**S-LOK**° Tube Fittings have been designed specifically for the many demanding applications such as chemical, petroleum, power generating, pulp, paper and various types of manufacturing industries. They provide a highly reliable, leak proof and torque free seal on all tubing connections. **S-LOK**° Tube Fittings are commonly used on instrumentation, process and control systems, where high quality tube fittings are required.



















#### **Certificate List**



Good design



NIDT



NS



API Spec.Q1



API Monogram



API ISO/TS 29001



KS







ABS

Lloyd;s

DNV

#### INTRODUCTION OF S-LOK TUBE FITTING

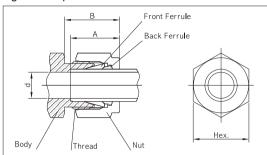
S-LOK tube fittings are manufactured under very strict quality control to assure maximum reliable performance. S-LOK tube fittings require no special tools assembly. Connections can be quickly and easily made by simple insertion and tightening the nuts.

S-LOK tube fitting has been specifically designed for use on instrumentation, process and control systems and equipment employed in chemical, petroleum, power generating and pulp and paper plants. S-LOK tube fittings could also be used in extensive applications of other fields where very high quality tube fittings are required.

#### **CONSTRUCTION OF S-LOK TUBE FITTINGS**

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

By screwing the nut onto the body, the nut is tightened against the tapered area of the body and its edge is compressed tightly against the tube by curling inward. The back ferrule is also located between the body and nut. As the front ferrule rolls, the back ferrule rolls up and bites into the tube resulting in the connection of tube and the fitting as well as a non-leakage effect.



The twin ferrule design achieves the leak proof sealing by assembly motion being transmitted axially through the tubing. This results in no radial movement of the tubing upon assembly. Therefore, the tube is not stressed and the mechanical integrity is maintained. This is the result of close tolerance control in machining, surface smoothness and hardness of each and every part of S-LOK tube fittings. Through this swaging action, S-LOK tube fittings are mechanically integrated with the tube connected.

Unit:mm

Size No.	Tube O.D	S-LOK Thread	Α	В	d	Hex.
2	1/8	5/16-20UN	12.70	15.24	2.28	11.10
3	3/16	3/8-20UN	13.70	16.00	3.04	12.70
4	1/4	7/16-20UNF	15.24	17.78	4.80	14.20
5	5/16	1/2-20UNF	16.25	18.54	6.35	15.80
6	3/8	9/16-20UN	16.76	19.30	7.10	17.40
8	1/2	3/4-20UNEF	22.86	21.84	10.40	22.20
10	5/8	7/8-20UNEF	24.38	21.84	12.70	25.40
12	3/4	1-20UNEF	24.38	21.84	15.70	28.60
14	7/8	1-1/8-20UN	25.90	21.84	18.20	31.80
16	1	1-5/16-20UN	31.24	26.41	22.40	38.10

0101/	B 4	<b>T</b> .		ъ.	
S-LOK	Metric	Lube	⊢nd	Dime	nsions

0	-LUK	Metric i	ube End Dimer	ISIONS			Unit:mm	
	Size No.	Tube O.D	S-LOK Thread	Α	В	d	Hex.	
	3M	3mm	5/16-20UN	12.9	15.3	2.4	12.0	
	4M	4mm	3/8-20UN	13.7	16.1	2.4	12.0	
	6M	6mm	7/16-20UNF	15.3	17.7	4.8	14.0	
	8M	8mm	1/2-20UNF	16.2	18.6	6.4	16.0	
	10M	10mm	5/8-20UN	17.2	19.5	7.9	19.0	
	12M	12mm	3/4-20UNEF	22.8	22.0	9.5	22.0	
	15M	15mm	7/8-20UNEF	24.4	22.0	11.9	25.0	
	16M	16mm	7/8-20UNEF	24.4	22.0	12.7	25.0	
	18M	18mm	1-20UNEF	24.4	22.0	15.1	30.0	
	20M	20mm	1-1/8-20UN	26.0	22.0	15.9	32.0	
	22M	22mm	1-1/8-20UN	26.0	22.0	18.3	32.0	
	25M	25mm	1-5/16-20UN	31.3	26.5	21.8	38.0	

#### FITTING MATERIALS

S-LOK tube fittings are made of stainless steel (usually SS316), brass and alloy steel (Monel or others).

#### SUITABLE TUBING MATERIALS

S-LOK tube fittings can be used with the following tube specifications.

Stainless steel tube:

- a. TP304 and TP316 of ASTM A269 or A213, or equivalent.
- b. SUS304TP and SUS316TP of JIS G3459 or equivalent.
- c. The wall thickness selection should be based on the operation pressure, temperature and shock conditions. Fully annealed tubing is recommended. Stainless steel tubing having a hardness of Rockwell B80

d. Specific recommendation-See Table 1.(page 5)

#### Typical Raw Material List

Typical Naw Material List												
Fitting Meterial	Bar Stock	Forging	Tubing									
Stainless Steel Type 316	ASTM A479 ASTM A276 JIS G4303	ASTM A182 F316 JIS G3214	ASTM A269 ASTM A213 ASTM A249									
Brass	ASTM B16 Alloy 360 ASTM B453 Alloy 345 JIS H3250 Alloy C3604	ASTM B124 Alloy 377 JIS H3250 Alloy C3771	ASTM B68 ASTM B75 ASM B88 DIN 1786									
Carbon Steel	JIS G4051 S20C-S48C	JIS G4051 S20C-S48C	ASTM A161 ASTM A179 DIN 2391									
Alloy 400	ASTM B164	ASTM B164	ASTM B165									

or less should be used.

#### **Tubing**

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

- General Rules.
- 1. For leak-free sealing, the tubing surface is very important. The tubing must have a good surface free from scratches, draw mark, flat spots or dirt.
- 2. In case of welded tubing, it should not have a visible poor bead on its outside diameter.
- 3. Tubing and fitting material is essential for the thermal compatibility and corrosion resistance.

  The tubing and material should be compatible with the process fluid, temperature and environment.
- 4. Tubing must be softer than fitting material. When tubing and fittings are made of the same material, the metal tubing must be fully annealed.
- 5. Tubing hardness must be selected according to the information in the table 2 to 4.
- 6. Do not select a too thin or too thick wall. A too thin wall may collapse and a too thick wall may not properly be deformed by the ferrule action. The wall thickness selection should be based on the applicable pressure, temperature, shock and vibration.
- Consideration facts at the selection of tube.
- 1. Quality of the tube material and manufacturing method.
- 2. Hardness of tube.
- 3. Surface treatment of tube.
- 4. O.D and tolerance.
- 5. Wall thickness and tolerance.
- 6. Concentricity of tube.
- 7. Ovality. (Shape)

#### **Tubing Temperature Ratings**

The maximum and minimum operating temperatures for various tubing material.

Tubing Material	Temperature Range
Stainless Steel 316	-321°F to 1200°F (-196°C to 649°C)
Carbon Steel	-65°F to 799°F (-53°C to 426°C)
Copper	-40°F to 400°F (-40°C to 205°C)
Alloy 400	-324°F to 800°F (-198°C to 427°C)
Alloy C276	-320°F to 1000°F (-195°C to 537°C)
Alloy 600	-205°F to 1200°F (-130°C to 648°C)
Titanium	-320°F to 600°F (-195°C to 315°C)
Teflon	0°F to 150°F (-17°C to 65°C)

#### Allowable working temperature

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

Elastomer seal material	Working Temperature
NBR (e. g. perbunan ®)	-40°C to 110°C (-40°F to 230°F)
FKM (e. g. Viton ®)	-28°C to 204°C (-20°F to 400°F)
PTFE (e. g. Teflon ®)	-60°C to 204°C (-76°F to 464°F)

#### **Temperature De-rating Factors**

The allowable working pressure is determined by various temperatures.

To determine the working pressure at the specific temperatures, multiply the working pressure at ambient temperature shown in table 2~4 by the factor shown in table1.

Table 1. Temperature De-rating Factors

Temp. °F (°C)			ss Steel A269 316	C.Steel ASTM A179	Copper ASTM B75	Alloy 400
100	(37)	1.00	1.00	1.00	1.00	1.00
200	(93)	1.00	1.00	0.95	0.80	0.88
300	(148)	1.00	1.00	0.90	0.78	0.82
400	(204)	0.93	0.96	0.86	0.50	0.79
500	(206)	0.87	0.90	0.82	0.13	0.79
600	(315)	0.82	0.85	0.77	-	0.79
700	(370)	0.80	0.82	0.73	-	0.76
800	(426)	0.76	0.79	0.59	-	0.76
900	(480)	0.73	0.78	-	-	-
1000	(537)	0.69	0.76	-	-	-
1200	(649)	0.30	0.37	-	-	-

Example: Tube SS316 3/8 O.D. x 0.035" at 700°F.

3.300psi x 0.82 = 2.706psi

Therefore 2.706psi is the maximum allowable working pressure of SS316 3/8" O.D x 0.035" wall tubing.

#### Stainless steel Tubing:

Fully annealed 304 or 316 high quality seamless steel tube to ASTM A269 or equivalent.

Hardness: Rb80 or less

Table 2. Stainless steel Tubing

Stainle	Stainless Steel Fractional Tubing															
Tube						Tub	e Wall 1	hickne	ss in Ind	ches						
O.D (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
1/16″	5,600	6,800	8,100	9,400	12,000											
1/8″						8,500	10,900					\Morl	rina Droc	ssusre in	ncia	
3/16"						5,400	7,000	10,200				VVOIR	ing Fies	500516 111	haia -	
1/4″						4,000	5,100	7,500	10,200							
5/16"							4,000	5,800	8,000							
3/8″							3,300	4,800	6,500							
1/2″		For gas	service	, applyir	ng		2,600	3,700	5,100	6,700						
5/8″		tube wa	II thickn	ess only	/			2,900	4,000	5,200	6,000					
3/4"		on outsi	ide of sh	nade bo	undary			2,400	3,300	4,200	4,900	5,800				
7/8″								2,000	2,800	3,600	4,200	4,800				
1″									2,400	3,100	3,600	4,200	4,700			
1 1/4″										2,400	2,800	3,300	3,600	4,100	4,900	
1 1/2″											2,300	2,700	3,000	3,400	4,000	4,900
2″												2,000	2,200	2,500	2,900	3,600

Stainle	Stainless Steel Metric Tubing															
Tube		Tube Wall Thickness in Inches														
O.D (mm)	0.71 (0.028)	0.89 (0.035)	1.00	1.25 (0.049)	1.50	1.65 (0.065)	2.0	2.11 (0.083)	2.41 (0.095)	2.50	2.77 (0.109)	3.00	3.05 (0.120)	3.50	4.00	4.50
3	10,800	13,800	15,300									\	in a Dra a			
4	7,900	10,100	11,500	14,400								– vvork	ing Pres	susre in	psig -	
6	5,000	6,500	7,400	9,400	11,500	12,700										
8		4,700	5,800	6,800	8,400	9,300										
10		3,700	4,200	5,300	6,500	7,300										
12		3,000	3,400	4,400	5,300	5,900	6,600	7,000								
16			2,500	3,200	3,900	4,300	5,300	5,700	6,600	6,800						
18				2,800	3,400	3,800	4,700	5,000	5,800	6,000	6,700					
20	For g	as servi	ce,	2,500	3,000	3,400	4,200	4,400	5,100	5,300	6,000					
22	applying tube wall			2,300	2,800	3,000	3,800	4,000	4,600	4,800	5,400					
25	thickr	ess onl	y on	2,000	2,400	2,700	3,300	3,500	4,000	4,200	4,700	5,100	5,200			
38	outsio	de of sha	ade bou	ndary						2,300	-	2,900	-	3,400	3,900	4,400

<sup>·</sup>Working pressures are based on allowable stress value of 20,000psi (137,800kPa=1,378bar)as specified by ASME B31.3-1999

#### Welded stainless steel Tubing

Based on ASME B31.3-1999 for weld integrity a de-rating factor must be applied to welded tubing.

For double butt seam tubing multiply by 0.85

For single butt seam tubing multiply by 0.80.

<sup>•</sup> Working pressures are based on allowable stress value of 20,000psi (137,800kPa=1,378bar)as specified by ASME B31.3-1999 over the temperature range of -29°C to 37°C (-20°F to 100°F).
• Safety Factor=3.75:1, considering ultimate tensile strength 75,000psi (516,700kPa=5,167bar)
• Pressure calculations are based on Maximum O.D. and minimum wall thickness and no allowance is made for corrosion and erosion.
• e.g. ASTMA269 1/2 O.D x 0.035″ OD tolerance ±0.005″, W.T. ±10%. Calculations are based on 0.050″ OD x 0.035″W.T.
• To determine bar, Multiply psig by 0.0689. To determine kPa, multiply psig 6.89.
• To convert bar to psig, multiply bar by 14.51
• For working pressure per ASME B31.1, multiply value by 0.94

#### Copper tubing:

High quality soft annealed seamless copper tube to ASTM B-75 or equivalent.

Hardness: Rockwell 15T 60 or less

Table 3. Copper Tubing

Copper Fra	Copper Fractional Tubing												
T	Tube Wall Thickness in Inches												
TubeO.D. (inches)	0.010 0.012		0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120			
1/16″	1,700	3,800	5,400	6,000									
1/8″			2,700	3,400				Working	Pressusre in	nsia			
3/16"			1,800	2,300	3,400			_ wonding		poig			
1/4″			1,300	1,600	2,500	3,500							
5/16"				1,300	1,900	2,700							
3/8″				1,000	1,600	2,200							
1/2″	For gas s	service, appl	ying	800	1,100	1,600	2,200						
5/8"	tube wall	thickness o	nly on		900	1,200	1,600	1,900					
3/4"	outside o	of shade bou	ndary		700	1,000	1,300	1,500	1,800				
7/8″					600	800	1,100	1,300	1,500				
1″					500	700	900	1,100	1,300	1,500			

Copper	Copper Metric Tubing													
Tube	Tube Wall Thickness in Millimeters(inches)													
O.D. (mm)	0.71 (0.028)	0.89 (0.035)	1.0	1.25 (0.049)	1.5	1.65 (0.065)	2.0	2.11 (0.083)	2.41 (0.095)	2.5	2.77 (0.109)	3.0	3.05 (0.120)	
3	3,465	4,400	4,900											
4	2,520	3,230	3,670	4,610						\M/orl	vina Procei	iera in nei	ia	
6	1,6110	2,070	2,350	3,020	3,670	4,060				Working Pressusre in psig				
8		1,510	1,710	2,790	2,680	2,990								
10		1,190	1,350	1,710	2,090	2,320								
12		970	1,100	1,410	1,710	1,900	2,350	2,500						
16			810	1,030	1,260	1,390	1,710	1,810	2,100	2,190				
18	For gas	service,		915	1,100	1,220	1,510	1,600	1,840	1,930	2,160			
20	applying tube wall		810	990	1,090	1,350	1,420	1,650	1,710	1,920				
22	thickness only on outside		740	900	990	1,200	1,290	1,480	1,550	1,730				
25	of shade	e boundar	у	640	780	870	1,060	1,120	1,290	1,350	1,490	1,640	1,670	

- ·Working pressures are based on allowable stress value of 6000psi(413bar=41,300kPa) as specified by ASME B31.3-1999 over the temperature range of -29°C to 37°C (-20°F to 100°F).
- •Safety Factor=5:1, considering ultimate tensile strength 30,000psi (2067bar=206,700kPa)
- Pressure calculations are based on Maximum O.D. and minimum wall thickness and no allowance is made for corrosion and erosion.
- •For working pressure per ASME B31.1, multiply value by 0.94

#### Alloy 400 Tubing

Fully annealed seamless Alloy 400 tubing to ASTM B165 or equivalent.

