UCT

# HAM-LET COMPRESSION TUBE FITTINGS

1/16″ THROUGH 2″ | 2 MM THROUGH 50 MM

LET-LOK®

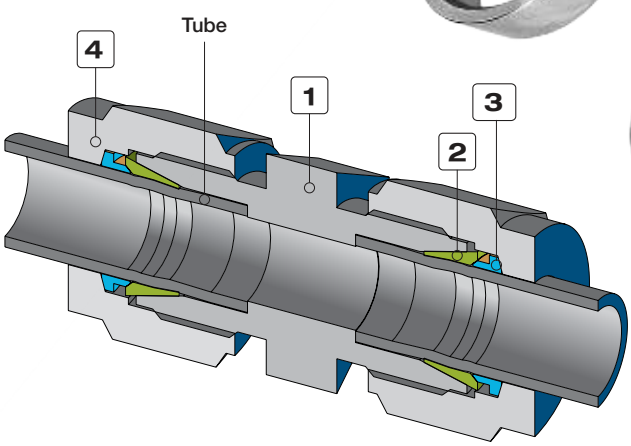
# LET-LOK HOW IT WORKS

The **LET-LOK** tube fitting is a mechanism used both to seal and to grip tubing. The mechanical advantage and geometry of this kind of fitting produces a leak-tight assembly.

To assemble, simply insert the tube into the complete assembly until the tube bottoms out against the shoulder of the fitting body (1). The two ferrules are driven forward between the nut (4) and fitting body using the mechanical force created by rotating the nut clockwise. The back ferrule (3) is driven against the tapered rear of the front ferrule (2) The front ferrule is driven by force into the tapered mouth of the body.

The rear ferrule is swaged radially inwards on the tube while lifting the front ferrule out to form a full-faced seal on the tapered surface of the body.

The one and one quarter turn of the nut from the hand-tight position ensures consistent drive of the sealing members. This ensures an effective seal against high-pressure as well as ultra -high-vacuum conditions.




***LET-LOK***® TUBE FITTINGS CONSIST OF FOUR PARTS:
1. BODY 2. FRONT FERRULE 3. BACK FERRULE 4. NUT

# LET-LOK TUBE FITTINGS DESCRIPTION

UCT Fluid Solutions produces high quality tube and pipe fittings in various materials for high-pressure applications.

As a result of tremendous efforts in research and development during the last five decades, UCT Fluid Solutions has gained an excellent reputation as a leading manufacturer of high-pressure instrumentation products. The **LET-LOK** range of connectors developed to fill the rapidly increasing demand for tube fittings suitable for high-pressure use in environments such as petrochemical, fluid, power, nuclear, electronic and other major industrial settings.

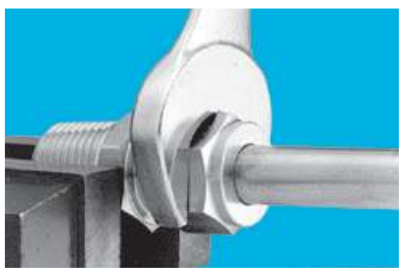
**LET-LOK** tube fittings were carefully manufactured to withstand the persistent demands for high-performance fluid systems. Each one passed a stringent tolerance test for high pressure, impulse, vibration, vacuum and temperature. These precision-machined fittings are manufactured to accurate standards, employing the most state-of-the-art computerized automation. All **LET-LOK** fittings are backed by our commitment to the highest quality-control standards and skilled craftsmanship.

# LET-LOK FITTINGS INSTALLATION INSTRUCTIONS

LET-LOK® fittings are assembled and supplied finger tight. Disassembly before use can allow the entry of dirt or other particles.

### Insert the tubing into the LET-LOK fitting

Check that the tube rests firmly on the fitting shoulder and that the nut is finger tight. At this point it is recommended that a scribe mark be drawn on the hex of the nut extending onto the fitting body. This mark will serve as an indicator for the starting point and proper pull-up.



### Tighten the nut

1-1/4 turns of the nut are required for 1/4" (6 mm) and higher (see Fig. A). 3/4 turn of the nut is required for 3/16" (4 mm) and lower (see Fig. B).

Figure A

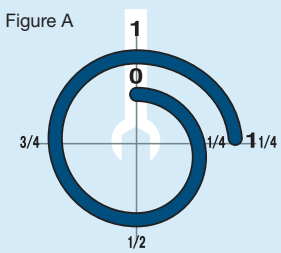
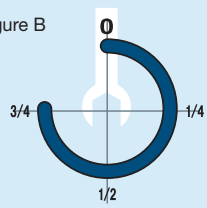



Figure B




## REASSEMBLY INSTRUCTIONS

LET-LOK connections may be disconnected and remade repeatedly without the loss of the leak tight seal.

1. Before disconnecting, mark the position of the nut in relation to the fitting body.
2. To reassemble, use a wrench to tighten the nut to the original position.
3. Tighten slightly with a wrench until a slight rise in torque is felt.

## TUBE CUTTING

Two different methods can be used to cut tubes

1. Tube Cutter
2. Hacksaw

## TUBE CUTTER

To attain a leak free connection, the tubing must be cut squarely. A good quality tube cutter with an appropriate blade for tubing material is recommended. Do not try to reduce the time of cutting by taking deep cuts with each turn of the cutter. This will work harden the tube.
The end of the tube must be deburred to avoid damage to the fitting and to ensure that the tube reaches the bottom of the fitting.

## HACKSAW CUTTING

In order to cut the tube with a hacksaw and obtain square ends, the tube must be cut with guide blocks.
This method of cutting necessitates deburring of the tube ends.

### Warning

Do not hold the tube in a vise in the place where it will be inserted into the fitting (the vise will leave a mark on the tube that may cause leaks and ovality).

## TUBE HANDLING

Scratches on the tube might cause leaks. It is, therefore, important to handle the tube carefully to reduce the risk of leaks.

## PRECAUTIONS

1. Tubes must not be dragged on the floor.
2. Do not drag tubes out of the tubing.

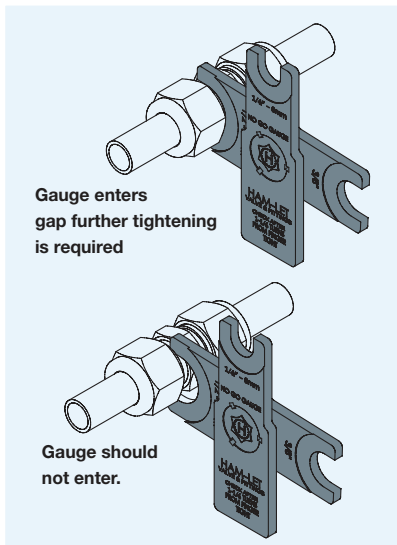
## COPPER TUBING

If using copper tubing from a roll, hold the end of the tube and roll the roll outwards allowing the tubing to lie on a flat surface.

## INSPECTION GAUGE

**Use: This is a "No-Go" gauge and should be used as follows:**

1. Make up the fitting according to the following instructions:
   1/4 inch (6mm), 3/8 inch, 1/2 inch (12mm) make up 1-1/4 turns from the finger tight position.
2. Check gap between nut and body using the appropriate sized gauge.
   If the gauge slides easily into the gap, tighten the nut further until gauge cannot enter the gap.




For Gauge Ordering Information, see page 98.

# LET-LOK FITTINGS INSTALLATION INSTRUCTIONS

## PHYSICAL DIFFERENCES AND MARKINGS

### LET-LOK® METRIC FITTINGS:

**Tee & Elbow:** (see Fig. 1)
**Body marked:** MM
**Straight Connectors:** (see Fig. 2)

**Body:** Stepped shoulder
**Marked:** LET-LOK 316 AV1[2]
**Nut:** (see Figs.1 & 2) Stepped shoulder
**Marked:** LET-LOK 316 6M[1] SD8[2]


Fig. **1**
**Back side**

Fig. **1**
**Front side**

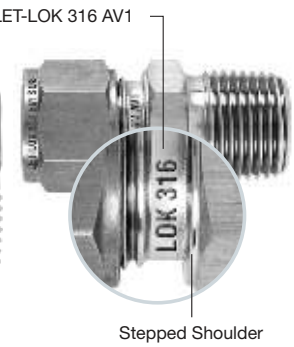



Fig. **2**
**Stepped Shoulder**

**[1] Tube O.D. [2] Material Batch**

### LET-LOK® INCH FITTINGS:

**Tee & Elbow:** (See Fig. 3)
**Straight Fittings:** (see Fig. 4)
**Body:** Shoulder marked:
LET-LOK 316 AV2[2]

**Nut:** (See Fig. 3 & 4): Shoulder marked
LET-LOK 316 1/2[1] BU2[2]


Fig. **3**
**Back side**

Fig. **3**
**Front side**


Fig. **4**

[1] Tube O.D. [2] Material Batch

## HIGH SAFETY

In applications where severe conditions and high pressure exist, we recommend the following installation procedures:

1. Check that the nut is finger tight
2. Fully insert the tube (up to the shoulder)
3. Rotate the nut with a wrench until the tube does not rotate freely
4. Mark the position of the nut
5. Rotate the nut 1-1/4 turns

This method ensures that even if the tube O.D. is at the minimum tolerance, the ferrules will be in contact with the tube for the full 1-1/4 rotation

## TUBING DATA FOR LET-LOK® FITTINGS

In order to assure maximum fitting reliability and performance, great care should be given when selecting the tubing for each application.

## TUBE SELECTION

Four variables must be considered when ordering a tube for use with LET-LOK fittings:

1. Material
2. Tube wall thickness
3. Tube surface finish
4. Tube hardness

Tubing should comply with standard ASTM A213 or ASTM A269, be seamless and fully annealed. The tube must be free of scratches and suitable for bending and flaring.

## TUBE O.D. TOLERANCES

| | | |
|---|---|---|
| 1/16" - 1/8"<br>2mm - 3 mm | ± | 0.003"<br>0.076 mm |
| 3/16" - 1 1/4"<br>4mm - 25 mm | ± | 0.005"<br>0.127 mm |
| 1 1/2" - 2"<br>38mm - 50 mm | ± | 0.006"<br>0.152 mm |

The ovality of twice the O.D. tolerance is not suitable for LET-LOK fittings. The tube must be reasonably round.

The ends of the tube must be free of burrs.
Tubing hardness: The hardness of the tube must be lower than the hardness of the fitting material.

The hardness must not exceed Rockwell 90 HRB (200HV).

## TABLE 1: STAINLESS STEEL INCH TUBING

| Tubing O.D. inch | WALL THICKNESS OF TUBE IN INCHES | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 |
| | Working pressure (psi) | | | | | | | | | | | | | | | |
| 1/16 | 5600 | 6860 | 8150 | 9480 | 11890 | | | | | | | | | | | |
| 1/8 | | | | | | 8550 | 10730 | | | | | | | | | |
| 3/16 | | | | | | 5500 | 7100 | 10150 | | | | | | | | |
| 1/4 | | | | | | 4100 | 5200 | 7600 | 10150 | | | | | | | |
| 5/16 | | | | | | | 4100 | 5900 | 7975 | | | | | | | |
| 3/8 | | | | | | | 3350 | 4850 | 6525 | | | | | | | |
| 1/2 | | | | | | | 2650 | 3750 | 5150 | 6525 | | | | | | |
| 5/8 | | | | | | | | 2950 | 4050 | 5250 | 5945 | | | | | |
| 3/4 | | | | | | | | 2450 | 3350 | 4250 | 4950 | 5655 | | | | |
| 7/8 | | | | | | | | 2050 | 2850 | 3650 | 4250 | 4843 | | | | |
| 1 | | | | | | | | | 2100 | 2700 | 3200 | 3700 | 3987 | | | |
| 1 1/4 | | | | | | | | | | 2400 | 2800 | 3300 | 3600 | 4100 | 4785 | |
| 1 1/2 | | | | | | | | | | | 2300 | 2700 | 3000 | 3400 | 4000 | 4785 |
| 2 | | | | | | | | | | | | 2000 | 2200 | 2500 | 2900 | 3600 |

Annealed 304 or 316 stainless steel tubing complying with ASTM A213, A269 or equivalent specifications. For metal temp. from -20°F - 100°F (-29°C - 37°C).

Suggested ordering information: Fully annealed high quality (Type 304 or 316) stainless steel hydraulic tubing ASTM A269 or A213 or equivalent, seamless or welded and drawn with a hardness of 90HRB (200HV) or less. Tubing should be without scratches and suitable for flaring and bending.

## TABLE 2: STAINLESS STEEL METRIC TUBING

| Tubing O.D. mm | WALL THICKNESS OF TUBE IN 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 | 5.0 |
| | Working pressure (bar) | | | | | | | | | | | | | |
| 3 | 670 | | | | | | | | | | | | | |
| 6 | 310 | 420 | 540 | 710 | | | | | | | | | | |
| 8 | | 310 | 390 | 520 | | | | | | | | | | |
| 10 | | 240 | 300 | 400 | 510 | | | | | | | | | |
| 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 | | | 120 | 160 | 200 | 230 | 260 | 300 | 340 | | | | | |
| 25 | | | | | 180 | 200 | 230 | 260 | 290 | 320 | | | | |
| 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 |

Annealed 304 or 316 stainless steel tubing complying with ASTM A213, A269 or equivalent specifications. For metal temp. from -20°F - 100°F (-29°C - 37°C).

Suggested ordering information: Fully annealed high quality (Type 304 or 316) stainless steel hydraulic tubing ASTM A269 or A213 or equivalent, seamless or welded and drawn with a hardness of 90HRB (200HV) or less. Tubing should be without scratches and suitable for flaring and bending.

**Working pressure for seamless tubing;**
Multiply pressure rating by .80 for single welded tubing.
Multiply pressure rating by .85 for double welded tubing.

**NOTE:** The system designer and user have the sole responsibility to select products suitable for their special application requirements and to ensure the proper installation, operation and maintenance of the product. Please consider application details, material compatibility and product ratings when making your selection. Improper selection or use of products can cause property damage or personal injury.

# TUBING DATA

## TABLE 3: COPPER TUBING WALL THICKNESS OF TUBE IN INCHES

| Tubing O.D. | | 0.028 | 0.035 | 0.049 | 0.065 | 0.083 | 0.095 | 0.109 | 0.120 |
|---|---|---|---|---|---|---|---|---|---|
| mm | inch | | | | | | | | |
| 2 | 1/8 | 2700 | 3600 | | | | | | |
| 3 | 3/16 | 1800 | 2300 | 3400 | | | | | |
| 6 | 1/4 | 1300 | 1600 | 2500 | 3500 | | | | |
| 8 | 5/16 | | 1300 | 1900 | 2700 | | | | |
| 10 | 3/8 | | 1000 | 1600 | 2200 | | | | |
| 12 | 1/2 | | 800 | 1100 | 1600 | 2100 | | | |
| 16 | 5/8 | | | 900 | 1200 | 1600 | 1900 | | |
| 20 | 3/4 | | | 700 | 1000 | 1300 | 1500 | 1800 | |
| 22 | 7/8 | | | 600 | 800 | 1100 | 1300 | 1500 | |
| 25 | 1 | | | 500 | 700 | 900 | 1100 | 1300 | 1500 |

Annealed copper seamless tubing complying with ASTM B68 and ASTM B75 specified in temper designation 060. Based on ultimate tensile strength of 30,000 psi (2067 bar). For metal temperatures from -20°C to 37°C). Suggested ordering information: High quality soft annealed seamless copper tubing ASTM B75 or equivalent.

## TABLE 4: FACTORS USED TO DETERMINE ALLOWABLE PRESSURE AT HIGHER TEMPERATURES

| F° | C° | A.I.S.I. 316 | Copper |
|---|---|---|---|
| 200 | 93 | 1 | 0.80 |
| 400 | 204 | 0.96 | 0.50 |
| 600 | 316 | 0.85 | - |
| 800 | 427 | 0.79 | - |
| 1000 | 538 | 0.76 | - |

To determine allowable pressure at higher temperatures, multiply allowable working pressure from Tables 1 & 2 & 3 by factor shown in Table 4. For example, the allowable pressure for Type 316 stainless steel, size 1/2" OD x .049" wall at 800°F (427°C) would be equivalent to 3750 psi x 0.79 = 2962.5 psi.

## TABLE 5: GAS APPLICATION TUBING

| INCH | | METRIC | |
|---|---|---|---|
| Tubing O.D. | Min. Nominal Wall Thickness | Tubing O.D. | Min. Nominal Wall Thickness |
| - | - | 14 mm | 1.2 mm |
| - | - | 15 mm | 1.5 mm |
| - | - | 16 mm | 1.5 mm |
| 1/2 | 0.049 | 18 mm | 1.5 mm |
| 5/8 | 0.065 | 20 mm | 1.8 mm |
| 3/4 | 0.065 | 22 mm | 2.0 mm |
| 7/8 | 0.083 | 25 mm | 2.2 mm |
| 1 | 0.083 | 30 mm | 2.8 mm |
| 1 1/4 | 0.109 | 32 mm | 3.0 mm |
| 1 1/2 | 0.134 | 38 mm | 3.5 mm |
| 2 | 0.188 | 50 mm | 5.0 mm |

Gases are characterized by small molecules which can escape through the smallest leak path. For gas applications, we recommend tubing with greater wall thickness. Table 5 shows the recommended minimum wall thickness to ensure performance.

**NOTE:** For your safety, the system designer and user have the sole responsibility to select products suitable for their special application requirements and to ensure the proper installation, operation and maintenance of the product. Please consider application details, material compatibility and product ratings when making your selection. Improper selection or use of products can cause property damage or personal injury.

## MATERIAL

Stainless steel straight fittings: material is stainless steel 316L in accordance with ASTM A479, ASTM A276 and DIN EN10272.

Stainless steel shaped fittings: material is stainless steel 316L in accordance with ASTM A182 and DIN EN10122-5.

### Let-Lok® Fitting Vacuum Rating

Inboard Helium Leak Rate of 1x10-9 atm cc/sec

### Pressure Ratings for Tube Fittings

To ensure leak-tight systems, it is important to carefully select high-quality tubing (see page 5 - allowable working pressure).

### Pipe End Thread (NPT and ISO 7) Pressure Ratings

Allowable pressure for male and female tapered pipe thread ends: stainless steel 316 and brass.

TABLE 6: PRESSURE RATINGS

| NPT / ISO PIPE SIZE | Stainless Steel 316 | | Brass | |
|---|---|---|---|---|
| | Male | Female | Male | Female |
| inch | psi | | | |
| 1/16 | 11000 | 6700 | 5500 | 3300 |
| 1/8 | 10000 | 6500 | 5000 | 3200 |
| 1/4 | 8000 | 6600 | 4000 | 3300 |
| 3/8 | 7800 | 5300 | 3900 | 2600 |
| 1/2 | 7700 | 4900 | 3800 | 2400 |
| 3/4 | 7300 | 4600 | 3600 | 2300 |
| 1 | 5300 | 4400 | 2600 | 2200 |
| 1 1/4 | 6000 | 5000 | 3000 | 2500 |
| 1 1/2 | 5000 | 4600 | 2500 | 2300 |
| 2 | 3900 | 3900 | 1900 | 1900 |

Note: If the pressure on the LET-LOK® end is higher than the pipe side, then the pipe side needs a heavier wall thickness of the tapered pipe thread side.

### PRESSURE RATINGS FOR END FITTINGS PER SAE J1926 (LOB) AMBIENT TEMPERATURE

Pressure ratings are based on SAE J1926 at ambient temperature.

TABLE 7: PRESSURE RATINGS

| (LOB) SAE J1926 Thread Size | Stainless Steel 316 | |
|---|---|---|
| | Nonpositionable | Positionable |
| inch | psi | |
| 5/16 - 24 | 4568 | 4568 |
| 7/16 - 20 | 4568 | 4568 |
| 1/2 - 20 | 4568 | 4568 |
| 9/16 - 18 | 4568 | 3626 |
| 3/4 - 16 | 4568 | 3626 |
| 7/8 - 14 | 3626 | 2900 |
| 1 1/16 - 12 | 3626 | 2900 |
| 1 3/16 - 12 | 2900 | 2320 |
| 1 5/16 - 12 | 2900 | 2320 |
| 1 5/8 - 12 | 2320 | 1813 |
| 1 7/8 - 12 | 2320 | 1813 |
| 2 1/2 - 12 | 1813 | 1450 |

Note: 37° FLARE (AN) and LO ends can have lower pressure.

### O-seal poressure ratings

Stainless steel 316 O-seal fittings up to 1” and 25 mm are rated to 3000 psi.

### Positionable, ISO/BSP parallel thread (G) pressure ratings

Pressure ratings are at surrounding temperature.

TABLE 8: PRESSURE RATINGS

| (G) ISO / BSPP Male Pipe Size | Stainless Steel 316 |
|---|---|
| inch | psi |
| 1/8 | 4568 |
| 1/4 | 4568 |
| 3/8 | 4568 |
| 1/2 | 2320 |
| 3/4 | 2320 |
| 1 | 2320 |

# LET-LOK® INDEX

## LET-LOK MATERIAL DESCRIPTION

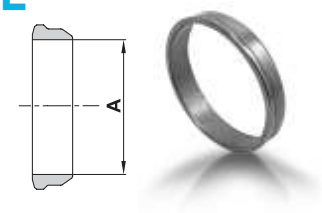
EXAMPLE: 768L

| MATERIAL DESCRIPTION | |
|---|---|
| SS | - Stainless Steel 316 |
| B | - Brass |

1/4 X 1/4

All orders should include material description and ordering information (see product table).

## 760 LB
# BACK FERRULE




**METRIC**

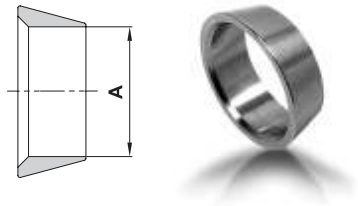
| Ordering Information | A Tube O.D. |
|---|---|
| | mm |
| 760LB _ 2 | 2 |
| 760LB _ 3 | 3 |
| 760LB _ 4 | 4 |
| 760LB _ 6 | 6 |
| 760LB _ 8 | 8 |
| 760LB _ 10 | 10 |
| 760LB _ 12 | 12 |
| 760LB _14 | 14 |
| 760LB _ 15 | 15 |
| 760LB _ 16 | 16 |
| 760LB _ 18 | 18 |
| 760LB _ 20 | 20 |
| 760LB _ 22 | 22 |
| 760LB _ 25 | 25 |
| 760LB _ 38 * | 38 |
| 760LB _ 50 * | 50 |

*Without Ferrule bar.

**INCH**

| Ordering Information | A Tube O.D. | |
|---|---|---|
| | inch | mm |
| 760LB _ 1/16 | 1/16 | 1.58 |
| 760LB _ 1/8 | 1/8 | 3.17 |
| 760LB _ 3/16 | 3/16 | 4.76 |
| 760LB _ 1/4 | 1/4 | 6.35 |
| 760LB _ 5/16 | 5/16 | 7.93 |
| 760LB _ 3/8 | 3/8 | 9.52 |
| 760LB _ 1/2 | 1/2 | 12.70 |
| 760LB _ 5/8 | 5/8 | 15.87 |
| 760LB _ 3/4 | 3/4 | 19.05 |
| 760LB _ 7/8 | 7/8 | 22.22 |
| 760LB _ 1 | 1 | 25.40 |
| 760LB _ 1 1/4 * | 1 1/4 | 31.75 |
| 760LB _ 1 1/2 * | 1 1/2 | 38.10 |
| 760LB _ 2 * | 2 | 50.80 |

## 760 LF
# FRONT FERRULE




**METRIC**

| Ordering Information | A Tube O.D. |
|---|---|
| | mm |
| 760LF _ 2 | 2 |
| 760LF _ 3 | 3 |
| 760LF _ 4 | 4 |
| 760LF _ 6 | 6 |
| 760LF _ 8 | 8 |
| 760LF _ 10 | 10 |
| 760LF _ 12 | 12 |
| 760LF _ 14 | 14 |
| 760LF _ 15 | 15 |
| 760LF _ 16 | 16 |
| 760LF _ 18 | 18 |
| 760LF _ 20 | 20 |
| 760LF _ 22 | 22 |
| 760LF _ 25 | 25 |
| 760LF _ 38 * | 38 |
| 760LF _ 50 * | 50 |

*Without Ferrule bar.

**INCH**

| Ordering Information | A Tube O.D. | |
|---|---|---|
| | inch | mm |
| 760LF _ 1/16 | 1/16 | 1.58 |
| 760LF _ 1/8 | 1/8 | 3.17 |
| 760LF _ 3/16 | 3/16 | 4.76 |
| 760LF _ 1/4 | 1/4 | 6.35 |
| 760LF _ 5/16 | 5/16 | 7.93 |
| 760LF _ 3/8 | 3/8 | 9.52 |
| 760LF _ 1/2 | 1/2 | 12.70 |
| 760LF _ 5/8 | 5/8 | 15.87 |
| 760LF _ 3/4 | 3/4 | 19.05 |
| 760LF _ 7/8 | 7/8 | 22.22 |
| 760LF _ 1 | 1 | 25.40 |
| 760LF _ 1 1/4 * | 1 1/4 | 31.75 |
| 760LF _ 1 1/2 * | 1 1/2 | 38.10 |
| 760LF _ 2 * | 2 | 50.80 |

## FERRULE SETS

All LET-LOK Ferrules are available as sets. Ferrule sets simplify stocking and assembly. Ferrule sets prevent damage of single ferrules during shipping.

The back and front ferrules are arranged as pairs in the set; ready for easy assembly.

## FERRULE & NUT SETS

All LET-LOK Ferrules and nuts are available as sets. Ferrule sets simplify stocking and assembly. Ferrule sets prevent damage of single ferrules during shipping.

The front + back ferrule and nut are arranged and ready for easy assembly.

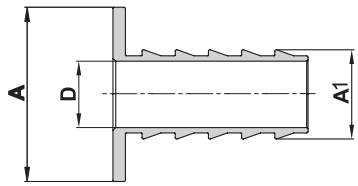
## Ordering Information for Ferrule Sets / Ferrule and nut Sets

**EXAMPLE:** 760 LS SS 1/4

| LS = Ferrule Sets | SS = Stainless Steel 316 | Tube O.D. |
|---|---|---|
| LNS = Ferrule and nuts sets | B = Brass | The O.D. size is always the first to be described. |
| | T = PTFE | |

Dimensions are for reference only and subject to change without notice.

## 760 LI
# TUBE INSERT



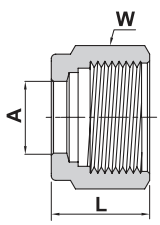

### METRIC

| Ordering Information | A Tube O.D. | A1 Tube I.D | D |
|---|---|---|---|
| | mm | mm | mm |
| 760LI _ 6 X 4 | 6 | 4 | 2.8 |
| 760LI _ 8 X 6 | 8 | 6 | 4.4 |
| 760LI _ 10 X 8 | 10 | 8 | 6.4 |
| 760LI _ 12 X 8 | 12 | 8 | 6.4 |
| 760LI _ 12 X 10 | 12 | 10 | 8.3 |

### INCH

| Ordering Information | A Tube O.D. | | A1 Tube I.D | | D | |
|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm |
| 760LI _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | 3.17 | .09 | 2.30 |
| 760LI _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | 3.17 | .09 | 2.30 |
| 760LI _ 1/4 X 0.17 | 1/4 | 6.35 | .17 | 4.32 | .11 | 2.70 |
| 760LI _ 1/4 X 3/16 | 1/4 | 6.35 | 3/16 | 4.76 | .12 | 3.10 |
| 760LI _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | 3.17 | .09 | 2.30 |
| 760LI _ 5/16 X 3/16 | 5/16 | 7.93 | 3/16 | 4.76 | .12 | 3.00 |
| 760LI _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | 6.35 | .18 | 4.65 |
| 760LI _ 3/8 X 3/16 | 3/8 | 9.52 | 3/16 | 4.76 | .12 | 3.10 |
| 760LI _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | .18 | 4.65 |
| 760LI _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | 6.35 | .18 | 4.65 |
| 760LI _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | 9.52 | .31 | 7.80 |
| 760LI _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | 9.52 | .31 | 7.80 |
| 760LI _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | 12.70 | .44 | 11.10 |
| 760LI _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | 12.70 | .44 | 11.10 |
| 760LI _ 3/4 X 5/8 | 3/4 | 19.05 | 5/8 | 15.87 | .56 | 14.20 |
| 760LI _ 1 X 3/4 | 1 | 25.40 | 3/4 | 19.05 | .69 | 17.50 |

## 761 L
# NUT




### METRIC

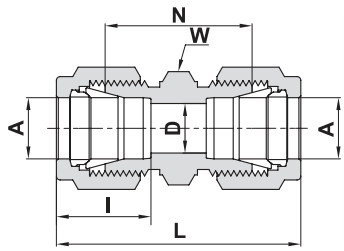
| Ordering Information | A Tube O.D. | W Hex. Flat | L |
|---|---|---|---|
| | mm | mm | mm |
| 761L _ 2 | 2 | 12 | 11.9 |
| 761L _ 3 | 3 | 12 | 11.9 |
| 761L _ 4 | 4 | 12 | 11.9 |
| 761L _ 6 | 6 | 14 | 12.7 |
| 761L _ 8 | 8 | 16 | 13.5 |
| 761L _ 10 | 10 | 19 | 15.1 |
| 761L _ 12 | 12 | 22 | 17.4 |
| 761L _ 14 | 14 | 25 | 17.4 |
| 761L _ 15 | 15 | 25 | 17.4 |
| 761L _ 16 | 16 | 25 | 17.4 |
| 761L _ 18 | 18 | 30 | 17.4 |
| 761L _ 20 | 20 | 32 | 17.4 |
| 761L _ 22 | 22 | 32 | 17.4 |
| 761L _ 25 | 25 | 38 | 20.6 |
| 761L _ 38 | 38 | 60 | 40.6 |
| 761L _ 50 | 50 | inch 3 | 54.0 |

### INCH

| Ordering Information | A Tube O.D. | | W Hex. Flat | L | |
|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm |
| 761L _ 1/16 | 1/16 | 1.58 | 5/16 | .31 | 7.87 |
| 761L _ 1/8 | 1/8 | 3.17 | 7/16 | .47 | 11.93 |
| 761L _ 3/16 | 3/16 | 4.76 | 1/2 | .47 | 11.93 |
| 761L _ 1/4 | 1/4 | 6.35 | 9/16 | .50 | 12.70 |
| 761L _ 5/16 | 5/16 | 7.93 | 5/8 | .53 | 13.46 |
| 761L _ 3/8 | 3/8 | 9.52 | 11/16 | .56 | 14.22 |
| 761L _ 1/2 | 1/2 | 12.70 | 7/8 | .69 | 17.52 |
| 761L _ 5/8 | 5/8 | 15.87 | 1 | .69 | 17.52 |
| 761L _ 3/4 | 3/4 | 19.05 | 1 1/8 | .69 | 17.52 |
| 761L _ 7/8 | 7/8 | 22.22 | 1 1/4 | .69 | 17.52 |
| 761L _ 1 | 1 | 25.40 | 1 1/2 | .81 | 20.57 |
| 761L _ 1 1/4 | 1 1/4 | 31.75 | 1 7/8 | 1.25 | 31.75 |
| 761L _ 1 1/2 | 1 1/2 | 38.10 | 2 1/4 | 1.50 | 38.10 |
| 761L _ 2 | 2 | 50.80 | 3 | 2.06 | 52.32 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 762 L
# UNION




### TUBE (METRIC) TO TUBE (METRIC)

| Ordering Information | A Tube O.D. | D | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm |
| 762L _ 2 | 2 | 1.7 | 12 | 22.4 | 35.6 | 12.9 |
| 762L _ 3 | 3 | 2.4 | 12 | 22.1 | 35.3 | 12.9 |
| 762L _ 4 | 4 | 2.4 | 12 | 24.1 | 37.3 | 13.7 |
| 762L _ 6 | 6 | 4.8 | 14 | 26.2 | 41.0 | 15.3 |
| 762L _ 8 | 8 | 6.4 | 15 | 28.2 | 43.2 | 16.2 |
| 762L _ 10 | 10 | 7.9 | 18 | 31.0 | 46.2 | 17.2 |
| 762L _ 12 | 12 | 9.5 | 22 | 31.0 | 51.2 | 22.8 |
| 762L _ 14 | 14 | 11.1 | 24 | 31.8 | 52.0 | 24.4 |
| 762L _ 15 | 15 | 11.9 | 24 | 31.8 | 52.0 | 24.4 |
| 762L _ 16 | 16 | 12.7 | 24 | 31.8 | 52.0 | 24.4 |
| 762L _ 18 | 18 | 15.1 | 27 | 33.3 | 53.5 | 24.4 |
| 762L _ 20 | 20 | 15.9 | 30 | 34.8 | 55.0 | 26.0 |
| 762L _ 22 | 22 | 18.3 | 30 | 34.8 | 55.0 | 26.0 |
| 762L _ 25 | 25 | 21.8 | 35 | 40.4 | 65.0 | 31.3 |
| 762L _ 30 | 30* | 26.2 | 46 | 49.5 | 92.7 | 39.6 |
| 762L _ 32 | 32* | 28.6 | 46 | 51.3 | 97.3 | 42 |
| 762L _ 38 | 38* | 33.7 | 55 | 58.4 | 114.0 | 49.4 |
| 762L _ 50 | *50 | 45.2 | 3 inch | 71.7 | 146.0 | 65.0 |

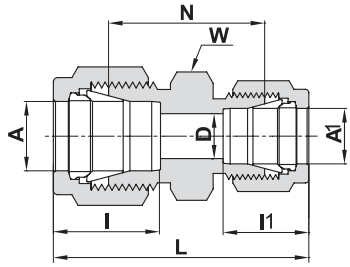
### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | D | | W Hex. Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 762L _ 1/16 | 1/16 | 1.58 | .05 | 1.27 | 5/16 | .69 | 17.52 | .99 | 25.14 | .34 | 8.6 |
| 762L _ 1/8 | 1/8 | 3.17 | .09 | 2.28 | 7/16 | .88 | 22.35 | 1.40 | 35.56 | .50 | 12.7 |
| 762L _ 3/16 | 3/16 | 4.76 | .12 | 3.04 | 7/16 | .95 | 24.13 | 1.47 | 37.33 | .54 | 13.7 |
| 762L _ 1/4 | 1/4 | 6.35 | .19 | 4.82 | 1/2 | 1.03 | 26.16 | 1.61 | 40.89 | .60 | 15.2 |
| 762L _ 5/16 | 5/16 | 7.93 | .25 | 6.35 | 9/16 | 1.11 | 28.19 | 1.69 | 42.92 | .64 | 16.2 |
| 762L _ 3/8 | 3/8 | 9.52 | .28 | 7.11 | 5/8 | 1.19 | 30.22 | 1.77 | 44.95 | .66 | 16.8 |
| 762L _ 1/2 | 1/2 | 12.70 | .41 | 10.41 | 13/16 | 1.22 | 30.98 | 2.02 | 51.30 | .90 | 22.9 |
| 762L _ 5/8 | 5/8 | 15.87 | .50 | 12.70 | 15/16 | 1.25 | 31.75 | 2.05 | 52.07 | .96 | 24.4 |
| 762L _ 3/4 | 3/4 | 19.05 | .62 | 15.75 | 1 1/16 | 1.31 | 33.27 | 2.11 | 53.59 | .96 | 24.4 |
| 762L _ 7/8 | 7/8 | 22.22 | .72 | 18.28 | 1 3/16 | 1.37 | 34.80 | 2.17 | 55.11 | 1.02 | 25.9 |
| 762L _ 1 | 1 | 25.40 | .88 | 22.35 | 1 3/8 | 1.59 | 40.38 | 2.55 | 64.77 | 1.23 | 31.2 |
| 762L _ 1 1/4 | 1 1/4* | 31.75 | 1.09 | 27.70 | 1 3/4 | 1.89 | 48.00 | 3.63 | 92.20 | 1.62 | 41.2 |
| 762L _ 1 1/2 | 1 1/2* | 38.10 | 1.34 | 34.00 | 2 1/8 | 2.11 | 53.60 | 4.25 | 107.95 | 1.97 | 50.0 |
| 762L _ 2 | 2* | 50.80 | 1.81 | 45.97 | 2 3/4 | 2.94 | 74.67 | 5.88 | 149.35 | 2.66 | 67.6 |

* Including low friction paste, paste (see page 98)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 763 L
# REDUCING UNION




### TUBE (METRIC) TO TUBE (METRIC)

| Ordering Information | A Tube O.D. | A1 Tube O.D. | D | W Hex. Flat | N | L | I | I1 |
|---|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | mm | mm |
| 763L _ 3 X 2 | 3 | 2 | 1.7 | 12 | 22.1 | 35.3 | 12.9 | 12.9 |
| 763L _ 6 X 2 | 6 | 2 | 1.7 | 14 | 24.6 | 38.6 | 15.3 | 12.9 |
| 763L _ 6 X 3 | 6 | 3 | 2.4 | 14 | 24.6 | 38.6 | 15.3 | 12.9 |
| 763L _ 6 X 4 | 6 | 4 | 2.4 | 14 | 25.4 | 39.4 | 15.3 | 13.7 |
| 763L _ 8 X 6 | 8 | 6 | 4.8 | 15 | 27.4 | 42.3 | 16.2 | 15.3 |
| 763L _ 10 X 6 | 10 | 6 | 4.8 | 18 | 29.5 | 44.5 | 17.2 | 15.3 |
| 763L _ 10 X 8 | 10 | 8 | 6.4 | 18 | 30.0 | 45.1 | 17.2 | 16.2 |
| 763L _ 12 X 6 | 12 | 6 | 4.8 | 22 | 29.5 | 47.0 | 22.8 | 15.3 |
| 763L _ 12 X 8 | 12 | 8 | 6.4 | 22 | 30.2 | 47.8 | 22.8 | 16.2 |
| 763L _ 12 X 10 | 12 | 10 | 7.9 | 22 | 31.0 | 48.7 | 22.8 | 17.2 |
| 763L _ 16 X 10 | 16 | 10 | 7.9 | 24 | 31.8 | 49.5 | 24.4 | 17.2 |
| 763L _ 16 X 12 | 16 | 12 | 9.5 | 24 | 31.8 | 52.0 | 24.4 | 22.8 |
| 763L _ 18 X 12 | 18 | 12 | 9.5 | 27 | 33.3 | 53.5 | 24.4 | 22.8 |
| 763L _ 25 X 18 | 25 | 18 | 15.1 | 35 | 38.6 | 61.0 | 31.3 | 24.4 |
| 763L _ 25 X 20 | 25 | 20 | 15.9 | 35 | 39.9 | 62.3 | 31.3 | 26.0 |
| 763L _ 30X18 | 30* | 18 | 15.1 | 46 | 43.7 | 75.4 | 39.6 | 24.4 |
| 763L _ 30X20 | 30* | 20 | 15.9 | 46 | 43.7 | 75.4 | 39.6 | 26 |
| 763L _ 30X25 | 30* | 25 | 21.8 | 46 | 46.2 | 80.1 | 39.6 | 31.3 |
| 763L _ 32X18 | 32* | 18 | 15.1 | 46 | 44.7 | 77.8 | 42 | 24.4 |
| 763L _ 32X20 | 32* | 20 | 15.9 | 46 | 44.7 | 77.8 | 42 | 26 |
| 763L _ 32X25 | 32* | 25 | 21.8 | 46 | 47 | 82.3 | 42 | 31.3 |
| 763L _ 38X30 | 38* | 30* | 26.2 | 55 | 55.8 | 105 | 49.4 | 39.6 |
| 763L _ 38 X 20 | 38* | 20 | 15.9 | 55 | 49.8 | 87.5 | 49.4 | 26.0 |
| 763L _ 38 X 25 | 38* | 25 | 21.8 | 55 | 55.5 | 95.4 | 49.4 | 31.3 |

### TUBE (METRIC) TO TUBE (INCH)

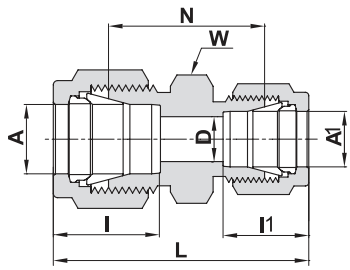
| Ordering Information | A Tube O.D. | A1 Tube O.D. | D | W Hex. Flat | N | L | I | I1 |
|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm |
| 763L _ 2 X 1/4 | 2 | 1/4 | 1.7 | 14 | 24.6 | 38.6 | 12.9 | 15.2 |
| 763L _ 3 X 1/8 | 3 | 1/8 | 2.4 | 12 | 22.1 | 35.2 | 12.9 | 12.7 |
| 763L _ 4 X 1/8 | 4 | 1/8 | 2.4 | 12 | 23.4 | 36.5 | 13.7 | 12.7 |
| 763L _ 4 X 1/4 | 4 | 1/4 | 2.4 | 14 | 25.4 | 39.4 | 13.7 | 15.2 |
| 763L _ 6 X 1/8 | 6 | 1/8 | 2.4 | 14 | 24.6 | 38.5 | 15.3 | 12.7 |
| 763L _ 6 X 1/4 | 6 | 1/4 | 4.8 | 14 | 26.2 | 41.0 | 15.3 | 15.2 |
| 763L _ 6 X 5/16 | 6 | 5/16 | 4.8 | 14 | 27.4 | 42.3 | 15.3 | 16.2 |
| 763L _ 8 X 1/8 | 8 | 1/8 | 2.4 | 15 | 25.7 | 39.8 | 16.2 | 12.7 |
| 763L _ 8 X 1/4 | 8 | 1/4 | 4.8 | 15 | 27.4 | 42.3 | 16.2 | 15.2 |
| 763L _ 8 X 3/8 | 8 | 3/8 | 6.4 | 16 | 29.5 | 44.3 | 16.2 | 16.8 |
| 763L _ 10 X 1/8 | 10 | 1/8 | 2.4 | 18 | 27.7 | 41.8 | 17.2 | 12.7 |

* Including low friction paste, see page 98 "D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

Cont'd next page

## 763 L

# REDUCING UNION (Cont'd)




### TUBE (METRIC) TO TUBE (INCH)

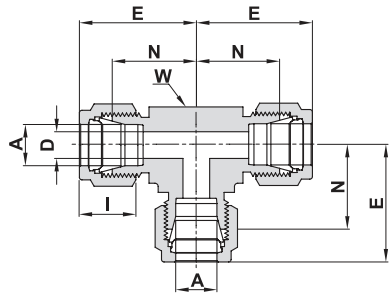
| Ordering Information | A Tube O.D. | A1 Tube O.D. | D | W Hex. Flat | N | L | I | I1 |
|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm |
| 763L _ 10 X 1/4 | 10 | 1/4 | 4.8 | 18 | 29.5 | 44.5 | 17.2 | 15.2 |
| 763L _ 10 X 5/16 | 10 | 5/16 | 6.4 | 18 | 30.0 | 45.1 | 17.2 | 16.2 |
| 763L _ 10 X 3/8 | 10 | 3/8 | 7.1 | 18 | 31.0 | 45.9 | 17.2 | 16.8 |
| 763L _ 12 X 5/16 | 12 | 5/16 | 6.4 | 22 | 30.2 | 47.8 | 22.8 | 16.2 |
| 763L _ 12 X 3/8 | 12 | 3/8 | 7.1 | 22 | 31.0 | 48.4 | 22.8 | 16.8 |
| 763L _ 12 X 1/2 | 12 | 1/2 | 9.5 | 22 | 31.0 | 51.2 | 22.8 | 22.9 |
| 763L _ 15 X 1/2 | 15 | 1/2 | 10.3 | 24 | 31.8 | 52.0 | 24.4 | 22.9 |
| 763L _ 16 X 5/8 | 16 | 5/8 | 12.7 | 24 | 31.8 | 52.0 | 24.4 | 24.4 |
| 763L _ 18 X 3/4 | 18 | 3/4 | 15.1 | 27 | 33.3 | 53.5 | 24.4 | 24.4 |

* Including low friction paste, see page 101 "D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | D | | W Hex. Flat | N | | L | | I | | I1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm |
| 763L _ 1/8 X 1/16 | 1/8 | 3.17 | 1/16 | 1.58 | .05 | 1.27 | 7/16 | .81 | 20.57 | 1.22 | 30.98 | .50 | 12.7 | .34 | 8.6 |
| 763L _ 3/16 X 1/16 | 3/16 | 4.76 | 1/16 | 1.58 | .05 | 1.27 | 7/16 | .86 | 21.84 | 1.27 | 32.26 | .54 | 13.7 | .34 | 8.6 |
| 763L _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | 3.17 | .09 | 2.28 | 7/16 | .92 | 23.36 | 1.44 | 36.57 | .54 | 13.7 | .50 | 12.7 |
| 763L _ 1/4 X 1/16 | 1/4 | 6.35 | 1/16 | 1.58 | .05 | 1.27 | 1/2 | .91 | 23.11 | 1.35 | 34.29 | .60 | 15.2 | .34 | 8.6 |
| 763L _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | 3.17 | .09 | 2.28 | 1/2 | .97 | 24.63 | 1.52 | 38.60 | .60 | 15.2 | .50 | 12.7 |
| 763L _ 1/4 X 3/16 | 1/4 | 6.35 | 3/16 | 4.76 | .12 | 3.04 | 1/2 | 1.00 | 25.40 | 1.55 | 37.37 | .60 | 15.2 | .54 | 13.7 |
| 763L _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | 3.17 | .09 | 2.28 | 9/16 | 1.01 | 25.65 | 1.56 | 39.62 | .64 | 16.2 | .50 | 12.7 |
| 763L _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | 6.35 | .19 | 4.82 | 9/16 | 1.08 | 27.43 | 1.66 | 42.16 | .64 | 16.2 | .60 | 15.2 |
| 763L _ 3/8 X 1/16 | 3/8 | 9.52 | 1/16 | 1.58 | .05 | 1.27 | 5/8 | 1.00 | 25.40 | 1.44 | 36.58 | .66 | 16.8 | .34 | 8.6 |
| 763L _ 3/8 X 1/8 | 3/8 | 9.52 | 1/8 | 3.17 | .09 | 2.28 | 5/8 | 1.06 | 26.92 | 1.61 | 40.89 | .66 | 16.8 | .50 | 12.7 |
| 763L _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | .19 | 4.82 | 5/8 | 1.12 | 28.44 | 1.70 | 43.18 | .66 | 16.8 | .60 | 15.2 |
| 763L _ 3/8 X 5/16 | 3/8 | 9.52 | 5/16 | 7.93 | .25 | 6.35 | 5/8 | 1.16 | 29.46 | 1.74 | 44.19 | .66 | 16.8 | .64 | 16.2 |
| 763L _ 1/2 X 1/8 | 1/2 | 12.70 | 1/8 | 3.17 | .09 | 2.28 | 13/16 | 1.12 | 28.44 | 1.78 | 45.21 | .90 | 22.9 | .50 | 12.7 |
| 763L _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | 6.35 | .19 | 4.82 | 13/16 | 1.16 | 29.46 | 1.85 | 46.99 | .90 | 22.9 | .60 | 15.2 |
| 763L _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | 9.52 | .28 | 7.11 | 13/16 | 1.22 | 30.98 | 1.91 | 48.51 | .90 | 22.9 | .66 | 16.8 |
| 763L _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | 9.52 | .28 | 7.11 | 15/16 | 1.25 | 31.75 | 1.94 | 49.27 | .96 | 24.4 | .66 | 16.8 |
| 763L _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | 12.70 | .41 | 10.41 | 15/16 | 1.25 | 31.75 | 2.05 | 52.07 | .96 | 24.4 | .90 | 22.9 |
| 763L _ 3/4 X 1/4 | 3/4 | 19.05 | 1/4 | 6.35 | .19 | 4.82 | 1 1/16 | 1.25 | 31.75 | 1.94 | 49.28 | .96 | 24.4 | .60 | 15.2 |
| 763L _ 3/4 X 3/8 | 3/4 | 19.05 | 3/8 | 9.52 | .28 | 7.11 | 1 1/16 | 1.31 | 33.27 | 2.00 | 50.80 | .96 | 24.4 | .66 | 16.8 |
| 763L _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | 12.70 | .41 | 10.41 | 1 1/16 | 1.31 | 33.27 | 2.11 | 53.59 | .96 | 24.4 | .90 | 22.9 |
| 763L _ 3/4 X 5/8 | 3/4 | 19.05 | 5/8 | 15.87 | .50 | 12.70 | 1 1/16 | 1.31 | 33.27 | 2.11 | 53.59 | .96 | 24.4 | .96 | 24.4 |
| 763L _ 1 X 1/2 | 1 | 25.4 | 1/2 | 12.70 | .41 | 10.41 | 1 3/8 | 1.50 | 38.10 | 2.38 | 60.45 | 1.23 | 31.2 | .90 | 22.9 |
| 763L _ 1 X 3/4 | 1 | 25.4 | 3/4 | 19.05 | .62 | 15.75 | 1 3/8 | 1.50 | 38.10 | 2.38 | 60.45 | 1.23 | 31.2 | .96 | 24.4 |

## 764 L
# UNION TEE




### ALL TUBE (METRIC)

| Ordering Information | A Tube O.D. | D | W Wrench Flat | | N | E | I |
|---|---|---|---|---|---|---|---|
| | mm | mm | inch | mm | mm | mm | mm |
| 764L _ 2 | 2 | 1.7 | 3/8 | 9.5 | 15.7 | 22.3 | 12.9 |
| 764L _ 3 | 3 | 2.4 | 3/8 | 9.5 | 15.7 | 22.3 | 12.9 |
| 764L _ 4 | 4 | 2.4 | 1/2 | 12.7 | 18.8 | 25.4 | 13.7 |
| 764L _ 6 | 6 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 15.3 |
| 764L _ 8 | 8 | 6.4 | 5/8 | 15.9 | 22.4 | 29.9 | 16.2 |
| 764L _ 10 | 10 | 7.9 | 11/16 | 17.5 | 23.9 | 31.5 | 17.2 |
| 764L _ 12 | 12 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 22.8 |
| 764L _ 14 | 14 | 11.1 | 15/16 | 23.8 | 28.7 | 38.8 | 24.4 |
| 764L _ 15 | 15 | 11.9 | 15/16 | 23.8 | 28.7 | 38.8 | 24.4 |
| 764L _ 16 | 16 | 12.7 | 15/16 | 23.8 | 28.7 | 38.8 | 24.4 |
| 764L _ 18 | 18 | 15.1 | 1 1/16 | 27.0 | 29.7 | 39.8 | 24.4 |
| 764L _ 20 | 20 | 15.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 26.0 |
| 764L _ 22 | 22 | 18.3 | 1 3/8 | 34.9 | 34.5 | 44.6 | 26.0 |
| 764L _ 25 | 25 | 21.8 | 1 3/8 | 34.9 | 36.8 | 49.1 | 31.3 |
| 764L _ 30 | *30 | 26.2 | - | 46 | 48.3 | 69.9 | 39.6 |
| 764L _ 32 | *32 | 28.6 | - | 46 | 49.3 | 72.3 | 42 |
| 764L _ 38 | *38 | 33.7 | - | 55.0 | 56.4 | 84.0 | 49.4 |
| 764L _ 50 | *50 | 45.2 | 2 3/4 | 69.9 | 68.9 | 106.0 | 65.0 |

### ALL TUBE (INCH)

| Ordering Information | A Tube O.D. | | D | | W Wrench Flat | | N | | E | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 764L _ 1/16 | 1/16 | 1.58 | .05 | 1.27 | 3/8 | 9.5 | .55 | 14.00 | .70 | 17.80 | .34 | 8.6 |
| 764L _ 1/8 | 1/8 | 3.17 | .09 | 2.28 | 3/8 | 9.5 | .62 | 15.74 | .88 | 22.35 | .50 | 12.7 |
| 764L _ 3/16 | 3/16 | 4.76 | .12 | 3.04 | 1/2 | 12.7 | .70 | 17.80 | .96 | 24.40 | .54 | 13.7 |
| 764L _ 1/4 | 1/4 | 6.35 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.55 | 1.06 | 26.90 | .60 | 15.2 |
| 764L _ 5/16 | 5/16 | 7.93 | .25 | 6.35 | 5/8 | 15.9 | .88 | 22.35 | 1.17 | 29.71 | .64 | 16.2 |
| 764L _ 3/8 | 3/8 | 9.52 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | .66 | 16.8 |
| 764L _ 1/2 | 1/2 | 12.70 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.06 | .90 | 22.9 |
| 764L _ 5/8 | 5/8 | 15.87 | .50 | 12.70 | 15/16 | 23.8 | 1.13 | 28.70 | 1.53 | 38.90 | .96 | 24.4 |
| 764L _ 3/4 | 3/4 | 19.05 | .62 | 15.74 | 1 1/16 | 27.0 | 1.17 | 29.70 | 1.57 | 39.90 | .96 | 24.4 |
| 764L _ 7/8 | 7/8 | 22.22 | .72 | 18.29 | 1 3/8 | 34.9 | 1.36 | 34.54 | 1.76 | 44.70 | 1.02 | 25.9 |
| 764L _ 1 | 1 | 25.40 | .88 | 22.35 | 1 3/8 | 34.9 | 1.45 | 36.83 | 1.93 | 49.00 | 1.23 | 31.2 |
| 764L _ 1 1/4 | *1 1/4 | 31.75 | 1.09 | 27.7 | 1 11/16 | 42.9 | 1.75 | 44.50 | 2.62 | 66.55 | 1.62 | 41.2 |
| 764L _ 1 1/2 | *1 1/2 | 38.10 | 1.34 | 34.0 | 2 | 50.8 | 2.00 | 50.80 | 3.07 | 77.98 | 1.97 | 50.0 |
| 764L _ 2 | *2 | 50.80 | 1.81 | 45.97 | 2 3/4 | 69.9 | 2.75 | 69.85 | 4.22 | 107.19 | 2.66 | 67.6 |

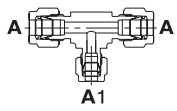
* Including low friction paste (see page 98)

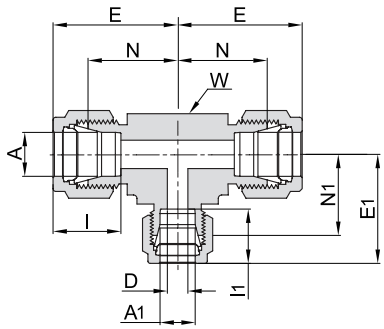
"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 764 LR
# REDUCING TEE

HOW TO ORDER

| | A | | A | | A1 |
|---|---|---|---|---|---|
| 764LR | 3/8 | X | 3/8 | X | 1/4 |




### ALL TUBE (METRIC)

| Ordering Information | A Tube O.D. | A1 Tube O.D. | E | E1 | I | I1 | D | W Wrench Flat | | N | N1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | mm | inch | mm | mm | mm |
| 764LR_8MMX8MMX6MM | 8 | 6 | 29.9 | 29.8 | 16.2 | 15.3 | 4.8 | 5/8 | 15.9 | 22.4 | 22.4 |
| 764LR_10MMX10MMX6MM | 10 | 6 | 31.5 | 31.3 | 17.2 | 15.3 | 4.8 | 11/16 | 17.5 | 23.9 | 23.9 |
| 764LR_12MMX12MMX6MM | 12 | 6 | 36.0 | 31.8 | 22.8 | 15.3 | 4.8 | 13/16 | 20.6 | 25.9 | 24.4 |
| 764LR_12MMX12MMX10MM | 12 | 10 | 36.0 | 33.5 | 22.8 | 17.2 | 7.9 | 13/16 | 20.6 | 25.9 | 25.9 |
| 764LR_14MMX14MMX10MM | 14 | 10 | 38.8 | 36.3 | 24.4 | 17.2 | 7.9 | 15/16 | 23.8 | 28.7 | 28.7 |
| 764LR_18MMX18MMX12MM | 18 | 12 | 39.8 | 39.8 | 24.4 | 22.8 | 9.5 | 1 1/16 | 27.0 | 29.7 | 29.7 |
| 764LR_50MMX50MMX38MM | 50* | 38* | 106.0 | 96.2 | 65.0 | 49.4 | 33.7 | 2 3/4 | 69.9 | 68.9 | 68.6 |

