 20 | 1/2 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| STRM-20M-12R | 20 | 3/4 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| STRM-22M-12R | 22 | 3/4 | 18.3 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| STRM-22M-16R | 22 | 1 | 18.3 | 34.9 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 46.5 |
| STRM-25M-12R | 25 | 3/4 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 | 41.7 |
| STRM-25M-16R | 25 | 1 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 | 46.5 |

Male Branch Tee

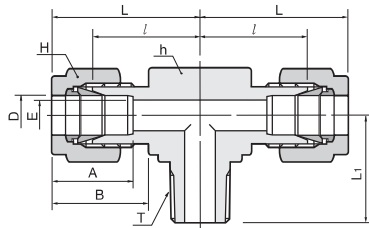
STBM



Connects fractional tube to female NPT thread

| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | | | A | B | I | L | L ₁ |
|-------------|----------|-------|-------------|-----------|-------------------|-------|-------|-------|-------|-------|-------|--------|----------------|
| | D | | | | h | | H | | | | | | |
| | in | mm | | | in | mm | in | mm | | | | | |
| STBM-1-1N | 1/16 | 1.59 | 1/16 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 15.24 | 19.05 | 17.78 |
| STBM-1-2N | 1/16 | 1.59 | 1/8 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 15.24 | 19.05 | 17.78 |
| STBM-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.30 | 24.91 | 18.90 |
| STBM-2-4N | 1/8 | 3.17 | 1/4 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.30 | 24.91 | 23.36 |
| STBM-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 18.79 |
| STBM-3-4N | 3/16 | 4.76 | 1/4 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 23.36 |
| STBM-4-1N | 1/4 | 6.35 | 1/16 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.90 | 18.79 |
| STBM-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.10 | 26.47 | 19.10 |
| STBM-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.81 | 27.18 | 23.87 |
| STBM-4-6N | 1/4 | 6.35 | 3/8 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 22.35 | 29.71 | 26.20 |
| STBM-4-8N | 1/4 | 6.35 | 1/2 | 4.82 | 13/16 | 20.64 | 9/16 | 14.28 | 15.24 | 17.78 | 24.60 | 31.97 | 33.02 |
| STBM-5-2N | 5/16 | 7.93 | 1/8 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 | 19.81 |
| STBM-5-4N | 5/16 | 7.93 | 1/4 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 29.77 | 24.50 |
| STBM-5-6N | 5/16 | 7.93 | 3/8 | 6.35 | 11/16 | 17.46 | 5/8 | 15.87 | 16.25 | 18.54 | 23.11 | 30.48 | 26.20 |
| STBM-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 | 25.40 |
| STBM-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 23.87 | 31.24 | 26.20 |
| STBM-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 13/16 | 20.64 | 11/16 | 17.46 | 16.76 | 19.30 | 25.90 | 31.42 | 33.02 |
| STBM-6-12N | 3/8 | 9.52 | 3/4 | 7.11 | 1-1/16 | 26.98 | 11/16 | 17.46 | 16.76 | 19.30 | 29.71 | 37.08 | 36.83 |
| STBM-8-4N | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 28.30 |
| STBM-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 28.30 |
| STBM-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 33.02 |
| STBM-8-12N | 1/2 | 12.70 | 3/4 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 29.71 | 39.87 | 36.83 |
| STBM-10-6N | 5/8 | 15.87 | 3/8 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.00 | 37.06 | 30.22 |
| STBM-10-8N | 5/8 | 15.87 | 1/2 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 28.00 | 37.06 | 35.10 |
| STBM-10-12N | 5/8 | 15.87 | 3/4 | 12.70 | 1-1/16 | 26.98 | 1 | 25.40 | 24.38 | 21.84 | 29.71 | 39.87 | 36.83 |
| STBM-12-8N | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 37.00 |
| STBM-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 36.83 |
| STBM-14-12N | 7/8 | 22.22 | 3/4 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 | 41.65 |
| STBM-16-12N | 1 | 25.40 | 3/4 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 42.20 |
| STBM-16-16N | 1 | 25.40 | 1 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 49.70 |
| STBM-20-20N | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 1-11/16 | 42.86 | 1-7/8 | 47.63 | 41.14 | 38.86 | 44.50 | 66.54 | 49.75 |
| STBM-24-24N | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 50.03 | 45.21 | 50.80 | 77.97 | 60.45 |
| STBM-32-32N | 2 | 50.80 | 2 | 45.97 | 2-3/4 | 69.82 | 3 | 76.20 | 67.56 | 62.54 | 69.80 | 107.18 | 70.61 |

Male Branch Tee

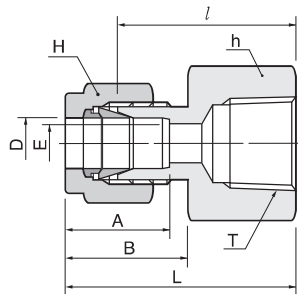
STBM

Connects metric tube to female ISO taper thread

| Part No. | Tube O.D | T | E | Width across flat | | A | B | I | L | L ₁ |
|--------------|----------|-------|------|-------------------|----|------|------|------|------|----------------|
| | D | R(PT) | Min. | h | H | | | | | |
| STBM-3M-2R | 3 | 1/8 | 2.4 | 12.7 | 12 | 12.9 | 15.3 | 17.0 | 23.6 | 17.8 |
| STBM-3M-4R | 3 | 1/4 | 2.4 | 12.7 | 12 | 12.9 | 15.3 | 18.0 | 24.6 | 23.4 |
| STBM-4M-2R | 4 | 1/8 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 | 18.8 |
| STBM-4M-4R | 4 | 1/4 | 2.4 | 12.7 | 12 | 13.7 | 16.1 | 18.8 | 25.4 | 23.4 |
| STBM-6M-2R | 6 | 1/8 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 18.8 |
| STBM-6M-4R | 6 | 1/4 | 4.8 | 12.7 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 23.4 |
| STBM-6M-6R | 6 | 3/8 | 4.8 | 17.5 | 14 | 15.3 | 17.7 | 22.4 | 29.8 | 26.2 |
| STBM-6M-8R | 6 | 1/2 | 4.8 | 20.6 | 14 | 15.3 | 17.7 | 24.4 | 31.8 | 33.0 |
| STBM-8M-2R | 8 | 1/8 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 | 19.8 |
| STBM-8M-4R | 8 | 1/4 | 6.4 | 14.3 | 16 | 16.2 | 18.6 | 21.3 | 28.8 | 24.4 |
| STBM-8M-6R | 8 | 3/8 | 6.4 | 17.5 | 16 | 16.2 | 18.6 | 23.1 | 30.6 | 26.2 |
| STBM-8M-8R | 8 | 1/2 | 6.4 | 20.6 | 16 | 16.2 | 18.6 | 25.1 | 32.6 | 33.0 |
| STBM-10M-2R | 10 | 1/8 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 23.6 |
| STBM-10M-4R | 10 | 1/4 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 26.2 |
| STBM-10M-6R | 10 | 3/8 | 7.9 | 17.5 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 26.2 |
| STBM-10M-8R | 10 | 1/2 | 7.9 | 20.6 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 33.0 |
| STBM-12M-4R | 12 | 1/4 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 28.2 |
| STBM-12M-6R | 12 | 3/8 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 28.2 |
| STBM-12M-8R | 12 | 1/2 | 9.5 | 20.6 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 33.0 |
| STBM-12M-12R | 12 | 3/4 | 9.5 | 27.0 | 22 | 22.8 | 22.0 | 29.7 | 39.8 | 36.8 |
| STBM-16M-6R | 16 | 3/8 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 27.9 | 38.0 | 30.2 |
| STBM-16M-8R | 16 | 1/2 | 12.7 | 25.4 | 25 | 24.4 | 22.0 | 27.9 | 38.0 | 35.1 |
| STBM-16M-12R | 16 | 3/4 | 12.7 | 27.0 | 25 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| STBM-18M-8R | 18 | 1/2 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| STBM-18M-12R | 18 | 3/4 | 15.1 | 27.0 | 30 | 24.4 | 22.0 | 29.7 | 39.8 | 36.8 |
| STBM-20M-8R | 20 | 1/2 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| STBM-20M-12R | 20 | 3/4 | 15.9 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| STBM-22M-12R | 22 | 3/4 | 18.3 | 31.8 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 41.7 |
| STBM-22M-16R | 22 | 1 | 18.3 | 34.9 | 32 | 26.0 | 22.0 | 34.5 | 44.6 | 46.5 |
| STBM-25M-12R | 25 | 3/4 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 | 41.7 |
| STBM-25M-16R | 25 | 1 | 21.8 | 34.9 | 38 | 31.3 | 26.5 | 36.8 | 49.1 | 46.5 |

Female Connector

SCF

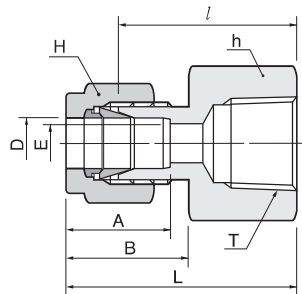


Connects fractional tube to male NPT thread

| Part No. | Tube O.D | | T | E | Width across flat | | | A | B | I | L | |
|------------|----------|-------|--------|-------|-------------------|-------|-------|-------|-------|-------|-------|--------|
| | D | | | | h | H | | | | | | |
| | in | mm | N(NPT) | Min. | in | mm | in | mm | | | | |
| SCF-1-1N | 1/16 | 1.59 | 1/16 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 19.21 | 23.62 |
| SCF-1-2N | 1/16 | 1.59 | 1/8 | 1.27 | 9/16 | 14.28 | 5/16 | 7.93 | 8.63 | 10.92 | 20.57 | 24.38 |
| SCF-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 9/16 | 14.28 | 7/16 | 11.11 | 12.70 | 15.24 | 22.09 | 28.70 |
| SCF-2-4N | 1/8 | 3.17 | 1/4 | 2.28 | 3/4 | 19.05 | 7/16 | 11.11 | 12.70 | 15.24 | 26.92 | 33.52 |
| SCF-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 9/16 | 14.28 | 1/2 | 12.70 | 13.71 | 16.00 | 23.11 | 29.71 |
| SCF-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 23.87 | 31.24 |
| SCF-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 3/4 | 19.05 | 9/16 | 14.28 | 15.24 | 17.78 | 28.44 | 35.81 |
| SCF-4-6N | 1/4 | 6.35 | 3/8 | 4.82 | 7/8 | 22.22 | 9/16 | 14.28 | 15.24 | 17.78 | 30.22 | 37.59 |
| SCF-4-8N | 1/4 | 6.35 | 1/2 | 4.82 | 1-1/16 | 26.98 | 9/16 | 14.28 | 15.24 | 17.78 | 35.05 | 42.41 |
| SCF-5-2N | 5/16 | 7.93 | 1/8 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 24.63 | 32.00 |
| SCF-5-4N | 5/16 | 7.93 | 1/4 | 6.35 | 3/4 | 19.05 | 5/8 | 15.87 | 16.25 | 18.54 | 29.46 | 36.83 |
| SCF-6-2N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 25.40 | 32.76 |
| SCF-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 19.30 | 30.22 | 37.59 |
| SCF-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 7/8 | 22.22 | 11/16 | 17.46 | 16.76 | 19.30 | 31.75 | 39.11 |
| SCF-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 1-1/16 | 26.98 | 11/16 | 17.46 | 16.76 | 19.30 | 36.57 | 43.94 |
| SCF-6-12N | 3/8 | 9.52 | 3/4 | 7.11 | 1-5/16 | 33.33 | 11/16 | 17.46 | 16.76 | 19.30 | 40.38 | 47.75 |
| SCF-8-4N | 1/2 | 12.70 | 1/4 | 10.41 | 1-3/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 30.22 | 40.38 |
| SCF-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 31.75 | 41.91 |
| SCF-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 36.57 | 46.73 |
| SCF-8-12N | 1/2 | 12.70 | 3/4 | 10.41 | 1-5/16 | 33.33 | 7/8 | 22.22 | 22.86 | 21.84 | 38.10 | 48.26 |
| SCF-10-6N | 5/8 | 15.87 | 3/8 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 31.75 | 41.91 |
| SCF-10-8N | 5/8 | 15.87 | 1/2 | 12.70 | 1-1/16 | 26.98 | 1 | 25.40 | 24.38 | 21.84 | 36.57 | 46.73 |
| SCF-10-12N | 5/8 | 15.87 | 3/4 | 12.70 | 1-5/16 | 33.33 | 1 | 25.40 | 24.38 | 21.84 | 38.10 | 48.26 |
| SCF-12-8N | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 36.57 | 46.73 |
| SCF-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-5/16 | 33.33 | 1-1/8 | 28.58 | 24.38 | 21.84 | 38.10 | 48.26 |
| SCF-14-12N | 7/8 | 22.22 | 3/4 | 18.28 | 1-5/16 | 33.33 | 1-1/4 | 31.75 | 25.90 | 21.84 | 39.62 | 49.78 |
| SCF-16-12N | 1 | 25.40 | 3/4 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 41.14 | 53.34 |
| SCF-16-16N | 1 | 25.40 | 1 | 22.35 | 1-5/8 | 41.27 | 1-1/2 | 38.10 | 31.24 | 26.41 | 50.03 | 62.23 |
| SCF-20-20N | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 2-1/8 | 53.98 | 1-7/8 | 47.63 | 41.14 | 38.86 | 52.57 | 74.67 |
| SCF-24-24N | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2-3/8 | 60.33 | 2-1/4 | 57.15 | 50.03 | 45.21 | 56.13 | 83.31 |
| SCF-32-32N | 2 | 50.80 | 2 | 45.97 | 2-7/8 | 73.03 | 3 | 76.20 | 67.56 | 62.54 | 64.26 | 101.60 |

Female Connector

SCF

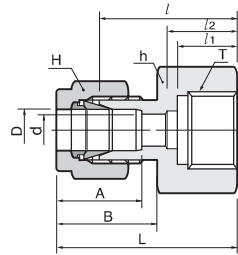


Connects metric tube to male ISO taper thread

| Part No. | Tube O.D | T | E | Width across flat | | A | B | I | L |
|-------------|----------|-------|------|-------------------|----|------|------|------|------|
| | D | R(PT) | Min. | h | H | | | | |
| SCF-3M-2R | 3 | 1/8 | 2.4 | 14 | 12 | 12.9 | 15.3 | 22.1 | 28.7 |
| SCF-3M-4R | 3 | 1/4 | 2.4 | 19 | 12 | 12.9 | 15.3 | 26.9 | 33.5 |
| SCF-4M-2R | 4 | 1/8 | 2.4 | 14 | 12 | 13.7 | 16.1 | 23.1 | 29.7 |
| SCF-6M-2R | 6 | 1/8 | 4.8 | 14 | 14 | 15.3 | 17.7 | 23.9 | 31.3 |
| SCF-6M-4R | 6 | 1/4 | 4.8 | 19 | 14 | 15.3 | 17.7 | 28.4 | 35.8 |
| SCF-6M-6R | 6 | 3/8 | 4.8 | 22 | 14 | 15.3 | 17.7 | 29.5 | 36.9 |
| SCF-6M-8R | 6 | 1/2 | 4.8 | 27 | 14 | 15.3 | 17.7 | 35.1 | 42.5 |
| SCF-8M-2R | 8 | 1/8 | 6.4 | 15 | 16 | 16.2 | 18.6 | 24.6 | 32.1 |
| SCF-8M-4R | 8 | 1/4 | 6.4 | 19 | 16 | 16.2 | 18.6 | 29.5 | 37.0 |
| SCF-8M-6R | 8 | 3/8 | 6.4 | 22 | 16 | 16.2 | 18.6 | 30.2 | 37.7 |
| SCF-8M-8R | 8 | 1/2 | 6.4 | 27 | 16 | 16.2 | 18.6 | 35.8 | 43.3 |
| SCF-10M-2R | 10 | 1/8 | 7.9 | 18 | 19 | 17.2 | 19.5 | 25.4 | 33.0 |
| SCF-10M-4R | 10 | 1/4 | 7.9 | 19 | 19 | 17.2 | 19.5 | 30.2 | 37.8 |
| SCF-10M-6R | 10 | 3/8 | 7.9 | 22 | 19 | 17.2 | 19.5 | 31.0 | 38.6 |
| SCF-10M-8R | 10 | 1/2 | 7.9 | 27 | 19 | 17.2 | 19.5 | 36.6 | 44.2 |
| SCF-12M-2R | 12 | 1/4 | 9.5 | 22 | 22 | 22.8 | 22.0 | 28.4 | 38.5 |
| SCF-12M-4R | 12 | 1/4 | 9.5 | 22 | 22 | 22.8 | 22.0 | 30.2 | 40.3 |
| SCF-12M-6R | 12 | 3/8 | 9.5 | 22 | 22 | 22.8 | 22.0 | 31.0 | 41.1 |
| SCF-12M-8R | 12 | 1/2 | 9.5 | 27 | 22 | 22.8 | 22.0 | 36.6 | 46.7 |
| SCF-12M-12R | 12 | 3/4 | 9.5 | 35 | 22 | 22.8 | 22.0 | 38.9 | 49.0 |
| SCF-15M-8R | 15 | 1/2 | 11.9 | 27 | 27 | 24.4 | 22.0 | 36.6 | 46.7 |
| SCF-16M-8R | 16 | 1/2 | 12.7 | 27 | 25 | 24.4 | 22.0 | 36.8 | 46.9 |
| SCF-20M-8R | 20 | 1/2 | 15.9 | 30 | 32 | 26.0 | 22.0 | 37.8 | 47.9 |
| SCF-20M-12R | 20 | 3/4 | 15.9 | 35 | 32 | 26.0 | 22.0 | 39.6 | 49.7 |
| SCF-22M-12R | 22 | 3/4 | 18.3 | 35 | 32 | 26.0 | 22.0 | 39.6 | 49.7 |
| SCF-22M-16R | 22 | 1 | 18.3 | 41 | 32 | 26.0 | 22.0 | 47.8 | 57.9 |
| SCF-25M-12R | 25 | 3/4 | 21.8 | 35 | 38 | 31.3 | 26.5 | 41.1 | 53.4 |
| SCF-25M-16R | 25 | 1 | 21.8 | 41 | 38 | 31.3 | 26.5 | 50.0 | 62.3 |

Gauge Connector
SCG

See page 31
for SCG gasket



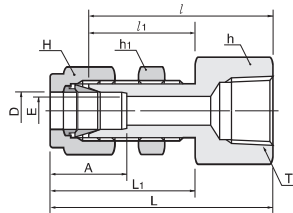
Connects fractional tube to male ISO parallel thread (gauge)

| Part No. | Tube O.D | | T | E | Width across flat | | | | A | B | I | I ₁ | I ₂ | d | L |
|----------|----------|-------|-----|-------|-------------------|-------|-------|-------|-------|-------|-------|----------------|----------------|------|-------|
| | D | | | | h | | H | | | | | | | | |
| | in | mm | | | in | mm | in | mm | | | | | | | |
| SCG-4-2G | 1/4 | 6.35 | 1/8 | 4.82 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 26.30 | 12.00 | 17.00 | 5.60 | 33.55 |
| SCG-4-4G | 1/4 | 6.35 | 1/4 | 4.82 | 3/4 | 19.05 | 9/16 | 14.28 | 15.24 | 17.78 | 30.22 | 12.95 | 17.00 | 5.60 | 37.59 |
| SCG-4-6G | 1/4 | 6.35 | 3/8 | 4.82 | 7/8 | 22.22 | 9/16 | 14.28 | 15.24 | 17.78 | 30.22 | 14.22 | 20.30 | 6.60 | 37.59 |
| SCG-4-8G | 1/4 | 6.35 | 1/2 | 4.82 | 1-1/16 | 26.98 | 9/16 | 14.28 | 15.24 | 17.78 | 36.07 | 18.80 | 24.90 | 7.10 | 43.43 |
| SCG-5-4G | 5/16 | 7.93 | 1/4 | 6.35 | 3/4 | 19.05 | 5/8 | 15.87 | 16.25 | 18.54 | 30.98 | 12.95 | - | - | 38.60 |
| SCG-5-8G | 5/16 | 7.93 | 1/2 | 6.35 | 1-1/16 | 26.98 | 5/8 | 15.87 | 16.25 | 18.54 | 33.53 | 18.80 | - | - | 40.89 |
| SCG-6-4G | 3/8 | 9.52 | 1/4 | 7.11 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 19.30 | 31.75 | 12.95 | - | - | 39.12 |
| SCG-6-6G | 3/8 | 9.52 | 3/8 | 7.11 | 7/8 | 22.22 | 11/16 | 17.46 | 16.76 | 19.30 | 31.24 | 14.22 | - | - | 38.61 |
| SCG-6-8G | 3/8 | 9.52 | 1/2 | 7.11 | 1-1/16 | 26.98 | 11/16 | 17.46 | 16.76 | 19.30 | 34.54 | 18.80 | - | - | 41.91 |
| SCG-8-4G | 1/2 | 12.70 | 1/4 | 10.41 | 1-3/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 31.80 | 12.95 | - | - | 41.95 |
| SCG-8-6G | 1/2 | 12.70 | 3/8 | 10.41 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 34.29 | 14.22 | - | - | 44.45 |
| SCG-8-8G | 1/2 | 12.70 | 1/2 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 38.10 | 18.80 | - | - | 48.26 |

Connects metric tube to male ISO parallel thread (gauge)

| Part No. | Tube O.D | | T | E | Width across flat | | A | B | I | I ₁ | I ₂ | d | L | | |
|------------|----------|-----|------|----|-------------------|------|------|------|----|----------------|----------------|------|---|----|----|
| | D | | | | h | | | | | | | | | H | |
| | in | mm | | | in | mm | | | | | | | | in | mm |
| SCG-3M-4G | 3 | 1/4 | 2.4 | 19 | 12 | 12.9 | 15.3 | 28.7 | 13 | 17.0 | 5.5 | 35.3 | | | |
| SCG-6M-4G | 6 | 1/4 | 4.8 | 19 | 14 | 15.3 | 17.7 | 30.2 | 13 | 17.0 | 5.5 | 37.6 | | | |
| SCG-6M-6G | 6 | 3/8 | 4.8 | 24 | 14 | 15.3 | 17.7 | 30.2 | 14 | 20.3 | 6.5 | 37.6 | | | |
| SCG-6M-8G | 6 | 1/2 | 4.8 | 27 | 14 | 15.3 | 17.7 | 36.1 | 19 | 24.9 | 7.0 | 43.5 | | | |
| SCG-8M-4G | 8 | 1/4 | 6.4 | 19 | 16 | 16.2 | 18.6 | 31.0 | 13 | - | 5.5 | 38.5 | | | |
| SCG-8M-6G | 8 | 3/8 | 6.4 | 24 | 16 | 16.2 | 18.6 | 28.7 | 14 | - | 6.5 | 36.2 | | | |
| SCG-8M-8G | 8 | 1/2 | 6.4 | 27 | 16 | 16.2 | 18.6 | 33.5 | 19 | - | 7.0 | 41.0 | | | |
| SCG-10M-4G | 10 | 1/4 | 7.9 | 19 | 19 | 17.2 | 19.5 | 31.8 | 13 | - | 5.5 | 39.4 | | | |
| SCG-10M-6G | 10 | 3/8 | 7.9 | 24 | 19 | 17.2 | 19.5 | 31.2 | 14 | - | 6.5 | 38.8 | | | |
| SCG-10M-8G | 10 | 1/2 | 7.9 | 27 | 19 | 17.2 | 19.5 | 34.5 | 19 | - | 7.0 | 42.1 | | | |
| SCG-12M-4G | 12 | 1/4 | 9.5 | 22 | 22 | 22.8 | 22.0 | 31.8 | 13 | - | 5.5 | 41.9 | | | |
| SCG-12M-6G | 12 | 3/8 | 9.5 | 24 | 22 | 22.8 | 22.0 | 34.3 | 14 | - | 6.5 | 44.4 | | | |
| SCG-12M-8G | 12 | 1/2 | 9.5 | 27 | 22 | 22.8 | 22.0 | 38.1 | 19 | - | 7.0 | 48.2 | | | |
| SCG-20M-8G | 20 | 1/2 | 15.9 | 30 | 32 | 26.0 | 22.0 | 44.2 | 19 | - | 7.0 | 54.3 | | | |
| SCG-22M-8G | 22 | 1/2 | 9.5 | 30 | 32 | 22.8 | 22.0 | 44.2 | 19 | - | 7.0 | 54.3 | | | |