Hardness: Rb75 or less

Table 4. For seamless Allov400 Tubing

For seamless Monel 400 Fractional Tubing										
Tube O.D.				Tuk	e Wall Thic	kness in Inc	hes			
(inches)	0.010	0.012	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
1/8″			7,900	10,100						
1/4″			3,700	4,800	7,000	9,500		14/ 1:		
3/8″				3,100	4,400	6,100		Working Pressusre in psig		e in psig —
1/2″				2,300	3,200	4,400				
3/4"					2,200	3,000	4,000	4,600		
1″						2,200	2,900	3,400	3,900	4,300

- Working pressures are based on allowable stress value of 18,700psi (128,000kPa=1288bar)as specified by ASME B31.3-1999 over the temperature range of -29 °C to 37 °C (-20 °F to 100 °F).
  • Safety factor=3.75:1, considering ultimate tensile strength 70,000psi (482,300kPa=4,823bar)
- Pressure calculations are based on maximum O.D. and minimum wall thickness and no allowance is made for corrosion and erosion.
- For working pressure per ASME B31.1, multiply value by 0.94

#### **Special Alloy Tubing**

When special alloy tubing is selected, we recommend:

Fully annealed seamless (or welded and cold-drawn, where permitted) alloy tubing to the ASTM specification as shown below. Tubing should be free of scratches for bending or flaring.

S-LOK material	Tube Material	ASTM Number	Tubing		
Designator	Tube Material	ASTIVI NUITIBEI	Туре	Maximum hardness	
HC	Alloy C276	B622	Seamless	RB 90	
In	Alloy 600	B167	Seamless	RB 90	
Ti	Titanium-Grade2	B338	Seamless or Welded	RB 90	

Pressure Rating Equivalents:

1) 1bar = 100kPa = 14.51psi

2)1kPa = 0.01bar = 0.1451 psi

3) 1psi = 0.069bar = 6.89kPa

4) 1 kg/cm = 0.98 bar = 14.22 psi

#### **Tubing for Gas application**

S-LOK tube fittings are designed for a wide range of leak-free application including gas leak proof and vacuum service. Gases can escape even the most minute leakpath due to their small molecules. Tube must therefore be carefully handled not to get scratched.

Use heavier wall tubing for gas service. Heavy wall tubing resists ferrule action by coining out minor defects of the tube surface and thin wall tubes may collapse with little resistance to ferrule action.

For gas service, use the tubing of the un-shadowed section in table 2 - 4

#### **Cryogenic Service**

S-LOK fittings in S316 stainless steel provide highly reliable performance from cryogenic temperatures to high temperature levels. S316 Stainless steel temperature rating: -321°F to 1200°F (-196°C to 649°C)

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

#### **Pipe Thread**

Many S-LOK tube fittings have a male or female pipe end.

These ends sometimes have a lower pressure rating than the pressure rating of the tube fitting end.

Table5. Pipe End Pressure Rating

Sina ISO/NPT		Stainless Steel 316			Brass			Carbon Steel					
Size Designator	Pipe	Ma	ale	Fen	nale	Ma	ale	Fen	nale	Ma	ale	Fen	nale
2 coignator	Size	pisg	bar	pisg	bar	pisg	bar	pisg	pisg	pisg	bar	pisg	pisg
1	1/16	11,000	758	6,700	462	5,500	379	3,300	227	11,000	758	6,700	462
2	1/8	10,000	689	6,500	448	5,000	345	3,200	221	10,000	689	6,500	448
4	1/4	8,000	551	6,600	455	4,000	276	3,300	227	8,000	551	6,600	455
6	3/8	7,800	538	5,300	365	3,900	269	2,600	179	7,800	538	5,300	365
8	1/2	7,700	531	4,900	338	3,800	262	2,400	165	7,700	531	4,900	338
12	3/4	7,300	503	4,600	317	3,600	248	2,300	159	7,300	503	4,600	317
16	1	5,300	365	4,400	303	2,600	179	2,200	152	5,300	365	4,400	303
20	1-1/4	6,000	414	5,000	345	3,000	207	2,500	172	6,000	414	5,000	345
24	1-1/2	5,000	345	4,600	317	2,500	172	2,300	159	5,000	345	4,600	317
32	2	3,900	269	3,900	269	1,900	131	1,900	131	3,900	269	3,900	269

- The ratings shown above are based on ASME B31.3-1999
- Female pipe ends have lower ratings than male pipe in a given size due to the inner and outer diameters of female threads being larger than those of male pipe ends.
- The ratings shown above are reference only.

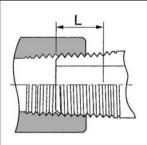
#### **Pipe Thread Sealant**

Pipe thread sealant is essential to ensure leak-free seal.

Since the Teflon<sup>TM</sup> tape is commonly used, we provide information of recommended tape width, as well as the numbers of thread to be wrapped. The Teflon<sup>TM</sup> tape fills the voids between threads and prevents galling on pipe threads. The sealant usually contains a lubricant.

Table 6. Unit: inches

100000			
Nominal Pipe Size	Recommended Tape Width	Effective Thread Length (External) L*	Approx.# of Thread
1/8	1/8-1/4	0.2639	7
1/4	1/4	0.4018	7-1/4
3/8	1/4	0.4075	7-1/3
1/2	1/4-1/2	0.5337	7-1/2
3/4	1/4-1/2	0.5457	7-2/3
1	1/4-1/2	0.6828	8



**\*\*ASME B1.20.1-NPT** 

#### Note

- 1.Wrap Teflon™ tape clockwise from first thread. Do not overhang the first thread, as the tape may get into the fluid system.
- 2.Teflon<sup>™</sup> tape has a temperature limit of 230°C (450°F)

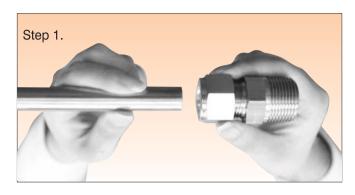
#### Note

The information shown in table 1-6 are not for design purpose, but for reference only.

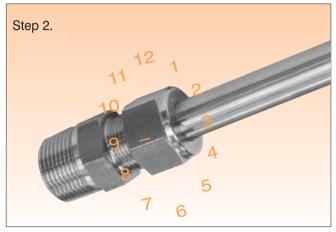
The accuracy of information is not the liability of our company.

#### INSTALLATION INSTRUCTIONS

S-LOK is supplied finger-tight and ready for immediate use. Therefore fitting disassembly is not necessary for installation.



Make sure the nut is finger-tight. Put the tubing into the S-LOK tube fitting until the tube end bottoms on the shoulder inside the fitting.



Tighten the nut 1-1/4 turn with a wrench by holding the fitting body with a back up wrench.

Marking the nut at the 9:00 o' clock position may be necessary for counting the number of turns as the mark will stop at the 12 o' clock position after 1-1/4 turns.

\*Only 3/4 turn from finger tight is required for sizes 1/8", 3/16", 3mm and 4mm.

#### Re-assembly Instructions

S-LOK connections can be used many times. Prior to re-assembly, ensure the components are clean and free of defects.

#### Step 1.

Insert the tubing with pre-swaged ferrules and a nut into the body until the front ferrule seats firmly in the fitting body.

#### Step 2

Hand tighten the nut. Then rotate the nut with a wrench to the original 1-1/4 tight position(sharp rise in torque is felt at the original position) and snug slightly with a wrench.

#### Tube handling during installation

- 1. Do not force the tubing into the fitting when it does not smoothly go in. It may be a deformed oval or have burs at the tubing end.
- 2. It is important to use the proper tube cutter and maintain a sharp cutting wheel on it always.

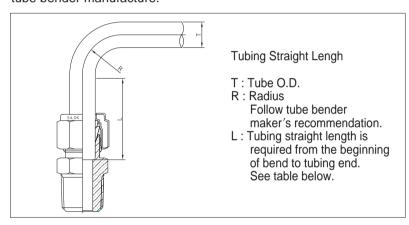
#### **Proper Tube Handling**

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

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

#### **Tube bending**

For leak tight installation, In case of bending tubing near at S-LOK fittings, there should be enough lineal distance from bending point to the fittings. When tube bend is too close to a fitting, the deformed section at bend shall enter the fitting and it may result in leaks. Also, the bending radius should not be too short of bending radius may affect the working pressure and may cause insufficient flow. Minimum bending radius is usually recommended by the tube bender manufacture.



•	Straight	length	Of	Fractiona	l tu	bing
---	----------	--------	----	-----------	------	------

• Straight length of Fractional tubing				
Tube O.D	Straight	Lenght		
	L1	L2		
1/16	2/1	13/32		
1/8	23/32	19/32		
3/16	3/4	5/8		
1/4	13/16	11/16		
5/16	7/8	23/32		
3/8	15/16	3/4		
1/2	13/16	31/32		
5/8	1-1/4	1-1/32		
3/4	1-1/4	1-1/32		
7/8	1-5/16	1-1/32		
1	1-1/2	1-9/32		
1-1/4	2	1-13/16		
1-1/2	1-13/32	2-7/32		
2	3-1/4	3-1/32		

•	Straight	lenath	of Meti	ric tubino
•	Straiurit	16HQUI	OI IVICU	ic tubili

32

38

Tube O.D	Straight Lenght			
	L1	L2		
3	19	16		
6	21	17		
8	23	18		
10	25	20		
12	31	24		
14	32	25		
16	32	25		
18	32	25		
20	34	6		
22	34	27		
25	40	33		

51

60

#### Note

L1=Recommended straight length of tubing required

L2=Absolute minimum straight length of tubing required

47

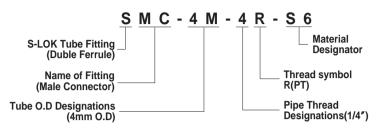
55

Unit:mm

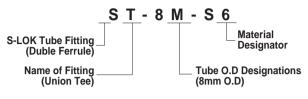
#### **ODERING INFORMATION**

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

Example 1: Tube to Pipe ends

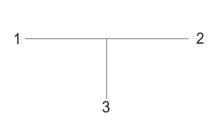


Example 2: Tube to Tube ends

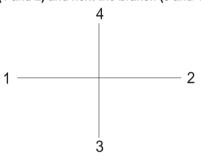


Example 3: Tee & Cross

Tees are described by first the run (1 and 2) and next the branch(3)



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



• Tube O.D. Designator

Inch O.D         Identifier         Metric O.D         Id           1/16         1         2mm         3mm           1/8         2         3mm         4mm           3/16         3         4mm         6mm           1/4         4         6mm         5/16           5         8mm         5/16         8mm	entifier 2M
1/8 2 3mm 3/16 3 4mm 1/4 4 6mm	2M
3/16 3 4mm 1/4 4 6mm	ZIVI
1/4 4 6mm	3M
7/4	4M
5/16 5 8mm	6M
57.10	8M
3/8 6 10mm	10M
1/2 8 12mm	12M
5/8 10 16mm	16M
3/4 12 20mm	20M
1/8 14 22mm	22M
1 16 25mm	25M
1-1/4 20 28mm	28M
1-1/2 24 32mm	32M
2 32 38mm	38M

• Pipe Thread Size Designator

Nom. Size	Identifier
1/8 ″	2
1/4 ″ 3/8 ″	4
3/8 ″	6
1/2 ″ 3/4 ″	8
3/4 ″	12
1 ″	16
1-1/4 ″	20
1-1/2 ″	24
2 ″	32

#### • Fitting Material Designator

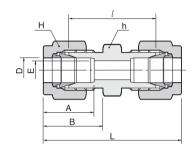
Material	Identifier
SS316	S6
SS316L	6L
SS304	S4
Carbon Steel	CS
Brass	BS
Alloy400	MO

#### · Pipe Thread Symbol

Type	Taper Thr	eads	Parallel Threads		
Symbol	R	N	G	U	
Specification	ISO 7/1, BS21(BSPT), JIS B 0203(PT), DIN2999	ANSI B1.20.1 (NPT)	ISO228/1, BS 2779(BSPP), JIS B0202(PF)	American Standard Unified Screw Threads	