### ALL TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | E | | E1 | | I | | I1 | | D | | W Wrench Flat | | N | | N1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 764LR_1/4 X 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | 3.17 | 1.06 | 26.9 | 1.03 | 26.2 | .60 | 15.2 | .50 | 12.7 | .09 | 2.28 | 1/2 | 12.7 | .77 | 19.6 | .77 | 19.6 |
| 764LR_3/8 X 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | 1.20 | 30.5 | 1.14 | 29.0 | .66 | 16.8 | .60 | 15.2 | .19 | 4.82 | 5/8 | 15.9 | .91 | 23.1 | .85 | 21.6 |
| 764LR_1/2 X 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | 6.35 | 1.42 | 36.1 | 1.25 | 31.8 | .90 | 22.9 | .60 | 15.2 | .19 | 4.82 | 13/16 | 20.6 | 1.02 | 25.9 | .96 | 24.4 |
| 764LR_1/2 X 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | 9.52 | 1.42 | 36.1 | 1.31 | 33.3 | .90 | 22.9 | .66 | 16.8 | .28 | 7.11 | 13/16 | 20.6 | 1.02 | 25.9 | 1.02 | 25.9 |
| 764LR_5/8 X 5/8 X 3/8 | 5/8 | 15.88 | 3/8 | 9.52 | 1.53 | 38.9 | 1.42 | 36.1 | .96 | 24.4 | .66 | 16.8 | .28 | 7.11 | 15/16 | 23.8 | 1.13 | 28.7 | 1.13 | 28.7 |
| 764LR_3/4 X 3/4 X 1/4 | 3/4 | 19.05 | 1/4 | 6.35 | 1.57 | 39.9 | 1.46 | 37.1 | .96 | 24.4 | .60 | 15.2 | .19 | 4.82 | 1 1/16 | 27.0 | 1.17 | 29.7 | 1.17 | 29.7 |
| 764LR_3/4 X 3/4 X 3/8 | 3/4 | 19.05 | 3/8 | 9.52 | 1.57 | 39.9 | 1.46 | 37.1 | .96 | 24.4 | .66 | 16.8 | .28 | 7.11 | 1 1/16 | 27.0 | 1.17 | 29.7 | 1.17 | 29.7 |
| 764LR_3/4 X 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | 12.70 | 1.57 | 39.9 | 1.57 | 39.9 | .96 | 24.4 | .90 | 22.9 | .41 | 10.41 | 1 1/16 | 27.0 | 1.17 | 29.7 | 1.17 | 29.7 |
| 764LR_1 X 1 X 3/8 | 1 | 25.4 | 3/8 | 9.52 | 1.93 | 49.0 | 1.65 | 41.9 | 1.23 | 31.2 | .66 | 16.8 | .28 | 7.11 | 1 3/8 | 34.9 | 1.45 | 36.8 | 1.36 | 34.5 |
| 764LR_1 X 1 X 1/2 | 1 | 25.4 | 1/2 | 12.70 | 1.93 | 49.0 | 1.76 | 44.7 | 1.23 | 31.2 | .90 | 22.9 | .41 | 10.41 | 1 3/8 | 34.9 | 1.45 | 36.8 | 1.36 | 34.5 |
| 764LR_1 X 1 X 3/4 | 1 | 25.4 | 3/4 | 19.05 | 1.93 | 49.0 | 1.76 | 44.7 | 1.23 | 31.2 | 0.96 | 24.4 | .62 | 15.75 | 1 3/8 | 34.9 | 1.45 | 36.8 | 1.36 | 34.5 |
| 764LR_1 1/4 X 1 1/4 X 1 | 1 1/4* | 31.75 | 1 | 25.40 | 2.67 | 67.8 | 2.17 | 55.1 | 1.62 | 41.2 | 1.23 | 31.2 | .88 | 22.35 | 1 11/16 | 42.9 | 1.75 | 44.5 | 1.69 | 42.9 |
| 764LR_1 1/2 X 1 1/2 X 1 | 1 1/2* | 38.10 | 1 | 25.40 | 3.10 | 78.7 | 2.36 | 59.9 | 1.97 | 50.0 | 1.23 | 31.2 | .88 | 22.35 | 2 | 50.8 | 2.00 | 50.8 | 1.88 | 47.8 |

* Including low friction paste (see page 101)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

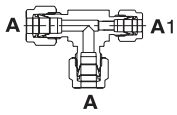
Cont'd next page

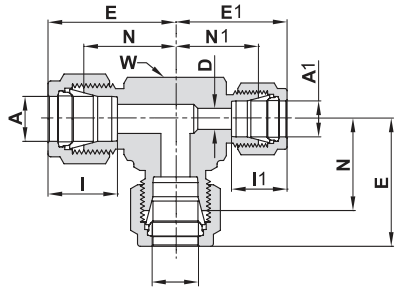
## 764 LR

# REDUCING TEE (Cont'd)

HOW TO ORDER

| 764LR | A | | A1 | | A |
|---|---|---|---|---|---|
| | 3/8 | X | 1/4 | X | 3/8 |



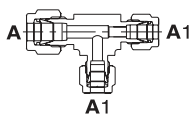



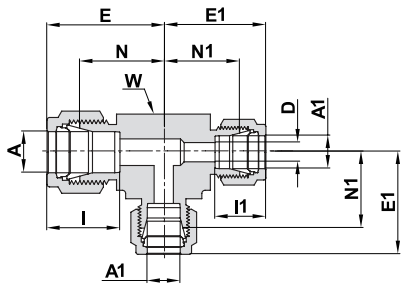

### ALL TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | E | | E1 | | I | | I1 | | D | | W Wrench Flat | | N | | N1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 764LR _ 1/4 X 1/8 X 1/4 | 1/4 | 6.35 | 1/8 | 3.17 | 1.06 | 26.9 | 1.03 | 26.2 | .60 | 15.2 | .50 | 12.7 | .09 | 2.28 | 1/2 | 12.7 | .77 | 19.6 | .77 | 19.6 |
| 764LR _ 3/8 X 1/4 X 3/8 | 3/8 | 9.25 | 1/4 | 6.35 | 1.20 | 30.5 | 1.14 | 29.0 | .66 | 16.8 | .60 | 15.2 | .19 | 4.82 | 5/8 | 15.9 | .91 | 23.1 | .85 | 21.6 |
| 764LR _ 1/2 X 1/4 X 1/2 | 1/2 | 12.7 | 1/4 | 6.35 | 1.42 | 36.1 | 1.31 | 33.3 | .90 | 22.9 | .60 | 15.2 | .19 | 4.82 | 13/16 | 20.6 | 1.02 | 25.9 | 1.02 | 25.9 |
| 764LR _1/2 X 3/8 X 1/2 | 1/2 | 12.7 | 3/8 | 9.52 | 1.42 | 36.1 | 1.31 | 33.3 | .90 | 22.9 | .66 | 16.8 | .28 | 7.11 | 13/16 | 20.6 | 1.02 | 25.9 | 1.02 | 25.9 |
| 764LR _ 3/4 X 3/8 X 3/4 | 3/4 | 19.05 | 3/8 | 9.52 | 1.57 | 39.9 | 1.46 | 37.1 | .96 | 24.4 | .66 | 16.8 | .28 | 7.11 | 1 1/16 | 27.0 | 1.17 | 29.7 | 1.17 | 29.7 |

HOW TO ORDER

| 764LR | A | | A1 | | A1 |
|---|---|---|---|---|---|
| | 1/2 | X | 3/8 | X | 3/8 |



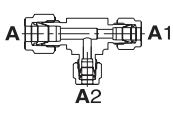



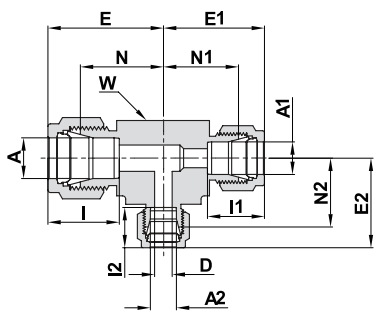

### ALL TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | E | | E1 | | I | | I1 | | D | | W Wrench Flat | | N | | N1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 764LR_1/2 X 3/8 X 3/8 | 1/2 | 12.70 | 3/8 | 9.52 | 1.42 | 36.1 | 1.31 | 33.3 | .90 | 22.9 | .66 | 16.8 | .28 | 7.1 | 13/16 | 20.6 | 1.02 | 25.9 | 1.02 | 25.9 |
| 764LR_5/8 X 3/8 X 3/8 | 5/8 | 15.87 | 3/8 | 9.52 | 1.53 | 38.9 | 1.42 | 36.1 | .96 | 24.4 | .66 | 16.8 | .28 | 7.1 | 15/16 | 23.8 | 1.13 | 28.7 | 1.13 | 28.7 |
| 764LR_3/4 X 3/8 X 3/8 | 3/4 | 19.05 | 3/8 | 9.52 | 1.57 | 39.9 | 1.46 | 37.1 | .96 | 24.4 | .66 | 16.8 | .28 | 7.1 | 1 1/16 | 27.0 | 1.17 | 29.7 | 1.17 | 29.7 |

HOW TO ORDER

| 764LR | A | | A1 | | A2 |
|---|---|---|---|---|---|
| | 5/8 | X | 1/2 | X | 3/8 |



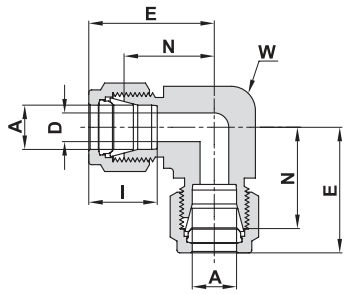




### ALL TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | A2 Tube O.D. | | E | | E1 | | E2 | | I | | I1 | | I2 | | D | | W Wrench Flat | | N | | N1&N2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 764LR_5/8 X 1/2 X 3/8 | 5/8 | 15.87 | 1/2 | 12.70 | 3/8 | 9.52 | 1.53 | 38.9 | 1.53 | 38.9 | 1.42 | 36.1 | .96 | 24.4 | .90 | 22.9 | .66 | 16.8 | .28 | 7.11 | 15/16 | 23.8 | 1.13 | 28.7 | 1.13 | 28.7 |
| 764LR_3/4 X 1/2 X 3/8 | 3/4 | 19.05 | 1/2 | 12.70 | 3/8 | 9.52 | 1.57 | 39.9 | 1.57 | 39.9 | 1.46 | 37.1 | .96 | 24.4 | .90 | 22.9 | .66 | 16.8 | .28 | 7.11 | 1 1/16 | 27.0 | 1.17 | 29.7 | 1.17 | 29.7 |
| 764LR_1 X 3/4 X 3/8 | 1 | 25.40 | 3/4 | 19.05 | 3/8 | 9.52 | 1.93 | 49.0 | 1.76 | 44.7 | 1.65 | 41.9 | 1.23 | 31.2 | .96 | 24.4 | .66 | 16.8 | .28 | 7.11 | 1 3/8 | 34.9 | 1.45 | 36.8 | 1.36 | 34.5 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 765 L
# UNION ELBOW




### TUBE (METRIC) TO TUBE (METRIC)

| Ordering Information | A Tube O.D. | D | W Wrench Flat | | N | E | I |
|---|---|---|---|---|---|---|---|
| | mm | mm | inch | mm | mm | mm | mm |
| 765L _ 3 | 3 | 2.4 | 3/8 | 9.5 | 15.7 | 22.3 | 12.9 |
| 765L _ 4 | 4 | 2.4 | 1/2 | 12.7 | 18.8 | 25.4 | 13.7 |
| 765L _ 6 | 6 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 15.3 |
| 765L _ 8 | 8 | 6.4 | 9/16 | 14.3 | 21.3 | 28.8 | 16.2 |
| 765L _ 10 | 10 | 7.9 | 11/16 | 17.5 | 23.9 | 31.5 | 17.2 |
| 765L _ 12 | 12 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 22.8 |
| 765L _ 14 | 14 | 11.1 | 15/16 | 23.8 | 27.9 | 38.0 | 24.4 |
| 765L _ 15 | 15 | 11.9 | 15/16 | 23.8 | 27.9 | 38.0 | 24.4 |
| 765L _ 16 | 16 | 12.7 | 15/16 | 23.8 | 27.9 | 38.0 | 24.4 |
| 765L _ 18 | 18 | 15.1 | 1 1/16 | 27.0 | 29.7 | 39.8 | 24.4 |
| 765L _ 20 | 20 | 15.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 26.0 |
| 765L _ 22 | 22 | 18.3 | 1 3/8 | 34.9 | 34.5 | 44.6 | 26.0 |
| 765L _ 25 | 25 | 21.8 | 1 3/8 | 34.9 | 36.8 | 49.1 | 31.3 |
| 765L _ 38 | 38* | 33.7 | - | 55.0 | 56.4 | 84.0 | 49.4 |
| 765L _ 50 | 50* | 45.2 | 2 3/4 | 69.9 | 68.9 | 106.0 | 65.0 |

### TUBE (INCH) TO TUBE (INCH)

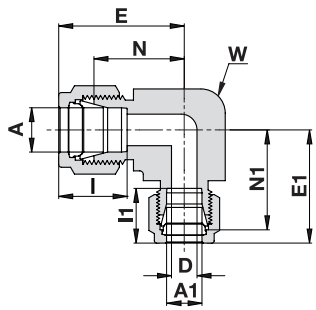
| Ordering Information | A Tube O.D. | | D | | W Wrench Flat | | N | | E | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 765L _ 1/16 | 1/16 | 1.58 | .05 | 1.27 | 3/8 | 9.5 | .55 | 14.00 | .70 | 17.80 | .34 | .86 |
| 765L _ 1/8 | 1/8 | 3.17 | .09 | 2.28 | 3/8 | 9.5 | .62 | 15.74 | .88 | 22.35 | .50 | 12.7 |
| 765L _ 3/16 | 3/16 | 4.76 | .12 | 3.04 | 1/2 | 12.7 | .74 | 18.80 | 1.00 | 25.40 | .54 | 13.7 |
| 765L _ 1/4 | 1/4 | 6.35 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.55 | 1.06 | 26.92 | .60 | 15.2 |
| 765L _ 5/16 | 5/16 | 7.93 | .25 | 6.35 | 9/16 | 14.3 | .84 | 21.33 | 1.13 | 28.70 | .64 | 16.2 |
| 765L _ 3/8 | 3/8 | 9.52 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | .66 | 16.8 |
| 765L _ 1/2 | 1/2 | 12.70 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.06 | .90 | 22.9 |
| 765L _ 5/8 | 5/8 | 15.87 | .50 | 12.70 | 15/16 | 23.8 | 1.10 | 27.94 | 1.50 | 38.10 | .96 | 24.4 |
| 765L _ 3/4 | 3/4 | 19.05 | .62 | 15.74 | 1 1/16 | 27.0 | 1.17 | 29.70 | 1.57 | 39.90 | .96 | 24.4 |
| 765L _ 7/8 | 7/8 | 22.22 | .72 | 18.29 | 1 3/8 | 34.9 | 1.36 | 34.54 | 1.76 | 44.70 | 1.02 | 25.9 |
| 765L _ 1 | 1 | 25.40 | .88 | 22.35 | 1 3/8 | 34.9 | 1.45 | 36.83 | 1.93 | 49.00 | 1.23 | 31.2 |
| 765L _ 1 1/4 | 1 1/4* | 31.75 | 1.09 | 27.70 | 1 11/16 | 42.9 | 1.75 | 44.50 | 2.62 | 66.55 | 1.62 | 41.2 |
| 765L _ 1 1/2 | 1 1/2* | 38.10 | 1.34 | 34.00 | 2 | 50.8 | 2.00 | 50.80 | 3.07 | 77.98 | 1.97 | 50.0 |
| 765L _ 2 | 2* | 50.80 | 1.81 | 45.97 | 2 3/4 | 69.9 | 2.75 | 69.85 | 4.22 | 107.19 | 2.66 | 67.6 |

* Including low friction paste (see page 98)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 765 LR

# REDUCING UNION ELBOW




### TUBE (METRIC) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | A1 Tube O.D. | E | E1 | I | I1 | D | W Wrench Flat | | N | N1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | in | mm | mm | mm |
| 765LR _ 6 X 1/4 | 6 | 1/4 | 27.0 | 26.9 | 15.3 | 15.2 | 4.8 | 1/2 | 12.7 | 19.6 | 19.6 |
| 765LR _ 8 X 1/4 | 8 | 1/4 | 28.8 | 28.7 | 16.2 | 15.2 | 4.8 | 9/16 | 14.3 | 21.3 | 21.3 |

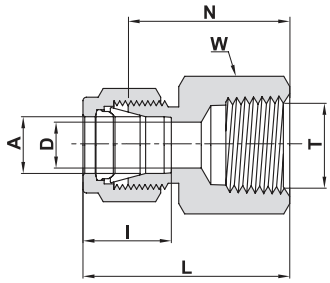
### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | E | | E1 | | I | | I1 | | D | | W Wrench Flat | | N | | N1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm |
| 765LR _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | 1.20 | 30.48 | 1.20 | 30.48 | .66 | 16.8 | 60. | 15.2 | 19. | 4.82 | 5/8 | 15.9 | .91 | 23.11 | .91 | 23.11 |
| 765LR _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | 9.52 | 1.50 | 38.10 | 1.39 | 35.31 | .96 | 24.4 | .66 | 16.8 | .28 | 7.11 | 15/16 | 23.8 | 1.10 | 27.94 | 1.10 | 27.94 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 766 L

# FEMALE CONNECTOR




### TUBE (METRIC) TO FEMALE NPT THREAD

| Ordering Information | A Tube O.D | T (NPT) | D | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm |
| 766L _ 3 X 1/8 | 3 | 1/8 | 2.4 | 14 | 22.1 | 28.7 | 12.9 |
| 766L _ 3 X 1/4 | 3 | 1/4 | 2.4 | 19 | 26.9 | 33.5 | 12.9 |
| 766L _ 4 X 1/8 | 4 | 1/8 | 2.4 | 14 | 23.1 | 29.7 | 13.7 |
| 766L _ 6 X 1/8 | 6 | 1/8 | 4.8 | 14 | 23.9 | 31.3 | 15.3 |
| 766L _ 6 X 1/4 | 6 | 1/4 | 4.8 | 19 | 28.4 | 35.8 | 15.3 |
| 766L _ 6 X 3/8 | 6 | 3/8 | 4.8 | 22 | 30.2 | 37.6 | 15.3 |
| 766L _ 6 X 1/2 | 6 | 1/2 | 4.8 | 27 | 35.1 | 42.5 | 15.3 |
| 766L _ 8 X 1/8 | 8 | 1/8 | 6.4 | 15 | 24.6 | 32.1 | 16.2 |
| 766L _ 8 X 1/4 | 8 | 1/4 | 6.4 | 19 | 29.5 | 37.0 | 16.2 |
| 766L _ 8 X 3/8 | 8 | 3/8 | 6.4 | 22 | 31.0 | 38.5 | 16.2 |
| 766L _ 8 X 1/2 | 8 | 1/2 | 6.4 | 27 | 35.8 | 43.3 | 16.2 |
| 766L _ 10 X 1/4 | 10 | 1/4 | 7.9 | 19 | 30.2 | 37.8 | 17.2 |
| 766L _ 10 X 3/8 | 10 | 3/8 | 7.9 | 22 | 31.8 | 39.4 | 17.2 |
| 766L _ 10 X 1/2 | 10 | 1/2 | 7.9 | 27 | 36.6 | 44.2 | 17.2 |
| 766L _ 12 X 1/4 | 12 | 1/4 | 9.5 | 22 | 30.2 | 40.3 | 22.8 |
| 766L _ 12 X 3/8 | 12 | 3/8 | 9.5 | 22 | 31.8 | 41.9 | 22.8 |
| 766L _ 12 X 1/2 | 12 | 1/2 | 9.5 | 27 | 36.6 | 46.7 | 22.8 |
| 766L _ 15 X 1/2 | 15 | 1/2 | 11.9 | 27 | 36.6 | 46.7 | 24.4 |
| 766L _ 16 X 1/2 | 16 | 1/2 | 12.7 | 27 | 36.8 | 46.9 | 24.4 |
| 766L _ 20 X 1/2 | 20 | 1/2 | 15.9 | 30 | 37.8 | 47.9 | 26.0 |
| 766L _ 20 X 3/4 | 20 | 3/4 | 15.9 | 35 | 39.6 | 49.7 | 26.0 |
| 766L _ 22 X 3/4 | 22 | 3/4 | 18.3 | 35 | 39.6 | 49.7 | 26.0 |
| 766L _ 22 X 1 | 22 | 1 | 18.3 | 41 | 47.8 | 57.9 | 26.0 |
| 766L _ 25 X 3/4 | 25 | 3/4 | 21.8 | 35 | 41.1 | 53.4 | 31.3 |
| 766L _ 25 X 1 | 25 | 1 | 21.8 | 41 | 50.0 | 62.3 | 31.3 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

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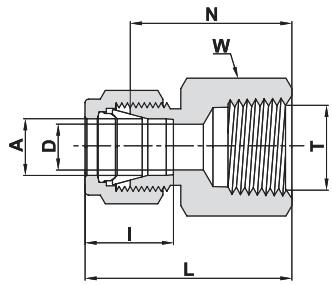
## 766 L

# FEMALE CONNECTOR (Cont'd)




### TUBE (INCH) TO FEMALE NPT THREAD

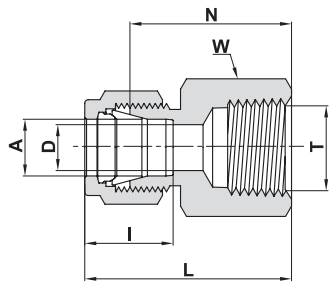
| Ordering Information | A Tube O.D | | T (NPT) | D | | W Hex Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 766L _ 1/16 X1/16 | 1/16 | 1.58 | 1/16 | .05 | 1.27 | 7/16 | .78 | 19.81 | .93 | 23.62 | .34 | 8.6 |
| 766L _ 1/16 X 1/8 | 1/16 | 1.58 | 1/8 | .05 | 1.27 | 9/16 | .81 | 20.57 | .96 | 24.38 | .34 | 8.6 |
| 766L _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 9/16 | .87 | 22.10 | 1.13 | 28.70 | .50 | 12.7 |
| 766L _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | .09 | 2.28 | 3/4 | 1.06 | 26.92 | 1.32 | 33.52 | .50 | 12.7 |
| 766L _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | .12 | 3.04 | 9/16 | .91 | 23.11 | 1.17 | 29.71 | .54 | 13.7 |
| 766L _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 9/16 | .94 | 23.87 | 1.23 | 31.24 | .60 | 15.2 |
| 766L _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 3/4 | 1.12 | 28.44 | 1.41 | 35.81 | .60 | 15.2 |
| 766L _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | .19 | 4.82 | 7/8 | 1.19 | 30.22 | 1.48 | 37.59 | .60 | 15.2 |
| 766L _ 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | .19 | 4.82 | 1 1/16 | 1.38 | 35.00 | 1.67 | 42.42 | .60 | 15.2 |
| 766L _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | .25 | 6.35 | 9/16 | .97 | 24.63 | 1.26 | 32.00 | .64 | 16.2 |
| 766L _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | .25 | 6.35 | 3/4 | 1.16 | 29.46 | 1.45 | 36.83 | .64 | 16.2 |
| 766L _ 3/8 X 1/8 | 3/8 | 9.52 | 1/8 | .28 | 7.11 | 5/8 | 1.00 | 25.40 | 1.29 | 32.76 | .66 | 16.8 |
| 766L _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 3/4 | 1.19 | 30.22 | 1.48 | 37.59 | .66 | 16.8 |
| 766L _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 7/8 | 1.25 | 31.75 | 1.54 | 39.11 | .66 | 16.8 |
| 766L _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .28 | 7.11 | 1 1/16 | 1.44 | 36.57 | 1.73 | 43.94 | .66 | 16.8 |
| 766L _ 3/8 X 3/4 | 3/8 | 9.52 | 3/4 | .28 | 7.11 | 1 5/16 | 1.59 | 40.40 | 1.88 | 47.75 | .66 | 16.8 |
| 766L _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | .41 | 10.41 | 13/16 | 1.19 | 30.22 | 1.59 | 40.38 | .90 | 22.9 |
| 766L _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .41 | 10.41 | 7/8 | 1.25 | 31.75 | 1.65 | 41.91 | .90 | 22.9 |
| 766L _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 1 1/16 | 1.44 | 36.57 | 1.84 | 46.73 | .90 | 22.9 |
| 766L _ 1/2 X 3/4 | 1/2 | 12.70 | 3/4 | .41 | 10.41 | 1 5/16 | 1.50 | 38.10 | 1.90 | 48.26 | .90 | 22.9 |
| 766L _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | .50 | 12.70 | 15/16 | 1.25 | 31.75 | 1.65 | 41.91 | .96 | 24.4 |
| 766L _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .50 | 12.70 | 1 1/16 | 1.44 | 36.57 | 1.84 | 46.73 | .96 | 24.4 |
| 766L _ 5/8 X 3/4 | 5/8 | 15.87 | 3/4 | .50 | 12.70 | 1 5/16 | 1.50 | 38.10 | 1.90 | 48.26 | .96 | 24.4 |
| 766L _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | .62 | 15.75 | 1 1/16 | 1.44 | 36.57 | 1.84 | 46.73 | .96 | 24.4 |
| 766L _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.75 | 1 5/16 | 1.50 | 38.10 | 1.90 | 48.26 | .96 | 24.4 |
| 766L _ 7/8 X 3/4 | 7/8 | 22.22 | 3/4 | .72 | 18.28 | 1 5/16 | 1.56 | 39.62 | 1.96 | 49.78 | 1.02 | 25.9 |
| 766L _ 1 X 3/4 | 1 | 25.40 | 3/4 | .88 | 22.35 | 1 3/8 | 1.62 | 41.14 | 2.10 | 53.34 | 1.23 | 31.2 |
| 766L _ 1 X 1 | 1 | 25.40 | 1 | .88 | 22.35 | 1 5/8 | 1.97 | 50.03 | 2.45 | 62.23 | 1.23 | 31.2 |
| 766L _ 1 1/4 X 1 1/4 | 1 1/4* | 31.75 | 1 1/4 | 1.09 | 27.70 | 2 1/4 | 2.07 | 52.59 | 2.94 | 74.68 | 1.62 | 41.2 |
| 766L _ 1 1/2 X 1 1/2 | 1 1/2* | 38.10 | 1 1/2 | 1.34 | 34.00 | 2 3/8 | 2.21 | 56.13 | 3.28 | 83.31 | 1.97 | 50.0 |
| 766L _ 2 X 2 | 2* | 50.80 | 2 | 1.81 | 45.97 | 2 7/8 | 2.53 | 64.26 | 4.00 | 101.60 | 2.66 | 67.6 |

* Including low friction paste (see page 98)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 766 LR

# FEMALE CONNECTOR




### TUBE (METRIC) TO FEMALE ISO TAPERED THREAD

| Ordering Information | A Tube O.D | T (ISO) | D | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm |
| 766LR _ 3 X 1/8 | 3 | R-1/8 | 2.4 | 14 | 22.1 | 28.7 | 12.9 |
| 766LR _ 6 X 1/8 | 6 | R-1/8 | 4.8 | 14 | 23.9 | 31.3 | 15.3 |
| 766LR _ 6 X 1/4 | 6 | R-1/4 | 4.8 | 19 | 28.4 | 35.8 | 15.3 |
| 766LR _ 6 X 3/8 | 6 | R-3/8 | 4.8 | 22 | 30.2 | 37.6 | 15.3 |
| 766LR _ 6 X 1/2 | 6 | R-1/2 | 4.8 | 27 | 35.1 | 42.5 | 15.3 |
| 766LR _ 8 X 1/8 | 8 | R-1/8 | 6.4 | 15 | 24.6 | 32.1 | 16.2 |
| 766LR _ 8 X 1/4 | 8 | R-1/4 | 6.4 | 19 | 29.5 | 37.0 | 16.2 |
| 766LR _ 8 X 3/8 | 8 | R-3/8 | 6.4 | 22 | 31.0 | 38.5 | 16.2 |
| 766LR _ 8 X 1/2 | 8 | R-1/2 | 6.4 | 27 | 35.8 | 43.3 | 16.2 |
| 766LR _ 10 X 1/8 | 10 | R-1/8 | 7.9 | 18 | 25.4 | 33.0 | 17.2 |
| 766LR _ 10 X 1/4 | 10 | R-1/4 | 7.9 | 19 | 30.2 | 37.8 | 17.2 |
| 766LR _ 10 X 3/8 | 10 | R-3/8 | 7.9 | 22 | 31.8 | 39.4 | 17.2 |
| 766LR _ 10 X 1/2 | 10 | R-1/2 | 7.9 | 27 | 36.6 | 44.2 | 17.2 |
| 766LR _ 12 X 1/8 | 12 | R-1/8 | 8.3 | 22 | 25.4 | 35.5 | 22.8 |
| 766LR _ 12 X 1/4 | 12 | R-1/4 | 9.5 | 22 | 30.2 | 40.3 | 22.8 |
| 766LR _ 12 X 3/8 | 12 | R-3/8 | 9.5 | 22 | 31.8 | 41.9 | 22.8 |
| 766LR _ 12 X 1/2 | 12 | R-1/2 | 9.5 | 27 | 36.6 | 46.7 | 22.8 |
| 766LR _ 12 X 3/4 | 12 | R-3/4 | 9.5 | 35 | 38.9 | 49.0 | 22.8 |
| 766LR _ 15 X 3/8 | 15 | R-3/8 | 11.9 | 24 | 31.8 | 41.9 | 24.4 |
| 766LR _ 15 X 1/2 | 15 | R-1/2 | 11.9 | 27 | 36.6 | 46.7 | 24.4 |
| 766LR _ 20 X 1/2 | 20 | R-1/2 | 15.9 | 30 | 37.8 | 47.9 | 26.0 |
| 766LR _ 20 X 3/4 | 20 | R-3/4 | 15.9 | 35 | 39.6 | 49.7 | 26.0 |
| 766LR _ 22 X 3/4 | 22 | R-3/4 | 18.3 | 35 | 39.6 | 49.7 | 26.0 |
| 766LR _ 22 X 1 | 22 | R-1 | 18.3 | 41 | 47.8 | 57.9 | 26.0 |
| 766LR _ 25 X 3/4 | 25 | R-3/4 | 21.8 | 35 | 41.1 | 53.4 | 31.3 |
| 766LR _ 25 X 1 | 25 | R-1 | 21.8 | 41 | 50.0 | 62.3 | 31.3 |

**Reference Specifications:**

DIN -2999
BS -21
JIS -B0203
ISO -7/1-BSP-T

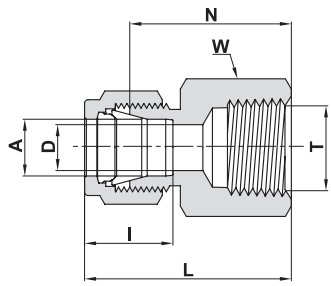
**Designation:**
Marking LR on Hex

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

Cont'd next page

## 766 LR

# FEMALE CONNECTOR (Cont'd)




### TUBE (INCH) TO FEMALE ISO TAPERED THREAD

| Ordering Information | A Tube O.D | | T (ISO) | D | | W Hex Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 766LR _ 1/16 X1/16 | 1/16 | 1.58 | R-1/16 | .05 | 1.27 | 7/16 | .78 | 19.81 | .93 | 23.62 | .34 | 8.6 |
| 766LR _ 1/16 X 1/8 | 1/16 | 1.58 | R-1/8 | .05 | 1.27 | 9/16 | .81 | 20.57 | .96 | 24.38 | .34 | 8.6 |
| 766LR _ 1/8 X 1/8 | 1/8 | 3.17 | R-1/8 | .09 | 2.28 | 9/16 | .87 | 22.10 | 1.13 | 28.70 | .50 | 12.7 |
| 766LR _ 1/8 X 1/4 | 1/8 | 3.17 | R-1/4 | .09 | 2.28 | 3/4 | 1.06 | 26.92 | 1.32 | 33.52 | .50 | 12.7 |
| 766LR _ 3/16 X 1/8 | 3/16 | 4.76 | R-1/8 | .12 | 3.04 | 9/16 | .91 | 23.11 | 1.17 | 29.71 | .54 | 13.7 |
| 766LR _ 1/4 X 1/8 | 1/4 | 6.35 | R-1/8 | .19 | 4.82 | 9/16 | .94 | 23.87 | 1.23 | 31.24 | .60 | 15.2 |
| 766LR _ 1/4 X 1/4 | 1/4 | 6.35 | R-1/4 | .19 | 4.82 | 3/4 | 1.12 | 28.44 | 1.41 | 35.81 | .60 | 15.2 |
| 766LR _ 1/4 X 3/8 | 1/4 | 6.35 | R-3/8 | .19 | 4.82 | 7/8 | 1.19 | 30.22 | 1.48 | 37.59 | .60 | 15.2 |
| 766LR _ 1/4 X 1/2 | 1/4 | 6.35 | R-1/2 | .19 | 4.82 | 1 1/16 | 1.38 | 35.00 | 1.67 | 42.42 | .60 | 15.2 |
| 766LR _ 5/16 X 1/4 | 5/16 | 7.93 | R-1/4 | .25 | 6.35 | 3/4 | 1.16 | 29.46 | 1.45 | 36.83 | .64 | 16.2 |
| 766LR _ 3/8 X 1/8 | 3/8 | 9.52 | R-1/8 | .28 | 7.11 | 5/8 | 1.00 | 25.40 | 1.29 | 32.76 | .66 | 16.8 |
| 766LR _ 3/8 X 1/4 | 3/8 | 9.52 | R-1/4 | .28 | 7.11 | 3/4 | 1.19 | 30.22 | 1.48 | 37.59 | .66 | 16.8 |
| 766LR _ 3/8 X 3/8 | 3/8 | 9.52 | R-3/8 | .28 | 7.11 | 7/8 | 1.25 | 31.75 | 1.54 | 39.11 | .66 | 16.8 |
| 766LR _ 3/8 X 1/2 | 3/8 | 9.52 | R-1/2 | .28 | 7.11 | 1 1/16 | 1.44 | 36.57 | 1.73 | 43.94 | .66 | 16.8 |
| 766LR_ 1/2 X 1/4 | 1/2 | 12.70 | R-1/4 | .41 | 10.41 | 13/16 | 1.19 | 30.20 | 1.59 | 40.38 | .90 | 22.9 |
| 766LR _ 1/2 X 3/8 | 1/2 | 12.70 | R-3/8 | .41 | 10.41 | 7/8 | 1.25 | 31.75 | 1.65 | 41.91 | .90 | 22.9 |
| 766LR_ 1/2 X 1/2 | 1/2 | 12.70 | R-1/2 | .41 | 10.41 | 1 1/16 | 1.44 | 36.57 | 1.84 | 46.73 | .90 | 22.9 |
| 766LR _ 5/8 X 1/2 | 5/8 | 15.87 | R-1/2 | .50 | 12.70 | 1 1/16 | 1.44 | 36.57 | 1.84 | 46.73 | .96 | 24.4 |
| 766LR _ 3/4 X 1/2 | 3/4 | 19.05 | R-1/2 | .62 | 15.75 | 1 1/16 | 1.44 | 36.57 | 1.84 | 46.73 | .96 | 24.4 |
| 766LR _ 3/4 X 3/4 | 3/4 | 19.05 | R-3/4 | .62 | 15.75 | 1 5/16 | 1.50 | 38.10 | 1.90 | 48.26 | .96 | 24.4 |
| 766LR _ 1 X 3/4 | 1 | 25.40 | R-3/4 | .88 | 22.35 | 1 3/8 | 1.62 | 41.14 | 2.10 | 53.34 | 1.23 | 31.2 |
| 766LR _ 1 X 1 | 1 | 25.40 | R-1 | .88 | 22.35 | 1 5/8 | 1.97 | 50.03 | 2.45 | 62.23 | 1.23 | 31.2 |

**Reference Specifications:**

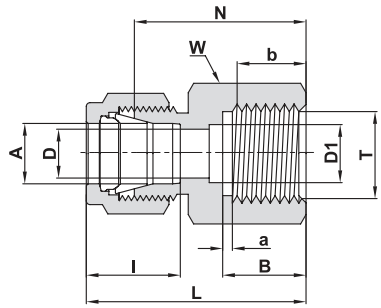
DIN -2999
BS -21
JIS -B0203
ISO -7/1-BSP-T

**Designation:**
Marking LR on Hex

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 766 LG

# FEMALE CONNECTOR




### TUBE (METRIC) TO FEMALE ISO PARALLEL THREAD

| Ordering Information | A Tube O.D | T (ISO) | D | D1 | W Hex. Flat | B | b Min | a Min | N | L | I |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| 766LG _ 3 X 1/4 | 3 | G-1/4 | 2.4 | 5.5 | 19 | 13.0 | 9.5 | 1.6 | 28.7 | 35.3 | 12.9 |
| 766LG _ 6 X 1/8 | 6 | G-1/8 | 4.0 | 4.0 | 14 | 10.0 | 7.0 | 1.6 | 25.0 | 32.4 | 15.3 |
| 766LG _ 6 X 1/4 | 6 | G-1/4 | 4.8 | 5.5 | 19 | 13.0 | 9.5 | 1.6 | 30.2 | 37.6 | 15.3 |
| 766LG _ 6 X 3/8 | 6 | G-3/8 | 4.8 | 6.5 | 24 | 14.1 | 10.0 | 1.6 | 30.2 | 37.6 | 15.3 |
| 766LG _ 6 X 1/2 | 6 | G-1/2 | 4.8 | 7.0 | 27 | 19.0 | 15.0 | 1.6 | 36.1 | 43.5 | 15.3 |
| 766LG _ 8 X 1/4 | 8 | G-1/4 | 5.5 | 5.5 | 19 | 13.0 | 9.5 | 1.6 | 31.0 | 38.5 | 16.2 |
| 766LG _ 8 X 3/8 | 8 | G-3/8 | 6.4 | 6.4 | 24 | 14.1 | 10.0 | 1.6 | 28.7 | 36.2 | 16.2 |
| 766LG _ 8 X 1/2 | 8 | G-1/2 | 7.0 | 7.0 | 27 | 19.0 | 15.0 | 1.6 | 33.5 | 41.0 | 16.2 |
| 766LG _ 10 X 1/4 | 10 | G-1/4 | 5.5 | 5.5 | 19 | 13.0 | 9.5 | 1.6 | 31.8 | 39.4 | 17.2 |
| 766LG _ 10 X 3/8 | 10 | G-3/8 | 6.5 | 6.5 | 24 | 14.1 | 10.0 | 1.6 | 31.2 | 38.8 | 17.2 |
| 766LG _ 10 X 1/2 | 10 | G-1/2 | 7.0 | 7.0 | 27 | 19.0 | 15.0 | 1.6 | 34.5 | 42.1 | 17.2 |
| 766LG _ 12 X 1/4 | 12 | G-1/4 | 5.5 | 5.5 | 22 | 13.0 | 9.5 | 1.6 | 31.8 | 41.9 | 22.8 |
| 766LG _ 12 X 3/8 | 12 | G-3/8 | 6.5 | 6.5 | 24 | 14.1 | 10.0 | 1.6 | 34.3 | 44.4 | 22.8 |
| 766LG _ 12 X 1/2 | 12 | G-1/2 | 7.0 | 7.0 | 27 | 19.0 | 15.0 | 1.6 | 38.1 | 48.2 | 22.8 |
| 766LG _ 20 X 1/2 | 20 | G-1/2 | 7.0 | 7.0 | 30 | 19.0 | 15.0 | 1.6 | 44.2 | 54.3 | 26.0 |
| 766LG _ 22 X 1/2 | 22 | G-1/2 | 7.0 | 7.0 | 30 | 19.0 | 15.0 | 1.6 | 44.2 | 54.3 | 26.0 |

### TUBE (INCH) TO FEMALE ISO PARALLEL THREAD

| Ordering Information | A Tube O.D | | T (ISO) | D | | D1 | | W Hex. Flat | B | | b Min | | a Min | | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 766LG _ 1/8 X 1/4 | 1/8 | 3.17 | G-1/4 | .09 | 2.3 | .22 | 5.5 | 3/4 | .51 | 13.0 | .37 | 9.5 | .06 | 1.6 | 1.13 | 28.7 | 1.39 | 35.3 | .50 | 12.7 |
| 766LG _ 1/4 X 1/8 | 1/4 | 6.35 | G-1/8 | .16 | 4.0 | .16 | 4.0 | 9/16 | .40 | 10.0 | .28 | 7.0 | .06 | 1.6 | .98 | 25.0 | 1.27 | 32.4 | .60 | 15.2 |
| 766LG _ 1/4 X 1/4 | 1/4 | 6.35 | G-1/4 | .19 | 4.8 | .22 | 5.5 | 3/4 | .51 | 13.0 | .37 | 9.5 | .06 | 1.6 | 1.19 | 30.2 | 1.48 | 37.6 | .60 | 15.2 |
| 766LG _ 1/4 X 3/8 | 1/4 | 6.35 | G-3/8 | .19 | 4.8 | .26 | 6.5 | 15/16 | .56 | 14.1 | .39 | 10.0 | .06 | 1.6 | 1.19 | 30.2 | 1.48 | 37.6 | .60 | 15.2 |
| 766LG _ 1/4 X 1/2 | 1/4 | 6.35 | G-1/2 | .19 | 4.8 | .28 | 7.0 | 1/16 1 | .74 | 19.0 | .59 | 15.0 | .06 | 1.6 | 1.42 | 36.1 | 1.71 | 43.4 | .60 | 15.2 |
| 766LG _ 5/16 X 1/4 | 5/16 | 7.93 | G-1/4 | .22 | 5.5 | .22 | 5.5 | 3/4 | .51 | 13.0 | .37 | 9.5 | .06 | 1.6 | 1.22 | 31.0 | 1.51 | 38.4 | .64 | 16.2 |
| 766LG _ 5/16 X 1/2 | 5/16 | 7.93 | G-1/2 | .28 | 7.0 | .28 | 7.0 | 1/16 1 | .74 | 19.0 | .59 | 15.0 | .06 | 1.6 | 1.32 | 33.5 | 1.61 | 40.9 | .64 | 16.2 |
| 766LG _ 3/8 X 1/4 | 3/8 | 9.52 | G-1/4 | .22 | 5.5 | .22 | 5.5 | 3/4 | .51 | 13.0 | .37 | 9.5 | .06 | 1.6 | 1.25 | 31.8 | 1.54 | 39.1 | .66 | 16.8 |
| 766LG _ 3/8 X 3/8 | 3/8 | 9.52 | G-3/8 | .26 | 6.6 | .26 | 6.6 | 15/16 | .56 | 14.1 | .39 | 10.0 | .06 | 1.6 | 1.23 | 31.2 | 1.52 | 38.6 | .66 | 16.8 |
| 766LG _ 3/8 X 1/2 | 3/8 | 9.52 | G-1/2 | .28 | 7.0 | .28 | 7.0 | 1 1/16 | .74 | 19.0 | .59 | 15.0 | .06 | 1.6 | 1.36 | 34.5 | 1.65 | 41.9 | .66 | 16.8 |
| 766LG _ 1/2 X 3/8 | 1/2 | 12.7 | G-3/8 | .26 | 6.5 | .26 | 6.5 | 15/16 | .56 | 14.1 | .39 | 10.0 | .06 | 1.6 | 1.35 | 34.3 | 1.75 | 44.5 | .90 | 22.9 |
| 766LG _ 1/2 X 1/2 | 1/2 | 12.7 | G-1/2 | .28 | 7.0 | .28 | 7.0 | 1 1/16 | .74 | 19.0 | .59 | 15.0 | .06 | 1.6 | 1.50 | 38.1 | 1.90 | 48.2 | .90 | 22.9 |

**Reference Specifications:**

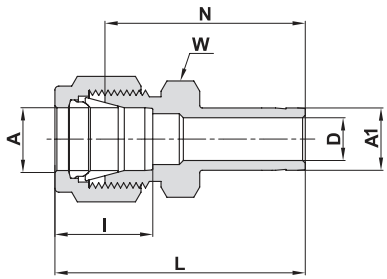
DIN -ISO 228/1
BS -2779
JIS -B0202
ISO -228/1-BSP-P

**Designation:**
Marking LG on Hex

For Parallel Threads Sealing, see page 82.

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 767 LT
# REDUCER



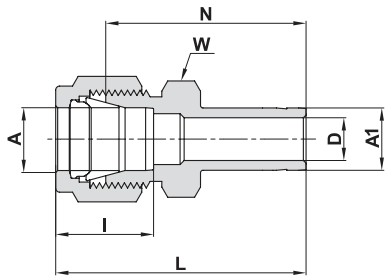

### TUBE (METRIC) TO STUB (METRIC)

| Ordering Information | A Tube O.D | A1 Tube O.D. | D | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | mm |
| 767LT _ 2 X 3 | 2 | 3 | 1.7 | 12 | 26.9 | 33.5 | 12.9 |
| 767LT _ 3 X 4 | 3 | 4 | 2.2 | 12 | 28.4 | 35.0 | 12.9 |
| 767LT _ 3 X 6 | 3 | 6 | 2.4 | 12 | 29.5 | 36.1 | 12.9 |
| 767LT _ 3 X 10 | 3 | 10 | 2.4 | 14 | 31.8 | 38.4 | 12.9 |
| 767LT _ 4 X 6 | 4 | 6 | 2.4 | 12 | 30.5 | 37.1 | 13.7 |
| 767LT _ 6 X 3 | 6 | 3 | 2.1 | 14 | 29.5 | 36.9 | 15.3 |
| 767LT _ 6 X 8 | 6 | 8 | 4.8 | 14 | 32.5 | 39.9 | 15.3 |
| 767LT _ 6 X 10 | 6 | 10 | 4.8 | 14 | 33.3 | 40.7 | 15.3 |
| 767LT _ 6 X 12 | 6 | 12 | 4.8 | 14 | 38.9 | 46.3 | 15.3 |
| 767LT _ 6 X 18 | 6 | 18 | 4.8 | 22 | 42.2 | 49.6 | 15.3 |
| 767LT _ 8 X 6 | 8 | 6 | 4.0 | 15 | 32.8 | 40.3 | 16.2 |
| 767LT _ 8 X 10 | 8 | 10 | 6.4 | 15 | 34.5 | 42.0 | 16.2 |
| 767LT _ 8 X 12 | 8 | 12 | 6.4 | 15 | 40.1 | 47.6 | 16.2 |
| 767LT _ 10 X 6 | 10 | 6 | 4.0 | 18 | 34.8 | 42.4 | 17.2 |
| 767LT _ 10 X 8 | 10 | 8 | 5.6 | 18 | 35.8 | 43.4 | 17.2 |
| 767LT _ 10 X 12 | 10 | 12 | 7.9 | 18 | 42.2 | 49.8 | 17.2 |
| 767LT _ 10 X 15 | 10 | 15 | 7.9 | 18 | 43.7 | 51.3 | 17.2 |
| 767LT _ 10 X 18 | 10 | 18 | 7.9 | 22 | 43.7 | 51.3 | 17.2 |
| 767LT _ 12 X 6 | 12 | 6 | 4.0 | 22 | 34.8 | 44.9 | 22.8 |
| 767LT _ 12 X 8 | 12 | 8 | 5.6 | 22 | 35.8 | 45.9 | 22.8 |
| 767LT _ 12 X 10 | 12 | 10 | 7.1 | 22 | 36.6 | 46.7 | 22.8 |
| 767LT _ 12 X 16 | 12 | 16 | 9.5 | 22 | 43.7 | 53.8 | 22.8 |
| 767LT _ 12 X 18 | 12 | 18 | 9.5 | 22 | 43.7 | 53.8 | 22.8 |
| 767LT _ 12 X 20 | 12 | 20 | 9.5 | 22 | 46.0 | 56.1 | 22.8 |
| 767LT _ 12 X 22 | 12 | 22 | 9.5 | 24 | 46.0 | 56.1 | 22.8 |
| 767LT _ 12 X 25 | 12 | 25 | 9.5 | 27 | 52.3 | 62.4 | 22.8 |
| 767LT _ 16 X 12 | 16 | 12 | 8.8 | 24 | 42.9 | 53.0 | 24.4 |
| 767LT _ 18 X 12 | 18 | 12 | 8.8 | 27 | 44.5 | 54.6 | 24.4 |
| 767LT _ 18 X 16 | 18 | 16 | 12.7 | 27 | 46.0 | 56.1 | 24.4 |
| 767LT _ 18 X 20 | 18 | 20 | 15.1 | 27 | 47.5 | 57.6 | 24.4 |
| 767LT _ 18 X 22 | 18 | 22 | 15.1 | 27 | 47.5 | 57.6 | 24.4 |
| 767LT _ 18 X 25 | 18 | 25 | 15.1 | 27 | 52.3 | 62.4 | 24.4 |
| 767LT _ 20 X 16 | 20 | 16 | 12.7 | 30 | 47.8 | 57.9 | 26.0 |
| 767LT _ 20 X 18 | 20 | 18 | 13.9 | 30 | 47.8 | 57.9 | 26.0 |
| 767LT _ 20 X 22 | 20 | 22 | 15.9 | 30 | 49.3 | 59.4 | 26.0 |
| 767LT _ 20 X 25 | 20 | 25 | 15.9 | 30 | 54.1 | 64.2 | 26.0 |
| 767LT _ 22 X 18 | 22 | 18 | 13.9 | 30 | 47.8 | 57.9 | 26.0 |
| 767LT _ 22 X 20 | 22 | 20 | 15.1 | 30 | 49.3 | 59.4 | 26.0 |
| 767LT _ 22 X 25 | 22 | 25 | 18.3 | 30 | 54.1 | 64.2 | 26.0 |
| 767LT _ 25 X 18 | 25 | 18 | 13.9 | 35 | 50.8 | 63.1 | 31.3 |
| 767LT _ 25 X 20 | 25 | 20 | 15.1 | 35 | 52.3 | 64.6 | 31.3 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

Cont'd next page

## 767 LT
# REDUCER (Cont'd)

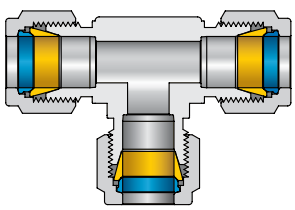



### TUBE (METRIC) TO STUB (INCH)

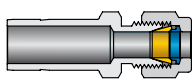
| Ordering Information | A Tube O.D. | A1 Tube O.D. | D | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm |
| 767LT _ 2 X 1/8 | 2 | 1/8 | 2.0 | 12 | 26.9 | 33.5 | 12.9 |
| 767LT _ 3 X 1/8 | 3 | 1/8 | 2.0 | 12 | 26.9 | 33.5 | 12.9 |
| 767LT _ 3 X 1/4 | 3 | 1/4 | 2.4 | 12 | 29.5 | 36.1 | 12.9 |
| 767LT _ 4 X 1/4 | 4 | 1/4 | 2.4 | 12 | 30.5 | 37.1 | 13.7 |
| 767LT _ 6 X 1/8 | 6 | 1/8 | 2.2 | 14 | 29.5 | 36.9 | 15.3 |
| 767LT _ 6 X 5/16 | 6 | 5/16 | 4.8 | 14 | 32.5 | 39.9 | 15.3 |
| 767LT _ 6 X 3/8 | 6 | 3/8 | 4.8 | 14 | 33.3 | 40.7 | 15.3 |
| 767LT _ 6 X 1/2 | 6 | 1/2 | 4.8 | 14 | 38.9 | 46.3 | 15.3 |
| 767LT _ 8 X 3/8 | 8 | 3/8 | 6.4 | 15 | 34.5 | 42.0 | 16.2 |
| 767LT _ 8 X 1/2 | 8 | 1/2 | 6.4 | 15 | 40.1 | 47.6 | 16.2 |
| 767LT _ 10 X 3/8 | 10 | 3/8 | 6.8 | 18 | 36.6 | 44.2 | 17.2 |
| 767LT _ 10 X 1/2 | 10 | 1/2 | 7.9 | 18 | 42.2 | 49.8 | 17.2 |
| 767LT _ 12 X 1/2 | 12 | 1/2 | 9.4 | 22 | 42.2 | 52.3 | 22.8 |
| 767LT _ 12 X 3/4 | 12 | 3/4 | 9.4 | 22 | 43.7 | 53.8 | 22.8 |
| 767LT _ 18 X 3/4 | 18 | 3/4 | 15.0 | 27 | 46.0 | 56.1 | 24.4 |
| 767LT _ 18 X 1 | 18 | 1 | 15.1 | 27 | 52.3 | 62.4 | 24.4 |
| 767LT _ 25 X 1 | 25 | 1 | 20.3 | 35 | 57.2 | 69.5 | 31.3 |

### HEAT EXCHANGER TEE INFORMATION

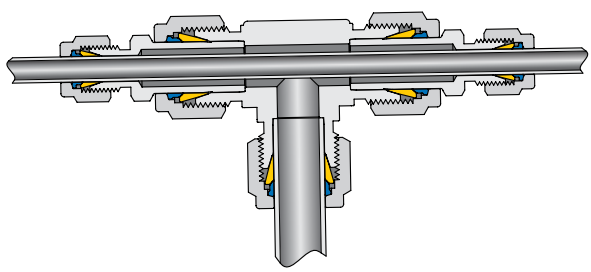
**UNION TEE - 764 L**



**REDUCER - 767 LT**

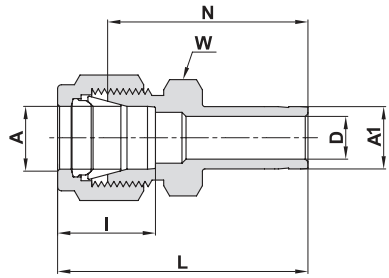


**Heat exchanger tee made with Let-Lok tube fittings**



"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 767 LT
# REDUCER (Cont'd)



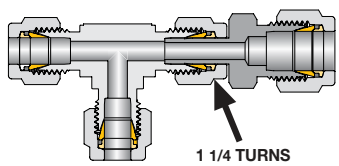

### TUBE (INCH) TO STUB (INCH)

| Ordering Information | A .Tube O.D | | A1 .Tube O.D | | D | | W Hex Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 767LT _ 1/16 X 1/8 | 1/16 | 1.58 | 1/8 | 3.17 | .05 | 1.27 | 5/16 | 1.00 | 25.40 | 1.15 | 29.21 | .34 | 8.6 |
| 767LT _ 1/16 X 1/4 | 1/16 | 1.58 | 1/4 | 6.35 | .05 | 1.27 | 5/16 | 1.09 | 27.68 | 1.24 | 31.50 | .34 | 8.6 |
| 767LT _ 1/8 X 1/16 | 1/8 | 3.17 | 1/16 | 1.58 | .03 | .76 | 7/16 | .88 | 22.35 | 1.14 | 28.96 | .50 | 12.7 |
| 767LT _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | 3.17 | .08 | 2.03 | 7/16 | 1.06 | 26.92 | 1.32 | 33.52 | .50 | 12.7 |
| 767LT _ 1/8 X 3/16 | 1/8 | 3.17 | 3/16 | 4.76 | .09 | 2.28 | 7/16 | 1.09 | 27.68 | 1.35 | 34.29 | .50 | 12.7 |
| 767LT _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | 6.35 | .09 | 2.28 | 7/16 | 1.16 | 29.46 | 1.42 | 36.06 | .50 | 12.7 |
| 767LT _ 1/8 X 3/8 | 1/8 | 3.17 | 3/8 | 9.52 | .09 | 2.28 | 7/16 | 1.22 | 30.98 | 1.48 | 37.59 | .50 | 12.7 |
| 767LT _ 1/8 X 1/2 | 1/8 | 3.17 | 1/2 | 12.70 | .09 | 2.28 | 9/16 | 1.48 | 37.59 | 1.74 | 44.20 | .50 | 12.7 |
| 767LT _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | 3.17 | .08 | 2.03 | 7/16 | 1.11 | 28.19 | 1.37 | 34.80 | .54 | 13.7 |
| 767LT _ 3/16 X 1/4 | 3/16 | 4.76 | 1/4 | 6.35 | .12 | 3.04 | 7/16 | 1.20 | 30.48 | 1.46 | 37.08 | .54 | 13.7 |
| 767LT _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | 3.17 | .08 | 2.03 | 1/2 | 1.16 | 29.46 | 1.45 | 36.83 | .60 | 15.2 |
| 767LT _ 1/4 X 3/16 | 1/4 | 6.35 | 3/16 | 4.76 | .12 | 3.04 | 1/2 | 1.19 | 30.22 | 1.48 | 37.59 | .60 | 15.2 |
| 767LT _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 6.35 | .17 | 4.20 | 1/2 | 1.25 | 31.75 | 1.54 | 39.11 | .60 | 15.2 |
| 767LT _ 1/4 X 5/16 | 1/4 | 6.35 | 5/16 | 7.93 | .19 | 4.82 | 1/2 | 1.28 | 32.51 | 1.57 | 39.87 | .60 | 15.2 |
| 767LT _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | 9.52 | .19 | 4.82 | 1/2 | 1.31 | 33.27 | 1.60 | 40.64 | .60 | 15.2 |
| 767LT _ 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | 12.70 | .19 | 4.82 | 9/16 | 1.53 | 38.86 | 1.82 | 46.22 | .60 | 15.2 |
| 767LT _ 1/4 X 5/8 | 1/4 | 6.35 | 5/8 | 15.87 | .19 | 4.82 | 11/16 | 1.60 | 40.64 | 1.89 | 48.00 | .60 | 15.2 |
| 767LT _ 1/4 X 3/4 | 1/4 | 6.35 | 3/4 | 19.05 | .19 | 4.82 | 13/16 | 1.59 | 40.39 | 1.88 | 47.75 | .60 | 15.2 |
| 767LT _ 5/16 X 3/8 | 5/16 | 7.93 | 3/8 | 9.52 | .25 | 6.35 | 9/16 | 1.36 | 34.54 | 1.65 | 41.91 | .64 | 16.2 |
| 767LT _ 5/16 X 1/2 | 5/16 | 7.93 | 1/2 | 12.70 | .25 | 6.35 | 9/16 | 1.58 | 40.13 | 1.87 | 47.49 | .64 | 16.2 |
| 767LT _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | .17 | 4.20 | 5/8 | 1.34 | 34.03 | 1.63 | 41.40 | .66 | 16.8 |
| 767LT _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | 9.52 | .27 | 6.85 | 5/8 | 1.41 | 35.81 | 1.70 | 43.18 | .66 | 16.8 |
| 767LT _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | 12.70 | .28 | 7.11 | 5/8 | 1.62 | 41.14 | 1.91 | 48.51 | .66 | 16.8 |
| 767LT _ 3/8 X 5/8 | 3/8 | 9.52 | 5/8 | 15.87 | .28 | 7.11 | 11/16 | 1.69 | 42.92 | 1.98 | 50.29 | .66 | 16.8 |
| 767LT _ 3/8 X 3/4 | 3/8 | 9.52 | 3/4 | 19.05 | .28 | 7.11 | 13/16 | 1.69 | 42.92 | 1.98 | 50.29 | .66 | 16.8 |
| 767LT _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | 6.35 | .17 | 4.20 | 13/16 | 1.37 | 34.80 | 1.77 | 44.96 | .90 | 22.9 |
| 767LT _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | 9.52 | .27 | 6.85 | 13/16 | 1.44 | 36.58 | 1.84 | 46.74 | .90 | 22.9 |
| 767LT _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | 12.70 | .37 | 9.40 | 13/16 | 1.66 | 42.16 | 2.06 | 52.32 | .90 | 22.9 |
| 767LT _ 1/2 X 5/8 | 1/2 | 12.70 | 5/8 | 15.87 | .41 | 10.41 | 13/16 | 1.72 | 43.68 | 2.12 | 53.84 | .90 | 22.9 |
| 767LT _ 1/2 X 3/4 | 1/2 | 12.70 | 3/4 | 19.05 | .41 | 10.41 | 13/16 | 1.72 | 43.68 | 2.12 | 53.84 | .90 | 22.9 |
| 767LT _ 1/2 X 1 | 1/2 | 12.70 | 1 | 25.40 | .41 | 10.41 | 1 1/16 | 1.97 | 50.03 | 2.37 | 60.19 | .90 | 22.9 |
| 767LT _ 5/8 X 3/4 | 5/8 | 15.87 | 3/4 | 19.05 | .50 | 12.70 | 15/16 | 1.75 | 44.45 | 2.15 | 54.61 | .96 | 24.4 |
| 767LT _ 5/8 X 7/8 | 5/8 | 15.87 | 7/8 | 22.22 | .50 | 12.70 | 15/16 | 1.81 | 45.97 | 2.21 | 56.13 | .96 | 24.4 |
| 767LT _ 5/8 X 1 | 5/8 | 15.87 | 1 | 25.40 | .50 | 12.70 | 1 1/16 | 2.00 | 50.80 | 2.40 | 60.96 | .96 | 24.4 |
| 767LT _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | 12.70 | .37 | 9.40 | 1 1/16 | 1.75 | 44.45 | 2.15 | 54.61 | .96 | 24.4 |
| 767LT _ 3/4 X 1 | 3/4 | 19.05 | 1 | 25.40 | .62 | 15.75 | 1 1/16 | 2.06 | 52.32 | 2.46 | 62.48 | .96 | 24.4 |
| 767LT _ 1 X 1 1/4 | 1 | 25.40 | 1 1/4* | 31.75 | .88 | 22.35 | 1 3/8 | 2.69 | 68.33 | 3.17 | 80.52 | 1.23 | 31.2 |
| 767LT _ 1 X 1 1/2 | 1 | 25.40 | 1 1/2* | 38.10 | .88 | 22.35 | 1 5/8 | 3.03 | 76.96 | 3.51 | 89.15 | 1.23 | 31.2 |
| 767LT _ 1 1/4 X 1 1/2 | 1 1/4 | 31.75 | 1 1/2* | 38.10 | 1.09 | 27.7 | 1 3/4 | 3.23 | 82.00 | 4.10 | 104.1 | 1.62 | 41.2 |

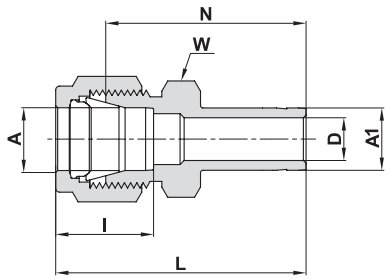
**ASSEMBLY INSTRUCTIONS:** Reducer tube to stub 767 LT

*Supplied assembled on tube stub end (A1) nut+front & back ferrule. Tighten the nut on the body 1/2 a turn with a wrench. Low friction paste (see page 98).