Bulkhead Female Connector
SCBF



Connects fractional tube to male NPT thread

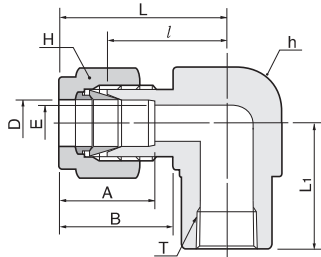
| Part No. | Tube O.D | | T | E | Width across flat | | | | | | A | I | I ₁ | L | L ₁ | Panel Hole Drill Size | Panel Max. Thickness |
|-------------|----------|-------|-------|-------|-------------------|-------|----------------|-------|-------|-------|-------|-------|----------------|--------|----------------|-----------------------|----------------------|
| | D | | | | h | | h ₁ | | H | | | | | | | | |
| | in | mm | | | in | mm | in | mm | in | mm | | | | | | | |
| SCBF-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 9/16 | 14.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 38.10 | 24.63 | 44.70 | 31.24 | 8.33 | 12.70 |
| SCBF-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 5/8 | 15.87 | 5/8 | 15.87 | 9/16 | 14.28 | 15.24 | 39.62 | 26.16 | 46.99 | 33.52 | 11.50 | 10.16 |
| SCBF-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 3/4 | 19.05 | 5/8 | 15.87 | 9/16 | 14.28 | 15.24 | 44.45 | 26.16 | 51.81 | 33.52 | 11.50 | 10.16 |
| SCBF-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 3/4 | 19.05 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 47.75 | 29.46 | 55.11 | 36.83 | 14.68 | 11.17 |
| SCBF-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 7/8 | 22.22 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 49.41 | 29.46 | 56.77 | 36.83 | 14.68 | 11.17 |
| SCBF-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 15/16 | 23.81 | 15/16 | 23.81 | 7/8 | 22.22 | 22.86 | 51.56 | 31.75 | 61.72 | 41.91 | 19.44 | 12.70 |
| SCBF-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 1-1/16 | 26.98 | 15/16 | 23.81 | 7/8 | 22.22 | 22.86 | 56.38 | 31.75 | 66.54 | 41.91 | 19.44 | 12.70 |
| SCBF-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/4 | 31.75 | 1-3/16 | 30.16 | 1-1/8 | 28.58 | 24.38 | 63.60 | 37.33 | 73.51 | 47.21 | 25.79 | 16.76 |
| SCBF-16-16N | 1 | 25.40 | 1 | 22.35 | 1-5/8 | 41.27 | 1-5/8 | 41.27 | 1-1/2 | 38.10 | 31.24 | 81.04 | 45.21 | 93.23 | 57.40 | 33.73 | 19.05 |
| SCBF-20-20N | 1-1/4 | 31.75 | 1-1/4 | 27.68 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 41.14 | 83.49 | 47.75 | 105.59 | 69.85 | 41.67 | 19.05 |
| SCBF-24-24N | 1-1/2 | 38.10 | 1-1/2 | 34.03 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 50.03 | 87.39 | 49.27 | 114.57 | 76.45 | 49.61 | 19.05 |
| SCBF-32-32N | 2 | 50.80 | 2 | 45.97 | 2-3/4 | 69.85 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 95.30 | 56.38 | 132.63 | 93.71 | 57.94 | 19.05 |

Connects metric tube to male NPT thread

| Part No. | Tube O.D | | T | E | Width across flat | | | A | I | I ₁ | L | L ₁ | Panel Hole Drill Size | Panel Max. Thickness |
|-------------|----------|--------|-----|------|-------------------|----------------|------|------|------|----------------|------|----------------|-----------------------|----------------------|
| | D | | | | h | h ₁ | H | | | | | | | |
| | mm | N(NPT) | | | mm | mm | mm | | | | | | | |
| SCBF-6M-2N | 6 | 1/8 | 4.8 | 15.8 | 15.8 | 14 | 15.3 | 39.6 | 26.2 | 46.9 | 35.0 | 11.5 | 10.2 | |
| SCBF-6M-4N | 6 | 1/4 | 4.8 | 19.0 | 16.0 | 14 | 15.3 | 44.4 | 26.2 | 51.8 | 33.6 | 11.5 | 10.2 | |
| SCBF-8M-4N | 8 | 1/4 | 6.4 | 19.0 | 17.4 | 16 | 16.2 | 46.7 | 28.6 | 53.9 | 35.6 | 13.1 | 11.2 | |
| SCBF-12M-8N | 12 | 1/2 | 9.5 | 27.0 | 24.0 | 22 | 22.8 | 56.4 | 31.8 | 66.5 | 41.9 | 19.5 | 12.7 | |

Female Elbow

SLF



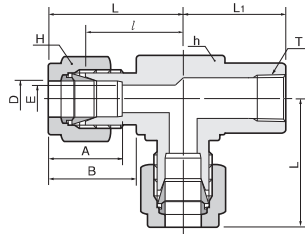
Connects fractional tube to male NPT thread

| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | | | A | B | I | L | L ₁ |
|------------|----------|-------|-------------|-----------|-------------------|-------|-------|-------|-------|-------|-------|-------|----------------|
| | D | | | | h | | H | | | | | | |
| | in | mm | | | in | mm | in | mm | | | | | |
| SLF-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.03 | 24.63 | 19.05 |
| SLF-2-4N | 1/8 | 3.17 | 1/4 | 2.28 | 11/16 | 17.46 | 7/16 | 11.11 | 12.70 | 15.24 | 20.82 | 27.43 | 22.35 |
| SLF-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 19.05 |
| SLF-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.92 | 19.05 |
| SLF-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 22.35 | 29.71 | 22.35 |
| SLF-4-6N | 1/4 | 6.35 | 3/8 | 4.82 | 13/16 | 20.64 | 9/16 | 14.28 | 15.24 | 17.78 | 24.38 | 31.75 | 22.35 |
| SLF-4-8N | 1/4 | 6.35 | 1/2 | 4.82 | 1 | 25.40 | 9/16 | 14.28 | 15.24 | 17.78 | 27.17 | 34.54 | 28.44 |
| SLF-5-2N | 5/16 | 7.93 | 1/8 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 | 19.05 |
| SLF-5-4N | 5/16 | 7.93 | 1/4 | 6.35 | 11/16 | 17.46 | 5/8 | 15.87 | 16.25 | 18.54 | 23.11 | 30.48 | 22.35 |
| SLF-6-2N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 | 19.05 |
| SLF-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 23.87 | 31.24 | 22.35 |
| SLF-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 13/16 | 20.64 | 11/16 | 17.46 | 16.76 | 19.30 | 25.90 | 33.27 | 22.35 |
| SLF-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 1 | 25.40 | 11/16 | 17.46 | 16.76 | 19.30 | 28.70 | 36.06 | 28.44 |
| SLF-8-4N | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 22.35 |
| SLF-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 22.35 |
| SLF-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 1 | 25.40 | 7/8 | 22.22 | 22.86 | 21.84 | 28.70 | 38.86 | 28.44 |
| SLF-10-6N | 5/8 | 15.87 | 3/8 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 27.94 | 38.10 | 22.35 |
| SLF-10-8N | 5/8 | 15.87 | 1/2 | 12.70 | 1 | 25.40 | 1 | 25.40 | 24.38 | 21.84 | 29.71 | 39.87 | 28.44 |
| SLF-12-8N | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 28.44 |
| SLF-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/4 | 31.75 | 1-1/8 | 28.58 | 24.38 | 21.84 | 34.54 | 44.70 | 31.75 |
| SLF-14-12N | 7/8 | 22.22 | 3/4 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 | 31.75 |
| SLF-16-12N | 1 | 25.40 | 3/4 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 31.75 |
| SLF-16-16N | 1 | 25.40 | 1 | 22.35 | 1-11/16 | 42.86 | 1-1/2 | 38.10 | 31.24 | 26.41 | 41.40 | 50.29 | 38.10 |

Connects metric tube to male NPT thread

| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | A | B | I | L | L ₁ |
|------------|----------|-------|-------------|-----------|-------------------|----|------|------|------|------|----------------|
| | D | | | | h | | | | | | |
| | in | mm | | | in | mm | | | | | |
| SLF-6M-2N | 6 | 15.87 | 1/8 | 4.8 | 12.70 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 19.00 |
| SLF-6M-4N | 6 | 15.87 | 1/4 | 4.8 | 17.46 | 14 | 15.3 | 17.7 | 22.4 | 29.8 | 22.40 |
| SLF-6M-6N | 6 | 15.87 | 3/8 | 4.8 | 20.64 | 14 | 15.3 | 17.7 | 24.4 | 31.7 | 22.40 |
| SLF-6M-8N | 6 | 15.87 | 1/2 | 4.8 | 25.40 | 14 | 15.3 | 17.7 | 27.2 | 34.6 | 28.40 |
| SLF-8M-2N | 8 | 20.64 | 1/8 | 6.4 | 15.87 | 16 | 16.2 | 18.6 | 23.1 | 29.9 | 19.00 |
| SLF-8M-4N | 8 | 20.64 | 1/4 | 6.4 | 17.46 | 16 | 16.2 | 18.6 | 23.1 | 30.6 | 22.40 |
| SLF-8M-8N | 8 | 20.64 | 1/2 | 6.4 | 25.40 | 16 | 16.2 | 18.6 | 28.0 | 35.2 | 28.40 |
| SLF-10M-2N | 10 | 25.40 | 1/8 | 7.9 | 17.46 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 19.00 |
| SLF-10M-4N | 10 | 25.40 | 1/4 | 7.9 | 20.64 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 22.40 |
| SLF-10M-6N | 10 | 25.40 | 3/8 | 7.9 | 20.64 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 22.40 |
| SLF-10M-8N | 10 | 25.40 | 1/2 | 7.9 | 25.40 | 19 | 17.2 | 19.5 | 28.7 | 36.1 | 28.40 |
| SLF-12M-4N | 12 | 30.48 | 1/4 | 9.5 | 20.64 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 22.40 |
| SLF-12M-6N | 12 | 30.48 | 3/8 | 9.5 | 20.64 | 22 | 22.8 | 22.0 | 25.9 | 36.2 | 22.35 |
| SLF-12M-8N | 12 | 30.48 | 1/2 | 9.5 | 25.40 | 22 | 22.8 | 22.0 | 28.7 | 38.8 | 28.40 |
| SLF-16M-8N | 16 | 40.64 | 1/2 | 12.7 | 26.98 | 25 | 24.4 | 22.0 | 29.7 | 39.5 | 28.40 |

Female Run Tee

STRF

Connects fractional tube to male NPT thread

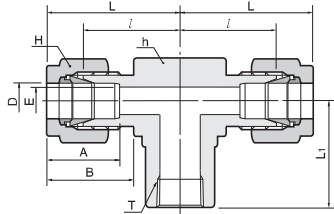
| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | | | A | B | I | L | L ₁ |
|-------------|----------|-------|-------------|-----------|-------------------|-------|-------|-------|-------|-------|-------|-------|----------------|
| | D | | | | h | | H | | | | | | |
| | in | mm | | | in | mm | in | mm | | | | | |
| STRF-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.03 | 24.63 | 19.05 |
| STRF-2-4N | 1/8 | 3.17 | 1/4 | 2.28 | 11/16 | 17.46 | 7/16 | 11.11 | 12.70 | 15.24 | 20.82 | 27.43 | 22.35 |
| STRF-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 19.05 |
| STRF-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.92 | 19.05 |
| STRF-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 22.35 | 29.71 | 22.35 |
| STRF-4-6N | 1/4 | 6.35 | 3/8 | 4.82 | 13/16 | 20.64 | 9/16 | 14.28 | 15.24 | 17.78 | 24.38 | 31.75 | 22.35 |
| STRF-4-8N | 1/4 | 6.35 | 1/2 | 4.82 | 1 | 25.40 | 9/16 | 14.28 | 15.24 | 17.78 | 27.17 | 34.54 | 28.44 |
| STRF-5-2N | 5/16 | 7.93 | 1/8 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 | 19.05 |
| STRF-5-4N | 5/16 | 7.93 | 1/4 | 6.35 | 11/16 | 17.46 | 5/8 | 15.87 | 16.25 | 18.54 | 23.11 | 30.48 | 22.35 |
| STRF-6-2N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 | 19.05 |
| STRF-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 23.87 | 31.24 | 22.35 |
| STRF-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 13/16 | 20.64 | 11/16 | 17.46 | 16.76 | 19.30 | 25.90 | 33.27 | 22.35 |
| STRF-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 1 | 25.40 | 11/16 | 17.46 | 16.76 | 19.30 | 28.70 | 36.06 | 28.44 |
| STRF-8-4N | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 22.35 |
| STRF-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 22.35 |
| STRF-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 1 | 25.40 | 7/8 | 22.22 | 22.86 | 21.84 | 28.70 | 38.86 | 28.44 |
| STRF-10-6N | 5/8 | 15.87 | 3/8 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 27.94 | 38.10 | 22.35 |
| STRF-10-8N | 5/8 | 15.87 | 1/2 | 12.70 | 1 | 25.40 | 1 | 25.40 | 24.38 | 21.84 | 29.71 | 39.87 | 28.44 |
| STRF-12-8N | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 28.44 |
| STRF-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/4 | 31.75 | 1-1/8 | 28.58 | 24.38 | 21.84 | 34.54 | 44.70 | 31.75 |
| STRF-14-12N | 7/8 | 22.22 | 3/4 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 | 31.75 |
| STRF-16-12N | 1 | 25.40 | 3/4 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 31.75 |
| STRF-16-16N | 1 | 25.40 | 1 | 22.35 | 1-11/16 | 42.86 | 1-1/2 | 38.10 | 31.24 | 26.41 | 41.40 | 50.29 | 38.10 |

Connects metric tube to male NPT thread

| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | A | B | I | L | L ₁ | | |
|-------------|----------|-------|-------------|-----------|-------------------|----|------|------|------|------|----------------|----|----|
| | D | | | | h | | | | | | | H | |
| | in | mm | | | in | mm | | | | | | in | mm |
| STRF-6M-2N | 6 | 152.4 | 1/8 | 4.8 | 12.70 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 19.00 | | |
| STRF-6M-4N | 6 | 152.4 | 1/4 | 4.8 | 17.46 | 14 | 15.3 | 17.7 | 22.4 | 29.8 | 22.40 | | |
| STRF-6M-6N | 6 | 152.4 | 3/8 | 4.8 | 20.64 | 14 | 15.3 | 17.7 | 24.4 | 31.7 | 22.40 | | |
| STRF-6M-8N | 6 | 152.4 | 1/2 | 4.8 | 25.40 | 14 | 15.3 | 17.7 | 27.2 | 34.6 | 28.40 | | |
| STRF-8M-2N | 8 | 203.2 | 1/8 | 6.4 | 15.87 | 16 | 16.2 | 18.6 | 23.1 | 29.9 | 19.00 | | |
| STRF-8M-4N | 8 | 203.2 | 1/4 | 6.4 | 17.46 | 16 | 16.2 | 18.6 | 23.1 | 30.6 | 22.40 | | |
| STRF-8M-6N | 8 | 203.2 | 1/4 | 6.4 | 20.64 | 16 | 16.2 | 18.6 | 25.2 | 32.4 | 22.40 | | |
| STRF-8M-8N | 8 | 203.2 | 1/2 | 6.4 | 25.40 | 16 | 16.2 | 18.6 | 28.0 | 35.2 | 28.40 | | |
| STRF-10M-2N | 10 | 254.0 | 1/8 | 7.9 | 17.46 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 19.00 | | |
| STRF-10M-4N | 10 | 254.0 | 1/4 | 7.9 | 20.64 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 22.40 | | |
| STRF-10M-6N | 10 | 254.0 | 3/8 | 7.9 | 20.64 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 22.40 | | |
| STRF-10M-8N | 10 | 254.0 | 1/2 | 7.9 | 25.40 | 19 | 17.2 | 19.5 | 28.7 | 36.1 | 28.40 | | |
| STRF-12M-4N | 12 | 304.8 | 1/4 | 9.5 | 20.64 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 22.40 | | |
| STRF-12M-6N | 12 | 304.8 | 3/8 | 9.5 | 20.64 | 22 | 22.8 | 22.0 | 25.9 | 36.2 | 22.35 | | |
| STRF-12M-8N | 12 | 304.8 | 1/2 | 9.5 | 25.40 | 22 | 22.8 | 22.0 | 28.7 | 38.8 | 28.40 | | |
| STRF-16M-8N | 16 | 406.4 | 1/2 | 12.7 | 26.98 | 25 | 24.4 | 22.0 | 29.7 | 39.5 | 28.40 | | |

Female Branch Tee

STBF



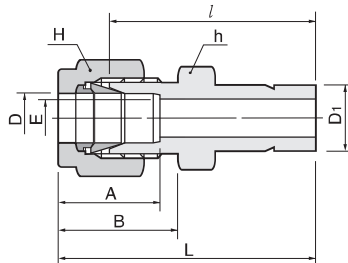
Connects fractional tube to male NPT thread

| Part No. | Tube O.D | | T | E | Width across flat | | | | A | B | I | L | L ₁ |
|-------------|----------|-------|-----|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|----------------|
| | in | mm | | | h | H | in | mm | | | | | |
| STBF-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 18.03 | 24.63 | 19.05 |
| STBF-2-4N | 1/8 | 3.17 | 1/4 | 2.28 | 11/16 | 17.46 | 7/16 | 11.11 | 12.70 | 15.24 | 20.82 | 27.43 | 22.35 |
| STBF-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 1/2 | 12.70 | 1/2 | 12.70 | 13.71 | 16.00 | 18.79 | 25.40 | 19.05 |
| STBF-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 26.92 | 19.05 |
| STBF-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 22.35 | 29.71 | 22.35 |
| STBF-4-6N | 1/4 | 6.35 | 3/8 | 4.82 | 13/16 | 20.64 | 9/16 | 14.28 | 15.24 | 17.78 | 24.38 | 31.75 | 22.35 |
| STBF-4-8N | 1/4 | 6.35 | 1/2 | 4.82 | 1 | 25.40 | 9/16 | 14.28 | 15.24 | 17.78 | 27.17 | 34.54 | 28.44 |
| STBF-5-2N | 5/16 | 7.93 | 1/8 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 21.33 | 28.70 | 19.05 |
| STBF-5-4N | 5/16 | 7.93 | 1/4 | 6.35 | 11/16 | 17.46 | 5/8 | 15.87 | 16.25 | 18.54 | 23.11 | 30.48 | 22.35 |
| STBF-6-2N | 3/8 | 9.52 | 1/4 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 30.48 | 19.05 |
| STBF-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 23.87 | 31.24 | 22.35 |
| STBF-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 13/16 | 20.64 | 11/16 | 17.46 | 16.76 | 19.30 | 25.90 | 33.27 | 22.35 |
| STBF-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 1 | 25.40 | 11/16 | 17.46 | 16.76 | 19.30 | 28.70 | 36.06 | 28.44 |
| STBF-8-4N | 1/2 | 12.70 | 1/4 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 22.35 |
| STBF-8-6N | 1/2 | 12.70 | 3/8 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 36.06 | 22.35 |
| STBF-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 1 | 25.40 | 7/8 | 22.22 | 22.86 | 21.84 | 28.70 | 38.86 | 28.44 |
| STBF-10-6N | 5/8 | 15.87 | 3/8 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 27.94 | 38.10 | 22.35 |
| STBF-10-8N | 5/8 | 15.87 | 1/2 | 12.70 | 1 | 25.40 | 1 | 25.40 | 24.38 | 21.84 | 29.71 | 39.87 | 28.44 |
| STBF-12-8N | 3/4 | 19.05 | 1/2 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 39.87 | 28.44 |
| STBF-12-12N | 3/4 | 19.05 | 3/4 | 15.74 | 1-1/4 | 31.75 | 1-1/8 | 28.58 | 24.38 | 21.84 | 34.54 | 44.70 | 31.75 |
| STBF-14-12N | 7/8 | 22.22 | 3/4 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 25.90 | 21.84 | 34.54 | 44.70 | 31.75 |
| STBF-16-12N | 1 | 25.40 | 3/4 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 49.02 | 31.75 |
| STBF-16-16N | 1 | 25.40 | 1 | 22.35 | 1-11/16 | 42.86 | 1-1/2 | 38.10 | 31.24 | 26.41 | 41.40 | 50.29 | 38.10 |

Connects metric tube to male NPT thread

| Part No. | Tube O.D | | T | E | Width across flat | | A | B | I | L | L ₁ |
|-------------|----------|--------|------|------|-------------------|----|------|------|------|------|----------------|
| | D | N(NPT) | | | h | H | | | | | |
| STBF-6M-2N | 6 | 1/8 | 4.8 | 4.8 | 12.70 | 14 | 15.3 | 17.7 | 19.6 | 27.0 | 19.00 |
| STBF-6M-4N | 6 | 1/4 | 4.8 | 4.8 | 17.46 | 14 | 15.3 | 17.7 | 22.4 | 29.8 | 22.40 |
| STBF-6M-6N | 6 | 3/8 | 4.8 | 4.8 | 20.64 | 14 | 15.3 | 17.7 | 24.4 | 31.7 | 22.40 |
| STBF-6M-8N | 6 | 1/2 | 4.8 | 4.8 | 25.40 | 14 | 15.3 | 17.7 | 27.2 | 34.6 | 28.40 |
| STBF-8M-2N | 8 | 1/8 | 6.4 | 6.4 | 15.87 | 16 | 16.2 | 18.6 | 23.1 | 29.9 | 19.00 |
| STBF-8M-4N | 8 | 1/4 | 6.4 | 6.4 | 17.46 | 16 | 16.2 | 18.6 | 23.1 | 30.6 | 22.40 |
| STBF-8M-6N | 8 | 1/4 | 6.4 | 6.4 | 20.64 | 16 | 16.2 | 18.6 | 25.2 | 32.4 | 22.40 |
| STBF-8M-8N | 8 | 1/2 | 6.4 | 6.4 | 25.40 | 16 | 16.2 | 18.6 | 28.0 | 35.2 | 28.40 |
| STBF-10M-2N | 10 | 1/8 | 7.9 | 7.9 | 17.46 | 19 | 17.2 | 19.5 | 23.9 | 31.5 | 19.00 |
| STBF-10M-4N | 10 | 1/4 | 7.9 | 7.9 | 20.64 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 22.40 |
| STBF-10M-6N | 10 | 3/8 | 7.9 | 7.9 | 20.64 | 19 | 17.2 | 19.5 | 25.9 | 33.5 | 22.40 |
| STBF-10M-8N | 10 | 1/2 | 7.9 | 7.9 | 25.40 | 19 | 17.2 | 19.5 | 28.7 | 36.1 | 28.40 |
| STBF-12M-4N | 12 | 1/4 | 9.5 | 9.5 | 20.64 | 22 | 22.8 | 22.0 | 25.9 | 36.0 | 22.40 |
| STBF-12M-6N | 12 | 3/8 | 9.5 | 9.5 | 20.64 | 22 | 22.8 | 22.0 | 25.9 | 36.2 | 22.35 |
| STBF-12M-8N | 12 | 1/2 | 9.5 | 9.5 | 25.40 | 22 | 22.8 | 22.0 | 28.7 | 38.8 | 28.40 |
| STBF-16M-8N | 16 | 1/2 | 12.7 | 12.7 | 26.98 | 25 | 24.4 | 22.0 | 29.7 | 39.5 | 28.40 |