SUBULINION BUILD 14 Union Elbow SL	Tube to	Tube Unio	n	Gauge Connector		36	Positionable 45° SAE Male Elbow		50
Connector SCOP  SLE SUB John Tee STRF  Union Tee STRF  Union Cross STRF  SX  19  Stub Tube Connector Female Bulkhead Union SCOP  Male Connector SAF  Male Connector SAF  Male Connector SAF  Male Connector Connector Female Adapter SAF  SMC-R  121  Male Connector SAF  Male Connector SAF  Male Connector SAF  Male Connector Female Adapter SAF  SMC-G  Male Connector SCOP  Tube to Male Pipe Wild Connector SCOP  SAF  Male Connector For Bonded Seal SWC-G  SMC-G  Male Connector for Metal Caskiet SOM  SCOP  Tube to An Tube  Male Connector for SAF  Male Connector SAF  Male Connector SAF  Male Connector For SAG  Male Connector For Metal Caskiet  SCOW  Male Connector For SAG  Male Connector For Metal Caskiet  SCOW  Male Connector			14						
Female Blow SUR Union Tee ST 18 Union Tee ST 18 Union Cress SX 19 Stub Tube Connector Reducer SAB Male Connector SAB Male Connector SMC-N  Tube to Male Pipe Male Connector SAF  Temale Adapter SAB  Male Connector SAF  Thermacouple Connector SAG  Thermacouple Connector SAG  Thermacouple Connector SAG  Tube to Male Pipe  Male Connector SAF  Thermacouple Connector SAG  Thermace Connector SCOP  Tube to Weld End Connector SCOW  The Socket Weld Elbow SLSW  The Socket Weld Elbow SSUW  The Socket Weld Connector SOW  The Socket Weld Elbow SSUW  The Socket Weld Elbow SSUW  The Socket Weld Elbow SSUW  The Socket Weld Connector SOW  The Socket Weld Connector SOW  The Socket Weld Elbow SSUW  The Socket Weld Connector SOW  The Socket Weld Connector	Union Elbow		15	Connector		36	SAE Male Run Tee		50
Union Tee STRF STRF STRF STRF STRF STRF STRF STRF						37	SAE Male Branch Te	e 0 0	50
Union Cross SX  19  Stub Tube Connector Reducer SAB  Male Connector SMC-N  Male Connector SMC-R  Male Connector for Male Connector for Male Connector SCP  Male Connector for SCRP  Male Connector for SCRP  Male Connector for SCRP  Male Connector SCRP  Male Connector for Male Connector for for for for for for for for for f						38	Thread Connector		52
SX    Stub Tube Connector   Reducer   SR   Stub Tube Connector   Reducer   SR   SAB   SAB		8	18			39	O-Seal Pipe Thread Connector		 52
Bulkhead Union SUB  Tube to Male Pipe  Male Connector SMC-N  Male Connector SAF  Male Adapter SAF  Male Pipe Weld Elbow SLW  SLW  Tube Socket Weld Elbow SLSW  Tube Invertigation of the Sub			19	Stub Tube	Connecto	or			<u> </u>
Bulkhead Adapter SAB  Tube to Male Pipe  Male Connector SMC-N  Male Connector SMC-R  Male Connector SMC-R  Male Connector SMC-B  Male Connector SAG  Female Adapter SAG  Fulbe Socket Weld Elbow SLSW  Female Adapter SCSW  Tube Socket Weld Female Adapter SCSW  Female Adapter SAG  Female Adapter SCSW  Tube Socket Weld Female Adapter SCSW  Female Adapter SAG  Fulbe Socket Weld Female Adapter SCSW  Tube Socket Weld Female Adapter SCSW  Female Adapter SCSW  Tube Socket Weld Female Adapter SCSW  Fulle Socket Weld Female Adapter SCSW  Tube Socket Weld Female Adapter SCSW  Fulle Socket Weld Flow SCSW  Ful		8		Reducer				Weld End	
Male Connector SMC-N  Male Connector SMC-R  Male Connector SAF  Male Adapter SAF  Female Adapter SAG  Female Adapter SAG  Female Adapter SAG  Tube Socket Weld Connector SCSW  SLSW  Welding Bulkhead Union SBUW  Male Connector for Metal Gasket SCP  Male Connector for Metal Gasket SCP  Male Connector for Metal Gasket SMC-G  Male Connector for Metal Gasket SCP  Male Connector SCW  Welding Bulkhead Union SBUW  Plug and Cap Plug SP  AN Union SUA  AN Bulkhead Union SUA  AN Bulkhead Union SUBA  AN Adapter SAA  AN Adapter SAA  AN Adapter SAA  AN Adapter SAA  Tube to SAE O-Ring Seal SAE Male Connector SMCS  Male Pipe Weld Elbow SLW  Tube Socket Weld Connector SCW  Welding Bulkhead Union SBUW  Plug and Cap Plug SP  SC  Spare Parts  Tube Insert SI  Nut SN  Tube to SAE O-Ring Seal SAE Male Connector SMCS  AN Back Ferrule  Male Ferrule			20	Bulkhead Adapter			Connector		53
Male Connector SAM  Male Connector SAM  Male Connector SAF  Thermocouple Connector For Bonded Seal SMC-G  Male Connector for Bonded Seal SMC-G  Male Connector For Metal Gasket SCRP  Male Elbow SLSW	Tube to	Male Pipe		SAB		42			<b>-</b> 4
Male Connector SMC-R  Thermocouple Connector SMCT  Thermocouple Connector SMCT  Thermocouple Connector SAG  Female Adapter SAG  Tube Socket Weld Elbow SLSW  Welding Bulkhead Union SBUW  Port Connector SCP  Male Connector for Metal Gasket SOM  SCRP  Bulkhead Male Connector SCRP  Bulkhead Male Connector SMCB  AN Union SUA  AN Union SUA  AN Adapter SLBM  Tube to SAE O-Ring Seal  Tube to SAE O-Ring Seal  Front Ferrule STBM  Ale Elrow STBM  Male Branch Tee STBM  SAE Male Connector SMCS  Ale Sack Connector SAF  Ale Sack Connector SAG  Welding Bulkhead Union SBUW  Welding Bulkhead Union SBUW  Plug and Cap Plug SSP  Cap SCRP  SUBA AN Adapter SAA  SAE Male Connector SMCS  Ale Sack Connector SMCS  Front Ferrule SFF  Back Ferrule  Back Ferrule			21			42, 43	SLW		54
Inermocouple Connector Connector Connector Bonded Seal SMC-G  Male Connector for Bonded Seal SMC-G  Male Connector for Metal Gasket Connector SOM  Bulkhead Male Connector SMCB  45  Bulkhead Male Connector SMCB  AN Union SUA  AN Union SUA  AN Bulkhead Union SUA  AN Bulkhead Union SUBA  AN Adapter SAA  AN Adapter SAA  Male Branch Tee STBM  SAE Male Connector SMCS  AN Union SUBA  AN Adapter SAA  Tube to SAE O-Ring Seal  Female Adapter SLSW  Welding Bulkhead Union SBUW  Plug and Cap  Plug SP  Cap SC  Spare Parts  Tube Insert SI  Nut SN  Female Adapter SLSW  Welding Bulkhead Union SBUW  SP  Cap SC  Spare Parts  Tube Insert SI  Nut SN  SAE Male Connector SMCS  47  SAE Male Connector SMCS  AN Bulkhead Union SP  Front Ferrule SFF Back Ferrule			22			44	Connector		54
Bonded Seal SMC-G  Male Connector for Metal Gasket SOM  Bulkhead Male Connector SMCB  46  Bulkhead Union SBUW  Plug and Cap Plug SP  Tube to AN Tube  AN Union SUA  AN Bulkhead Union SUA  AN Bulkhead Union SUA  AN Bulkhead Union SUA  AN Adapter SAA  AN Adapter SAA  Male Branch Tee STBM  32, 33  SAE Male Connector SMCS  46  Plug and Cap Plug SP  Cap SCR  SUBA  AN Adapter SI Nut SN  SAE Male Connector SAE Male Connector SMCS  AN Bulkhead Union SUA  Front Ferrule SFF  Back Ferrule  SAE Ferrule	Connector		<b>=</b> 22			45	Elbow		54
Metal Gasket SOM  Bulkhead Male Connector SMCB  45° Male Elbow SLBM  AN Union SUA  AN Bulkhead Union SLBM  28, 29  Male Run Tee STRM  Male Branch Tee STBM  Male Branch Tee STBM  AN Adapter SAA  SAE Male Connector SMCS  AN Tube to AN Tube  Cap SCRP  Plug SP  Cap SCRP  AN Union SUA  47  SUBA  AN Adapter SAA  Tube to SAE O-Ring Seal SAE Male Connector SMCS  AN Bulkhead Union SUBA  AN Adapter SAA  Tube to SAE O-Ring Seal SAE Male Connector SMCS  AN Bulkhead Union SUBA  AN Adapter SAA  AN Adapter SAA  SAE Male Connector SMCS  AN Bulkhead Union SUBA AN Adapter SAA  AN Adapter SAA  AN Adapter SAA  AN Adapter SAA  AN Adapter SAB  Back Ferrule  Back Ferrule	Bonded Seal		23			46	Bulkhead Union		55
SOM Bulkhead Male Connector SMCB  45° Male Elbow SLM  Male Elbow SLM  27  Male Run Tee STRM  30, 31  Male Branch Tee STBM  25, 26  SCRP  Tube to AN Tube  AN Union SUA  47  AN Bulkhead Union SUBA AN Adapter SAA  Tube to SAE O-Ring Seal  SAE Male Connector SMCS  48  Plug SP  Cap SC  Spare Parts Tube Insert SI  Nut SN  Front Ferrule SFF  Back Ferrule		F FREE	05.00			40	Plug	and Cap	
Tube to AN Tube  AN Union SUA  AN Bulkhead Union SUBA  Male Elbow SLM  AN Bulkhead Union SUBA  AN Adapter SAA  Male Branch Tee STBM  AN Adapter SAA  SAE Male Connector SMCS  Tube to AN Tube  AN Union SUA  AN Bulkhead Union 47  AN Bulkhead Union 47  SUBA  AN Adapter SAA  AN Adapter SAA  SAE Male Connector SMCS  Back Ferrule  Back Ferrule			25, 26			46		AT	50
SLBM  AN Bulkhead Union SLBM  28, 29  Male Elbow SLM  AN Bulkhead Union SUBA  AN Adapter SAA  AN Adapter SAA  Tube to SAE O-Ring Seal  Front Ferrule  SFF  Back Ferrule	Connector		27		AN Tube			4	56
Male Elbow SLM  28, 29  Male Run Tee STRM  30, 31  Tube to SAE O-Ring Seal  Male Branch Tee STBM  AN Bulkhead Union 47  SUBA  AN Adapter SAA  Tube to SAE O-Ring Seal  Front Ferrule SFF  Back Ferrule	45° Male Elbow		27			47	SC		56
Male Branch Tee STBM  28, 29  SUBA AN Adapter SAA  30, 31  Tube to SAE O-Ring Seal  SAE Male Connector SMCS  49  SUBA AN Adapter SAA  Front Ferrule SFF Back Ferrule	SLDIVI					<i>1</i> 7	•	re Parts	
Male Run Tee STRM  30, 31  Tube to SAE O-Ring Seal  Male Branch Tee STBM  SAA  Tube to SAE O-Ring Seal  SAE Male Connector SMCS  SAE Male Connector SMCS  Back Ferrule			28, 29	SUBA		——————————————————————————————————————			57
Male Branch Tee STBM  Tube to SAE O-Ring Seal  SAE Male Connector SMCS  Front Ferrule  Front Ferrule  Back Ferrule			30, 31			47			57
STBM 32, 33 SAE Male Connector SMCS 49 Back Ferrule				Tube to SAE	O-Ring	Seal			
			32, 33			49		<u> </u>	58
10.00 10 1 01.1101.0 1 1/00	Tube to	Female Pip	e				SFB		58
Female Connector SCF Positionable SAE Male Elbow SLS Ferrule Set SFS DDDDDDDDDD 5			34, 35	SAE Male Elbow		49	12-12-		58

## Union **SU**



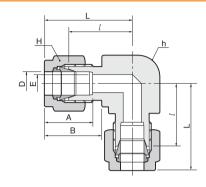


#### Connects fractional tube

001111001	o made	ional tabl									
	Τι	ıbe O.D.	Е		Width a	cross flat					
Part No.		D		h		H	<del> </del>	Α	В	l	L
	in	mm	Min.	in	mm	in	mm				
SU-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	17.50	25.15
SU-2	1/8	3.17	2.28	7/16	11.11	7/16	11.11	12.70	15.24	22.35	35.56
SU-3	3/16	4.76	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.13	37.33
SU-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	26.16	40.89
SU-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	28.19	42.92
SU-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	30.22	44.95
SU-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	30.98	51.30
SU-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	52.07
SU-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	33.27	53.59
SU-14	7/8	22.22	18.28	1-3/16	30.16	1-1/4	31.75	25.90	21.84	35.05	55.37
SU-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	40.38	64.77
SU-20	1-1/4	31.75	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	48.00	92.20
SU-24	1-1/2	38.10	34.03	2-1/8	53.97	2-1/4	57.15	50.03	45.21	53.60	107.95
SU-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	74.70	149.35

Part No.	Tube O.D.	Е	Width ac	ross flat	٨	В	1	
Fait No.	D	Min.	h	Н	А	В	ι	_
SU-2M	2	1.7	12	12	12.9	15.3	22.4	35.6
SU-3M	3	2.4	12	12	12.9	15.3	22.1	35.3
SU-4M	4	2.4	12	12	13.7	16.1	24.1	37.3
SU-6M	6	4.8	14	14	15.3	17.7	26.2	41.0
SU-8M	8	6.4	15	16	16.2	18.6	28.2	43.2
SU-10M	10	7.9	18	19	17.2	19.5	31.0	46.2
SU-12M	12	9.5	22	22	22.8	22.0	31.0	51.2
SU-15M	15	11.9	24	25	24.4	22.0	31.8	52.0
SU-16M	16	12.7	24	25	24.4	22.0	31.8	52.0
SU-18M	18	15.1	27	30	24.4	22.0	33.3	53.5
SU-20M	20	15.9	30	32	26.0	22.0	34.8	55.0
SU-22M	22	18.3	30	32	26.0	22.0	34.8	55.0
SU-25M	25	21.8	35	38	31.3	26.5	40.4	65.0
SU-28M	28	21.8	41	46	36.6	36.6	43.4	85.0
SU-32M	32	28.6	46	50	42.0	41.6	51.3	97.3
SU-38M	38	33.7	55	60	49.4	47.9	58.4	113.6

## Union Elbow



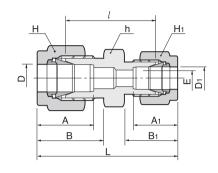


#### Connects fractional tube

	Tul	be O.D.			Width a	cross flat					
Part No.		D	E	h		ŀ	1	Α	В	l	L
	in	mm	Min.	in	mm	in	mm				
SL-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
SL-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
SL-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
SL-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
SL-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
SL-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
SL-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
SL-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
SL-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87
SL-14	7/8	22.22	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70
SL-16	1	25.40	22.35	1-3/8	34.9	1-1/2	38.10	31.24	26.41	36.83	49.02
SL-20	1-1/4	31.75	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54
SL-24	1-1/2	38.10	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97
SL-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18

Part No.	Tube O.D.	Е	Width ac	ross flat	^	D	1	
Part No.	D	Min.	h	Н	Α	В	ι	L
SL-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
SL-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SL-4M	4	2.4	12.7	12	13.7	16.4	18.8	25.4
SL-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SL-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
SL-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
SL-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SL-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
SL-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
SL-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
SL-20M	20	15.9	31.8	32	26.0	22.0	34.5	42.6
SL-22M	22	18.3	31.8	32	26.0	22.0	34.5	42.6
SL-25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1
SL-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
SL-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
SL-38M	38	33.7	55.0	60	49.4	47.9	56.4	84.0