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.



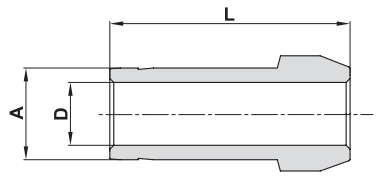
## 767 LT
# REDUCER (Cont'd)




### TUBE (INCH) TO STUB (METRIC)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | D | | W Hex. Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 767LT _ 1/8 X 6 | 1/8 | 3.17 | 6 | .09 | 2.30 | 7/16 | 1.16 | 29.46 | 1.42 | 36.06 | .50 | 12.7 |
| 767LT _ 1/4 X 6 | 1/4 | 6.35 | 6 | .16 | 4.00 | 1/2 | 1.25 | 31.75 | 1.54 | 39.11 | .60 | 15.2 |
| 767LT _ 3/8 X 8 | 3/8 | 9.52 | 8 | .22 | 5.60 | 5/8 | 1.42 | 36.06 | 1.71 | 43.43 | .66 | 16.8 |
| 767LT _ 3/8 X 12 | 3/8 | 9.52 | 12 | .28 | 7.11 | 5/8 | 1.62 | 41.15 | 1.91 | 48.51 | .66 | 16.8 |

## 767 LP
# PORT CONNECTOR




### CONNECTS TWO LET-LOK PORTS (METRIC)

| Ordering Information | A Tube O.D. | D | L |
|---|---|---|---|
| | mm | mm | mm |
| 767LP _ 3 | 3 | 2.1 | 22.2 |
| 767LP _ 6 | 6 | 4.0 | 25.0 |
| 767LP _ 8 | 8 | 5.6 | 25.9 |
| 767LP _ 10 | 10 | 7.1 | 27.1 |
| 767LP _ 12 | 12 | 8.8 | 36.2 |
| 767LP _ 16 | 16 | 12.7 | 37.4 |
| 767LP _ 18 | 18 | 13.9 | 37.4 |
| 767LP _ 38 | 38* | 31.6 | 81.9 |
| 767LP _ 50 | 50* | 42.8 | 114.0 |

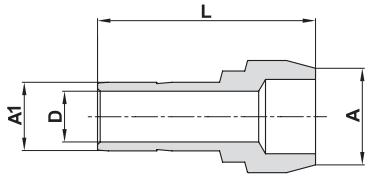
### CONNECTS TWO LET-LOK PORTS (INCH)

| Ordering Information | A Tube O.D. | | D | | L | |
|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm |
| 767LP _ 1/16 | 1/16 | 1.58 | .03 | 0.75 | .54 | 13.7 |
| 767LP _ 1/8 | 1/8 | 3.17 | .08 | 2.03 | .88 | 22.4 |
| 767LP _ 1/4 | 1/4 | 6.35 | .17 | 4.20 | .98 | 24.9 |
| 767LP _ 5/16 | 5/16 | 7.93 | .24 | 6.00 | 1.02 | 25.9 |
| 767LP _ 3/8 | 3/8 | 9.52 | .27 | 6.85 | 1.03 | 26.2 |
| 767LP _ 1/2 | 1/2 | 12.70 | .37 | 9.40 | 1.41 | 35.8 |
| 767LP _ 3/4 | 3/4 | 19.05 | .59 | 15.00 | 1.47 | 37.3 |
| 767LP _ 1 | 1 | 25.40 | .80 | 20.30 | 1.90 | 48.1 |
| 767LP _ 1 1/4 | 1 1/4* | 31.75 | 1.02 | 26.00 | 2.72 | 69.1 |
| 767LP _ 1 1/2 | 1 1/2* | 38.10 | 1.25 | 31.60 | 3.31 | 84.1 |
| 767LP _ 2 | 2* | 50.80 | 1.72 | 43.67 | 4.56 | 115.8 |

**Assembly Instructions for 767LP -** See next page

## 767 LM

# REDUCING PORT CONNECTOR




### CONNECTS TWO LET-LOK® PORTS (METRIC)

| Ordering Information | A Tube O.D. | A1 Tube O.D. | D | L |
|---|---|---|---|---|
| | mm | mm | mm | mm |
| 767LM _ 6 X 3 | 6 | 3 | 2.1 | 22.9 |
| 767LM _ 8 X 6 | 8 | 6 | 4.0 | 24.7 |
| 767LM _ 10 X 6 | 10 | 6 | 4.0 | 25.8 |
| 767LM _ 10 X 8 | 10 | 8 | 5.6 | 26.1 |
| 767LM _ 12 X 6 | 12 | 6 | 4.0 | 29.1 |
| 767LM _ 12 X 8 | 12 | 8 | 5.6 | 29.8 |
| 767LM _ 12 X 10 | 12 | 10 | 7.1 | 30.6 |
| 767LM _ 16 X 12 | 16 | 12 | 8.8 | 37.5 |
| 767LM _ 38 X 25 | 38* | 25 | 19.8 | 65.8 |

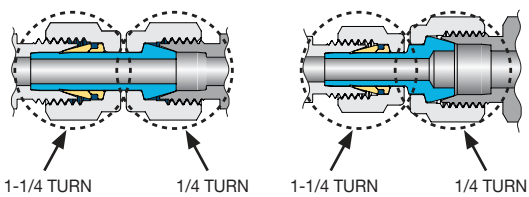
### CONNECTS TWO LET-LOK® PORTS (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | D | | L | |
|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm |
| 767LM _ 1/8 X 1/16 | 1/8 | 3.17 | 1/16 | 1.58 | .03 | 0.75 | .68 | 17.3 |
| 767LM _ 1/4 X 1/16 | 1/4 | 6.35 | 1/16 | 1.58 | .03 | 0.75 | .71 | 18.0 |
| 767LM _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | 3.17 | .08 | 2.03 | .89 | 22.6 |
| 767LM _ 3/8 X 1/8 | 3/8 | 9.52 | 1/8 | 3.17 | .08 | 2.03 | .91 | 23.2 |
| 767LM _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | .17 | 4.20 | .98 | 24.9 |
| 767LM _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | 6.35 | .17 | 4.20 | 1.15 | 29.2 |
| 767LM _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | 9.52 | .28 | 7.10 | 1.20 | 30.5 |
| 767LM _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | 12.70 | .39 | 9.90 | 1.49 | 37.9 |

## Assembly Instructions for:

**Reducer Port Connector 767**

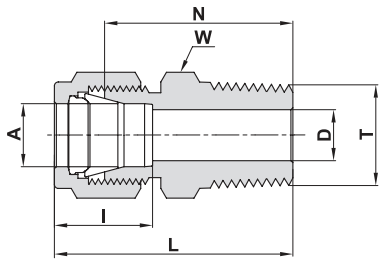
1/4 turn of the nut is required for all sizes.




* Supplied assembled with Nuts and Ferrules. Low friction paste (see page 98).
"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 768 L

# MALE CONNECTOR




### TUBE (METRIC) MALE NPT THREAD

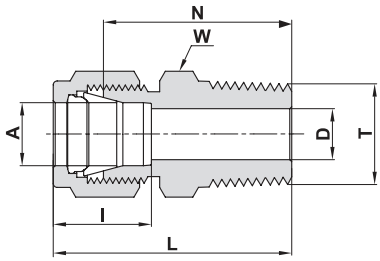
| Ordering Information | A Tube O.D. | T (NPT) | D | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm |
| 768L _ 2 X 1/8 | 2 | 1/8 | 1.7 | 12 | 23.9 | 30.5 | 12.9 |
| 768L _ 3 X 1/8 | 3 | 1/8 | 2.4 | 12 | 23.9 | 30.5 | 12.9 |
| 768L _ 3 X 1/4 | 3 | 1/4 | 2.4 | 14 | 29.0 | 35.6 | 12.9 |
| 768L _ 4 X 1/8 | 4 | 1/8 | 2.4 | 12 | 24.6 | 31.2 | 13.7 |
| 768L _ 4 X 1/4 | 4 | 1/4 | 2.4 | 14 | 29.7 | 36.3 | 13.7 |
| 768L _ 6 X 1/8 | 6 | 1/8 | 4.8 | 14 | 25.4 | 32.8 | 15.3 |
| 768L _ 6 X 1/4 | 6 | 1/4 | 4.8 | 14 | 30.5 | 37.9 | 15.3 |
| 768L _ 6 X 3/8 | 6 | 3/8 | 4.8 | 18 | 31.0 | 38.4 | 15.3 |
| 768L _ 6 X 1/2 | 6 | 1/2 | 4.8 | 22 | 37.3 | 44.7 | 15.3 |
| 768L _ 8 X 1/8 | 8 | 1/8 | 4.8 | 15 | 26.7 | 34.2 | 16.2 |
| 768L _ 8 X 1/4 | 8 | 1/4 | 6.4 | 15 | 31.2 | 38.7 | 16.2 |
| 768L _ 8 X 3/8 | 8 | 3/8 | 6.4 | 18 | 31.8 | 39.3 | 16.2 |
| 768L _ 8 X 1/2 | 8 | 1/2 | 6.4 | 22 | 38.1 | 45.6 | 16.2 |
| 768L _ 10 X 1/8 | 10 | 1/8 | 4.8 | 18 | 28.7 | 36.3 | 17.2 |
| 768L _ 10 X 1/4 | 10 | 1/4 | 7.9 | 18 | 33.3 | 40.9 | 17.2 |
| 768L _ 10 X 3/8 | 10 | 3/8 | 7.9 | 18 | 33.3 | 40.9 | 17.2 |
| 768L _ 10 X 1/2 | 10 | 1/2 | 7.9 | 22 | 38.9 | 46.5 | 17.2 |
| 768L _ 10 X 3/4 | 10 | 3/4 | 7.9 | 27 | 40.4 | 48.0 | 17.2 |
| 768L _ 12 X 1/8 | 12 | 1/8 | 4.8 | 22 | 28.7 | 38.8 | 22.8 |
| 768L _ 12 X 1/4 | 12 | 1/4 | 7.1 | 22 | 33.3 | 43.4 | 22.8 |
| 768L _ 12 X 3/8 | 12 | 3/8 | 9.5 | 22 | 33.3 | 43.4 | 22.8 |
| 768L _ 12 X 1/2 | 12 | 1/2 | 9.5 | 22 | 38.9 | 49.0 | 22.8 |
| 768L _ 12 X 3/4 | 12 | 3/4 | 9.5 | 27 | 40.4 | 50.5 | 22.8 |
| 768L _ 14 X 1/4 | 14 | 1/4 | 7.1 | 24 | 34.0 | 44.1 | 24.4 |
| 768L _ 14 X 3/8 | 14 | 3/8 | 9.5 | 24 | 34.0 | 44.1 | 24.4 |
| 768L _ 14 X 1/2 | 14 | 1/2 | 11.1 | 24 | 38.9 | 49.0 | 24.4 |
| 768L _ 15 X 1/2 | 15 | 1/2 | 11.9 | 24 | 38.9 | 49.0 | 24.4 |
| 768L _ 16 X 3/8 | 16 | 3/8 | 9.5 | 24 | 34.0 | 44.1 | 24.4 |
| 768L _ 16 X 1/2 | 16 | 1/2 | 11.9 | 24 | 38.9 | 49.0 | 24.4 |
| 768L _ 16 X 3/4 | 16 | 3/4 | 12.7 | 27 | 40.4 | 50.5 | 24.4 |
| 768L _ 18 X 1/2 | 18 | 1/2 | 11.9 | 27 | 40.4 | 50.5 | 24.4 |
| 768L _ 18 X 3/4 | 18 | 3/4 | 15.1 | 27 | 40.4 | 50.5 | 24.4 |
| 768L _ 20 X 1/2 | 20 | 1/2 | 11.9 | 30 | 42.2 | 52.3 | 26.0 |
| 768L _ 20 X 3/4 | 20 | 3/4 | 15.9 | 30 | 42.2 | 52.3 | 26.0 |
| 768L _ 22 X 3/4 | 22 | 3/4 | 15.9 | 30 | 42.2 | 52.3 | 26.0 |
| 768L _ 22 X 1 | 22 | 1 | 18.3 | 35 | 47.0 | 57.1 | 26.0 |
| 768L _ 25 X 1/2 | 25 | 1/2 | 11.9 | 35 | 45.2 | 57.5 | 31.3 |
| 768L _ 25 X 3/4 | 25 | 3/4 | 15.9 | 35 | 45.2 | 57.5 | 31.3 |
| 768L _ 25 X 1 | 25 | 1 | 21.8 | 35 | 50.0 | 62.3 | 31.3 |
| 768L _ 30 X 1 1/4 | 30* | 1 1/4 | 26.2 | 46 | 55.6 | 77.2 | 39.6 |
| 768L _ 32 X 1 1/4 | 32* | 1 1/4 | 28.6 | 46 | 56.6 | 79.6 | 42 |
| 768L _ 38 X 1 1/2 | 38* | 1 1/2 | 33.7 | 55 | 64.0 | 91.6 | 49.4 |
| 768L _ 50 X 2” | 50* | 2 | 45.2 | 3 inch | 76.2 | 113.3 | 65.0 |

* Supplied assembled with nuts and ferrules. For low friction paste (see page 98)

Cont’d next page

## 768 L

# MALE CONNECTOR (Cont'd)



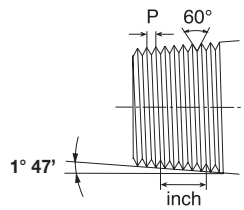

### TUBE (INCH) MALE NPT THREAD

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Hex. Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 768L _ 1/16 X 1/16 | 1/16 | 1.58 | 1/16 | .05 | 1.27 | 5/16 | .79 | 20.10 | .94 | 23.88 | .34 | 8.6 |
| 768L _ 1/16 X 1/8 | 1/16 | 1.58 | 1/8 | .05 | 1.27 | 7/16 | .88 | 22.35 | 1.03 | 26.10 | .34 | 8.6 |
| 768L _ 1/16 X 1/4 | 1/16 | 1.58 | 1/4 | .05 | 1.27 | 9/16 | 1.07 | 27.17 | 1.22 | 30.98 | .34 | 8.6 |
| 768L _ 1/8 X 1/16 | 1/8 | 3.17 | 1/16 | .09 | 2.28 | 7/16 | .91 | 23.11 | 1.17 | 29.71 | .50 | 12.7 |
| 768L _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 7/16 | .94 | 23.90 | 1.20 | 30.48 | .50 | 12.7 |
| 768L _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | .09 | 2.28 | 9/16 | 1.14 | 28.95 | 1.40 | 35.56 | .50 | 12.7 |
| 768L _ 1/8 X 3/8 | 1/8 | 3.17 | 3/8 | .09 | 2.28 | 11/16 | 1.15 | 29.21 | 1.41 | 35.81 | .50 | 12.7 |
| 768L _ 1/8 X 1/2 | 1/8 | 3.17 | 1/2 | .09 | 2.28 | 7/8 | 1.40 | 35.56 | 1.66 | 42.16 | .50 | 12.7 |
| 768L _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | .12 | 3.04 | 7/16 | .97 | 24.63 | 1.23 | 31.24 | .54 | 13.7 |
| 768L _ 3/16 X 1/4 | 3/16 | 4.76 | 1/4 | .12 | 3.04 | 9/16 | 1.17 | 29.72 | 1.43 | 36.32 | .54 | 13.7 |
| 768L _ 1/4 X 1/16 | 1/4 | 6.35 | 1/16 | .12 | 3.04 | 1/2 | 1.00 | 25.40 | 1.29 | 32.76 | .60 | 15.2 |
| 768L _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 1/2 | 1.00 | 25.40 | 1.29 | 32.76 | .60 | 15.2 |
| 768L _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 9/16 | 1.20 | 30.50 | 1.49 | 37.85 | .60 | 15.2 |
| 768L _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | .19 | 4.82 | 11/16 | 1.22 | 30.98 | 1.51 | 38.35 | .60 | 15.2 |
| 768L _ 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | .19 | 4.82 | 7/8 | 1.47 | 37.34 | 1.76 | 44.70 | .60 | 15.2 |
| 768L _ 1/4 X 3/4 | 1/4 | 6.35 | 3/4 | .19 | 4.82 | 1 1/16 | 1.53 | 38.86 | 1.82 | 46.22 | .60 | 15.2 |
| 768L _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | .19 | 4.82 | 9/16 | 1.05 | 26.67 | 1.34 | 34.03 | .64 | 16.2 |
| 768L _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | .25 | 6.35 | 9/16 | 1.23 | 31.24 | 1.52 | 38.60 | .64 | 16.2 |
| 768L _ 5/16 X 3/8 | 5/16 | 7.93 | 3/8 | .25 | 6.35 | 11/16 | 1.25 | 31.75 | 1.54 | 39.11 | .64 | 16.2 |
| 768L _ 3/8 X 1/8 | 3/8 | 9.52 | 1/8 | .19 | 4.82 | 5/8 | 1.10 | 27.90 | 1.39 | 35.30 | .66 | 16.8 |
| 768L _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 5/8 | 1.28 | 32.51 | 1.57 | 39.87 | .66 | 16.8 |
| 768L _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 11/16 | 1.28 | 32.51 | 1.57 | 39.87 | .66 | 16.8 |
| 768L _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .28 | 7.11 | 7/8 | 1.53 | 38.90 | 1.82 | 46.23 | .66 | 16.8 |
| 768L _ 3/8 X 3/4 | 3/8 | 9.52 | 3/4 | .28 | 7.11 | 1 1/16 | 1.59 | 40.38 | 1.88 | 47.75 | .66 | 16.8 |
| 768L _ 3/8 X 1 | 3/8 | 9.52 | 1 | .28 | 7.11 | 1 3/8 | 1.85 | 46.99 | 2.14 | 54.35 | .66 | 16.8 |
| 768L _ 1/2 X 1/8 | 1/2 | 12.70 | 1/8 | .19 | 4.82 | 13/16 | 1.13 | 28.70 | 1.53 | 38.86 | .90 | 22.9 |
| 768L _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | .28 | 7.11 | 13/16 | 1.31 | 33.27 | 1.71 | 43.43 | .90 | 22.9 |
| 768L _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .38 | 9.65 | 13/16 | 1.31 | 33.27 | 1.71 | 43.43 | .90 | 22.9 |
| 768L _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 7/8 | 1.53 | 38.90 | 1.93 | 49.02 | .90 | 22.9 |
| 768L _ 1/2 X 3/4 | 1/2 | 12.70 | 3/4 | .41 | 10.41 | 1 1/16 | 1.59 | 40.38 | 1.99 | 50.54 | .90 | 22.9 |
| 768L _ 1/2 X 1 | 1/2 | 12.70 | 1 | .41 | 10.41 | 1 3/8 | 1.85 | 47.00 | 2.25 | 57.15 | .90 | 22.9 |

**Reference Specifications:**

- 60° Thread angle
- Pitch measured in inches
- Truncation of root and crest is flat
- Taper angle 1° 47'

American Standard Pipe Thread (NPT). NPT (National Pipe Tapered) is made according to the specifications outlined in ANSI B1.20.1.



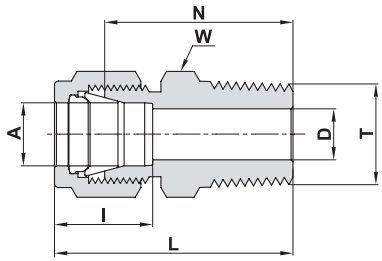

**Thermoelement** (see Page 32)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

Cont'd next page

## 768 L

# MALE CONNECTOR (Cont'd)




### TUBE (INCH) MALE NPT THREAD

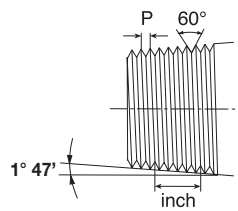
| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Hex. Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 768L _ 5/8 X 1/4 | 5/8 | 15.87 | 1/4 | .28 | 7.11 | 15/16 | 1.34 | 34.03 | 1.74 | 44.19 | .96 | 24.4 |
| 768L _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | .38 | 9.65 | 15/16 | 1.34 | 34.03 | 1.74 | 44.19 | .96 | 24.4 |
| 768L _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .47 | 11.90 | 15/16 | 1.53 | 38.86 | 1.93 | 49.02 | .96 | 24.4 |
| 768L _ 5/8 X 3/4 | 5/8 | 15.87 | 3/4 | .50 | 12.70 | 1 1/16 | 1.59 | 40.38 | 1.99 | 50.54 | .96 | 24.4 |
| 768L _ 3/4 X 3/8 | 3/4 | 19.05 | 3/8 | .38 | 9.50 | 1 1/16 | 1.38 | 35.05 | 1.78 | 45.21 | .96 | 24.4 |
| 768L _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | .47 | 11.90 | 1 1/16 | 1.59 | 40.38 | 1.99 | 50.54 | .96 | 24.4 |
| 768L _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.75 | 1 1/16 | 1.59 | 40.38 | 1.99 | 50.54 | .96 | 24.4 |
| 768L _ 3/4 X 1 | 3/4 | 19.05 | 1 | .62 | 15.75 | 1 3/8 | 1.85 | 47.00 | 2.25 | 57.15 | .96 | 24.4 |
| 768L _ 7/8 X 1/2 | 7/8 | 22.22 | 1/2 | .47 | 11.90 | 1 3/16 | 1.59 | 40.38 | 1.99 | 50.54 | 1.02 | 25.9 |
| 768L _ 7/8 X 3/4 | 7/8 | 22.22 | 3/4 | .62 | 15.75 | 1 3/16 | 1.59 | 40.38 | 1.99 | 50.54 | 1.02 | 25.9 |
| 768L _ 7/8 X 1 | 7/8 | 22.22 | 1 | .72 | 18.28 | 1 3/8 | 1.85 | 46.99 | 2.25 | 57.15 | 1.02 | 25.9 |
| 768L _ 1 X 1/2 | 1 | 25.40 | 1/2 | .47 | 11.90 | 1 3/8 | 1.78 | 45.21 | 2.26 | 57.40 | 1.23 | 31.2 |
| 768L _ 1 X 3/4 | 1 | 25.40 | 3/4 | .62 | 15.75 | 1 3/8 | 1.78 | 45.21 | 2.26 | 57.40 | 1.23 | 31.2 |
| 768L _ 1 X 1 | 1 | 25.40 | 1 | .88 | 22.35 | 1 3/8 | 1.97 | 50.03 | 2.45 | 62.23 | 1.23 | 31.2 |
| 768L _ 1 1/4 X 1 | 1 1/4* | 31.75 | 1 | .86 | 21.80 | 1 3/4 | 2.17 | 55.12 | 3.04 | 77.22 | 1.62 | 41.2 |
| 768L _ 1 1/4 X 1 1/4 | 1 1/4* | 31.75 | 1 1/4 | 1.09 | 27.70 | 1 3/4 | 2.17 | 55.12 | 3.04 | 77.22 | 1.62 | 41.2 |
| 768L _ 1 1/2 X 1 1/2 | 1 1/2* | 38.10 | 1 1/2 | 1.34 | 34.00 | 2 1/8 | 2.43 | 61.72 | 3.50 | 88.90 | 1.97 | 50.0 |
| 768L _ 2 X 2 | 2* | 50.80 | 2 | 1.81 | 45.97 | 2 3/4 | 3.00 | 76.20 | 4.47 | 113.54 | 2.66 | 67.6 |

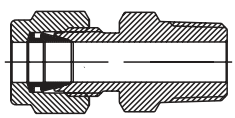
* Including low friction paste (see page 101)

### Reference Specifications:

- 60° thread angle
- Pitch measured in inches
- Truncation of root and crest is flat
- Taper angle 1° 47'

American Standard Pipe Thread (NPT). NPT (National Pipe Tapered) is made according to the specifications outlined in ASNI B1.20.1.



### Thermoelement

For ordering: use the catalog number of the selected fitting and add the suffix TC.
Example: 768L SS 1/4 x 1/4 TC

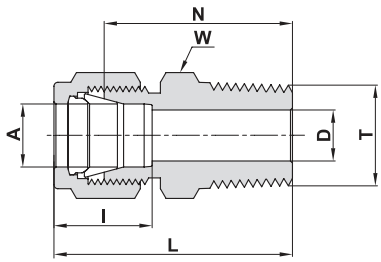
### TERMOCOUPLE LET-LOK TUBE FITTINGS

| Tubing O.D. | Pressure rating factor |
|---|---|
| 2 mm to 12 mm, 1/8" to 1/2" | 0.75 x pressure rating shown in table 1 (see page 9) |
| 14 mm to 18 mm, 5/8" to 3/4" | 0.50 x pressure rating shown in table 1 (see page 9) |
| 20 mm to 25 mm, 7/8" to 1" | 0.25 x pressure rating shown in table 1 (see page 9) |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 768 LR

# MALE CONNECTOR




### TUBE (METRIC) ISO TAPERED THREAD

| Ordering Information | A Tube O.D. | T (ISO) | D | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm |
| 768LR _ 2 X 1/8 | 2 | R-1/8 | 1.7 | 12 | 23.9 | 30.5 | 12.9 |
| 768LR _ 3 X 1/8 | 3 | R-1/8 | 2.4 | 12 | 23.9 | 30.5 | 12.9 |
| 768LR _ 3 X 1/4 | 3 | R-1/4 | 2.4 | 14 | 29.0 | 35.6 | 12.9 |
| 768LR _ 4 X 1/8 | 4 | R-1/8 | 2.4 | 12 | 24.6 | 31.2 | 13.7 |
| 768LR _ 4 X 1/4 | 4 | R-1/4 | 2.4 | 14 | 29.7 | 36.3 | 13.7 |
| 768LR _ 6 X 1/8 | 6 | R-1/8 | 4.8 | 14 | 25.4 | 32.8 | 15.3 |
| 768LR _ 6 X 1/4 | 6 | R-1/4 | 4.8 | 14 | 30.5 | 37.9 | 15.3 |
| 768LR _ 6 X 3/8 | 6 | R-3/8 | 4.8 | 18 | 31.0 | 38.4 | 15.3 |
| 768LR _ 6 X 1/2 | 6 | R-1/2 | 4.8 | 22 | 37.3 | 44.7 | 15.3 |
| 768LR _ 8 X 1/8 | 8 | R-1/8 | 4.8 | 15 | 26.7 | 34.2 | 16.2 |
| 768LR _ 8 X 1/4 | 8 | R-1/4 | 6.4 | 15 | 31.2 | 38.7 | 16.2 |
| 768LR _ 8 X 3/8 | 8 | R-3/8 | 6.4 | 18 | 31.8 | 39.2 | 16.2 |
| 768LR _ 8 X 1/2 | 8 | R-1/2 | 6.4 | 22 | 38.1 | 45.6 | 16.2 |
| 768LR _ 10 X 1/8 | 10 | R-1/8 | 4.8 | 18 | 28.7 | 36.3 | 17.2 |
| 768LR _ 10 X 1/4 | 10 | R-1/4 | 7.9 | 18 | 33.3 | 40.9 | 17.2 |
| 768LR _ 10 X 3/8 | 10 | R-3/8 | 7.9 | 18 | 33.3 | 40.9 | 17.2 |
| 768LR _ 10 X 1/2 | 10 | R-1/2 | 7.9 | 22 | 38.9 | 46.5 | 17.2 |
| 768LR _ 10 X 3/4 | 10 | R-3/4 | 7.9 | 27 | 40.4 | 48.0 | 17.2 |
| 768LR _ 12 X 1/4 | 12 | R-1/4 | 7.1 | 22 | 33.3 | 43.4 | 22.8 |
| 768LR _ 12 X 3/8 | 12 | R-3/8 | 9.5 | 22 | 33.3 | 43.4 | 22.8 |
| 768LR _ 12 X 1/2 | 12 | R-1/2 | 9.5 | 22 | 38.9 | 49.0 | 22.8 |
| 768LR _ 12 X 3/4 | 12 | R-3/4 | 9.5 | 27 | 40.4 | 50.5 | 22.8 |
| 768LR _ 14 X 1/4 | 14 | R-1/4 | 7.1 | 24 | 34.0 | 44.1 | 24.4 |
| 768LR _ 14 X 3/8 | 14 | R-3/8 | 9.5 | 24 | 34.0 | 44.1 | 24.4 |
| 768LR _ 15 X 1/2 | 15 | R-1/2 | 11.9 | 24 | 38.9 | 49.0 | 24.4 |
| 768LR _ 16 X 1/4 | 16 | R-1/4 | 7.1 | 24 | 34.0 | 44.1 | 24.4 |
| 768LR _ 16 X 3/8 | 16 | R-3/8 | 9.5 | 24 | 34.0 | 44.1 | 24.4 |
| 768LR _ 16 X 1/2 | 16 | R-1/2 | 11.9 | 24 | 38.9 | 49.0 | 24.4 |
| 768LR _ 16 X 3/4 | 16 | R-3/4 | 12.7 | 27 | 40.4 | 50.5 | 24.4 |
| 768LR _ 18 X 1/2 | 18 | R-1/2 | 11.9 | 27 | 40.4 | 50.5 | 24.4 |
| 768LR _ 18 X 3/4 | 18 | R-3/4 | 15.1 | 27 | 40.4 | 50.5 | 24.4 |
| 768LR _ 20 X 1/2 | 20 | R-1/2 | 11.9 | 30 | 42.2 | 52.3 | 26.0 |
| 768LR _ 20 X 3/4 | 20 | R-3/4 | 15.9 | 30 | 42.2 | 52.3 | 26.0 |
| 768LR _ 22 X 3/4 | 22 | R-3/4 | 15.9 | 30 | 42.2 | 52.3 | 26.0 |
| 768LR _ 22 X 1 | 22 | R-1 | 18.3 | 35 | 47.0 | 57.1 | 26.0 |
| 768LR _ 25 X 1/2 | 25 | R-1/2 | 11.9 | 35 | 45.2 | 57.5 | 31.3 |
| 768LR _ 25 X 3/4 | 25 | R-3/4 | 15.9 | 35 | 45.2 | 57.5 | 31.3 |
| 768LR _ 25 X 1 | 25 | R-1 | 21.8 | 35 | 45.2 | 57.5 | 31.3 |
| 768LR _ 30 X 1 1/4 | 30* | R-1 1/4 | 26.2 | 46 | 55.6 | 77.2 | 39.6 |

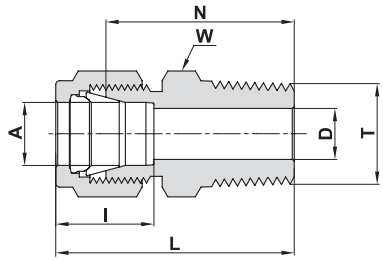
**Designation:**
Marking LR on Hex

**Reference Specifications:** DIN -ISO 2999
BS - 21
JIS - B0203
ISO - 7/1-BSP-T

**Thermoelement**
(See Page 36)

* Including low friction paste, (see page 98)
"D" - Dimension is minimum opening.
Dimensions are for reference only and subject to change without notice.

## 768 LR
# MALE CONNECTOR (Cont'd)




### TUBE (METRIC) ISO TAPERED THREAD

| Ordering Information | A Tube O.D. | T (ISO) | D | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm |
| 768LR _ 32 X 1 1/4 | *32 | R-1 1/4 | 28.6 | 46 | 56.6 | 79.6 | 42 |
| 768LR _ 38 X 1 1/2 | *38 | R-1 1/2 | 33.7 | 55 | 64.0 | 91.6 | 49.4 |
| 768LR _ 50 X 2" | *50 | R-2 | 45.2 | inch 3 | 76.2 | 113.3 | 65.0 |

### TUBE (INCH) ISO TAPERED THREAD

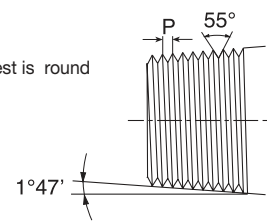
| Ordering Information | A Tube O.D. | | T (ISO) | D | | W Hex. Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 768LR _ 1/8 X 1/8 | 1/8 | 3.17 | R-1/8 | .09 | 2.28 | 7/16 | .94 | 23.90 | 1.20 | 30.48 | .50 | 12.70 |
| 768LR _ 1/8 X 1/4 | 1/8 | 3.17 | R-1/4 | .09 | 2.28 | 9/16 | 1.14 | 28.95 | 1.40 | 35.56 | .50 | 12.70 |
| 768LR _ 1/4 X 1/8 | 1/4 | 6.35 | R-1/8 | .19 | 4.82 | 1/2 | 1.00 | 25.40 | 1.29 | 32.76 | .60 | 15.20 |
| 768LR _ 1/4 X 1/4 | 1/4 | 6.35 | R-1/4 | .19 | 4.82 | 9/16 | 1.20 | 30.50 | 1.49 | 37.85 | .60 | 15.20 |
| 768LR _ 1/4 X 3/8 | 1/4 | 6.35 | R-3/8 | .19 | 4.82 | 11/16 | 1.22 | 30.98 | 1.51 | 38.35 | .60 | 15.20 |
| 768LR _ 1/4 X 1/2 | 1/4 | 6.35 | R-1/2 | .19 | 4.82 | 7/8 | 1.47 | 37.34 | 1.76 | 44.70 | .60 | 15.20 |
| 768LR _ 5/16 X 1/8 | 5/16 | 7.93 | R-1/8 | .19 | 4.82 | 9/16 | 1.05 | 26.67 | 1.34 | 34.03 | .64 | 16.20 |
| 768LR _ 5/16 X 1/4 | 5/16 | 7.93 | R-1/4 | .25 | 6.35 | 9/16 | 1.23 | 31.24 | 1.52 | 38.60 | .64 | 16.20 |
| 768LR _ 3/8 X 1/8 | 3/8 | 9.52 | R-1/8 | .19 | 4.82 | 5/8 | 1.10 | 27.90 | 1.39 | 35.30 | .66 | 16.80 |
| 768LR _ 3/8 X 1/4 | 3/8 | 9.52 | R-1/4 | .28 | 7.11 | 5/8 | 1.28 | 32.51 | 1.57 | 39.87 | .66 | 16.80 |
| 768LR _ 3/8 X 3/8 | 3/8 | 9.52 | R-3/8 | .28 | 7.11 | 11/16 | 1.28 | 32.51 | 1.57 | 39.87 | .66 | 16.80 |
| 768LR _ 3/8 X 1/2 | 3/8 | 9.52 | R-1/2 | .28 | 7.11 | 7/8 | 1.53 | 38.90 | 1.82 | 46.23 | .66 | 16.80 |
| 768LR _ 3/8 X 3/4 | 3/8 | 9.52 | R-3/4 | .28 | 7.11 | 1 1/16 | 1.59 | 40.38 | 1.88 | 47.75 | .66 | 16.80 |
| 768LR _ 1/2 X 1/4 | 1/2 | 12.70 | R-1/4 | .28 | 7.11 | 13/16 | 1.31 | 33.27 | 1.71 | 43.43 | .90 | 22.90 |
| 768LR _ 1/2 X 3/8 | 1/2 | 12.70 | R-3/8 | .38 | 9.65 | 13/16 | 1.31 | 33.27 | 1.71 | 43.43 | .90 | 22.90 |
| 768LR _ 1/2 X 1/2 | 1/2 | 12.70 | R-1/2 | .41 | 10.41 | 7/8 | 1.53 | 38.90 | 1.93 | 49.02 | .90 | 22.90 |
| 768LR _ 1/2 X 3/4 | 1/2 | 12.70 | R-3/4 | .41 | 10.41 | 1 1/16 | 1.59 | 40.38 | 1.99 | 50.54 | .90 | 22.90 |
| 768LR _ 5/8 X 1/2 | 5/8 | 15.87 | R-1/2 | .47 | 11.90 | 15/16 | 1.53 | 38.86 | 1.93 | 49.02 | .96 | 24.40 |
| 768LR _ 3/4 X 3/4 | 3/4 | 19.05 | R-3/4 | .62 | 15.74 | 1 1/16 | 1.59 | 40.38 | 1.99 | 50.54 | .96 | 24.40 |
| 768LR _ 3/4 X 1 | 3/4 | 19.05 | R-1 | .62 | 15.74 | 1 3/8 | 1.85 | 47.00 | 2.25 | 57.15 | .96 | 24.40 |
| 768LR _ 1 X 3/4 | 1 | 25.40 | R-3/4 | .63 | 15.90 | 1 3/8 | 1.78 | 45.21 | 2.26 | 57.40 | 1.23 | 31.20 |
| 768LR _ 1 X 1 | 1 | 25.40 | R-1 | .88 | 22.35 | 1 3/8 | 1.97 | 50.03 | 2.45 | 62.23 | 1.23 | 31.20 |
| 768LR _ 1 1/4 X 1 1/4 | *1 1/4 | 31.75 | R-1 1/4 | 1.09 | 27.70 | 1 3/4 | 2.17 | 55.12 | 3.04 | 77.22 | 1.62 | 41.20 |

* Including low friction paste, (see page 98)

**Reference Specifications:**
DIN -ISO 2999
BS - 21
JIS - B0203
ISO - 7/1-BSP-T

**Designation:**
Marking LR on Hex

55° Thread angle
Truncation of root and crest is round
Taper angle 1°47'

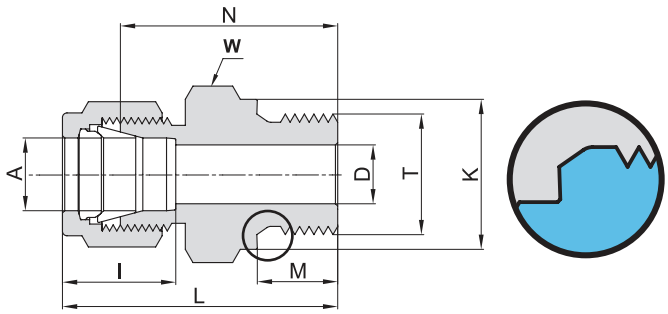



**Thermoelement** (see Page 32)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 768 LG

# MALE CONNECTOR




### TUBE (METRIC) ISO PARALLEL THREAD

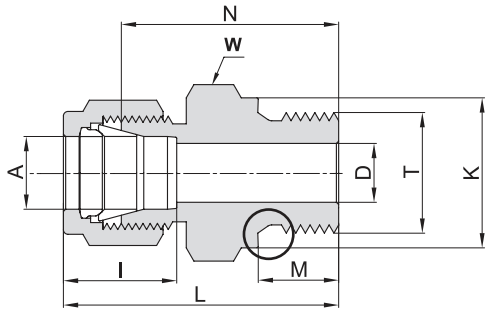
| Ordering Information | A Tube O.D. | T (P-ISO) | D | K | W Hex. Flat | N | M | L | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | mm |
| 768LG _ 2 X 1/8 | 2 | G-1/8 | 1.7 | 13.8 | 14 | 23.4 | 7.1 | 30.0 | 12.9 |
| 768LG _ 3 X 1/8 | 3 | G-1/8 | 2.4 | 13.8 | 14 | 23.4 | 7.1 | 30.0 | 12.9 |
| 768LG _ 3 X 1/4 | 3 | G-1/4 | 2.4 | 18.0 | 19 | 28.7 | 11.2 | 35.3 | 12.9 |
| 768LG _ 4 X 1/8 | 4 | G-1/8 | 2.4 | 13.8 | 14 | 24.1 | 7.1 | 30.7 | 13.7 |
| 768LG _ 6 X 1/8 | 6 | G-1/8 | 4.0 | 13.8 | 14 | 24.9 | 7.1 | 32.3 | 15.3 |
| 768LG _ 6 X 1/4 | 6 | G-1/4 | 4.8 | 18.0 | 19 | 30.2 | 11.2 | 37.6 | 15.3 |
| 768LG _ 6 X 3/8 | 6 | G-3/8 | 4.8 | 21.8 | 22 | 31.5 | 11.2 | 38.9 | 15.3 |
| 768LG _ 6 X 1/2 | 6 | G-1/2 | 4.8 | 26.0 | 27 | 37.3 | 14.2 | 44.7 | 15.3 |
| 768LG _ 8 X 1/8 | 8 | G-1/8 | 4.0 | 13.8 | 15 | 25.7 | 7.1 | 33.2 | 16.2 |
| 768LG _ 8 X 1/4 | 8 | G-1/4 | 6.4 | 18.0 | 19 | 31.0 | 11.2 | 38.5 | 16.2 |
| 768LG _ 8 X 3/8 | 8 | G-3/8 | 6.4 | 21.8 | 22 | 32.3 | 11.2 | 39.8 | 16.2 |
| 768LG _ 8 X 1/2 | 8 | G-1/2 | 6.4 | 26.0 | 27 | 38.1 | 14.2 | 45.6 | 16.2 |
| 768LG _ 10 X 1/4 | 10 | G-1/4 | 5.9 | 18.0 | 19 | 31.8 | 11.2 | 39.4 | 17.2 |
| 768LG _ 10 X 3/8 | 10 | G-3/8 | 7.9 | 21.8 | 22 | 33.0 | 11.2 | 40.6 | 17.2 |
| 768LG _ 10 X 1/2 | 10 | G-1/2 | 7.9 | 26.0 | 27 | 38.9 | 14.2 | 46.5 | 17.2 |
| 768LG _ 12 X 1/4 | 12 | G-1/4 | 5.9 | 18.0 | 22 | 32.5 | 11.2 | 42.6 | 22.8 |
| 768LG _ 12 X 3/8 | 12 | G-3/8 | 7.9 | 21.8 | 22 | 33.0 | 11.2 | 43.1 | 22.8 |
| 768LG _ 12 X 1/2 | 12 | G-1/2 | 9.5 | 26.0 | 27 | 37.4 | 14.2 | 47.5 | 22.8 |
| 768LG _ 12 X 3/4 | 12 | G-3/4 | 9.5 | 32.0 | 35 | 42.7 | 15.7 | 52.8 | 22.8 |
| 768LG _ 14 X 3/8 | 14 | G-3/8 | 7.9 | 21.8 | 24 | 33.8 | 11.2 | 43.9 | 24.4 |
| 768LG _ 14 X 1/2 | 14 | G-1/2 | 11.1 | 26.0 | 27 | 38.9 | 14.2 | 49.0 | 24.4 |
| 768LG _ 15 X 3/8 | 15 | G-3/8 | 7.9 | 21.8 | 24 | 33.8 | 11.2 | 43.9 | 24.4 |
| 768LG _ 15 X 1/2 | 15 | G-1/2 | 11.9 | 26.0 | 27 | 37.4 | 14.2 | 47.5 | 24.4 |
| 768LG _ 15 X 3/4 | 15 | G-3/4 | 11.9 | 32.0 | 35 | 42.1 | 15.7 | 52.8 | 24.4 |
| 768LG _ 16 X 3/8 | 16 | G-3/8 | 7.9 | 21.8 | 24 | 33.8 | 11.2 | 43.9 | 24.4 |
| 768LG _ 16 X 1/2 | 16 | G-1/2 | 11.9 | 26.0 | 27 | 38.9 | 14.2 | 49.0 | 24.4 |
| 768LG _ 16 X 3/4 | 16 | G-3/4 | 12.7 | 32.0 | 35 | 42.1 | 15.7 | 52.8 | 24.4 |
| 768LG _ 18 X 1/2 | 18 | G-1/2 | 11.9 | 26.0 | 27 | 38.9 | 14.2 | 49.0 | 24.4 |
| 768LG _ 18 X 3/4 | 18 | G-3/4 | 15.1 | 32.0 | 35 | 42.7 | 15.7 | 52.8 | 24.4 |
| 768LG _ 20 X 1/2 | 20 | G-1/2 | 11.9 | 26.0 | 30 | 40.4 | 14.2 | 50.5 | 26.0 |
| 768LG _ 20 X 3/4 | 20 | G-3/4 | 15.9 | 32.0 | 35 | 42.7 | 15.7 | 52.8 | 26.0 |
| 768LG _ 22 X 3/4 | 22 | G-3/4 | 15.9 | 32.0 | 35 | 42.7 | 15.7 | 52.8 | 26.0 |
| 768LG _ 22 X 1 | 22 | G-1 | 18.3 | 39.0 | 41 | 45.2 | 18.3 | 55.3 | 26.0 |
| 768LG _ 25 X 3/4 | 25 | G-3/4 | 15.9 | 32.0 | 35 | 45.2 | 15.7 | 57.5 | 31.3 |
| 768LG _ 25 X 1 | 25 | G-1 | 19.8 | 39.0 | 41 | 47.8 | 18.3 | 60.1 | 31.3 |
| 768LG _ 30 X 1 1/4 | 30* | G-1 1/4 | 25 | 49 | 50 | 55.6 | 19.8 | 76.7 | 39.6 |
| 768LG _ 32 X 1 1/4 | 32* | G-1 1/4 | 25 | 49 | 50 | 56.2 | 19.8 | 79.2 | 42 |
| 768LG _ 38 X1 1/2 | 38* | G-1 1/2 | 31.8 | 54.7 | 55 | 63.2 | 22.1 | 90.9 | 49.4 |

For parallel threads sealing (see page 82)

## 768 LG

# MALE CONNECTOR

(Cont'd)




### TUBE (INCH) TO ISO PARALLEL THREAD

| Ordering Information | A Tube O.D. | | T (P-ISO) | D | | K | | W Hex. Flat | N | | M | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm |
| 768LG _ 1/8 X 1/8 | 1/8 | 3.17 | G-1/8 | 0.09 | 2.30 | 0.54 | 13.80 | 9/16 | 0.92 | 23.40 | 0.28 | 7.10 | 1.18 | 30.00 | 0.50 | 12.7 |
| 768LG _ 1/8 X 1/4 | 1/8 | 3.17 | G-1/4 | 0.09 | 2.30 | 0.71 | 18.00 | 3/4 | 1.13 | 28.70 | 0.44 | 11.20 | 1.39 | 35.30 | 0.50 | 12.7 |
| 768LG _ 1/8 X 3/8 | 1/8 | 3.17 | G-3/8 | 0.09 | 2.30 | 0.86 | 21.80 | 7/8 | 1.17 | 29.72 | 0.44 | 11.20 | 1.43 | 36.32 | 0.50 | 12.7 |
| 768LG _ 1/8 X 1/2 | 1/8 | 3.17 | G-1/2 | 0.09 | 2.30 | 1.02 | 26.00 | 1 1/16 | 1.40 | 35.70 | 0.56 | 14.20 | 1.66 | 42.16 | 0.50 | 12.7 |
| 768LG _ 3/16 X 1/8 | 3/16 | 4.76 | G-1/8 | 0.12 | 3.10 | 0.54 | 13.80 | 9/16 | 0.95 | 24.10 | 0.28 | 7.10 | 1.21 | 30.70 | 0.54 | 13.7 |
| 768LG _ 1/4 X 1/8 | 1/4 | 6.35 | G-1/8 | 0.16 | 4.10 | 0.54 | 13.80 | 9/16 | 0.98 | 24.90 | 0.28 | 7.10 | 1.27 | 32.26 | 0.60 | 15.2 |
| 768LG _ 1/4 X 1/4 | 1/4 | 6.35 | G-1/4 | 0.19 | 4.80 | 0.71 | 18.00 | 3/4 | 1.19 | 30.20 | 0.44 | 11.20 | 1.48 | 37.60 | 0.60 | 15.2 |
| 768LG _ 1/4 X 3/8 | 1/4 | 6.35 | G-3/8 | 0.19 | 4.80 | 0.86 | 21.80 | 7/8 | 1.24 | 31.50 | 0.44 | 11.20 | 1.50 | 38.10 | 0.60 | 15.2 |
| 768LG _ 1/4 X 1/2 | 1/4 | 6.35 | G-1/2 | 0.19 | 4.80 | 1.02 | 26.00 | 1 1/16 | 1.47 | 37.30 | 0.56 | 14.20 | 1.76 | 44.70 | 0.60 | 15.2 |
| 768LG _ 5/16 X 1/4 | 5/16 | 7.93 | G-1/4 | 0.23 | 5.80 | 0.71 | 18.00 | 3/4 | 1.22 | 31.00 | 0.44 | 11.20 | 1.51 | 38.36 | 0.64 | 16.2 |
| 768LG _ 5/16 X 3/8 | 5/16 | 7.93 | G-3/8 | 0.25 | 6.40 | 0.86 | 21.80 | 7/8 | 1.27 | 32.30 | 0.44 | 11.20 | 1.56 | 39.66 | 0.64 | 16.2 |
| 768LG _ 3/8 X 1/8 | 3/8 | 9.52 | G-1/8 | 0.16 | 4.00 | 1.26 | 32.0 | 5/8 | 1.05 | 26.7 | 0.28 | 7.10 | 1.34 | 34.03 | 0.66 | 16.8 |
| 768LG _ 3/8 X 1/4 | 3/8 | 9.52 | G-1/4 | 0.23 | 5.80 | 0.71 | 18.00 | 3/4 | 1.25 | 31.75 | 0.44 | 11.20 | 1.54 | 39.11 | 0.66 | 16.8 |
| 768LG _ 3/8 X 3/8 | 3/8 | 9.52 | G-3/8 | 0.28 | 7.10 | 0.86 | 21.80 | 7/8 | 1.30 | 33.00 | 0.44 | 11.20 | 1.59 | 40.40 | 0.66 | 16.8 |
| 768LG _ 3/8 X 1/2 | 3/8 | 9.52 | G-1/2 | 0.28 | 7.10 | 1.02 | 26.00 | 1 1/16 | 1.53 | 38.86 | 0.56 | 14.20 | 1.82 | 46.22 | 0.66 | 16.8 |
| 768LG _ 1/2 X 1/4 | 1/2 | 12.70 | G-1/4 | 0.23 | 5.80 | 0.71 | 18.00 | 13/16 | 1.28 | 32.50 | 0.44 | 11.20 | 1.68 | 42.67 | 0.90 | 22.9 |
| 768LG _ 1/2 X 3/8 | 1/2 | 12.70 | G-3/8 | 0.31 | 7.90 | 0.86 | 21.80 | 7/8 | 1.30 | 33.00 | 0.44 | 11.20 | 1.70 | 43.18 | 0.90 | 22.9 |
| 768LG _ 1/2 X 1/2 | 1/2 | 12.70 | G-1/2 | 0.41 | 10.40 | 1.02 | 26.00 | 1 1/16 | 1.47 | 37.40 | 0.56 | 14.20 | 1.87 | 47.56 | 0.90 | 22.9 |
| 768LG _ 1/2 X 3/4 | 1/2 | 12.70 | G-3/4 | 0.41 | 10.40 | 1.26 | 32.00 | 1 5/16 | 1.68 | 42.70 | 0.62 | 15.70 | 2.08 | 52.86 | 0.90 | 22.9 |
| 768LG _ 5/8 X 3/8 | 5/8 | 15.87 | G-3/8 | 0.31 | 7.90 | 0.86 | 21.80 | 24mm | 1.33 | 33.80 | 0.44 | 11.20 | 1.73 | 43.96 | 0.96 | 24.4 |
| 768LG _ 5/8 X 1/2 | 5/8 | 15.87 | G-1/2 | 0.47 | 11.90 | 1.02 | 26.00 | 1 1/16 | 1.53 | 38.90 | 0.56 | 14.20 | 1.93 | 49.10 | 0.96 | 24.4 |
| 768LG _ 3/4 X 1/2 | 3/4 | 19.05 | G-1/2 | 0.47 | 11.90 | 1.02 | 26.00 | 1 1/16 | 1.53 | 38.86 | 0.56 | 14.20 | 1.93 | 49.00 | 0.96 | 24.4 |
| 768LG _ 3/4 X 3/4 | 3/4 | 19.05 | G-3/4 | 0.62 | 15.80 | 1.26 | 32.00 | 1 5/16 | 1.68 | 42.70 | 0.62 | 15.70 | 2.08 | 52.83 | 0.96 | 24.4 |
| 768LG _ 1 X 1/2 | 1 | 25.40 | G-1/2 | 0.47 | 11.90 | 1.02 | 26.00 | 1 3/8 | 1.72 | 43.70 | 0.56 | 14.20 | 2.20 | 55.80 | 1.23 | 31.2 |
| 768LG _ 1 X 3/4 | 1 | 25.40 | G-3/4 | 0.62 | 15.90 | 1.26 | 32.00 | 1 3/8 | 1.78 | 45.20 | 0.62 | 15.70 | 2.26 | 57.40 | 1.23 | 31.2 |
| 768LG _ 1 X 1 | 1 | 25.40 | G-1 | 0.78 | 19.80 | 1.54 | 39.00 | 1 5/8 | 1.88 | 47.80 | 0.72 | 18.30 | 2.36 | 59.94 | 1.23 | 31.2 |

For parallel threads sealing (see page 82)

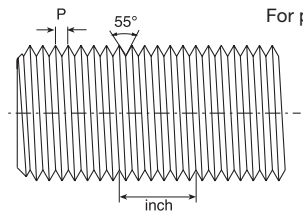
**Designation:**

Marking LG on Hex.