Reducer
SR



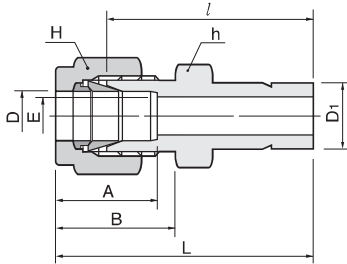
Connects fractional tube to fractional S-LOK port

| Part No. | Tube O.D | | | | E | Width across flat | | | | A | B | I | L |
|----------|----------|-------|----------------|-------|-------|-------------------|-------|-------|-------|-------|-------|--------|--------|
| | D | | D ₁ | | | h | | H | | | | | |
| | in | mm | in | mm | | in | mm | in | mm | | | | |
| SR-1-2 | 1/16 | 1.59 | 1/8 | 3.17 | 1.27 | 5/16 | 7.93 | 5/16 | 7.93 | 8.63 | 10.92 | 25.40 | 29.21 |
| SR-1-4 | 1/16 | 1.59 | 1/4 | 6.35 | 1.27 | 5/16 | 7.93 | 5/16 | 7.93 | 8.63 | 10.92 | 57.68 | 31.49 |
| SR-2-1 | 1/8 | 3.17 | 1/16 | 1.59 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 22.35 | 28.95 |
| SR-2-2 | 1/8 | 3.17 | 1/8 | 3.17 | 2.03 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 26.92 | 33.52 |
| SR-2-3 | 1/8 | 3.17 | 3/16 | 4.76 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 27.68 | 34.29 |
| SR-2-4 | 1/8 | 3.17 | 1/4 | 6.35 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 29.46 | 36.06 |
| SR-2-6 | 1/8 | 3.17 | 3/8 | 9.52 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 30.98 | 37.59 |
| SR-2-8 | 1/8 | 3.17 | 1/2 | 12.70 | 2.28 | 9/16 | 14.28 | 7/16 | 11.11 | 12.70 | 15.24 | 37.59 | 44.19 |
| SR-3-2 | 3/16 | 4.76 | 3/16 | 4.76 | 2.03 | 7/16 | 11.11 | 1/2 | 12.70 | 13.71 | 16.00 | 28.19 | 34.79 |
| SR-3-4 | 3/16 | 4.76 | 1/4 | 6.35 | 3.04 | 7/16 | 11.11 | 1/2 | 12.70 | 13.71 | 16.00 | 30.48 | 37.08 |
| SR-4-2 | 1/4 | 6.35 | 1/8 | 3.17 | 2.03 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 29.46 | 36.83 |
| SR-4-3 | 1/4 | 6.35 | 3/16 | 4.76 | 3.04 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 30.22 | 37.59 |
| SR-4-4 | 1/4 | 6.35 | 1/4 | 6.35 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 31.75 | 39.11 |
| SR-4-5 | 1/4 | 6.35 | 1/4 | 6.35 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 32.51 | 39.87 |
| SR-4-6 | 1/4 | 6.35 | 3/8 | 9.52 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 33.27 | 40.64 |
| SR-4-8 | 1/4 | 6.35 | 1/2 | 12.70 | 4.82 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 38.86 | 46.22 |
| SR-4-10 | 1/4 | 6.35 | 5/8 | 15.87 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 40.64 | 48.00 |
| SR-4-12 | 1/4 | 6.35 | 3/4 | 19.05 | 4.82 | 13/16 | 20.64 | 9/16 | 14.28 | 15.24 | 17.78 | 40.38 | 47.75 |
| SR-5-6 | 5/16 | 7.93 | 3/8 | 9.52 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 34.54 | 41.91 |
| SR-5-8 | 5/16 | 7.93 | 5/16 | 7.93 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 40.13 | 47.49 |
| SR-6-4 | 3/8 | 9.52 | 1/4 | 6.35 | 4.82 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 34.03 | 41.40 |
| SR-6-6 | 3/8 | 9.52 | 3/8 | 9.52 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 35.81 | 43.18 |
| SR-6-8 | 3/8 | 9.52 | 1/2 | 12.70 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 41.14 | 48.51 |
| SR-6-10 | 3/8 | 9.52 | 5/8 | 15.87 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 42.92 | 50.29 |
| SR-6-12 | 3/8 | 9.52 | 3/4 | 19.05 | 7.11 | 13/16 | 20.64 | 11/16 | 17.46 | 16.76 | 19.30 | 42.92 | 50.29 |
| SR-8-4 | 1/2 | 12.70 | 1/4 | 6.35 | 4.82 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 34.79 | 44.95 |
| SR-8-6 | 1/2 | 12.70 | 1/2 | 12.70 | 7.11 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 36.57 | 46.73 |
| SR-8-8 | 1/2 | 12.70 | 1/2 | 12.70 | 9.90 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 42.16 | 52.32 |
| SR-8-10 | 1/2 | 12.70 | 5/8 | 15.87 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 43.68 | 53.84 |
| SR-8-12 | 1/2 | 12.70 | 3/4 | 19.05 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 43.68 | 53.84 |
| SR-8-16 | 1/2 | 12.70 | 1 | 25.40 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 50.03 | 60.19 |
| SR-10-12 | 5/8 | 15.87 | 3/4 | 19.05 | 12.70 | 1-1/16 | 26.98 | 1 | 25.40 | 24.38 | 21.84 | 44.45 | 54.61 |
| SR-10-14 | 5/8 | 15.87 | 5/8 | 15.87 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 45.97 | 56.13 |
| SR-10-16 | 5/8 | 15.87 | 1 | 25.40 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 50.80 | 60.96 |
| SR-12-8 | 3/4 | 19.05 | 1/2 | 12.70 | 9.90 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 44.45 | 54.61 |
| SR-12-16 | 3/4 | 19.05 | 1 | 25.40 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 52.32 | 62.48 |
| SR-16-20 | 1 | 25.40 | 1-1/4 | 31.75 | 22.35 | 1-3/8 | 34.93 | 1-1/2 | 38.10 | 31.24 | 26.41 | 68.32 | 80.51 |
| SR-16-24 | 1 | 25.40 | 1-1/2 | 38.10 | 22.35 | 1-5/8 | 41.28 | 1-1/2 | 38.10 | 31.24 | 26.41 | 76.96 | 89.15 |
| SR-16-32 | 1 | 25.40 | 2 | 50.80 | 22.35 | 2-1/8 | 53.98 | 1-1/2 | 38.10 | 31.24 | 26.41 | 100.33 | 112.52 |
| SR-20-24 | 1-1/4 | 31.75 | 1-1/2 | 38.10 | 27.68 | 1-7/8 | 47.63 | 2-1/4 | 57.15 | 41.14 | 38.86 | 82.04 | 104.14 |
| SR-20-32 | 1-1/4 | 31.75 | 2 | 50.80 | 27.68 | 2-1/8 | 53.98 | 2-1/4 | 57.15 | 41.14 | 38.86 | 103.12 | 125.22 |
| SR-24-32 | 1-1/2 | 38.10 | 2 | 50.80 | 34.03 | 2-1/4 | 57.15 | 3 | 76.20 | 50.03 | 45.21 | 101.14 | 131.31 |

Reducer

SR

Connects metric tube to fractional S-LOK port

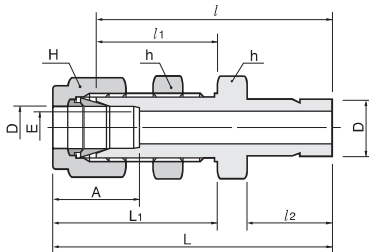


| Part No. | Tube O.D. | | E Min. | Width across flat | | | A | B | I | L |
|-----------|-----------|-------------------------|-----------|-------------------|----|------|------|------|------|---|
| | D | D ₁ in mm | | h | H | | | | | |
| SR-2M-2 | 2 | 1/8 3.17 | 1.7 | 12 | 12 | 12.9 | 15.3 | 26.9 | 33.5 | |
| SR-3M-2 | 3 | 1/8 3.17 | 2.0 | 12 | 12 | 12.9 | 15.3 | 26.9 | 33.5 | |
| SR-3M-4 | 3 | 1/4 6.35 | 2.4 | 12 | 12 | 12.9 | 15.3 | 39.5 | 36.1 | |
| SR-4M-4 | 4 | 1/4 6.35 | 2.4 | 12 | 12 | 13.7 | 16.1 | 30.5 | 37.1 | |
| SR-6M-2 | 6 | 1/8 3.17 | 2.0 | 14 | 14 | 15.3 | 17.7 | 29.5 | 36.9 | |
| SR-6M-4 | 6 | 1/4 6.35 | 4.8 | 14 | 14 | 15.3 | 17.7 | 31.8 | 39.2 | |
| SR-6M-5 | 6 | 1/4 6.35 | 4.8 | 14 | 14 | 15.3 | 17.7 | 32.5 | 39.9 | |
| SR-6M-6 | 6 | 3/8 9.52 | 4.8 | 14 | 14 | 15.3 | 17.7 | 33.3 | 40.7 | |
| SR-6M-8 | 6 | 1/2 12.70 | 4.8 | 14 | 14 | 15.3 | 17.7 | 38.9 | 46.3 | |
| SR-8M-6 | 8 | 3/8 9.52 | 6.4 | 15 | 16 | 16.2 | 18.6 | 34.5 | 42.0 | |
| SR-8M-8 | 8 | 5/16 7.93 | 6.4 | 15 | 16 | 16.2 | 18.6 | 40.1 | 47.6 | |
| SR-10M-6 | 10 | 3/8 9.52 | 7.1 | 18 | 19 | 17.2 | 19.5 | 36.6 | 44.2 | |
| SR-10M-8 | 10 | 1/2 12.70 | 7.9 | 18 | 19 | 17.2 | 19.5 | 42.2 | 49.8 | |
| SR-12M-8 | 12 | 1/2 12.70 | 9.5 | 22 | 22 | 22.8 | 22.0 | 42.2 | 52.3 | |
| SR-12M-12 | 12 | 3/4 19.05 | 9.5 | 22 | 22 | 22.8 | 22.0 | 43.7 | 53.8 | |
| SR-18M-12 | 18 | 3/4 19.05 | 15.1 | 27 | 30 | 24.4 | 22.0 | 46.0 | 56.1 | |
| SR-18M-16 | 18 | 1 25.40 | 15.1 | 27 | 30 | 24.4 | 22.0 | 52.3 | 62.4 | |
| SR-25M-16 | 25 | 1 25.40 | 20.2 | 35 | 38 | 31.3 | 26.5 | 57.2 | 69.5 | |

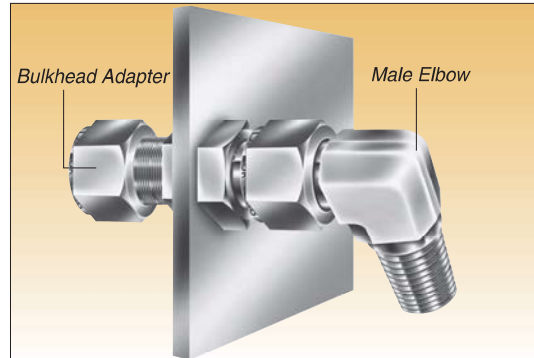
Connects metric tube to metric S-LOK port

| Part No. | Tube O.D. | | E Min. | Width across flat | | | A | B | I | L |
|------------|-----------|----------------|-----------|-------------------|----|------|------|------|------|---|
| | D | D ₁ | | h | H | | | | | |
| SR-2M-3M | 2 | 3 | 1.7 | 12 | 12 | 12.9 | 15.3 | 26.9 | 35.3 | |
| SR-3M-4M | 3 | 4 | 2.4 | 12 | 12 | 12.9 | 15.3 | 28.4 | 35.0 | |
| SR-3M-6M | 3 | 6 | 2.4 | 12 | 12 | 12.9 | 15.3 | 29.5 | 36.1 | |
| SR-3M-10M | 3 | 10 | 2.4 | 12 | 12 | 12.9 | 15.3 | 31.8 | 38.4 | |
| SR-4M-6M | 4 | 6 | 2.4 | 12 | 12 | 13.7 | 16.1 | 30.5 | 37.1 | |
| SR-6M-3M | 6 | 3 | 1.8 | 14 | 14 | 15.3 | 17.7 | 29.5 | 36.9 | |
| SR-6M-8M | 6 | 8 | 4.8 | 14 | 14 | 15.3 | 17.7 | 32.5 | 39.9 | |
| SR-6M-10M | 6 | 10 | 4.8 | 14 | 14 | 15.3 | 17.7 | 33.3 | 40.7 | |
| SR-6M-12M | 6 | 12 | 4.8 | 14 | 14 | 15.3 | 17.7 | 38.9 | 46.3 | |
| SR-8M-6M | 8 | 6 | 4.6 | 15 | 16 | 16.2 | 18.6 | 32.8 | 40.3 | |
| SR-8M-10M | 8 | 10 | 6.4 | 15 | 16 | 16.2 | 18.6 | 34.5 | 42.0 | |
| SR-8M-12M | 8 | 12 | 6.4 | 15 | 16 | 16.2 | 18.6 | 40.1 | 47.6 | |
| SR-10M-6M | 10 | 6 | 4.6 | 18 | 19 | 17.2 | 19.5 | 34.8 | 42.4 | |
| SR-10M-12M | 10 | 12 | 7.9 | 18 | 19 | 17.2 | 19.5 | 42.2 | 49.8 | |
| SR-10M-15M | 10 | 15 | 7.9 | 18 | 19 | 17.2 | 19.5 | 43.7 | 51.3 | |
| SR-10M-18M | 10 | 18 | 7.9 | 19 | 19 | 17.2 | 19.5 | 43.7 | 51.3 | |
| SR-12M-6M | 12 | 6 | 4.6 | 22 | 22 | 22.8 | 22.0 | 34.8 | 44.9 | |
| SR-12M-10M | 12 | 10 | 7.7 | 22 | 22 | 22.8 | 22.0 | 36.6 | 46.7 | |
| SR-12M-16M | 12 | 16 | 9.5 | 22 | 22 | 22.8 | 22.0 | 43.7 | 53.8 | |
| SR-12M-18M | 12 | 18 | 9.5 | 22 | 22 | 22.8 | 22.0 | 43.7 | 53.8 | |
| SR-12M-20M | 12 | 20 | 9.5 | 22 | 22 | 22.8 | 22.0 | 46.0 | 56.1 | |
| SR-12M-22M | 12 | 22 | 9.5 | 24 | 22 | 22.8 | 22.0 | 46.0 | 56.1 | |
| SR-12M-25M | 12 | 25 | 9.5 | 27 | 22 | 22.8 | 22.0 | 52.3 | 62.4 | |
| SR-16M-12M | 16 | 12 | 9.1 | 24 | 25 | 24.4 | 22.0 | 42.9 | 53.0 | |
| SR-18M-12M | 18 | 12 | 9.1 | 27 | 30 | 24.4 | 22.0 | 44.5 | 54.6 | |
| SR-18M-16M | 18 | 16 | 12.7 | 27 | 30 | 24.4 | 22.0 | 46.0 | 56.1 | |
| SR-18M-20M | 18 | 20 | 15.1 | 27 | 30 | 24.4 | 22.0 | 47.5 | 57.6 | |
| SR-18M-22M | 18 | 22 | 15.1 | 27 | 30 | 24.4 | 22.0 | 47.5 | 57.6 | |
| SR-18M-25M | 18 | 25 | 15.1 | 27 | 30 | 24.4 | 22.0 | 52.3 | 62.4 | |
| SR-20M-16M | 20 | 16 | 12.7 | 30 | 32 | 26.0 | 22.0 | 47.8 | 57.9 | |
| SR-20M-18M | 20 | 18 | 13.9 | 30 | 32 | 26.0 | 22.0 | 47.8 | 57.9 | |
| SR-20M-22M | 20 | 22 | 15.8 | 30 | 32 | 26.0 | 22.0 | 49.3 | 59.4 | |
| SR-20M-25M | 20 | 25 | 15.8 | 30 | 32 | 26.0 | 22.0 | 54.1 | 64.2 | |
| SR-22M-18M | 22 | 18 | 13.9 | 30 | 32 | 26.0 | 22.0 | 47.8 | 57.9 | |
| SR-22M-20M | 22 | 20 | 15.1 | 30 | 32 | 26.0 | 22.0 | 49.3 | 59.4 | |
| SR-22M-25M | 22 | 25 | 18.3 | 30 | 32 | 26.0 | 22.0 | 54.1 | 64.2 | |
| SR-25M-18M | 25 | 18 | 13.9 | 35 | 38 | 31.3 | 26.5 | 50.8 | 63.1 | |
| SR-25M-20M | 25 | 20 | 15.1 | 35 | 38 | 31.3 | 26.5 | 52.3 | 64.6 | |

Bulkhead Adapter
SAB



The bulkhead adapter is useful for panel construction when you need to set a direction.



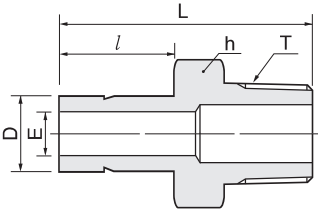
Set a direction

Connects fractional tube to fractional S-LOK port

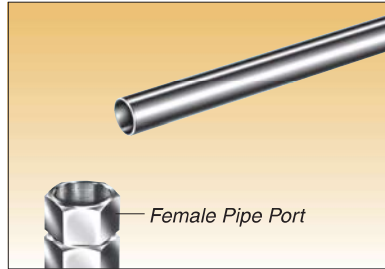
| Part No. | Tube O.D | | | | E | Width across flat | | | | A | I | I ₁ | I ₂ | L | L ₁ | Panel Hole Drill Size | Panel Max. Thickness |
|-----------|----------|-------|----------------|-------|-------|-------------------|-------|-------|-------|-------|--------|----------------|----------------|--------|----------------|-----------------------|----------------------|
| | D | | D ₁ | | | h | | H | | | | | | | | | |
| | in | mm | in | mm | | in | mm | in | mm | | | | | | | | |
| SAB-2-2 | 1/8 | 3.17 | 1/8 | 3.17 | 2.03 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 42.92 | 24.63 | 13.45 | 49.53 | 31.24 | 8.33 | 12.70 |
| SAB-4-4 | 1/4 | 6.35 | 1/4 | 6.35 | 4.82 | 5/8 | 15.87 | 9/16 | 14.28 | 15.24 | 48.51 | 26.16 | 15.74 | 55.88 | 33.52 | 11.50 | 10.16 |
| SAB-6-6 | 3/8 | 9.52 | 3/8 | 9.52 | 7.11 | 3/4 | 19.05 | 11/16 | 17.46 | 16.76 | 53.84 | 29.46 | 17.50 | 61.21 | 36.83 | 14.68 | 11.17 |
| SAB-8-8 | 1/2 | 12.70 | 1/2 | 12.70 | 10.41 | 15/16 | 23.81 | 7/8 | 22.22 | 22.86 | 62.73 | 31.75 | 23.11 | 72.89 | 41.91 | 19.44 | 12.70 |
| SAB-10-10 | 5/8 | 15.87 | 5/8 | 15.87 | 12.70 | 1-1/16 | 26.98 | 1 | 25.40 | 24.38 | 65.02 | 32.51 | 24.70 | 75.18 | 42.67 | 22.62 | 12.70 |
| SAB-16-16 | 1 | 25.40 | 1 | 25.40 | 20.32 | 1-5/8 | 41.28 | 1-1/2 | 38.10 | 31.24 | 88.13 | 45.21 | 31.70 | 100.33 | 57.40 | 33.73 | 19.05 |
| SAB-20-20 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 27.68 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 41.14 | 102.07 | 47.75 | 42.00 | 124.17 | 69.85 | 41.67 | 19.05 |
| SAB-24-24 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 34.03 | 2-1/4 | 57.15 | 2-1/4 | 57.15 | 50.03 | 118.33 | 49.27 | 51.50 | 145.51 | 76.45 | 49.61 | 19.05 |
| SAB-32-32 | 2 | 50.80 | 2 | 50.80 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 57.56 | 148.79 | 56.38 | 68.40 | 185.82 | 93.71 | 57.94 | 19.05 |

Male Adapter

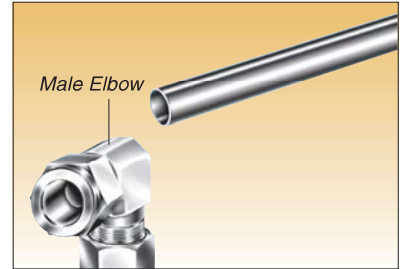
SAM



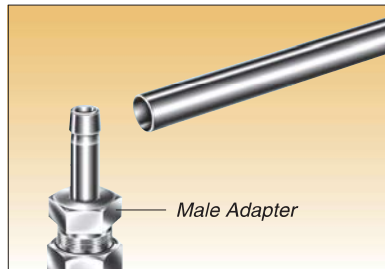
S-LOK Adapter eliminates alignment problems



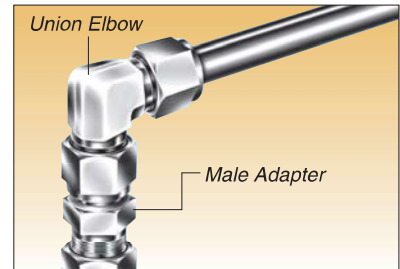
In the direction shown the female port is required to connect with tubing.



The male elbow is positioning in the wrong direction.



To eliminate the problem, use a male adapter into the female port.