## Reducing Union

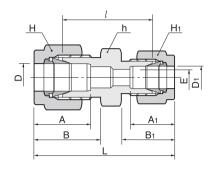




#### Connects fractional tube

00.111000	ra																
			O.D.		Е				cross flat								
Part No.		D		D <sub>1</sub>		h	1	<b> </b>	1	Н	1	Α	<b>A</b> 1	В	B <sub>1</sub>	l	L
	in	mm	in	mm	Min.	in	mm	in	mm	in	mm						
SUR-2-1	1/8	3.18	1/16	1.59	1.27	7/16	11.11	7/16	11.11	5/16	7.93	12.70	8.63	15.24	10.92	20.60	30.91
SUR-3-1	3/16	4.76	1/16	1.59	1.27	7/16	11.11	1/2	12.70	5/16	7.93	13.71	8.63	16.00	10.92	21.84	32.25
SUR-3-2	3/16	4.76	1/8	3.17	2.28	7/16	11.11	1/2	12.70	7/16	11.11	13.71	12.70	16.00	15.24	23.36	36.57
SUR-4-1	1/4	6.35	1/16	1.59	1.27	1/2	12.70	9/16	14.28	5/16	7.93	15.24	8.63	17.78	10.92	23.11	34.29
SUR-4-2	1/4	6.35	1/8	3.17	2.28	1/2	12.70	9/16	14.28	7/16	11.11	15.24	12.70	17.78	15.24	24.63	38.60
SUR-4-3	1/4	6.35	3/16	4.76	3.04	1/2	12.70	9/16	14.28	1/2	12.70	15.24	13.71	17.78	16.00	25.40	39.37
SUR-5-2	5/16	7.93	1/8	3.17	2.28	9/16	14.28	5/8	15.87	7/16	11.11	16.25	12.70	18.54	15.24	25.90	39.87
SUR-5-4	5/16	7.93	1/4	6.35	4.82	9/16	14.28	5/8	15.87	9/16	14.28	16.25	15.24	18.54	17.78	27.43	42.16
SUR-6-1	3/8	9.52	1/16	1.59	1.27	5/8	15.87	11/16	17.46	5/16	7.93	16.76	8.63	19.30	10.92	25.40	36.57
SUR-6-2	3/8	9.52	1/8	3.17	2.28	5/8	15.87	11/16	17.46	7/16	11.11	16.76	12.70	19.30	15.24	26.92	40.89
SUR-6-4	3/8	9.52	1/4	6.35	4.82	5/8	15.87	11/16	17.46	9/16	14.28	16.76	15.24	19.30	17.78	28.44	43.18
SUR-6-5	3/8	9.52	5/16	7.93	6.35	5/8	15.87	11/16	17.46	5/8	15.87	16.76	16.25	19.30	18.54	29.46	44.19
SUR-8-2	1/2	12.70	1/8	3.17	2.28	13/16	20.64	7/8	22.22	7/16	11.11	22.86	12.70	21.84	15.24	28.44	45.21
SUR-8-4	1/2	12.70	1/4	6.35	4.82	13/16	20.64	7/8	22.22	9/16	14.28	22.86	15.24	21.84	17.78	29.46	46.99
SUR-8-6	1/2	12.70	3/8	9.52	7.11	13/16	20.64	7/8	22.22	11/16	17.46	22.86	16.76	21.84	19.30	30.98	48.51
SUR-10-6	5/8	15.87	3/8	9.52	7.11	15/16	23.81	1	25.40	11/16	17.46	24.38	16.76	21.84	19.30	31.75	49.27
SUR-10-8	5/8	15.87	1/2	12.70	10.41	15/16	23.81	1	25.40	7/8	22.22	24.38	22.86	21.84	21.84	31.75	52.07
SUR-12-4	3/4	19.05	1/4	6.35	4.82	1-1/16	26.98	1-1/8	28.57	9/16	14.48	24.38	15.24	21.84	17.78	31.75	49.27
SUR-12-6	3/4	19.05	3/8	9.52	7.11	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.38	16.76	21.84	19.30	33.27	50.80
SUR-12-8	3/4	19.05	1/2	12.70	10.41	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.38	22.86	21.84	21.84	33.27	53.59
SUR-12-10	3/4	19.05	5/8	15.87	12.70	1-1/16	26.98	1-1/8	28.57	1	25.40	24.38	24.38	21.84	21.84	33.27	53.59
SUR-16-8	1	25.40	1/2	12.70	10.41	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.24	22.86	26.41	21.84	40.89	63.24
SUR-16-12	: 1	25.40	3/4	19.05	15.74	1-3/8	34.92	1-1/2	38.10	1-1/8	28.58	31.24	24.38	26.41	21.84	40.38	62.73

## Reducing Union





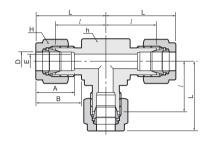
#### Connects metric tube

Part No	Tub	e O.D.	Е	Wic	th across	s flat	^	Δ.	Б.	р.	1	
raitino	D	D <sub>1</sub>	Min.	h	Н	H <sub>1</sub>	Α	A1	В	B <sub>1</sub>	ι	L
SUR-3M-2M	3	2	1.7	12	12	12	12.9	12.9	15.3	15.3	22.1	35.3
SUR-6M-2M	6	2	1.7	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
SUR-6M-3M	6	3	2.4	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
SUR-6M-4M	6	4	2.4	14	14	12	15.3	13.7	17.7	16.1	25.4	39.4
SUR-8M-6M	8	6	4.8	15	16	14	16.2	15.3	18.6	17.7	27.4	42.3
SUR-10M-6M	10	6	4.8	18	19	14	17.2	15.3	19.5	17.7	29.5	44.5
SUR - 10M-8M	10	8	6.4	18	19	16	17.2	16.2	19.5	18.6	30.0	45.1
SUR - 12M-6M	12	6	4.8	22	22	14	22.8	15.3	22.0	17.7	29.5	47.0
SUR - 12M-8M	12	8	6.4	22	22	16	22.8	16.2	22.0	18.6	30.2	47.8
SUR-12M-10M	12	10	7.9	22	22	19	22.8	17.2	22.0	19.5	31.0	48.7
SUR-16M-10M	16	10	7.9	24	25	19	24.4	17.2	22.0	19.5	31.8	49.5
SUR-16M-12M	16	12	9.5	24	25	22	24.4	22.8	22.0	22.0	31.8	52.0
SUR-18M-12M	18	12	9.5	27	30	22	24.4	22.8	22.0	22.0	33.3	53.5
SUR-25M-18M	25	18	15.1	35	38	30	31.3	24.4	26.5	22.0	38.6	61.0
SUR-25M-20M	25	20	15.9	35	38	32	31.3	26.0	26.5	22.0	39.9	62.3

#### Connects metric tube to fractional tube

5		Tube O		Е	Wic	Ith acros	ss flat			-	Б.	1	
Part No.	D	in	D <sub>1</sub>	Min.	h	Н	H <sub>1</sub>	Α	A1	В	B <sub>1</sub>	l	L
SUR - 3M-2	3	1/8	3.17	2.4	12	12	11.1	12.9	12.8	15.3	15.2	22.1	35.2
SUR - 4M-2	4	1/8	3.17	2.4	12	12	11.1	13.7	12.8	16.1	15.2	23.4	36.5
SUR - 4M-4	4	1/4	6.35	2.4	14	12	14.3	13.7	15.3	16.1	17.7	25.4	39.4
SUR - 6M-2	6	1/8	3.17	2.4	14	14	11.1	15.3	12.8	17.7	15.2	24.6	38.5
SUR - 6M-4	6	1/4	6.35	4.8	14	14	14,3	15.3	15.8	17.7	17.7	26.2	41.0
SUR - 6M-5	6	5/16	7.93	4.8	14	14	15.9	15.3	16.2	17.7	18.6	27.4	42.3
SUR - 8M-4	8	1/4	6.35	4.8	15	16	14.3	16.2	15.3	18.6	17.7	27.4	42.3
SUR - 10M-2	10	1/8	3.17	2.4	18	19	11.1	17.2	12.8	19.5	15.2	27.7	41.8
SUR - 10M-4	10	1/4	6.35	4.8	18	19	14.3	17.2	15.3	19.5	17.7	29.5	44.5
SUR - 10M-5	10	5/16	7.93	6.4	18	19	15.9	17.2	16.2	19.5	18.6	30.3	45.1
SUR - 10M-6	10	3/8	9.52	7.1	18	19	17,5	17.2	16.9	19.5	18.6	31.0	45.9
SUR - 12M-5	12	5/16	7.93	6.4	22	22	15.9	22.8	16.2	22.0	18.6	30.2	47.8
SUR - 12M-6	12	3/8	9.52	7.1	22	22	17.5	22.8	16.9	22.0	19.2	31.0	48.4
SUR - 12M-8	12	1/2	12.70	9.5	22	22	22.2	22.8	22.8	22.0	22.0	31.0	51.2
SUR - 15M-8	15	1/2	12.70	10.3	24	25	22.2	24.4	22.8	22.0	22.0	31.8	52.0
SUR - 16M-10	16	5/8	15.87	12.7	24	25	25.4	24.4	24.4	22.0	22.0	31.8	52.0
SUR - 18M-12	18	3/4	19.05	15.1	27	30	28.6	24.4	24.4	22.0	22.0	33.3	53.5
SUR - 20M-12	20	3/4	19.05	15.9	30	32	28.6	26.0	24.4	22.0	22.0	34.8	54.9
SUR - 20M-16	20	1	25.40	15.9	34.9	32	38.1	26.0	31.2	22.0	26.4	38.0	60.3
SUR - 22M-16	22	1	25.40	18.3	34.9	32	38.1	26.0	31.2	22.0	26.4	38.2	60.3

## Union Tee **ST**





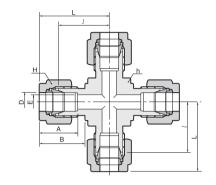
#### Connects fractional tube

		e O.D.	_		Width a	across flat					
Part No.		D	E		า	H	ı	Α	В	l	L
	in	mm	Min.	in	mm	in	mm				
ST-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
ST-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
ST-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
ST-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
ST-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
ST-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
ST-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
ST-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
ST-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87
ST-14	7/8	22.22	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70
ST-16	1	25.40	22.35	1-3/8	34.9	1-1/2	38.10	31.24	26.41	36.83	49.02
ST-20	1-1/4	31.75	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54
ST-24	1-1/2	38.10	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97
ST-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18

Doub No.	Tube O.D.	Е	Width ac	ross flat		Б.	1	
Part No.	D	Min.	h	H	Α	В	l	L
ST-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
ST-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
ST-4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
ST-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
ST-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
ST-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
ST-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
ST-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
ST-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
ST-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
ST-20M	20	15.9	31.8	32	26.0	22.0	32.5	42.6
ST-22M	22	18.3	31.8	32	26.0	22.0	32.5	42.6
ST-25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1
ST-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
ST-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
ST-38M	38	33.7	55.0	60	49.4	47.9	56.4	84.0

## Union Cross

Note : Cross may be made from plate stock



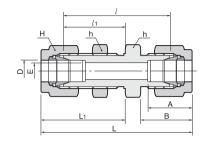


#### Connects fractional tube

	Tub	e O.D.			Width a	across flat					
Part No.		D	E		h	Н		Α	В	l	L
	in	mm	Min.	in	mm	in	mm				
SX-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
SX-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
SX-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
SX-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
SX-5	5/16	7.93	6.35	1/2	12.70	5/8	15.87	16.25	18.54	21.33	28.70
SX-6	3/8	9.52	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.11	30.48
SX-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
SX-10	5/8	15.87	12.70	13/16	20.64	1	25.40	24.38	21.84	28.70	38.80
SX-12	3/4	19.05	15.74	1	25.40	1-1/8	28.58	24.38	21.84	29.71	39.87
SX-14	7/8	22.22	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70
SX-16	1	25.40	22.35	1-27/64	36.12	1-1/2	38.10	31.24	26.41	36.83	49.02
SX-20	1-1/4	31.75	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54
SX-24	1-1/2	38.10	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97
SX-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18

Part No.	Tube O.D. D	E	Width ac		А	В	l	L
	D	Min.	h	Н				
SX-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SX-4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
SX-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SX-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
SX-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
SX-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SX-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
SX-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
SX-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
SX-20M	20	15.9	31.8	32	26.0	22.0	32.5	42.6
SX-22M	22	18.3	31.8	32	26.0	22.0	32.5	42.6
SX-25M	25	21.8	36.0	38	31.3	26.5	36.8	49.1
SX-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
SX-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
SX-38M	38	33.7	55.0	60	49.4	47.9	56.4	84.0

## Bulkhead Union



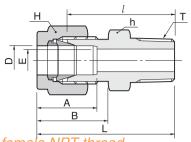


#### Connects fractional tube

	Tub	e O.D.			Width ac	ross flat								Panel	Panel
Part No	)	D	E	r	1	ŀ	1	Α	В	l	l1	L	L <sub>1</sub>	Hole	Max
	in	mm	Min.	in	mm	in	mm							Drill size	Thickness
SUB-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	23.87	13.46	31.50	17.27	5.16	3.05
SUB-2	1/8	3.17	2.28	1/2	12.70	7/16	11.11	12.70	15.24	38.10	24.63	51.30	31.24	8.33	12.70
SUB-3	3/16	4.76	3.04	9/16	14.28	1/2	12.70	13.71	16.00	40.38	25.40	53.59	32.00	9.92	12.70
SUB-4	1/4	6.35	4.82	5/8	15.87	9/16	14.28	15.24	17.78	42.92	26.16	57.65	33.52	11.50	10.16
SUB-5	5/16	7.93	6.35	11/16	17.46	5/8	15.87	16.25	18.54	45.97	28.44	60.70	35.81	13.09	11.17
SUB-6	3/8	9.52	7.11	3/4	19.05	11/16	17.46	16.76	19.30	47.49	29.46	62.23	36.83	14.68	11.17
SUB-8	1/2	12.70	10.41	15/16	23.81	7/8	22.22	22.86	21.84	50.80	31.75	71.12	41.91	19.44	12.70
SUB-10	5/8	15.87	12.70	1-1/16	26.98	1	25.40	24.38	21.84	52.32	32.51	72.64	42.67	22.62	12.70
SUB-12	3/4	19.05	15.74	1-3/16	30.16	1-1/8	28.58	24.38	21.84	58.67	37.33	78.99	47.49	25.79	16.76
SUB-14	7/8	22.22	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	64.26	42.92	84.58	53.08	28.97	19.05
SUB-16	1	25.40	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	71.37	45.21	95.75	57.40	33.73	19.05
SUB-20	1-1/4	31.75	27.68	1-7/8	47.63	1-7/8	47.63	41.14	38.86	78.99	47.75	123.19	69.85	41.67	19.05
SUB-24	1-1/2	38.10	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	84.83	49.27	139.19	76.45	49.61	19.05
SUB-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	105.66	56.38	180.34	93.72	57.94	19.05