**Reference Specifications:**

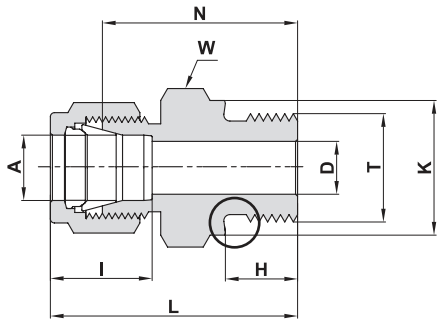
DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

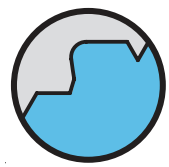
- 55° thread angle
- Pitch measured in inches
- Truncation of root and crest is round
- Diameter measured in inches



## 768 LOK

# MALE CONNECTOR



### TUBE (METRIC) ISO PARALLEL THREAD

| Ordering Information | A Tube O.D. | T (P-ISO) | D | K | W Hex. Flat | N | H | L | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | mm |
| 768LOK _ 3 X 1/8 | 3 | G-1/8A | 2.4 | 13.8 | 14 | 26.7 | 7.1 | 33.3 | 12.9 |
| 768LOK _ 3 X 1/4 | 3 | G-1/4A | 2.4 | 18.0 | 19 | 28.7 | 11.2 | 35.3 | 12.9 |
| 768LOK _ 4 X 1/8 | 4 | G-1/8A | 2.4 | 13.8 | 14 | 24.1 | 7.1 | 30.7 | 13.7 |
| 768LOK _ 6 X 1/8 | 6 | G-1/8A | 4.0 | 13.8 | 14 | 24.9 | 7.1 | 32.3 | 15.3 |
| 768LOK _ 6 X 1/4 | 6 | G-1/4A | 4.8 | 18.0 | 19 | 30.2 | 11.2 | 37.6 | 15.3 |
| 768LOK _ 6 X 3/8 | 6 | G-3/8A | 4.8 | 21.8 | 22 | 31.5 | 11.2 | 38.9 | 15.3 |
| 768LOK _ 6 X 1/2 | 6 | G-1/2A | 4.8 | 26.0 | 27 | 37.3 | 14.2 | 44.7 | 15.3 |
| 768LOK _ 8 X 1/8 | 8 | G-1/8A | 4.0 | 13.8 | 15 | 25.7 | 7.1 | 33.2 | 16.2 |
| 768LOK _ 8 X 1/4 | 8 | G-1/4A | 6.4 | 18.0 | 19 | 31.0 | 11.2 | 38.5 | 16.2 |
| 768LOK _ 8 X 3/8 | 8 | G-3/8A | 6.4 | 21.8 | 22 | 32.3 | 11.2 | 39.8 | 16.2 |
| 768LOK _ 8 X 1/2 | 8 | G-1/2A | 6.4 | 26.0 | 27 | 38.1 | 14.2 | 45.6 | 16.2 |
| 768LOK _ 10 X 1/4 | 10 | G-1/4A | 6.4 | 18.0 | 19 | 31.8 | 11.2 | 39.4 | 17.2 |
| 768LOK _ 10 X 3/8 | 10 | G-3/8A | 7.9 | 21.8 | 22 | 33.0 | 11.2 | 40.6 | 17.2 |
| 768LOK _ 10 X 1/2 | 10 | G-1/2A | 7.9 | 26.0 | 27 | 38.9 | 14.2 | 46.5 | 17.2 |
| 768LOK _ 12 X 1/4 | 12 | G-1/4A | 5.9 | 18.0 | 22 | 32.5 | 11.2 | 42.6 | 22.8 |
| 768LOK _ 12 X 3/8 | 12 | G-3/8A | 7.9 | 21.8 | 22 | 33.0 | 11.2 | 43.1 | 22.8 |
| 768LOK _ 12 X 1/2 | 12 | G-1/2A | 9.5 | 26.0 | 27 | 38.9 | 14.2 | 49.0 | 22.8 |
| 768LOK _ 12 X 3/4 | 12 | G-3/4A | 9.5 | 32.0 | 35 | 42.7 | 15.7 | 52.8 | 22.8 |
| 768LOK _ 15 X 1/2 | 15 | G-1/2A | 11.9 | 26.0 | 27 | 38.9 | 14.2 | 49.0 | 24.4 |
| 768LOK _ 16 X 3/8 | 16 | G-3/8A | 7.9 | 21.8 | 24 | 33.8 | 11.2 | 43.9 | 22.4 |
| 768LOK _ 16 X 1/2 | 16 | G-1/2A | 11.9 | 26.0 | 27 | 38.9 | 14.2 | 49.0 | 22.4 |
| 768LOK _ 18 X 1/2 | 18 | G-1/2A | 11.9 | 26.0 | 27 | 38.9 | 14.2 | 49.0 | 22.4 |
| 768LOK _ 18 X 3/4 | 18 | G-3/4A | 15.1 | 32.0 | 35 | 42.2 | 15.7 | 52.3 | 22.4 |
| 768LOK _ 20 X 1/2 | 20 | G-1/2A | 11.9 | 26.0 | 30 | 40.4 | 14.2 | 50.5 | 26.0 |
| 768LOK _ 20 X 3/4 | 20 | G-3/4A | 15.9 | 32.0 | 35 | 42.7 | 15.7 | 52.8 | 26.0 |
| 768LOK _ 22 X 3/4 | 22 | G-3/4A | 15.9 | 32.0 | 35 | 42.7 | 15.7 | 52.8 | 26.0 |
| 768LOK _ 22 X 1 | 22 | G-1A | 18.3 | 39.0 | 41 | 45.2 | 18.3 | 55.3 | 26.0 |
| 768LOK _ 25 X 3/4 | 25 | G-3/4A | 15.9 | 32.0 | 35 | 45.2 | 15.7 | 57.5 | 31.3 |
| 768LOK _ 25 X 1 | 25 | G-1A | 19.8 | 39.0 | 41 | 47.8 | 18.3 | 60.1 | 31.3 |
| 768LOK _ 30 X 1 1/4 | 30* | G-1 1/4A | 26.2 | 49 | 50 | 55.2 | 19.8 | 76.8 | 39.6 |
| 768LOK _ 32 X 1 1/4 | 32* | G-1 1/4A | 28.6 | 49 | 50 | 55.9 | 19.8 | 78.9 | 42 |
| 768LOK _ 38 X 1 1/2 | 38* | G-1 1/2A | 31.8 | 54.7 | 55 | 64.9 | 20.6 | 92.1 | 49.4 |

* Including low friction paste, (see page 101)

For parallel threads sealing (see page 82)

**Reference Specifications:**

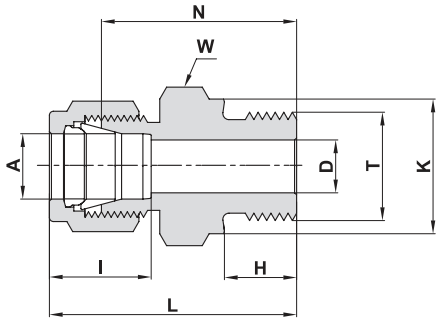
DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

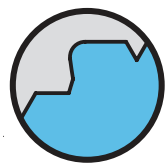
**Designation:**

Marking LOK on Hex

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 768 LOK
# MALECONNECTOR
(Cont'd)



### TUBE (INCH) TO ISO PARALLEL THREAD

| Ordering Information | A Tube O.D. | | T Straight Thread UN | D | | K | | W Hex. Flat | N | | H | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm |
| 768LOK _ 1/8 X 1/8 | 1/8 | 3.17 | G-1/8A | 0.09 | 2.30 | 0.54 | 13.80 | 9/16 | 0.92 | 23.40 | 0.28 | 7.10 | 1.18 | 30.00 | 0.50 | 12.7 |
| 768LOK _ 1/8 X 1/4 | 1/8 | 3.17 | G-1/4A | 0.09 | 2.30 | 0.71 | 18.00 | 3/4 | 1.13 | 28.70 | 0.44 | 11.20 | 1.39 | 35.30 | 0.50 | 12.7 |
| 768LOK _ 1/4 X 1/8 | 1/4 | 6.35 | G-1/8A | 0.16 | 4.10 | 0.54 | 13.80 | 9/16 | 0.98 | 24.90 | 0.28 | 7.10 | 1.27 | 32.26 | 0.60 | 15.2 |
| 768LOK _ 1/4 X 1/4 | 1/4 | 6.35 | G-1/4A | 0.19 | 4.80 | 0.71 | 18.00 | 3/4 | 1.19 | 30.20 | 0.44 | 11.20 | 1.48 | 37.60 | 0.60 | 15.2 |
| 768LOK _ 1/2 X 3/8 | 1/2 | 12.70 | G-3/8A | 0.31 | 7.90 | 0.86 | 21.80 | 7/8 | 1.30 | 33.00 | 0.44 | 11.20 | 1.70 | 43.18 | 0.90 | 22.9 |
| 768LOK _ 1/2 X 1/2 | 1/2 | 12.70 | G-1/2A | 0.41 | 10.40 | 1.02 | 26.00 | 1-1/16 | 1.53 | 39.86 | 0.56 | 14.20 | 1.93 | 49.02 | 0.90 | 22.9 |
| 768LOK _ 3/4 X 1/2 | 3/4 | 19.05 | G-1/2A | 0.47 | 11.90 | 1.02 | 26.00 | 1-1/16 | 3.65 | 41.91 | 0.56 | 14.20 | 2.05 | 52.07 | 0.96 | 24.4 |
| 768LOK _ 3/4 X 3/4 | 3/4 | 19.05 | G-3/4A | 0.62 | 15.80 | 1.26 | 32.00 | 1 3/8 | 1.68 | 42.70 | 0.62 | 15.70 | 2.08 | 52.83 | 0.96 | 24.4 |
| 768LOK _ 1 X 1 | 1 | 25.40 | G-1A | 0.78 | 19.80 | 1.54 | 39.00 | 1 5/8 | 1.88 | 47.80 | 0.72 | 18.30 | 2.36 | 59.94 | 1.23 | 31.2 |

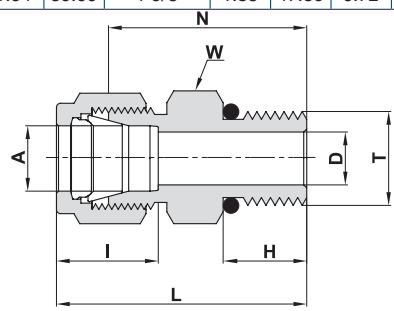
For parallel threads sealing (see page 82)

**Reference Specifications:**

DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

**Designation:**
Marking LOK on Hex.

## 768 LOB
# MALE CONNECTOR




### SAE/MS STRAIGHT THREAD BOSS***

| Ordering Information | A Tube O.D. | T Straight Thread UN | D | W Hex. Flat | N | H | L | I | **O-Ring |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | |
| 768LOB _ 3 X 5/16-24 | 3 | 5/16-24 | 2.4 | 7/16" | 23.4 | 7.6 | 30.0 | 12.9 | -902 |
| 768LOB _ 3 X 9/16-18 | 3 | 9/16-18 | 2.4 | 18 | 26.7 | 9.9 | 33.3 | 12.9 | -906 |
| 768LOB _ 6 X 1/2-20 | 6 | 1/2-20 | 4.8 | 17 | 27.4 | 9.1 | 34.8 | 15.3 | -905 |
| 768LOB _ 6 X 9/16-18 | 6 | 9/16-18 | 4.8 | 18 | 28.2 | 9.9 | 35.6 | 15.3 | -906 |
| 768LOB _ 6 X 7/8-14 | 6 | 7/8-14 | 4.8 | 27 | 33.3 | 12.7 | 40.7 | 15.3 | -910 |
| 768LOB _ 8 X 1/2-20 | 8 | 1/2-20 | 6.4 | 17 | 27.4 | 9.1 | 34.9 | 16.2 | -905 |
| 768LOB _ 8 X 9/16-18 | 8 | 9/16-18 | 6.4 | 18 | 29.1 | 9.9 | 36.6 | 16.2 | -906 |
| 768LOB _ 10 X 9/16-18 | 10 | 9/16-18 | 7.1 | 18 | 29.7 | 9.9 | 37.3 | 17.2 | -906 |
| 768LOB _ 10 X 3/4-16 | 10 | 3/4-16 | 7.9 | 22 | 31.8 | 11.2 | 39.4 | 17.2 | -908 |
| 768LOB _ 12 X 7/16-20 | 12 | 7/16-20 | 5.2 | 22 | 30.5 | 9.1 | 40.6 | 22.8 | -904 |
| 768LOB _ 12 X 9/16-18 | 12 | 9/16-18 | 7.1 | 22 | 29.0 | 9.9 | 39.1 | 22.8 | -906 |
| 768LOB _ 12 X 3/4-16 | 12 | 3/4-16 | 9.5 | 22 | 31.8 | 11.2 | 41.9 | 22.8 | -908 |
| 768LOB _ 16 X 9/16-18 | 16 | 9/16-18 | 7.1 | 24 | 21.2 | 9.9 | 31.3 | 24.4 | -906 |
| 768LOB _ 25 X 1 1/16-12 | 25 | 1 1/16-12 | 16.7 | 35 | 41.2 | 15.0 | 53.5 | 31.3 | -912 |

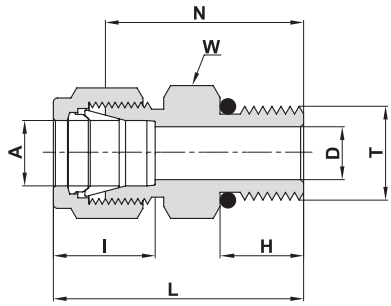
**Designation:** Marking LOB on Hex.
Per SAE J1926 and MS 16142. See page 53 for mounting dimensions.***
Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.**

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 768 LOB

# MALE CONNECTOR

(Cont'd)




### SAE/MS STRAIGHT THREAD BOSS***

| Ordering Information | A Tube O.D. | | T Straight Thread UN | D | | W Hex. Flat | N | | H | | L | | I | | **O-RING |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | |
| 768LOB _ 1/8 X 5/16-24 | 1/8 | 3.17 | 5/16-24 | .09 | 2.28 | 7/16 | .92 | 23.37 | .30 | 7.62 | 1.18 | 29.97 | .50 | 12.7 | -902 |
| 768LOB _ 1/8 X 7/16-20 | 1/8 | 3.17 | 7/16-20 | .09 | 2.28 | 9/16 | .98 | 24.89 | .36 | 9.14 | 1.24 | 31.50 | .50 | 12.7 | -904 |
| 768LOB _ 1/8 X 9/16-18 | 1/8 | 3.17 | 9/16-18 | .09 | 2.28 | 11/16 | 1.05 | 26.67 | .39 | 9.90 | 1.31 | 33.27 | .50 | 12.7 | -906 |
| 768LOB _ 1/4 X 5/16-24 | 1/4 | 6.35 | 5/16-24 | .09 | 2.28 | 9/16 | .92 | 23.37 | .30 | 7.62 | 1.21 | 30.73 | .60 | 15.2 | -902 |
| 768LOB _ 1/4 X 7/16-20 | 1/4 | 6.35 | 7/16-20 | .19 | 4.82 | 9/16 | 1.05 | 26.67 | .36 | 9.14 | 1.34 | 34.03 | .60 | 15.2 | -904 |
| 768LOB _ 1/4 X 9/16-18 | 1/4 | 6.35 | 9/16-18 | .19 | 4.82 | 11/16 | 1.11 | 28.19 | .39 | 9.90 | 1.40 | 35.56 | .60 | 15.2 | -906 |
| 768LOB _ 1/4 X 3/4 -16 | 1/4 | 6.35 | 3/4 -16 | .19 | 4.82 | 7/8 | 1.19 | 30.20 | .44 | 11.17 | 1.48 | 37.59 | .60 | 15.2 | -908 |
| 768LOB _ 1/4 X 7/8-14 | 1/4 | 6.35 | 7/8-14 | .19 | 4.82 | 1 | 1.31 | 33.27 | .50 | 12.70 | 1.60 | 40.64 | .60 | 15.2 | -910 |
| 768LOB _ 5/16 X 1/2-20 | 5/16 | 7.93 | 1/2-20 | .25 | 6.40 | 5/8 | 1.08 | 27.43 | .36 | 9.14 | 1.37 | 34.80 | .64 | 16.2 | -905 |
| 768LOB _ 3/8 X 7/16-20 | 3/8 | 9.52 | 7/16-20 | .20 | 5.10 | 5/8 | 1.11 | 28.19 | .36 | 9.14 | 1.40 | 35.56 | .66 | 16.8 | -904 |
| 768LOB _ 3/8 X 9/16-18 | 3/8 | 9.52 | 9/16-18 | .28 | 7.11 | 11/16 | 1.17 | 29.71 | .39 | 9.90 | 1.46 | 37.02 | .66 | 16.8 | -906 |
| 768LOB _ 3/8 X 3/4 -16 | 3/8 | 9.52 | 3/4 -16 | .28 | 7.11 | 7/8 | 1.25 | 31.75 | .44 | 11.17 | 1.54 | 39.11 | .66 | 16.8 | -908 |
| 768LOB _ 3/8 X 7/8-14 | 3/8 | 9.52 | 7/8-14 | .28 | 7.11 | 1 | 1.37 | 34.80 | .50 | 12.70 | 1.66 | 42.16 | .66 | 16.8 | -910 |
| 768LOB _ 1/2 X 9/16-18 | 1/2 | 12.70 | 9/16-18 | .28 | 7.11 | 13/16 | 1.14 | 28.95 | .39 | 9.90 | 1.54 | 39.11 | .90 | 22.9 | -906 |
| 768LOB _ 1/2 X 3/4 -16 | 1/2 | 12.70 | 3/4 -16 | .41 | 10.41 | 7/8 | 1.25 | 31.75 | .44 | 11.17 | 1.65 | 41.91 | .90 | 22.9 | -908 |
| 768LOB _ 1/2 X 7/8-14 | 1/2 | 12.70 | 7/8-14 | .41 | 10.41 | 1 | 1.37 | 34.80 | .50 | 12.70 | 1.77 | 44.96 | .90 | 22.9 | -910 |
| 768LOB _ 1/2 X 1 1/16-12 | 1/2 | 12.70 | 1 1/16-12 | .41 | 10.41 | 1 1/4 | 1.53 | 38.86 | .59 | 14.98 | 1.93 | 49.02 | .90 | 22.9 | -912 |
| 768LOB _ 5/8 X 3/4 -16 | 5/8 | 15.87 | 3/4 -16 | .42 | 10.66 | 15/16 | 1.25 | 31.75 | .44 | 11.17 | 1.65 | 41.91 | .96 | 22.4 | -908 |
| 768LOB _ 5/8 X 7/8 -14 | 5/8 | 15.87 | 7/8 -14 | .50 | 12.70 | 1 | 1.38 | 35.05 | .50 | 12.70 | 1.78 | 45.21 | .96 | 22.4 | -910 |
| 768LOB _ 3/4 X 3/4 -16 | 3/4 | 19.05 | 3/4 -16 | .42 | 10.66 | 1 1/16 | 1.41 | 35.81 | .44 | 11.17 | 1.81 | 46.0 | .96 | 22.4 | -908 |
| 768LOB _ 3/4 X 1 1/16 -12 | 3/4 | 19.05 | 1 1/16 -12 | .62 | 15.74 | 1 1/4 | 1.53 | 38.86 | .59 | 14.98 | 1.93 | 49.02 | .96 | 22.4 | -912 |
| 768LOB _ 3/4 X 1 5/16-12 | 3/4 | 19.05 | 1 5/16-12 | .62 | 15.74 | 1 1/2 | 1.66 | 42.16 | .59 | 14.98 | 2.06 | 52.32 | 1.02 | 25.9 | -916 |
| 768LOB _ 7/8 X 1 3/16 -12 | 7/8 | 22.22 | 1 3/16 -12 | .72 | 18.29 | 1 3/8 | 1.53 | 38.86 | .59 | 14.98 | 1.93 | 49.02 | 1.02 | 25.9 | -914 |
| 768LOB _ 1 X 1 1/16 -12 | 1 | 25.40 | 1 1/16 -12 | .66 | 16.76 | 1 3/8 | 1.62 | 41.20 | .59 | 14.98 | 2.10 | 53.34 | 1.23 | 31.2 | -912 |
| 768LOB _ 1 X 1 5/16 -12 | 1 | 25.40 | 1 5/16 -12 | .88 | 22.35 | 1 1/2 | 1.66 | 42.16 | .59 | 14.98 | 2.14 | 54.35 | 1.23 | 31.2 | -916 |
| 768LOB _ 1 1/4 X 1 5/8 -12 | 1 1/4* | 31.75 | 1 5/8 -12 | 1.09 | 27.70 | 1 7/8 | 1.82 | 46.23 | .59 | 15.10 | 2.69 | 68.33 | 1.62 | 41.2 | -920 |
| 768LOB _ 1 1/2 X 1 7/8 -12 | 1 1/2* | 38.10 | 1 7/8 -12 | 1.34 | 34.00 | 2 1/8 | 1.99 | 50.55 | .59 | 15.10 | 3.06 | 77.72 | 1.97 | 50.0 | -924 |
| 768LOB _ 2 X 2 1/2 -12 | *2 | 50.80 | 2 1/2 -12 | 1.81 | 45.97 | 2 3/4 | 2.53 | 64.26 | .59 | 15.10 | 4.00 | 101.60 | 2.66 | 67.6 | -932 |

**Designation:** Marking LOB on Hex.

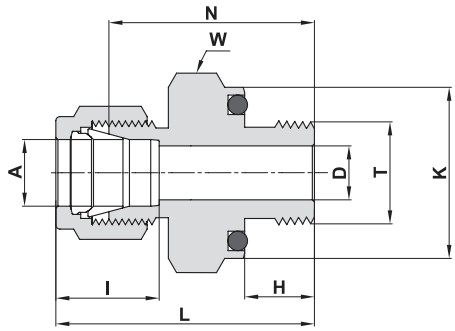
Per SAE J1926 and MS 16142. See page 53 for mounting dimensions.***

Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.**

Including low friction paste, see page 9*

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 768 LOP
# MALE CONNECTOR

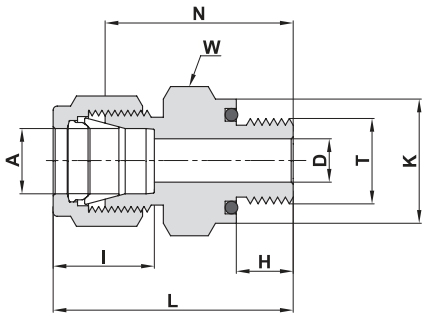



### O-SEAL NPT TAPERED THREAD

| Ordering Information | A Tube O.D. | | T NPT) Short) | D Hex. Flat | | K | | W Hex. Flat | N | | H | | L | | I | | O-RING** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | |
| 768LOP _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | .74 | 18.79 | 3/4 | 1.03 | 26.16 | .28 | 7.11 | 1.29 | 32.76 | .50 | 12.7 | -111 |
| 768LOP _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | .74 | 18.79 | 3/4 | 1.09 | 27.70 | .28 | 7.11 | 1.38 | 35.05 | .60 | 15.2 | -111 |
| 768LOP _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | .93 | 23.62 | 15/16 | 1.22 | 31.00 | .38 | 9.65 | 1.51 | 38.40 | .60 | 15.2 | -113 |
| 768LOP _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | .93 | 23.62 | 15/16 | 1.28 | 32.51 | .38 | 9.65 | 1.57 | 39.88 | .66 | 16.8 | -113 |
| 768LOP _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 1.12 | 28.45 | 1 1/8 | 1.34 | 34.04 | .41 | 10.41 | 1.63 | 41.40 | .66 | 16.8 | -116 |
| 768LOP _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .28 | 7.11 | 1.30 | 33.02 | 1 5/16 | 1.56 | 39.62 | .53 | 13.46 | 1.85 | 46.99 | .66 | 16.8 | -212 |
| 768LOP _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 1.30 | 33.02 | 1 5/16 | 1.56 | 39.62 | .53 | 13.46 | 1.96 | 49.78 | .90 | 22.9 | -212 |

**Designation:** Marking LOP on Hex.
** Standard O-rings materials are Fluorocarbon FKM 90 Durometer.
Other O-ring materials are available upon request.

## 768 LO
# MALE CONNECTOR




### O-SEAL MALE UN THREAD

| Ordering Information | A Tube O.D. | | T Straight Thread UN | D | | K | | W Hex. Flat | N | | H | | L | | I | | O-RING** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | |
| 768LO _ 1/16 X 5/16-24 | 1/16 | 1.58 | 5/16-24 | .05 | 1.27 | .55 | 14.0 | 9/16 | .90 | 22.86 | .34 | 8.63 | 1.05 | 26.67 | .34 | 8.6 | -011 |
| 768LO _ 1/8 X 5/16-24 | 1/8 | 3.17 | 5/16-24 | .09 | 2.28 | .55 | 14.0 | 9/16 | 1.03 | 26.20 | .34 | 8.63 | 1.29 | 32.77 | .50 | 12.7 | -011 |
| 768LO _ 3/16 X 3/8 -24 | 3/16 | 4.76 | 3/8 -24 | .12 | 3.04 | .62 | 15.75 | 5/8 | 1.09 | 27.70 | .38 | 9.65 | 1.35 | 34.29 | .54 | 12.7 | -012 |
| 768LO _ 1/4 X 7/16-20 | 1/4 | 6.35 | 7/16-20 | .19 | 4.82 | .74 | 18.80 | 3/4 | 1.22 | 31.00 | .41 | 10.41 | 1.51 | 38.35 | .60 | 15.2 | -111 |
| 768LO _ 5/16 X 1/2 -20 | 5/16 | 7.93 | 1/2 -20 | .25 | 6.35 | .86 | 21.84 | 7/8 | 1.31 | 33.30 | .44 | 11.17 | 1.60 | 40.64 | .64 | 16.2 | -112 |
| 768LO _ 3/8 X 9/16-18 | 3/8 | 9.52 | 9/16-18 | .28 | 7.11 | .93 | 23.62 | 15/16 | 1.38 | 35.05 | .47 | 11.93 | 1.67 | 40.89 | .66 | 16.8 | -113 |
| 768LO _ 1/2 X 3/4 -16 | 1/2 | 12.70 | 3/4 -16 | .41 | 10.41 | 1.12 | 28.45 | 1 1/8 | 1.41 | 35.81 | .47 | 11.93 | 1.81 | 45.77 | .90 | 22.9 | -116 |
| 768LO _ 3/4 X 1 1/16-12 | 3/4 | 19.05 | 1 1/16-12 | .62 | 15.74 | 1.49 | 37.85 | 1 1/2 | 1.66 | 42.20 | .56 | 14.22 | 2.06 | 52.32 | .96 | 24.4 | -215 |

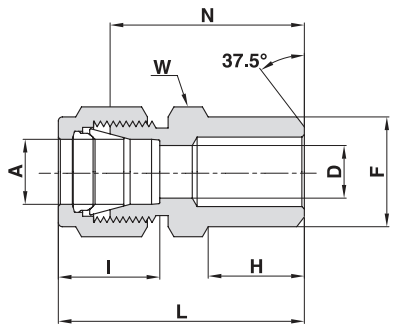
**Designation:** Marking LO on Hex.
** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials available upon request.

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 768 LN

# MALE PIPE WELD CONNECTOR

Cont'd next page




### TUBE (METRIC)

| Ordering Information | A Tube O.D. | F Pipe Size | | D | W Hex. Flat | N | H | L | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | mm |
| 768LN _ 3 X 1/8 | 3 | 1/8 | 10.30 | 2.4 | 12 | 23.9 | 9.7 | 30.5 | 12.9 |
| 768LN _ 4 X 1/8 | 4 | 1/8 | 10.30 | 2.4 | 12 | 24.6 | 9.7 | 31.2 | 13.7 |
| 768LN _ 6 X 1/8 | 6 | 1/8 | 10.30 | 4.8 | 14 | 25.4 | 9.7 | 32.8 | 15.3 |
| 768LN _ 6 X 1/4 | 6 | 1/4 | 13.70 | 4.8 | 14 | 30.5 | 14.2 | 37.9 | 15.3 |
| 768LN _ 8 X 1/8 | 8 | 1/8 | 10.30 | 5.1 | 15 | 26.7 | 9.7 | 34.2 | 16.2 |
| 768LN _ 8 X 1/4 | 8 | 1/4 | 13.70 | 6.4 | 15 | 31.2 | 14.2 | 38.7 | 16.2 |
| 768LN _ 8 X 1/2 | 8 | 1/2 | 21.34 | 6.4 | 22 | 38.1 | 19.0 | 45.6 | 16.2 |
| 768LN _ 10 X 1/4 | 10 | 1/4 | 13.70 | 7.1 | 18 | 33.3 | 14.2 | 40.9 | 17.2 |
| 768LN _ 10 X 3/8 | 10 | 3/8 | 17.10 | 7.9 | 18 | 33.3 | 14.2 | 40.9 | 17.2 |
| 768LN _ 10 X 1/2 | 10 | 1/2 | 21.34 | 7.9 | 22 | 38.9 | 19.0 | 46.5 | 17.2 |
| 768LN _ 12 X 1/4 | 12 | 1/4 | 13.70 | 7.1 | 22 | 33.3 | 14.2 | 43.4 | 22.8 |
| 768LN _ 12 X 3/8 | 12 | 3/8 | 17.10 | 9.5 | 22 | 33.3 | 14.2 | 43.4 | 22.8 |
| 768LN _ 12 X 1/2 | 12 | 1/2 | 21.34 | 9.5 | 22 | 38.9 | 19.0 | 49.0 | 22.8 |
| 768LN _ 12 X 3/4 | 12 | 3/4 | 26.67 | 9.5 | 27 | 40.4 | 19.0 | 50.5 | 22.8 |
| 768LN _ 14 X 3/8 | 14 | 3/8 | 17.10 | 10.4 | 24 | 34.0 | 14.2 | 44.1 | 24.4 |
| 768LN _ 15 X 1/2 | 15 | 1/2 | 21.34 | 11.9 | 24 | 38.9 | 19.0 | 49.0 | 24.4 |
| 768LN _ 16 X 1/2 | 16 | 1/2 | 21.34 | 12.7 | 24 | 38.9 | 19.0 | 49.0 | 24.4 |
| 768LN _ 18 X 1/2 | 18 | 1/2 | 21.34 | 13.5 | 27 | 40.4 | 19.0 | 50.5 | 24.4 |
| 768LN _ 30 X 1 1/4 | 30* | 1 1/4 | 42.2 | 26.2 | 46 | 55.6 | 23.9 | 77.2 | 39.6 |
| 768LN _ 32 X 1 1/4 | 32* | 1 1/4 | 42.2 | 28.6 | 46 | 56.6 | 23.9 | 79.6 | 42 |
| 768LN _ 38 X 1 1/2 | 38* | 1 1/2 | 48.30 | 33.7 | 55 | 64.0 | 26.2 | 91.2 | 49.4 |

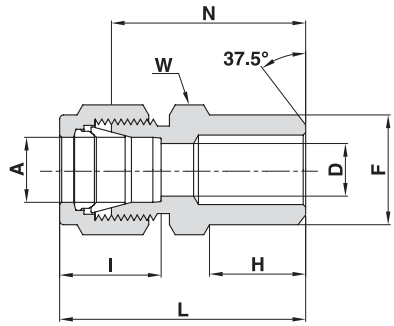
**Designation:** Marking LN on Hex

* Including low friction paste (see page 98)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 768 LN

# MALE PIPE WELD CONNECTOR (Cont'd)



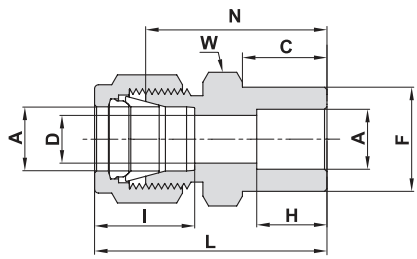

### TUBE (INCH)

| Ordering Information | A Tube O.D. | | F Pipe Size | | D | | W Hex. Flat | N | | H | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm |
| 768LN _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | 10.30 | .09 | 2.28 | 7/16 | .94 | 23.88 | .38 | 9.65 | 1.20 | 30.48 | .50 | 12.7 |
| 768LN _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | 10.30 | .12 | 3.04 | 7/16 | .97 | 24.60 | .38 | 9.65 | 1.23 | 31.25 | .54 | 13.7 |
| 768LN _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | 10.30 | .19 | 4.82 | 1/2 | 1.00 | 25.40 | .38 | 9.65 | 1.29 | 32.77 | .60 | 15.2 |
| 768LN _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 13.70 | .19 | 4.82 | 9/16 | 1.20 | 30.48 | .56 | 14.22 | 1.49 | 37.85 | .60 | 15.2 |
| 768LN _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | 10.30 | .20 | 5.08 | 9/16 | 1.05 | 26.67 | .38 | 9.65 | 1.34 | 34.04 | .64 | 16.2 |
| 768LN _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | 13.70 | .25 | 6.35 | 9/16 | 1.23 | 31.24 | .56 | 14.22 | 1.52 | 38.61 | .64 | 16.2 |
| 768LN _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 13.70 | .28 | 7.11 | 5/8 | 1.28 | 32.51 | .56 | 14.22 | 1.57 | 39.87 | .66 | 16.8 |
| 768LN _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | 17.10 | .28 | 7.11 | 11/16 | 1.28 | 32.51 | .56 | 14.22 | 1.57 | 39.87 | .66 | 16.8 |
| 768LN _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | 21.34 | .28 | 7.11 | 7/8 | 1.53 | 38.86 | .75 | 19.05 | 1.82 | 46.22 | .66 | 16.8 |
| 768LN _ 3/8 X 3/4 | 3/8 | 9.52 | 3/4 | 26.67 | .28 | 7.11 | 1 1/16 | 1.59 | 40.38 | .75 | 19.05 | 1.88 | 47.75 | .66 | 16.8 |
| 768LN _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | 17.10 | .41 | 10.41 | 13/16 | 1.31 | 33.27 | .56 | 14.22 | 1.71 | 44.43 | .90 | 22.9 |
| 768LN _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | 21.34 | .41 | 10.41 | 7/8 | 1.53 | 38.86 | .75 | 19.05 | 1.93 | 49.00 | .90 | 22.9 |
| 768LN _ 1/2 X 3/4 | 1/2 | 12.70 | 3/4 | 26.67 | .41 | 10.41 | 1 1/16 | 1.59 | 40.40 | .75 | 19.05 | 1.99 | 50.55 | .90 | 22.9 |
| 768LN _ 1/2 X 1 | 1/2 | 12.70 | 1 | 33.40 | .41 | 10.41 | 1 3/8 | 1.87 | 47.50 | .94 | 23.87 | 2.27 | 57.65 | .90 | 22.9 |
| 768LN _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | 21.34 | .50 | 12.70 | 1 5/16 | 1.53 | 38.86 | .75 | 19.05 | 1.93 | 49.02 | .96 | 24.4 |
| 768LN _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | 21.34 | .53 | 13.46 | 1 1/16 | 1.53 | 38.86 | .75 | 19.05 | 1.93 | 49.00 | .96 | 24.4 |
| 768LN _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | 26.67 | .62 | 15.74 | 1 1/16 | 1.59 | 40.40 | .75 | 19.05 | 1.99 | 50.55 | .96 | 24.4 |
| 768LN _ 1 X 1 | 1 | 25.40 | 1 | 33.40 | .88 | 22.35 | 1 3/8 | 1.97 | 50.03 | .94 | 23.87 | 2.45 | 62.23 | 1.23 | 31.2 |
| 768LN _ 1 1/4 X 1 1/4 | 1 1/4* | 31.75 | 1 1/4 | 42.16 | 1.09 | 27.70 | 1 3/4 | 2.17 | 55.12 | .94 | 23.88 | 3.04 | 77.22 | 1.62 | 41.2 |
| 768LN _ 1 1/2 X 1 1/2 | 1 1/2* | 38.10 | 1 1/2 | 48.26 | 1.34 | 34.00 | 2 1/8 | 2.43 | 61.72 | 1.03 | 26.16 | 3.50 | 88.90 | 1.97 | 50.0 |
| 768LN _ 2 X 2 | 2* | 50.80 | 2 | 60.33 | 1.81 | 45.97 | 2 3/4 | 3.00 | 76.20 | 1.06 | 26.92 | 4.47 | 113.34 | 2.66 | 67.6 |

Designation: Marking LN on Hex

## 768 LW

# TUBE SOCKET WELD UNION




### TUBE (INCH)

| Ordering Information | A Tube O.D. | | C | | D | | W Hex. Flat | F | | H | | I | | L | | N | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 768LW _ 1/8 X 1/8 | 1/8 | 3.17 | .34 | 8.64 | .09 | 2.28 | 7/16 | .31 | 7.87 | .25 | 6.35 | .50 | 12.70 | 1.14 | 28.96 | .88 | 22.35 |
| 768LW _ 1/4 X 1/4 | 1/4 | 6.35 | .41 | 10.41 | .19 | 4.80 | 1/2 | .44 | 11.18 | .31 | 7.90 | .60 | 15.20 | 1.32 | 33.53 | 1.03 | 26.16 |
| 768LW _ 3/8 X 3/8 | 3/8 | 9.52 | .47 | 11.94 | .28 | 7.10 | 5/8 | .62 | 15.75 | .38 | 9.65 | .66 | 16.80 | 1.48 | 37.60 | 1.19 | 30.23 |
| 768LW _ 1/2 X 1/2 | 1/2 | 12.70 | .47 | 11.94 | .41 | 10.40 | 13/16 | .75 | 19.05 | .50 | 12.70 | .90 | 22.90 | 1.62 | 41.15 | 1.22 | 31.00 |
| 768LW _ 3/4 X 3/4 | 3/4 | 19.05 | .47 | 11.94 | .62 | 15.80 | 1 1/16 | 1.05 | 26.67 | .56 | 14.20 | .96 | 24.40 | 1.71 | 43.43 | 1.31 | 33.28 |
| 768LW _ 1 X 1 | 1 | 25.40 | .56 | 14.22 | .88 | 22.35 | 1 3/8 | 1.36 | 34.54 | .75 | 19.05 | 1.23 | 31.20 | 2.07 | 52.58 | 1.59 | 40.40 |

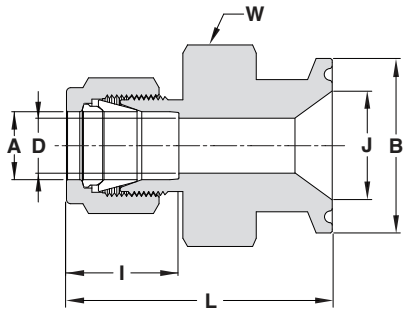
Designation: Marking LW on Hex.

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 768 LSF

# SANITARY FLANGE

LET-LOK TO SANITARY CLAMP FLANGE



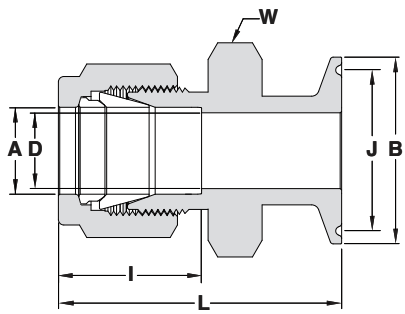

### FOR HYGIENIC SEALING AND LET-LOK FERRULE CONNECTION TO METAL TUBES

| Ordering Information | A Tube O.D. | | Flange size | B | | J | | D | | W | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | | inch | mm | inch | mm |
| 768LSF SS 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | 0.98 | 24.90 | 0.37 | 9.40 | 0.19 | 4.82 | 1 | 1.57 | 39.90 | 0.60 | 15.2 |
| 768LSF SS 1/4 X 3/4 | 1/4 | 6.35 | 3/4 | 0.98 | 24.90 | 0.62 | 15.70 | 0.19 | 4.82 | 1 | 1.57 | 39.90 | 0.60 | 15.2 |
| 768LSF SS 1/4 X 1 | 1/4 | 6.35 | 1 | 1.98 | 50.30 | 0.87 | 22.10 | 0.19 | 4.82 | 1-3/8 | 1.57 | 39.90 | 0.60 | 15.2 |
| 768LSF SS 1/4 X 1-1/2 | 1/4 | 6.35 | 1-1/2 | 1.98 | 50.30 | 1.37 | 34.80 | 0.19 | 4.82 | 1-3/8 | 1.57 | 39.90 | 0.60 | 15.2 |
| 768LSF SS 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | 0.98 | 24.90 | 0.37 | 9.40 | 0.28 | 7.11 | 1 | 1.63 | 41.40 | 0.66 | 16.8 |
| 768LSF SS 3/8 X 3/4 | 3/8 | 9.52 | 3/4 | 0.98 | 24.90 | 0.62 | 15.70 | 0.28 | 7.11 | 1 | 1.63 | 41.40 | 0.66 | 16.8 |
| 768LSF SS 3/8 X 1 | 3/8 | 9.52 | 1 | 1.98 | 50.30 | 0.87 | 22.10 | 0.28 | 7.11 | 1-3/8 | 1.63 | 41.40 | 0.66 | 16.8 |
| 768LSF SS 3/8 X 1-1/2 | 3/8 | 9.52 | 1-1/2 | 1.98 | 50.30 | 1.37 | 34.80 | 0.28 | 7.11 | 1-3/8 | 1.63 | 41.40 | 0.66 | 16.8 |
| 768LSF SS 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | 0.98 | 24.90 | 0.37 | 9.40 | 0.37 | 9.40 | 1 | 1.74 | 44.20 | 0.90 | 22.9 |
| 768LSF SS 1/2 X 3/4 | 1/2 | 12.70 | 3/4 | 0.98 | 24.90 | 0.62 | 15.70 | 0.41 | 10.41 | 1 | 1.74 | 44.20 | 0.90 | 22.9 |
| 768LSF SS 1/2 X 1 | 1/2 | 12.70 | 1 | 1.98 | 50.30 | 0.87 | 22.10 | 0.41 | 10.41 | 1-3/8 | 1.74 | 44.20 | 0.90 | 22.9 |
| 768LSF SS 1/2 X 1-1/2 | 1/2 | 12.70 | 1-1/2 | 1.98 | 50.30 | 1.37 | 34.80 | 0.41 | 10.41 | 1-3/8 | 1.74 | 44.20 | 0.90 | 22.9 |
| 768LSF SS 1 X 1 | 1 | 25.40 | 1 | 1.98 | 50.30 | 0.87 | 22.10 | 0.88 | 22.35 | 1-3/8 | 1.92 | 48.80 | 1.23 | 31.2 |
| 768LSF SS 1 X 2 | 1 | 25.40 | 2 | 2.52 | 64.00 | 1.87 | 47.50 | 0.88 | 22.35 | 2-3/4 | 2.50 | 63.50 | 1.23 | 31.2 |

## 768 LTC

# TRI-CLAMP FITTINGS

LET-LOK TO TRI-CLAMP

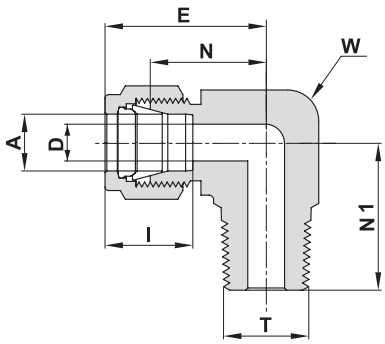



### TUBE (INCH) TO TRI-CLAMP

| Ordering Information | A .Tube O.D | | Tri-Clamp size | B | | J | | D | | W Hex. Flat | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm |
| 768LTC SS 1/2 X 1/2 | 1/2 | 12.7 | 1/2 | 1 | 25.4 | 0.8 | 20.3 | 0.37 | 9.4 | 1-1/16 | 2.1 | 53.3 | 0.9 | 22.9 |
| 768LTC SS 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | 1 | 25.4 | 0.8 | 20.3 | 0.62 | 15.8 | 1-1/16 | 2.1 | 53.3 | 0.96 | 24.4 |
| 768LTC SS 1 X 1 | 1 | 24.5 | 1 | 1.99 | 50.5 | 1.71 | 43.5 | 0.87 | 22.1 | 2 | 2.46 | 62.5 | 1.23 | 31.2 |

**Reference Specifications:** BS-4825-3

## 769 L
# MALE ELBOW




### TUBE (METRIC) MALE NPT THREAD

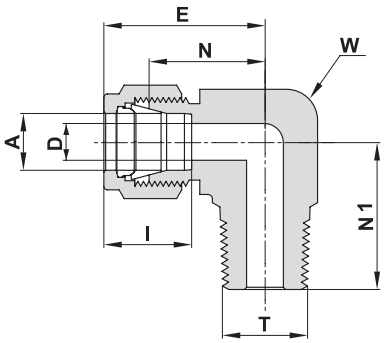
| Ordering Information | A Tube O.D. | T (NPT) | D | W Wrench Flat | | N | E | N1 | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | mm | mm | mm | mm |
| 769L _ 3 X 1/8 | 3 | 1/8 | 2.4 | 7/16 | 11.1 | 17.0 | 23.6 | 17.8 | 12.9 |
| 769L _ 3 X 1/4 | 3 | 1/4 | 2.4 | 1/2 | 12.7 | 18.0 | 24.6 | 23.4 | 12.9 |
| 769L _ 4 X 1/8 | 4 | 1/8 | 2.4 | 1/2 | 12.7 | 18.8 | 25.4 | 18.8 | 13.7 |
| 769L _ 4 X 1/4 | 4 | 1/4 | 2.4 | 1/2 | 12.7 | 18.8 | 25.4 | 23.4 | 13.7 |
| 769L _ 6 X 1/8 | 6 | 1/8 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 18.8 | 15.3 |
| 769L _ 6 X 1/4 | 6 | 1/4 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 23.4 | 15.3 |
| 769L _ 6 X 3/8 | 6 | 3/8 | 4.8 | 11/16 | 17.5 | 22.4 | 29.8 | 26.2 | 15.3 |
| 769L _ 6 X 1/2 | 6 | 1/2 | 4.8 | 13/16 | 20.6 | 24.4 | 31.8 | 33.0 | 15.3 |
| 769L _ 8 X 1/8 | 8 | 1/8 | 4.8 | 9/16 | 14.3 | 21.3 | 28.8 | 19.8 | 16.2 |
| 769L _ 8 X 1/4 | 8 | 1/4 | 6.4 | 9/16 | 14.3 | 21.3 | 28.8 | 24.4 | 16.2 |
| 769L _ 8 X 3/8 | 8 | 3/8 | 6.4 | 11/16 | 17.5 | 23.1 | 30.6 | 26.2 | 16.2 |
| 769L _ 8 X 1/2 | 8 | 1/2 | 6.4 | 13/16 | 20.6 | 25.1 | 32.6 | 33.0 | 16.2 |
| 769L _ 10 X 1/8 | 10 | 1/8 | 4.8 | 11/16 | 17.5 | 23.9 | 31.5 | 21.6 | 17.2 |
| 769L _ 10 X 1/4 | 10 | 1/4 | 7.1 | 11/16 | 17.5 | 23.9 | 31.5 | 26.2 | 17.2 |
| 769L _ 10 X 3/8 | 10 | 3/8 | 7.9 | 11/16 | 17.5 | 23.9 | 31.5 | 26.2 | 17.2 |
| 769L _ 10 X 1/2 | 10 | 1/2 | 7.9 | 13/16 | 20.6 | 25.9 | 33.5 | 33.0 | 17.2 |
| 769L _ 12 X 1/8 | 12 | 1/8 | 4.8 | 13/16 | 20.6 | 25.9 | 36.0 | 23.6 | 22.8 |
| 769L _ 12 X 1/4 | 12 | 1/4 | 7.1 | 13/16 | 20.6 | 25.9 | 36.0 | 28.2 | 22.8 |
| 769L _ 12 X 3/8 | 12 | 3/8 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 28.2 | 22.8 |
| 769L _ 12 X 1/2 | 12 | 1/2 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 33.0 | 22.8 |
| 769L _ 12 X 3/4 | 12 | 3/4 | 9.5 | 1 1/16 | 27.0 | 29.7 | 39.8 | 36.8 | 22.8 |
| 769L _ 15 X 1/2 | 15 | 1/2 | 11.9 | 15/16 | 23.8 | 27.9 | 38.0 | 35.1 | 24.4 |
| 769L _ 16 X 3/8 | 16 | 3/8 | 9.5 | 15/16 | 23.8 | 27.9 | 38.0 | 30.2 | 24.4 |
| 769L _ 16 X 1/2 | 16 | 1/2 | 11.9 | 15/16 | 23.8 | 27.9 | 38.0 | 35.1 | 24.4 |
| 769L _ 16 X 3/4 | 16 | 3/4 | 12.7 | 1 1/16 | 27.0 | 29.7 | 39.8 | 36.8 | 24.4 |
| 769L _ 18 X 1/2 | 18 | 1/2 | 11.9 | 1 1/16 | 27.0 | 29.7 | 39.8 | 36.8 | 24.4 |
| 769L _ 18 X 3/4 | 18 | 3/4 | 15.1 | 1 1/16 | 27.0 | 29.7 | 39.8 | 36.8 | 24.4 |
| 769L _ 20 X 1/2 | 20 | 1/2 | 11.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 41.7 | 26.0 |
| 769L _ 20 X 3/4 | 20 | 3/4 | 15.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 41.7 | 26.0 |
| 769L _ 22 X 3/4 | 22 | 3/4 | 15.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 41.7 | 26.0 |
| 769L _ 22 X 1 | 22 | 1 | 18.3 | 1 3/8 | 34.9 | 34.5 | 44.6 | 46.5 | 26.0 |
| 769L _ 25 X 3/4 | 25 | 3/4 | 15.9 | 1 3/8 | 34.9 | 36.8 | 49.1 | 41.7 | 31.3 |
| 769L _ 25 X 1 | 25 | 1 | 21.8 | 1 3/8 | 34.9 | 36.8 | 49.1 | 46.5 | 31.3 |
| 769L _ 38 X 1 1/2 | 38* | 1 1/2 | 33.7 | - | 55.0 | 56.4 | 84.0 | 60.4 | 49.4 |

* Including low friction paste, (see page 98)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 769 L