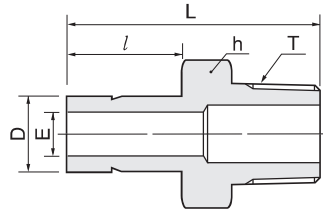


Connect a union elbow to the adapter by tightening the S-LOK port with a wrench while holding the elbow wrench pad in the desired direction

Connects metric tube to female ISO taper thread

| Part No. | Tube O.D | T | E | Width across flat | | I | L |
|-------------|----------|-------|------|-------------------|-------|------|---|
| | D | R(PT) | Min. | h | | | |
| SAM-3M-2R | 3 | 1/8 | 1.9 | 12 | 13.15 | 29.4 | |
| SAM-6M-2R | 6 | 1/8 | 4.1 | 12 | 15.75 | 32.8 | |
| SAM-6M-4R | 6 | 1/4 | 4.1 | 14 | 15.75 | 38.1 | |
| SAM-8M-4R | 8 | 1/4 | 5.6 | 14 | 16.50 | 39.1 | |
| SAM-10M-4R | 10 | 1/4 | 7.1 | 14 | 17.50 | 39.9 | |
| SAM-10M-6R | 10 | 3/8 | 7.1 | 17 | 17.50 | 40.6 | |
| SAM-10M-8R | 10 | 1/2 | 7.1 | 22 | 17.50 | 46.2 | |
| SAM-12M-4R | 12 | 1/4 | 8.8 | 14 | 23.50 | 46.5 | |
| SAM-12M-6R | 12 | 3/8 | 8.8 | 17 | 23.50 | 46.5 | |
| SAM-12M-8R | 12 | 1/2 | 8.8 | 22 | 23.50 | 51.8 | |
| SAM-18M-8R | 18 | 1/2 | 13.9 | 22 | 24.90 | 53.2 | |
| SAM-18M-12R | 18 | 3/4 | 13.9 | 27 | 24.90 | 53.2 | |
| SAM-28M-16R | 28 | 1 | 22.5 | 35 | 31.70 | 74.7 | |
| SAM-28M-20R | 28 | 1-1/4 | 22.5 | 46 | 31.70 | 76.2 | |
| SAM-32M-20R | 32 | 1-1/4 | 26.5 | 46 | 40.00 | 81.0 | |
| SAM-32M-24R | 32 | 1-1/2 | 31.6 | 55 | 51.50 | 92.2 | |

Male Adapter

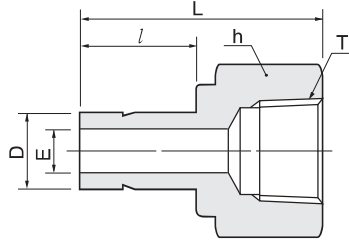
SAM

Connects fractional tube to female NPT thread

| Part No. | Tube O.D | | T N(NPT) | E Min. | Width across flat | | I | L |
|------------|----------|-------|-------------|-----------|-------------------|-------|-------|--------|
| | D | | | | h | | | |
| | in | mm | | | in | mm | | |
| SAM-2-2N | 1/8 | 3.17 | 1/8 | 2.03 | 7/16 | 11.11 | 13.45 | 29.50 |
| SAM-2-4N | 1/8 | 3.17 | 1/4 | 2.03 | 9/16 | 14.28 | 13.45 | 34.80 |
| SAM-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 7/16 | 11.11 | 14.20 | 30.22 |
| SAM-3-4N | 3/16 | 4.76 | 1/4 | 3.04 | 9/16 | 14.28 | 14.20 | 35.56 |
| SAM-4-2N | 1/4 | 6.35 | 1/8 | 4.31 | 7/16 | 11.11 | 15.75 | 31.60 |
| SAM-4-4N | 1/4 | 6.35 | 1/4 | 4.31 | 9/16 | 14.28 | 15.75 | 37.08 |
| SAM-4-6N | 1/4 | 6.35 | 3/8 | 4.31 | 11/16 | 17.46 | 15.75 | 37.84 |
| SAM-4-8N | 1/4 | 6.35 | 1/2 | 4.31 | 7/8 | 22.22 | 15.75 | 43.43 |
| SAM-5-2N | 5/16 | 7.93 | 1/8 | 5.58 | 7/16 | 11.11 | 16.80 | 32.76 |
| SAM-5-4N | 5/16 | 7.93 | 1/4 | 5.58 | 9/16 | 14.28 | 16.80 | 38.10 |
| SAM-6-2N | 3/8 | 9.52 | 1/4 | 6.86 | 7/16 | 11.11 | 17.50 | 33.50 |
| SAM-6-4N | 3/8 | 9.52 | 1/4 | 6.86 | 9/16 | 14.28 | 17.50 | 38.90 |
| SAM-6-6N | 3/8 | 9.52 | 3/8 | 6.86 | 11/16 | 17.46 | 17.50 | 39.60 |
| SAM-6-8N | 3/8 | 9.52 | 1/2 | 6.86 | 7/8 | 22.22 | 17.50 | 45.20 |
| SAM-8-4N | 1/2 | 12.70 | 1/4 | 9.40 | 9/16 | 14.28 | 23.20 | 44.50 |
| SAM-8-6N | 1/2 | 12.70 | 3/8 | 9.40 | 11/16 | 17.46 | 23.20 | 45.20 |
| SAM-8-8N | 1/2 | 12.70 | 1/2 | 9.40 | 7/8 | 22.22 | 23.20 | 50.50 |
| SAM-10-6N | 5/8 | 15.87 | 3/8 | 11.90 | 11/16 | 17.46 | 24.70 | 47.40 |
| SAM-10-8N | 5/8 | 15.87 | 1/2 | 11.90 | 7/8 | 22.22 | 24.70 | 52.30 |
| SAM-10-12N | 5/8 | 15.87 | 3/4 | 11.90 | 1-1/16 | 26.98 | 24.70 | 52.30 |
| SAM-12-8N | 3/4 | 19.05 | 1/2 | 14.73 | 7/8 | 22.22 | 24.70 | 52.30 |
| SAM-12-12N | 3/4 | 19.05 | 3/4 | 14.73 | 1-1/16 | 26.98 | 24.70 | 52.30 |
| SAM-12-16N | 3/4 | 19.05 | 1 | 14.73 | 1-3/8 | 34.92 | 24.70 | 57.91 |
| SAM-14-12N | 7/8 | 22.22 | 3/4 | 17.27 | 1-1/16 | 26.98 | 26.70 | 54.30 |
| SAM-16-12N | 1 | 25.40 | 3/4 | 20.32 | 1-1/16 | 26.98 | 31.70 | 58.70 |
| SAM-16-16N | 1 | 25.40 | 1 | 20.32 | 1-3/8 | 34.92 | 31.70 | 66.00 |
| SAM-20-20N | 1-1/4 | 31.75 | 1-1/4 | 25.90 | 1-3/4 | 44.45 | 42.00 | 80.26 |
| SAM-24-24N | 1-1/2 | 38.10 | 1-1/2 | 31.75 | 2-1/8 | 53.98 | 51.50 | 94.48 |
| SAM-32-32N | 2 | 50.80 | 2 | 43.68 | 2-3/4 | 69.85 | 68.40 | 119.38 |

Female Adapter

SAF



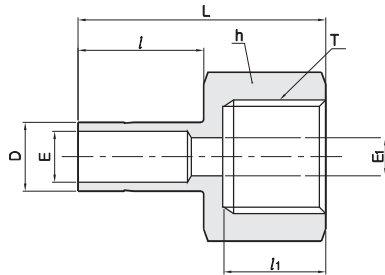
Connects fractional tube to male NPT thread

| Part No. | Tube O.D | | T | E | Width across flat | | I | L |
|------------|----------|-------|--------|-------|-------------------|-------|-------|--------|
| | D | | | | h | | | |
| | in | mm | N(NPT) | Min. | in | mm | | |
| SAF-2-2N | 1/8 | 3.17 | 1/8 | 2.03 | 9/16 | 14.28 | 13.45 | 31.50 |
| SAF-2-4N | 1/8 | 3.17 | 1/4 | 2.03 | 3/4 | 19.05 | 13.45 | 35.30 |
| SAF-3-2N | 3/16 | 4.76 | 1/8 | 3.04 | 9/16 | 14.28 | 14.20 | 32.00 |
| SAF-3-4N | 3/16 | 4.76 | 1/4 | 3.04 | 3/4 | 19.05 | 14.20 | 35.81 |
| SAF-4-2N | 1/4 | 6.35 | 1/8 | 4.31 | 9/16 | 14.28 | 15.75 | 33.02 |
| SAF-4-4N | 1/4 | 6.35 | 1/4 | 4.31 | 3/4 | 19.05 | 15.75 | 37.10 |
| SAF-4-6N | 1/4 | 6.35 | 3/8 | 4.31 | 7/8 | 22.22 | 15.75 | 39.37 |
| SAF-4-8N | 1/4 | 6.35 | 1/2 | 4.31 | 1-1/16 | 26.98 | 15.75 | 45.50 |
| SAF-5-2N | 5/16 | 7.93 | 1/8 | 5.58 | 9/16 | 14.28 | 16.80 | 34.29 |
| SAF-5-4N | 5/16 | 7.93 | 1/4 | 5.58 | 3/4 | 19.05 | 16.80 | 37.59 |
| SAF-6-2N | 3/8 | 9.52 | 1/4 | 6.86 | 9/16 | 14.28 | 17.50 | 34.29 |
| SAF-6-4N | 3/8 | 9.52 | 1/4 | 6.86 | 3/4 | 19.05 | 17.50 | 38.10 |
| SAF-6-6N | 3/8 | 9.52 | 3/8 | 6.86 | 7/8 | 22.22 | 17.50 | 40.38 |
| SAF-6-8N | 3/8 | 9.52 | 1/2 | 6.86 | 1-1/16 | 26.98 | 17.50 | 46.73 |
| SAF-8-4N | 1/2 | 12.70 | 1/4 | 9.40 | 3/4 | 19.05 | 23.20 | 43.43 |
| SAF-8-6N | 1/2 | 12.70 | 3/8 | 9.40 | 7/8 | 22.22 | 23.20 | 45.46 |
| SAF-8-8N | 1/2 | 12.70 | 1/2 | 9.40 | 1-1/16 | 26.98 | 23.20 | 51.80 |
| SAF-10-6N | 5/8 | 15.87 | 3/8 | 11.90 | 7/8 | 22.22 | 24.70 | 48.26 |
| SAF-10-8N | 5/8 | 15.87 | 1/2 | 11.90 | 1-1/16 | 26.98 | 24.70 | 53.84 |
| SAF-10-12N | 5/8 | 15.87 | 3/4 | 11.90 | 1-5/16 | 33.33 | 24.70 | 55.37 |
| SAF-12-8N | 3/4 | 19.05 | 1/2 | 14.73 | 1-1/16 | 26.98 | 24.70 | 52.83 |
| SAF-12-12N | 3/4 | 19.05 | 3/4 | 14.73 | 1-5/16 | 33.33 | 24.70 | 54.86 |
| SAF-12-16N | 3/4 | 19.05 | 1 | 14.73 | 1-5/8 | 41.27 | 24.70 | 58.42 |
| SAF-14-12N | 7/8 | 22.22 | 3/4 | 17.27 | 1-5/16 | 33.33 | 26.70 | 57.15 |
| SAF-16-12N | 1 | 25.40 | 3/4 | 20.32 | 1-5/16 | 33.33 | 31.70 | 60.70 |
| SAF-16-16N | 1 | 25.40 | 1 | 20.32 | 1-5/8 | 41.27 | 31.70 | 64.26 |
| SAF-20-20N | 1-1/4 | 31.75 | 1-1/4 | 25.90 | 2-1/8 | 53.98 | 42.00 | 77.72 |
| SAF-24-24N | 1-1/2 | 38.10 | 1-1/2 | 31.75 | 2-3/8 | 60.33 | 51.50 | 88.90 |
| SAF-32-32N | 2 | 50.80 | 2 | 43.68 | 2-7/8 | 73.03 | 68.40 | 107.44 |

Connects metric tube to male ISO taper thread

| Part No. | Tube O.D | T | E | Width across flat | I | L |
|-------------|----------|-------|------|-------------------|-------|-------|
| | D | R(PT) | Min. | h | | |
| SAF-3M-2R | 3 | 1/8 | 1.9 | 14 | 13.15 | 31.15 |
| SAF-6M-2R | 6 | 1/8 | 4.1 | 14 | 15.75 | 32.50 |
| SAF-6M-4R | 6 | 1/4 | 4.1 | 19 | 15.75 | 37.10 |
| SAF-8M-4R | 8 | 1/4 | 5.6 | 19 | 16.50 | 37.60 |
| SAF-10M-4R | 10 | 1/4 | 7.1 | 19 | 17.50 | 38.10 |
| SAF-10M-6R | 10 | 3/8 | 7.1 | 22 | 17.50 | 40.10 |
| SAF-10M-8R | 10 | 1/2 | 7.1 | 27 | 17.50 | 46.50 |
| SAF-12M-4R | 12 | 1/4 | 8.8 | 19 | 23.50 | 43.70 |
| SAF-12M-6R | 12 | 3/8 | 8.8 | 22 | 23.50 | 46.00 |
| SAF-12M-8R | 12 | 1/2 | 8.8 | 27 | 23.50 | 52.30 |
| SAF-18M-12R | 18 | 3/4 | 13.9 | 32 | 24.90 | 54.80 |

Gauge Adapter
SAG



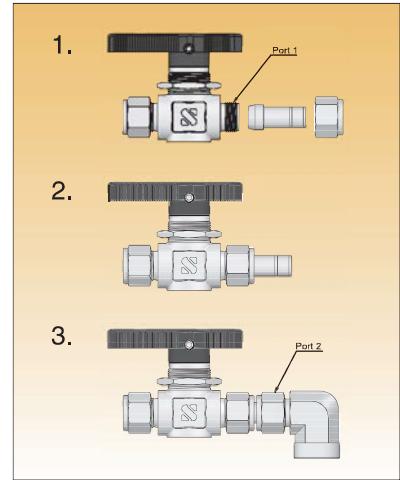
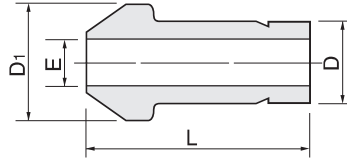
Connects fractional tube to male ISO parallel thread

| Part No. | Tube O.D | | T | E | E ₁ | Width across flat | | I | I ₁ | L |
|----------|----------|-------|-------|------|----------------|-------------------|-------|-------|----------------|-------|
| | D | | | | | h | I | | | |
| | in | mm | G(PF) | Min. | in | | | mm | | |
| SAF-4-2G | 1/4 | 6.35 | 1/8 | 4.31 | 4.57 | 9/16 | 14.28 | 15.75 | 12.0 | 32.00 |
| SAF-4-4G | 1/4 | 6.35 | 1/4 | 4.31 | 5.50 | 3/4 | 19.05 | 15.75 | 12.9 | 35.30 |
| SAF-6-6G | 3/8 | 9.52 | 3/8 | 6.50 | 6.50 | 7/8 | 22.22 | 17.50 | 16.0 | 39.37 |
| SAF-8-8G | 1/2 | 12.70 | 1/2 | 9.40 | 7.00 | 1-1/16 | 26.98 | 23.20 | 18.9 | 45.72 |

Connects metric tube to male ISO parallel thread

| Part No. | Tube O.D | T | E | E ₁ | Width across flat | | I | I ₁ | L |
|------------|----------|-------|------|----------------|-------------------|-------|------|----------------|---|
| | D | G(PF) | Min. | | h | | | | |
| SAG-6M-2G | 6 | 1/8 | 4.1 | 4.0 | 14 | 15.75 | 12.0 | 32.0 | |
| SAG-6M-4G | 6 | 1/4 | 4.1 | 5.5 | 19 | 15.75 | 13.0 | 35.3 | |
| SAG-6M-6G | 6 | 3/8 | 4.1 | 6.5 | 24 | 15.75 | 14.2 | 38.4 | |
| SAG-6M-8G | 6 | 1/2 | 4.1 | 7.0 | 27 | 15.75 | 18.9 | 42.9 | |
| SAG-8M-4G | 8 | 1/4 | 5.6 | 5.5 | 19 | 16.5 | 13.0 | 33.0 | |
| SAG-8M-6G | 8 | 3/8 | 5.6 | 6.5 | 24 | 16.5 | 14.2 | 38.9 | |
| SAG-8M-8G | 8 | 1/2 | 5.6 | 7.0 | 27 | 16.5 | 18.9 | 43.7 | |
| SAG-10M-4G | 10 | 1/4 | 7.1 | 5.5 | 19 | 17.5 | 13.0 | 34.5 | |
| SAG-10M-6G | 10 | 3/8 | 7.1 | 6.5 | 24 | 17.5 | 14.2 | 36.1 | |
| SAG-10M-8G | 10 | 1/2 | 7.1 | 7.0 | 27 | 17.5 | 18.9 | 40.1 | |
| SAG-12M-4G | 12 | 1/4 | 8.8 | 5.5 | 19 | 23.5 | 13.0 | 40.1 | |
| SAG-12M-6G | 12 | 3/8 | 8.8 | 6.5 | 24 | 23.5 | 14.2 | 44.7 | |
| SAG-12M-8G | 12 | 1/2 | 8.8 | 7.0 | 27 | 23.5 | 18.9 | 48.8 | |
| SAG-15M-8G | 15 | 1/2 | 12.7 | 7.0 | 27 | 24.65 | 18.9 | 49.0 | |
| SAG-16M-8G | 16 | 1/2 | 12.7 | 7.0 | 27 | 24.6 | 18.9 | 49.0 | |
| SAG-18M-8G | 18 | 1/2 | 13.9 | 7.0 | 27 | 24.9 | 18.9 | 49.3 | |
| SAG-22M-8G | 22 | 1/2 | 18.3 | 7.0 | 27 | 26.6 | 18.9 | 52.0 | |
| SAG-25M-8G | 25 | 1/2 | 19.8 | 7.0 | 30 | 31.7 | 18.9 | 56.1 | |

Port Connector
SCP



S-LOK port connector facilitates close connection to another port.

Installation Instructions

1. Remove the nut and ferrules from S-LOK port 1 and set nut only (no ferrules) over the port connector
2. Tighten the nut with wrench until sharp rise in torque is felt
3. Insert the other end of port connector into port 2 and tighten nut 1-1/4 turns with wrench. for 1/8", 3mm only 3/4 turn from finger tight.

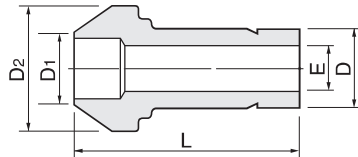
Connects two fractional S-LOK ports

| Part No. | Tube O.D | | E | D ₁ | L |
|----------|----------|-------|-------|----------------|-------|
| | in | mm | | | |
| SCP-1 | 1/16 | 1.59 | 1.00 | 3.30 | 13.72 |
| SCP-2 | 1/8 | 3.17 | 2.03 | 6.09 | 22.35 |
| SCP-4 | 1/4 | 6.35 | 4.31 | 9.39 | 24.64 |
| SCP-5 | 5/16 | 7.93 | 5.58 | 10.92 | 25.90 |
| SCP-6 | 3/8 | 9.52 | 6.86 | 12.70 | 26.16 |
| SCP-8 | 1/2 | 12.70 | 9.40 | 15.74 | 35.81 |
| SCP-12 | 3/4 | 19.05 | 14.73 | 22.09 | 37.33 |
| SCP-16 | 1 | 25.40 | 20.32 | 28.44 | 48.00 |

Connects two metric S-LOK ports

| Part No. | Tube O.D | | E | D ₁ | L |
|----------|----------|------|------|----------------|---|
| | D | Min | | | |
| SCP-3M | 3 | 1.9 | 6.0 | 22.2 | |
| SCP-4M | 4 | 2.2 | 7.0 | 25.8 | |
| SCP-6M | 6 | 4.1 | 9.0 | 24.6 | |
| SCP-8M | 8 | 5.6 | 11.0 | 27.2 | |
| SCP-10M | 10 | 7.1 | 13.1 | 26.1 | |
| SCP-12M | 12 | 8.8 | 15.0 | 35.8 | |
| SCP-15M | 15 | 11.2 | 19.0 | 37.4 | |
| SCP-16M | 16 | 12.0 | 19.0 | 37.4 | |
| SCP-18M | 18 | 13.9 | 21.0 | 37.4 | |
| SCP-20M | 20 | 15.5 | 23.0 | 38.9 | |
| SCP-22M | 22 | 17.9 | 25.0 | 39.2 | |
| SCP-25M | 25 | 19.9 | 28.0 | 48.0 | |
| SCP-28M | 28 | 22.5 | 34.3 | 63.5 | |
| SCP-32M | 32 | 26.5 | 39.5 | 69.7 | |
| SCP-38M | 38 | 31.6 | 47.1 | 81.9 | |

Reducing
Port Connector
SCRP



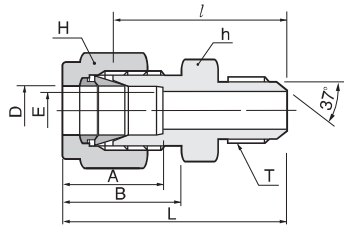
Connects two fractional S-LOK ports

| Part No. | Tube O.D | | | | E Min | D ₂ | L |
|------------|----------------|-------|------|-------|----------|----------------|-------|
| | D ₁ | | D | | | | |
| | in | mm | in | mm | | | |
| SCRP-2-1 | 1/8 | 3.17 | 1/16 | 1.59 | 1.00 | 6.10 | 17.27 |
| SCRP-4-2 | 1/4 | 6.35 | 1/8 | 3.17 | 2.28 | 9.39 | 22.60 |
| SCRP-6-2 | 3/8 | 9.52 | 1/8 | 3.17 | 2.28 | 12.70 | 23.11 |
| SCRP-6-4 | 3/8 | 9.52 | 1/4 | 6.35 | 4.82 | 12.70 | 24.89 |
| SCRP-8-4 | 1/2 | 12.70 | 1/4 | 6.35 | 4.82 | 15.74 | 29.21 |
| SCRP-8-6 | 1/2 | 12.70 | 3/8 | 9.52 | 7.11 | 15.74 | 30.48 |
| SCRP-12-8 | 3/4 | 19.05 | 1/2 | 12.70 | 9.90 | 22.09 | 37.85 |
| SCRP-16-8 | 1 | 25.40 | 1/2 | 12.70 | 9.90 | 28.40 | 42.67 |
| SCRP-16-12 | 1 | 25.40 | 3/4 | 19.05 | 14.98 | 28.40 | 43.43 |

Connects two metric S-LOK ports

| Part No. | Tube O.D | | E | D ₂ | L |
|--------------|----------|----------------|------|----------------|------|
| | D | D ₁ | | | |
| SCRP-6M-3M | 6 | 3 | 1.9 | 9.0 | 22.6 |
| SCRP-8M-6M | 8 | 6 | 4.1 | 11.0 | 24.7 |
| SCRP-10M-6M | 10 | 6 | 4.1 | 13.1 | 25.0 |
| SCRP-10M-8M | 10 | 8 | 5.6 | 13.1 | 26.0 |
| SCRP-12M-6M | 12 | 6 | 4.1 | 15.0 | 29.1 |
| SCRP-12M-8M | 12 | 8 | 5.6 | 15.0 | 29.8 |
| SCRP-12M-10M | 12 | 10 | 7.1 | 15.0 | 30.4 |
| SCRP-16M-6M | 16 | 6 | 4.1 | 19.0 | 30.4 |
| SCRP-16M-12M | 16 | 12 | 8.8 | 19.0 | 36.2 |
| SCRP-28M-25M | 28 | 25 | 19.8 | 34.3 | 56.5 |
| SCRP-32M-25M | 32 | 25 | 19.8 | 39.5 | 60.3 |
| SCRP-38M-25M | 38 | 25 | 19.8 | 47.1 | 65.8 |

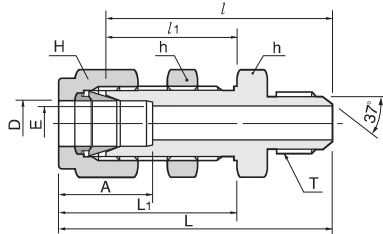
AN Union
SUA



Connects fractional tube to AN sized tube

| Part No. | Tube O.D | | AN Tube Flare Size | Straight Thread | E | Width across flat | | | | A | B | I | L | |
|-----------|----------|-------|--------------------|-----------------|-----------|-------------------|-------|-------|-------|-------|-------|-------|-------|--------|
| | D | | | | | h | | H | | | | | | |
| | in | mm | in | mm | T | Min. | in | mm | in | mm | | | | |
| SUA-1-2 | 1/16 | 1.59 | 1/8 | 3.17 | 5/16-24 | 1.27 | 7/16 | 11.11 | 5/16 | 7.93 | 8.63 | 10.92 | 23.36 | 27.17 |
| SUA-2-2 | 1/8 | 3.17 | 1/8 | 3.17 | 5/16-24 | 1.52 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 24.89 | 31.49 |
| SUA-2-4 | 1/8 | 3.17 | 1/4 | 6.35 | 7/16-20 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 28.44 | 35.05 |
| SUA-4-4 | 1/4 | 6.35 | 1/4 | 6.35 | 7/16-20 | 4.31 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 30.22 | 37.59 |
| SUA-5-5 | 5/16 | 7.93 | 5/16 | 7.93 | 1/2-20 | 5.84 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 30.98 | 38.35 |
| SUA-6-4 | 3/8 | 9.52 | 1/4 | 6.35 | 7/16-20 | 4.31 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 32.25 | 39.62 |
| SUA-6-6 | 3/8 | 9.52 | 3/8 | 9.52 | 9/16-18 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 32.25 | 39.62 |
| SUA-8-8 | 1/2 | 12.70 | 1/2 | 12.70 | 3/4-16 | 9.90 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 35.81 | 45.97 |
| SUA-12-12 | 3/4 | 19.05 | 3/4 | 19.05 | 1-1/16-12 | 15.49 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 24.38 | 21.84 | 43.18 | 53.34 |
| SUA-16-16 | 1 | 25.40 | 1 | 25.40 | 1-5/16-12 | 21.33 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 49.27 | 61.46 |
| SUA-20-20 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 1-5/8-12 | 27.68 | 1-3/4 | 44.45 | 1-7/8 | 47.63 | 41.14 | 38.86 | 55.46 | 77.56 |
| SUA-24-24 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 1-7/8-12 | 34.03 | 2-1/8 | 53.98 | 2-1/4 | 57.15 | 50.03 | 45.21 | 63.07 | 90.25 |
| SUA-32-32 | 2 | 50.80 | 2 | 50.80 | 2-1/2-12 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 83.24 | 120.57 |