0011110010	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,											
Part No.	Tube O.D.	E Min.	Width acr	ross flat	Α	В	l	l1	L	L <sub>1</sub>	Panel Hole Drill size	Panel Max Thickness
SUB-3M	3	2.4	14	12	12.9	15.3	38.1	24.6	51.3	31.2	8.3	12.7
SUB-4M	4	2.4	14	12	13.7	16.1	40.4	25.4	53.6	32.0	9.9	12.7
SUB-6M	6	4.8	16	14	15.3	17.7	42.9	26.2	57.7	33.6	11.5	10.2
SUB-8M	8	6.4	18	16	16.2	18.6	46.0	28.6	61.0	36.1	13.1	11.2
SUB-10M	10	7.9	22	19	17.2	19.5	48.5	29.4	63.7	37.0	16.2	11.2
SUB-12M	12	9.5	24	22	22.8	22.0	50.8	31.8	71.0	41.9	19.5	12.7
SUB-15M	15	11.9	27	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
SUB-16M	16	12.7	27	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
SUB-18M	18	15.1	30	30	24.4	22.0	58.7	37.3	78.9	47.4	26.0	16.8
SUB-20M	20	15.9	35	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	17.0
SUB-22M	22	18.3	35	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	19.1
SUB-25M	25	21.8	41.3	38	31.3	26.5	71.4	45.2	95.9	57.5	33.7	19.1
SUB-32M	32	28.6	50	50	42.0	41.6	82.3	49.5	128.3	72.5	42.5	19.0
SUB-38M	38	33.7	60	60	49.4	47.9	89.4	51.5	144.6	79.1	50.5	19.0

## Male Connector SMC-N

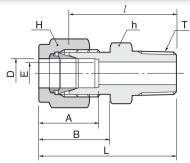




Connects fractional tube to female NPT thread

Tube O.D. T			Width ac	i USS ilat					
Part No D	E	h			1	Α	В	l	L
in mm (NPT)	Min.	in	mm	in	mm				
SMC-1-1N 1/16 1.59 1/16	1.27	5/16	7.93	5/16	7.93	8.63	10.92	20.00	23.83
SMC-1-2N 1/16 1.59 1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	22.35	26.23
SMC-1-4N 1/16 1.59 1/4	1.27	9/16	14.28	5/16	7.93	8.63	10.92	27.17	30.98
SMC-2-1N 1/8 3.17 1/16	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.11	29.71
	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	30.48
	2.28	9/16	14.28	7/16	11.11	12.70	15.24	28.95	35.56
	2.28	11/16	17.46	7/16	11.11	12.70	15.24	29.21	35.81
	2.28	7/8	22.22	7/16	11.11	12.70	15.24	35.56	42.16
	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.63	31.24
	3.04	9/16	14.28	1/2	12.70	13.71	16.00	29.71	36.32
	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	37.84
	4.82	11/16	17.46	9/16	14.28	15.24	17.78	30.98	38.35
	4.82	7/8	22.22	9/16	14.28	15.24	17.78	37.33	44.70
	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	38.86	46.22
	4.82	9/16	14.28	5/8	15.87	16.25	18.54	26.67	34.03
	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	38.60
	6.35	11/16	17.46	5/8	15.87	16.25	18.54	31.75	39.11
	6.35	7/8	22.22	5/8	15.87	16.25	18.54	38.11	45.60
	4.82	5/8	15.87	11/16	17.46	16.76	19.30	27.94	35.30
	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	39.87
	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	39.87
	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	46.22
	7.11 4.82	1-1/16 13/16	26.98 20.64	11/16	17.46 22.22	16.76 22.86	19.30 21.84	40.38 28.70	47.75 38.86
				7/8					
	7.11 9.65	13/16 13/16	20.64	7/8 7/8	22.22 22.22	22.86 22.86	21.84 21.84	33.27 33.27	43.43 43.43
	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	49.02
	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	40.38	50.54
	10.41	1-3/8	34.92	7/8	22.22	22.86	21.84	46.99	57.15
	9.65	15/16	23.81	1	25.40	24.38	21.84	34.03	44.19
	11.93	15/16	23.81	1	25.40	24.38	21.84	38.86	49.02
	12.70	1-1/16	26.98	1	25.40	24.38	21.84	40.38	50.54
	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	50.54
	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	50.54
	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	46.99	57.15
	15.74	1-3/16	30.16	1-1/4	31.75	25.90	21.84	40.38	50.54
	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	46.99	57.15
	11.93	1-3/8	34.92	1-1/2	38.10	31.24	26.41	45.21	57.40
	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	45.21	57.40
	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	50.03	62.23
0110 00 1011 1 1/1	22.35	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	77.21
	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	77.21
	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	60.54	82.64
	27.68	2-1/8	53.98	2-1/4	57.15	50.03	45.21	59.42	86.60
	34.03	2-1/8	53.98	2-1/4	57.15	50.03	45.21	61.72	88.90
SMC-24-32N 1-1/2 38.10 2 3	34.03	2-3/4	69.85	2-1/4	57.15	50.03	45.21	62.42	99.75
SMC-32-8N 2 50.80 1/2 1	11.93	2-3/4	69.85	3	76.20	67.56	62.73	68.40	105.73
	15.97	2-3/4	69.85	3	76.20	67.56	62.73	71.40	108.73
	15.97	2-3/4	69.85	3	76.20	67.56	62.73	75.50	112.83
SMC-32-32N 2 50.80 2 4	15.97	2-3/4	69.85	3	76.20	67.56	62.73	76.20	113.53

#### Male Connector SMC-R





#### Connects metric tube to female ISO tapered thread

David Nia	Tube O.D.	Т	E	Width a	cross flat	Δ.		7	
Part No.	D	R(PT)	Min.	h	Н	Α	В	l	L
SMC-2M-2R	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
SMC-3M-2R	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
SMC-3M-4R	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
SMC-4M-2R	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
SMC-4M-4R	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
SMC-6M-2R	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
SMC-6M-4R	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
SMC-6M-6R	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
SMC-6M-8R	6	1/2	4.8	22	14	15.3	17.7	36.6	44.0
SMC-8M-2R	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
SMC-8M-4R	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
SMC-8M-6R	8	3/8	6.4	18	16	16.2	18.6	31.8	39.2
SMC-8M-8R	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
SMC-10M-2R	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
SMC-10M-4R	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
SMC-10M-6R	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
SMC-10M-8R	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
SMC-12M-4R	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
SMC-12M-6R	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
SMC - 12M-8R	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
SMC-12M-12R	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
SMC - 15M-8R	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
SMC-16M-4R	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
SMC-16M-6R	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
SMC-16M-8R	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
SMC-16M-12R	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
SMC-18M-8R	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
SMC-18M-12R	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
SMC-20M-8R	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
SMC-20M-12R	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC-22M-12R	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC-22M-16R	22	1	18.3	35	32	26.0	22.0	47.8	57.9
SMC-25M-12R	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
SMC-25M-16R	25	1	21.8	35	38	31.3	26.5	50.0	62.3
SMC-28M-16R	28	1	21.8	41	46	36.6	36.6	51.6	72.4
SMC-28M-20R	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
SMC-32M-20R	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
SMC-38M-24R	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

## Thermocouple Connector **SMCT**



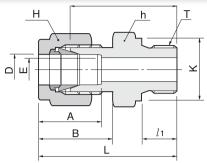
S-LOK thermocouple connector has no shoulder nor sizing angle inside the fitting, the features enable thermocoupler to go through fitting's thread end. Suffix "T" to Male Connector identifier.

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

#### **Assembly Instructions**

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

## Male Connector for Bonded Seal SMC-G





#### Connects fractional tube to female ISO parallel thread

	Tub	e O.D.	Т	Е		Width a	cross flat							
Part No.		D	-	Min.		h	Н		Α	В	l	l1	L	K
	in	mm	(PF)	IVIII I.	in	mm	in	mm						
SMC - 2-2G	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	23.37	7.11	29.97	13.72
SMC - 2-4G	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	28.70	11.18	35.31	18.03
SMC - 2-6G	1/8	3.17	3/8	2.28	7/8	22.22	7/16	11.11	12.70	15.24	29.72	11.18	36.21	21.84
SMC - 4-2G	1/4	6.35	1/8	2.28	9/16	14.28	9/16	14.28	15.24	17.78	24.89	7.11	32.26	13.72
SMC-4-4G	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.23	11.18	37.59	18.03
SMC - 4-6G	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	31.50	11.18	38.86	21.84
SMC - 4-8G	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	37.34	14.22	44.70	25.91
SMC - 6-4G	3/8	9.53	1/4	4.82	3/4	19.05	11/16	17.46	16.76	19.30	31.75	11.18	39.12	18.03
SMC - 6-6G	3/8	9.53	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	33.02	11.18	40.39	21.84
SMC - 6-8G	3/8	9.53	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	38.86	14.22	46.23	25.91
SMC-8-4G	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	32.51	11.18	42.67	18.03
SMC - 8-6G	1/2	12.70	3/8	9.65	7/8	22.22	7/8	22.22	22.86	21.84	33.02	11.18	43.18	21.84
SMC - 8-8G	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.86	14.22	49.02	25.91
SMC - 12-8G	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	38.86	14.22	49.02	25.91
SMC - 12-12G	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	42.67	15.75	52.83	32.00
SMC-16-8G	1	25.40	1/2	11.93	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	14.22	55.88	25.91
SMC - 16-16G	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	47.75	18.29	59.94	39.12
SMC-20-20G	1-1/4	31.75	1-1/4	27.68	2	50.80	1-7/8	47.63	41.14	38.86	51.16	20.00	73.26	49.00
SMC - 24-24G	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	57.57	22.00	84.75	55.00

#### Connects metric tube to female ISO parallel thread

Part No.	Tube O.D.	Т	Е	Width ad	cross flat	А	В	1	l <sub>1</sub>	L	K
Tare No.	D	G(PF)	Min.	h	Н	^	ь	ι	ιı	_	K
SMC-2M-2G	2	1/8	1.7	14	12	12.9	15.3	23.4	7.1	30.0	13.8
SMC-3M-2G	3	1/8	2.4	14	12	12.9	15.3	23.4	7.1	30.0	13.8
SMC-3M-4G	3	1/4	2.4	19	12	12.9	15.3	28.7	11.2	35.3	18.0
SMC-4M-2G	4	1/8	2.4	14	12	13.7	16.1	24.1	7.1	30.7	13.8
SMC-4M-4G	4	1/4	2.4	19	12	13.7	16.1	29.4	11.2	36.0	18.0
SMC-6M-2G	6	1/8	4.0	14	14	15.3	17.7	24.9	7.1	32.3	13.8
SMC-6M-4G	6	1/4	4.8	19	14	15.3	17.7	30.2	11.2	37.6	18.0
SMC-6M-6G	6	3/8	4.8	22	14	15.3	17.7	31.5	11,2	38.9	21.8
SMC-6M-8G	6	1/2	4.8	27	14	15.3	17.7	37.3	14.2	44.7	26.0
SMC-8M-2G	8	1/8	4.0	15	16	16.2	18.6	25.7	7.1	33.2	13.8
SMC-8M-4G	8	1/4	6.4	19	16	16.2	18.6	31.0	11.2	38.5	18.0
SMC-8M-6G	8	3/8	6.4	22	16	16.2	18.6	32.3	11.2	39.8	21.8
SMC-8M-8G	8	1/2	6.4	27	16	16.2	18.6	38.1	14.2	45.6	26.0
SMC - 10M-4G	10	1/4	6.4	19	19	17.2	19.5	31.8	11.2	39.4	18.0
SMC - 10M-6G	10	3/8	7.9	22	19	17.2	19.5	33.0	11.2	40.6	21.8
SMC - 10M-8G	10	1/2	7.9	27	19	17.2	19.5	38.9	14.2	46.5	26.0
SMC - 12M-4G	12	1/4	5.9	22	22	22.8	22.0	32.5	11.2	42.6	18.0
SMC - 12M-6G	12	3/8	7.9	22	22	22.8	22.0	33.0	11.2	43.1	21.8
SMC - 12M-8G	12	1/2	9.5	27	22	22.8	22.0	38.9	14.2	49.0	26.0
SMC-12M-12G	12	3/4	9.5	35	22	22.8	22.0	42.7	15.7	52.8	32.0
SMC - 16M-6G	16	3/8	7.9	24	25	24.4	22.0	33.8	11.2	43.9	21.8
SMC - 16M-8G	16	1/2	11.9	27	25	24.4	22.0	38.9	14.2	49.0	26.0
SMC - 18M-8G	18	1/2	11.9	27	30	24.4	22.0	38.9	14.2	49.0	26.0
SMC - 18M-12G	18	3/4	15.1	35	30	24.4	22.0	42.7	15.7	52.8	32.0
SMC - 20M-8G	20	1/2	11.9	30	32	26.0	22.0	40.4	14.2	50.5	26.0
SMC-20M-12G	20	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SMC - 22M-12G	22	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SMC - 22M-16G	22	1	18.3	41	32	26.0	22.0	45.2	18.3	55.3	39.0
SMC - 25M-12G	25	3/4	15.9	35	38	31.3	26.5	45.2	15.7	57.5	32.0
SMC - 25M-16G	25	1	19.8	41	38	31.3	26.5	47.8	18.3	60.1	39.0
SMC - 28M-16G	28	1	19.8	41	46	36.6	36.6	49.3	18.3	70.1	39.0
SMC - 28M-20G	28	1-1/4	21.8	50	46	36.6	36.6	53.1	19.8	73.9	49.0
SMC - 32M-20G	32	1-1/4	25.0	50	50	42.0	41.6	55.9	19.8	78.9	49.0
SMC - 38M-24G	38	1-1/2	31.8	55	60	49.4	47.9	63.2	22.1	90.8	54.7

#### ISO Pipe Thread

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

#### **ISO 228/1**

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

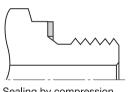
The ISO 228/1 is described in following codes.