# MALE ELBOW (Cont'd)




### TUBE (INCH) MALE NPT THREAD

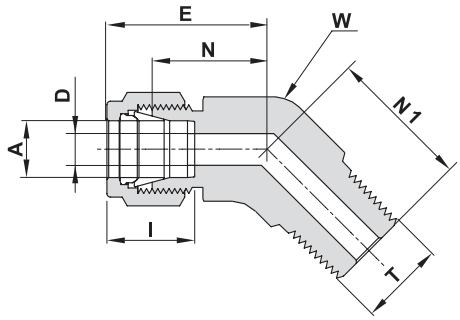
| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 769L _ 1/16 X 1/16 | 1/16 | 1.58 | 1/16 | .05 | 1.27 | 7/16 | 11.1 | .60 | 15.24 | .75 | 19.05 | .70 | 17.78 | .34 | 8.6 |
| 769L _ 1/16 X 1/8 | 1/16 | 1.58 | 1/8 | .05 | 1.27 | 7/16 | 11.1 | .60 | 15.24 | .75 | 19.05 | .70 | 17.78 | .34 | 8.6 |
| 769L _ 1/8 X 1/16 | 1/8 | 3.17 | 1/16 | .09 | 2.28 | 7/16 | 11.1 | .67 | 17.02 | .93 | 23.62 | .70 | 17.78 | .50 | 12.7 |
| 769L _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 7/16 | 11.1 | .67 | 17.02 | .93 | 23.62 | .70 | 17.78 | .50 | 12.7 |
| 769L _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | .09 | 2.28 | 1/2 | 12.7 | .71 | 18.03 | .97 | 24.64 | .92 | 23.37 | .50 | 12.7 |
| 769L _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | .12 | 3.04 | 1/2 | 12.7 | .74 | 18.80 | 1.00 | 25.40 | .74 | 18.80 | .54 | 13.7 |
| 769L _ 3/16 X 1/4 | 3/16 | 4.76 | 1/4 | .12 | 3.04 | 1/2 | 12.7 | .74 | 18.80 | 1.00 | 25.40 | .92 | 23.37 | .54 | 13.7 |
| 769L _ 1/4 X 1/16 | 1/4 | 6.35 | 1/16 | .12 | 3.04 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .74 | 18.80 | .60 | 15.2 |
| 769L _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .74 | 18.80 | .60 | 15.2 |
| 769L _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .92 | 23.37 | .60 | 15.2 |
| 769L _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | .19 | 4.82 | 11/16 | 17.5 | .88 | 22.35 | 1.17 | 29.71 | 1.03 | 26.16 | .60 | 15.2 |
| 769L _ 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | .19 | 4.82 | 13/16 | 20.6 | .96 | 24.38 | 1.25 | 31.75 | 1.30 | 33.02 | .60 | 15.2 |
| 769L _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | .19 | 4.82 | 9/16 | 14.3 | .84 | 21.34 | 1.13 | 28.70 | .78 | 19.81 | .64 | 16.2 |
| 769L _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | .25 | 6.35 | 9/16 | 14.3 | .84 | 21.34 | 1.13 | 28.70 | .96 | 24.38 | .64 | 16.2 |
| 769L _ 5/16 X 3/8 | 5/16 | 7.93 | 3/8 | .25 | 6.35 | 11/16 | 17.5 | .91 | 23.11 | 1.20 | 30.48 | 1.03 | 26.16 | .64 | 16.2 |
| 769L _ 3/8 X 1/8 | 3/8 | 9.52 | 1/8 | .19 | 4.82 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | .82 | 20.83 | .66 | 16.8 |
| 769L _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | 1.00 | 25.40 | .66 | 16.8 |
| 769L _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 11/16 | 17.5 | .94 | 23.87 | 1.23 | 31.24 | 1.03 | 26.16 | .66 | 16.8 |
| 769L _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .28 | 7.11 | 13/16 | 20.6 | 1.02 | 25.90 | 1.31 | 33.28 | 1.30 | 33.02 | .66 | 16.8 |
| 769L _ 3/8 X 3/4 | 3/8 | 9.52 | 3/4 | .28 | 7.11 | 1 1/16 | 27.0 | 1.17 | 29.71 | 1.46 | 37.08 | 1.45 | 36.83 | .66 | 16.8 |
| 769L _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | .28 | 7.11 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.07 | 1.11 | 28.19 | .90 | 22.9 |
| 769L _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .38 | 9.50 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.07 | 1.11 | 28.19 | .90 | 22.9 |
| 769L _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.07 | 1.30 | 33.02 | .90 | 22.9 |
| 769L _ 1/2 X 3/4 | 1/2 | 12.70 | 3/4 | .41 | 10.41 | 1 1/16 | 27.0 | 1.17 | 29.71 | 1.57 | 39.88 | 1.45 | 36.83 | .90 | 22.9 |
| 769L _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | .38 | 9.61 | 15/16 | 23.8 | 1.10 | 27.94 | 1.50 | 38.10 | 1.19 | 30.23 | .96 | 24.4 |
| 769L _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .47 | 11.94 | 15/16 | 23.8 | 1.10 | 27.94 | 1.50 | 38.10 | 1.38 | 35.05 | .96 | 24.4 |
| 769L _ 5/8 X 3/4 | 5/8 | 15.87 | 3/4 | .50 | 12.70 | 1 1/16 | 27.0 | 1.17 | 29.71 | 1.57 | 39.88 | 1.45 | 36.83 | .96 | 24.4 |
| 769L _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | .47 | 11.94 | 1 1/16 | 27.0 | 1.17 | 29.71 | 1.57 | 39.88 | 1.45 | 36.83 | .96 | 24.4 |
| 769L _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.74 | 1 1/16 | 27.0 | 1.17 | 29.71 | 1.57 | 39.88 | 1.45 | 36.83 | .96 | 24.4 |
| 769L _ 7/8 X 3/4 | 7/8 | 22.22 | 3/4 | .62 | 15.74 | 1 3/8 | 34.9 | 1.36 | 34.54 | 1.76 | 44.70 | 1.64 | 41.66 | 1.02 | 25.9 |
| 769L _ 1 X 3/4 | 1 | 25.40 | 3/4 | .62 | 15.74 | 1 3/8 | 34.9 | 1.45 | 36.83 | 1.93 | 49.02 | 1.64 | 41.66 | 1.23 | 31.2 |
| 769L _ 1 X 1 | 1 | 25.40 | 1 | .86 | 21.84 | 1 3/8 | 34.9 | 1.45 | 36.83 | 1.93 | 49.02 | 1.83 | 46.48 | 1.23 | 31.2 |
| 769L _ 1 1/4 X 1 1/4 | 1 1/4* | 31.75 | 1 1/4 | 1.09 | 27.70 | 1 11/16 | 42.9 | 1.75 | 44.45 | 2.62 | 66.50 | 1.88 | 47.75 | 1.62 | 41.2 |
| 769L _ 1 1/2 X 1 1/2 | 1 1/2* | 38.10 | 1 1/2 | 1.34 | 34.00 | 2 | 50.8 | 2.00 | 50.80 | 3.07 | 78.00 | 2.38 | 60.45 | 1.97 | 50.0 |
| 769L _ 2 X 2 | 2* | 50.80 | 2 | 1.81 | 45.97 | 2 3/4 | 69.9 | 2.75 | 69.85 | 4.22 | 107.19 | 2.78 | 70.61 | 2.66 | 67.6 |

* Including low friction paste, (see page 98)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

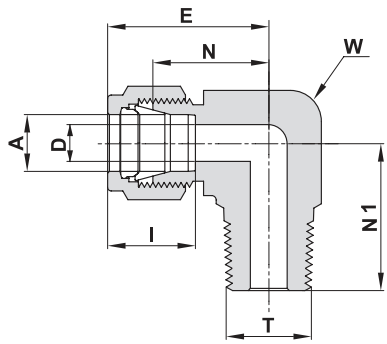
769 LA 45°

# MALE ELBOW 45°




| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 769LA SS 3/8 X 1/4 | 3/8 | 9.53 | 1/4 | 0.28 | 7.10 | 13/16 | 20.63 | 0.81 | 20.60 | 1.10 | 27.97 | 0.90 | 22.86 | 0.67 | 16.92 |
| 769LA SS 3/8 X 3/8 | 3/8 | 9.53 | 3/8 | 0.28 | 7.10 | 13/16 | 20.63 | 0.86 | 21.80 | 1.15 | 29.17 | 0.95 | 24.10 | 0.67 | 16.92 |
| 769LA SS 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | 0.28 | 7.10 | 13/16 | 20.63 | 0.86 | 21.84 | 1.26 | 32.00 | 0.95 | 24.13 | 0.90 | 22.86 |
| 769LA SS 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | 0.37 | 9.50 | 13/16 | 20.63 | 0.86 | 21.84 | 1.26 | 32.00 | 0.95 | 24.13 | 0.90 | 22.86 |

## 769 LR
# MALE ELBOW




### TUBE (METRIC) ISO TAPERED THREAD

| Ordering Information | A Tube O.D. | T (ISO) | D | W Wrench Flat | | N | E | N1 | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | mm | mm | mm | mm |
| 769LR _ 3 X 1/8 | 3 | R-1/8 | 2.4 | 7/16 | 11.1 | 17.0 | 23.6 | 17.8 | 12.9 |
| 769LR _ 3 X 1/4 | 3 | R-1/4 | 2.4 | 1/2 | 12.7 | 18.0 | 24.6 | 23.4 | 12.9 |
| 769LR _ 4 X 1/8 | 4 | R-1/8 | 2.4 | 1/2 | 12.7 | 18.8 | 25.4 | 18.8 | 13.7 |
| 769LR _ 4 X 1/4 | 4 | R-1/4 | 2.4 | 1/2 | 12.7 | 18.8 | 25.4 | 23.4 | 13.7 |
| 769LR _ 6 X 1/8 | 6 | R-1/8 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 18.8 | 15.3 |
| 769LR _ 6 X 1/4 | 6 | R-1/4 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 23.4 | 15.3 |
| 769LR _ 6 X 3/8 | 6 | R-3/8 | 4.8 | 11/16 | 17.5 | 22.4 | 29.8 | 26.2 | 15.3 |
| 769LR _ 6 X 1/2 | 6 | R-1/2 | 4.8 | 13/16 | 20.6 | 24.4 | 31.8 | 33.0 | 15.3 |
| 769LR _ 8 X 1/8 | 8 | R-1/8 | 4.8 | 9/16 | 14.3 | 21.3 | 28.8 | 19.8 | 16.2 |
| 769LR _ 8 X 1/4 | 8 | R-1/4 | 6.4 | 9/16 | 14.3 | 21.3 | 28.8 | 24.4 | 16.2 |
| 769LR _ 8 X 3/8 | 8 | R-3/8 | 6.4 | 11/16 | 17.5 | 23.1 | 30.6 | 26.2 | 16.2 |
| 769LR _ 8 X 1/2 | 8 | R-1/2 | 6.4 | 13/16 | 20.6 | 25.1 | 32.6 | 33.0 | 16.2 |
| 769LR _ 10 X 1/8 | 10 | R-1/8 | 4.8 | 11/16 | 17.5 | 23.9 | 31.5 | 21.6 | 17.2 |
| 769LR _ 10 X 1/4 | 10 | R-1/4 | 7.1 | 11/16 | 17.5 | 23.9 | 31.5 | 26.2 | 17.2 |
| 769LR _ 10 X 3/8 | 10 | R-3/8 | 7.9 | 11/16 | 17.5 | 23.9 | 31.5 | 26.2 | 17.2 |
| 769LR _ 10 X 1/2 | 10 | R-1/2 | 7.9 | 13/16 | 20.6 | 25.9 | 33.5 | 33.0 | 17.2 |
| 769LR _ 12 X 1/8 | 12 | R-1/8 | 4.8 | 13/16 | 20.6 | 25.9 | 36.0 | 23.6 | 22.8 |
| 769LR _ 12 X 1/4 | 12 | R-1/4 | 7.1 | 13/16 | 20.6 | 25.9 | 36.0 | 28.2 | 22.8 |
| 769LR _ 12 X 3/8 | 12 | R-3/8 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 28.2 | 22.8 |
| 769LR _ 12 X 1/2 | 12 | R-1/2 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 33.0 | 22.8 |
| 769LR _ 12 X 3/4 | 12 | R-3/4 | 9.5 | 1 1/16 | 27.0 | 29.7 | 39.8 | 36.8 | 22.8 |
| 769LR _ 14 X 1/2 | 14 | R-1/2 | 11.0 | 15/16 | 23.8 | 27.9 | 38.0 | 35.0 | 24.4 |
| 769LR _ 15 X 1/2 | 15 | R-1/2 | 11.9 | 15/16 | 23.8 | 27.9 | 38.0 | 35.1 | 24.4 |
| 769LR _ 16 X 3/8 | 16 | R-3/8 | 9.5 | 15/16 | 23.8 | 27.9 | 38.0 | 30.2 | 24.4 |
| 769LR _ 16 X 1/2 | 16 | R-1/2 | 11.9 | 15/16 | 23.8 | 27.9 | 38.0 | 35.1 | 24.4 |
| 769LR _ 18 X 1/2 | 18 | R-1/2 | 11.9 | 1 1/16 | 27.0 | 29.7 | 39.8 | 36.8 | 24.4 |
| 769LR _ 18 X 3/4 | 18 | R-3/4 | 15.1 | 1 1/16 | 27.0 | 29.7 | 39.8 | 36.8 | 24.4 |
| 769LR _ 20 X 1/2 | 20 | R-1/2 | 11.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 41.7 | 26.0 |
| 769LR _ 20 X 3/4 | 20 | R-3/4 | 15.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 41.7 | 26.0 |
| 769LR _ 22 X 3/4 | 22 | R-3/4 | 15.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 41.7 | 26.0 |
| 769LR _ 22 X 1 | 22 | R -1 | 18.3 | 1 3/8 | 34.9 | 34.5 | 44.6 | 46.5 | 26.0 |
| 769LR _ 25 X 3/4 | 25 | R-3/4 | 15.9 | 1 3/8 | 34.9 | 36.8 | 49.1 | 41.7 | 31.3 |
| 769LR _ 25 X 1 | 25 | R -1 | 21.8 | 1 3/8 | 34.9 | 36.8 | 49.1 | 46.5 | 31.3 |

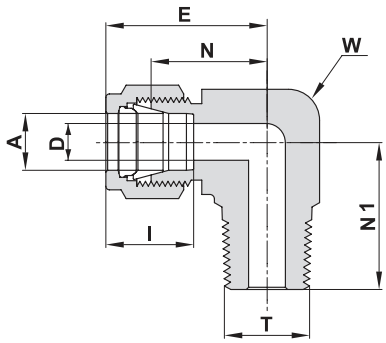
**Reference Specifications:**
DIN - 2999
BS - 21
JIS - B0203
ISO - 7/1-BSP-T

**Designation:**
Marking LR on Flat

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

Cont'd next page

## 769 LR
# MALE ELBOW (Cont'd)




### TUBE (INCH) ISO TAPERED THREAD

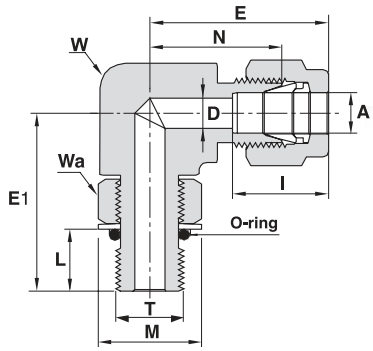
| Ordering Information | A Tube O.D. | | T (ISO) | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 769LR _ 1/8 X 1/8 | 1/8 | 3.17 | R-1/8 | .09 | 2.28 | 7/16 | 11.1 | .67 | 17.02 | .93 | 23.62 | .70 | 17.78 | .50 | 12.7 |
| 769LR _ 1/8 X 1/4 | 1/8 | 3.17 | R-1/4 | .09 | 2.28 | 1/2 | 12.7 | .71 | 18.03 | .97 | 24.64 | .92 | 23.37 | .50 | 12.7 |
| 769LR _ 1/4 X 1/8 | 1/4 | 6.35 | R-1/8 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .74 | 18.80 | .60 | 15.2 |
| 769LR _ 1/4 X 1/4 | 1/4 | 6.35 | R-1/4 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .92 | 23.37 | .60 | 15.2 |
| 769LR _ 1/4 X 3/8 | 1/4 | 6.35 | R-3/8 | .19 | 4.82 | 11/16 | 17.5 | .88 | 22.35 | 1.17 | 29.71 | 1.03 | 26.16 | .60 | 15.2 |
| 769LR _ 1/4 X 1/2 | 1/4 | 6.35 | R-1/2 | .19 | 4.82 | 13/16 | 20.6 | .96 | 24.38 | 1.25 | 31.75 | 1.30 | 33.02 | .60 | 15.2 |
| 769LR _ 5/16 X 1/4 | 5/16 | 7.93 | R-1/4 | .25 | 6.35 | 9/16 | 14.3 | .84 | 21.34 | 1.13 | 28.70 | .96 | 24.38 | .64 | 16.2 |
| 769LR _ 3/8 X 1/8 | 3/8 | 9.52 | R-1/8 | .19 | 4.82 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | .82 | 20.83 | .66 | 16.8 |
| 769LR _ 3/8 X 1/4 | 3/8 | 9.52 | R-1/4 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | 1.00 | 25.40 | .66 | 16.8 |
| 769LR _ 3/8 X 3/8 | 3/8 | 9.52 | R-3/8 | .28 | 7.11 | 11/16 | 17.5 | .94 | 23.87 | 1.23 | 31.24 | 1.03 | 26.16 | .66 | 16.8 |
| 769LR _ 1/2 X 1/4 | 1/2 | 12.70 | R-1/4 | .28 | 7.11 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.07 | 1.11 | 28.19 | .90 | 22.9 |
| 769LR _ 1/2 X 3/8 | 1/2 | 12.70 | R-3/8 | .38 | 9.50 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.07 | 1.11 | 28.19 | .90 | 22.9 |
| 769LR _ 1/2 X 1/2 | 1/2 | 12.70 | R-1/2 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.07 | 1.30 | 33.02 | .90 | 22.9 |
| 769LR _ 3/4 X 1/2 | 3/4 | 19.05 | R-1/2 | .47 | 11.94 | 1 1/16 | 27.0 | 1.17 | 29.71 | 1.57 | 39.88 | 1.45 | 36.83 | .96 | 24.4 |
| 769LR _ 1 X 1 | 1 | 25.40 | R-1 | .86 | 21.84 | 1 3/8 | 34.9 | 1.45 | 36.83 | 1.93 | 49.02 | 1.83 | 46.48 | 1.23 | 31.2 |

**Reference Specifications:**
DIN - 2999
BS - 21
JIS - B0203
ISO - 7/1-BSP-T

**Designation:**
Marking LR on Flat

## POSITIONABLES PER SAE
J1926 AND MS 16142

### 769 LOB
# MALE ELBOW POS



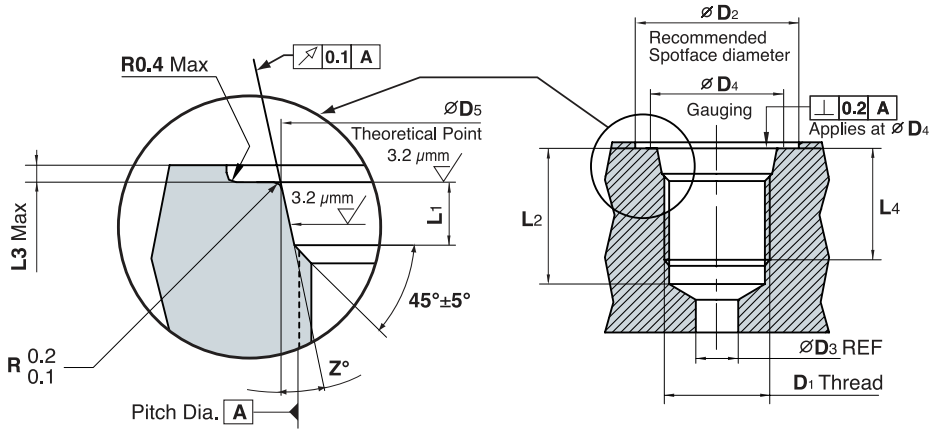

### TUBE TO SAE/MS STRAIGHT THREAD BOSS (POSITIONABLE)*

| Ordering Information | A Tube O.D. | | T SAE/MS | D | | W Wrench Flat | | Wa Hex. Flat | N | | E | | E1 | | L | | M | | I | | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Dash No. |
| 769LOB SS 1/4 X 7/16-20 POS. | 1/4 | 6.35 | 7/16-20 | .19 | 4.8 | 1/2 | 12.7 | 9/16 | .83 | 21.10 | 1.12 | 28.45 | 1.12 | 28.45 | .39 | 9.9 | .65 | 16.5 | .60 | 15.2 | -904 |
| 769LOB SS 1/4 X 9/16-18 POS. | 1/4 | 6.35 | 9/16-18 | .19 | 4.8 | 5/8 | 15.9 | 11/16 | .91 | 23.11 | 1.20 | 30.48 | 1.27 | 32.26 | .44 | 11.2 | .79 | 20.1 | .60 | 15.2 | -906 |
| 769LOB SS 3/8 X 7/16-20 POS. | 3/8 | 9.52 | 7/16-20 | .20 | 5.1 | 5/8 | 15.9 | 9/16 | .97 | 24.64 | 1.26 | 32.00 | 1.12 | 28.45 | .39 | 9.9 | .65 | 16.5 | .66 | 16.8 | -904 |
| 769LOB SS 3/8 X 9/16-18 POS. | 3/8 | 9.52 | 9/16-18 | .28 | 7.1 | 5/8 | 15.9 | 11/16 | .97 | 24.64 | 1.26 | 32.00 | 1.27 | 32.26 | .44 | 11.2 | .79 | 20.1 | .66 | 16.8 | -906 |
| 769LOB SS 3/8 X 3/4-16 POS. | 3/8 | 9.52 | 3/4-16 | .28 | 7.1 | 13/16 | 20.6 | 7/8 | 1.08 | 27.43 | 1.37 | 34.80 | 1.49 | 37.85 | .50 | 12.7 | 1.01 | 25.7 | .66 | 16.8 | -908 |
| 769LOB SS 1/2 X 9/16-18 POS. | 1/2 | 12.70 | 9/16-18 | .28 | 7.1 | 13/16 | 20.6 | 11/16 | 1.08 | 27.43 | 1.48 | 37.59 | 1.38 | 35.05 | .44 | 11.2 | .79 | 20.1 | .90 | 22.9 | -906 |
| 769LOB SS 1/2 X 3/4-16 POS. | 1/2 | 12.70 | 3/4-16 | .41 | 10.4 | 13/16 | 20.6 | 7/8 | 1.08 | 27.43 | 1.48 | 37.59 | 1.49 | 37.85 | .50 | 12.7 | 1.01 | 25.7 | .90 | 22.9 | -908 |
| 769LOB SS 3/4 X 1 1/16-12 POS. | 3/4 | 19.05 | 1 1/16-12 | .62 | 15.8 | 1 1/16 | 27.0 | 1 1/4 | 1.23 | 31.24 | 1.63 | 41.40 | 1.92 | 48.77 | .66 | 16.8 | 1.44 | 36.7 | .96 | 24.4 | -912 |
| 769LOB SS 1 X 1 1/16-12 POS. | 1 | 25.40 | 1 1/16-12 | .62 | 15.8 | 1 3/8 | 34.9 | 1 1/4 | 1.51 | 38.35 | 1.99 | 50.55 | 2.05 | 52.07 | .66 | 16.8 | 1.44 | 36.7 | 1.23 | 31.2 | -912 |
| 769LOB SS 1 X 1 5/16-12 POS. | 1 | 25.40 | 1 5/16-12 | .88 | 22.3 | 1 3/8 | 34.9 | 1 1/2 | 1.51 | 38.35 | 1.99 | 50.55 | 2.11 | 53.59 | .66 | 16.8 | 1.73 | 44.0 | 1.23 | 31.2 | -916 |

* Per SAE J1926 and MS 16142. See page 53 for mounting dimensions.

# DIMENSIONS

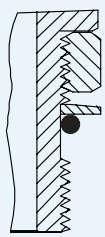
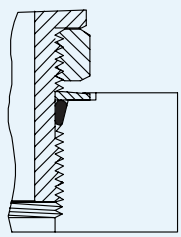
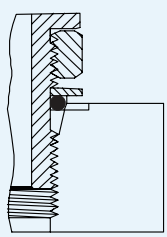
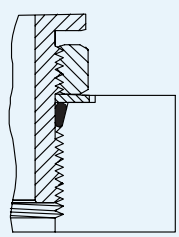
FOR SAE J1926 & MS 16142 BOSS




## MOUNTING DIMENSIONS FOR O-SEAL CONNECTORS (SAE/MS)

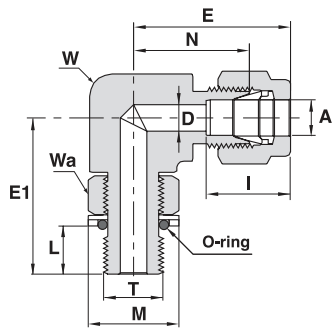
| TUBE O.D. | | DI Thread Size | D2 Min Diameter ±0.05 | D3 Min Diameter | D4 Min | D5 ±0.05 | L1 ±0.20 | L2 Min | L3 Max | L4 Min Full Thread | °Z °±1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| inch | mm | inch | mm | mm | mm | mm | mm | mm | mm | mm | |
| 1/8 | 3.17 | 5/16 - 24 UNF - 2B | 17 | 1.6 | 11 | 9.15 | 2.1 | 12 | 1.6 | 10 | 12 |
| 3/16 | 4.76 | 3/8 - 24 UNF - 2B | 19 | 3.5 | 13 | 10.75 | 2.1 | 12 | 1.6 | 10 | 12 |
| 1/4 | 6.35 | 7/16 - 20 UNF - 2B | 21 | 4.5 | 15 | 12.45 | 2.6 | 14 | 1.6 | 11.5 | 12 |
| 5/16 | 7.93 | 1/2 - 20 UNF - 2B | 23 | 6 | 16 | 14.05 | 2.6 | 14 | 1.6 | 11.5 | 12 |
| 3/8 | 9.52 | 9/16 - 18 UNF- 2B | 25 | 7.5 | 18 | 15.70 | 2.7 | 15.5 | 1.6 | 12.7 | 12 |
| 1/2 | 12.70 | 3/4 - 16 UNF -2B | 30 | 10 | 22 | 20.65 | 2.7 | 17.5 | 2.4 | 14.3 | 15 |
| 5/8 | 15.87 | 7/8 - 14 UNF - 2B | 34 | 12.5 | 26 | 24 | 2.7 | 20 | 2.4 | 16.7 | 15 |
| 3/4 | 19.05 | 1 1/16 - 12 UNF - 2B | 41 | 16 | 32 | 29.2 | 3.5 | 23 | 2.4 | 19 | 15 |
| 7/8 | 22.22 | 1 3/16 - 12 UN - 2B | 45 | 18 | 35 | 32.4 | 3.5 | 23 | 2.4 | 19 | 15 |
| 1 | 25.40 | 1 5/16 - 12 UN - 2B | 49 | 21 | 38 | 35.55 | 3.5 | 23 | 3.2 | 19 | 15 |
| 1 1/4 | 31.75 | 1 5/8 - 12 UN - 2B | 58 | 27 | 48 | 43.55 | 3.5 | 23 | 3.2 | 19 | 15 |
| 1 1/2 | 38.10 | 1 7/8 - 12 UN - 2B | 65 | 33 | 54 | 49.9 | 3.5 | 23 | 3.2 | 19 | 15 |
| 2 | 50.80 | 2 1/2 - 12 UN - 2B | 88 | 45 | 70 | 65.75 | 3.5 | 23 | 3.2 | 19 | 15 |

## INSTALLATION INSTRUCTIONS

| Figure 1 | Figure 2 | Figure 3 | Figure 4 |
|---|---|---|---|
| **Locking backed off** | **Fitting install hand tight** | **Fittings backed-off for alignment (turn maximum 1)** | **Fitting locknut tightly to appropriate torque** |
|  |  |  |  |
| Lubricate the O-ring by inserting it into the groove adjacent to the face of the metal back-up washer which is assembled at the extreme end of the groove as shown in Figure 1. | Install the fitting into the S.A.E. straight thread boss, Figure 2, until the metal back-up washer contacts the face of the boss as shown in Figure 2. | Position the fitting by turning it counter clockwise up to a maximum of one turn (see Figure 3). | Holding the pad of the fitting with a spanner, tighten the locknut and washer against the face as shown in Figure 4. |

Dimensions are for reference only and subject to change without notice.

## 769 LG
# MALE ELBOW




### TUBE (METRIC) TO ISO PARALLEL THREAD (POSITIONABLE)*

| Ordering Information | A Tube O.D. | T (ISO) | D | W Wrench Flat | | Wa Hex. Flat | N | E | E1 | L | M | I | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | inch | mm | mm | mm | mm | mm | mm | Dash No. |
| 769LG SS 6 X 1/8 POS. | 6 | G-1/8-28 | 4.0 | 1/2 | 12.7 | 9/16 | 19.6 | 27.0 | 26.4 | 8.1 | 17.3 | 15.3 | *** |
| 769LG SS 6 X 1/4 POS. | 6 | G-1/4-19 | 4.8 | 5/8 | 15.9 | 3/4 | 21.6 | 29.0 | 32.2 | 9.1 | 22.9 | 15.3 | -111 |
| 769LG SS 8 X 1/8 POS. | 8 | G-1/8-28 | 4.0 | 5/8 | 15.9 | 9/16 | 21.3 | 28.8 | 27.4 | 8.1 | 17.3 | 16.2 | *** |
| 769LG SS 8 X 1/4 POS. | 8 | G-1/4-19 | 5.9 | 5/8 | 15.9 | 3/4 | 22.4 | 29.9 | 32.2 | 9.1 | 22.9 | 16.2 | -111 |
| 769LG SS 10 X 1/4 POS. | 10 | G-1/4-19 | 5.9 | 13/16 | 20.6 | 3/4 | 25.9 | 33.5 | 35.0 | 9.1 | 22.9 | 17.2 | -111 |
| 769LG SS 10 X 3/8 POS. | 10 | G-3/8-19 | 7.9 | 13/16 | 20.6 | 7/8 | 25.9 | 33.5 | 37.1 | 9.4 | 26.4 | 17.2 | -113 |
| 769LG SS 12 X 1/4 POS. | 12 | G-1/4-19 | 5.9 | 13/16 | 20.6 | 3/4 | 25.9 | 36.0 | 35.0 | 9.1 | 22.9 | 22.8 | -111 |
| 769LG SS 12 X 3/8 POS. | 12 | G-3/8-19 | 7.9 | 13/16 | 20.6 | 7/8 | 25.9 | 36.0 | 37.1 | 9.4 | 26.4 | 22.8 | -113 |
| 769LG SS 12 X 1/2 POS. | 12 | G-1/2-14 | 9.5 | 15/16 | 23.8 | 1 1/16 | 27.9 | 38.0 | 43.4 | 13.0 | 32.0 | 22.8 | -593 |

### TUBE (INCH) TO ISO PARALLEL THREAD (POSITIONABLE)*

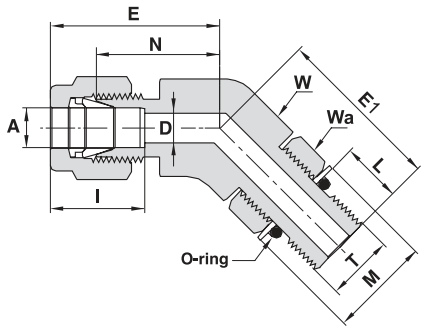
| Ordering Information | A Tube O.D. | | T (ISO) | D | | W Wrench Flat | | Wa Hex. Flat | N | | E | | E1 | | L | | M | | I | | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Dash No. |
| 769LG SS 1/4 X 1/8 POS. | 1/4 | 6.35 | G-1/8-28 | .16 | 4.0 | 1/2 | 12.7 | 9/16 | .77 | 19.60 | 1.06 | 26.9 | 1.04 | 26.4 | .32 | 8.1 | .68 | 17.3 | .60 | 15.2 | *** |
| 769LG SS 1/4 X 1/4 POS. | 1/4 | 6.35 | G-1/4-19 | .19 | 4.8 | 5/8 | 15.9 | 3/4 | .85 | 21.60 | 1.14 | 28.9 | 1.27 | 32.2 | .36 | 9.1 | .90 | 22.9 | .60 | 15.2 | -111 |
| 769LG SS 1/4 X 1/2 POS. | 1/4 | 6.35 | G-1/2-14 | .19 | 4.8 | 15/16 | 23.8 | 1 1/16 | .96 | 24.38 | 1.25 | 31.8 | 1.71 | 43.4 | .51 | 13.0 | 1.26 | 32.0 | .60 | 15.2 | -593 |
| 769LG SS 3/8 X 1/4 POS. | 3/8 | 9.52 | G-1/4-19 | .23 | 5.9 | 5/8 | 15.9 | 3/4 | .91 | 23.11 | 1.20 | 30.5 | 1.27 | 32.2 | .36 | 9.1 | .90 | 22.9 | .66 | 16.8 | -111 |
| 769LG SS 3/8 X 3/8 POS. | 3/8 | 9.52 | G-3/8-19 | .28 | 7.1 | 13/16 | 20.6 | 7/8 | 1.02 | 25.91 | 1.31 | 33.3 | 1.46 | 37.1 | .37 | 9.4 | 1.04 | 26.4 | .66 | 16.8 | -113 |
| 769LG SS 1/2 X 1/4 POS. | 1/2 | 12.70 | G-1/4-19 | .23 | 5.9 | 13/16 | 20.6 | 3/4 | 1.02 | 25.91 | 1.42 | 36.1 | 1.27 | 32.2 | .36 | 9.1 | .90 | 22.9 | .90 | 22.9 | -111 |
| 769LG SS 1/2 X 3/8 POS. | 1/2 | 12.70 | G-3/8-19 | .31 | 7.9 | 13/16 | 20.6 | 7/8 | 1.02 | 25.91 | 1.42 | 36.1 | 1.46 | 37.1 | .37 | 9.4 | 1.04 | 26.4 | .90 | 22.9 | -113 |
| 769LG SS 1/2 X 1/2 POS. | 1/2 | 12.70 | G-1/2-14 | .41 | 10.4 | 15/16 | 23.8 | 1 1/16 | 1.10 | 27.94 | 1.50 | 38.1 | 1.71 | 43.4 | .51 | 13.0 | 1.26 | 32.0 | .90 | 22.9 | -593 |
| 769LG SS 5/8 X 1/2 POS. | 5/8 | 15.87 | G-1/2-14 | .47 | 11.9 | 15/16 | 23.8 | 1 1/16 | 1.10 | 27.94 | 1.50 | 38.1 | 1.71 | 43.4 | .51 | 13.0 | 1.26 | 32.0 | .96 | 24.4 | -593 |

**Reference Specifications:**
DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

**O-rings used are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available on request.
***Not standard O-ring size.
"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## POSITIONABLES PER SAE
J1926 AND MS 16142

### 769 LOB 45°
# MALE ELBOW 45° POS



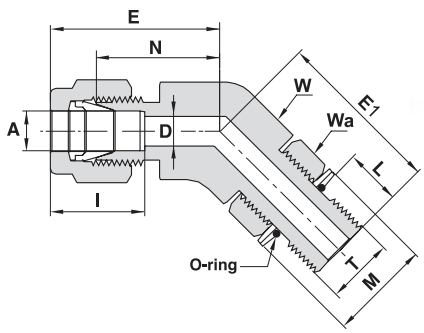

### TUBE TO SAE/MS STRAIGHT THREAD BOSS (POSITIONABLE)*

| Ordering Information | A Tube O.D. | | T SAE/MS | D | | W Wrench Flat | | Wa Hex. Flat | N | | E | | E1 | | L | | M | | I | | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Dash No. |
| 769LAOB SS 1/4 X 7/16-20 POS. | 1/4 | 6.35 | 7/16-20 | .19 | 4.8 | 9/16 | 14.3 | 9/16 | .72 | 18.29 | 1.01 | 25.65 | 1.01 | 25.65 | .39 | 9.9 | .65 | 16.5 | .60 | 15.2 | -904 |
| 769LAOB SS 3/8 X 9/16-18 POS. | 3/8 | 9.52 | 9/16-18 | .28 | 7.1 | 13/16 | 20.6 | 11/16 | .81 | 20.57 | 1.10 | 27.94 | 1.06 | 27.00 | 0.40 | 10.2 | .79 | 20.1 | .66 | 16.8 | -906 |

**Reference Specifications:**

* Per SAE J1926 and MS 16142. See page 53 for mounting dimensions.
** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.
"D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.

### 769 LG 45°
# MALE ELBOW 45° POS




### TUBE TO (METRIC) TO ISO PARALEL THREAD (POSITIONABLE)*

| Ordering Information | A Tube O.D. | | T (ISO) | D | W Wrench Flat | | Wa Hex. Flat | N | E | E1 | L | M | I | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | mm | mm | mm | mm | mm | Dash No. |
| 769LAG SS 6 X 1/8 POS. | 6 | | G-1/8-28 | 4.0 | 9/16 | 14.3 | 9/16 | 17.5 | 24.9 | 24.0 | 8.1 | 8.1 | 15.3 | *** |

### TUBE TO (INCH) TO ISO PARALEL THREAD (POSITIONABLE)*

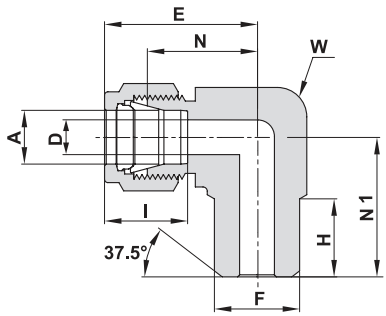
| Ordering Information | A Tube O.D. | | T (ISO) | D | | W Wrench Flat | | Wa Hex. Flat | N | | E | | E1 | | L | | M | | I | | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Dash No. |
| 769LAG SS 1/4 X 1/8 POS. | 1/4 | 6.35 | G-1/8-28 | .16 | 4.0 | 9/16 | 14.3 | 9/16 | 69. | 17.5 | .98 | 24.0 | .94 | 24.0 | .32 | 8.1 | 0.68 | 17.3 | .60 | 15.2 | *** |

**Reference Specifications:**

DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

**Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.
.***Not standard O-ring size
"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 769 LN
# MALE PIPE WELD ELBOW



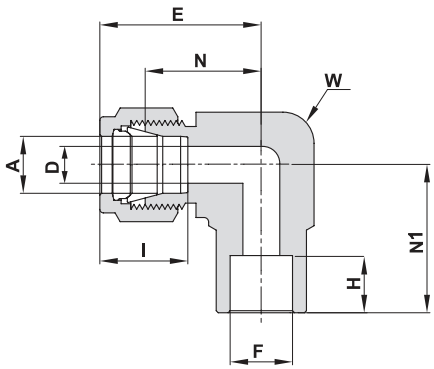

### TUBE (INCH)

| Ordering Information | A Tube O.D. | | F Pipe Size | | D | | W Wrench Flat | | N | | H | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 769LN _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | 10.30 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | .38 | 9.65 | 1.06 | 26.92 | .74 | 18.8 | .60 | 15.2 |
| 769LN _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 13.70 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | .56 | 14.22 | 1.06 | 26.92 | .92 | 23.37 | .60 | 15.2 |
| 769LN _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 13.70 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | .56 | 14.22 | 1.20 | 30.48 | 1.00 | 25.40 | .66 | 16.8 |
| 769LN _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | 21.34 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.90 | .75 | 19.05 | 1.42 | 36.06 | 1.30 | 33.02 | .90 | 22.9 |
| 769LN _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | 26.67 | .62 | 15.75 | 1 1/16 | 27.0 | 1.17 | 29.72 | .75 | 19.05 | 1.57 | 39.88 | 1.45 | 36.83 | .96 | 24.4 |

**Designation:**
Marking LN on Flat

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 769 LW
# TUBE SOCKET WELD ELBOW

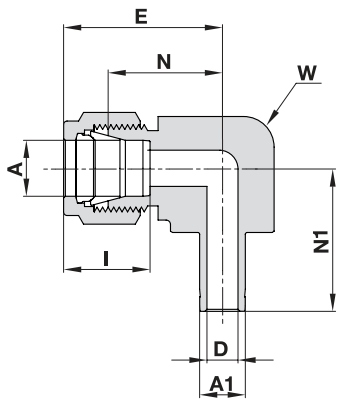



### TUBE (INCH)

| Ordering Information | A Tube O.D. | | F Tube O.D. | | D | | W Wrench Flat | | N | | H | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 769LW _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 6.35 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.60 | .31 | 7.87 | 1.06 | 26.98 | .77 | 19.60 | .60 | 15.2 |
| 769LW _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | 9.52 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | .38 | 9.65 | 1.20 | 30.98 | .91 | 23.11 | .66 | 16.8 |
| 769LW _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | 12.70 | .41 | 10.41 | 15/16 | 23.8 | 1.02 | 25.90 | .50 | 12.70 | 1.42 | 36.06 | 1.02 | 25.90 | .90 | 22.9 |
| 769LW _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | 19.05 | .62 | 15.74 | 1 1/16 | 27.0 | 1.17 | 29.71 | .56 | 14.22 | 1.57 | 39.87 | 1.17 | 29.71 | .96 | 24.4 |
| 769LW _ 1 X 1 | 1 | 25.40 | 1 | 25.40 | .88 | 22.35 | 1 3/8 | 34.9 | 1.45 | 36.83 | .75 | 19.05 | 1.93 | 49.02 | 1.45 | 36.83 | 1.23 | 31.2 |

**Designation:**
Marking LW on flat

## 769 LT
# REDUCING ELBOW



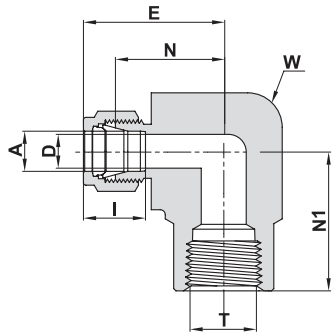

### TUBE (METRIC) TO STUB (METRIC)

| Ordering Information | A Tube O.D. | A1 .Tube O.D | D | W Wrench Flat | | N | E | N1 | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | mm | mm | inch | mm | mm | mm | mm | mm |
| 769LT _ 6 X 6 | 6 | 6 | 4.0 | 1/2 | 12.7 | 19.6 | 27.0 | 23.8 | 15.3 |
| 769LT _ 12 X 12 | 12 | 12 | 8.8 | 1 1/8 | 28.6 | 27.9 | 38.0 | 40.4 | 22.8 |
| 769LT _ 15 X 15 | 15 | 15 | 12.0 | 1 1/8 | 28.6 | 27.9 | 38.0 | 41.0 | 24.4 |
| 769LT _ 22 X 22 | 22 | 22 | 18.3 | 1 3/8 | 34.9 | 34.5 | 44.6 | 50.0 | 26.0 |

### TUBE (INCH) TO STUB (INCH)

| Ordering Information | A Tube O.D. | | A1 .Tube O.D | | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 769LT _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | 9.52 | .19 | 4.82 | 5/8 | 15.9 | .91 | 23.1 | 1.20 | 30.5 | 1.24 | 31.5 | .60 | 15.2 |
| 769LT _ 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | 12.7 | .19 | 4.82 | 5/8 | 15.9 | .91 | 23.1 | 1.20 | 30.5 | 1.28 | 32.5 | .60 | 15.2 |

## 770 L
# FEMALE ELBOW




### TUBE (METRIC) TO FEMALE NPT THREAD

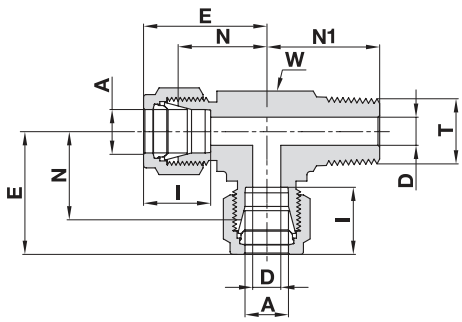
| Ordering Information | A Tube O.D. | T (NPT) | D | W Wrench Flat | | N | E | N1 | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | mm | mm | mm | mm |
| 770L _ 6 X 1/8 | 6 | 1/8 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 19.0 | 15.3 |
| 770L _ 6 X 1/4 | 6 | 1/4 | 4.8 | 11/16 | 17.5 | 22.4 | 29.8 | 22.4 | 15.3 |
| 770L _ 6 X 1/2 | 6 | 1/2 | 4.8 | 1 1/16 | 27.0 | 27.2 | 34.6 | 28.4 | 15.3 |
| 770L _ 8 X 1/4 | 8 | 1/4 | 6.4 | 11/16 | 17.5 | 23.1 | 30.6 | 22.4 | 16.2 |
| 770L _ 10 X 1/8 | 10 | 1/8 | 7.9 | 11/16 | 17.5 | 23.9 | 31.5 | 19.0 | 17.2 |
| 770L _ 10 X 1/4 | 10 | 1/4 | 7.9 | 13/16 | 20.6 | 25.9 | 33.5 | 22.4 | 17.2 |
| 770L _ 12 X 1/4 | 12 | 1/4 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 22.4 | 22.8 |
| 770L _ 12 X 1/2 | 12 | 1/2 | 9.5 | 1 1/16 | 27.0 | 28.7 | 38.8 | 28.4 | 22.8 |
| 770L _ 16 X 1/2 | 16 | 1/2 | 12.7 | 1 1/16 | 27.0 | 29.7 | 39.8 | 28.4 | 24.4 |

### TUBE (INCH) TO FEMALE NPT THREAD

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 770L _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 1/2 | 12.7 | .71 | 18.03 | .97 | 24.64 | .75 | 19.05 | .50 | 12.7 |
| 770L _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | .09 | 2.28 | 11/16 | 17.5 | .82 | 20.80 | 1.08 | 27.43 | .88 | 22.40 | .50 | 12.7 |
| 770L _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | .12 | 3.04 | 1/2 | 12.7 | .74 | 18.80 | 1.00 | 25.40 | .75 | 19.05 | .54 | 13.7 |
| 770L _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.55 | 1.06 | 26.92 | .75 | 19.05 | .60 | 15.2 |
| 770L _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 11/16 | 17.5 | .88 | 22.40 | 1.17 | 29.72 | .88 | 22.40 | .60 | 15.2 |
| 770L _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | .19 | 4.82 | 15/16 | 23.8 | .96 | 24.38 | 1.25 | 31.75 | .88 | 22.40 | .60 | 15.2 |
| 770L _ 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | .19 | 4.82 | 1 1/16 | 27.0 | 1.07 | 27.18 | 1.36 | 34.54 | 1.12 | 28.45 | .60 | 15.2 |
| 770L _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | .25 | 6.35 | 9/16 | 14.3 | .84 | 21.30 | 1.13 | 28.70 | .75 | 19.05 | .64 | 16.2 |
| 770L _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | .25 | 6.35 | 11/16 | 17.5 | .91 | 23.11 | 1.20 | 30.48 | .88 | 22.40 | .64 | 16.2 |
| 770L _ 3/8 X 1/8 | 3/8 | 9.52 | 1/8 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | .75 | 19.05 | .66 | 16.8 |
| 770L _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 11/16 | 17.5 | 0.94 | 23.87 | 1.23 | 31.24 | .88 | 22.40 | .66 | 16.8 |
| 770L _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 15/16 | 23.8 | 1.02 | 25.90 | 1.31 | 33.27 | .88 | 22.40 | .66 | 16.8 |
| 770L _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .28 | 7.11 | 1 1/16 | 27.0 | 1.13 | 28.70 | 1.42 | 36.07 | 1.12 | 28.45 | .66 | 16.8 |
| 770L _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.07 | .88 | 22.40 | .90 | 22.9 |
| 770L _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .41 | 10.41 | 15/16 | 23.8 | 1.02 | 25.90 | 1.42 | 36.07 | .88 | 22.40 | .90 | 22.9 |
| 770L _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 1 1/16 | 27.0 | 1.13 | 28.70 | 1.53 | 36.86 | 1.12 | 28.45 | .90 | 22.9 |
| 770L _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | .50 | 12.70 | 15/16 | 23.8 | 1.10 | 27.90 | 1.50 | 38.10 | .88 | 22.40 | .96 | 24.4 |
| 770L _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .50 | 12.70 | 1 1/16 | 27.0 | 1.17 | 29.70 | 1.57 | 39.86 | 1.12 | 28.45 | .96 | 24.4 |
| 770L _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | .62 | 15.74 | 1 1/16 | 27.0 | 1.17 | 29.70 | 1.57 | 39.86 | 1.12 | 28.45 | .96 | 24.4 |
| 770L _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.74 | 1 3/8 | 34.9 | 1.36 | 34.54 | 1.76 | 44.70 | 1.25 | 31.75 | .96 | 24.4 |
| 770L _ 7/8 X 3/4 | 7/8 | 22.22 | 3/4 | .72 | 18.28 | 1 3/8 | 34.9 | 1.36 | 34.54 | 1.76 | 44.70 | 1.25 | 31.75 | 1.02 | 25.9 |
| 770L _ 1 X 3/4 | 1 | 25.40 | 3/4 | .88 | 22.35 | 1 3/8 | 34.9 | 1.45 | 36.83 | 1.93 | 49.02 | 1.25 | 31.75 | 1.23 | 31.2 |
| 770L _ 1 X 1 | 1 | 25.40 | 1 | .88 | 22.35 | 1 11/16 | 42.9 | 1.63 | 41.40 | 2.11 | 53.59 | 1.50 | 38.10 | 1.23 | 31.2 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 771 L
# MALE RUN TEE




### TUBE (METRIC) TO MALE NPT THREAD

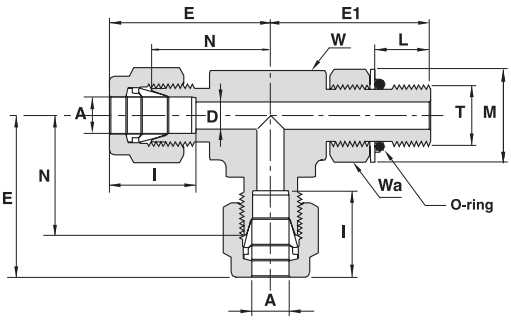
| Ordering Information | A Tube O.D. | T (NPT) | D | W Wrench Flat | | N | E | N1 | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | mm | mm | mm | mm |
| 771L _ 6 X 1/8 | 6 | 1/8 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 18.8 | 15.3 |
| 771L _ 6 X 1/4 | 6 | 1/4 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 23.4 | 15.3 |
| 771L _ 8 X 1/8 | 8 | 1/8 | 4.8 | 5/8 | 15.9 | 22.4 | 29.0 | 20.8 | 16.2 |
| 771L _ 8 X 1/4 | 8 | 1/4 | 6.4 | 5/8 | 15.9 | 22.4 | 29.9 | 25.4 | 16.2 |
| 771L _ 10 X 1/4 | 10 | 1/4 | 7.1 | 13/16 | 20.6 | 25.9 | 33.5 | 28.2 | 17.2 |
| 771L _ 12 X 1/4 | 12 | 1/4 | 7.1 | 13/16 | 20.6 | 25.9 | 36.0 | 28.2 | 22.8 |
| 771L _ 12 X 3/8 | 12 | 3/8 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 28.2 | 22.8 |
| 771L _ 12 X 1/2 | 12 | 1/2 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 33.0 | 22.8 |
| 771L _ 16 X 1/2 | 16 | 1/2 | 11.9 | 15/16 | 23.8 | 27.9 | 38.0 | 35.0 | 24.4 |

### TUBE (INCH) TO MALE NPT THREAD

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 771L _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 7/16 | 11.1 | .67 | 17.02 | .93 | 23.62 | .70 | 17.78 | .50 | 12.7 |
| 771L _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | .09 | 2.28 | 1/2 | 12.7 | .71 | 18.03 | .97 | 24.64 | .92 | 23.40 | .50 | 12.7 |
| 771L _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | .12 | 3.05 | 7/16 | 11.1 | .70 | 17.78 | .96 | 24.38 | .70 | 17.78 | .54 | 13.7 |
| 771L _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .74 | 18.8 | .60 | 15.2 |
| 771L _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .92 | 23.37 | .60 | 15.2 |
| 771L _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | .19 | 4.82 | 5/8 | 15.9 | .88 | 22.35 | 1.17 | 29.71 | .82 | 20.83 | .64 | 16.2 |
| 771L _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | 1.00 | 25.40 | .66 | 16.8 |
| 771L _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 13/16 | 20.6 | 1.02 | 25.91 | 1.31 | 33.27 | 1.11 | 28.19 | .66 | 16.8 |
| 771L _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .38 | 9.5 | 13/16 | 20.6 | 1.02 | 25.91 | 1.42 | 36.07 | 1.11 | 28.19 | .90 | 22.9 |
| 771L _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.91 | 1.42 | 36.07 | 1.30 | 33.00 | .90 | 22.9 |
| 771L _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .47 | 11.94 | 15/16 | 23.8 | 1.10 | 27.94 | 1.50 | 38.1 | 1.38 | 35.05 | .96 | 24.4 |
| 771L _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.75 | 1 1/16 | 27.0 | 1.17 | 29.72 | 1.57 | 39.88 | 1.45 | 36.83 | .96 | 24.4 |

# POSITIONABLES
PER SAE J1926 AND MS 16142

## 771 LOB
# MALE RUN TEE POS

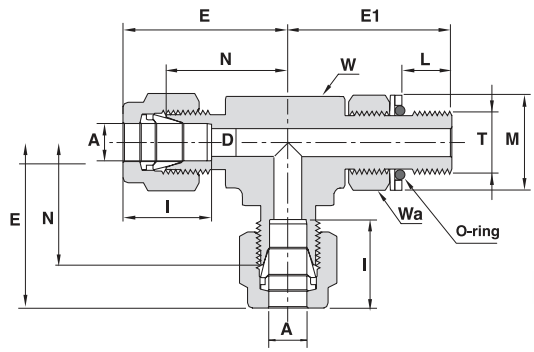



### TUBE TO SAE/MS STRAIGHT THREAD BOSS (POSITIONABLE)*

| Ordering Information | A Tube O.D. | | T SAE/MS | D | | W Wrench Flat | | Wa Hex. Flat | N | | E | | E1 | | L | | M | | I | | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Dash No. |
| 771LOB SS 1/4 X 7/16-20 POS. | 1/4 | 6.35 | 7/16-20 | .19 | 4.8 | 1/2 | 12.7 | 9/16 | .83 | 21.10 | 1.12 | 28.45 | 1.12 | 28.45 | .39 | 9.9 | .65 | 16.5 | .60 | 15.2 | -904 |
| 771LOB SS 3/8 X 9/16-18 POS. | 3/8 | 9.52 | 9/16-18 | .28 | 7.1 | 5/8 | 15.9 | 11/16 | .97 | 24.64 | 1.26 | 32.00 | 1.27 | 32.26 | .44 | 11.2 | .79 | 20.1 | .66 | 16.8 | -906 |

*Per SAE J1926 and MS 16142. (See page 53) for mounting dimensions.
**O-rings used are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available on request.