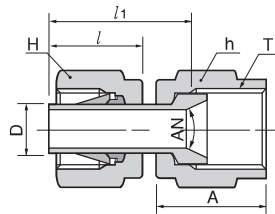
AN Bulkhead Union

SUBA

Connects fractional tube to AN flared tube

| Part No. | Tube O.D | | AN Tube Flare Size | | Straight Thread T | E Min. | Width across flat | | | | A | I | I ₁ | L | L ₁ | Panel Hole Drill Size | Panel Max. Thickness |
|------------|----------|-------|--------------------|-------|----------------------|-----------|-------------------|-------|-------|-------|-------|--------|----------------|--------|----------------|--------------------------|-------------------------|
| | D | | | | | | h | | H | | | | | | | | |
| | in | mm | in | mm | | | in | mm | in | mm | | | | | | | |
| SUBA-2-2 | 1/8 | 3.17 | 1/8 | 3.17 | 5/16-24 | 1.52 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 40.85 | 24.63 | 47.45 | 31.23 | 8.33 | 12.70 |
| SUBA-4-4 | 1/4 | 6.35 | 1/4 | 6.35 | 7/16-20 | 4.31 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 46.48 | 26.16 | 53.84 | 33.52 | 11.50 | 10.16 |
| SUBA-6-6 | 3/8 | 9.52 | 3/8 | 9.52 | 9/16-18 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 49.78 | 29.46 | 57.15 | 36.83 | 14.68 | 11.17 |
| SUBA-8-8 | 1/2 | 12.70 | 1/2 | 12.70 | 3/4-16 | 9.90 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 55.62 | 31.75 | 65.78 | 41.91 | 19.44 | 12.70 |
| SUBA-12-12 | 3/4 | 19.05 | 3/4 | 19.05 | 1-1/16-12 | 15.49 | 1-1/8 | 28.58 | 1-1/8 | 28.58 | 24.38 | 68.83 | 37.33 | 78.99 | 47.49 | 25.79 | 16.76 |
| SUBA-16-16 | 1 | 25.40 | 1 | 25.40 | 1-5/16-12 | 21.33 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 80.26 | 45.21 | 92.45 | 57.40 | 33.73 | 19.05 |
| SUBA-20-20 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 1-5/8-12 | 27.68 | 1-3/4 | 44.45 | 1-7/8 | 47.63 | 41.14 | 86.37 | 47.75 | 108.47 | 69.85 | 41.67 | 19.05 |
| SUBA-24-24 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 1-7/8-12 | 34.03 | 2-1/8 | 53.98 | 2-1/4 | 57.15 | 50.03 | 94.33 | 49.27 | 121.51 | 76.45 | 49.61 | 19.05 |
| SUBA-32-32 | 2 | 50.80 | 2 | 50.80 | 2-1/2-12 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 114.29 | 56.38 | 151.62 | 93.71 | 16.27 | 19.05 |

AN Adapter

SAA

Connects fractional S-LOK port to male AN

| Part No. | Tube O.D | | AN Tube Flare Size | | Straight Thread T | Width across flat | | | | A | I | I ₁ |
|----------|----------|-------|--------------------|-------|----------------------|-------------------|-------|-------|-------|-------|-------|----------------|
| | D | | | | | h | | H | | | | |
| | in | mm | in | mm | | in | mm | in | mm | | | |
| SAA-2-2 | 1/8 | 3.17 | 1/8 | 3.17 | 5/16-24 | 3/8 | 9.52 | 7/16 | 11.11 | 13.71 | 13.46 | 18.54 |
| SAA-2-4 | 1/8 | 3.17 | 1/4 | 6.35 | 7/16-20 | 9/16 | 14.28 | 7/16 | 11.11 | 15.74 | 13.46 | 19.05 |
| SAA-4-4 | 1/4 | 6.35 | 1/4 | 6.35 | 7/16-20 | 9/16 | 14.28 | 9/16 | 14.28 | 15.74 | 15.74 | 21.33 |
| SAA-6-6 | 3/8 | 9.52 | 3/8 | 9.52 | 9/16-18 | 11/16 | 17.46 | 11/16 | 17.46 | 18.28 | 17.52 | 24.89 |
| SAA-8-8 | 1/2 | 12.70 | 1/2 | 12.70 | 3/4-16 | 7/8 | 22.22 | 7/8 | 22.22 | 21.59 | 23.11 | 31.75 |

SAE Fittings

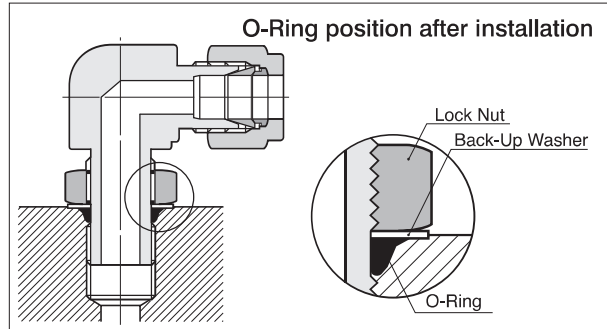
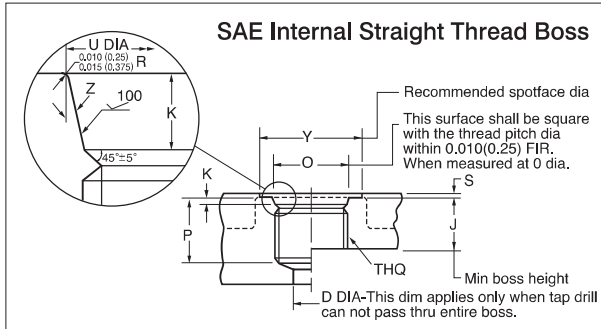
S-LOK SAE straight O-Ring seal fittings are of positionable feature and provide connection tube to straight thread boss. Further this has an advantage of eliminating welding and brazing process when used as bulkhead fitting on thin wall tanks or vessels.

These fittings are designed and manufactured to SAE standards as below:

Male or external fitting end dimensions to SAE J514

Straight thread to SAE J475 (equivalent to ANSI B1.1 or ISO R725)

Female or internal straight thread boss to SAE J1926. See diagram below.



Details of SAE Internal Straight Thread Boss

| Nominal Tube O.D | Thread Size | D | J | K | O | P ^d | U ^a | Y ^c | S ^{b,c} | Z |
|------------------|-------------|------|------|--------|------|----------------|----------------|----------------|------------------|-------|
| | | Min. | Min. | (±0.2) | Min. | Min. | () | | Max | (±1°) |
| 1/8 | 5/16-24 | 1.6 | 10.0 | 1.9 | 11.0 | 12.0 | 9.1 | 17.0 | 1.6 | 12° |
| 3/16 | 3/8-24 | 3.2 | 10.0 | 1.9 | 13.0 | 12.0 | 10.7 | 19.0 | 1.6 | 12° |
| 1/4 | 7/16-20 | 4.4 | 11.5 | 2.4 | 15.0 | 14.0 | 12.4 | 21.0 | 1.6 | 12° |
| 5/16 | 1/2-20 | 6.0 | 11.5 | 2.4 | 16.0 | 14.0 | 14.0 | 23.0 | 1.6 | 12° |
| 3/8 | 9/16-18 | 7.5 | 12.7 | 2.5 | 18.0 | 15.5 | 15.6 | 25.0 | 1.6 | 12° |
| 1/2 | 3/4-16 | 10.0 | 14.3 | 2.5 | 22.0 | 17.5 | 20.6 | 30.0 | 2.4 | 15° |
| 5/8 | 7/8-14 | 12.5 | 16.7 | 2.5 | 26.0 | 20.0 | 23.9 | 34.0 | 2.4 | 15° |
| 3/4 | 1-1/16-12 | 16.0 | 19.0 | 3.2 | 32.0 | 23.0 | 29.2 | 41.0 | 2.4 | 15° |
| 7/8 | 1-3/16-12 | 18.0 | 19.0 | 3.2 | 35.0 | 23.0 | 32.3 | 45.0 | 2.4 | 15° |
| 1 | 1-5/16-12 | 21.0 | 19.0 | 3.2 | 38.0 | 23.0 | 35.5 | 49.0 | 3.2 | 15° |
| 1-1/4 | 1-5/8-12 | 27.0 | 19.0 | 3.2 | 48.0 | 23.0 | 43.5 | 58.0 | 3.2 | 15° |
| 1-1/2 | 1-7/8-12 | 33.0 | 19.0 | 3.2 | 54.0 | 23.0 | 49.8 | 65.0 | 3.2 | 15° |
| 2 | 2-1/2-12 | 70.0 | 19.0 | 3.2 | 70.0 | 23.0 | 65.7 | 88.0 | 3.2 | 15° |

a. Diameter U shall be concentric with the thread pitch diameter within 0.13 full indicator reading (FIR) and shall be free from longitudinal and spiral tool marks. Annular tool marks up to 2.5 micro meters max. shall be permissible.

b. This is the maximum recommended spotface depth to permit sufficient wrench grip for the proper tightening of the fitting or locknut.

c. If the face of the boss is on a machined surface, dimensions Y and S need not apply as long as R 0.25/ 0.375 is maintained to avoid damage to the O-Ring during installation.

d. Tap drill depths given require the use of bottoming taps to produce the specified full thread lengths. Where standard taps are used, the tap drill depths must be increased accordingly.

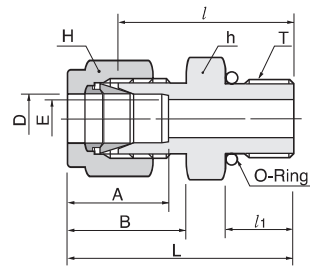
O-ring and straight thread size for SAE fitting bosses

| Nominal Tube O.D | Port Size | Thread Size | O-ring | | |
|------------------|-----------|-------------|----------|--------|------------------|
| | | | Size No. | I.D in | Cross Section in |
| 1/8 | 2 | 5/16-24 | 902 | 0.239 | 0.064 |
| 3/16 | 3 | 3/8-24 | 903 | 0.301 | 0.064 |
| 1/4 | 4 | 7/16-20 | 904 | 0.351 | 0.072 |
| 5/16 | 5 | 1/2-20 | 905 | 0.414 | 0.072 |
| 3/8 | 6 | 9/16-18 | 906 | 0.468 | 0.078 |
| 1/2 | 8 | 3/4-16 | 908 | 0.644 | 0.087 |
| 5/8 | 10 | 7/8-14 | 910 | 0.755 | 0.097 |
| 3/4 | 12 | 1-1/16-12 | 912 | 0.924 | 0.116 |
| 7/8 | 14 | 1-3/16-12 | 914 | 1.048 | 0.116 |
| 1 | 16 | 1-5/16-12 | 916 | 1.171 | 0.116 |
| 1-1/4 | 20 | 1-5/8-12 | 920 | 1.475 | 0.118 |
| 1-1/2 | 24 | 1-7/8-12 | 924 | 1.720 | 0.118 |
| 2 | 32 | 2-1/2-12 | 932 | 2.337 | 0.118 |

Installation Instruction

- Step 1. Ensure the locknut is fully raised.
- Step 2. Lubricate the O-Ring with a light oil or petroleum and turn the fitting into the straight thread boss until the metal washer is in contact with the boss.
- Step 3. Position the fitting by backing it out (not more than 1 turn counter-clockwise) until the S-LOK fitting is oriented in the desired direction.
- Step 4. With a back up wrench, hold the wrench pad and tighten the locknut until the washer is set against the face of the boss.

SAE Male Connector
SMCS

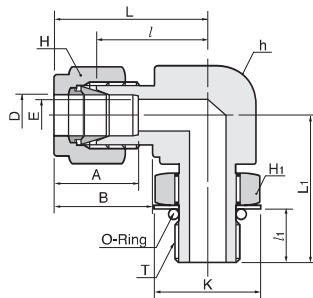


Connects fractional tube to SAE straight thread boss

| Part No. | Tube O.D | | Straight Thread | E | Width across flat | | | | A | B | I | I ₁ | L | O-Ring Uniform Size No. |
|-------------|----------|-------|-----------------|-------|-------------------|-------|-------|-------|-------|-------|-------|----------------|--------|-------------------------|
| | D | | | | T | h | | H | | | | | | |
| | in | mm | Min. | in | | mm | in | | mm | | | | | |
| SMCS-2-2U | 1/8 | 3.17 | 5/16-24 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 23.26 | 7.62 | 29.97 | -902 |
| SMCS-4-4U | 1/4 | 6.35 | 7/16-20 | 4.82 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 26.67 | 9.14 | 34.03 | -904 |
| SMCS-4-6U | 1/4 | 6.35 | 9/16-18 | 4.82 | 11/16 | 17.46 | 9/16 | 14.28 | 15.24 | 17.78 | 28.19 | 9.90 | 35.56 | -906 |
| SMCS-4-8U | 1/4 | 6.35 | 3/4-16 | 4.82 | 7/8 | 22.22 | 9/16 | 14.28 | 15.24 | 17.78 | 30.22 | 11.17 | 37.59 | -908 |
| SMCS-4-10U | 1/4 | 6.35 | 7/8-14 | 4.82 | 1 | 25.40 | 9/16 | 14.28 | 15.24 | 17.78 | 33.27 | 12.70 | 40.64 | -910 |
| SMCS-5-5U | 5/16 | 7.93 | 1/2-20 | 5.84 | 5/8 | 15.87 | 5/8 | 15.87 | 16.25 | 18.54 | 27.43 | 9.14 | 34.79 | -905 |
| SMCS-6-4U | 3/8 | 9.52 | 7/16-20 | 5.08 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 28.19 | 9.14 | 35.56 | -904 |
| SMCS-6-6U | 3/8 | 9.52 | 9/16-18 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 29.71 | 9.90 | 37.08 | -906 |
| SMCS-6-8U | 3/8 | 9.52 | 3/4-16 | 7.11 | 7/8 | 22.22 | 11/16 | 17.46 | 16.76 | 19.30 | 31.75 | 11.17 | 39.11 | -908 |
| SMCS-6-10U | 3/8 | 9.52 | 7/8-14 | 7.11 | 1 | 25.40 | 11/16 | 17.46 | 16.76 | 19.30 | 34.79 | 12.70 | 42.16 | -910 |
| SMCS-8-6U | 1/2 | 12.70 | 9/16-18 | 7.11 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 28.95 | 9.90 | 39.11 | -906 |
| SMCS-8-8U | 1/2 | 12.70 | 3/4-16 | 10.41 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 31.75 | 11.17 | 41.91 | -908 |
| SMCS-8-10U | 1/2 | 12.70 | 7/8-14 | 10.41 | 1 | 25.40 | 7/8 | 22.22 | 22.86 | 21.84 | 34.79 | 12.70 | 44.95 | -910 |
| SMCS-8-12U | 1/2 | 12.70 | 1-1/16-12 | 10.41 | 1-1/4 | 31.75 | 7/8 | 22.22 | 22.86 | 21.84 | 38.86 | 14.98 | 49.02 | -912 |
| SMCS-10-8U | 5/8 | 15.87 | 3/4-16 | 10.66 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 31.75 | 11.17 | 41.91 | -908 |
| SMCS-10-10U | 5/8 | 15.87 | 7/8-14 | 12.70 | 1 | 25.40 | 1 | 25.40 | 24.38 | 21.84 | 35.05 | 12.70 | 45.21 | -910 |
| SMCS-12-8U | 3/4 | 19.05 | 3/4-16 | 10.66 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 35.81 | 11.17 | 45.97 | -908 |
| SMCS-12-12U | 3/4 | 19.05 | 1-1/16-12 | 15.74 | 1-1/4 | 31.75 | 1-1/8 | 28.58 | 24.38 | 21.84 | 38.86 | 14.98 | 49.02 | -912 |
| SMCS-14-14U | 7/8 | 22.22 | 1-3/16-12 | 18.28 | 1-3/8 | 34.92 | 1-1/4 | 31.75 | 25.90 | 21.84 | 38.86 | 14.98 | 49.02 | -914 |
| SMCS-16-12U | 1 | 25.40 | 1-1/16-12 | 16.76 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 41.14 | 14.98 | 53.34 | -912 |
| SMCS-16-16U | 1 | 25.40 | 1-5/16-12 | 22.35 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 31.24 | 26.41 | 42.16 | 14.98 | 54.35 | -916 |
| SMCS-20-20U | 1-1/4 | 31.75 | 1-5/8-12 | 27.68 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 41.14 | 38.86 | 46.22 | 14.98 | 68.32 | -920 |
| SMCS-24-24U | 1-1/2 | 38.10 | 1-7/8-12 | 34.03 | 2-1/8 | 53.98 | 2-1/4 | 57.15 | 50.03 | 45.21 | 50.54 | 14.98 | 77.72 | -924 |
| SMCS-32-32U | 2 | 50.80 | 2-1/2-12 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 64.26 | 14.98 | 101.60 | -932 |

Positionable
SAE Male Elbow

SLS

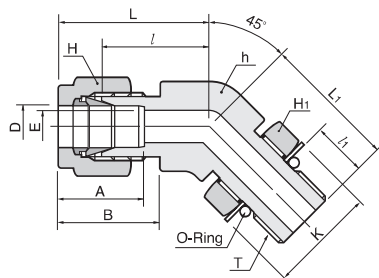


Connects fractional tube to SAE straight thread boss

| Part No. | Tube O.D | | Straight Thread T | E | Width across flat | | | | | A | B | I | I ₁ | L | L ₁ | K | O-Ring Uniform Size No. | |
|------------|----------|-------|----------------------|-------|-------------------|-------|----------------|-------|----------------|-------|-------|-------|----------------|-------|----------------|-------|-------------------------------|------|
| | D | | | | h | H | H ₁ | L | L ₁ | | | | | | | | | K |
| | in | mm | | | | | | | | | | | | | | | | |
| SLS-4-4U | 1/4 | 6.35 | 7/16-20 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 21.08 | 9.90 | 28.44 | 28.44 | 16.51 | -904 |
| SLS-5-5U | 5/16 | 7.93 | 1/2-20 | 5.84 | 9/16 | 14.28 | 5/8 | 15.87 | 5/8 | 15.87 | 16.25 | 18.54 | 22.86 | 9.90 | 30.22 | 29.46 | 18.28 | -905 |
| SLS-6-6U | 3/8 | 9.52 | 9/16-18 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 24.63 | 11.17 | 32.00 | 32.25 | 20.06 | -906 |
| SLS-6-8U | 3/8 | 9.52 | 3/4-16 | 7.11 | 13/16 | 20.64 | 11/16 | 17.46 | 7/8 | 22.22 | 16.76 | 19.30 | 27.43 | 12.70 | 34.79 | 37.84 | 25.65 | -908 |
| SLS-8-8U | 1/2 | 12.70 | 3/4-16 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 27.43 | 12.70 | 37.59 | 37.84 | 25.65 | -908 |
| SLS-10-10U | 5/8 | 15.87 | 7/8-14 | 12.70 | 1 | 25.40 | 1 | 25.40 | 1 | 25.40 | 24.38 | 21.84 | 29.46 | 14.22 | 39.62 | 43.43 | 29.46 | -910 |
| SLS-12-12U | 3/4 | 19.05 | 1-1/16-12 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 1-1/4 | 31.75 | 24.38 | 21.84 | 31.24 | 16.76 | 41.40 | 48.76 | 36.57 | -912 |
| SLS-14-14U | 7/8 | 22.22 | 1-3/16-12 | 18.28 | 1-1/4 | 31.75 | 1-1/4 | 31.75 | 1-3/8 | 34.92 | 25.90 | 21.84 | 33.02 | 16.76 | 43.18 | 50.54 | 40.38 | -914 |
| SLS-16-16U | 1 | 25.40 | 1-5/16-12 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 31.24 | 26.41 | 38.35 | 16.76 | 50.54 | 53.59 | 43.94 | -916 |
| SLS-20-20U | 1-1/4 | 31.75 | 1-5/8-12 | 27.68 | 1-11/16 | 42.76 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 41.14 | 38.86 | 45.72 | 16.76 | 67.81 | 58.16 | 54.86 | -920 |
| SLS-24-24U | 1-1/2 | 38.10 | 1-7/8-12 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 2-1/8 | 53.98 | 50.03 | 45.21 | 50.80 | 16.76 | 77.97 | 60.45 | 62.23 | -924 |
| SLS-32-32U | 2 | 50.80 | 2-1/2-12 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 2-3/4 | 69.85 | 67.56 | 62.73 | 69.85 | 16.76 | 107.18 | 71.62 | 80.26 | -932 |

Positionable
45° SAE Male Elbow

SLBS

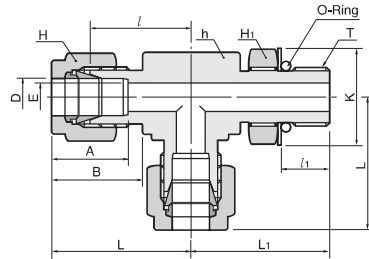


Connects fractional tube to SAE straight thread boss

| Part No. | Tube O.D | | Straight Thread T | E | Width across flat | | | | | A | B | I | I ₁ | L | L ₁ | K | O-Ring Uniform Size No. | |
|-------------|----------|-------|----------------------|-------|-------------------|-------|----------------|-------|----------------|-------|-------|-------|----------------|-------|----------------|-------|-------------------------------|------|
| | D | | | | h | H | H ₁ | L | L ₁ | | | | | | | | | K |
| | in | mm | | | | | | | | | | | | | | | | |
| SLBS-4-4U | 1/4 | 6.35 | 7/16-20 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 21.08 | 9.90 | 28.44 | 28.44 | 16.51 | -904 |
| SLBS-6-6U | 3/8 | 9.52 | 9/16-18 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 24.63 | 11.17 | 32.00 | 32.25 | 20.06 | -906 |
| SLBS-8-8U | 1/2 | 12.70 | 3/4-16 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 27.43 | 12.70 | 37.59 | 37.84 | 25.65 | -908 |
| SLBS-12-12U | 3/4 | 19.05 | 1-1/16-12 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 1-1/4 | 31.75 | 24.38 | 21.84 | 31.24 | 16.76 | 41.40 | 48.76 | 36.57 | -912 |
| SLBS-16-16U | 1 | 25.40 | 1-5/16-12 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 31.24 | 26.41 | 38.35 | 16.76 | 50.54 | 53.59 | 43.94 | -916 |

Positionable
SAE Male Run Tee

STRS

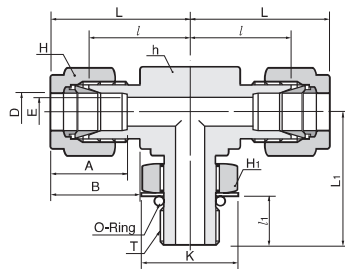


Connects fractional tube to SAE straight thread boss

| Part No. | Tube O.D | | Straight Thread | E | Width across flat | | | A | B | I | I ₁ | L | L ₁ | K | O-Ring Uniform Size No. | | | |
|-------------|----------|-------|-----------------|-------|-------------------|-------|-------|-------|-------|-------|----------------|-------|----------------|-------|-------------------------|----------------|-------|------|
| | D | D | | | T | h | H | | | | | | | | | H ₁ | | |
| | in | mm | T | Min. | in | mm | in | mm | in | mm | | | | | | | | |
| STRS-4-4U | 1/4 | 6.35 | 7/16-20 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 21.08 | 9.90 | 28.44 | 28.44 | 16.51 | -904 |
| STRS-6-6U | 3/8 | 9.52 | 9/16-18 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 24.63 | 11.17 | 32.00 | 32.25 | 20.06 | -906 |
| STRS-8-8U | 1/2 | 12.70 | 3/4-16 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 27.43 | 12.70 | 37.59 | 37.84 | 25.65 | -908 |
| STRS-12-12U | 3/4 | 19.05 | 1-1/16-12 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 1-1/4 | 31.75 | 24.38 | 21.84 | 31.24 | 16.76 | 41.40 | 48.76 | 36.57 | -912 |
| STRS-16-16U | 1 | 25.40 | 1-5/16-12 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 31.24 | 26.41 | 38.35 | 16.76 | 50.54 | 53.59 | 43.94 | -916 |
| STRS-20-20U | 1-1/4 | 31.75 | 1-5/8-12 | 27.68 | 1-11/16 | 42.76 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 41.14 | 38.86 | 45.72 | 16.76 | 67.81 | 58.16 | 54.86 | -920 |
| STRS-24-24U | 1-1/2 | 38.10 | 1-7/8-12 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 2-1/8 | 53.98 | 50.03 | 45.21 | 50.80 | 16.76 | 77.97 | 60.45 | 62.23 | -924 |
| STRS-32-32U | 2 | 50.80 | 2-1/2-12 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 2-3/4 | 69.85 | 67.56 | 62.73 | 69.85 | 16.76 | 107.18 | 71.62 | 80.26 | -932 |