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

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

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

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



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

Ordering	E		H	1		)
Number	(mm)	(in.)	(mm)	(in.)	(mm)	(in.)
SGB-2-	10.4	0.41	2.0	0.08	16.0	0.63
SGB-4-	13.7	0.54	2.0	0.08	20.6	0.81
SGB-6-	17.3	0.68	2.0	0.08	23.9	0.94
SGB-8-	21.6	0.85	2.5	0.10	28.7	1.13
SGB-12-	27.2	1.06	2.5	0.10	35.1	1.38
SGB-16-	33.8	1.33	2.5	0.10	42.9	1.69
SGB-20-	42.4	1.67	2.5	0.10	51.05	2.01
SGB-24-	48.8	1.92	2.5	0.10	59.18	2.33





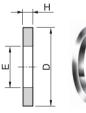
A metal gasket performs the sealing between the reverse bevel of the fitting and the face of the female threaded component.

#### SGC Copper Gasket



Sealing by gasket (washer) Reference DIN 3852 Type B

<u> </u>	<u>.                                      </u>					
Ordering	E	≣	F	4		)
Number	(mm)	(in.)	(mm)	(in.)	(mm)	(in.)
SGC-2-	10	0.39	2.0	0.08	18	0.71
SGC-4-	14	0.55	2.0	0.08	22	0.86
SGC-6-	17	0.67	2.0	0.08	26	1.02
SGC-8-	22	0.86	2.0	0.08	32	1.26
SGC-12-	27	1.06	2.0	0.08	38	1.50
SGC-16-	34	1.34	2.0	0.08	42	1.65
SGC-20-	42.2	1.66	2.0	0.08	49.8	1.96
SGC-24-	48.0	1.89	2.0	0.08	58.4	2.30





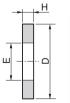


A gasket is dropped into the flat bottom of the female thread. The face of the male thread exerts a load on the gasket to seal.



Sealing by gasket. Reference DIN 3852 Type Y

SGG Cop	per Gask	cet				
Ordering	Е		I	1	Г	)
Number	(mm)	(in.)	(mm)	(in.)	(mm)	(in.)
SGG-4-	7.6	0.30	1.8	0.07	10.7	0.42
SGG-6-	8.6	0.34	2.3	0.09	14.2	0.56
SGG-8-	9.1	0.36	2.5	0.10	17.8	0.70





#### **ISO 7/1**

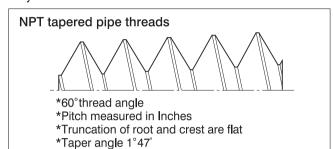
The ISO 7/1 is a tapered thread that is sealing threads working by interference fit. This still requires thread sealant for pressure-tight seal by filling the voids between threads further this prevents galling on piping threads. The sealant usually contains a lubricant.

The ISO 7/1 is described in following codes.

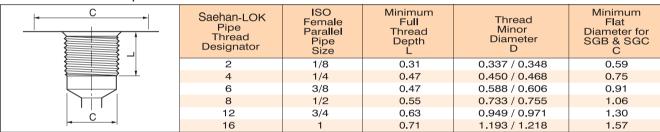
1. BS 21(BSPT) 2. JIS B0203 (PT) 3. ISO 7/1 4. DIN 2999 (male thread only)

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

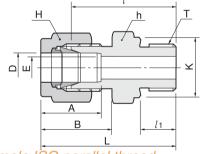
# \*55°thread angle \*Pitch measured in millimeters \*Truncation of root and crest are round \*Taper angle 1°47'



#### ISO Internal Parallel Pipe Thread





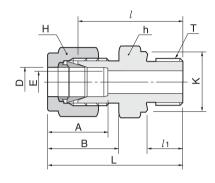




Connects	fractional	tube	to i	female	ISO	parallel	thread

	Tub	e O.D.	Т	E		Width a	cross flat							
Part No.		D	-	⊏ Min.		h	Н		Α	В	l	l1	L	K
	in	mm	(PF)	IVIII I.	in	mm	in	mm						
SOM - 2-2G	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	23.37	7.11	29.97	13.72
SOM - 2-4G	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	28.70	11.18	35.31	18.03
SOM - 2-6G	1/8	3.17	3/8	2.28	7/8	22.22	7/16	11.11	12.70	15.24	29.72	11.18	36.21	21.84
SOM - 4-2G	1/4	6.35	1/8	2.28	9/16	14.28	9/16	14.28	15.24	17.78	24.89	7.11	32.26	13.72
SOM - 4-4G	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.23	11.18	37.59	18.03
SOM - 4-6G	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	31.50	11.18	38.86	21.84
SOM - 4-8G	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	37.34	14.22	44.70	25.91
SOM - 6-4G	3/8	9.53	1/4	4.82	3/4	19.05	11/16	17.46	16.76	19.30	31.75	11.18	39.12	18.03
SOM - 6-6G	3/8	9.53	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	33.02	11.18	40.39	21.84
SOM - 6-8G	3/8	9.53	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	38.86	14.22	46.23	25.91
SOM - 8-4G	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	32.51	11.18	42.67	18.03
SOM - 8-6G	1/2	12.70	3/8	9.65	7/8	22,22	7/8	22.22	22.86	21.84	33.02	11.18	43.18	21.84
SOM - 8-8G	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.86	14.22	49.02	25.91
SOM - 12-8G	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	38.86	14.22	49.02	25.91
SOM - 12-12G	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	42.67	15.75	52.83	32.00
SOM - 16-8G	1	25.40	1/2	11.93	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	14.22	55.88	25.91
SOM - 16-16G	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	47.75	18.29	59.94	39.12
SOM - 20-20G	1-1/4	31.75	1-1/4	27.68	2	50.80	1-7/8	47.63	41.14	38.86	51.16	20.00	73.26	49.00
SOM - 24-24G	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	57.57	22.00	84.75	55.00

# Male Connector for Metal Gasket **SOM**

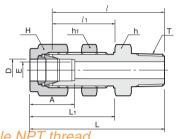




#### Connects metric tube to female ISO parallel thread

			<u>'</u>								
Part No.	Tube O.D.	Т	Е	Width a	cross flat	Α	В	1	l <sub>1</sub>	L	K
1 411 1101	D	G(PF)	Min.	h	Н	, ,		ľ	<i>- - - - - - - - - -</i>	_	IX
SOM-3M-2G	3	1/8	2.4	14	12	12.9	15.3	23.4	7.1	30.0	13.8
SOM-3M-4G	3	1/4	2.4	19	12	12.9	15.3	28.7	11.2	35.3	18.0
SOM-4M-2G	4	1/8	2.4	14	12	13.7	16.1	24.1	7.1	30.7	13.8
SOM-6M-2G	6	1/8	4.0	14	14	15.3	17.7	24.9	7.1	32.3	13.8
SOM-6M-4G	6	1/4	4.8	19	14	15.3	17.7	30.2	11.2	37.6	18.0
SOM-6M-6G	6	3/8	4.8	22	14	15.3	17.7	31.5	11.2	38.9	21.8
SOM-6M-8G	6	1/2	4.8	27	14	15.3	17.7	37.3	14.2	44.7	26.0
SOM-8M-2G	8	1/8	4.0	15	16	16.2	18.6	25.7	7.1	33.2	13.8
SOM-8M-4G	8	1/4	6.4	19	16	16.2	18.6	31.0	11.2	38.5	13.8
SOM-8M-6G	8	3/8	6.4	22	16	16.2	18.6	32.3	11.2	39.8	21.8
SOM-8M-8G	8	1/2	6.4	27	16	16.2	18.6	38.1	14.2	45.6	26.0
SOM-10M-4G	10	1/4	5.9	19	19	17.2	19.5	31.8	11.2	39.4	18.0
SOM-10M-6G	10	3/8	7.9	22	19	17.2	19.5	33.0	11.2	40.6	21.8
SOM-10M-8G	10	1/2	7.9	27	19	17.2	19.5	38.9	14.2	46.5	26.0
SOM-12M-4G	12	1/4	5.9	22	22	22.8	22.0	32.5	11.2	42.6	18.0
SOM-12M-6G	12	3/8	7.9	22	22	22.8	22.0	33.0	11.2	43.1	21.8
SOM-12M-8G	12	1/2	9.5	27	22	22.8	22.0	38.9	14.2	49.0	26.0
SOM-12M-12G	12	3/4	9.5	35	22	22.8	22.0	42.7	15.7	52.8	32.0
SOM - 15M-8G	15	1/2	11.9	27	25	24.4	22.0	33.9	14.2	49.0	26.0
SOM-16M-6G	16	3/8	7.9	24	25	24.4	22.0	33.8	11.2	43.9	21.8
SOM-16M-8G	16	1/2	11.9	27	25	24.4	22.0	38.9	14.2	49.0	26.0
SOM - 18M-8G	18	1/2	11.9	27	30	24.4	22.0	38.9	14.2	49.0	26.0
SOM-18M-12G	18	3/4	15.1	35	30	24.4	22.0	42.7	15.7	52.8	32.0
SOM-20M-8G	20	1/2	11.9	30	32	26.0	22.0	40.4	14.2	50.5	26.0
SOM-20M-12G	20	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SOM-22M-12G	22	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SOM-22M-16G	22	1	18.3	41	32	26.0	22.0	45.2	18.3	55.3	39.0
SOM-25M-12G	25	3/4	15.9	35	38	31.3	26.5	45.2	15.7	57.5	32.0
SOM-25M-16G	25	1	19.8	41	38	31.3	26.5	47.8	18.3	60.1	39.0
SOM-28M-16G	28	1	19.8	41	46	36.6	36.6	49.3	18.3	70.1	39.0
SOM-28M-20G	28	1-1/4	21.8	50	46	36.6	36.6	53.1	19.8	73.9	49.0
SOM-32M-20G	32	1-1/4	28.6	50	50	42.0	41.6	55.9	19.8	78.9	49.0
SOM-38M-24G	38	1-1/2	31.8	55	60	49.4	47.9	61.7	20.6	89.3	54.7

## Bulkhead Male Connector SMCB

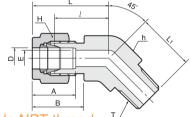




Connects fractional tube to female NPT thread

	Tub	e O.D.	_	_			Width ad	ross fla	t							Panel	Panel
Part No.		D	(NIDT)	E	h		h	1	H	1	Α	l	l1	L	L <sub>1</sub>	Hole	Max
	in	mm	(NPT)	Min.	in	mm	in	mm	in	mm						Drill size	Thickness
SMCB - 2-2N	1/8	3.17	1/8	2.28	1/2	12.70	1/2	12.70	7/16	11.11	12.70	39.87	24.63	46.48	31.24	8.33	12.70
SMCB - 4-2N	1/4	6.35	1/8	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	42.16	26.16	49.53	33.52	11.50	10.16
SMCB - 4-4N	1/4	6.35	1/4	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	45.97	26.16	53.34	33.52	11.50	10.16
SMCB - 6-4N	3/8	9.52	1/4	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	50.03	29.46	57.40	36.83	14.68	11.17
SMCB - 6-6N	3/8	9.52	3/8	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	50.03	29.46	57.40	36.83	14.68	11.17
SMCB - 6-8N	3/8	9.52	1/2	7.11	7/8	22.22	3/4	19.05	11/16	17.46	16.76	56.38	29.46	63.75	36.83	14.68	11.17
SMCB - 8-6N	1/2	12.70	3/8	9.39	15/16	23.81	15/16	23.81	7/8	22,22	22.86	53.08	31.75	63.24	41.91	19.44	12.70
SMCB - 8-8N	1/2	12.70	1/2	10.41	15/16	23.81	15/16	23.81	7/8	22,22	22.86	58.67	31.75	68.83	41.91	19.44	12.70
SMCB-12-12N	3/4	19.05	3/4	15.74	1-3/16	30.16	1-3/16	30.16	1-1/8	28.58	24.38	66.04	37.33	76.20	47.49	25.76	16.76
SMCB-16-16N	1	25.40	1	22.35	1-5/8	41.28	1-5/8	41.28	1-1/2	38.10	31.24	81.02	45.21	93.21	57.40	33.73	19.05
SMCB-20-20N	1-1/4	31.75	1-1/4	27.68	1-7/8	47.63	1-7/8	47.63	1-7/8	47.63	41.14	85.97	47.75	108.07	69.85	41.67	19.05
SMCB-24-24N	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	2-1/4	57.15	50.03	93.03	49.27	120.21	76.45	49.61	19.05
SMCB-32-32N	2	50.80	2	45.97	2-3/4	69.85	2-3/4	69.85	3	76.20	67.56	107.29	56.38	144.62	93.71	16.27	19.05

#### 45° Male Elbow SLBM

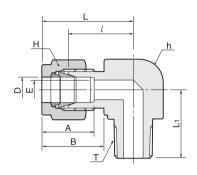




Connects fractional tube to female NPT thread

		e O.D.	т	Е		Width ac	ross flat						
Part No.		D	(NPT)	Min.	h		ŀ	1	Α	В	l	L	L <sub>1</sub>
	in	mm	(INF I)	IVIII I.	in	mm	in	mm					
SLBM-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	17.27	24.63	16.51
SLBM-4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	17.27	24.63	21.08
SLBM-6-2N	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	20.57	27.94	18.28
SLBM-6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	20.57	27.94	22.86
SLBM-6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	21.84	29.21	24.13
SLBM-8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	21.84	32.00	24.13
SLBM-8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	21.84	32.00	28.95
SLBM-12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	23.87	34.03	30.98
SLBM-16-16N	1	25.40	1	22.35	1-3/8	34.93	1-1/2	38.10	31.24	26.41	28.19	40.38	37.84

## Male Elbow **SLM**

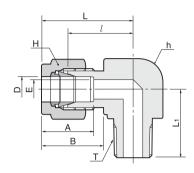




#### Connects fractional tube to female NPT thread

	Tub	oe O.D.	Т	Е		Width	n across flat						
Part No.		D	•		h	1	Н		Α	В	l	L	L <sub>1</sub>
	in	mm	(NPT)	Min.	in	mm	in	mm					
SLM - 1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
SLM - 1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
SLM - 2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
SLM - 2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.36
SLM - 3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	18.79
SLM - 3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
SLM - 4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
SLM - 4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.10	26.47	19.10
SLM - 4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.81	27.18	23.87
SLM - 4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	26.20
SLM - 4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	33.02
SLM - 5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.81
SLM - 5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	29.77	24.50
SLM - 5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	26.20
SLM - 6-2N	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	20.60
SLM - 6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
SLM - 6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	26.20
SLM - 6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	31.42	33.02
SLM - 6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
SLM - 8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
SLM - 8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
SLM - 8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
SLM - 8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
SLM - 10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	30.22
SLM - 10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	35.10
SLM - 10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
SLM - 12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	37.00
SLM - 12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	36.83
SLM - 14-12N	7/8	22.22	3/4	15.74	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
SLM - 16-12N	1	25.40	3/4	15.74	1-27-64	36.00	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
SLM - 16-16N	1	25.40	1	22.35	1-27-64	36.00	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
SLM - 20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
SLM - 24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
SLM - 32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	62.73	63.73	69.80	107.18	70.61