## 771 LG
# MALE RUN TEE POS




### TUBE (METRIC) TO ISO PARALLEL THREAD (POSITIONABLE)*

| Ordering Information | A Tube O.D. | T (ISO) | D | W Wrench Flat | | Wa Hex. Flat | N | E | E1 | L | M | I | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | inch | mm | mm | mm | mm | mm | mm | Dash No. |
| 771LG SS 6 X 1/8 POS. | 6 | G-1/8-28 | 4.0 | 1/2 | 12.7 | 9/16 | 19.6 | 27.0 | 26.4 | 8.1 | 17.3 | 15.3 | *** |
| 771LG SS 6 X 1/4 POS. | 6 | G-1/4-19 | 4.8 | 5/8 | 15.9 | 3/4 | 21.6 | 29.0 | 32.2 | 9.1 | 22.9 | 15.3 | -111 |
| 771LG SS 8 X 1/4 POS. | 8 | G-1/4-19 | 5.9 | 5/8 | 15.9 | 3/4 | 22.4 | 29.9 | 32.2 | 9.1 | 22.9 | 16.2 | -111 |
| 771LG SS 10 X 1/4 POS. | 10 | G-1/4-19 | 5.9 | 15/16 | 23.8 | 3/4 | 25.9 | 33.5 | 35.0 | 9.1 | 22.9 | 17.2 | -111 |

### TUBE (INCH) TO ISO PARALLEL THREAD (POSITIONABLE)*

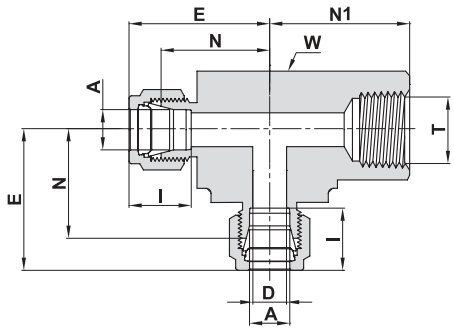
| Ordering Information | A Tube O.D. | | T (ISO) | D | | W Wrench Flat | | Wa Hex. Flat | N | | E | | E1 | | L | | M | | I | | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Dash No. |
| 771LG SS 1/4 X 1/8 POS. | 1/4 | 6.35 | G-1/8-28 | .16 | 4.0 | 1/2 | 12.7 | 9/16 | .77 | 19.6 | 1.06 | 26.9 | 1.04 | 26.4 | .32 | 8.1 | .68 | 17.3 | .60 | 15.2 | *** |
| 771LG SS 1/4 X 1/4 POS. | 1/4 | 6.35 | G-1/4-19 | .19 | 4.8 | 5/8 | 15.9 | 3/4 | .85 | 21.6 | 1.14 | 28.9 | 1.27 | 32.2 | .36 | 9.1 | .90 | 22.9 | .60 | 15.2 | -111 |
| 771LG SS 3/8 X 1/4 POS. | 3/8 | 9.52 | G- 1/4-19 | .23 | 5.9 | 5/8 | 15.9 | 3/4 | .91 | 23.1 | 1.20 | 30.5 | 1.27 | 32.2 | .36 | 9.1 | .90 | 22.9 | .66 | 16.8 | -111 |

**Reference Specifications:**
DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

**Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials available upon request.
***Not standard O-ring size.
"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 771 LF

# FEMALE RUN TEE




### TUBE (METRIC) TO FEMALE NPT THREAD

| Ordering Information | A | T (NPT) | D | W Wrench Flat | | N | E | N1 | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | mm | mm | mm | mm |
| 771LF _ 6 X 1/8 | 6 | 1/8 | 4.8 | 5/8 | 15.9 | 19.6 | 27.0 | 19.0 | 15.3 |
| 771LF _ 6 X 1/4 | 6 | 1/4 | 4.8 | 13/16 | 20.6 | 22.4 | 29.8 | 22.4 | 15.3 |
| 771LF _ 8 X 1/8 | 8 | 1/8 | 6.4 | 5/8 | 15.9 | 22.4 | 29.9 | 22.4 | 16.2 |
| 771LF _ 8 X 1/4 | 8 | 1/4 | 6.4 | 13/16 | 20.6 | 23.1 | 30.6 | 22.4 | 16.2 |
| 771LF _ 10 X 1/4 | 10 | 1/4 | 7.9 | 13/16 | 20.6 | 25.9 | 33.5 | 22.4 | 17.2 |
| 771LF _ 12 X 1/4 | 12 | 1/4 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 22.4 | 22.8 |
| 771LF _ 12 X 3/8 | 12 | 3/8 | 9.5 | 15/16 | 23.8 | 25.9 | 36.0 | 22.4 | 22.8 |
| 771LF _ 12 X 1/2 | 12 | 1/2 | 9.5 | 1 1/16 | 27.0 | 29.7 | 39.8 | 28.4 | 22.8 |
| 771LF _ 16 X 1/2 | 16 | 1/2 | 12.7 | 1 1/16 | 27.0 | 29.7 | 39.8 | 28.4 | 24.4 |

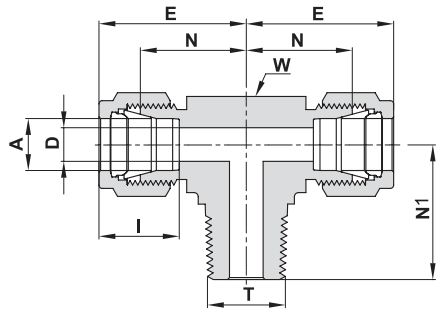
### TUBE (INCH) TO FEMALE NPT THREAD

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 771LF _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 5/8 | 15.9 | .71 | 18.00 | .97 | 24.63 | .75 | 19.05 | .50 | 12.7 |
| 771LF _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 5/8 | 15.9 | .77 | 19.55 | 1.06 | 26.92 | .75 | 19.05 | .60 | 15.2 |
| 771LF _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 13/16 | 20.6 | .88 | 22.35 | 1.17 | 29.71 | .88 | 22.35 | .60 | 15.2 |
| 771LF _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 13/16 | 20.6 | .94 | 23.87 | 1.23 | 31.24 | .88 | 22.35 | .66 | 16.8 |
| 771LF _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .41 | 10.41 | 15/16 | 23.8 | 1.02 | 25.9 | 1.42 | 36.07 | .88 | 22.35 | .90 | 22.9 |
| 771LF _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 1 1/16 | 27.0 | 1.17 | 29.72 | 1.57 | 39.88 | 1.12 | 28.45 | .90 | 22.9 |
| 771LF _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.75 | 1 3/8 | 34.9 | 1.36 | 34.54 | 1.76 | 44.70 | 1.25 | 31.75 | .96 | 24.4 |
| 771LF _ 1 X 3/4 | 1 | 25.4 | 3/4 | .88 | 22.35 | 1 3/8 | 34.9 | 1.45 | 36.83 | 1.93 | 49.02 | 1.25 | 31.75 | 1.23 | 31.2 |
| 771LF _ 1 X 1 | 1 | 25.4 | 1 | .88 | 22.35 | 1 11/16 | 42.9 | 1.63 | 41.40 | 2.11 | 53.59 | 1.50 | 38.10 | 1.23 | 31.2 |

"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 772 L

# MALE BRANCH TEE




### TUBE (METRIC) TO MALE NPT THREAD

| Ordering Information | A Tube O.D. | T (NPT) | D | W Wrench Flat | | N | E | N1 | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | mm | mm | mm | mm |
| 772L _ 6 X 1/8 | 6 | 1/8 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 18.8 | 15.3 |
| 772L _ 6 X 1/4 | 6 | 1/4 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 23.4 | 15.3 |
| 772L _ 8 X 1/8 | 8 | 1/8 | 4.8 | 5/8 | 15.9 | 22.4 | 29.9 | 20.8 | 16.2 |
| 772L _ 8 X 1/4 | 8 | 1/4 | 6.4 | 5/8 | 15.9 | 22.4 | 29.9 | 25.4 | 16.2 |
| 772L _ 10 X 1/4 | 10 | 1/4 | 7.1 | 13/16 | 20.6 | 25.9 | 33.5 | 28.2 | 17.2 |
| 772L _ 12 X 1/4 | 12 | 1/4 | 7.1 | 13/16 | 20.6 | 25.9 | 36.0 | 28.2 | 22.8 |
| 772L _ 12 X 3/8 | 12 | 3/8 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 28.2 | 22.8 |
| 772L _ 12 X 1/2 | 12 | 1/2 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 33.0 | 22.8 |
| 772L _ 16 X 1/2 | 16 | 1/2 | 11.9 | 15/16 | 23.8 | 28.7 | 38.8 | 35.8 | 24.4 |

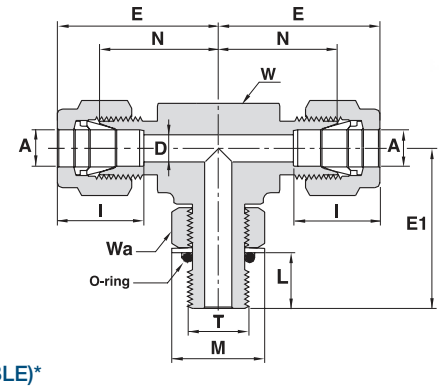
### TUBE (INCH) TO MALE NPT THREAD

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 772L _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 7/16 | 11.1 | .67 | 17.02 | .93 | 23.62 | .70 | 17.78 | .50 | 12.7 |
| 772L _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | .09 | 2.28 | 1/2 | 12.7 | .71 | 18.03 | .97 | 24.64 | .92 | 23.37 | .50 | 12.7 |
| 772L _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | .12 | 3.04 | 7/16 | 11.1 | .70 | 17.78 | .96 | 24.38 | .70 | 17.78 | .54 | 13.7 |
| 772L _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .74 | 18.80 | .60 | 15.2 |
| 772L _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | .92 | 23.37 | .60 | 15.2 |
| 772L _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | .19 | 4.82 | 5/8 | 15.9 | .88 | 22.35 | 1.17 | 29.71 | .82 | 20.83 | .64 | 16.2 |
| 772L _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | 1.00 | 25.40 | .66 | 16.8 |
| 772L _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 13/16 | 20.6 | 1.02 | 25.91 | 1.31 | 33.27 | 1.11 | 28.19 | .66 | 16.8 |
| 772L _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .38 | 9.65 | 13/16 | 20.6 | 1.02 | 25.91 | 1.42 | 36.07 | 1.11 | 28.19 | .90 | 22.9 |
| 772L _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.91 | 1.42 | 36.07 | 1.30 | 33.02 | .90 | 22.9 |
| 772L _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .47 | 11.94 | 15/16 | 23.8 | 1.13 | 28.7 | 1.53 | 38.86 | 1.41 | 35.81 | .96 | 24.4 |
| 772L _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.75 | 1 1/16 | 27.0 | 1.17 | 29.72 | 1.57 | 39.88 | 1.45 | 36.83 | .96 | 24.4 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 772 LOB

# MALE BRANCH TEE POS




### TUBE TO SAE/MS STRAIGHT THREAD BOSS (POSITIONABLE)*

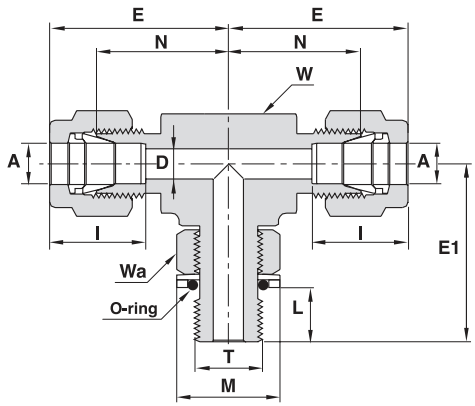
| Ordering Information | A Tube O.D. | | T SAE/MS | D | | W Wrench Flat | | Wa Hex. Flat | N | | E | | E1 | | L | | M | | I | | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Dash No. |
| 772LOB SS 1/4 X 7/16-20 POS. | 1/4 | 6.35 | 7/16-20 | .19 | 4.8 | 1/2 | 12.7 | 9/16 | .83 | 21.10 | 1.12 | 28.45 | 1.12 | 28.45 | .39 | 9.9 | .65 | 16.5 | .60 | 15.2 | -904 |
| 772LOB SS 3/8 X 9/16-18 POS. | 3/8 | 9.52 | 9/16-18 | .28 | 7.1 | 5/8 | 15.9 | 11/16 | .97 | 24.64 | 1.26 | 32.00 | 1.27 | 32.26 | .44 | 11.2 | .79 | 20.1 | .66 | 16.8 | -906 |

*Per SAE J1926 and MS 16142. See page 53 for mounting dimensions.
**Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials available upon request.

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## POSITIONABLES
ISO PARALLEL THREAD

### 772 LG
# MALE BRANCH TEE POS




### TUBE (METRIC) TO ISO PARALLEL THREAD (POSITIONABLE)*

| Ordering Information | A Tube O.D. | T (ISO) | D | W Wrench Flat | | Wa Hex. Flat | N | E | E1 | L | M | I | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | inch | mm | mm | mm | mm | mm | mm | Dash No. |
| 772LG SS 6 X 1/8 POS. | 6 | G-1/8-28 | 4.0 | 1/2 | 12.7 | 9/16 | 19.6 | 27.0 | 26.4 | 8.1 | 17.3 | 15.3 | *** |
| 772LG SS 6 X 1/4 POS. | 6 | G-1/4-19 | 4.8 | 5/8 | 15.9 | 3/4 | 21.6 | 29.0 | 32.2 | 9.1 | 22.9 | 15.3 | -111 |
| 772LG SS 8 X 1/4 POS. | 8 | G-1/4-19 | 5.9 | 5/8 | 15.9 | 3/4 | 22.4 | 29.9 | 32.2 | 9.1 | 22.9 | 16.2 | -111 |
| 772LG SS 10 X 1/4 POS. | 10 | G-1/4-19 | 5.9 | 15/16 | 23.8 | 3/4 | 25.9 | 33.5 | 35.0 | 9.1 | 22.9 | 17.2 | -111 |

### TUBE (INCH) TO ISO PARALLEL THREAD (POSITIONABLE)*

| Ordering Information | A Tube O.D. | | T (ISO) | D | | W Wrench Flat | | Wa Hex. Flat | N | | E | | E1 | | L | | M | | I | | O-ring** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | Dash No. |
| 772LG SS 1/4 X 1/8 POS. | 1/4 | 6.35 | G-1/8-28 | 0.16 | 4.0 | 1/2 | 12.7 | 9/16 | 0.77 | 19.6 | 1.06 | 26.9 | 1.04 | 26.4 | 0.32 | 8.1 | 0.68 | 17.3 | 0.60 | 15.2 | *** |
| 772LG SS 1/4 X 1/4 POS. | 1/4 | 6.35 | G-1/4-19 | 0.19 | 4.8 | 5/8 | 15.9 | 3/4 | 0.85 | 21.6 | 1.14 | 28.9 | 1.27 | 32.2 | 0.36 | 9.1 | 0.90 | 22.9 | 0.60 | 15.2 | -111 |
| 772LG SS 3/8 X 1/4 POS. | 3/8 | 9.52 | G-1/4-19 | 0.23 | 5.9 | 5/8 | 15.9 | 3/4 | 0.91 | 23.1 | 1.20 | 30.5 | 1.27 | 32.2 | 0.36 | 9.1 | 0.90 | 22.9 | 0.66 | 16.8 | -111 |

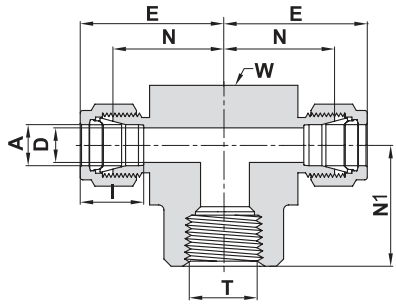
**Reference Specifications:**

DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

**Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.
***Not standard O-ring size.
"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 772 LF

# FEMALE BRANCH TEE




### TUBE (METRIC) TO FEMALE NPT THREAD

| Ordering Information | A Tube O.D. | T (NPT) | D | W Wrench Flat | | N | E | N1 | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | inch | mm | mm | mm | mm | mm |
| 772LF _ 6 X 1/8 | 6 | 1/8 | 4.8 | 5/8 | 15.9 | 19.6 | 27.0 | 19.0 | 15.3 |
| 772LF _ 6 X 1/4 | 6 | 1/4 | 4.8 | 13/16 | 20.6 | 22.4 | 29.8 | 22.4 | 15.3 |
| 772LF _ 8 X 1/8 | 8 | 1/8 | 6.4 | 5/8 | 15.9 | 22.4 | 29.9 | 19.0 | 16.2 |
| 772LF _ 8 X 1/4 | 8 | 1/4 | 6.4 | 13/16 | 20.6 | 23.1 | 30.6 | 22.4 | 16.2 |
| 772LF _ 10 X 1/4 | 10 | 1/4 | 7.9 | 13/16 | 20.6 | 25.9 | 33.5 | 22.4 | 17.2 |
| 772LF _ 10 X 3/8 | 10 | 3/8 | 7.9 | 15/16 | 23.8 | 25.9 | 33.5 | 22.4 | 17.2 |
| 772LF _ 12 X 1/4 | 12 | 1/4 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 22.4 | 22.8 |
| 772LF _ 12 X 3/8 | 12 | 3/8 | 9.5 | 15/16 | 23.8 | 25.9 | 36.0 | 22.4 | 22.8 |
| 772LF _ 12 X 1/2 | 12 | 1/2 | 9.5 | 1 1/16 | 27.0 | 28.7 | 38.8 | 28.4 | 22.8 |
| 772LF _ 16 X 1/2 | 16 | 1/2 | 12.7 | 1 1/16 | 27.0 | 28.7 | 38.8 | 28.4 | 24.4 |

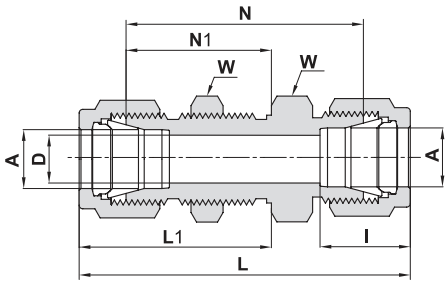
### TUBE (INCH) TO FEMALE NPT THREAD

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Wrench Flat | | N | | E | | N1 | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 772LF _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 5/8 | 15.9 | .70 | 18.00 | .97 | 24.64 | .75 | 19.05 | .50 | 12.7 |
| 772LF _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 5/8 | 15.9 | .77 | 19.56 | 1.06 | 26.96 | .75 | 19.05 | .60 | 15.2 |
| 772LF _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 13/16 | 20.6 | .88 | 22.35 | 1.17 | 29.71 | .88 | 22.35 | .60 | 15.2 |
| 772LF _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 13/16 | 20.6 | .94 | 23.88 | 1.23 | 31.24 | .88 | 22.35 | .66 | 16.8 |
| 772LF _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 15/16 | 23.8 | 1.02 | 25.90 | 1.31 | 33.27 | .88 | 22.35 | .66 | 16.8 |
| 772LF _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .28 | 7.11 | 1 1/16 | 27.0 | 1.13 | 28.70 | 1.42 | 36.07 | 1.12 | 28.45 | .66 | 16.8 |
| 772LF _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.90 | 1.42 | 36.07 | .88 | 22.35 | .90 | 22.9 |
| 772LF _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .41 | 10.41 | 15/16 | 23.8 | 1.02 | 25.90 | 1.42 | 36.07 | .88 | 22.35 | .90 | 22.9 |
| 772LF _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 1 1/16 | 27.0 | 1.13 | 28.70 | 1.53 | 38.86 | 1.12 | 28.45 | .90 | 22.9 |
| 772LF _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .50 | 12.70 | 1 1/16 | 27.0 | 1.13 | 28.70 | 1.53 | 38.86 | 1.12 | 28.44 | .96 | 24.4 |
| 772LF _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.74 | 1 3/8 | 34.9 | 1.36 | 34.50 | 1.76 | 44.70 | 1.25 | 31.75 | .96 | 24.4 |
| 772LF _ 1 X 3/4 | 1 | 25.4 | 3/4 | .88 | 22.35 | 1 3/8 | 34.9 | 1.45 | 36.83 | 1.93 | 49.02 | 1.25 | 31.75 | 1.23 | 31.2 |
| 772LF _ 1 X 1 | 1 | 25.4 | 1 | .88 | 22.35 | 1 11/16 | 42.9 | 1.63 | 41.40 | 2.11 | 53.60 | 1.50 | 38.10 | 1.23 | 31.2 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 774 L

# BULKHEAD UNION




### TUBE (METRIC) TO TUBE (METRIC)

| Ordering Information | A Tube O.D. | D | W Hex. Flat | N | N1 | L | L1 | I | Panel Hole Drill Size | Max. Panel Thickness |
|---|---|---|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| 774L _ 3 | 3 | 2.4 | 14 | 38.1 | 24.6 | 51.3 | 31.2 | 12.9 | 8.30 | 12.7 |
| 774L _ 4 | 4 | 2.4 | 14 | 40.4 | 25.4 | 53.6 | 32.0 | 13.7 | 9.90 | 12.7 |
| 774L _ 6 | 6 | 4.8 | 16 | 42.9 | 26.2 | 57.7 | 33.6 | 15.3 | 11.50 | 10.2 |
| 774L _ 8 | 8 | 6.4 | 18 | 46.0 | 28.6 | 61.0 | 36.1 | 16.2 | 13.10 | 11.2 |
| 774L _ 10 | 10 | 7.9 | 22 | 48.5 | 29.4 | 63.7 | 37.0 | 17.2 | 16.25 | 11.2 |
| 774L _ 12 | 12 | 9.5 | 24 | 50.8 | 31.8 | 71.0 | 41.9 | 22.8 | 19.50 | 12.7 |
| 774L _ 14 | 14 | 11.0 | 27 | 52.3 | 32.5 | 72.5 | 42.6 | 24.4 | 22.80 | 12.7 |
| 774L _ 15 | 15 | 11.9 | 27 | 52.3 | 32.5 | 72.5 | 42.6 | 24.4 | 22.80 | 12.7 |
| 774L _ 16 | 16 | 12.7 | 27 | 52.3 | 32.5 | 72.5 | 42.6 | 24.4 | 22.80 | 12.7 |
| 774L _ 18 | 18 | 15.1 | 30 | 58.7 | 37.3 | 78.9 | 47.4 | 24.4 | 26.00 | 16.8 |
| 774L _ 20 | 20 | 15.9 | 35 | 64.3 | 42.9 | 84.5 | 53.0 | 26.0 | 29.00 | 19.0 |
| 774L _ 25 | 25 | 21.8 | 41 | 71.4 | 45.2 | 96.0 | 57.5 | 31.3 | 33.70 | 19.0 |
| 774L _ 30 | 30* | 26.2 | 50 | 80.5 | 48.6 | 123.7 | 70.2 | 39.6 | 40.5 | 19 |
| 774L _ 32 | 32* | 28.6 | 50 | 82.3 | 49.5 | 128.3 | 72.5 | 42 | 42.5 | 19 |
| 774L _ 38 | 38* | 33.7 | 60 | 89.8 | 51.9 | 145.0 | 79.5 | 49.4 | 50.50 | 19.0 |

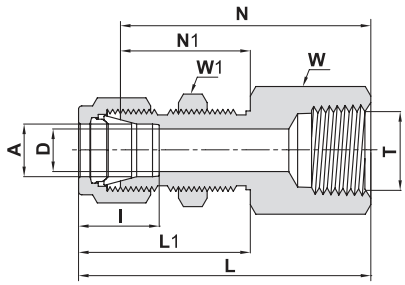
### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | D | | W Hex. Flat | N | | N1 | | L | | L1 | | I | | Panel Hole Drill Size | | Max. Panel Thickness | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 774L _ 1/16 | 1/16 | 1.58 | .05 | 1.27 | 5/16 | .94 | 23.88 | .53 | 13.46 | 1.24 | 31.5 | .68 | 17.3 | .34 | 8.6 | 13/64 | 5.16 | .12 | 3.05 |
| 774L _ 1/8 | 1/8 | 3.17 | .09 | 2.28 | 1/2 | 1.50 | 38.10 | .97 | 24.63 | 2.02 | 51.30 | 1.23 | 31.24 | .50 | 12.7 | 21/64 | 8.33 | .50 | 12.70 |
| 774L _ 3/16 | 3/16 | 4.76 | .12 | 3.04 | 9/16 | 1.59 | 40.38 | 1.00 | 25.40 | 2.11 | 53.59 | 1.26 | 32.00 | .54 | 13.7 | 25/64 | 9.92 | .50 | 12.70 |
| 774L _ 1/4 | 1/4 | 6.35 | .19 | 4.82 | 5/8 | 1.69 | 42.92 | 1.03 | 26.16 | 2.27 | 57.65 | 1.32 | 33.52 | .60 | 15.2 | 29/64 | 11.50 | .40 | 10.16 |
| 774L _ 5/16 | 5/16 | 7.93 | .25 | 6.35 | 11/16 | 1.81 | 45.97 | 1.12 | 28.44 | 2.39 | 60.70 | 1.41 | 35.81 | .64 | 16.2 | 33/64 | 13.09 | .44 | 11.17 |
| 774L _ 3/8 | 3/8 | 9.52 | .28 | 7.11 | 3/4 | 1.87 | 47.5 | 1.16 | 29.46 | 2.45 | 62.2 | 1.45 | 36.83 | .66 | 16.8 | 37/64 | 14.68 | .44 | 11.17 |
| 774L _ 1/2 | 1/2 | 12.70 | .41 | 10.41 | 15/16 | 2.00 | 50.80 | 1.25 | 31.75 | 2.80 | 71.12 | 1.65 | 41.91 | .90 | 22.9 | 49/64 | 19.44 | .50 | 12.70 |
| 774L _ 5/8 | 5/8 | 15.87 | .50 | 12.70 | 1 1/16 | 2.06 | 52.32 | 1.28 | 32.51 | 2.86 | 72.64 | 1.68 | 42.67 | .96 | 24.4 | 57/64 | 22.62 | .50 | 12.70 |
| 774L _ 3/4 | 3/4 | 19.05 | .62 | 15.75 | 1 3/16 | 2.31 | 58.67 | 1.47 | 37.33 | 3.11 | 78.99 | 1.87 | 47.49 | .96 | 24.4 | 1 1/64 | 25.79 | .66 | 16.76 |
| 774L _ 1 | 1 | 25.40 | .88 | 22.35 | 1 5/8 | 2.81 | 71.37 | 1.78 | 45.21 | 3.77 | 95.76 | 2.26 | 57.40 | 1.23 | 31.2 | 1 21/64 | 33.73 | .75 | 19.05 |
| 774L _ 1 1/4 | 1 1/4* | 31.75 | 1.09 | 27.70 | 1 7/8 | 3.11 | 79.00 | 1.88 | 47.75 | 4.85 | 123.19 | 2.75 | 69.85 | 1.62 | 41.2 | 1 41/64 | 41.67 | .75 | 19.05 |
| 774L _ 1 1/2 | 1 1/2* | 38.10 | 1.34 | 34.00 | 2 1/4 | 3.34 | 84.80 | 1.94 | 49.28 | 5.48 | 139.19 | 3.01 | 76.45 | 1.97 | 50.0 | 1 61/64 | 49.61 | .75 | 19.05 |
| 774L _ 2 | 2* | 50.80 | 1.81 | 45.97 | 2 3/4 | 4.16 | 105.66 | 2.22 | 56.39 | 7.10 | 180.34 | 3.69 | 93.73 | 2.66 | 67.6 | 2 41/64 | 67.07 | .75 | 19.05 |

*Including low friction paste (see page 101)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 774 LF
# BULKHEAD FEMALE CONNECTOR



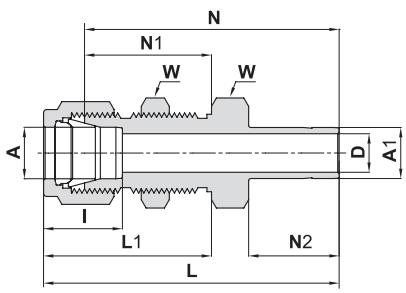

### TUBE (METRIC) TO FEMALE NPT THREAD

| Ordering Information | A Tube O.D. | T (NPT) | D | W Hex. Flat | W1 Hex. Flat | N | N1 | L | L1 | I | Panel Hole Drill Size | Max. Panel Thickness |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| 774LF_6 X 1/4 | 6 | 1/4 | 4.8 | 19 | 16 | 44.4 | 26.2 | 51.8 | 33.6 | 15.3 | 11.5 | 10.2 |
| 774LF_12 X 1/2 | 12 | 1/2 | 9.5 | 27 | 24 | 56.4 | 31.8 | 66.5 | 41.9 | 22.8 | 19.5 | 12.7 |

### TUBE (INCH) TO FEMALE NPT THREAD

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Hex. Flat | W1 Hex. Flat | N | | N1 | | L | | L1 | | I | | Panel Hole Drill Size | | Max. Panel Thickness | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 774LF_1/8X1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 9/16 | 1/2 | 1.50 | 38.10 | .97 | 24.63 | 1.76 | 44.70 | 1.23 | 31.24 | .50 | 12.7 | 21/64 | 8.33 | .50 | 12.70 |
| 774LF_1/4X1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 5/8 | 5/8 | 1.56 | 39.62 | 1.03 | 26.16 | 1.85 | 46.99 | 1.32 | 33.52 | .60 | 15.2 | 29/64 | 11.50 | .40 | 10.16 |
| 774LF_1/4X1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 3/4 | 5/8 | 1.75 | 44.45 | 1.03 | 26.16 | 2.04 | 51.81 | 1.32 | 33.52 | .60 | 15.2 | 29/64 | 11.50 | .40 | 10.16 |
| 774LF_3/8X1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 3/4 | 3/4 | 1.88 | 47.75 | 1.16 | 29.46 | 2.17 | 55.11 | 1.45 | 36.83 | .66 | 16.8 | 37/64 | 14.68 | .44 | 11.17 |
| 774LF_1/2X3/8 | 1/2 | 12.70 | 3/8 | .41 | 10.41 | 15/16 | 15/16 | 2.03 | 51.56 | 1.25 | 31.75 | 2.43 | 61.72 | 1.65 | 41.91 | .90 | 22.9 | 49/64 | 19.44 | .50 | 12.70 |
| 774LF_1/2X1/2 | 1/2 | 12.70 | 1/2 | .41 | 10.41 | 1 1/16 | 15/16 | 2.22 | 56.38 | 1.25 | 31.75 | 2.62 | 66.54 | 1.65 | 41.91 | .90 | 22.9 | 49/64 | 19.44 | .50 | 12.70 |

## 774 LT
# BULKHEAD REDUCER



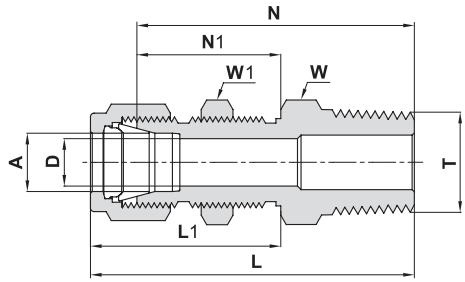

### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | D | | W Hex. Flat | N | | N1 | | N2 | | L | | L1 | | I | | Panel Hole Drill Size | | Max. Panel Thickness | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 774LT_1/8X1/8 | 1/8 | 3.17 | 1/8 | .08 | 2.03 | 1/2 | 1.69 | 42.92 | .97 | 24.63 | .53 | 13.46 | 1.95 | 49.53 | 1.23 | 31.24 | .50 | 12.7 | 21/64 | 8.33 | .50 | 12.70 |
| 774LT_1/4X1/4 | 1/4 | 6.35 | 1/4 | .17 | 4.20 | 5/8 | 1.91 | 48.50 | 1.03 | 26.16 | .62 | 15.74 | 2.20 | 55.88 | 1.32 | 33.52 | .60 | 15.2 | 29/64 | 11.50 | .40 | 10.16 |
| 774LT_3/8X3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 3/4 | 2.12 | 53.85 | 1.16 | 29.46 | .69 | 17.52 | 2.41 | 61.21 | 1.45 | 36.83 | .66 | 16.8 | 37/64 | 14.68 | .44 | 11.17 |
| 774LT_1/2X1/2 | 1/2 | 12.7 | 1/2 | .39 | 9.90 | 15/16 | 2.47 | 62.73 | 1.25 | 31.75 | .91 | 23.11 | 2.87 | 72.89 | 1.65 | 41.91 | .90 | 22.9 | 49/64 | 19.44 | .50 | 12.70 |
| 774LT_5/8X5/8 | 5/8 | 15.87 | 5/8 | .50 | 12.70 | 1 1/16 | 2.56 | 65.02 | 1.28 | 32.51 | .97 | 24.64 | 2.96 | 75.18 | 1.68 | 42.67 | .96 | 24.4 | 57/64 | 22.62 | .50 | 12.70 |
| 774LT_3/4X3/4 | 3/4 | 19.05 | 3/4 | .59 | 15.00 | 1 3/16 | 2.81 | 71.37 | 1.47 | 37.33 | .97 | 24.64 | 3.21 | 81.53 | 1.87 | 47.49 | .96 | 24.4 | 1 1/64 | 25.79 | .66 | 16.76 |
| 774LT_1X1 | 1 | 25.40 | 1 | .80 | 20.30 | 1 5/8 | 3.47 | 88.14 | 1.78 | 45.21 | 1.30 | 33.02 | 3.95 | 100.33 | 2.26 | 57.40 | 1.23 | 31.2 | 1 21/64 | 33.73 | .75 | 19.05 |

**"D"** - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 774 LM

# BULKHEAD MALE CONNECTOR




### TUBE (METRIC) TO MALE NPT THREAD

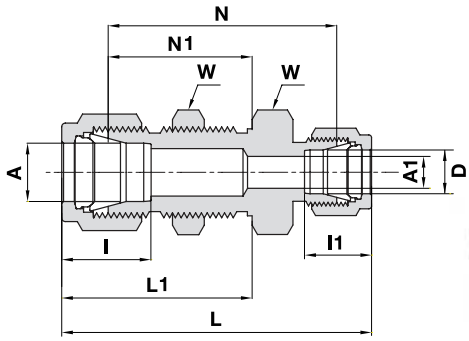
| Ordering Information | A Tube O.D. | T (NPT) | D | W Hex. Flat | W1 Hex. Flat | N | N1 | L | L1 | Panel Hole Drill Size | Max. Panel Thickness |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| 774LM _ 6 X 1/8 | 6 | 1/8 | 4.8 | 16 | 16 | 42.2 | 26.2 | 49.6 | 33.6 | 11.5 | 10.2 |
| 774LM _ 6 X 1/4 | 6 | 1/4 | 4.8 | 16 | 16 | 46.2 | 26.2 | 53.6 | 33.6 | 11.5 | 10.2 |
| 774LM _ 12 X 1/2 | 12 | 1/2 | 9.5 | 24 | 24 | 58.7 | 31.8 | 68.8 | 41.9 | 19.5 | 12.7 |

### TUBE (INCH) TO MALE NPT THREAD

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Hex. Flat | W1 Hex. Flat | N | | N1 | | L | | L1 | | Panel Hole Drill Size | | Max. Panel Thickness | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 774LM _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .09 | 2.28 | 1/2 | 1/2 | 1.57 | 39.90 | .97 | 24.60 | 1.83 | 46.48 | 1.23 | 31.24 | 21/64 | 8.33 | .50 | 12.70 |
| 774LM _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .19 | 4.82 | 5/8 | 5/8 | 1.66 | 42.20 | 1.03 | 26.20 | 1.95 | 49.53 | 1.32 | 33.52 | 29/64 | 11.50 | .40 | 10.16 |
| 774LM _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .19 | 4.82 | 5/8 | 5/8 | 1.84 | 46.70 | 1.03 | 26.16 | 2.13 | 54.10 | 1.32 | 33.52 | 29/64 | 11.50 | .40 | 10.16 |
| 774LM _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 3/4 | 3/4 | 1.97 | 50.00 | 1.16 | 29.46 | 2.26 | 57.40 | 1.45 | 36.83 | 37/64 | 14.68 | .44 | 11.17 |
| 774LM _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .28 | 7.11 | 3/4 | 3/4 | 1.97 | 50.04 | 1.16 | 29.46 | 2.26 | 57.40 | 1.45 | 36.83 | 37/64 | 14.68 | .44 | 11.17 |
| 774LM _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .28 | 7.11 | 7/8 | 3/4 | 2.22 | 56.39 | 1.16 | 29.46 | 2.51 | 63.75 | 1.45 | 36.83 | 37/64 | 14.68 | .44 | 11.17 |
| 774LM _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .40 | 10.40 | 15/16 | 15/16 | 2.09 | 53.10 | 1.25 | 31.75 | 2.49 | 83.25 | 1.65 | 41.91 | 49/64 | 19.44 | .50 | 12.70 |
| 774LM _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .40 | 10.40 | 15/16 | 15/16 | 2.31 | 58.70 | 1.25 | 31.70 | 2.71 | 68.83 | 1.65 | 41.91 | 49/64 | 19.44 | .50 | 12.70 |
| 774LM _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .62 | 15.74 | 1 3/16 | 1 3/16 | 2.60 | 66.04 | 1.47 | 37.33 | 3.00 | 76.20 | 1.87 | 47.49 | 1 1/64 | 25.79 | .66 | 16.76 |
| 774LM _ 1 X 1 | 1 | 25.4 | 1 | .88 | 22.35 | 1 5/8 | 1 5/8 | 3.19 | 81.02 | 1.78 | 45.21 | 3.67 | 93.21 | 2.26 | 57.40 | 1 21/64 | 33.73 | .75 | 19.05 |

## 775 L

# BULKHEAD REDUCING UNION




### TUBE (METRIC) TO TUBE (INCH)

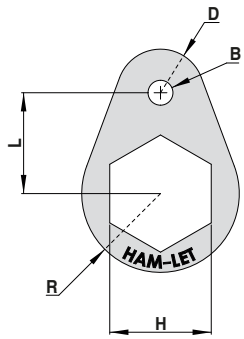
| Ordering Information | A Tube O.D. | A1 Tube O.D. | D | W Hex. Flat | N | N1 | L | L1 | I | I1 | Panel Hole Drill Size | Max. Panel Thickness |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| 775L _ 6 X 1/8 | 6 | 1/8 | 2.4 | 16 | 41.1 | 26.2 | 55.1 | 33.6 | 15.3 | 12.7 | 11.5 | 10.2 |
| 775L _ 6 X 1/4 | 6 | 1/4 | 4.8 | 16 | 42.9 | 26.2 | 57.7 | 33.6 | 15.3 | 15.2 | 11.5 | 10.2 |
| 775L _ 12 X 1/2 | 12 | 1/2 | 9.5 | 24 | 50.8 | 31.8 | 71.1 | 41.9 | 22.8 | 22.9 | 19.5 | 12.7 |
| 775L _ 18 X 3/4 | 18 | 3/4 | 15.1 | 30 | 58.7 | 37.3 | 79.0 | 47.4 | 24.4 | 24.4 | 26.0 | 16.8 |

### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | D | | W Hex. Flat | N | | N1 | | L | | L1 | | I | | I1 | | Panel Hole Drill Size | | Max. Panel Thickness | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 775L _ 1/8 X 1/16 | 1/8 | 3.17 | 1/16 | 1.58 | .05 | 1.27 | 1/2 | 1.44 | 36.57 | .97 | 24.64 | 1.85 | 46.99 | 1.23 | 31.24 | .50 | 12.7 | .34 | 8.6 | 21/64 | 8.33 | .50 | 12.70 |
| 775L _ 3/16 X 1/4 | 3/16 | 4.76 | 1/4 | 6.35 | .12 | 3.04 | 9/16 | 1.62 | 41.15 | 1.00 | 25.40 | 2.17 | 55.12 | 1.26 | 32.00 | .54 | 13.7 | .60 | 15.2 | 25/64 | 9.92 | .50 | 12.70 |
| 775L _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | 3.17 | .09 | 2.28 | 5/8 | 1.62 | 41.15 | 1.03 | 26.16 | 2.17 | 55.12 | 1.32 | 33.53 | .60 | 15.2 | .50 | 12.7 | 29/64 | 11.50 | .40 | 10.16 |
| 775L _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | 9.52 | .19 | 4.82 | 5/8 | 1.74 | 44.20 | 1.03 | 26.16 | 2.61 | 66.29 | 1.32 | 33.53 | .60 | 15.2 | .66 | 16.8 | 29.64 | 11.50 | .40 | 10.16 |
| 775L _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | .19 | 4.82 | 3/4 | 1.81 | 45.97 | 1.16 | 29.46 | 2.39 | 60.71 | 1.45 | 36.83 | .66 | 16.8 | .60 | 15.2 | 37/64 | 14.68 | .44 | 11.17 |
| 775L _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | 6.35 | .19 | 4.82 | 15/16 | 1.94 | 49.28 | 1.25 | 31.75 | 2.63 | 66.80 | 1.65 | 41.91 | .90 | 22.9 | .60 | 15.2 | 49/64 | 19.44 | .50 | 12.70 |
| 775L _ 1/2 X 5/8 | 1/2 | 12.70 | 5/8 | 15.87 | .41 | 10.41 | 15/16 | 2.03 | 51.56 | 1.25 | 31.75 | 2.83 | 71.88 | 1.65 | 41.91 | .90 | 22.9 | .96 | 24.4 | 49/64 | 19.44 | .50 | 12.70 |
| 775L _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | 9.52 | .28 | 7.11 | 1 1/16 | 2.06 | 52.32 | 1.28 | 32.51 | 2.75 | 69.85 | 1.68 | 42.67 | .96 | 24.4 | .66 | 16.8 | 57/64 | 22.62 | .50 | 12.70 |

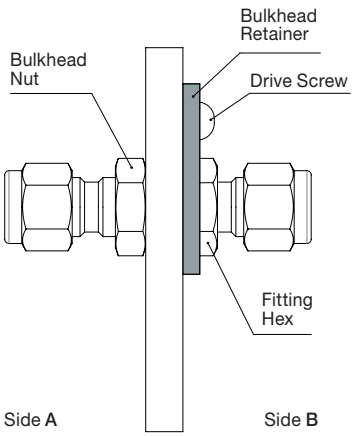
## 774 LSS

# BULKHEAD RETAINER



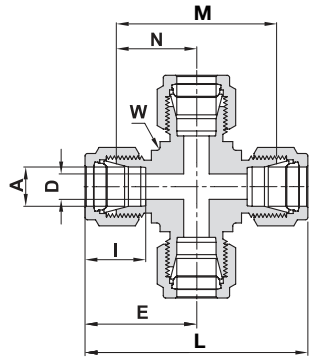


| Ordering Information | Fitting Size | | H | L | R | D | B | Drill Hole Size | Drill Screw Size |
|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | inch | inch | inch | inch | mm |
| RETAINER FOR 774L SS 1/8 | 1/8 | - | 1/2 | 1/2 | 13/32 | 7/32 | 5/32 | 0.12 | 3.5 |
| RETAINER FOR 774L SS 1/4-6 | 1/4 | 6 | 5/8 | 5/8 | 1/2 | 9/32 | 5/32 | 0.12 | 3.5 |
| RETAINER FOR 774L SS 3/8 | 3/8 | - | 3/4 | 3/4 | 5/8 | 11/32 | 5/32 | 0.12 | 3.5 |




Using Bulkhead Retainer installation can easily be performed by a single installer.
The bulkhead retainer holds the fixed body hex stationary, allowing the installer to tighten only the bulkhead lock nut.

## 7102 L
# UNION CROSS




### ALL TUBES (METRIC)

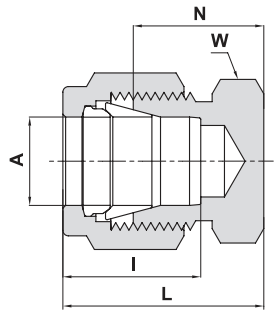
| Ordering Information | A Tube O.D. | D | W Wrench Flat | | N | E | M | L | I |
|---|---|---|---|---|---|---|---|---|---|
| | mm | mm | inch | mm | mm | mm | mm | mm | mm |
| 7102L _ 3 | 3 | 2.4 | 3/8 | 9.5 | 15.7 | 22.3 | 31.5 | 44.7 | 12.9 |
| 7102L _ 6 | 6 | 4.8 | 1/2 | 12.7 | 19.6 | 27.0 | 39.1 | 53.9 | 15.3 |
| 7102L _ 8 | 8 | 6.4 | 5/8 | 15.9 | 22.4 | 29.9 | 44.7 | 59.7 | 16.2 |
| 7102L _ 10 | 10 | 7.9 | 13/16 | 20.6 | 25.9 | 33.5 | 51.8 | 67.0 | 17.2 |
| 7102L _ 12 | 12 | 9.5 | 13/16 | 20.6 | 25.9 | 36.0 | 51.8 | 72.0 | 22.8 |
| 7102L _ 16 | 16 | 12.7 | 15/16 | 23.8 | 26.9 | 37.0 | 53.8 | 74.0 | 24.4 |
| 7102L _ 18 | 18 | 15.1 | 1 1/16 | 27.0 | 28.2 | 38.3 | 56.4 | 76.6 | 24.4 |
| 7102L _ 20 | 20 | 15.9 | 1 3/8 | 34.9 | 34.5 | 44.6 | 69.0 | 89.3 | 26.0 |
| 7102L _ 22 | 22 | 18.3 | 1 3/8 | 34.9 | 34.6 | 44.7 | 69.1 | 89.4 | 26.0 |
| 7102L _ 25 | 25 | 21.8 | 1 3/8 | 34.9 | 36.8 | 49.1 | 73.7 | 98.3 | 31.3 |

### ALL TUBES (INCH)

| Ordering Information | A Tube O.D. | | D | | W Wrench Flat | | N | | E | | M | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 7102L _ 1/8 | 1/8 | 3.17 | .09 | 2.28 | 3/8 | 9.5 | .62 | 15.74 | .88 | 22.35 | 1.24 | 31.48 | 1.76 | 44.70 | .50 | 12.7 |
| 7102L _ 1/4 | 1/4 | 6.35 | .19 | 4.82 | 1/2 | 12.7 | .77 | 19.56 | 1.06 | 26.92 | 1.54 | 39.12 | 2.12 | 53.84 | .60 | 15.2 |
| 7102L _ 5/16 | 5/16 | 7.93 | .25 | 6.35 | 5/8 | 15.9 | .88 | 22.35 | 1.17 | 29.71 | 1.76 | 44.70 | 2.34 | 59.42 | .64 | 16.2 |
| 7102L _ 3/8 | 3/8 | 9.52 | .28 | 7.11 | 5/8 | 15.9 | .91 | 23.11 | 1.20 | 30.48 | 1.82 | 46.22 | 2.40 | 60.96 | .66 | 16.8 |
| 7102L _ 1/2 | 1/2 | 12.70 | .41 | 10.41 | 13/16 | 20.6 | 1.02 | 25.9 | 1.42 | 36.07 | 2.04 | 51.80 | 2.84 | 72.14 | .90 | 22.9 |
| 7102L _ 3/4 | 3/4 | 19.05 | .62 | 15.74 | 1 1/16 | 27.0 | 1.17 | 29.72 | 1.57 | 39.88 | 2.34 | 59.44 | 3.14 | 79.76 | .96 | 24.4 |
| 7102L _ 1 | 1 | 25.40 | .88 | 22.35 | 1 3/8 | 34.9 | 1.45 | 36.8 | 1.93 | 49.02 | 2.90 | 73.60 | 3.86 | 98.04 | 1.23 | 31.2 |

"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 7108 L
# CAP




### CAPPING END OF TUBE (METRIC)

| Ordering Information | A Tube O.D. | W Hex. Flat | N | L | I |
|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm |
| 7108L _ 2 | 2 | 12 | 13.5 | 20.1 | 12.9 |
| 7108L _ 3 | 3 | 12 | 13.5 | 20.1 | 12.9 |
| 7108L _ 4 | 4 | 12 | 14.7 | 21.3 | 13.7 |
| 7108L _ 6 | 6 | 14 | 15.7 | 23.1 | 15.3 |
| 7108L _ 8 | 8 | 15 | 17.0 | 24.5 | 16.2 |
| 7108L _ 10 | 10 | 18 | 19.0 | 26.6 | 17.2 |
| 7108L _ 12 | 12 | 22 | 19.0 | 29.1 | 22.8 |
| 7108L _ 14 | 14 | 24 | 19.8 | 29.9 | 24.4 |
| 7108L _ 15 | 15 | 24 | 19.8 | 29.9 | 24.4 |
| 7108L _ 16 | 16 | 24 | 19.8 | 29.9 | 24.4 |
| 7108L _ 18 | 18 | 27 | 21.3 | 31.4 | 24.4 |
| 7108L _ 20 | 20 | 30 | 23.9 | 34.0 | 26.0 |
| 7108L _ 22 | 22 | 30 | 23.9 | 34.0 | 26.0 |
| 7108L _ 25 | 25 | 35 | 26.2 | 38.5 | 31.3 |
| 7108L _ 38 | 38* | 55 | 37.8 | 65.4 | 49.4 |

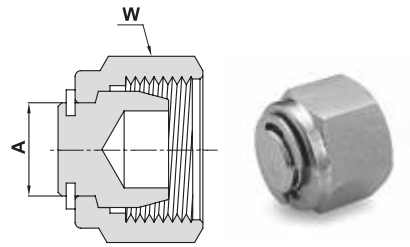
### CAPPING END OF TUBE (INCH)

| Ordering Information | A Tube O.D. | | W Hex. Flat | N | | L | | I | |
|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 7108L _ 1/16 | 1/16 | 1.58 | 5/16 | .44 | 11.17 | .59 | 14.98 | .34 | 8.6 |
| 7108L _ 1/8 | 1/8 | 3.17 | 7/16 | .53 | 13.46 | .79 | 20.06 | .50 | 12.7 |
| 7108L _ 3/16 | 3/16 | 4.76 | 7/16 | .58 | 14.73 | .84 | 21.84 | .54 | 13.7 |
| 7108L _ 1/4 | 1/4 | 6.35 | 1/2 | .63 | 16.00 | .92 | 23.37 | .60 | 15.2 |
| 7108L _ 5/16 | 5/16 | 7.93 | 9/16 | .67 | 17.01 | .96 | 24.38 | .64 | 16.2 |
| 7108L _ 3/8 | 3/8 | 9.52 | 5/8 | .72 | 18.28 | 1.01 | 26.65 | .66 | 16.8 |
| 7108L _ 1/2 | 1/2 | 12.70 | 13/16 | .75 | 19.05 | 1.15 | 29.21 | .90 | 22.9 |
| 7108L _ 5/8 | 5/8 | 15.87 | 15/16 | .78 | 19.81 | 1.18 | 29.97 | .96 | 24.4 |
| 7108L _ 3/4 | 3/4 | 19.05 | 1 1/16 | .84 | 21.33 | 1.24 | 31.49 | .96 | 24.4 |
| 7108L _ 7/8 | 7/8 | 22.22 | 1 3/16 | .94 | 23.88 | 1.34 | 34.04 | 1.02 | 25.9 |
| 7108L _ 1 | 1 | 25.40 | 1 3/8 | 1.03 | 26.16 | 1.51 | 38.35 | 1.23 | 31.2 |
| 7108L _ 1 1/4 | 1 1/4* | 31.75 | 1 3/4 | 1.23 | 31.24 | 2.10 | 53.34 | 1.62 | 41.2 |
| 7108L _ 1 1/2 | 1 1/2* | 38.10 | 2 1/8 | 1.47 | 37.33 | 2.54 | 64.52 | 1.97 | 50.0 |
| 7108L _ 2 | 2* | 50.80 | 2 3/4 | 1.94 | 49.28 | 3.41 | 86.61 | 2.66 | 67.6 |

* Including low friction paste, see page 101

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 7121 L
# PLUG




### METRIC

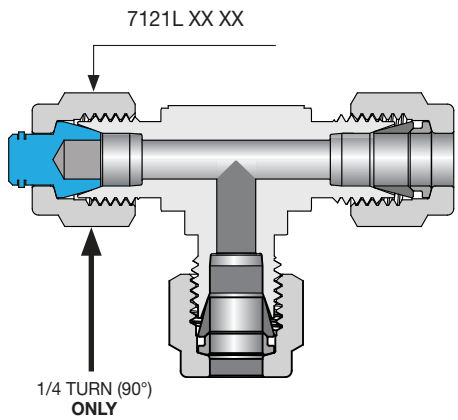
| Ordering Information | A | W Hex. Flat |
|---|---|---|
| | mm | mm |
| 7121L _ 2 | 2 | 14 |
| 7121L _ 3 | 3 | 12 |
| 7121L _ 4 | 4 | 12 |
| 7121L _ 6 | 6 | 14 |
| 7121L _ 8 | 8 | 16 |
| 7121L _ 10 | 10 | 19 |
| 7121L _ 12 | 12 | 22 |
| 7121L _ 14 | 14 | 25 |
| 7121L _ 15 | 15 | 25 |
| 7121L _ 16 | 16 | 25 |
| 7121L _ 18 | 18 | 30 |
| 7121L _ 20 | 20 | 32 |
| 7121L _ 22 | 22 | 32 |
| 7121L _ 25 | 25 | 38 |
| 7121L _ 38 | 38* | 60 |
| 7121L _ 50 | 50* | 3 inch |

### INCH

| Ordering Information | A | | W Hex. Flat |
|---|---|---|---|
| | inch | mm | inch |
| 7121L _ 1/16 | 1/16 | 1.58 | 5/16 |
| 7121L _ 1/8 | 1/8 | 3.17 | 7/16 |
| 7121L _3/16 | 3/16 | 4.76 | 1/2 |
| 7121L _1/4 | 1/4 | 6.35 | 9/16 |
| 7121L _ 5/16 | 5/16 | 7.93 | 5/8 |
| 7121L _ 3/8 | 3/8 | 9.52 | 11/16 |
| 7121L _ 1/2 | 1/2 | 12.70 | 7/8 |
| 7121L _ 5/8 | 5/8 | 15.87 | 1 |
| 7121L _ 3/4 | 3/4 | 19.05 | 1 1/8 |
| 7121L _ 7/8 | 7/8 | 22.22 | 1 1/4 |
| 7121L _ 1 | 1 | 25.40 | 1 1/2 |
| 7121L _ 1 1/4 | 1 1/4* | 31.75 | 1 7/8 |
| 7121L _ 1 1/2 | 1 1/2* | 38.10 | 2 1/4 |
| 7121L _ 2 | 2* | 50.80 | 3 inch |

*Including low friction paste, (see page 101)

### PLUG ASSEMBLY INSTRUCTIONS

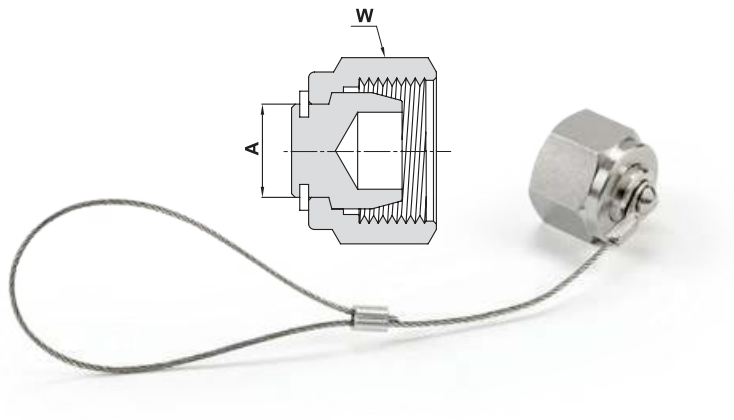


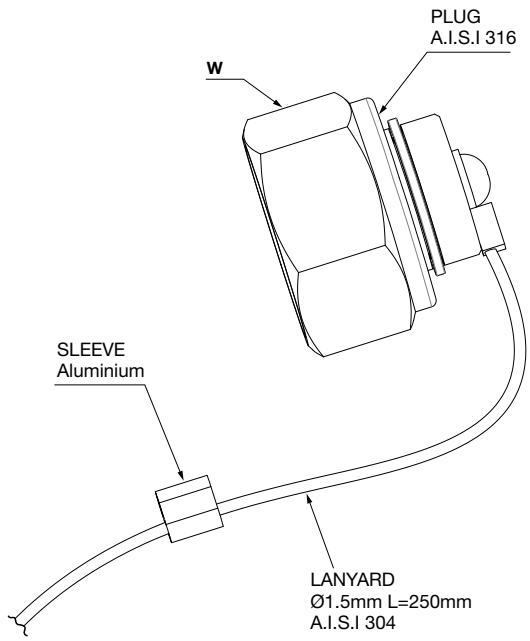

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 7121 LANYARD

# PLUG WITH LANYARD

In order to secure the plug near the relevant fitting, UCT Fluid Solutions provides a plug secured with lanyard/wire, which keeps the plug nearby when not in use.