Positionable
SAE Male Branch Tee

STBS



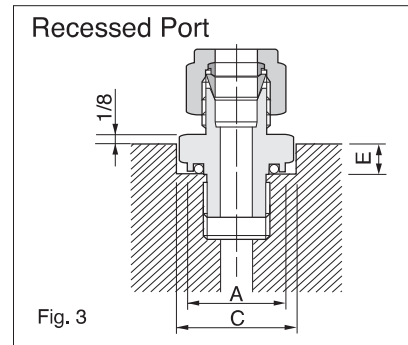
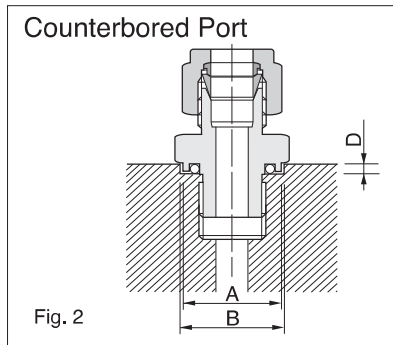
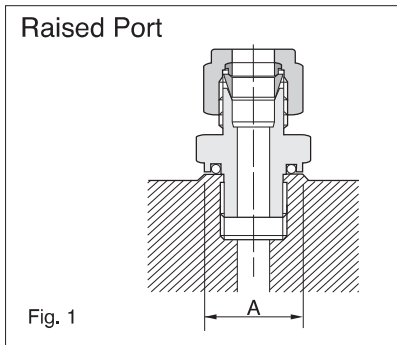
Connects fractional tube to SAE straight thread boss

| Part No. | Tube O.D | | Straight Thread | E | Width across flat | | | A | B | I | I ₁ | L | L ₁ | K | O-Ring Uniform Size No. | | | |
|-------------|----------|-------|-----------------|-------|-------------------|-------|-------|-------|-------|-------|----------------|-------|----------------|-------|-------------------------|----------------|-------|------|
| | D | D | | | T | h | H | | | | | | | | | H ₁ | | |
| | in | mm | T | Min. | in | mm | in | mm | in | mm | | | | | | | | |
| STBS-4-4U | 1/4 | 6.35 | 7/16-20 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 21.08 | 9.90 | 28.44 | 28.44 | 16.51 | -904 |
| STBS-6-6U | 3/8 | 9.52 | 9/16-18 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 24.63 | 11.17 | 32.00 | 32.25 | 20.06 | -906 |
| STBS-8-8U | 1/2 | 12.70 | 3/4-16 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 27.43 | 12.70 | 37.59 | 37.84 | 25.65 | -908 |
| STBS-12-12U | 3/4 | 19.05 | 1-1/16-12 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 1-1/4 | 31.75 | 24.38 | 21.84 | 31.24 | 16.76 | 41.40 | 48.76 | 36.57 | -912 |
| STBS-16-16U | 1 | 25.40 | 1-5/16-12 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 1-1/2 | 38.10 | 31.24 | 26.41 | 38.35 | 16.76 | 50.54 | 53.59 | 43.94 | -916 |
| STBS-20-20U | 1-1/4 | 31.75 | 1-5/8-12 | 27.68 | 1-11/16 | 42.76 | 1-7/8 | 47.63 | 1-7/8 | 47.63 | 41.14 | 38.86 | 45.72 | 16.76 | 67.81 | 58.16 | 54.86 | -920 |
| STBS-24-24U | 1-1/2 | 38.10 | 1-7/8-12 | 34.03 | 2 | 50.80 | 2-1/4 | 57.15 | 2-1/8 | 53.98 | 50.03 | 45.21 | 50.80 | 16.76 | 77.97 | 60.45 | 62.23 | -924 |
| STBS-32-32U | 2 | 50.80 | 2-1/2-12 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 2-3/4 | 69.85 | 67.56 | 62.73 | 69.85 | 16.76 | 107.18 | 71.62 | 80.26 | -932 |

O-Seal Connector

S-LOK O-Ring seal fittings provide leak-tight sealing on both vacuum and high pressure with a smooth & at surface perpendicular to the threaded port to ensure metal to metal contact.

The standard Buna N O-Ring is contained in a precision groove to prevent O-Ring extrusion at high pressure and for a controlled squeeze in a vacuum service.



Mounting Dimensions for O-seal connectors

| S-LOK Part No. | Straight Thread | Pipe Thread | Diameter | | | | | | Depth | | | |
|----------------|-----------------|-------------|----------|------|------|------|------|------|-------|-----|------|------|
| | | | A | | B | | C | | D | | E | |
| | | | Min. | mm | Min. | mm | Min. | mm | Max. | mm | Max. | mm |
| SCOS-2-2U | 5/16-24 | - | 0.50 | 12.7 | 0.59 | 15.0 | 0.66 | 16.8 | 0.09 | 2.3 | 0.16 | 5.6 |
| SCOS-3-3U | 3/8-24 | - | 0.56 | 14.2 | 0.66 | 16.8 | 0.75 | 19.1 | 0.09 | 2.3 | 0.22 | 5.6 |
| SCOS-4-4U | 7/16-20 | - | 0.69 | 17.5 | 0.78 | 19.8 | 0.88 | 22.4 | 0.16 | 4.1 | 0.28 | 7.1 |
| SCOS-5-5U | 1/2-20 | - | 0.75 | 19.1 | 0.91 | 23.1 | 1.03 | 26.2 | 0.16 | 4.1 | 0.31 | 7.9 |
| SCOS-6-6U | 9/16-18 | - | 0.81 | 20.6 | 0.97 | 24.6 | 1.09 | 27.7 | 0.16 | 4.1 | 0.31 | 7.9 |
| SCOS-8-8U | 3/4-16 | - | 1.00 | 25.4 | 1.16 | 29.5 | 1.31 | 33.3 | 0.16 | 4.1 | 0.34 | 8.6 |
| SCOS-12-12U | 1-1/16-12 | - | 1.41 | 35.8 | 1.53 | 38.9 | 1.75 | 44.5 | 0.22 | 5.6 | 0.50 | 12.7 |
| SCOS-16-16U | 1-5/16-12 | - | 1.69 | 42.9 | 1.78 | 45.2 | 2.03 | 51.6 | 0.22 | 5.6 | 0.56 | 14.2 |
| SCOP-2-2N | - | 1/8 | 0.69 | 17.5 | 0.78 | 19.8 | 0.88 | 22.4 | 0.16 | 4.1 | 0.28 | 7.1 |
| SCOP-4-2N | - | 1/8 | 0.69 | 17.5 | 0.78 | 19.8 | 0.88 | 22.4 | 0.16 | 4.1 | 0.28 | 7.1 |
| SCOP-4-4N | - | 1/4 | 0.87 | 22.1 | 0.97 | 24.6 | 1.09 | 27.7 | 0.16 | 4.1 | 0.31 | 7.9 |
| SCOP-6-6N | - | 3/8 | 1.00 | 25.4 | 1.16 | 29.5 | 1.31 | 33.3 | 0.16 | 4.1 | 0.34 | 8.6 |
| SCOP-6-8N | - | 1/2 | 1.22 | 31.0 | 1.34 | 34.0 | 1.53 | 38.9 | 0.22 | 5.6 | 0.44 | 11.2 |
| SCOP-8-8N | - | 1/2 | 1.22 | 31.0 | 1.34 | 34.0 | 1.53 | 38.9 | 0.22 | 5.6 | 0.44 | 11.2 |

When installing an O-Ring seal fitting:

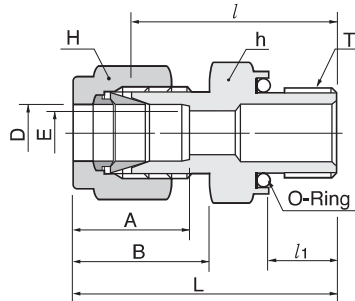
1. Hand-tighten it until the squeeze on the O-Ring can be felt during the last 1/4 turn
2. Snug the fitting lightly with a wrench

When connecting & disconnecting the tubing to the O-Ring fitting:

1. Use a back-up wrench on the fitting hex so it does not turn while the nut is being tightened at the tubing connection.
2. When disconnecting the tubing also use a back-up wrench so the fitting does not turn
3. For a recessed port, use a thin back-up wrench(1/8") to hold the fitting hex (Fig. 3).

O-Seal Straight Thread Connector

SCOS

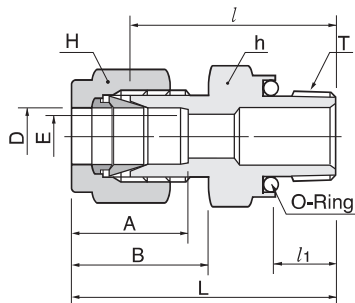


Connects fractional tube to straight thread

| Part No. | Tube O.D | | Straight Thread | E | Width across flat | | | | A | B | I | I ₁ | L | O-Ring Uniform Size No. |
|-------------|----------|-------|-----------------|-------|-------------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------------------------|
| | D | | | | T | h | | H | | | | | | |
| | in | mm | T | Min. | in | mm | in | mm | | | | | | |
| SCOS-2-2U | 1/8 | 3.17 | 5/16-24 | 2.28 | 9/16 | 14.28 | 7/16 | 11.11 | 12.70 | 15.24 | 26.16 | 8.63 | 32.76 | -011 |
| SCOS-3-3U | 3/16 | 4.76 | 3/8-24 | 3.04 | 5/8 | 15.87 | 1/2 | 12.70 | 13.71 | 16.00 | 27.68 | 9.65 | 34.29 | -012 |
| SCOS-4-4U | 1/4 | 6.35 | 7/16-20 | 4.82 | 3/4 | 19.05 | 9/16 | 14.28 | 15.24 | 17.78 | 30.98 | 10.41 | 38.35 | -111 |
| SCOS-5-5U | 5/16 | 7.93 | 1/2-20 | 6.35 | 7/8 | 22.22 | 5/8 | 15.87 | 16.25 | 18.54 | 33.27 | 11.17 | 40.64 | -112 |
| SCOS-6-6U | 3/8 | 9.52 | 9/16-18 | 7.11 | 15/16 | 23.81 | 11/16 | 17.46 | 16.76 | 19.30 | 35.05 | 11.93 | 42.41 | -113 |
| SCOS-8-8U | 1/2 | 12.70 | 3/4-16 | 10.41 | 1-1/8 | 28.57 | 7/8 | 22.22 | 22.86 | 21.84 | 35.81 | 11.93 | 45.97 | -116 |
| SCOS-12-12U | 3/4 | 19.05 | 1-1/16-12 | 15.74 | 1-1/2 | 38.10 | 1-1/8 | 28.58 | 24.38 | 21.84 | 42.16 | 14.22 | 52.32 | -215 |
| SCOS-16-16U | 1 | 25.40 | 1-5/16-12 | 22.35 | 1-3/4 | 44.45 | 1-1/2 | 38.10 | 31.24 | 26.41 | 45.97 | 14.22 | 58.16 | -219 |

O-Seal Pipe Thread Connector

SCOP



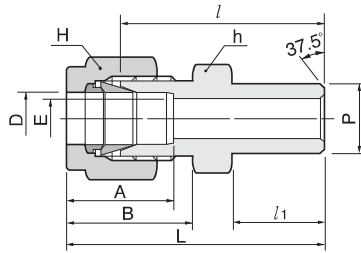
Connects fractional tube to NPT thread

| Part No. | Tube O.D | | T | E | Width across flat | | | | A | B | I | I ₁ | L | O-Ring Uniform Size No. |
|-----------|----------|-------|-----|-------|-------------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------------------------|
| | D | | | | *(NPT) | Min. | h | | | | | | | |
| | in | mm | | Min. | in | mm | in | mm | | | | | | |
| SCOP-2-2N | 1/8 | 3.17 | 1/8 | 2.28 | 3/4 | 19.05 | 7/16 | 11.11 | 12.70 | 15.24 | 26.16 | 7.11 | 32.76 | -111 |
| SCOP-4-2N | 1/4 | 6.35 | 1/8 | 4.82 | 3/4 | 19.05 | 9/16 | 14.28 | 15.24 | 17.78 | 27.68 | 7.11 | 35.05 | -111 |
| SCOP-4-4N | 1/4 | 6.35 | 1/4 | 4.82 | 15/16 | 23.81 | 9/16 | 14.28 | 15.24 | 17.78 | 30.98 | 9.65 | 38.35 | -113 |
| SCOP-6-4N | 3/8 | 9.52 | 1/4 | 7.11 | 15/16 | 23.81 | 11/16 | 17.46 | 16.76 | 19.30 | 32.51 | 9.65 | 39.87 | -113 |
| SCOP-6-6N | 3/8 | 9.52 | 3/8 | 7.11 | 1-1/8 | 28.58 | 11/16 | 17.46 | 16.76 | 19.30 | 34.03 | 10.41 | 41.40 | -116 |
| SCOP-6-8N | 3/8 | 9.52 | 1/2 | 7.11 | 1-5/16 | 33.33 | 11/16 | 17.46 | 16.76 | 19.30 | 39.62 | 13.46 | 46.99 | -212 |
| SCOP-8-8N | 1/2 | 12.70 | 1/2 | 10.41 | 1-5/16 | 33.33 | 7/8 | 22.22 | 22.86 | 21.84 | 39.62 | 13.46 | 49.78 | -212 |

* ISO parallel threads are available upon request.

Male Pipe
Weld Connector

SCW



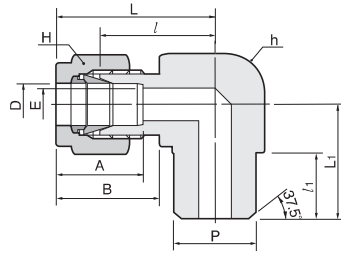
Connects fractional tube to pipe

| Part No. | Tube O.D | | Male Pipe Size | | E | Width across flat | | | | A | B | I | I ₁ | L |
|------------|----------|-------|----------------|-------|-------|-------------------|-------|-------|-------|-------|-------|-------|----------------|--------|
| | D | | P | | | h | | H | | | | | | |
| | in | mm | NPS | O.D | | in | mm | in | mm | | | | | |
| SCW-2-2P | 1/8 | 3.17 | 1/8 | 10.29 | 2.28 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 23.20 | 9.65 | 31.24 |
| SCW-3-2P | 3/16 | 4.76 | 1/8 | 10.29 | 3.04 | 7/16 | 11.11 | 1/2 | 12.70 | 13.71 | 16.00 | 24.63 | 9.65 | 31.24 |
| SCW-4-2P | 1/4 | 6.35 | 1/8 | 10.29 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 25.40 | 9.65 | 32.76 |
| SCW-4-4P | 1/4 | 6.35 | 1/4 | 13.72 | 4.82 | 9/16 | 14.28 | 9/16 | 14.28 | 15.24 | 17.78 | 30.48 | 14.22 | 37.84 |
| SCW-5-2P | 5/16 | 7.93 | 1/8 | 10.29 | 5.08 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 26.67 | 9.65 | 34.03 |
| SCW-5-4P | 5/16 | 7.93 | 1/4 | 13.72 | 6.35 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 31.24 | 14.22 | 38.60 |
| SCW-6-4P | 3/8 | 9.52 | 1/4 | 13.72 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 32.51 | 14.22 | 39.87 |
| SCW-6-6P | 3/8 | 9.52 | 3/8 | 17.15 | 7.11 | 11/16 | 17.46 | 11/16 | 17.46 | 16.76 | 19.30 | 32.51 | 14.22 | 39.87 |
| SCW-6-8P | 3/8 | 9.52 | 1/2 | 21.34 | 7.11 | 7/8 | 22.22 | 11/16 | 17.46 | 16.76 | 19.30 | 38.86 | 19.05 | 46.26 |
| SCW-8-6P | 1/2 | 12.70 | 3/8 | 17.15 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 33.27 | 14.22 | 43.43 |
| SCW-8-8P | 1/2 | 12.70 | 1/2 | 21.34 | 10.41 | 7/8 | 22.22 | 7/8 | 22.22 | 22.86 | 21.84 | 38.86 | 19.05 | 49.02 |
| SCW-8-12P | 1/2 | 12.70 | 3/4 | 26.67 | 10.41 | 1-1/16 | 26.98 | 7/8 | 22.22 | 22.86 | 21.84 | 40.38 | 19.05 | 50.54 |
| SCW-10-8P | 5/8 | 15.87 | 1/2 | 21.34 | 12.70 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 38.86 | 19.05 | 49.02 |
| SCW-12-12P | 3/4 | 19.05 | 3/4 | 26.67 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 40.38 | 19.05 | 50.54 |
| SCW-16-16P | 1 | 25.40 | 1 | 33.40 | 22.35 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 50.03 | 23.87 | 62.23 |
| SCW-20-20P | 1-1/4 | 31.75 | 1-1/4 | 42.16 | 27.68 | 1-3/4 | 44.45 | 1-7/8 | 47.63 | 41.14 | 38.86 | 55.11 | 23.87 | 77.21 |
| SCW-24-24P | 1-1/2 | 38.10 | 1-1/2 | 48.26 | 34.03 | 2-1/8 | 53.98 | 2-1/4 | 57.15 | 50.03 | 45.21 | 61.72 | 26.16 | 88.90 |
| SCW-32-32P | 2 | 50.80 | 2 | 60.33 | 45.97 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 76.20 | 26.92 | 113.53 |

Connects metric tube to pipe

| Part No. | Tube O.D | | Male Pipe Size | | E | Width across flat | | A | B | I | I ₁ | L |
|-------------|----------|--|----------------|-------|------|-------------------|----|------|------|------|----------------|------|
| | D | | P | | | h | | | | | | |
| | | | NPS | O.D | | Min. | H | | | | | |
| SCW-3M-2P | 3 | | 1/8 | 10.29 | 2.4 | 12 | 12 | 12.9 | 15.3 | 23.1 | 9.7 | 29.7 |
| SCW-4M-2P | 4 | | 1/8 | 10.29 | 2.4 | 12 | 12 | 13.7 | 16.1 | 24.1 | 9.7 | 30.7 |
| SCW-6M-2P | 6 | | 1/8 | 10.29 | 4.8 | 14 | 14 | 15.3 | 17.7 | 25.4 | 9.7 | 32.8 |
| SCW-6M-4P | 6 | | 1/4 | 13.72 | 4.8 | 14 | 14 | 15.3 | 17.7 | 30.2 | 14.2 | 37.6 |
| SCW-8M-2P | 8 | | 1/8 | 10.29 | 5.1 | 15 | 16 | 16.2 | 18.6 | 26.7 | 9.7 | 34.2 |
| SCW-8M-4P | 8 | | 1/4 | 13.72 | 6.4 | 15 | 16 | 16.2 | 18.6 | 31.2 | 14.2 | 38.7 |
| SCW-8M-8P | 8 | | 1/2 | 21.34 | 6.4 | 22 | 16 | 16.2 | 18.6 | 37.3 | 19.0 | 44.8 |
| SCW-10M-4P | 10 | | 1/4 | 13.72 | 7.1 | 18 | 19 | 17.2 | 19.5 | 33.3 | 14.2 | 40.9 |
| SCW-10M-6P | 10 | | 3/8 | 17.15 | 7.9 | 18 | 19 | 17.2 | 19.5 | 32.5 | 14.2 | 40.1 |
| SCW-10M-8P | 10 | | 1/2 | 21.34 | 7.9 | 22 | 19 | 17.2 | 19.5 | 38.1 | 19.0 | 45.7 |
| SCW-12M-4P | 12 | | 1/4 | 13.72 | 7.1 | 22 | 22 | 22.8 | 22.0 | 33.3 | 14.2 | 43.4 |
| SCW-12M-6P | 12 | | 3/8 | 17.15 | 9.5 | 22 | 22 | 22.8 | 22.0 | 33.3 | 14.2 | 43.4 |
| SCW-12M-8P | 12 | | 1/2 | 21.34 | 9.5 | 22 | 22 | 22.8 | 22.0 | 38.1 | 19.0 | 48.2 |
| SCW-14M-6P | 14 | | 3/8 | 17.15 | 10.3 | 24 | 25 | 24.4 | 22.0 | 34.0 | 14.2 | 44.1 |
| SCW-15M-8P | 15 | | 1/2 | 21.34 | 11.9 | 24 | 25 | 24.4 | 22.0 | 38.9 | 19.0 | 49.0 |
| SCW-18M-8P | 18 | | 1/2 | 21.34 | 12.7 | 24 | 25 | 24.4 | 22.0 | 38.9 | 19.0 | 49.0 |
| SCW-18M-8P | 18 | | 1/2 | 21.34 | 13.5 | 27 | 30 | 24.4 | 22.0 | 40.4 | 19.0 | 50.5 |
| SCW-32M-20P | 32 | | 1-1/4 | 42.16 | 28.6 | 46 | 50 | 42.0 | 41.6 | 56.6 | 23.9 | 49.6 |
| SCW-38M-24P | 38 | | 1-1/2 | 48.26 | 33.7 | 55 | 60 | 49.4 | 47.9 | 64.0 | 26.2 | 91.6 |

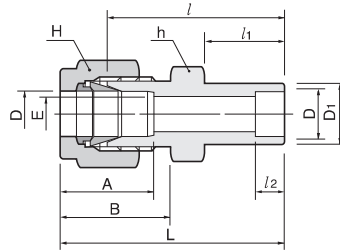
Male Pipe
Weld Elbow
SLW



Connects fractional tube to pipe

| Part No. | Tube O.D | | Male Pipe Size | | E | Width across flat | | | | A | B | I | I ₁ | L | L ₁ |
|------------|----------|-------|----------------|-------|-------|-------------------|-------|-------|-------|-------|-------|-------|----------------|-------|----------------|
| | D | | P | | | h | | | | | | | | | |
| | in | mm | NPS | O.D | | Min. | in | mm | in | | | | | | |
| SLW-2-2P | 1/8 | 3.17 | 1/8 | 10.29 | 2.28 | 1/2 | 12.70 | 7/16 | 11.11 | 12.70 | 15.24 | 19.55 | 9.65 | 26.92 | 18.79 |
| SLW-4-4P | 1/4 | 6.35 | 1/4 | 13.72 | 4.82 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 14.22 | 26.92 | 23.36 |
| SLW-6-4P | 3/8 | 9.52 | 1/4 | 13.72 | 7.11 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 14.22 | 30.48 | 25.40 |
| SLW-8-8P | 1/2 | 12.70 | 1/2 | 21.34 | 10.41 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 19.05 | 36.06 | 33.02 |
| SLW-12-12P | 3/4 | 19.05 | 3/4 | 26.67 | 15.74 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 19.05 | 39.87 | 36.83 |

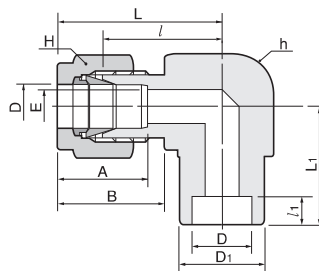
Tube Socket
Weld Connector
SCSW



Connects fractional tubes

| Part No. | Tube O.D | | E | D ₁ | Width across flat | | | | A | B | I | I ₁ | I ₂ | L |
|------------|----------|-------|-------|----------------|-------------------|-------|-------|-------|-------|-------|-------|----------------|----------------|-------|
| | D | | | | h | | | | | | | | | |
| | in | mm | | | Min. | in | mm | in | | | | | | |
| SCSW-2-2 | 1/8 | 3.17 | 2.28 | 7.87 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 22.35 | 8.63 | 6.35 | 28.95 |
| SCSW-4-4 | 1/4 | 6.35 | 4.82 | 11.17 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 26.16 | 10.41 | 7.87 | 33.52 |
| SCSW-6-6 | 3/8 | 9.52 | 7.11 | 15.74 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 30.22 | 11.93 | 9.65 | 37.59 |
| SCSW-8-8 | 1/2 | 12.70 | 10.41 | 19.05 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 30.98 | 11.93 | 12.70 | 41.14 |
| SCSW-12-12 | 3/4 | 19.05 | 15.74 | 26.67 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 33.27 | 11.93 | 14.22 | 43.43 |
| SCSW-16-16 | 1 | 25.40 | 22.35 | 33.27 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 40.38 | 14.22 | 19.05 | 52.57 |