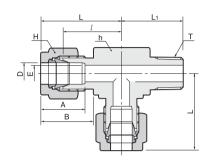




#### Connects metric tube to female ISO tapered thread

5	Tube O.D.	Т	E	Width ac	ross flat		_			
Part No.	D	R(PT)	Min.	h	Н	Α	В	l	L	L <sub>1</sub>
SLM - 3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SLM-3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SLM - 4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SLM-4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
SLM - 6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SLM-6M-4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
SLM - 6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
SLM-6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
SLM-8M-2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
SLM-8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
SLM - 8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
SLM-8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
SLM - 10M-2R	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
SLM - 10M-4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
SLM - 10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
SLM - 10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
SLM - 12M-2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
SLM - 12M-4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SLM - 12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SLM - 12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SLM - 12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
SLM - 16M-6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
SLM - 16M-8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
SLM - 16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
SLM - 18M-8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
SLM - 18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
SLM - 20M-8R	20	1/2	11.9	31.8	32	26.0	22.0	34.5	44.6	41.7
SLM - 20M-12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
SLM - 22M-12R	22	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
SLM - 22M-16R	22	1	18.3	36.0	32	26.0	22.0	34.5	44.6	46.5
SLM - 25M-12R	25	3/4	15.9	36.0	38	31.3	26.5	36.8	49.1	41.7
SLM - 25M-16R	25	1	21.8	36.0	38	31.3	26.5	36.8	49.1	46.5

## Male Run Tee STRM

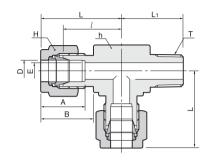




#### Connects fractional tube to female NPT thread

	Tub	e O.D.	Т	Е		Width ac	ross flat						
Part No.		D	I (NPT)	⊏ Min.	h		F		Α	В	l	L	L <sub>1</sub>
	in	mm			in	mm	in	mm					
STRM - 1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
STRM - 1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
STRM - 2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
STRM - 2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.36
STRM - 3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	24.38	18.79
STRM - 3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
STRM - 4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
STRM - 4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	18.79
STRM - 4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	27.08	23.87
STRM - 4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	28.40
STRM - 4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	35.10
STRM - 5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.71	19.81
STRM - 5-4N	5/16	7.94	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.77	24.50
STRM - 5-6N	5/16	7.94	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	28.40
STRM - 6-4N	3/8	9.52	1/4	7.11	5/8	15.87	1/16	17.46	16.76	19.30	23.11	30.48	25.40
STRM - 6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	28.44
STRM - 6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	33.02
STRM - 6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
STRM - 8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
STRM - 8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
STRM - 8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
STRM - 8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.84	36.83
STRM-10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	29.40
STRM-10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00
STRM-10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
STRM-12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
STRM-12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.81	36.83
STRM-14-12N	7/8	22.23	3/4	15.74	1-1/16	26.98	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
STRM-16-12N	1	25.40	3/4	15.74	1-1/4	31.75	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
STRM-16-16N	1	25.40	1	22.35	1-27/64	36.12	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
STRM-20-20N	1-1/4	31.75	1-1/4	27.68	1-27/64	36.12	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
STRM-24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
STRM-32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18	70.61



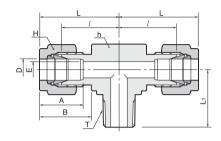




#### Connects metric tube to female ISO tapered thread

Dort No	Tube O.D.	Т	Е	Width ac	ross flat	Δ.	В	1		1
Part No.	D	R(PT)	Min.	h	Н	Α	В	l	L	L1
STRM-3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
STRM-3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
STRM-4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
STRM-4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
STRM-6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
STRM-6M-4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
STRM-6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
STRM-6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
STRM-8M-2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
STRM-8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
STRM-8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
STRM-8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
STRM-10M-2R	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
STRM-10M-4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
STRM-10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
STRM-10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
STRM-12M-2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
STRM-12M-4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
STRM-12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
STRM-12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
STRM-12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
STRM-16M-6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
STRM-16M-8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
STRM-16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
STRM-18M-8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
STRM-18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
STRM-20M-8R	20	1/2	11.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STRM-20M-12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STRM-22M-12R	22	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STRM-22M-16R	22	1	18.3	36.0	32	26.0	22.0	34.5	44.6	46.5
STRM-25M-12R	25	3/4	15.9	36.0	38	31.3	26.5	36.8	49.1	41.7
STRM-25M-16R	25	1	21.8	36.0	38	31.3	26.5	36.8	49.1	46.5

## Male Branch Tee STBM

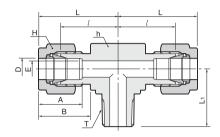




#### Connects fractional tube to female NPT thread

	Tub	e O.D.	Т	Е		Width ac	ross flat						
Part No.		D	-	⊏ Min.	r	1	H	1	Α	В	l	L	L <sub>1</sub>
	in	mm	(NPT)	IVIII.	in	mm	in	mm					
STBM-1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
STBM-1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
STBM-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
STBM-2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.36
STBM-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	24.38	18.79
STBM-3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
STBM-4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
STBM-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.10
STBM-4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	27.08	23.87
STBM-4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	28.40
STBM-4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	35.10
STBM-5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.71	19.81
STBM-5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.77	24.50
STBM-5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	28.40
STBM-6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
STBM-6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	28.44
STBM-6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	33.02
STBM-6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
STBM-8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
STBM-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
STBM-8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
STBM-8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
STBM-10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	29.40
STBM-10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00
STBM-10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
STBM-12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
STBM-12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	36.83
STBM-14-12N	7/8	22.22	3/4	15.74	1-1/16	26.98	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
STBM-16-12N	1	25.40	3/4	15.74	1-1/4	31.75	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
STBM-16-16N	1	25.40	1	22.35	1-27/64	36.12	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
STBM-20-20N	1-1/4	31.75	1-1/4	27.68	1-27-64	36.12	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
STBM-24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
STBM-32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18	70.61

#### Male Branch Tee STBM

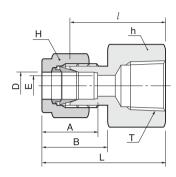




#### Connects metric tube to female ISO tapered thread

	Tube O.D.	Т	E	Width ac	ross flat					
Part No.	D	R(PT)	Min.	h	H	Α	В	l	L	L <sub>1</sub>
STBM-3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
STBM-3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
STBM-4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
STBM-4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
STBM-6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
STBM-6M-4R	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
STBM-6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
STBM-6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
STBM-8M-2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
STBM-8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
STBM-8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
STBM-8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
STBM - 10M-2R	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
STBM-10M-4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
STBM-10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
STBM - 10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
STBM - 12M-2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
STBM-12M-4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
STBM - 12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
STBM - 12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
STBM - 12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
STBM - 16M-6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
STBM - 16M-8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
STBM - 16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
STBM - 18M-8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
STBM - 18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
STBM-20M-8R	20	1/2	11.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STBM - 20M-12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STBM - 22M-12R	22	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STBM - 22M-16R	22	1	18.3	36.0	32	26.0	22.0	34.5	44.6	46.5
STBM - 25M-12R	25	3/4	15.9	36.0	38	31.3	26.5	36.8	49.1	41.7
STBM - 25M-16R	25	1	21.8	36.0	38	31.3	26.5	36.8	49.1	46.5

### Female Connector SCF

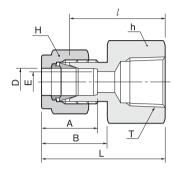


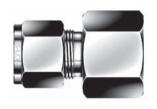


#### Connects fractional tube to male NPT thread

	Tub	e O,D,				Width ac	ross flat					
Part No.		D	T (NIDT)	E	r	1	Н		Α	В	l	L
	in	mm	(NPT)	Min.	in	mm	in	mm				
SCF - 1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	19.81	23.62
SCF - 1-2N	1/16	1.59	1/8	1.27	9/16	14.28	5/16	7.93	8.63	10.92	20.57	24.38
SCF - 2-2N	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	22.09	28.70
SCF - 2-4N	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	26.92	33.52
SCF - 3-2N	3/16	4.76	1/8	3.04	9/16	14.28	1/2	12.70	13.71	16.00	23.11	29.71
SCF - 4-2N	1/4	6.35	1/8	4.82	9/16	14.28	9/16	14.28	15.24	17.78	23.87	31.24
SCF - 4-4N	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	28.44	35.81
SCF - 4-6N	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	37.59
SCF - 4-8N	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	35.05	42.41
SCF - 5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	24.63	32.00
SCF - 5-4N	5/16	7.93	1/4	6.35	3/4	19.05	5/8	15.87	16.25	18.54	29.46	36.83
SCF - 6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	25.40	32.76
SCF - 6-4N	3/8	9.52	1/4	7.11	3/4	19.05	11/16	17.46	16.76	19.30	30.22	37.59
SCF - 6-6N	3/8	9.52	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.75	39.11
SCF - 6-8N	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	36.57	43.94
SCF - 6-12N	3/8	9.52	3/4	7.11	1-5/16	33.33	11/16	17.46	16.76	19.30	40.38	47.75
SCF - 8-4N	1/2	12.70	1/4	10.41	1-3/16	20.64	7/8	22.22	22.86	21.84	30.22	40.38
SCF - 8-6N	1/2	12.70	3/8	10.41	7/8	22.22	7/8	22.22	22.86	21.84	31.75	41.91
SCF - 8-8N	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	36.57	46.73
SCF - 8-12N	1/2	12.70	3/4	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	38.10	48.26
SCF-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	41.91
SCF-10-8N	5/8	15.87	1/2	12.70	1-1/16	26.98	1	25.40	24.38	21.84	36.57	46.73
SCF-10-12N	5/8	15.87	3/4	12.70	1-5/16	33.33	1	25.40	24.38	21.84	38.10	48.26
SCF-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	36.57	46.73
SCF-12-12N	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	38.10	48.26
SCF-14-12N	7/8	22.22	3/4	18.28	1-5/16	33.33	1-1/4	31.75	25.90	21.84	39.62	49.78
SCF-16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	41.14	53.34
SCF-16-16N	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	50.03	62.23
SCF-20-20N	1-1/4	31.75	1-1/4	27.68	2-1/8	53.98	1-7/8	47.63	41.14	38.86	52.57	74.67
SCF-24-24N	1-1/2	38.10	1-1/2	34.03	2-3/8	60.33	2-1/4	57.15	50.03	45.21	56.13	83.31
SCF-32-32N	2	50.80	2	45.97	2-1/8	73.03	3	76.20	67.56	62.73	64.26	101.60

#### Female Connector **SCF**





#### Connects metric tube to male ISO tapered thread

Dowl No.	Tube O.D.	Т	Е	Width a	cross flat	Δ.	Б.	1	
Part No.	D	R(PT)	Min.	h	Н	Α	В	l	L
SCF-3M-2R	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
SCF-3M-4R	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
SCF-4M-2R	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
SCF-6M-2R	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
SCF-6M-4R	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
SCF-6M-6R	6	3/8	4.8	22	14	15.3	17.7	29.5	36.9
SCF-6M-8R	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
SCF-8M-2R	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
SCF-8M-4R	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
SCF-8M-6R	8	3/8	6.4	22	16	16.2	18.6	30.2	37.7
SCF-8M-8R	8	1/2	6.4	27	16	16.2	18.6	35.8	43.3
SCF-10M-2R	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
SCF-10M-4R	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
SCF-10M-6R	10	3/8	7.9	22	19	17.2	19.5	31.0	38.6
SCF-10M-8R	10	1/2	7.9	27	19	17.2	19.5	36.6	44.2
SCF-12M-2R	12	1/8	8.3	22	22	22.8	22.0	28.4	38.5
SCF-12M-4R	12	1/4	9.5	22	22	22.8	22.0	30.2	4.03
SCF-12M-6R	12	3/8	9.5	22	22	22.8	22.0	31.0	41.1
SCF-12M-8R	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
SCF-12M-12R	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
SCF-15M-8R	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
SCF-16M-8R	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
SCF-20M-8R	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
SCF-20M-12R	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
SCF-22M-12R	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
SCF-22M-16R	22	1	18.3	41	32	26.0	22.0	47.8	57.9
SCF-25M-12R	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
SCF-25M-16R	25	1	21.8	41	38	31.3	26.5	50.0	62.3

## Gauge Connector



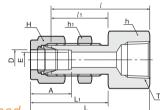
#### Connects metric tube to ISO parallel thread (gauge)

Dort No.	Tube O.D	). T	Е	Width ac	ross flat					,		
Part No.	D	R(PF)	Min.	h	Н	Α	В	l	l1	l <sub>2</sub>	d	L
SCG-3M-4G	3	1/4	2.4	19	12	12.9	15.3	28.7	13	17.0	5.5	35.3
SCG-6M-4G	6	1/4	4.8	19	14	15.3	17.7	30.2	13	17.0	5.5	37.6
SCG-6M-6G	6	3/8	4.8	24	14	15.3	17.7	30.2	14	20.3	6.5	37.6
SCG-6M-8G	6	1/2	4.8	27	14	15.3	17.7	36.1	19	24.9	7.0	43.5
SCG-8M-4G	8	1/4	5.5	19	16	16.2	18.6	31.0	13	-	5.5	38.5
SCG-8M-6G	8	3/8	6.5	24	16	16.2	18.6	28.7	14	-	6.5	36.2
SCG-8M-8G	8	1/2	7.0	27	16	16.2	18.6	33.5	19	-	7.0	41.0
SCG-10M-40	i 10	1/4	5.5	19	19	17.2	19.5	31.8	13	-	5.5	39.4
SCG-10M-60	i 10	3/8	6.5	24	19	17.2	19.5	31.2	14	-	6.5	38.8
SCG-10M-80	i 10	1/2	7.0	27	19	17.2	19.5	34.5	19	-	7.0	42.1
SCG-12M-40	i 12	1/4	5.5	22	22	22.8	22.0	31.8	13	-	5.5	41.9
SCG-12M-60	i 12	3/8	6.5	24	22	22.8	22.0	34.3	14	-	6.5	44.4
SCG-12M-80	i 12	1/2	7.0	27	22	22.8	22.0	38.1	19	-	7.0	48.2
SCG-20M-80	a 20	1/2	7.0	30	32	26.0	22.0	44.2	19	-	7.0	54.3
SCG-22M-8G	a 22	1/2	7.0	30	32	26.0	22.0	44.2	19	-	7.0	54.3