### METRIC

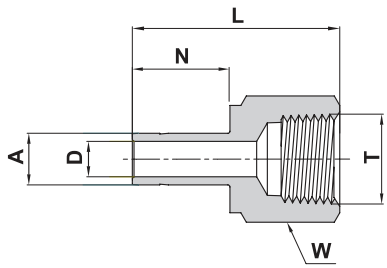
| Ordering Information | W Hex Flat |
|---|---|
| | mm |
| 7121L_3 Secur wire | 12 |
| 7121L_4 Secur wire | 12 |
| 7121L_6 Secur wire | 14 |
| 7121L_8 Secur wire | 16 |
| 7121L_10 Secur wire | 19 |
| 7121L_12 Secur wire | 22 |
| 7121L_14 Secur wire | 25 |
| 7121L_15 Secur wire | 25 |
| 7121L_16 Secur wire | 25 |
| 7121L_18 Secur wire | 30 |
| 7121L_20 Secur wire | 32 |
| 7121L_22 Secur wire | 32 |
| 7121L_25 Secur wire | 38 |

### INCH

| Ordering Information | W Hex Flat |
|---|---|
| | inch |
| 7121L_1/8 Secur wire | 7/16 |
| 7121L_3/16 Secur wire | 1/2 |
| 7121L_1/4 Secur wire | 9/16 |
| 7121L_5/16 Secur wire | 5/8 |
| 7121L_3/8 Secur wire | 11/16 |
| 7121L_1/2 Secur wire | 7/8 |
| 7121L_5/8 Secur wire | 1 |
| 7121L_3/4 Secur wire | 1-1/8 |
| 7121L_7/8 Secur wire | 1-1/4 |
| 7121L_1 Secur wire | 1-1/2 |

## 739 LF

# FEMALE ADAPTER TUBE TO PIPE




### TUBE (METRIC) FEMALE PIPE

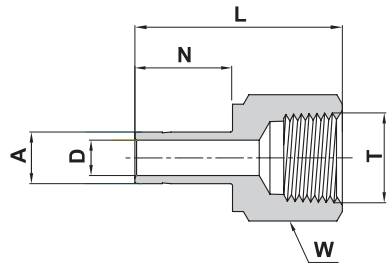
| Ordering Information | A Tube O.D. | T (NPT) | D | W Hex. Flat | N | L |
|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm |
| 739LF _ 3 X 1/8 | 3 | 1/8 | 2.1 | 14 | 13.5 | 31.5 |
| 739LF _ 3 X 1/4 | 3 | 1/4 | 2.1 | 19 | 13.5 | 35.3 |
| 739LF _ 4 X 1/4 | 4 | 1/4 | 2.2 | 19 | 14.2 | 35.0 |
| 739LF _ 6 X 1/8 | 6 | 1/8 | 4.0 | 14 | 15.7 | 32.5 |
| 739LF _ 6 X 1/4 | 6 | 1/4 | 4.0 | 19 | 15.7 | 37.1 |
| 739LF _ 6 X 3/8 | 6 | 3/8 | 4.0 | 22 | 15.7 | 39.6 |
| 739LF _ 6 X 1/2 | 6 | 1/2 | 4.0 | 27 | 15.7 | 45.5 |
| 739LF _ 8 X 1/8 | 8 | 1/8 | 5.6 | 14 | 16.8 | 34.3 |
| 739LF _ 8 X 1/4 | 8 | 1/4 | 5.6 | 19 | 16.8 | 37.6 |
| 739LF _ 8 X 1/2 | 8 | 1/2 | 5.6 | 27 | 16.8 | 46.0 |
| 739LF _ 10 X 1/4 | 10 | 1/4 | 7.1 | 19 | 17.5 | 38.1 |
| 739LF _ 10 X 3/8 | 10 | 3/8 | 7.1 | 22 | 17.5 | 40.1 |
| 739LF _ 10 X 1/2 | 10 | 1/2 | 7.1 | 27 | 17.5 | 46.5 |
| 739LF _ 12 X 1/4 | 12 | 1/4 | 8.8 | 19 | 23.1 | 43.4 |
| 739LF _ 12 X 3/8 | 12 | 3/8 | 8.8 | 22 | 23.1 | 45.5 |
| 739LF _ 12 X 1/2 | 12 | 1/2 | 8.8 | 27 | 23.1 | 52.3 |
| 739LF _ 16 X 3/8 | 16 | 3/8 | 12.7 | 24 | 24.7 | 48.0 |
| 739LF _ 16 X 1/2 | 16 | 1/2 | 12.7 | 27 | 24.7 | 53.1 |
| 739LF _ 20 X 1/2 | 20 | 1/2 | 15.1 | 27 | 26.6 | 56.0 |
| 739LF _ 20 X 3/4 | 20 | 3/4 | 15.1 | 35 | 26.6 | 56.0 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

Cont'd next page

## 739 LF

# FEMALE ADAPTER TUBE TO PIPE (Cont'd)




### TUBE (INCH) FEMALE PIPE

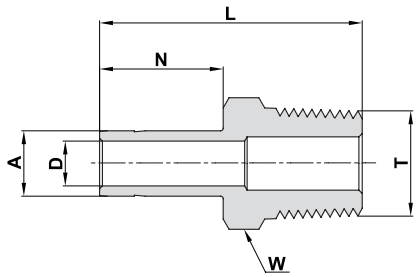
| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Hex. Flat | N | | L | |
|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm |
| 739LF _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .08 | 2.0 | 9/16 | .53 | 13.45 | 1.24 | 31.5 |
| 739LF _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | .08 | 2.0 | 3/4 | .53 | 13.45 | 1.39 | 35.3 |
| 739LF _ 3/16 X 1/4 | 3/16 | 4.76 | 1/4 | .12 | 3.0 | 3/4 | .56 | 14.20 | 1.41 | 35.8 |
| 739LF _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .17 | 4.2 | 9/16 | .62 | 15.75 | 1.30 | 33.0 |
| 739LF _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .17 | 4.2 | 3/4 | .62 | 15.75 | 1.46 | 37.1 |
| 739LF _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | .17 | 4.2 | 7/8 | .62 | 15.75 | 1.55 | 39.4 |
| 739LF _ 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | .17 | 4.2 | 1 1/16 | .62 | 15.75 | 1.79 | 45.5 |
| 739LF _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | .22 | 5.6 | 3/4 | .66 | 16.75 | 1.48 | 37.6 |
| 739LF _ 3/8 X 1/8 | 3/8 | 9.52 | 1/8 | .27 | 6.9 | 9/16 | .69 | 17.50 | 1.35 | 34.3 |
| 739LF _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .27 | 6.9 | 3/4 | .69 | 17.50 | 1.50 | 38.1 |
| 739LF _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .27 | 6.9 | 7/8 | .69 | 17.50 | 1.59 | 40.4 |
| 739LF _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .27 | 6.9 | 1 1/16 | .69 | 17.50 | 1.84 | 46.7 |
| 739LF _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | .37 | 9.4 | 3/4 | .91 | 23.10 | 1.71 | 43.4 |
| 739LF _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .37 | 9.4 | 7/8 | .91 | 23.10 | 1.79 | 45.5 |
| 739LF _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .37 | 9.4 | 1 1/16 | .91 | 23.10 | 2.05 | 52.1 |
| 739LF _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .50 | 12.7 | 1 1/16 | .97 | 24.65 | 2.09 | 53.1 |
| 739LF _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | .59 | 15.0 | 1 1/16 | .97 | 24.65 | 2.08 | 52.8 |
| 739LF _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .59 | 15.0 | 1 5/16 | .97 | 24.65 | 2.16 | 54.9 |
| 739LF _ 3/4 X 1 | 3/4 | 19.05 | 1 | .59 | 15.0 | 1 5/8 | .97 | 24.65 | 2.30 | 58.4 |
| 739LF _ 1 X 3/4 | 1 | 25.40 | 3/4 | .80 | 20.3 | 1 5/16 | 1.23 | 31.20 | 2.39 | 60.7 |
| 739LF _ 1 X 1 | 1 | 25.40 | 1 | .80 | 20.3 | 1 5/8 | 1.23 | 31.20 | 2.53 | 64.3 |
| 739LF _ 1 1/4 X 1 1/4 | 1 1/4* | 31.75 | 1 1/4 | 1.02 | 25.9 | 2 1/8 | 1.73 | 43.82 | 3.06 | 77.7 |
| 739LF _ 1 1/2 X 1 1/2 | 1 1/2* | 38.10 | 1 1/2 | 1.25 | 31.8 | 2 3/8 | 2.14 | 54.33 | 3.50 | 88.9 |

*Supplied assembled with Nut and Ferrules. Including low friction paste (see page 101).

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 739 LM

# MALE ADAPTER TUBE TO PIPE




### TUBE (METRIC) MALE PIPE

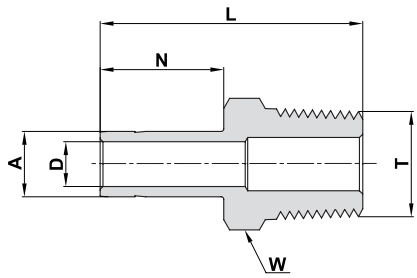
| Ordering Information | A Tube O.D. | T (NPT) | D | W Hex. Flat | N | L |
|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm |
| 739LM _ 3 X 1/8 | 3 | 1/8 | 2.1 | 12 | 13.5 | 30.0 |
| 739LM _ 3 X 1/4 | 3 | 1/4 | 2.1 | 14 | 13.5 | 35.3 |
| 739LM _ 6 X 1/8 | 6 | 1/8 | 4.0 | 12 | 15.7 | 32.8 |
| 739LM _ 6 X 1/4 | 6 | 1/4 | 4.0 | 14 | 15.7 | 38.1 |
| 739LM _ 6 X 3/8 | 6 | 3/8 | 4.0 | 18 | 15.7 | 37.0 |
| 739LM _ 6 X 1/2 | 6 | 1/2 | 4.0 | 22 | 15.7 | 43.4 |
| 739LM _ 8 X 1/8 | 8 | 1/8 | 4.8 | 12 | 16.8 | 33.5 |
| 739LM _ 8 X 1/4 | 8 | 1/4 | 5.6 | 14 | 16.8 | 39.1 |
| 739LM _ 8 X 3/8 | 8 | 3/8 | 5.6 | 11/16 inch | 16.8 | 37.8 |
| 739LM _ 8 X 1/2 | 8 | 1/2 | 5.6 | 22 | 16.8 | 43.0 |
| 739LM _ 10 X 1/4 | 10 | 1/4 | 7.1 | 9/16 inch | 17.5 | 39.9 |
| 739LM _ 10 X 3/8 | 10 | 3/8 | 7.1 | 18 | 17.5 | 40.6 |
| 739LM _ 10 X 1/2 | 10 | 1/2 | 7.1 | 22 | 17.5 | 46.2 |
| 739LM _ 12 X 1/4 | 12 | 1/4 | 7.1 | 16 | 23.1 | 46.5 |
| 739LM _ 12 X 3/8 | 12 | 3/8 | 8.8 | 18 | 23.1 | 46.5 |
| 739LM _ 12 X 1/2 | 12 | 1/2 | 8.8 | 22 | 23.1 | 52.0 |
| 739LM _ 16 X 1/2 | 16 | 1/2 | 11.9 | 22 | 24.7 | 50.5 |
| 739LM _ 20 X 3/4 | 20 | 3/4 | 15.1 | 27 | 26.6 | 54.3 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

Cont'd next page

## 739 LM

# MALE ADAPTER TUBE TO PIPE (Cont'd)




### TUBE (INCH) MALE PIPE

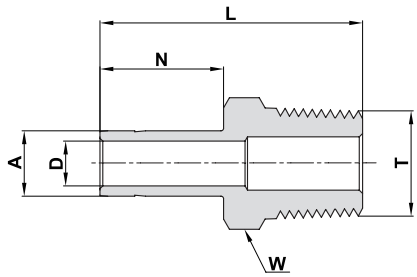
| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Hex. Flat | N | | L | |
|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm |
| 739LM _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | .08 | 2.0 | 7/16 | .53 | 13.45 | 1.16 | 29.5 |
| 739LM _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | .08 | 2.0 | 9/16 | .53 | 13.45 | 1.37 | 34.8 |
| 739LM _ 3/16 X 1/8 | 3/16 | 4.76 | 1/8 | .12 | 3.0 | 7/16 | .56 | 14.20 | 1.19 | 30.2 |
| 739LM _ 3/16 X 1/4 | 3/16 | 4.76 | 1/4 | .12 | 3.0 | 9/16 | .56 | 14.20 | 1.40 | 35.6 |
| 739LM _ 1/4 X 1/8 | 1/4 | 6.35 | 1/8 | .17 | 4.2 | 7/16 | .62 | 15.75 | 1.25 | 31.8 |
| 739LM _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | .17 | 4.2 | 9/16 | .62 | 15.75 | 1.46 | 37.1 |
| 739LM _ 1/4 X 3/8 | 1/4 | 6.35 | 3/8 | .17 | 4.2 | 11/16 | .62 | 15.75 | 1.49 | 37.9 |
| 739LM _ 1/4 X 1/2 | 1/4 | 6.35 | 1/2 | .17 | 4.2 | 7/8 | .62 | 15.75 | 1.71 | 43.4 |
| 739LM _ 5/16 X 1/8 | 5/16 | 7.93 | 1/8 | .22 | 5.6 | 7/16 | .66 | 16.75 | 1.29 | 32.7 |
| 739LM _ 5/16 X 1/4 | 5/16 | 7.93 | 1/4 | .22 | 5.6 | 9/16 | .66 | 16.75 | 1.50 | 38.1 |
| 739LM _ 3/8 X 1/8 | 3/8 | 9.52 | 1/8 | .27 | 6.9 | 7/16 | .69 | 17.50 | 1.32 | 33.5 |
| 739LM _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | .27 | 6.9 | 9/16 | .69 | 17.50 | 1.53 | 38.9 |
| 739LM _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | .27 | 6.9 | 11/16 | .69 | 17.50 | 1.56 | 39.6 |
| 739LM _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | .27 | 6.9 | 7/8 | .69 | 17.50 | 1.78 | 45.2 |
| 739LM _ 1/2 X 1/4 | 1/2 | 12.70 | 1/4 | .28 | 7.1 | 9/16 | .91 | 23.10 | 1.75 | 44.5 |
| 739LM _ 1/2 X 3/8 | 1/2 | 12.70 | 3/8 | .37 | 9.4 | 11/16 | .91 | 23.10 | 1.78 | 45.2 |
| 739LM _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | .37 | 9.4 | 7/8 | .91 | 23.10 | 2.0 | 50.8 |
| 739LM _ 5/8 X 3/8 | 5/8 | 15.87 | 3/8 | .37 | 9.5 | 11/16 | .97 | 24.65 | 1.81 | 47.6 |
| 739LM _ 5/8 X 1/2 | 5/8 | 15.87 | 1/2 | .47 | 11.9 | 7/8 | .97 | 24.65 | 2.06 | 52.3 |
| 739LM _ 5/8 X 3/4 | 5/8 | 15.87 | 3/4 | .50 | 12.7 | 1 1/16 | .97 | 24.65 | 2.06 | 52.3 |
| 739LM _ 3/4 X 1/2 | 3/4 | 19.05 | 1/2 | .47 | 11.9 | 7/8 | .97 | 24.65 | 2.06 | 52.3 |
| 739LM _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | .59 | 15.0 | 1 1/16 | .97 | 24.65 | 2.06 | 52.3 |
| 739LM _ 3/4 X 1 | 3/4 | 19.05 | 1 | .59 | 15.0 | 1 3/8 | .97 | 24.65 | 2.28 | 57.3 |
| 739LM _ 7/8 X 3/4 | 7/8 | 22.22 | 3/4 | .60 | 15.9 | 1 1/16 | 1.05 | 26.60 | 2.09 | 54.3 |
| 739LM _ 1 X 3/4 | 1 | 25.40 | 3/4 | .60 | 15.8 | 1 1/16 | 1.30 | 33.00 | 2.31 | 58.7 |
| 739LM _ 1 X 1 | 1 | 25.40 | 1 | .80 | 20.3 | 1 3/8 | 1.30 | 33.00 | 2.60 | 66.0 |
| 739LM _ 1 1/4 X 1 1/4 | * 1 1/4 | 31.75 | 1 1/4 | 1.02 | 25.9 | 1 3/4 | 1.73 | 43.82 | 3.16 | 80.3 |
| 739LM _ 1 1/2 X 1 1/2 | * 1 1/2 | 38.10 | 1 1/2 | 1.25 | 31.6 | 2 1/8 | 2.14 | 54.33 | 3.72 | 94.5 |

*Supplied assembled with Nut and Ferrules. Including low friction paste (see page 98)

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 739 LMR

# MALE ADAPTER TUBE TO PIPE




### TUBE (METRIC) MALE PIPE

| Ordering Information | A Tube O.D. | T (ISO) | D | W Hex. Flat | N | L |
|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm |
| 739LMR _ 6 X 1/8 | 6 | R-1/8 | 4.0 | 12 | 15.7 | 32.8 |
| 739LMR _ 6 X 1/4 | 6 | R-1/4 | 4.0 | 14 | 15.7 | 38.1 |
| 739LMR _ 6 X 1/2 | 6 | R-1/2 | 4.0 | 22 | 15.7 | 43.4 |
| 739LMR _ 8 X 1/8 | 8 | R-1/8 | 4.8 | 12 | 16.8 | 33.5 |
| 739LMR _ 8 X 1/4 | 8 | R-1/4 | 5.6 | 14 | 16.8 | 39.1 |
| 739LMR _ 8 X 3/8 | 8 | R-3/8 | 5.6 | 11/16 inch | 16.8 | 37.8 |
| 739LMR _ 10 X 1/4 | 10 | R-1/4 | 7.1 | 14 | 17.5 | 39.9 |
| 739LMR _ 10 X 3/8 | 10 | R-3/8 | 7.1 | 18 | 17.5 | 40.6 |
| 739LMR _ 10 X 1/2 | 10 | R-1/2 | 7.1 | 22 | 17.5 | 46.2 |
| 739LMR _ 12 X 1/4 | 12 | R-1/4 | 7.1 | 16 | 23.1 | 46.5 |
| 739LMR _ 12 X 3/8 | 12 | R-3/8 | 8.8 | 18 | 23.1 | 46.2 |
| 739LMR _ 12 X 1/2 | 12 | R-1/2 | 8.8 | 22 | 23.1 | 52.0 |
| 739LMR _ 20 X 3/4 | 20 | R-3/4 | 15.1 | 27 | 26.6 | 54.3 |

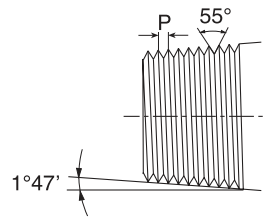
### TUBE (INCH) MALE PIPE

| Ordering Information | A Tube O.D. | | T (ISO) | D | | W Hex. Flat | N | | L | |
|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm |
| 739LMR _ 1/8 X 1/8 | 1/8 | 3.17 | R-1/8 | .08 | 2.0 | 7/16 | .53 | 13.45 | 1.16 | 29.5 |
| 739LMR_ 1/8 X 1/4 | 1/8 | 3.17 | R-1/4 | .08 | 2.0 | 9/16 | .53 | 13.45 | 1.37 | 34.8 |
| 739LMR _ 1/4 X 1/8 | 1/4 | 6.35 | R-1/8 | .17 | 4.2 | 7/16 | .62 | 15.75 | 1.25 | 31.8 |
| 739LMR _ 1/4 X 1/4 | 1/4 | 6.35 | R-1/4 | .17 | 4.2 | 9/16 | .62 | 15.75 | 1.46 | 37.1 |
| 739LMR _ 1/4 X 3/8 | 1/4 | 6.35 | R-3/8 | .17 | 4.2 | 11/16 | .62 | 15.75 | 1.49 | 37.9 |
| 739LMR _ 1/4 X 1/2 | 1/4 | 6.35 | R-1/2 | .17 | 4.2 | 7/8 | .62 | 15.75 | 1.71 | 43.4 |
| 739LMR _ 3/8 X 1/4 | 3/8 | 9.52 | R-1/4 | .27 | 6.9 | 9/16 | .69 | 17.50 | 1.53 | 38.9 |
| 739LMR _ 3/8 X 3/8 | 3/8 | 9.52 | R-3/8 | .27 | 6.9 | 11/16 | .69 | 17.50 | 1.56 | 39.6 |
| 739LMR _ 3/8 X 1/2 | 3/8 | 9.52 | R-1/2 | .27 | 6.9 | 7/8 | .69 | 17.50 | 1.78 | 45.2 |
| 739LMR _ 1/2 X 1/4 | 1/2 | 12.70 | R-1/4 | .28 | 7.1 | 9/16 | .91 | 23.10 | 1.75 | 44.5 |
| 739LMR _ 1/2 X 3/8 | 1/2 | 12.70 | R-3/8 | .37 | 9.4 | 11/16 | .91 | 23.10 | 1.78 | 45.2 |
| 739LMR _ 1/2 X 1/2 | 1/2 | 12.70 | R-1/2 | .37 | 9.4 | 7/8 | .91 | 23.10 | 20.0 | 50.8 |
| 739LMR _ 5/8 X 1/2 | 5/8 | 15.87 | R-1/2 | .47 | 11.9 | 7/8 | .97 | 24.65 | 2.06 | 52.3 |
| 739LMR _ 3/4 X 1/2 | 3/4 | 19.05 | R-1/2 | .47 | 11.9 | 7/8 | .97 | 24.65 | 2.06 | 52.3 |
| 739LMR _ 3/4 X 3/4 | 3/4 | 19.05 | R-3/4 | .59 | 15.0 | 1 1/16 | .97 | 24.65 | 2.06 | 52.3 |
| 739LMR _ 1 X 1 | 1 | 25.40 | R-1 | .80 | 20.3 | 1 3/8 | 1.30 | 33.00 | 2.60 | 66.0 |

**Reference Specifications:**
DIN -ISO 2999
BS - 21JIS - B0203ISO - 7/1-BSP-T

**Designation:**
Marking LR on Hex

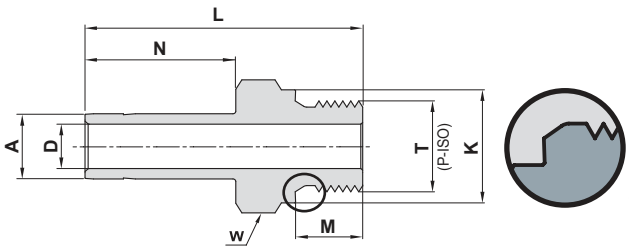
55° Thread angle
Truncation of root and crest is round
Taper angle 1°47'




"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 739 LMG

# MALE ADAPTER TUBE TO PIPE



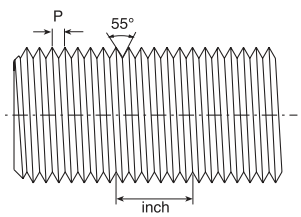

### TUBE (METRIC) TO ISO PARALLEL THREAD

| Ordering Information | A Tube O.D. | T (ISO) | D | K | W Hex. Flat | N | M | L |
|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | mm | mm | mm | mm |
| 739LMG _ 6 X 1/8 | 6 | G-1/8 | 4.0 | 13.8 | 9/16 | 15.7 | 7.1 | 30.4 |
| 739LMG _ 6 X 1/4 | 6 | G-1/4 | 4.0 | 18.0 | 19 | 15.7 | 11.2 | 38.9 |
| 739LMG _ 8 X 1/4 | 8 | G-1/4 | 5.6 | 18.0 | 19 | 16.8 | 11.2 | 40.1 |
| 739LMG _ 10 X 1/4 | 10 | G-1/4 | 5.9 | 18.0 | 19 | 17.5 | 11.2 | 40.9 |
| 739LMG _ 10 X 3/8 | 10 | G-3/8 | 7.1 | 21.8 | 22 | 17.5 | 11.2 | 41.7 |
| 739LMG _ 10 X 1/2 | 10 | G-1/2 | 7.1 | 26.0 | 27 | 17.5 | 14.2 | 44.7 |
| 739LMG _ 12 X 1/4 | 12 | G-1/4 | 6.4 | 18.0 | 19 | 23.1 | 11.2 | 47.0 |
| 739LMG _ 12 X 3/8 | 12 | G-3/8 | 7.9 | 21.8 | 22 | 23.1 | 11.2 | 47.2 |
| 739LMG _ 12 X 1/2 | 12 | G-1/2 | 8.8 | 26.0 | 27 | 23.1 | 14.2 | 50.5 |
| 739LMG _ 18 X 1/2 | 18 | G-1/2 | 11.9 | 26.0 | 27 | 24.6 | 14.2 | 51.3 |
| 739LMG _ 18 X 3/4 | 18 | G-3/4 | 13.9 | 32.0 | 35 | 24.6 | 15.7 | 55.9 |
| 739LMG _ 38 X 1 1/2 | 38 | G-1 1/2 | 31.6 | 54.7 | 55 | 52.8 | 22.1 | 91.9 |

### TUBE (INCH) TO ISO PARALLEL THREAD

| Ordering Information | A Tube O.D. | | T (ISO) | D | | K | | W Hex. Flat | N | | M | | L | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 739LMG _ 1/8 X 1/8 | 1/8 | 3.17 | G-1/8 | .08 | 2.0 | .54 | 13.8 | 9/16 | .53 | 13.45 | .28 | 7.1 | 1.22 | 31.0 |
| 739LMG _ 1/8 X 1/4 | 1/8 | 6.35 | G-1/4 | .08 | 2.0 | .71 | 18.0 | 3/4 | .53 | 13.45 | .44 | 11.2 | 1.41 | 35.8 |
| 739LMG _ 1/4 X 1/8 | 1/4 | 3.17 | G-1/8 | .16 | 4.0 | .54 | 13.8 | 9/16 | .62 | 15.75 | .28 | 7.1 | 1.20 | 30.5 |
| 739LMG _ 1/4 X 1/4 | 1/4 | 6.35 | G-1/4 | .17 | 4.2 | .71 | 18.0 | 3/4 | .62 | 15.75 | .44 | 11.2 | 1.42 | 36.0 |
| 739LMG _ 3/8 X 1/4 | 3/8 | 6.35 | G-1/4 | .23 | 5.8 | .71 | 18.0 | 3/4 | .69 | 17.50 | .44 | 11.2 | 1.57 | 39.9 |
| 739LMG _ 3/8 X 3/8 | 3/8 | 9.52 | G-3/8 | .27 | 6.9 | .86 | 21.8 | 7/8 | .69 | 17.50 | .44 | 11.2 | 1.60 | 40.6 |
| 739LMG _ 1/2 X 1/4 | 1/2 | 6.35 | G-1/4 | .23 | 5.8 | .71 | 18.0 | 3/4 | .91 | 23.10 | .44 | 11.2 | 1.85 | 47.0 |
| 739LMG _ 1/2 X 3/8 | 1/2 | 9.52 | G-3/8 | .31 | 7.9 | .86 | 21.8 | 7/8 | .91 | 23.10 | .44 | 11.2 | 1.88 | 47.7 |
| 739LMG _ 1/2 X 1/2 | 1/2 | 12.70 | G-1/2 | .37 | 9.4 | 1.02 | 26.0 | 1 1/16 | .91 | 23.10 | .56 | 14.2 | 1.96 | 49.8 |
| 739LMG _ 3/4 X 3/4 | 3/4 | 19.05 | G-3/4 | .59 | 15.0 | 1.26 | 32.0 | 1 5/16 | .97 | 24.65 | .62 | 15.7 | 2.16 | 54.9 |
| 739LMG _ 1 X 1 | 1 | 25.40 | G-1 | .78 | 19.8 | 1.54 | 39.0 | 1 5/8 | 1.23 | 31.20 | .72 | 18.3 | 2.59 | 65.8 |

**Reference Specifications:**

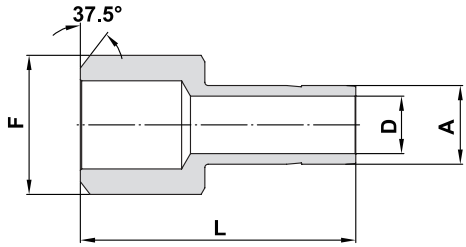



**Designation:**
Marking LG on Hex.

*Including low friction paste (See page 98).
"D" - Dimension is minimum opening.
Dimensions are for reference only and subject to change without notice.

For Parallel Threads Sealing (see page 82).

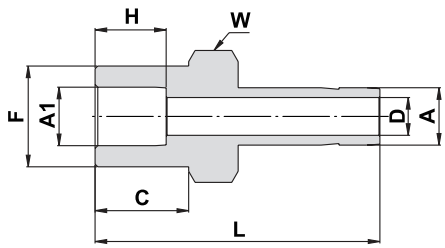
## 739 LN
# WELD ADAPTER TUBE TO PIPE




### TUBE (INCH)

| Ordering Information | A Tube O.D. | | F Pipe Size | | D | | L | |
|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm |
| 739LN _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 13.70 | .17 | 4.20 | 1.14 | 28.96 |
| 739LN _ 3/8 X 1/2 | 3/8 | 9.52 | 1/2 | 21.34 | .27 | 6.85 | 1.46 | 37.08 |
| 739LN _ 1/2 X 1/2 | 1/2 | 12.7 | 1/2 | 21.34 | .37 | 9.40 | 1.66 | 42.15 |
| 739LN _ 1/2 X 3/4 | 1/2 | 12.7 | 3/4 | 26.67 | .37 | 9.40 | 1.68 | 42.67 |
| 739LN _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | 26.67 | .59 | 15.00 | 1.87 | 47.50 |

## 739 LW
# SOCKET WELD ADAPTER




### TUBE (METRIC) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | A1 Pipe Size | C | D | W | F | H | L |
|---|---|---|---|---|---|---|---|---|
| | mm | inch | mm | mm | inch | mm | mm | mm |
| 739LW _ 6 X 1/4 | 6 | 1/4 | 10.4 | 4.0 | 1/2 | 11.2 | 7.9 | 31.7 |
| 739LW _ 10 X 1/4 | 10 | 1/4 | 10.4 | 4.8 | 9/16 | 11.2 | 7.9 | 34.0 |
| 739LW _ 10 X 3/8 | 10 | 3/8 | 11.9 | 7.1 | 5/8 | 15.8 | 9.7 | 36.0 |

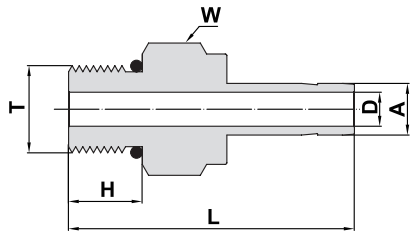
### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | A1 Pipe Size | | C | | D | | W | | F | | H | | L | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 739LW _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 6.35 | .41 | 10.41 | .17 | 4.20 | 1/2 | 12.7 | .44 | 11.18 | .31 | 7.90 | 1.25 | 31.70 |
| 739LW _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | 9.52 | .47 | 11.94 | .28 | 7.11 | 5/8 | 15.9 | .62 | 15.75 | .38 | 9.65 | 1.42 | 36.70 |
| 739LW _ 1/2 X 1/2 | 1/2 | 12.7 | 1/2 | 12.7 | .47 | 11.94 | .39 | 9.91 | 13/16 | 20.6 | .75 | 19.05 | .50 | 12.7 | 1.67 | 42.42 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 739 LMOB

# MALE ADAPTER




### TUBE (INCH) TO SAE/MS STRAIGHT THREAD BOSS***

| Ordering Information | A Tube O.D. | | T Straight Thread UN | D | | W | | H | | L | | **O-Ring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | |
| 739LMOB _ 1/8 X 5/16-24 | 1/8 | 3.18 | 5/16-24 | .08 | 2.03 | 7/16 | 11.1 | .30 | 7.62 | 1.20 | 30.48 | -902 |
| 739LMOB _ 1/4 X 7/16-20 | 1/4 | 6.35 | 7/16-20 | .17 | 4.20 | 9/16 | 14.3 | .36 | 9.14 | 1.39 | 35.3 | -904 |
| 739LMOB _ 1/4 X 9/16-18 | 1/4 | 6.35 | 9/16-18 | .17 | 4.20 | 11/16 | 17.5 | .39 | 9.90 | 1.42 | 36.07 | -906 |
| 739LMOB _ 3/8 X 7/16-20 | 3/8 | 9.52 | 7/16-20 | .20 | 5.10 | 9/16 | 14.3 | .36 | 9.14 | 1.46 | 37.08 | -904 |
| 739LMOB _ 3/8 X 9/16-18 | 3/8 | 9.52 | 9/16-18 | .27 | 6.85 | 11/16 | 17.5 | .39 | 9.90 | 1.52 | 38.61 | -906 |
| 739LMOB _ 3/8 X 3/4-16 | 3/8 | 9.52 | 3/4-16 | .27 | 6.85 | 7/8 | 22.2 | .44 | 11.17 | 1.60 | 40.64 | -908 |
| 739LMOB _ 1/2 X 9/16-18 | 1/2 | 12.7 | 9/16-18 | .28 | 7.11 | 11/16 | 17.5 | .39 | 9.90 | 1.74 | 44.20 | -906 |
| 739LMOB _ 1/2 X 3/4-16 | 1/2 | 12.7 | 3/4-16 | .37 | 9.40 | 7/8 | 22.2 | .44 | 11.17 | 1.82 | 46.23 | -908 |
| 739LMOB _ 5/8 X 7/8-14 | 5/8 | 15.87 | 7/8-14 | .47 | 11.94 | 1 | 25.4 | .50 | 12.70 | 1.94 | 49.28 | -910 |
| 739LMOB _ 3/4 X 1 1/16-12 | 3/4 | 19.05 | 1 1/16-12 | .59 | 15.00 | 1 1/4 | 31.8 | .59 | 14.98 | 2.10 | 53.34 | -912 |
| 739LMOB _ 1 X 1 5/16-12 | 1 | 25.40 | 1 5/16-12 | .80 | 20.32 | 1 1/2 | 38.1 | .59 | 14.98 | 2.41 | 61.21 | -916 |
| 739LMOB _ 1 1/4 X 1 5/8-12 | 1 1/4* | 31.75 | 1 5/8-12 | 1.02 | 26.00 | 1 7/8 | 47.6 | .59 | 15.10 | 2.81 | 71.37 | -920 |
| 739LMOB _ 1 1/2 X 1 7/8-12 | 1 1/2 * | 38.10 | 1 7/8-12 | 1.25 | 31.60 | 2 1/8 | 54.0 | .59 | 15.10 | 3.28 | 83.31 | -924 |

**Designation:** Marking LOB on Hex.

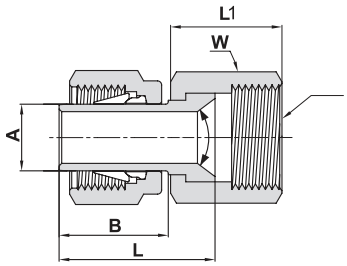
***Per SAE J1926 and MS 16142. See page 53 for mounting dimensions.

**Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

*Supplied assembled with Nut + Front and Back Ferrule. Including low friction paste, see page 101.

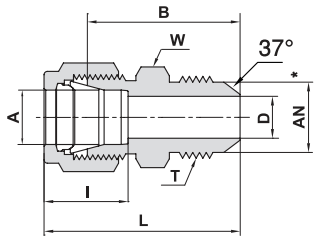
"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 761 LFL
# LET-LOK® TO AN ADAPTER




| Ordering Information | A Tube O.D. | | AN* Tube Flare Size | | W Hex. Flat | L | | L1 | | B | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 761LFL _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | 3.17 | 3/8 | .75 | 19.05 | .54 | 13.71 | .53 | 13.46 |
| 761LFL _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | 6.35 | 9/16 | .75 | 19.05 | .61 | 15.50 | .53 | 13.46 |
| 761LFL _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 6.35 | 9/16 | .84 | 21.33 | .61 | 15.50 | .62 | 15.75 |
| 761LFL _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | 9.52 | 11/16 | .98 | 24.89 | .72 | 18.30 | .69 | 17.53 |
| 761LFL _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | 12.70 | 7/8 | 1.25 | 31.75 | .84 | 21.30 | .91 | 23.11 |

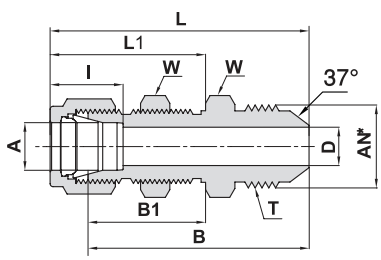
## 762 LFL
# LET-LOK® TO AN UNION




### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | AN* Tube Flare size | | D | | W Hex. Flat | B | | L | | I | | T Straight Thread |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | |
| 762LFL _ 1/16 X 1/8 | 1/16 | 1.58 | 1/8 | 3.17 | .05 | 1.27 | 7/16 | .92 | 23.36 | 1.07 | 27.18 | .34 | 8.6 | 5/16-24 |
| 762LFL _ 1/8 X 1/8 | 1/8 | 3.17 | 1/8 | 3.17 | .06 | 1.52 | 7/16 | 1.01 | 25.65 | 1.27 | 32.26 | .50 | 12.7 | 5/16-24 |
| 762LFL _ 1/8 X 1/4 | 1/8 | 3.17 | 1/4 | 6.35 | .09 | 2.28 | 1/2 | 1.12 | 28.44 | 1.38 | 35.05 | .50 | 12.7 | 7/16-20 |
| 762LFL _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 6.35 | .17 | 4.31 | 1/2 | 1.19 | 30.22 | 1.48 | 37.59 | .60 | 15.2 | 7/16-20 |
| 762LFL _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | .17 | 4.31 | 5/8 | 1.27 | 32.25 | 1.56 | 39.62 | .66 | 16.8 | 7/16-20 |
| 762LFL _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | 9.52 | .28 | 7.11 | 5/8 | 1.27 | 32.25 | 1.56 | 39.62 | .66 | 16.8 | 9/16-18 |
| 762LFL _ 1/2 X 1/2 | 1/2 | 12.70 | 1/2 | 12.70 | .39 | 9.90 | 13/16 | 1.41 | 35.8 | 1.81 | 45.96 | .90 | 22.9 | 3/4-16 |
| 762LFL _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | 19.05 | .61 | 15.49 | 1 1/8 | 1.70 | 43.18 | 2.10 | 53.34 | .96 | 24.4 | 1 1/16-12 |
| 762LFL _ 1 X 1 | 1 | 25.40 | 1 | 25.40 | .84 | 21.34 | 1 3/8 | 1.94 | 49.28 | 2.42 | 61.47 | 1.23 | 31.2 | 1 5/16-12 |

## 774 LFL
# LET-LOK® TO AN BULKHEAD UNION



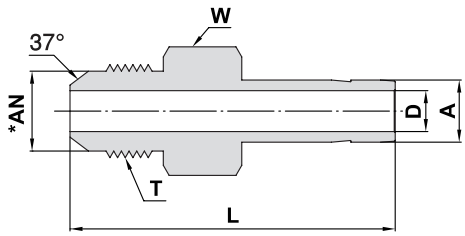

### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | AN* Tube Flare size | | D | | W Hex. Flat | | B | | B1 | | L | | L1 | | T Straight Thread | Panel Hole Drill Size | | Max. Panel Thickness | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm |
| 774LFL _1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 6.35 | .17 | 4.30 | 5/8 | 15.9 | 1.83 | 46.48 | 1.03 | 26.16 | 2.12 | 53.84 | 1.32 | 33.52 | 7/16-20 | 29/64 | 11.50 | .40 | 10.16 | .60 | 15.2 |
| 774LFL _3/8 X 3/8 | 3/8 | 9.52 | 3/8 | 9.52 | .28 | 7.11 | 3/4 | 19.1 | 1.96 | 49.78 | 1.16 | 29.46 | 2.25 | 57.15 | 1.45 | 36.83 | 9/16-18 | 37/64 | 14.68 | .44 | 11.17 | .66 | 16.8 |
| 774LFL _1/2 X 1/2 | 1/2 | 12.70 | 1/2 | 12.70 | .39 | 9.90 | 15/16 | 23.8 | 2.19 | 55.63 | 1.25 | 31.75 | 2.59 | 65.79 | 1.65 | 41.91 | 3/4-16 | 49/64 | 19.45 | .50 | 12.70 | .90 | 22.9 |
| 774LFL _3/4 X 3/4 | 3/4 | 19.05 | 3/4 | 19.05 | .61 | 15.49 | 1 3/16 | 30.2 | 2.71 | 68.83 | 1.47 | 37.34 | 3.11 | 78.99 | 1.87 | 47.50 | 1 1/16-12 | 1 1/64 | 25.80 | .66 | 16.76 | .96 | 24.4 |
| 774LFL _1 X 1 | 1 | 25.40 | 1 | 25.40 | .84 | 21.33 | 1 5/8 | 41.3 | 3.16 | 80.26 | 1.78 | 45.21 | 3.64 | 92.46 | 2.26 | 57.40 | 1 5/16-12 | 1 21/64 | 33.73 | .75 | 19.05 | .23 | 31.2 |

*Flare 37° per SAE J514. "**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

## 739 LTFL

# MALE ADAPTER TUBE TO AN




### TUBE (INCH) TO TUBE (INCH)

| Ordering Information | A Tube O.D. | | AN* Thread Flare Size | | D | | W | | L | | T Straight Thread |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | |
| 739LTFL _ 1/4 X 1/4 | 1/4 | 6.35 | 1/4 | 6.35 | .17 | 4.20 | 1/2 | 12.7 | 1.46 | 37.08 | 7/16-20 |
| 739LTFL _ 3/8 X 1/4 | 3/8 | 9.52 | 1/4 | 6.35 | .17 | 4.20 | 1/2 | 12.7 | 1.53 | 38.86 | 7/16-20 |
| 739LTFL _ 3/8 X 3/8 | 3/8 | 9.52 | 3/8 | 9.52 | .28 | 7.11 | 5/8 | 15.9 | 1.56 | 39.62 | 9/16-18 |
| 739LTFL _ 1/2 X 1/2 | 1/2 | 12.7 | 1/2 | 12.7 | .39 | 9.90 | 13/16 | 20.6 | 1.91 | 48.51 | 3/4-16 |
| 739LTFL _ 5/8 X 5/8 | 5/8 | 15.87 | 5/8 | 15.87 | .484 | 12.30 | 15/16 | 23.8 | 2.10 | 53.20 | 7/8-14 |
| 739LTFL _ 3/4 X 3/4 | 3/4 | 19.05 | 3/4 | 19.05 | .59 | 15.00 | 1 1/8 | 28.6 | 2.21 | 56.13 | 1 1/16-12 |
| 739LTFL _ 1 X 1 | 1 | 25.40 | 1 | 25.40 | .80 | 20.32 | 1 3/8 | 34.9 | 2.58 | 65.53 | 1 5/16-12 |

* Flare 37° per SAE J514.

"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

# PARALLEL THREADS SEALING

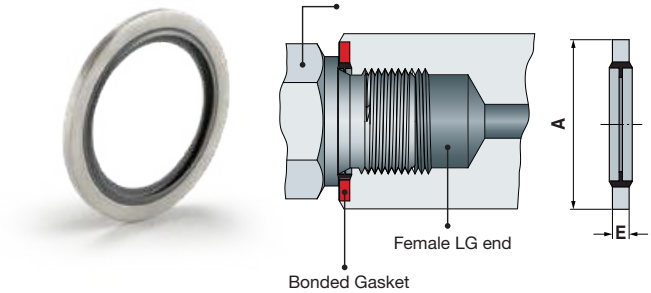
Sealing the parallel thread as 228/1 is done on the shoulder, metal on metal or with the gasket (see tables below).

## REFERENCE SPECIFICATIONS:

DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

### SEALING WASHER FOR LG END

Bonded Stainless Steel / Carbon Steel Washer




| Ordering information | | ISO Thread Size | A | E |
|---|---|---|---|---|
| Stainless Steel 316 | Carbon Steel | | | |
| SS-GA-LG-1/8 | S-GA-LG-1/8 | 1/8 | 15.88 | 2.03 |
| SS-GA-LG-1/4 | S-GA-LG-1/4 | 1/4 | 20.57 | 2.03 |
| SS-GA-LG-3/8 | S-GA-LG-3/8 | 3/8 | 23.80 | 2.03 |
| SS-GA-LG-1/2 | S-GA-LG-1/2 | 1/2 | 28.58 | 2.49 |
| SS-GA-LG-3/4 | S-GA-LG-3/4 | 3/4 | 34.93 | 2.49 |
| SS-GA-LG-1 | S-GA-LG-1 | 1 | 42.80 | 2.49 |

### HOW TO ORDER:

Example:

**SS** - **GA-LG-1/4** - **Buna**

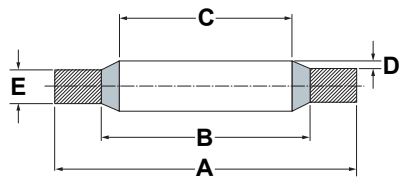
| Material Description | |
|---|---|
| SS - | Stainless Steel 316 |
| S - | Carbon Steel |

| Inner Ring |
|---|
| Fluorocarbon FKM |
| Buna |

All orders should include material description and ordering information (see product table).

### Bonded Stainless Steel Washer Recommended in ISO 1179-1973

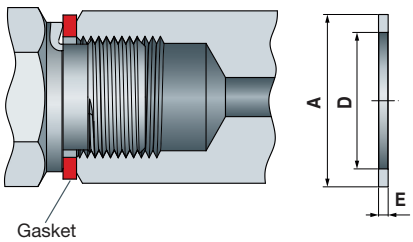
Compatible with end connections compliant with DIN 3852 Part 2.




| Ordering information | ISO Thread Size | A | B | C | D | E |
|---|---|---|---|---|---|---|
| SS-GA-LG-1/8-ISO-FKM | 1/8 | 14.70 | 12.00 | 10.40 | 0.25 | 1.25 |
| SS-GA-LG-1/4-ISO- FKM | 1/4 | 18.70 | 15.75 | 13.85 | | |
| SS-GA-LG-3/8-ISO- FKM | 3/8 | 22.70 | 19.25 | 17.35 | | |
| SS-GA-LG-1/2-ISO- FKM | 1/2 | 26.70 | 23.55 | 21.65 | | |
| SS-GA-LG-3/4-ISO- FKM | 3/4 | 32.50 | 29.20 | 27.30 | | |
| SS-GA-LG-1-ISO- FKM | 1 | 39.50 | 36.10 | 34.20 | | 2.00 |

**NOTE:** There is a permitted moulding flashline on the inner diameter C in accordance with AGS 1186.
All dimensions in mm.

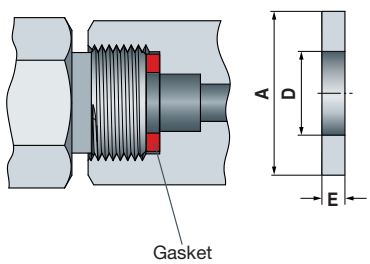
## COPPER SEAL GASKET LOK* MALE END




| Ordering Information | ISO Thread Size | A | | D | | E | |
|---|---|---|---|---|---|---|---|
| | | mm | inch | mm | inch | mm | inch |
| COPPER SEAL GASKET LOK 1/8 | 1/8 | 15.0 | 0.59 | 9.9 | 0.39 | 1.0 | 0.04 |
| COPPER SEAL GASKET LOK 1/4 | 1/4 | 18.8 | 0.75 | 13.5 | 0.52 | 1.5 | 0.06 |
| COPPER SEAL GASKET LOK 3/8 | 3/8 | 22.9 | 0.91 | 17.0 | 0.66 | 1.5 | 0.06 |
| COPPER SEAL GASKET LOK 1/2 | 1/2 | 27 | 1.06 | 21.3 | 0.83 | 1.5 | 0.06 |
| COPPER SEAL GASKET LOK 3/4 | 3/4 | 33.0 | 1.30 | 26.7 | 1.05 | 2.0 | 0.08 |
| COPPER SEAL GASKET LOK 1 | 1 | 40.6 | 1.58 | 33.5 | 1.31 | 2.0 | 0.08 |

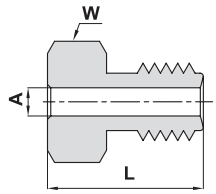
* **NOTE**: Can be used on LG ends

## COPPER SEAL GASKET LG FEMALE END



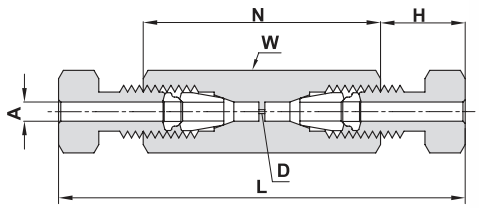

| Ordering Information | ISO Thread Size | A | | D | | E | |
|---|---|---|---|---|---|---|---|
| | | mm | inch | mm | inch | mm | inch |
| COPPER SEAL GASKET LG 1/4 | 1/4 | 10.7 | 0.42 | 7.6 | 0.30 | 1.8 | 0.07 |
| COPPER SEAL GASKET LG 3/8 | 3/8 | 14.2 | 0.56 | 8.6 | 0.34 | 2.3 | 0.09 |
| COPPER SEAL GASKET LG 1/2 | 1/2 | 17.8 | 0.70 | 9.1 | 0.36 | 2.5 | 0.10 |

## 961 L
# MALE NUT



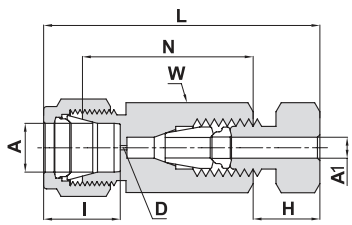

| Ordering Information | A Tube O.D. | | W Hex. Flat | L | | |
|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | |
| 961L _ 1/16 | 1/16 | 1.58 | 1/4 | 38. | 9.50 | |

## 962 L
# UNION



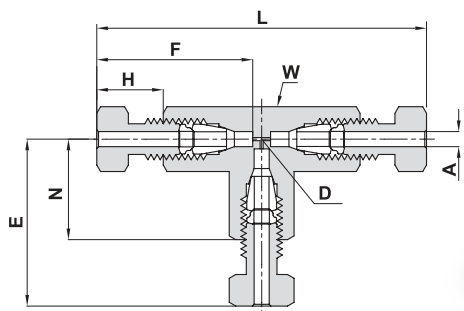

| Ordering Information | A Tube O.D. | | D | | W Hex. Flat | N | | H | | L | | Dead Space |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | |
| 962L _ 1/16 | 1/16 | 1.58 | 013. | 33. | 1/4 | 84. | 21.34 | 20. | 5.08 | 1.25 | 31.75 | X $10^{-5}$CC 6.6 |

## 963 L
# REDUCING UNION




| Ordering Information | A Tube O.D. | | A1 Tube O.D. | | D | | W Hex. Flat | N | | L | | H | | I | | Dead Space |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | |
| 963L _ 1/4 X 1/16 | 1/4 | 6.35 | 1/16 | 1.58 | 013. | 33. | 1/2 | 75. | 19.05 | 1.24 | 31.50 | 20. | 5.08 | 60. | 15.2 | X $10^{-5}$CC 6.8 |
| 963L _ 3/8 X 1/16 | 3/8 | 9.52 | 1/16 | 1.58 | 013. | 33. | 5/8 | 81. | 20.57 | 1.30 | 33.02 | 20. | 5.08 | 66. | 16.8 | X $10^{-5}$CC 6.8 |

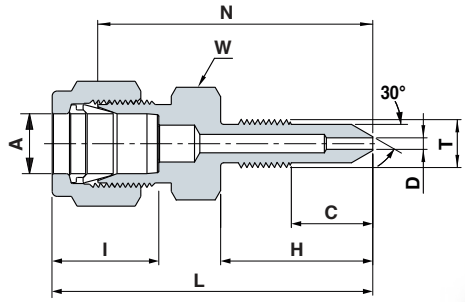
## 964 L
# UNION TEE



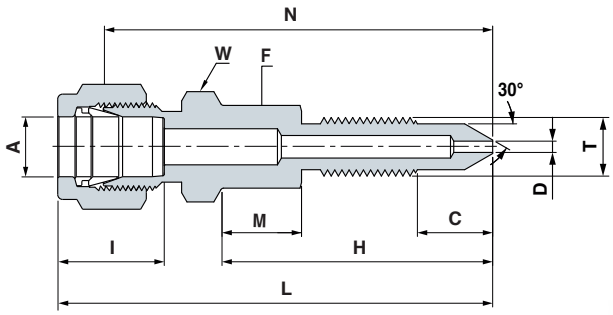

| Ordering Information | A Tube O.D. | | D | | W Wrench Flat | | N | | H | | F | | E | | L | | Dead Space |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | |
| 964L _ 1/16 | 1/16 | 1.58 | 013. | 33. | 3/8 | 9.52 | 45. | 11.43 | 20. | 5.08 | 61. | 15.49 | 65. | 16.51 | 1.30 | 33.02 | X $10^{-4}$CC 2.8 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

## 768LC
# MALE CONNECTOR




| Ordering Information | A Tube O.D. | | T Thread UN | D | | W Wrench Flat | N | | L | | H | | C | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 768LC SS 1/4 X 1/4-28 | 1/4 | 6.35 | 1/4-28 | 0.07 | 1.80 | 1/2 | 1.41 | 35.80 | 1.70 | 43.17 | 0.78 | 19.80 | 0.42 | 10.60 | 0.60 | 15.20 |




| Ordering Information | A Tube O.D. | | T Thread UN | D | | W Wrench Flat | N | | L | | H | | M | | C | | F | | I | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| 768LC SS 1/4 X 5/16-24 | 1/4 | 6.35 | 5/16-24 | 0.07 | 1.80 | 1/2 | 2.03 | 51.60 | 2.43 | 61.76 | 1.41 | 35.80 | 0.41 | 10.40 | 0.39. | 10.00 | 0.43 | 11.00 | 0.60 | 15.20 |

# ALLOY 400 NICKEL-COPPER

ALLOY 400/R-405 CONNECTORS

Alloy 400, made of nickel-copper, is a solid-solution alloy that can be hardened only by cold working. It has high strength and toughness over a wide temperature range and excellent resistance to many corrosive environments. Alloy 400 is widely used in many fields, especially marine and chemical processing.