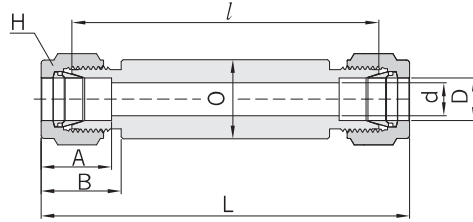
Tube Socket
Weld Elbow
SLSW



Connects fractional tubes

| Part No. | Tube O.D | | E | D ₁ | Width across flat | | | | A | B | I | I ₁ | L | L ₁ |
|------------|----------|-------|-------|----------------|-------------------|-------|-------|-------|-------|-------|-------|----------------|-------|----------------|
| | D | | | | h | | | | | | | | | |
| | in | mm | | | Min. | in | mm | in | | | | | | |
| SLSW-4-4 | 1/4 | 6.35 | 4.82 | 11.17 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 19.55 | 7.87 | 26.92 | 19.55 |
| SLSW-6-6 | 3/8 | 9.52 | 7.11 | 15.74 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 23.11 | 9.65 | 30.48 | 23.11 |
| SLSW-8-8 | 1/2 | 12.70 | 10.41 | 19.05 | 13/16 | 20.64 | 7/8 | 22.22 | 22.86 | 21.84 | 25.90 | 12.70 | 36.06 | 25.90 |
| SLSW-12-12 | 3/4 | 19.05 | 15.74 | 26.67 | 1-1/16 | 26.98 | 1-1/8 | 28.58 | 24.38 | 21.84 | 29.71 | 14.22 | 39.87 | 29.71 |
| SLSW-16-16 | 1 | 25.40 | 22.35 | 33.27 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 36.83 | 19.05 | 49.02 | 36.83 |

Welding
Bulkhead Union
SBUW



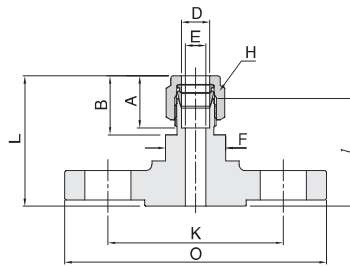
Connects fractional Tubes

| Part No. | Tube O.D. D | | d mm | H | | A | B | ℓ | L | O |
|----------|----------------|-------|---------|-------|-------|-------|-------|-------|--------|----|
| | in | mm | | in | mm | | | | | |
| SBUW-1 | 1/16 | 1.59 | 1.27 | 5/16 | 7.93 | 8.63 | 10.92 | 64.2 | 71.85 | 10 |
| SBUW-2 | 1/8 | 3.17 | 2.28 | 7/16 | 11.11 | 12.7 | 15.24 | 67.2 | 80.41 | 12 |
| SBUW-3 | 3/16 | 4.76 | 3.04 | 1/2 | 12.70 | 13.71 | 16 | 69 | 82.2 | 12 |
| SBUW-4 | 1/4 | 6.35 | 4.82 | 9/16 | 14.28 | 15.24 | 17.78 | 70.4 | 85.13 | 14 |
| SBUW-5 | 5/16 | 7.93 | 6.35 | 5/8 | 15.87 | 16.25 | 18.54 | 73.7 | 88.43 | 16 |
| SBUW-6 | 3/8 | 9.52 | 7.11 | 11/16 | 17.46 | 16.76 | 19.3 | 73.7 | 88.43 | 19 |
| SBUW-8 | 1/2 | 12.7 | 10.41 | 7/8 | 22.22 | 22.86 | 21.84 | 73.7 | 94.02 | 22 |
| SBUW-10 | 5/8 | 15.87 | 12.7 | 1 | 25.40 | 24.38 | 21.84 | 73.7 | 94.02 | 28 |
| SBUW-12 | 3/4 | 19.05 | 15.74 | 1-1/8 | 28.58 | 24.38 | 21.84 | 73.7 | 94.02 | 32 |
| SBUW-14 | 7/8 | 22.22 | 18.28 | 1-1/4 | 31.75 | 25.9 | 21.84 | 73.7 | 94.02 | 32 |
| SBUW-16 | 1 | 25.4 | 22.35 | 1-1/2 | 38.10 | 31.24 | 26.41 | 78.5 | 102.89 | 35 |
| SBUW-20 | 1-1/4 | 31.75 | 27.68 | 1-7/8 | 47.63 | 41.14 | 38.86 | 83.9 | 128.1 | 50 |
| SBUW-24 | 1-1/2 | 38.1 | 34.03 | 2-1/4 | 57.15 | 50.03 | 45.21 | 86.1 | 140.45 | 55 |
| SBUW-32 | 2 | 50.8 | 45.97 | 3 | 76.20 | 67.56 | 62.73 | 100.9 | 175.55 | 80 |

Connects Metric Tubes

| Part No. | Tube O.D. D | d mm | H | A | B | ℓ | L | O |
|----------|----------------|---------|----|------|------|------|-------|----|
| | | | | | | | | |
| SBUW-3M | 3 | 2.4 | 12 | 12.9 | 15.3 | 67.3 | 80.5 | 12 |
| SBUW4M | 4 | 2.4 | 12 | 13.7 | 16.1 | 69 | 82.2 | 12 |
| SBUW-6M | 6 | 4.8 | 14 | 15.3 | 17.7 | 70.4 | 85.2 | 14 |
| SBUW-8M | 8 | 6.4 | 16 | 16.2 | 18.6 | 74 | 89 | 16 |
| SBUW-10M | 10 | 7.9 | 19 | 17.2 | 19.5 | 74 | 89.2 | 19 |
| SBUW-12M | 12 | 9.5 | 22 | 22.8 | 22 | 74 | 94.2 | 22 |
| SBUW-15M | 15 | 11.9 | 25 | 24.4 | 22 | 74 | 94.2 | 25 |
| SBUW-16M | 16 | 12.7 | 25 | 24.4 | 22 | 74 | 94.2 | 28 |
| SBUW-18M | 18 | 15.1 | 30 | 24.4 | 22 | 74 | 94.2 | 28 |
| SBUW-20M | 20 | 15.9 | 32 | 26 | 22 | 74 | 94.2 | 32 |
| SBUW-22M | 22 | 18.3 | 32 | 26 | 22 | 74 | 94.2 | 32 |
| SBUW-25M | 25 | 21.8 | 38 | 31.3 | 26.5 | 78.6 | 103.2 | 38 |
| SBUW-28M | 28 | 21.8 | 46 | 36.6 | 36.6 | 81.7 | 116.3 | 45 |
| SBUW-30M | 30 | 26.2 | 50 | 39.6 | 39.2 | 74 | 117.2 | 50 |
| SBUW-32M | 32 | 28.6 | 50 | 42 | 41.6 | 87.1 | 133.1 | 50 |
| SBUW-38M | 38 | 33.7 | 60 | 49.4 | 47.9 | 90.9 | 146.1 | 60 |
| SBUW-42M | 42 | 36.5 | 65 | 49.4 | 47.9 | 90.9 | 146.1 | 60 |

Flange Adapter SF



Connects fractional Tube to ANSI Flanges

| Part No. | Tube O.D. | | ANSI Flange | | E | H | | A | B | F | L | ℓ | K | O |
|----------------|-----------|-------|-------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-----|
| | D | | NPS | Class | | in | mm | | | | | | | |
| | in | mm | | | | | | | | | | | | |
| SF-8R-4T-150 | 1/4 | 6.35 | 1/2 | 150 | 4.82 | 9/16 | 14.28 | 15.24 | 17.78 | 20.64 | 40.89 | 33.53 | 60.3 | 90 |
| SF-8R-6T-300 | 3/8 | 9.52 | 1/2 | 300 | 7.11 | 11/16 | 17.46 | 16.76 | 19.3 | 20.64 | 45.47 | 38.1 | 66.7 | 95 |
| SF-8R-8T-150 | 1/2 | 12.7 | 1/2 | 150 | 10.41 | 7/8 | 22.22 | 22.86 | 21.84 | 20.64 | 45.21 | 35.05 | 60.3 | 90 |
| SF-16R-8T-150 | 1/2 | 12.7 | 1 | 150 | 10.41 | 7/8 | 22.22 | 22.86 | 21.84 | 20.64 | 48.26 | 38.1 | 79.4 | 110 |
| SF-32R-8T-150 | 1/2 | 12.7 | 2 | 150 | 10.41 | 7/8 | 22.22 | 22.86 | 21.84 | 20.64 | 53.09 | 42.93 | 120.7 | 150 |
| SF-16R-12T-150 | 3/4 | 19.05 | 1 | 150 | 15.74 | 1-1/8 | 28.58 | 24.38 | 21.84 | 31.75 | 50.29 | 40.13 | 79.4 | 110 |
| SF-16R-16T-150 | 1 | 25.4 | 1 | 150 | 22.35 | 1-1/2 | 38.1 | 31.24 | 26.41 | 34.93 | 60.45 | 48.26 | 79.4 | 110 |
| SF-32R-24T-150 | 1-1/2 | 38.1 | 2 | 150 | 34.03 | 1-7/8 | 47.63 | 50.03 | 45.21 | 53.98 | 86.36 | 59.18 | 120.7 | 150 |
| SF-32R-32T-150 | 2 | 50.8 | 2 | 150 | 45.97 | 3 | 76.2 | 67.56 | 62.73 | 69.85 | 101.39 | 67.06 | 120.7 | 150 |

Connects Metric Tube to DIN PN40 Flanges

| Part No. | Tube O.D. | | DIN Flange | E | H | A | B | F | L | ℓ | K | O |
|-----------------|-----------|----|------------|------|----|------|------|----|------|------|-----|-----|
| | D | | | | | | | | | | | |
| | in | mm | DN | min | | | | | | | | |
| SF-25R-6M-PN40 | 6 | 25 | 25 | 4.8 | 14 | 15.3 | 17.7 | 20 | 47.5 | 40.1 | 85 | 115 |
| SF-15R-12M-PN40 | 12 | 15 | 15 | 9.5 | 22 | 22.8 | 22 | 20 | 48.5 | 38.4 | 65 | 95 |
| SF-25R-12M-PN40 | 12 | 25 | 25 | 9.5 | 22 | 22.8 | 22 | 20 | 50.5 | 40.4 | 85 | 115 |
| SF-50R-12M-PN40 | 12 | 50 | 50 | 9.5 | 22 | 22.8 | 22 | 20 | 55.3 | 45.2 | 125 | 165 |
| SF-15R-18M-PN40 | 18 | 15 | 15 | 15.1 | 30 | 24.4 | 22 | 32 | 51.8 | 41.7 | 65 | 95 |
| SF-25R-18M-PN40 | 18 | 25 | 25 | 15.1 | 30 | 24.4 | 22 | 32 | 53.8 | 43.7 | 85 | 115 |
| SF-25R-25M-PN40 | 25 | 25 | 25 | 21.8 | 38 | 31.3 | 26.5 | 35 | 64 | 51.8 | 85 | 115 |
| SF-50R-38M-PN40 | 38 | 50 | 50 | 33.7 | 60 | 49.4 | 47.9 | 55 | 90.4 | 62.7 | 125 | 165 |

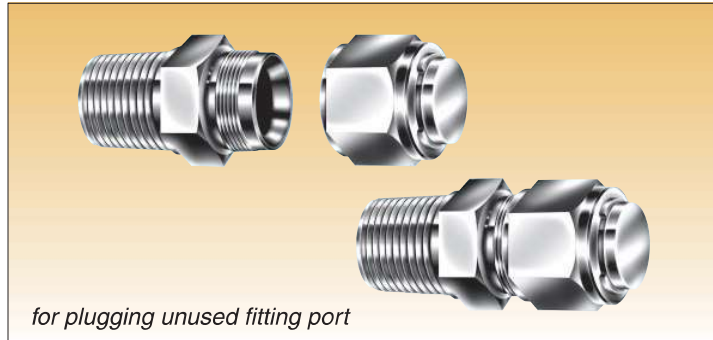
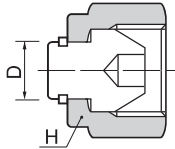
Connects fractional Tube to JIS10K Flanges

| Part No. | Tube O.D. | | JIS Flange | E | H | | A | B | F | L | ℓ | K | O |
|----------------|-----------|-------|------------|-------|-------|-------|-------|-------|-------|--------|-------|-----|-----|
| | D | | | | in | mm | | | | | | | |
| | in | mm | DN | min | | | | | | | | | |
| SF-15R-4T-10K | 1/4 | 6.35 | 15 | 4.82 | 9/16 | 14.28 | 15.24 | 17.78 | 20.64 | 42.16 | 34.8 | 70 | 95 |
| SF-15R-6T-10K | 3/8 | 9.52 | 15 | 7.11 | 11/16 | 17.46 | 16.76 | 19.3 | 20.64 | 43.69 | 36.32 | 70 | 95 |
| SF-15R-8T-10K | 1/2 | 12.7 | 15 | 10.41 | 7/8 | 22.22 | 22.86 | 21.84 | 20.64 | 46.49 | 36.32 | 70 | 95 |
| SF-15R-12T-10K | 3/4 | 19.05 | 15 | 15.74 | 1-1/8 | 28.58 | 24.38 | 21.84 | 31.75 | 48.51 | 38.35 | 70 | 95 |
| SF-25R-16T-10K | 1 | 25.4 | 25 | 22.35 | 1-1/2 | 38.1 | 31.24 | 26.41 | 34.93 | 60.96 | 48.77 | 90 | 125 |
| SF-50R-32T-10K | 2 | 50.8 | 50 | 45.97 | 3 | 76.2 | 67.56 | 62.73 | 69.85 | 101.85 | 64.52 | 120 | 155 |

Connects Metric Tube to JIS10K Flanges

| Part No. | Tube O.D. | | JIS Flange | E | H | A | B | F | L | ℓ | K | O |
|----------------|-----------|----|------------|------|----|------|------|----|------|------|----|-----|
| | D | | | | | | | | | | | |
| | in | mm | DN | min | | | | | | | | |
| SF-15R-12M-10K | 12 | 15 | 15 | 9.5 | 22 | 22.8 | 22 | 20 | 46.5 | 36.3 | 70 | 95 |
| SF-15R-18M-10K | 18 | 15 | 15 | 15.1 | 30 | 24.4 | 22 | 32 | 48.5 | 38.4 | 70 | 95 |
| SF-25R-25M-10K | 25 | 25 | 25 | 21.8 | 38 | 31.3 | 26.5 | 35 | 61.0 | 48.8 | 90 | 125 |

Plug
SP



Installation Instructions

1. Remove the nut and ferrules from the body
2. With a wrench, 1/4 turn from the finger-tight position, (1/8 turn for 1/8", 3/16" and 2mm, 3mm and 4mm)

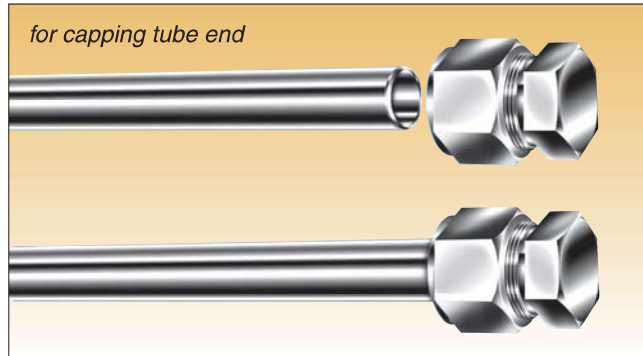
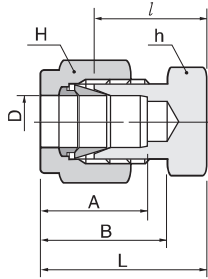
fractional

| Part No. | Tube O.D. D | | Width across flat H | |
|----------|----------------|-------|------------------------|-------|
| | in | mm | in | mm |
| SP-1 | 1/16 | 1.59 | 5/16 | 7.93 |
| SP-2 | 1/8 | 3.17 | 7/16 | 11.11 |
| SP-3 | 3/16 | 4.76 | 1/2 | 12.70 |
| SP-4 | 1/4 | 6.35 | 9/16 | 14.28 |
| SP-5 | 5/16 | 7.93 | 5/8 | 15.87 |
| SP-6 | 3/8 | 9.52 | 11/16 | 17.46 |
| SP-8 | 1/2 | 12.70 | 7/8 | 22.22 |
| SP-10 | 5/8 | 15.87 | 1 | 25.40 |
| SP-12 | 3/4 | 19.05 | 1-1/8 | 28.58 |
| SP-14 | 7/8 | 22.22 | 1-1/4 | 31.75 |
| SP-16 | 1 | 25.40 | 1-1/2 | 38.10 |
| SP-20 | 1-1/4 | 31.75 | 1-7/8 | 47.63 |
| SP-24 | 1-1/2 | 38.10 | 2-1/4 | 57.15 |
| SP-32 | 2 | 50.80 | 3 | 76.20 |

metric

| Part No. | Tube O.D. D | Width across flat H |
|----------|----------------|------------------------|
| | | |
| SP-2M | 2 | 12 |
| SP-3M | 3 | 12 |
| SP-4M | 4 | 12 |
| SP-6M | 6 | 14 |
| SP-8M | 8 | 16 |
| SP-10M | 10 | 19 |
| SP-12M | 12 | 22 |
| SP-15M | 15 | 25 |
| SP-16M | 16 | 25 |
| SP-18M | 18 | 30 |
| SP-20M | 20 | 32 |
| SP-22M | 22 | 32 |
| SP-25M | 25 | 38 |
| SP-28M | 28 | 46 |
| SP-32M | 32 | 50 |
| SP-38M | 38 | 60 |

Cap
SC



Installation Instructions

1. Insert the tube end into the Cap
2. With a wrench, 1-1/4 turns from the finger-tight position, (3/4 turn for 1/8", 3/16" 3mm and 4mm)

Cap end of fractional tube

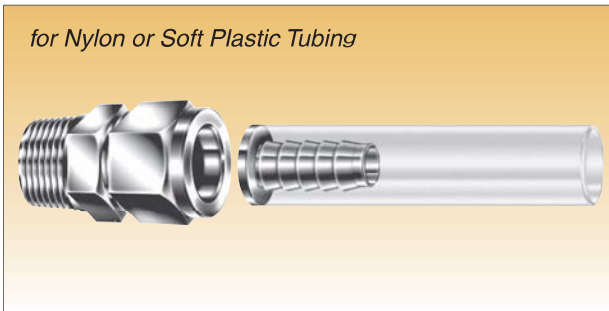
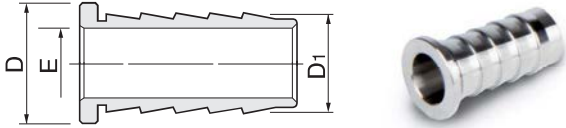
| Part No. | Tube O.D. | | Width across flat | | | | A | B | ℓ | L |
|----------|-----------|-------|-------------------|-------|-------|-------|-------|-------|-------|-------|
| | D | | h | | H | | | | | |
| | in | mm | in | mm | in | mm | | | | |
| SC-1 | 1/16 | 1.59 | 5/16 | 7.93 | 5/16 | 7.93 | 8.63 | 10.92 | 11.20 | 14.18 |
| SC-2 | 1/8 | 3.17 | 7/16 | 11.11 | 7/16 | 11.11 | 12.70 | 15.24 | 13.46 | 20.06 |
| SC-3 | 3/16 | 4.76 | 7/16 | 11.11 | 1/2 | 12.70 | 13.71 | 16.00 | 14.73 | 21.33 |
| SC-4 | 1/4 | 6.35 | 1/2 | 12.70 | 9/16 | 14.28 | 15.24 | 17.78 | 16.00 | 23.26 |
| SC-5 | 5/16 | 7.93 | 9/16 | 14.28 | 5/8 | 15.87 | 16.25 | 18.54 | 17.01 | 24.38 |
| SC-6 | 3/8 | 9.52 | 5/8 | 15.87 | 11/16 | 17.46 | 16.76 | 19.30 | 18.28 | 25.65 |
| SC-8 | 1/2 | 12.70 | 13/16 | 20.63 | 7/8 | 22.22 | 22.86 | 21.84 | 19.05 | 29.21 |
| SC-10 | 5/8 | 15.87 | 15/16 | 23.81 | 1 | 25.40 | 24.38 | 21.84 | 19.81 | 29.97 |
| SC-12 | 3/4 | 19.05 | 1-1/16 | 26.98 | 1-1/8 | 28.57 | 24.38 | 21.84 | 21.33 | 31.49 |
| SC-14 | 7/8 | 22.22 | 1-3/16 | 30.16 | 1-1/4 | 31.75 | 25.90 | 21.84 | 23.87 | 34.03 |
| SC-16 | 1 | 25.40 | 1-3/8 | 34.92 | 1-1/2 | 38.10 | 31.24 | 26.41 | 26.16 | 38.35 |
| SC-20 | 1-1/4 | 31.75 | 1-3/4 | 44.45 | 1-7/8 | 47.63 | 41.14 | 38.86 | 31.24 | 53.34 |
| SC-24 | 1-1/2 | 38.10 | 2-1/8 | 53.98 | 2-1/4 | 57.15 | 50.15 | 45.21 | 37.33 | 64.51 |
| SC-32 | 2 | 50.80 | 2-3/4 | 69.85 | 3 | 76.20 | 67.56 | 62.73 | 49.27 | 86.61 |

Cap end of metric tube

| Part No. | Tube O.D. D | Width across flat | | A | B | ℓ | L |
|----------|----------------|-------------------|----|------|------|------|------|
| | | h | H | | | | |
| SC-2M | 2 | 12 | 12 | 12.9 | 15.3 | 13.5 | 20.1 |
| SC-3M | 3 | 12 | 12 | 12.9 | 15.3 | 13.5 | 20.1 |
| SC-4M | 4 | 12 | 12 | 13.7 | 16.1 | 14.7 | 21.3 |
| SC-6M | 6 | 14 | 14 | 15.3 | 17.7 | 15.7 | 23.1 |
| SC-8M | 8 | 15 | 16 | 16.2 | 18.6 | 17.0 | 24.5 |
| SC-10M | 10 | 18 | 19 | 17.2 | 19.5 | 19.0 | 26.6 |
| SC-12M | 12 | 22 | 22 | 22.8 | 22.0 | 19.0 | 29.1 |
| SC-15M | 15 | 24 | 25 | 24.4 | 22.0 | 19.8 | 29.9 |
| SC-16M | 16 | 24 | 25 | 24.4 | 22.0 | 19.8 | 29.9 |
| SC-18M | 18 | 27 | 30 | 24.4 | 22.0 | 21.3 | 31.4 |
| SC-20M | 20 | 30 | 32 | 26.0 | 22.0 | 23.9 | 34.0 |
| SC-22M | 22 | 30 | 32 | 26.0 | 22.0 | 23.9 | 34.0 |
| SC-25M | 25 | 35 | 38 | 31.3 | 26.5 | 26.2 | 38.5 |
| SC-28M | 28 | 41 | 46 | 36.6 | 36.6 | 27.7 | 48.5 |
| SC-32M | 32 | 46 | 50 | 42.0 | 41.6 | 32.8 | 55.8 |
| SC-38M | 38 | 55 | 60 | 49.4 | 47.9 | 37.8 | 65.4 |

Tube Insert

SI



Installation Instructions

The S-LOK Tube Insert supports the soft plastic tubing, thus the tubing does not collapse when the ferrules deform it.

When you select a size of Tube Insert, check if the tubing O.D and I.D conform to those of the tube insert.

fractional

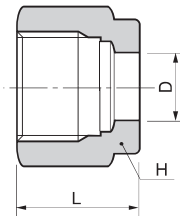
| Part No. | Tube O.D. | | Tube I.D. | | E |
|----------|-----------|-------|----------------|-------|-------|
| | D | | D _i | | |
| | in | mm | in | mm | |
| SI-3-2 | 3/16 | 4.76 | 1/8 | 3.17 | 2.28 |
| SI-4-2 | 1/4 | 6.35 | 1/8 | 3.17 | 2.28 |
| SI-4-3 | 1/4 | 6.35 | 3/16 | 4.76 | 3.55 |
| SI-5-2 | 5/16 | 7.93 | 1/8 | 3.17 | 2.28 |
| SI-5-3 | 5/16 | 7.93 | 3/16 | 4.76 | 3.04 |
| SI-5-4 | 5/16 | 7.93 | 1/4 | 6.35 | 4.82 |
| SI-6-3 | 3/8 | 9.52 | 3/16 | 4.76 | 3.04 |
| SI-6-4 | 3/8 | 9.52 | 1/4 | 6.35 | 4.82 |
| SI-8-4 | 1/2 | 12.70 | 1/4 | 6.35 | 4.82 |
| SI-8-6 | 1/2 | 12.70 | 3/8 | 9.52 | 7.87 |
| SI-10-6 | 5/8 | 15.87 | 3/8 | 9.52 | 7.87 |
| SI-10-8 | 5/8 | 15.87 | 1/2 | 12.70 | 11.17 |
| SI-12-8 | 3/4 | 19.05 | 1/2 | 12.70 | 11.17 |
| SI-12-10 | 3/4 | 19.05 | 5/8 | 15.87 | 14.22 |
| SI-16-12 | 1 | 25.40 | 3/4 | 19.05 | 17.52 |

metric

| Part No. | Tube O.D. | Tube I.D. | E |
|------------|-----------|----------------|-----|
| | D | D _i | |
| SI-6M-4M | 6 | 4 | 2.8 |
| SI-8M-6M | 8 | 6 | 4.4 |
| SI-10M-8M | 10 | 8 | 6.4 |
| SI-12M-8M | 12 | 8 | 6.4 |
| SI-12M-10M | 12 | 10 | 8.3 |

Nut

SN



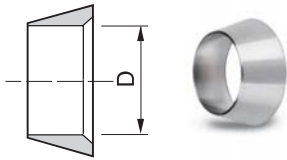
fractional

| Part No. | Tube O.D. | | Width across flat | | L |
|----------|-----------|-------|-------------------|-------|-------|
| | D | | H | | |
| | in | mm | in | mm | |
| SN-1 | 1/16 | 1.59 | 5/16 | 7.93 | 7.90 |
| SN-2 | 1/8 | 3.17 | 7/16 | 11.11 | 11.93 |
| SN-3 | 3/16 | 4.76 | 1/2 | 12.70 | 11.93 |
| SN-4 | 1/4 | 6.35 | 9/16 | 14.28 | 12.70 |
| SN-5 | 5/16 | 7.93 | 5/8 | 15.87 | 13.46 |
| SN-6 | 3/8 | 9.52 | 11/16 | 17.46 | 14.22 |
| SN-8 | 1/2 | 12.70 | 7/8 | 22.22 | 17.52 |
| SN-10 | 5/8 | 15.87 | 1 | 25.40 | 17.52 |
| SN-12 | 3/4 | 19.05 | 1-1/8 | 28.58 | 17.52 |
| SN-14 | 7/8 | 22.22 | 1-1/4 | 31.75 | 17.52 |
| SN-16 | 1 | 25.40 | 1-1/2 | 38.10 | 20.57 |
| SN-20 | 1-1/4 | 31.75 | 1-7/8 | 47.63 | 31.75 |
| SN-24 | 1-1/2 | 38.10 | 2-1/4 | 57.15 | 38.10 |
| SN-32 | 2 | 50.80 | 3 | 76.20 | 52.32 |

metric

| Part No. | Tube O.D. | Width across flat |
|----------|-----------|-------------------|
| | D | H |
| SN-2M | 2 | 12 |
| SN-3M | 3 | 12 |
| SN-4M | 4 | 12 |
| SN-6M | 6 | 14 |
| SN-8M | 8 | 16 |
| SN-10M | 10 | 19 |
| SN-12M | 12 | 22 |
| SN-15M | 15 | 25 |
| SN-16M | 16 | 25 |
| SN-18M | 18 | 30 |
| SN-20M | 20 | 32 |
| SN-22M | 22 | 32 |
| SN-25M | 25 | 38 |
| SN-28M | 28 | 46 |
| SN-32M | 32 | 50 |
| SN-38M | 38 | 60 |

Front Ferrule
SFF



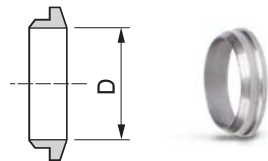
fractional

| Part No. | Tube O.D. D | |
|----------|----------------|-------|
| | in | mm |
| SFF-1 | 1/16 | 1.59 |
| SFF-2 | 1/8 | 3.17 |
| SFF-3 | 3/16 | 4.76 |
| SFF-4 | 1/4 | 6.35 |
| SFF-5 | 5/16 | 7.93 |
| SFF-6 | 3/8 | 9.52 |
| SFF-8 | 1/2 | 12.70 |
| SFF-10 | 5/8 | 15.87 |
| SFF-12 | 3/4 | 19.05 |
| SFF-14 | 7/8 | 22.22 |
| SFF-16 | 1 | 25.40 |
| SFF-20 | 1-1/4 | 31.75 |
| SFF-24 | 1-1/2 | 38.10 |
| SFF-32 | 2 | 50.80 |

metric

| Part No. | Tube O.D. D |
|----------|----------------|
| SFF-2M | 2 |
| SFF-3M | 3 |
| SFF-4M | 4 |
| SFF-6M | 6 |
| SFF-8M | 8 |
| SFF-10M | 10 |
| SFF-12M | 12 |
| SFF-15M | 15 |
| SFF-16M | 16 |
| SFF-18M | 18 |
| SFF-20M | 20 |
| SFF-22M | 22 |
| SFF-25M | 25 |
| SFF-28M | 28 |
| SFF-32M | 32 |
| SFF-38M | 38 |

Back Ferrule
SFB



fractional

| Part No. | Tube O.D. D | |
|----------|----------------|-------|
| | in | mm |
| SFB-1 | 1/16 | 1.59 |
| SFB-2 | 1/8 | 3.17 |
| SFB-3 | 3/16 | 4.76 |
| SFB-4 | 1/4 | 6.35 |
| SFB-5 | 5/16 | 7.93 |
| SFB-6 | 3/8 | 9.52 |
| SFB-8 | 1/2 | 12.70 |
| SFB-10 | 5/8 | 15.87 |
| SFB-12 | 3/4 | 19.05 |
| SFB-14 | 7/8 | 22.22 |
| SFB-16 | 1 | 25.40 |
| SFB-20 | 1-1/4 | 31.75 |
| SFB-24 | 1-1/2 | 38.10 |
| SFB-32 | 2 | 50.80 |

metric

| Part No. | Tube O.D. D |
|----------|----------------|
| SFB-2M | 2 |
| SFB-3M | 3 |
| SFB-4M | 4 |
| SFB-6M | 6 |
| SFB-8M | 8 |
| SFB-10M | 10 |
| SFB-12M | 12 |
| SFB-15M | 15 |
| SFB-16M | 16 |
| SFB-18M | 18 |
| SFB-20M | 20 |
| SFB-22M | 22 |
| SFB-25M | 25 |
| SFB-28M | 28 |
| SFB-32M | 32 |
| SFB-38M | 38 |

Ferrule Set
SFS10



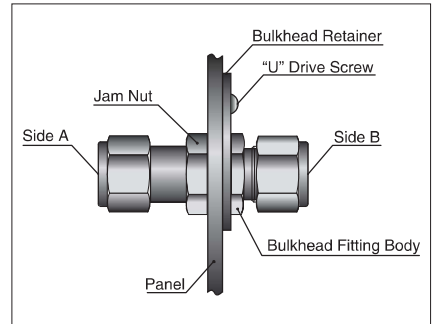
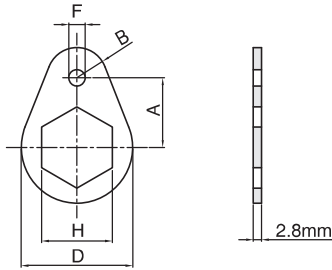
fractional

| Part No. | Tube O.D. | |
|----------|-----------|-------|
| | in | mm |
| SFS10-1 | 1/16 | 1.59 |
| SFS10-2 | 1/8 | 3.17 |
| SFS10-3 | 3/16 | 4.76 |
| SFS10-4 | 1/4 | 6.35 |
| SFS10-5 | 5/16 | 7.93 |
| SFS10-6 | 3/8 | 9.52 |
| SFS10-8 | 1/2 | 12.70 |
| SFS10-10 | 5/8 | 15.87 |
| SFS10-12 | 3/4 | 19.05 |
| SFS10-14 | 7/8 | 22.22 |
| SFS10-16 | 1 | 25.40 |

metric

| Part No. | Tube O.D. |
|-----------|-----------|
| SFS10-2M | 2 |
| SFS10-3M | 3 |
| SFS10-4M | 4 |
| SFS10-6M | 6 |
| SFS10-8M | 8 |
| SFS10-10M | 10 |
| SFS10-12M | 12 |
| SFS10-15M | 15 |
| SFS10-16M | 16 |
| SFS10-18M | 18 |
| SFS10-20M | 20 |
| SFS10-22M | 22 |
| SFS10-25M | 25 |

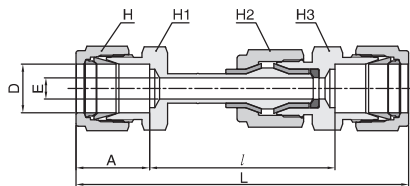
Bulkhead Retainer
SBR



Connects fractional Tube

| Part No. | S-LOK Fitting Size | | A | B | D | H | F | Drill Hole Dia. | "U" Drive Screw | Drill No. |
|----------|--------------------|--------|-------|-------|------|-------|------|-----------------|-----------------|-----------|
| | In | mm | | | | | | | | |
| SBR-1 | 1/16 | - | 9.52 | 3.97 | 15.9 | 7.93 | 3.97 | 3.05 | 6-3/8 | 31 |
| SBR-2 | 1/8 | - | 12.7 | 5.56 | 20.6 | 12.7 | 3.97 | 3.05 | 6-3/8 | 31 |
| SBR-3 | 3/16 | 3, 4 | 14.28 | 6.35 | 23.8 | 14.28 | 3.97 | 3.05 | 6-3/8 | 31 |
| SBR-4 | 1/4 | 6 | 15.87 | 7.14 | 25.4 | 15.87 | 3.97 | 3.05 | 6-3/8 | 31 |
| SBR-5 | 5/16 | - | 17.46 | 7.93 | 28.6 | 17.46 | 3.97 | 3.05 | 6-3/8 | 31 |
| SBR-8M | - | 8 | 17.46 | 7.93 | 28.6 | 18 | 3.97 | 3.05 | 6-3/8 | 31 |
| SBR-6 | 3/8 | - | 19.05 | 8.73 | 31.8 | 19.05 | 3.97 | 3.05 | 6-3/8 | 31 |
| SBR-10M | - | 10 | 23.81 | 10.32 | 38.1 | 22 | 5.56 | 3.66 | 10-1/2 | 27 |
| SBR-8 | 1/2 | 12 | 23.81 | 10.32 | 38.1 | 23.81 | 5.56 | 3.66 | 10-1/2 | 27 |
| SBR-10 | 5/8 | 15, 16 | 25.4 | 10.32 | 41.2 | 26.98 | 5.56 | 3.66 | 10-1/2 | 27 |
| SBR-12 | 3/4 | 18 | 26.98 | 11.91 | 46 | 30.16 | 5.56 | 3.66 | 10-1/2 | 27 |
| SBR-14 | 7/8 | - | 30.2 | 13.49 | 52.4 | 34.93 | 5.56 | 3.66 | 10-1/2 | 27 |
| SBR-16 | 1 | - | 32.54 | 13.49 | 58.7 | 41.27 | 5.56 | 3.66 | 10-1/2 | 27 |

Dielectric Fitting
SEU



Connects fractional Tube or Pipe

| Part No. | Tube O.D. | | Pipe Thread NPT | E min | A | L | ℓ | H | | H1 | | H2 | | H3 | |
|----------|-----------|------|-----------------|-------|-------|-------|------|-------|-------|-------|-------|-----|-------|-------|-------|
| | in | mm | | | | | | in | mm | in | mm | in | mm | in | mm |
| SEU-4 | 1/4 | 6.35 | - | 4.8 | 15.24 | 95.8 | 65.3 | 9/16 | 14.28 | 1/2 | 12.7 | 7/8 | 22.22 | 13/16 | 30.16 |
| SEU-6 | 3/8 | 9.52 | - | 7.1 | 16.76 | 99.7 | 65.9 | 11/16 | 17.46 | 5/8 | 15.87 | 7/8 | 22.22 | 13/16 | 30.16 |
| SEU-6-4N | 3/8 | 9.52 | 1/4 | 7.1 | 16.76 | 94.5 | - | 11/16 | 17.46 | 5/8 | 15.87 | 7/8 | 22.22 | 13/16 | 30.16 |
| SEU-8 | 1/2 | 12.7 | - | 7.1 | 22.86 | 106 | 60.3 | 7/8 | 22.22 | 13/16 | 20.64 | 7/8 | 22.22 | 13/16 | 30.16 |
| SEU-10M | - | 10 | - | 7.1 | 17.2 | 101.5 | 67.3 | - | 19 | - | 18 | - | 22 | - | 22 |
| SEU-12M | - | 12 | - | 7.1 | 22.8 | 106.3 | 60.4 | - | 22 | - | 22 | - | 22 | - | 22 |

Technical Data & Dimensions

- Electrical resistance of insulators at 70°F (20°C): 10 x 106 at 10V (dc)
- Pressure Rating : 5,000psig (344 barg)
- Temperature Rating : -40 to 200°F (-40 to 93°C)

Hydraulic Swaging Unit SWG-MNL

S-LOK Hydraulic Swaging Units preswage the ferrules to the tubing before assembly.

Features

- Reduce assembly and installation time.
- Does not cause deformation on the sealing surface of the fitting body and the fitting body thread.
- Supplied in a portable rugged plastic bag.

| Part No. | Case Dimensions (L x W x D) | |
|----------|-------------------------------|--------------------|
| | in. | cm |
| SWG-SMNL | 19.78 x 15.77 x 7.41 | 50.2 x 40.1 x 18.8 |
| SWG-LMNL | 24.84 x 19.68 x 11.89 | 63.1 x 50 x 30.2 |

- Available Size - Fractional Tubing : 1/2 ~ 2 in.
- Metric Tubing : 12 ~ 38 mm
- Can be preswage all available sizes by replacing the jig and die.

Unit Assembly and Set up

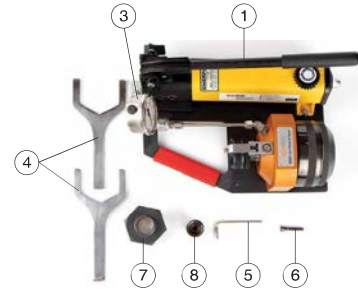
1. Open the vent valve of the hand pump by turning it counterclockwise.
2. Connect the hose to the hand pump and swaging head.
3. Turn the jig and die you want to use on the swaging head clockwise to fasten.
4. Tighten the die to the swaging head with Y wrench.
5. Tighten the bolt tightly with L wrench to fix the jig and complete the assembly.

Swaging Unit Operating

1. Align the front ferrule, back ferrule, nut and tubing of the size you want to swage, and fasten them to the jig and die.
2. Turn the vent valve of the hand pump clockwise to close it.
3. Pump the handle of the hand pump up and down.
4. Pump the hook on the back of the swaging head until it facing downward.
5. Open the vent valve of the hand pump by turning it counterclockwise while keeping the hook downward.
6. Disassemble preswaged ferrule, nut, tubing from jig and die.

Assembly with Fitting Body

1. Insert the pre-swaged ferrule, nut and tubing into the fitting body.
2. Tighten the nut clockwise by hand.
3. Fix the fitting body with a vise or spanner.
4. Tighten the nut 1/4 turn clockwise with spanner.



Swaging Unit - SWG-MNL Component

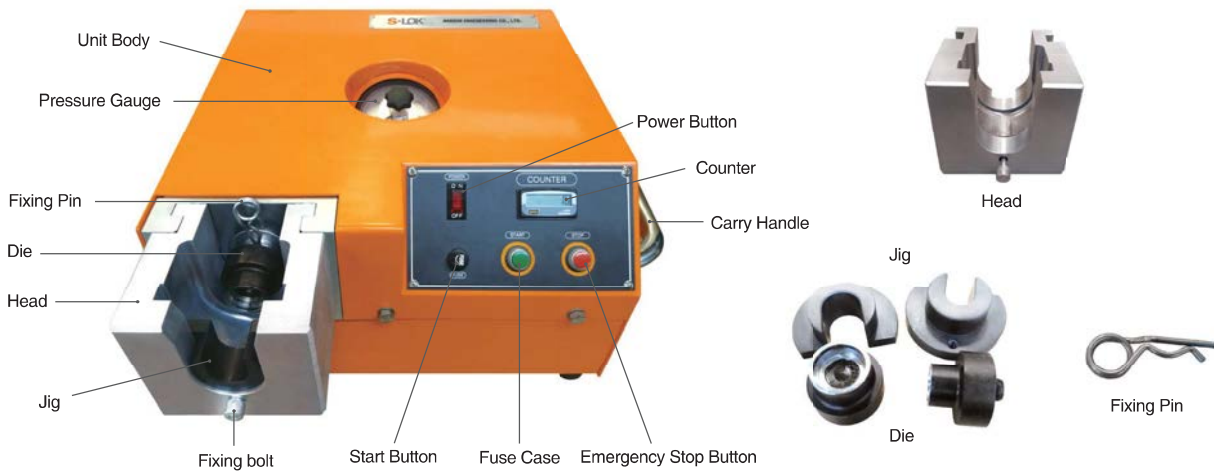
| No. | Part Name |
|-----|----------------|
| 1 | Hand Pump |
| 2 | Swaging Head |
| 3 | Pressure Gauge |
| 4 | Y Wrench |
| 5 | L Wrench |
| 6 | Bolt |
| 7 | Jig |
| 8 | Die |

Recommended Minimum Wall Thickness of Tubing

| Size | Tubing Wall Thickness | |
|--------|-----------------------|-----------------|
| | Stainless Steel | SWG-JD Part No. |
| 1/2" | 0.065 | SWG-JD8-S630 |
| 5/8" | 0.065 | SWG-JD10-S630 |
| 3/4" | 0.065 | SWG-JD12-S630 |
| 7/8" | 0.065 | SWG-JD14-S630 |
| 1" | 0.083 | SWG-JD16-S630 |
| 1-1/4" | 0.095 | SWG-JD20-S630 |
| 1-1/2" | 0.095 | SWG-JD24-S630 |
| 2" | 0.109 | SWG-JD32-S630 |
| 12mm | 1.5 | SWG-JD12M-S630 |
| 15mm | 1.5 | SWG-JD15M-S630 |
| 16mm | 1.8 | SWG-JD16M-S630 |
| 18mm | 1.8 | SWG-JD18M-S630 |
| 20mm | 2.0 | SWG-JD20M-S630 |
| 22mm | 2.0 | SWG-JD22M-S630 |
| 25mm | 2.0 | SWG-JD25M-S630 |
| 28mm | 2.2 | SWG-JD28M-S630 |
| 32mm | 2.2 | SWG-JD32M-S630 |
| 38mm | 2.5 | SWG-JD38M-S630 |

Electric Swaging Unit – SWG-AT

S-LOK Electric Swaging Units pre-assemble the sleeve of bite type fitting to the tubing before installation.



Features

- Reduce assembly and installation time.
- Does not cause deformation on the sealing surface of the fitting body and the fitting body thread.
- Easy replacement of jig and die.
- Can be assembly all available sizes by replacing the jig and die.
- Available size – Metric Tubing : 12 ~ 42 mm
– Fractional Tubing : 1/2 ~ 2 in.
- 220V version is standard and 110V version is available upon request.

| | |
|--------------------|------------------------------|
| Hydraulic pump | 0.35 kW • 2.0 L/min |
| Operating pressure | 0 ~ 600 bar |
| Connection | 220V • 1Ø • 50 / 60Hz • 2.5A |
| Dimension | 400 x 410 x 230 mm |
| Weight | 44 kg |

Tubing preparation

- Make sure that the outer diameter, wall thickness, circularity and tolerance of the tubing are appropriate for your application.
- Make sure the surface is free of scratches.
- Tubing should be cut to length with a square cut.
- Deburr the inside and outside edge of the tubing.

Unit Set Up

- Install the head on the swaging unit.
- Insert the die of the size you want to use into the swaging unit and fix it with the fixing pin.
- Install the jig of the size you want to use on the head and fix it with the fixing bolt.

Unit Set Up

- Turn on the unit.
- Set up the swaging pressure.
- Align the sleeve, nut on tubing of size you want to pre-assemble, and insert the tubing to the die. (The sleeve and nut are positioned between the die and the jig, Aligned with the tubing.)
- Press the start button and the die will slide toward the jig to complete pre-assembly. In case of emergency, press the red stop button. the unit stops immediately.
- Remove pre-assembled tubing from the unit.

Assembly on Fitting Body

- Insert the pre-assembled sleeve, nut and tubing into the fitting body.
- Tighten the nut clockwise by hand.
- Fix the fitting body with a vise or spanner.
- Tighten the nut 1/4 ~ 1/3 turn clockwise with spanner.

Gap Gauge for Pull-up Inspection

SIG

S-LOK maintains unbelievably tight tolerance on its each and every part. S-LOK tube fittings are monitored and gauged throughout process. This assures S-LOK consistency and makes S-LOK fittings gaugable. This no-go gauge is the useful tool to inspect if the fittings are pulled up 1-1/4 turns from the finger-tight position. When the gauge doesn't fit the gap between the nut and body hex, the fitting is tightened 1-1/4 turns from the finger-tight position. If the gauge fits the gap, the fittings is not fully tightened.



Multiple Size Gap Gauge

| Part No. | Applicable S-LOK Tube O.D. |
|----------|-----------------------------------|
| SIG-468 | 1/4", 3/8", 1/2", 6mm, 10mm, 12mm |

Liquid Gas Leak Detectors

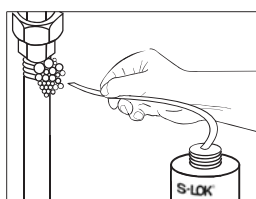
S-detec

- **S-detec** liquid gas leak detectors detect gas leaks in hard-to-reach areas.
- Flexible tube extends for hard-to-reach areas.
- Detects even on very small leaks and vertical surfaces.
- Easy to use, non-toxic, non-corrosive, non-flammable and free of chlorine.
- **S-detec** liquid evaporates cleanly after testing.
- Composition : Distilled water, glycerine and others
- Temperature range : -2°C to 93°C (27°C to 200°F)



⚠ Use S-detec liquid gas leak detectors only on external surfaces.

Instructions



M-SLD-02
Hold S-detec tube end at a pressurized connection. Squeeze upright bottle to apply a stream of S-detec liquid leak detector. Seek for bubbles which indicates leakage.

Product Comparison



Ordering Information

| Ordering Number | Container Size | Flexible Tube Length |
|-----------------|----------------|----------------------|
| M-SLD-01 | 3.8 L (1 gal) | - |
| M-SLD-02 | 240 mL (8 oz) | 30 cm (12 inch) |

| S-detec | Detergent |
|---------------------------|------------------------------|
| Non-corrosive | Corrosion |
| Dry clean without stains. | Stains and clots are formed. |

S-LOK®