**Back Ferrule*** 760 LB

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LB M 1/4 | 1/4 |
| 760LB M 3/8 | 3/8 |
| 760LB M 1/2 | 1/2 |

**Front Ferrule** 760 LF

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LF M 1/4 | 1/4 |
| 760LF M 3/8 | 3/8 |
| 760LF M 1/2 | 1/2 |

**Nut** 761 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 761L M 1/4 | 1/4 |
| 761L M 3/8 | 3/8 |
| 761L M 1/2 | 1/2 |

**Union** 762 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 762L M 1/4 | 1/4 |
| 762L M 3/8 | 3/8 |
| 762L M 1/2 | 1/2 |

**Union Tee** 764 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 764L M 1/4 | 1/4 |
| 764L M 3/8 | 3/8 |
| 764L M 1/2 | 1/2 |

**Union Elbow** 765 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 765L M 1/4 | 1/4 |
| 765L M 3/8 | 3/8 |
| 765L M 1/2 | 1/2 |

**Port Connetor** 767 LP

| Ordering Information | Tube O.D. inch |
|---|---|
| 767LP M 1/4 | 1/4 |
| 767LP M 3/8 | 3/8 |
| 767LP M 1/2 | 1/2 |

**Cap** 7108 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7108L M 1/4 | 1/4 |
| 7108L M 3/8 | 3/8 |
| 7108L M 1/2 | 1/2 |

**Bulkhead Union** 774 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 774L M 1/4 | 1/4 |
| 774L M 3/8 | 3/8 |
| 774L M 1/2 | 1/2 |

**Plug** 7121 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7121L M 1/4 | 1/4 |
| 7121L M 3/8 | 3/8 |
| 7121L M 1/2 | 1/2 |

| ALLOY 400 NICKEL-COPPER | |
|---|---|
| Barstock | Forging |
| ASTM B164 | ASTM B564 |

## **Reducer** 767 LT

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 767LT M 1/4 x 1/4 | 1/4 | 1/4 |
| 767LT M 1/4 x 3/8 | 1/4 | 3/8 |
| 767LT M 1/4 x 1/2 | 1/4 | 1/2 |
| 767LT M 3/8 x 1/4 | 3/8 | 1/4 |
| 767LT M 3/8 x 3/8 | 3/8 | 3/8 |
| 767LT M 3/8 x 1/2 | 3/8 | 1/2 |
| 767LT M 1/2 x 1/4 | 1/2 | 1/4 |
| 767LT M 1/2 x 3/8 | 1/2 | 3/8 |
| 767LT M 1/2 x 1/2 | 1/2 | 1/2 |

## **Male Elbow** 769 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 769L M 1/4 x 1/4 | 1/4 | 1/4 |
| 769L M 3/8 x 1/4 | 3/8 | 1/4 |
| 769L M 1/2 x 1/2 | 1/2 | 1/2 |

## **Female Connector** 766 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 766L M 1/4 x 1/4 | 1/4 | 1/4 |
| 766L M 3/8 x 1/4 | 3/8 | 1/4 |

## **Female Adapter** 739 LF

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 739LF M 1/4 x 1/8 | 1/4 | 1/8 |
| 739LF M 1/4 x 1/4 | 1/4 | 1/4 |
| 739LF M 1/4 x 1/2 | 1/4 | 1/2 |
| 739LF M 3/8 x 1/4 | 3/8 | 1/4 |
| 739LF M 3/8 x 1/2 | 3/8 | 1/2 |
| 739LF M 1/2 x 1/4 | 1/2 | 1/4 |
| 739LF M 1/2 x 1/2 | 1/2 | 1/2 |

## **Male Connector** 768 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 768L M 1/4 x 1/8 | 1/4 | 1/8 |
| 768L M 1/4 x 1/4 | 1/4 | 1/4 |
| 768L M 1/4 x 3/8 | 1/4 | 3/8 |
| 768L M 1/4 x 1/2 | 1/4 | 1/2 |
| 768L M 3/8 x 1/4 | 3/8 | 1/4 |
| 768L M 3/8 x 3/8 | 3/8 | 3/8 |
| 768L M 3/8 x 1/2 | 3/8 | 1/2 |
| 768L M 1/2 x 1/4 | 1/2 | 1/4 |
| 768L M 1/2 x 3/8 | 1/2 | 3/8 |
| 768L M 1/2 x 1/2 | 1/2 | 1/2 |
| 768L M 1/2 x 3/4 | 1/2 | 3/4 |

## **Male Adapter** 739 LM

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 739LM M 1/4 x 1/8 | 1/4 | 1/8 |
| 739LM M 1/4 x 1/4 | 1/4 | 1/4 |
| 739LM M 1/4 x 3/8 | 1/4 | 3/8 |
| 739LM M 1/4 x 1/2 | 1/4 | 1/2 |
| 739LM M 3/8 x 1/4 | 3/8 | 1/4 |
| 739LM M 3/8 x 3/8 | 3/8 | 3/8 |
| 739LM M 3/8 x 1/2 | 3/8 | 1/2 |

## Let-Lok Tubing Data For Alloy 400

Alloy 400 UNS designatin N04400 tubes should be ordered according to ASTM B-165.
Hydraulic tubing is suitable for flaring and bending.
Tubing should be seamless and annealed.
Hardness: 75 HRB maximum

| Tube O.D. inch | 0.028 | 0.035 | 0.049 | 0.065 |
|---|---|---|---|---|
| 1/4 | 3700 | 4800 | 7000 | 9500 |
| 3/8 | | 3100 | 4400 | 6100 |
| 1/2 | | 2300 | 3200 | 4400 |
| Allowable working pressure in psig at -20° to 100°F (-28° to 37°C) | | | | |

| GAS APPLICATION TUBING | |
|---|---|
| Tube O.D. | Min. Nominal wall thickness |
| 1/2” | .035” |

Dimensions are for reference only and subject to change without notice.

# ALLOY C-276 CONNECTORS

In aggressive/corrosive service, when nothing else works, many industries traditionally turn to **Alloy C-276**. Many years of outstanding performance in a variety of industrial applications confirmed the advantages of using this alloy.

## Excellent Resistance to Corrosion

**Alloy C-276** is a nickel-molybdenum-chromium wrought alloy that is generally considered a versatile corrosion-resistant alloy.

**C-276** alloy has excellent resistance to localized corrosion and to oxidizing and reducing media. C-276 alloy can be used in severe and corrosive environments because of its versatility.

**Alloy C-276** has excellent resistance to a wide variety of chemical process environments including strong oxidizers such as ferric and cupric chlorides, hot contaminated media (organic and inorganic), chlorine, formic and acetic acids, acetic anhydride, seawater and brine solutions. It is used in flue gas desulfurization systems because of its excellent resistance to sulfur compounds and chloride ions encountered in most scrubbers. **C-276** alloy has excellent resistance to pitting and to stress-corrosion cracking. Also, it is one of the few materials that withstands the corrosive effects of wet chlorine gas, hypochlorite and chlorine dioxide.

**Back Ferrule** 760 LB

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LB HC 1/4 | 1/4 |
| 760LB HC 3/8 | 3/8 |
| 760LB HC 1/2 | 1/2 |

**Front Ferrule** 760 LF

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LF HC 1/4 | 1/4 |
| 760LF HC 3/8 | 3/8 |
| 760LF HC 1/2 | 1/2 |

**Nut** 761 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 761L HC 1/4 | 1/4 |
| 761L HC 3/8 | 3/8 |
| 761L HC 1/2 | 1/2 |

**Union** 762 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 762L HC 1/4 | 1/4 |
| 762L HC 3/8 | 3/8 |
| 762L HC 1/2 | 1/2 |

**Union Tee** 764 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 764L HC 1/4 | 1/4 |
| 764L HC 3/8 | 3/8 |
| 764L HC 1/2 | 1/2 |

**Union Elbow** 765 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 765L HC 1/4 | 1/4 |
| 765L HC 3/8 | 3/8 |
| 765L HC 1/2 | 1/2 |

**Port Connetor** 767 LP

| Ordering Information | Tube O.D. inch |
|---|---|
| 767LP HC 1/4 | 1/4 |
| 767LP HC 3/8 | 3/8 |
| 767LP HC 1/2 | 1/2 |

**Cap** 7108 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7108L HC 1/4 | 1/4 |
| 7108L HC 3/8 | 3/8 |
| 7108L HC 1/2 | 1/2 |

**Bulkhead Union** 774 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 774L HC 1/4 | 1/4 |
| 774L HC 3/8 | 3/8 |
| 774L HC 1/2 | 1/2 |

**Plug** 7121 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7121L HC 1/4 | 1/4 |
| 7121L HC 3/8 | 3/8 |
| 7121L HC 1/2 | 1/2 |

| ALLOY C-276 MATERIAL STD | |
|---|---|
| Barstock | Forging |
| ASTM B574 | ASTM B564 |

## **Reducer** 767 LT

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 767LT HC 1/4 x 1/4 | 1/4 | 1/4 |
| 767LT HC 1/4 x 3/8 | 1/4 | 3/8 |
| 767LT HC 1/4 x 1/2 | 1/4 | 1/2 |
| 767LT HC 3/8 x 1/4 | 3/8 | 1/4 |
| 767LT HC 3/8 x 3/8 | 3/8 | 3/8 |
| 767LT HC 3/8 x 1/2 | 3/8 | 1/2 |
| 767LT HC 1/2 x 1/4 | 1/2 | 1/4 |
| 767LT HC 1/2 x 3/8 | 1/2 | 3/8 |
| 767LT HC 1/2 x 1/2 | 1/2 | 1/2 |

## **Male Elbow** 769 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 769L HC 1/4 x 1/4 | 1/4 | 1/4 |
| 769L HC 3/8 x 1/4 | 3/8 | 1/4 |
| 769L HC 1/2 x 1/2 | 1/2 | 1/2 |

## **Female Connector** 766 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 766L HC 1/4 x 1/4 | 1/4 | 1/4 |
| 766L HC 3/8 x 1/4 | 3/8 | 1/4 |

## **Female Adapter** 739 LF

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 739LF HC 1/4 x 1/8 | 1/4 | 1/8 |
| 739LF HC 1/4 x 1/4 | 1/4 | 1/4 |
| 739LF HC 1/4 x 1/2 | 1/4 | 1/2 |
| 739LF HC 3/8 x 1/4 | 3/8 | 1/4 |
| 739LF HC 3/8 x 1/2 | 3/8 | 1/2 |
| 739LF HC 1/2 x 1/4 | 1/2 | 1/4 |
| 739LF HC 1/2 x 1/2 | 1/2 | 1/2 |

## **Male Connector** 768 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 768L HC 1/4 x 1/8 | 1/4 | 1/8 |
| 768L HC 1/4 x 1/4 | 1/4 | 1/4 |
| 768L HC 1/4 x 3/8 | 1/4 | 3/8 |
| 768L HC 1/4 x 1/2 | 1/4 | 1/2 |
| 768L HC 3/8 x 1/4 | 3/8 | 1/4 |
| 768L HC 3/8 x 3/8 | 3/8 | 3/8 |
| 768L HC 3/8 x 1/2 | 3/8 | 1/2 |
| 768L HC 1/2 x 1/4 | 1/2 | 1/4 |
| 768L HC 1/2 x 3/8 | 1/2 | 3/8 |
| 768L HC 1/2 x 1/2 | 1/2 | 1/2 |
| 768L HC 1/2 x 3/4 | 1/2 | 3/4 |

## **Male Adapter** 739 LM

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 739LM HC 1/4 x 1/8 | 1/4 | 1/8 |
| 739LM HC 1/4 x 1/4 | 1/4 | 1/4 |
| 739LM HC 1/4 x 1/2 | 1/4 | 1/2 |
| 739LM HC 3/8 x 1/4 | 3/8 | 1/4 |
| 739LM HC 3/8 x 1/2 | 3/8 | 1/2 |
| 739LM HC 1/2 x 1/4 | 1/2 | 1/4 |
| 739LM HC 1/2 x 1/2 | 1/2 | 1/2 |

## Let-Lok Tubing Data For Alloy C-276

Alloy C-276 UNS designation N10276 tubes should be ordered according to ASTM B-622.

Hydraulic tubing is suitable for flaring and bending.
Tubing should be seamless and annealed.
Hardness: 100 HRB maximum

| Tube O.D. | 0.035 | 0.049 | 0.065 |
|---|---|---|---|
| | Working Pressure (psig) | | |
| 1/4 | 5100 | 7500 | 10200 |
| 3/8 | 3300 | 4800 | 6500 |
| 1/2 | 2600 | 3700 | 5100 |

| GAS APPLICATION TUBING | |
|---|---|
| Tube O.D. | Min. Nominal wall thickness |
| 1/2” | .035” |

Dimensions are for reference only and subject to change without notice.

# SUPER DUPLEX 2507
# CONNECTORS

Duplex stainless-steels are becoming more common for a number of reasons:

- Higher strength levels
- Greater corrosion resistance-particularly Stress Corrosion Cracking (S.C.C.) in chloride-bearing environments.
- Much better resistance for localized corrosion such as pitting and crevice.

The “Pitting Resistances Equivalent Number” (P.R.E.N.) of “SD 2507” (1.4410/S32750) is roughly twice that of Austenitic Stainless Steels such as 304 (1.4301/S30400) or 316 (1.4401/S31600).

- High resistance to erosion-corrosion and corrosion-
- fatigue mechanism

Common designation/names/trade names include:

- SAF 2507
- UNS S32750
- EN#1.4410
- SD 2507

The nominal chemical. composition of this alloy is 25% Chromium, 7% Nickel, 4% Molybdenum.

Test approvals: Norsok 650, Norsok 630

**Back Ferrule** 760 LB

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LB SD 1/4 | 1/4 |
| 760LB SD 3/8 | 3/8 |
| 760LB SD 1/2 | 1/2 |

**Front Ferrule** 760 LF

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LF SD 1/4 | 1/4 |
| 760LF SD 3/8 | 3/8 |
| 760LF SD 1/2 | 1/2 |

**Nut** 761 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 761L SD 1/4 | 1/4 |
| 761L SD 3/8 | 3/8 |
| 761L SD 1/2 | 1/2 |

**Union** 762 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 762L SD 1/4 | 1/4 |
| 762L SD 3/8 | 3/8 |
| 762L SD 1/2 | 1/2 |

**Union Tee** 764 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 764L SD 1/4 | 1/4 |
| 764L SD 3/8 | 3/8 |
| 764L SD 1/2 | 1/2 |

**Union Elbow** 765 L

| Ordering Information | Male Pipe Size |
|---|---|
| 765L SD 1/4 | 1/4 |
| 765L SD 3/8 | 3/8 |
| 765L SD 1/2 | 1/2 |

**Port Connetor** 767 LP

| Ordering Information | Tube O.D. inch |
|---|---|
| 767LP SD 1/4 | 1/4 |
| 767LP SD 3/8 | 3/8 |
| 767LP SD 1/2 | 1/2 |

**Cap** 7108 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7108L SD 1/4 | 1/4 |
| 7108L SD 3/8 | 3/8 |
| 7108L SD 1/2 | 1/2 |

**Bulkhead Union** 774 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 774L SD 1/4 | 1/4 |
| 774L SD 3/8 | 3/8 |
| 774L SD 1/2 | 1/2 |

**Plug** 7121 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7121L SD 1/4 | 1/4 |
| 7121L SD 3/8 | 3/8 |
| 7121L SD 1/2 | 1/2 |

| SUPER DUPLEX 2507 MATERIAL STD | |
|---|---|
| Barstock | Forging |
| ASTM A 479 | ASTM A 182 |

## **Reducer** 767 LT

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 767LT SD 1/4 X 3/8 | 1/4 | 3/8 |
| 767LT SD 1/4 X 1/2 | 1/4 | 1/2 |
| 767LT SD 3/8 X 1/4 | 3/8 | 1/4 |
| 767LT SD 3/8 X 1/2 | 3/8 | 1/2 |
| 767LT SD 1/2 X 1/4 | 1/2 | 1/4 |
| 767LT SD 1/2 X 3/8 | 1/2 | 3/8 |

## **Male Elbow** 769 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 769L SD 1/4 X 1/4 | 1/4 | 1/4 |
| 769L SD 3/8 X 3/8 | 3/8 | 1/4 |
| 769L SD 1/2 X 1/2 | 1/2 | 1/2 |

## **Male Adapter** 739 LMOB

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 739LMOB SD 1/4 X 7/16-20 | 1/4 | 7/16-20 |
| 739LMOB SD 3/8 X 7/16-20 | 3/8 | 7/16-20 |
| 739LMOB SD 3/8 X 9/16-18 | 3/8 | 9/16-18 |
| 739LMOB SD 1/2 X 9/16-18 | 1/2 | 9/16-18 |
| 739LMOB SD 1/2 X 3/4-16 | 1/2 | 3/4-16 |

## **Male Connector** 768 LOB

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 768LOB SD 1/4 X 7/16-20 | 1/4 | 7/16-20 |
| 768LOB SD 1/4 X 9/16-18 | 1/4 | 9/16-18 |
| 768LOB SD 3/8 X 9/16-18 | 3/8 | 9/16-18 |
| 768LOB SD 1/2 X 9/16-18 | 1/2 | 9/16-18 |
| 768LOB SD 1/2 X 3/4-16 | 1/2 | 3/4-16 |

## **Female Adaptor** 739 LF

| Ordering Information | Tube O.D. | Female Pipe Size |
|---|---|---|
| 739LF SD 1/4 X 1/8 | 1/4 | 1/8 |
| 739LF SD 1/4 X 1/4 | 1/4 | 1/4 |
| 739LF SD 1/4 X 1/2 | 1/4 | 1/2 |
| 739LF SD 3/8 X 1/4 | 3/8 | 1/4 |
| 739LF SD 3/8 X 1/2 | 3/8 | 1/2 |
| 739LF SD 1/2 X 1/4 | 1/2 | 1/4 |
| 739LF SD 1/2 X 1/2 | 1/2 | 1/2 |

## **Male Connector** 768 L

| Ordering Information | Tube O.D. | Female Pipe Size |
|---|---|---|
| 768L SD 1/4 X 1/4 | 1/4 | 1/4 |
| 768L SD 1/4 X 1/2 | 1/4 | 1/2 |
| 768L SD 3/8 X 1/4 | 3/8 | 1/4 |
| 768L SD 3/8 X 3/8 | 3/8 | 3/8 |
| 768L SD 3/8 X 1/2 | 3/8 | 1/2 |
| 768L SD 1/2 X 1/4 | 1/2 | 1/4 |
| 768L SD 1/2 X 3/8 | 1/2 | 3/8 |
| 768L SD 1/2 X 1/2 | 1/2 | 1/2 |

## **Male Adapter** 739 LM

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 739LM SD 1/4 X 1/4 | 1/4 | 1/4 |
| 739LM SD 3/8 X 1/4 | 3/8 | 1/4 |
| 739LM SD 3/8 X 3/8 | 3/8 | 3/8 |
| 739LM SD 3/8 X 1/2 | 3/8 | 1/2 |
| 739LM SD 1/2 X 1/4 | 1/2 | 1/4 |
| 739LM SD 1/2 X 1/2 | 1/2 | 1/2 |

## **Union Cross** 7102 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 7102L SD 1/4 | 1/4 | 1/4 |
| 7102L SD 3/8 | 3/8 | 1/4 |
| 7102L SD 1/2 | 3/8 | 3/8 |

## Let-Lok Tubing Data For SAE Super Duplex 2507

Alloy 2507 UNS Designation S32750 tubes should be ordered according to ASTM A789 or equivalent.
Hydraulic tubing is suitable for bending, flaring and should be free of scratches. Tubing should be seamless and fully annealed.
Hardness: 32 HRC maximu

| Tube O.D. inch | 0.035 | 0.049 | 0.065 |
|---|---|---|---|
| | Working Pressure (psig) | | |
| 1/4 | 10,000 | 15,000 | - |
| 3/8 | 6,500 | 10,000 | 12,700 |
| 1/2 | 5,000 | 7,200 | 10,000 |

Dimensions are for reference only and subject to change without notice.

# ALLOY 825 CONNECTORS

Alloy 825 (UNS Designation N08825) is a Nickel-Iron-Chromium Alloy with Molybdenum and Copper additives.

This alloy is designed to provide exceptional resistance in many corrosive environments along with an improved resistance to aqueous corrosive media.

It has excellent resistance to reducing and oxidizing acids, stress corrosion cracking and to localized attacks such as pitting and crevice corrosion.

Alloy 825 is especially resistant to sulfuric and phosphoric acid.

This alloy is used for chemical processing, pollution-control equipment, oil and gas systems as well as in the nuclear fuel reprocessing, acid production and pickling equipment such as heating coils and chains.

**Back Ferrule** 760 LB

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LB 825 1/4 | 1/4 |
| 760LB 825 3/8 | 3/8 |
| 760LB 825 1/2 | 1/2 |
| 760LB 825 3/4 | 3/4 |

**Front Ferrule** 760 LF

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LF 825 1/4 | 1/4 |
| 760LF 825 3/8 | 3/8 |
| 760LF 825 1/2 | 1/2 |
| 760LF 825 3/4 | 3/4 |

**Nut** 761 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 761L 825 1/4 | 1/4 |
| 761L 825 3/8 | 3/8 |
| 761L 825 1/2 | 1/2 |
| 761L 825 3/4 | 3/4 |

**Union** 762 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 762L 825 1/4 | 1/4 |
| 762L 825 3/8 | 3/8 |
| 762L 825 1/2 | 1/2 |
| 762L 825 3/4 | 3/4 |

**Union Tee** 764 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 764L 825 1/4 | 1/4 |
| 764L 825 3/8 | 3/8 |
| 764L 825 1/2 | 1/2 |
| 764L 825 3/4 | 3/4 |

**Union Elbow** 765 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 765L 825 1/4 | 1/4 |
| 765L 825 3/8 | 3/8 |
| 765L 825 1/2 | 1/2 |
| 765L 825 3/4 | 3/4 |

**Port Connetor** 767 LP

| Ordering Information | Tube O.D. inch |
|---|---|
| 767LP 825 1/4 | 1/4 |
| 767LP 825 3/8 | 3/8 |
| 767LP 825 1/2 | 1/2 |
| 767LP 825 3/4 | 3/4 |

**Cap** 7108 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7108L 825 1/4 | 1/4 |
| 7108L 825 3/8 | 3/8 |
| 7108L 825 1/2 | 1/2 |
| 7108L 825 3/4 | 3/4 |

**Bulkhead Union** 774 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 774L 825 1/4 | 1/4 |
| 774L 825 3/8 | 3/8 |
| 774L 825 1/2 | 1/2 |
| 774L 825 3/4 | 3/4 |

**Plug** 7121 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7121L 825 1/4 | 1/4 |
| 7121L 825 3/8 | 3/8 |
| 7121L 825 1/2 | 1/2 |
| 7121L 825 3/4 | 3/4 |

**Male Elbow** 769 L

| Ordering Information | Tube O.D. | Male pipe size |
|---|---|---|
| 769L 825 1/4 X 1/4 | 1/4 | 1/4 |
| 769L 825 3/8 X 3/8 | 3/8 | 3/8 |
| 769L 825 1/2 X 1/2 | 1/2 | 1/2 |
| 769L 825 3/4 X 3/4 | 3/4 | 3/4 |

| ALLOY 825 | |
|---|---|
| Barstock | Forging |
| ASTM B 425 | ASTM B 564 |

## **Reducer** 767 LT

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 767LT 825 1/4 X 3/8 | 1/4 | 3/8 |
| 767LT 825 1/4 X 1/2 | 1/4 | 1/2 |
| 767LT 825 3/8 X 1/4 | 3/8 | 1/4 |
| 767LT 825 3/8 X 1/2 | 3/8 | 1/2 |
| 767LT 825 1/2 X 1/4 | 1/2 | 1/4 |
| 767LT 825 1/2 X 3/8 | 1/2 | 3/8 |
| 767LT 825 3/4 X 1/2 | 3/4 | 1/2 |
| 767LT 825 3/4 X 3/4 | 3/4 | 3/4 |

## **Male Adapter** 739 LMOB

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 739LMOB 825 1/4 X 7/16-20 | 1/4 | 7/16-20 |
| 739LMOB 825 3/8 X 7/16-20 | 3/8 | 7/16-20 |
| 739LMOB 825 3/8 X 9/16-18 | 3/8 | 9/16-18 |
| 739LMOB 825 1/2 X 9/16-18 | 1/2 | 9/16-18 |
| 739LMOB 825 1/2 X 3/4-16 | 1/2 | 3/4-16 |
| 739LMOB 825 3/4 X 3/4-16 | 3/4 | 3/4-16 |
| 739LMOB 825 3/4 X 1-1/16-12 | 3/4 | 1-1/16-12 |

## **Male Connector** 768 LOB

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 768LOB 825 1/4 X 7/16-20 | 1/4 | 7/16-20 |
| 768LOB 825 1/4 X 9/16-18 | 1/4 | 9/16-18 |
| 768LOB 825 3/8 X 9/16-18 | 3/8 | 9/16-18 |
| 768LOB 825 1/2 X 9/16-18 | 1/2 | 9/16-18 |
| 768LOB 825 1/2 X 3/4-16 | 1/2 | 3/4-16 |
| 768LOB 825 3/4 X 3/4-16 | 3/4 | 3/4-16 |
| 768LOB 825 3/4 X 1-1/16-12 | 3/4 | 1-1/16-12 |

## **Male Connector** 739 LF

| Ordering Information | Tube O.D. | Female Pipe Size |
|---|---|---|
| 739LF 825 1/4 X 1/8 | 1/4 | 1/8 |
| 739LF 825 1/4 X 1/4 | 1/4 | 1/4 |
| 739LF 825 1/4 X 1/2 | 1/4 | 1/2 |
| 739LF 825 3/8 X 1/4 | 3/8 | 1/4 |
| 739LF 825 3/8 X 1/2 | 3/8 | 1/2 |
| 739LF 825 1/2 X 1/4 | 1/2 | 1/4 |
| 739LF 825 1/2 X 1/2 | 1/2 | 1/2 |
| 739LF 825 3/4 X 1/2 | 3/4 | 1/2 |
| 739LF 825 3/4 X 3/4 | 3/4 | 3/4 |

## **Male Connector** 768 L

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 768L 825 1/4 X 1/4 | 1/4 | 1/4 |
| 768L 825 1/4 X 1/2 | 1/4 | 1/2 |
| 768L 825 3/8 X 1/4 | 3/8 | 1/4 |
| 768L 825 3/8 X 3/8 | 3/8 | 3/8 |
| 768L 825 3/8 X 1/2 | 3/8 | 1/2 |
| 768L 825 1/2 X 1/4 | 1/2 | 1/4 |
| 768L 825 1/2 X 3/8 | 1/2 | 3/8 |
| 768L 825 1/2 X 1/2 | 1/2 | 1/2 |
| 768L 825 3/4 X 1/4 | 3/4 | 1/4 |
| 768L 825 3/4 X 3/8 | 3/4 | 3/8 |
| 768L 825 3/4 X 1/2 | 3/4 | 1/2 |
| 768L 825 3/4 X 3/4 | 3/4 | 3/4 |

## **Male Adapter** 739 LM

| Ordering Information | Tube O.D. | Male size |
|---|---|---|
| 739LM 825 1/4 X 1/4 | 1/4 | 1/4 |
| 739LM 825 3/8 X 1/4 | 3/8 | 1/4 |
| 739LM 825 3/8 X 3/8 | 3/8 | 3/8 |
| 739LM 825 3/8 X 1/2 | 3/8 | 1/2 |
| 739LM 825 1/2 X 1/4 | 1/2 | 1/4 |
| 739LM 825 1/2 X 1/2 | 1/2 | 1/2 |
| 739LM 825 3/4 X 1/2 | 3/4 | 1/2 |
| 739LM 825 3/4 X 3/4 | 3/4 | 3/4 |

## **Union Cross** 7102 L

| Ordering Information | Tube O.D. |
|---|---|
| 7102L 825 1/4 | 1/4 |
| 7102L 825 3/8 | 3/8 |
| 7102L 825 1/2 | 1/2 |
| 7102L 825 3/4 | 3/4 |

## Let-Lok Tubing Data for Alloy 825

Alloy 825 UNS Designation N08825 tubes should be ordered according to ASTM B163, ASTM B423 or equivalent.

Suitable for bending, flaring and should be free of scratches.
Tubing should be seamless, high quality and bright fully annealed.
For fully annealed welded and cold drawn tube per ASTM B704 CLASS 1.
Multiply working pressure by 0.85

Hardness: 90 $HR_{15T}$ max or 201Hv max

| Tube O.D | 0.035 | 0.049 | 0.065 | 0.083 | 0.095 |
|---|---|---|---|---|---|
| | Working Pressure (psig) | | | | |
| 1/4 | 6,400 | 9,300 | 11,600 | | |
| 3/8 | 4,100 | 5,900 | 8,200 | | |
| 1/2 | 3,000 | 4,300 | 5,900 | | |
| 3/4 | | | 3,800 | 4,900 | 5,800 |

# ALLOY 254
# CONNECTORS

Alloy 254/254 SMO/6 Mo (UNS designation S31254) is an austenitic stainless steel with high molybdenum content, super austenitic which gives the alloy a very good resistance to pitting and crevice corrosion. It is especially useful in environments containing halide ions (chloride, bromide and fluoride solutions) such as brackish water, seawater, pulp mill bleach plants and other related high chloride processes.

SMO 254 characteristics include higher strength, higher resistance to abrasion, erosion and cavitation erosion when compared to austenitic stainless steels such as 316 and 316L and also 317 or 317L. In addition to the above - SMO 254 offers excellent ductility and impact strength at both ambient and sub-zero temperatures.

SMO 254 covers a wide range of applications in several industries, such as chemical and food processing, oil and gas, pulp and paper mill, power generation and desalination plants.

Test approvals: Norsok 650, Norsok 630

**Back Ferrule*** 760 LB

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LB 254 1/4 | 1/4 |
| 760LB 254 3/8 | 3/8 |
| 760LB 254 1/2 | 1/2 |

**Front Ferrule*** 760 LF

| Ordering Information | Tube O.D. inch |
|---|---|
| 760LF 254 1/4 | 1/4 |
| 760LF 254 3/8 | 3/8 |
| 760LF 254 1/2 | 1/2 |

**Nut** 761 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 761L 254 1/4 | 1/4 |
| 761L 254 3/8 | 3/8 |
| 761L 254 1/2 | 1/2 |

**Union** 762 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 762L 254 1/4 | 1/4 |
| 762L 254 3/8 | 3/8 |
| 762L 254 1/2 | 1/2 |

**Union Tee** 764 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 764L 254 1/4 | 1/4 |
| 764L 254 3/8 | 3/8 |
| 764L 254 1/2 | 1/2 |

**Union Elbow** 765 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 765L 254 1/4 | 1/4 |
| 765L 254 3/8 | 3/8 |
| 765L 254 1/2 | 1/2 |

**Port Connetor** 767 LP

| Ordering Information | Tube O.D. inch |
|---|---|
| 767LP 254 1/4 | 1/4 |
| 767LP 254 3/8 | 3/8 |
| 767LP 254 1/2 | 1/2 |

**Cap** 7108 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7108L 254 1/4 | 1/4 |
| 7108L 254 3/8 | 3/8 |
| 7108L 254 1/2 | 1/2 |

**Bulkhead Union** 774 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 774L 254 1/4 | 1/4 |
| 774L 254 3/8 | 3/8 |
| 774L 254 1/2 | 1/2 |

**Plug** 7121 L

| Ordering Information | Tube O.D. inch |
|---|---|
| 7121L 254 1/4 | 1/4 |
| 7121L 254 3/8 | 3/8 |
| 7121L 254 1/2 | 1/2 |

| ALLOY 254 MATERIAL STD | |
|---|---|
| Barstock | Forging |
| ASTM A 479 | ASTM A 182 |

## **Reducer** 767 LT

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 767LT 254 1/4 X 3/8 | 1/4 | 3/8 |
| 767LT 254 1/4 X 1/2 | 1/4 | 1/2 |
| 767LT 254 3/8 X 1/4 | 3/8 | 1/4 |
| 767LT 254 3/8 X 1/2 | 3/8 | 1/2 |
| 767LT 254 1/2 X 1/4 | 1/2 | 1/4 |
| 767LT 254 1/2 X 3/8 | 1/2 | 3/8 |
| 767LT 254 1/2 X 1/2 | 1/2 | 1/2 |

## **Male Elbow** 769 L

| Ordering Information | Tube O.D. | Male Pipe Size |
|---|---|---|
| 769L 254 1/4 X 1/4 | 1/4 | 3/8 |
| 769L 254 3/8 X 3/8 | 1/4 | 1/2 |
| 769L 254 1/2 X 1/2 | 3/8 | 1/4 |

## **Male Adapter** 739 LMOB

| Ordering Information | Tube O.D. | Male size |
|---|---|---|
| 739LMOB 254 1/4 X 7/16-20 | 1/4 | 7/16-20 |
| 739LMOB 254 3/8 X 7/16-20 | 3/8 | 7/16-20 |
| 739LMOB 254 3/8 X 9/16-18 | 3/8 | 9/16-18 |
| 739LMOB 254 1/2 X 9/16-18 | 1/2 | 9/16-18 |
| 739LMOB 254 1/2 X 3/4-16 | 1/2 | 3/4-16 |

## **Male Connector** 768 LOB

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 768LOB 254 1/4 X 7/16-20 | 1/4 | 7/16-20 |
| 768LOB 254 1/4 X 9/16-18 | 1/4 | 9/16-18 |
| 768LOB 254 3/8 X 9/16-18 | 3/8 | 9/16-18 |
| 768LOB 254 1/2 X 9/16-18 | 1/2 | 9/16-18 |
| 768LOB 254 1/2 X 3/4-16 | 1/2 | 3/4-16 |

## **Male Connector** 739 LF

| Ordering Information | Tube O.D. | Female Pipe Size |
|---|---|---|
| 739LF 254 1/4 X 1/8 | 1/4 | 1/8 |
| 739LF 254 1/4 X 1/4 | 1/4 | 1/4 |
| 739LF 254 1/4 X 1/2 | 1/4 | 1/2 |
| 739LF 254 3/8 X 1/4 | 3/8 | 1/4 |
| 739LF 254 3/8 X 1/2 | 3/8 | 1/2 |
| 739LF 254 1/2 X 1/4 | 1/2 | 1/4 |
| 739LF 254 1/2 X 1/2 | 1/2 | 1/2 |

## **Male Connector** 768 L

| Ordering Information | Tube O.D. | Tube O.D. |
|---|---|---|
| 768L 254 1/4 X 1/4 | 1/4 | 1/4 |
| 768L 254 1/4 X 1/2 | 1/4 | 1/2 |
| 768L 254 3/8 X 1/4 | 3/8 | 1/4 |
| 768L 254 3/8 X 3/8 | 3/8 | 3/8 |
| 768L 254 3/8 X 1/2 | 3/8 | 1/2 |
| 768L 254 1/2 X 1/4 | 1/2 | 1/4 |
| 768L 254 1/2 X 3/8 | 1/2 | 3/8 |
| 768L 254 1/2 X 1/2 | 1/2 | 1/2 |

## **Male Adapter** 739 LM

| Ordering Information | Tube O.D. | Male size |
|---|---|---|
| 739LM 254 1/4 X 1/4 | 1/4 | 1/4 |
| 739LM 254 3/8 X 1/4 | 3/8 | 1/4 |
| 739LM 254 3/8 X 3/8 | 3/8 | 3/8 |
| 739LM 254 3/8 X 1/2 | 3/8 | 1/2 |
| 739LM 254 1/2 X 1/4 | 1/2 | 1/4 |
| 739LM 254 1/2 X 1/2 | 1/2 | 1/2 |

## **Union Cross** 7102 L

| Ordering Information | Tube O.D. |
|---|---|
| 7102L 254 1/4 | 1/4 |
| 7102L 254 3/8 | 3/8 |
| 7102L 254 1/2 | 1/2 |

## Let-Lok Tubing Data for Alloy 254

Alloy 254 UNS Designation UNS S31254 tubes should be ordered according to ASTM A269 or ASTM A213 or equivalent.

Suitable for bending, flaring and should be free of scratches.
Tubing should be seamless, high quality and bright annealed.

Hardness: 95HRB max.

| Tube O.D. | 0.035 | 0.049 | 0.065 | 0.083 |
|---|---|---|---|---|
| | Working Pressure (psig) | | | |
| 1/4 | 6,900 | 10,100 | 13,900 | |
| 3/8 | 4,500 | 6,500 | 8,900 | |
| 1/2 | 3,500 | 5,000 | 6,900 | 9,000 |

# DIELECTRIC FITTINGS

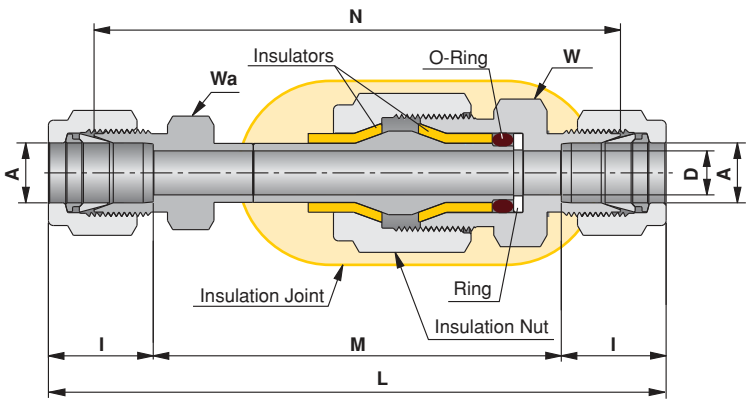
**Dielectric fittings are designed to insulate subsystems from electrical currents, voltages and static charges.**


## MATERIALS OF CONSTRUCTION

1. Body: A.I.S.I. 316
2. Insulators: Polyamide-Imide
3. O-Ring: Fluorocarbon FKM 70 Durometer
4. Ring: PTFE

## WORKING CONDITIONS:

1. Pressure rating: 5000 psi
2. Temperature rating: -40°c to 93°c (-40°F to 200°F)
3. Electrical resistance at 20°c-25°c (68°F-77°F): $10X10^6\Omega$ at 30V DC




**TUBE (METRIC) TO TUBE (METRIC)**

| Ordering Information | A Tube O.D. | D | W Hex. Flat | Wa Hex. Flat | M | I | N | L |
|---|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | mm | mm |
| 762L _ 10 mm Dielectric | 10 | 7.1 | 22 | 18 | 65.85 | 17.2 | 84.85 | 100.3 |
| 762L _ 12 mm Dielectric | 12 | 7.1 | 22 | 22 | 61.70 | 22.8 | 87.10 | 107.3 |

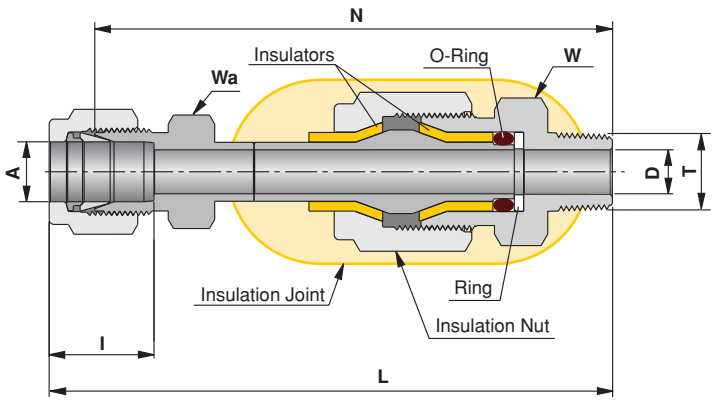
**TUBE (INCH) TO TUBE (INCH)**

| Ordering Information | A Tube O.D. | | D | | W Hex. Flat | Wa Hex. Flat | M | | I | | N | | L | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | mm | inch | inch | inch | mm | inch | mm | inch | mm | inch | mm |
| 762L _ 1/8 Dielectric | 1/8 | 3.17 | .09 | 2.28 | 13/16 | 1/2 | 2.56 | 65.10 | 50. | 12.7 | 3.07 | 77.94 | 3.59 | 9.11 |
| 762L _ 1/4 Dielectric | 1/4 | 6.35 | .19 | 4.80 | 13/16 | 1/2 | 2.57 | 65.30 | 60. | 15.2 | 3.19 | 81.02 | 3.77 | 95.8 |
| 762L _ 3/8 Dielectric | 3/8 | 9.52 | .28 | 7.11 | 13/16 | 5/8 | 2.59 | 65.80 | 66. | 16.8 | 3.34 | 84.87 | 3.92 | 99.6 |
| 762L _ 1/2 Dielectric | 1/2 | 12.70 | .28 | 7.11 | 13/16 | 13/16 | 2.37 | 60.20 | 90. | 22.9 | 3.37 | 85.68 | 4.17 | 106.0 |

"**D**" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

**TUBE (INCH) TO MALE NPT THREAD**

| Ordering Information | A Tube O.D. | | T (NPT) | D | | W Hex. Flat | Wa Hex. Flat | I | | N | | L | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | inch | mm | inch | inch | mm | inch | inch | inch | mm | inch | mm | inch | mm |
| 768L _ 3/8 X 1/4 Dielectric | 3/8 | 9.52 | 1/4 | .28 | 7.11 | 7/8 | 5/8 | .66 | 16.8 | 3.44 | 87.4 | 3.73 | 94.7 |

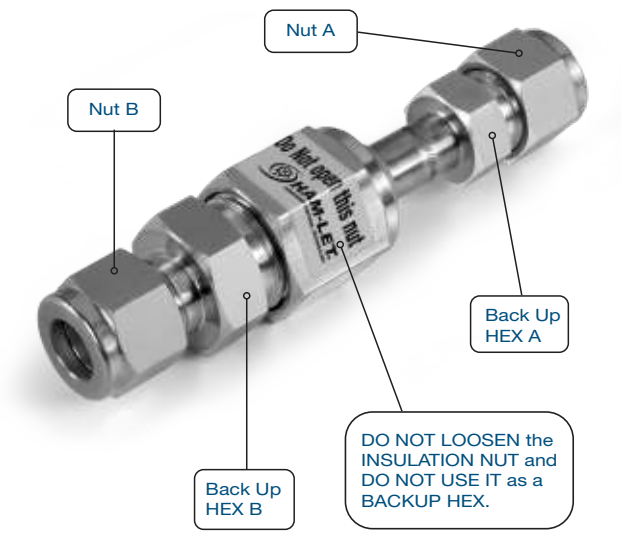



## Assembly Instructions for Dielectric Fittings

1. Hold Hex A (Back-Up) and tighten nut A according to the LET-LOK assembly instructions (see the LET-LOK catalog for more information).
2. Hold Hex B (Back-Up) and tighten nut B according to the LET-LOK assembly instructions.
   **CAUTION:** DO NOT LOOSEN the INSULATION NUT and DO NOT USE IT as a BACK UP HEX.

**NOTES:**

1. If the end connection is a Taper Pipe Thread, apply pipe sealant on thread and use Hex A or B as wrenching or as the Backup Hex.
2. For additional types of end connections, please contact your authorized UCT Fluid Solutions representative.




**Warning!**

The system designer and user have the sole responsibility to select products suitable for their special application requirements and to ensure the proper installation, operation and maintenance of the product. Please consider application details, material compatibility and product ratings when making your selection. Improper selection or use of products can cause property damage or personal injury.

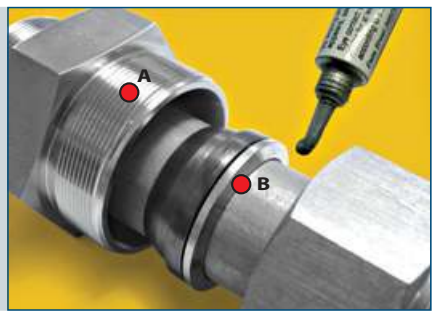
"**D**" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

# ACCESSORIES

## G-RAPID PLUS LOW FRICTION PASTE

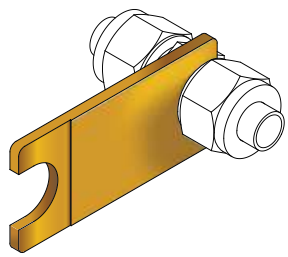
**INSTALLATION INSTRUCTIONS FOR LET-LOK FITTINGS**
**38mm-50mm**
**1 1/4"-2"**
**30-50mm**

1. Close the nut and ferrules on the tube with a hydraulic tool
2. Open and release from the tool
3. Apply the G-Rapid paste on areas A and B
4. Tighten the nut on body 1/2 a turn with a wrench





To order:
use part No. 3900753



*HIGH SAFETY SIDE

### HIGH SAFETY

In applications where severe conditions and high pressure exist, we recommend the following installation procedures:

1. Check that the nut is finger tight
2. Insert the tube (up to the shoulder)
3. Rotate the nut with a wrench until the tube does not rotate freely
4. Mark position of the nut
5. Rotate the nut 1-1/4 turns

This method ensures that even if the tube O.D. is at the minimum tolerance, the ferrules will be in contact with the tube for the full 1-1/4 rotation.

## LET-LOK GAUGE

SIZE:

| GAUGE | |
|---|---|
| PART NO. | AVAILABLE ONLY IN |
| 3900098 | (6mm), 3/8", 1/2" (12mm) 1/4" |

### ADDITIONAL SIZES:

| LET-LOK GAUGE | |
|---|---|
| PART NO. | LET-LOK SIZE |
| 3901508 | No-GO Gauge 1/16 |
| 3901509 | No-GO Gauge 1/8"-2-3 mm |
| 3901510 | No-GO Gauge 3/16"- 4 mm |
| 3901513 | No-GO Gauge 5/16"- 8 mm |
| 3902398 | No-GO Gauge 8 mm |
| 3901511 | No-GO Gauge 10 mm |
| 3901247 | No-GO Gauge 5/8"-14-15-16 mm |
| 3901246 | No-GO Gauge 3/4"-18 mm |
| 3901512 | No-GO Gauge 7/8"-20-22 mm |
| 3901245 | No-GO Gauge 1"-25 mm |

"**D**" - Dimension is minimum opening. Dimensions for reference only and subject to change without notice.

# ACCESSORIES

### STAINLESS STEEL TUBE CUTTER

| Ordering Information | Capacity | |
|---|---|---|
| | inch | mm |
| Tube Cutter | 3/16-1 | 5-25 |
| Replacement Wheel | 3/16-1 | 5-25 |

### REAMERS, DEBURRING TOOLS

| Ordering Information | Capacity |
|---|---|
| In.Out.Reamer 1/4”-1 1/4” | 1/4” (5mm) through 11/4” (36mm) |
| In.Out.Reamer 1/2”-2” | 1/2” (12mm) through 2” (54mm) |

### LEVER TUBE BENDERS

| Ordering Information | Capacity | |
|---|---|---|
| | Tube Size | Bend Radius |
| Lever Bender 3/16 | 3/16" | 5/ 8" |
| Lever Bender 1/4 | 1/4" | 5/8" |
| Lever Bender 5/16 | 5/16' | 15/16" |
| Lever Bender 3/8 | 3/8" | 15/16" |
| Lever Bender 1/2 | 1/2” | 1 1/2" |
| Lever Bender 6 | 6mm | 16mm |
| Lever Bender 8 | 8mm | 24mm |
| Lever Bender 10 | 10mm | 24mm |
| Lever Bender 12 | 12mm | 38mm |

# PREASSEMBLY TOOL

**In constrained installation areas, LET-LOK® fittings can be assembled with the preassembly tool and another second step on the system.**

| PART NO. | LET-LOK SIZE |
|---|---|
| 3902419 | PREASSEMBLY TOOL 1/8 |
| 3901658 | PREASSEMBLY TOOL 1/4 |
| 3901659 | PREASSEMBLY TOOL 3/8 |
| 3901660 | PREASSEMBLY TOOL 1/2 |
| 3902719 | PREASSEMBLY TOOL 5/8 |
| 3902402 | PREASSEMBLY TOOL 6MM |
| 3902420 | PREASSEMBLY TOOL 8MM |
| 3902421 | PREASSEMBLY TOOL 10MM |
| 3902422 | PREASSEMBLY TOOL 12MM |
| 3902720 | PREASSEMBLY TOOL 14MM |
| 3902721 | PREASSEMBLY TOOL 15MM |
| 3902538 | PREASSEMBLY TOOL 16MM |

## Instructions for using Preassembly Tool 6mm-25mm, 1/4”-1”

1. Assemble HAM-LET ferrules and nut on the Preassembly Tool. Tighten the nut to finger tight position.
2. Insert the tube through the nut and ferrules until the tube touches the bottom (shoulder).
3. From the finger tight position, rotate the nut 1-1/4 turns (450°).
4. Release the nut from the Preassembly Tool; pull out the tube with the ferrules swaged into the tube.
5. Insert tube with swaged ferrules into the fitting body.
6. Tighten the nut to the finger tight position.
7. To assemble on the fitting, use a wrench to tighten the nut to the original position. An increase of torque will be felt from this point turn the wrench slightly.
   Tightening to the original position depends on the tube size. A large tube size will need more tightening than a small size, and the wall thickness has some effect on the tightening.

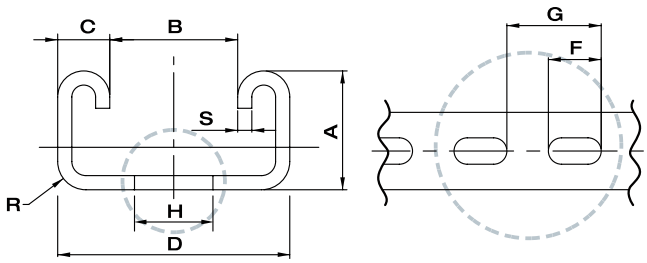
**NOTE:**

1. When using the Preassembly Tool, make sure the tool is free of damage and is clean prior to use.
2. Usage of the Preassembly Tool is limited, After permanent use please send tool to UCT Fluid Solutions for evaluation.
3. Soft tubing and tubing at the maximum diameter tolerance can cause the tube to stick to the Preassembly Tool.
   In order to remove the stuck tube, please rock the tube back and forth until the tube is released from the tool.

## Instructions for using Preassembly Tool 2mm-4mm, 1/8”-3/16”

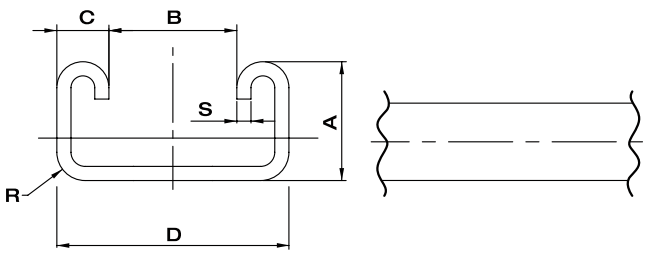
1. Assemble HAM-LET ferrules and nut on the Preassembly Tool, tighten the nut to the finger tight position.
2. Insert the tube through the nut and ferrules until the tube touches the bottom (shoulder).
3. From the finger tight position, rotate the nut 3/4 of a turn (270°).
4. Release the nut from the Preassembly Tool; pull out the tube with the ferrules swaged into the tube.
5. Insert tube with swaged ferrules into the fitting body.
6. Tighten the nut to the finger tight position.
7. To assemble on the fitting, use a wrench to tighten the nut to the original position. An increase of torque will be felt, from this point turn the wrench slightly.

# TUBE HOLDERS



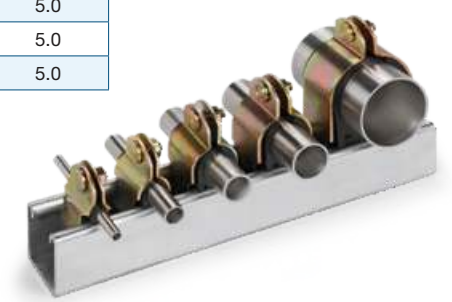

### PERFORATED STAINLESS STEEL TUBE HOLDER SUPPORT

| HL / PN | A, mm | B, mm | C, mm | D, mm | L, m | S, mm | R, mm | F, mm | G, mm | H, mm |
|---|---|---|---|---|---|---|---|---|---|---|
| P-L-G | 41.0 | 22.6 | 9.2 | 41.0 | 6.0 | 2.5 | 5.0 | 28.0 | 50.0 | 14.0 |
| P-S-G | 21.0 | 22.6 | 9.2 | 41.0 | 6.0 | 2.5 | 5.0 | 28.0 | 50.0 | 14.0 |
| P-L-Z | 41.0 | 22.6 | 9.2 | 41.0 | 6.0 | 2.5 | 5.0 | 28.0 | 50.0 | 14.0 |
| P-S-Z | 21.0 | 22.6 | 9.2 | 41.0 | 6.0 | 2.5 | 5.0 | 28.0 | 50.0 | 14.0 |




### BLANK STAINLESS STEEL TUBE HOLDER SUPPORT

| HL / PN | A, mm | B, mm | C, mm | D, mm | L, m | S, mm | R, mm |
|---|---|---|---|---|---|---|---|
| B-L-G | 41.0 | 22.6 | 9.2 | 41.0 | 6.0 | 2.5 | 5.0 |
| B-S-G | 21.0 | 22.6 | 9.2 | 41.0 | 6.0 | 2.5 | 5.0 |
| B-L-Z | 41.0 | 22.6 | 9.2 | 41.0 | 6.0 | 2.5 | 5.0 |
| B-S-Z | 21.0 | 22.6 | 9.2 | 41.0 | 6.0 | 2.5 | 5.0 |

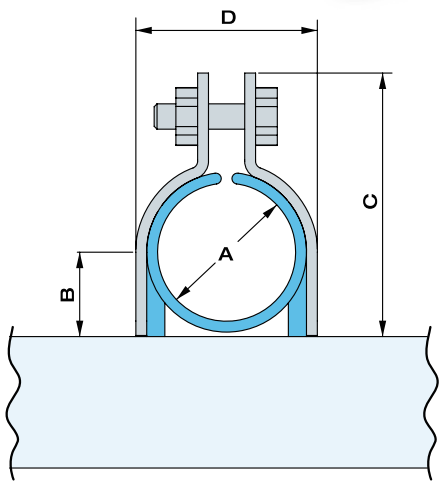


## ORDERING INFORMATION

| Perforation | | Size | | Finish Type | |
|---|---|---|---|---|---|
| P = | Perforated | S = | Small | Z = | Zink Coating Yellow |
| B = | Blank | L = | Large | G = | Hot dip galvanized |

### CLAMPED TUBE HOLDERS

| HL / PN | A, inch | B, mm | C, mm | D, mm |
|---|---|---|---|---|
| CTH-1/4 | 1/4 | 5.7 | 29.2 | 18.2 |
| CTH-3/8 | 3/8 | 7.3 | 32.2 | 23.0 |
| CTH-1/2 | 1/2 | 7.8 | 36.6 | 23.7 |
| CTH-5/8 | 5/8 | 22.6 | 41.7 | 25.0 |
| CTH-3/4 | 3/4 | 13.8 | 48.3 | 32.7 |
| CTH-7/8 | 7/8 | 22.6 | 51.2 | 34.0 |
| CTH-1 | 1 | 16.8 | 53.8 | 40.8 |
| CTH-1 1/8 | 1-1/8 | 22.6 | 59.4 | 40.9 |
| CTH-1 5/8 | 1-5/8 | 22.6 | 71.8 | 58.3 |
| CTH- 2 | 2 | 30.4 | 82.0 | 64.1 |

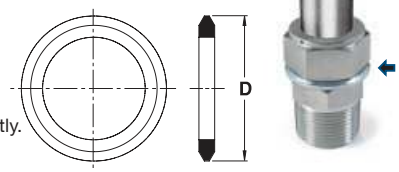



# STOP COLLAR

| LET-LOK® | D | |
|---|---|---|
| inch | inch | mm |
| 1/4 | .69 | 17.5 |
| 3/8 | .84 | 20.6 |
| 1/2 | 1.10 | 27.0 |
| 3/4 | 1.31 | 33.3 |
| 1 | 1.68 | 42.7 |

**Assembly Instructions - Stop Collar**

1. Remove the nut and ferrules from the fitting
2. Insert the stop collar
3. Assemble the nut and ferrules until finger tight
4. Make up the fitting until the stop collar no
98 guaranteed that the fitting is assembeled correctly.




## ORDERING INFORMATION FOR ASSEMBLED STOP COLLAR (WITH FITTING)

| 768L | SS | 1/4 | | 1/4 | SC |
|---|---|---|---|---|---|
| Fitting Type | SS = Stainless Steel 316<br>B = Brass<br>M = Alloy 400<br>HC = Alloy C-276 | Tube O.D. | X | 1/4 NPT | Stop Collar |
| Male LET-LOK® Connector<br>Male End Connection | Fitting Material | The O.D. size is always the first to be described. | | | |

## HOW TO ORDER STOP COLLAR ONLY

| STOP COLLAR | 1/4 |
|---|---|
| Stop Collar | Tube O.D. |
| | The O.D. size is always the first to be described. |