#### Connects fractional tube to ISO parallel thread (gauge)

	Tub	e O.D.	т.	_	١	Width acr	oss flat	-							
Part No.		D	ı	E	h		Н		Α	В	l	l <sub>1</sub>	$l_2$	d	L
	in	mm	G(PF)	Min.	in	mm	in	mm							
SCG - 4-2G	1/4	6.35	1/8	4.82	9/16	14.28	9/16	14.28	15.24	17.78	26.30	12.00	17.0	5.6	33.55
SCG - 4-4G	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.22	12.95	17.0	5.6	37.59
SCG - 4-6G	1/4	6.35	3/8	4.82	15/16	24.81	9/16	14.28	15.24	17.78	30.22	14.22	20.3	6.6	37.59
SCG - 4-8G	1/4	6.35	1/2	4.82	1-1/16	26.96	9/16	14.28	15.24	17.78	36.07	18.80	24.9	7.1	43.43
SCG - 5-4G	5/16	7.93	1/4	5.58	3/4	19.05	5/8	15.87	16.25	18.54	30.98	12.95	-	-	38.6
SCG - 5-8G	5/16	7.93	1/2	7.11	1-1/16	26.98	5/8	15.87	16.25	18.54	33.53	18.80	-	-	40.89
SCG - 6-4G	3/8	9.52	1/4	5.58	3/4	19.05	11/16	17.46	16.76	19.30	31.75	12.95	-	-	39.12
SCG - 6-6G	3/8	9.52	3/8	6.60	15/16	24.81	11/16	17.46	16.76	19.30	31.24	14.22	-	-	38.61
SCG - 6-8G	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	34.54	18.80	-	-	41.91
SCG - 8-4G	1/2	12.70	1/4	5.50	7/8	22.22	7/8	22.22	22.86	21.84	31.80	12.95	-	-	41.95
SCG - 8-6G	1/2	12.70	3/8	6.60	15/16	23.81	7/8	22.22	22.86	21.84	34.29	14.22	-	-	44.45
SCG - 8-8G	1/2	12.70	1/2	7.11	1-1/16	26.98	7/8	22.22	22.86	21.84	38.10	18.80	-	-	48.26

#### Bulkhead Female Connector **SCBF**





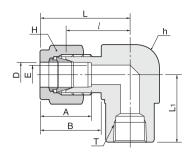
#### Connects fractional tube to male NPT thread

Connects hactional tabe to male IV 1 thread																	
	Tub	Tube O.D.		Е	Width across flat											Panel	Panel
Part No.	D		/ IDT		h		h <sub>1</sub>		H		Α	l	l1	L	L <sub>1</sub>	Hole	Max
	in	mm	(NPT)	Min.	in	mm	in	mm	in	mm						Drill Size	Thickness
SCBF - 2-2N	1/8	3.17	1/8	2.28	9/16	14.28	1/2	12.70	7/16	11.11	12.70	38.10	24.63	44.70	31.24	8.33	12.70
SCBF - 4-2N	1/4	6.35	1/8	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	39.62	26.16	46.99	33.52	11.50	10.16
SCBF - 4-4N	1/4	6.35	1/4	4.82	3/4	19.05	5/8	15.87	9/16	14.28	15.24	44.45	26.16	51.81	33.52	11.50	10.16
SCBF - 6-4N	3/8	9.52	1/4	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	47.75	29.46	55.11	36.83	14.68	11.17
SCBF - 6-6N	3/8	9.52	3/8	7.11	7/8	22.22	3/4	19.05	11/16	17.46	16.76	49.41	29.46	56.77	36.83	14.68	11.17
SCBF - 8-6N	1/2	12.70	3/8	10.41	15/16	23.81	15/16	23.81	7/8	22.22	22.86	51.56	31.75	61.72	41.91	19.44	12.70
SCBF - 8-8N	1/2	12.70	1/2	10.41	1-1/16	26.98	15/16	23.81	7/8	22.22	22.86	56.38	31.75	66.54	41.91	19.44	12.70
SCBF-12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-3/16	30.16	1-1/8	28.57	24.38	63.60	37.33	73.51	47.21	25.79	16.76
SCBF-16-16N	1	25.40	1	22.35	1-5/8	41.27	1-5/8	41.27	1-1/2	38.10	31.24	81.04	45.21	93.23	57.40	33.73	19.05
SCBF-20-20N	1-1/4	31.75	1-1/4	27.68	1-7/8	47.63	1-7/8	47.63	1-7/8	47.63	41.14	83.49	47.75	105.59	69.85	41.67	19.05
SCBF-24-24N	1-1/2	38.10	1-1/2	34.03	1-1/4	57.15	2-1/4	57.15	2-1/4	57.15	50.03	87.39	49.27	114.57	76.45	49.61	19.05
SCBF-32-32N	2	50.80	2	45.97	1-3/4	69.85	2-3/4	69.85	3	76.20	67.56	95.30	56.38	132.63	93.71	57.94	19.05

#### Connects metric tube to male NPT thread

Part No.	Tube O.D.	Т	Е	Wic	Ith across	flat	^	7	7.	- 1	1.	Panel	Panel
	D	(NPT)	Min.	h	h1	Н	А	ι	lΊ	L	L1	Hole Drill Size	Max Thickness
SCBF-6M-2N	6	1/8	4.8	15.8	15.8	14	15.3	39.6	26.2	46.90	35.00	11.5	10.2
SCBF-6M-4N	6	1/4	4.8	19.0	16.0	14	15.3	44.4	26.2	51.80	33.60	11.5	10.2
SCBF-8M-4N	8	1/4	6.3	19.0	17.4	16	16.2	46.7	28.6	53.85	35.55	13.1	11.2
SCBF-12M-8N	12	1/2	9.5	27.0	24.0	22	22.8	56.4	31.8	66.50	41.90	19.5	12.7

## Female Elbow





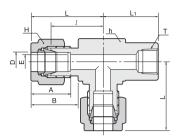
#### Connects fractional tube to male NPT thread

	Tub	e O.D.	Т	Е		Width ac	ross flat						
Part No.		D	(NPT)	Min.	h		H	1	Α	В	l	L	L <sub>1</sub>
	in	mm	(INFT)	IVIII I.	in	mm	in	mm					
SLF-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
SLF-2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
SLF-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
SLF - 4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
SLE-4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	22.35
SLF-4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
SLF-4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
SLF - 5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
SLF-5-4N	5/16	7.93	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
SLF-6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
SLF-6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
SLF-6-6N	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
SLF-6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
SLF-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
SLF-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
SLF-8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	28.70	38.86	28.44
SLF-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
SLF - 10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	29.71	39.87	28.44
SLF - 12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
SLF-12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
SLF-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
SLF-16-12N	1	25.40	3/4	22.35	1-27/64	36.00	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
SLF - 16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	50.29	38.10

#### Connects metric tube to male NPT thread

3011110010 1110	tiro tabo te	7 111010 1	vi i tilica							
Part No.	Tube O.D. D	T (NPT)	E Min.	Width acr	oss flat H	А	В	l	L	L1
SLF - 6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
SLF - 6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
SLF - 6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
SLF - 6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.6	28.40
SLF - 8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
SLF - 8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
SLF - 8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
SLF -10M-2N	10	1/8	7.9	17.46	19	17.2	19.5	23.9	31.5	19.00
SLF-10M-4N	10	1/4	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
SLF-10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
SLF -10M-8N	10	1/2	7.9	25.40	19	17.2	19.5	28.7	36.1	28.40
SLF -12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
SLF -12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.2	22.35
SLF -12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	28.40
SLF -16M-8N	16	1/2	12.7	26.98	25	24.4	22.0	29.7	39.5	28.40

## Female Run Tee STRF





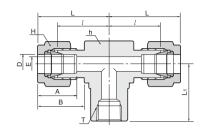
#### Connects fractional tube to male NPT thread

	Tub	e O D	-	_		Width acr	oss flat						
Part No.		D	(NIDT)	E	ŀ	ı	F	I	Α	В	l	L	L <sub>1</sub>
	in	mm	(NPT)	Min.	in	mm	in	mm					
STRF-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
STRF-2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
STRF-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
STRF-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
STRF-4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.86	29.71	22.35
STRF-4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
STRF-4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
STRF-5-2N	5/16	7.94	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
STRF-5-4N	5/16	7.94	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
STRF-6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
STRF-6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
STRF-6-6N	3/8	9.52	3/8	6.35	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
STRF-6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
STRF-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
STRF-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
STRF-8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	29.71	39.87	28.44
STRF-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
STRF-10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	28.70	38.86	28.44
STRF-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
STRF-12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
STRF-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	31.75	21.84	34.54	44.70	31.75
STRF-16-12N	1	25.40	3/4	22.35	1-27/64	36.12	1-1/2	38.10	38.10	26.41	36.83	49.02	31.75
STRF-16-16N	1	25.40	1	22.35	1-1/16	42.86	1-1/2	38.10	38.10	26.41	41.40	50.29	38.10

#### Connects metric tube to male NPT thread

David Na	Tube O.D.	Т	Е	Width acr	oss flat	Δ.	В	,		
Part No.	D	(NPT)	Min.	h	Н	Α	Б	l	L	L1
STRF-6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
STRF-6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
STRF-6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
STRF-6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.40
STRF-8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
STRF-8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
STRF-8M-6N	8	3/8	6.4	20.64	16	16.2	18.6	25.2	32.4	22.40
STRF-8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
STRF-10M-2N	10	1/8	7.9	20.64	19	17.2	19.5	23.9	31.5	19.00
STRF-10M-4N	10	1/4	7.9	20.64	19	17.2	19.5	25.9	33.6	22.40
STRF-10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.6	22.40
STRF-10M-8N	10	1/2	7.9	25.40	19	17.2	19.5	26.2	33.6	28.40
STRF-12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
STRF-12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
STRF-12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.40
STRF-16M-8N	16	1/2	12.7	25.40	25	24.4	22.0	29.7	40.0	28.40

### Female Branch Tee STBF





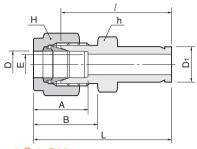
#### Connects fractional tube to male NPT thread

	Tub	e O.D.	Т	Е		Width ac	ross flat						
Part No.		D			h		ŀ	1	Α	В	l	L	L <sub>1</sub>
	in	mm	(NPT)	Min.	in	mm	in	mm					
STBF-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.38	19.05
STBF-2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
STBF-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
STBF-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
STBF-4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	22.35
STBF-4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
STBF-4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
STBF-5-2N	5/16	7.94	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
STBF-5-4N	5/16	7.94	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
STBF-6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
STBF-6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
STBF-6-6N	3/8	9.52	3/8	6.35	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
STBF-6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
STBF-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
STBF-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
STBF-8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	29.71	39.87	28.44
STBF-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
STBF-10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	28.70	38.86	28.44
STBF-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
STBF-12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
STBF-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
STBF-16-12N	1	25.40	3/4	22.35	1-27/64	36.00	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
STBF-16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	53.59	38.10

#### Connects metric tube to male NPT thread

	Tube O.D.	Т	Е	Width acı	oss flat					
Part No.	D	(NTP)	Min.	h	Н	Α	В	l	L	L <sub>1</sub>
STBF-6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
STBF-6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
STBF-6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
STBF-6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.40
STBF-8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
STBF-8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
STBF-8M-6N	8	3/8	6.4	20.64	16	16.2	18.6	25.2	32.4	22.40
STBF-8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
STBF-10M-2N	10	1/8	7.9	17.50	19	17.2	19.5	23.9	31.5	19.00
STBF-10M-4N	10	1/4	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
STBF-10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
STBF-10M-8N	10	1/2	9.5	25.40	19	17.2	19.5	26.2	33.6	22.40
STBF-12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
STBF-12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
STBF-12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.40
STBF-16M-8N	16	1/2	12.7	25.40	25	24.4	22.0	29.7	40.0	28.70

## Reducer **SR**

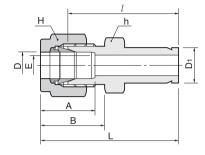




#### Connects fractional tube to frational S-LOK port

		Tube	O.D.	tional C	_		Width ac	ross flat					
Part No.	D			D1	Е		1	F		Α	В	l	L
	in	mm	in	mm	Min.	in	mm	in	mm				_
SR - 1-2	1/16	1.59	1/8	3.17	1.27	5/16	7.93	5/16	7.93	8.63	10.92	25.40	29.21
SR - 1-4	1/16	1.59	1/4	6.35	1.27	5/16	7.93	5/16	7.93	8.63	10.92	27.68	31.49
SR - 2-1	1/8	3.17	1/16	1.59	1.76	7/16	11.11	7/16	11.11	12.70	15.24	22.35	28.95
SR - 2-2	1/8	3.17	1/8	3.17	2.03	7/16	11.11	7/16	11.11	12.70	15.24	26.92	33.52
SR - 2-3	1/8	3.17	3/16	4.76	2.28	7/16	11.11	7/16	11.11	12.70	15.24	27.68	34.29
SR - 2-4	1/8	3.17	1/4	6.35	2.28	7/16	11.11	7/16	11.11	12.70	15.24	29.46	36.06
SR - 2-6	1/8	3.17	3/8	9.52	2.28	7/16	11.11	7/16	11.11	12.70	15.24	30.98	37.59
SR - 2-8	1/8	3.17	1/2	12.70	2.28	9/16	14.28	7/16	11,11	12.70	15.24	37.59	44.19
SR - 3-2	3/16	4.76	1/8	3.17	2.03	7/16	11.11	1/2	12.70	13.71	16.00	28.19	34.79
SR - 3-4	3/16	4.76	1/4	6.35	3.04	7/16	11.11	1/2	12.70	13.71	16.00	30.48	37.08
SR - 4-2	1/4	6.35	1/8	3.17	2.03	1/2	12.70	9/16	14.28	15.24	17.78	29.46	36.83
SR - 4-3	1/4	6.35	3/16	4.76	3.04	1/2	12.70	9/16	14.28	15.24	17.78	30.22	37.59
SR - 4-4	1/4	6.35	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	31.75	39.11
SR - 4-5	1/4	6.35	5/16	7.93	4.82	1/2	12.70	9/16	14.28	15.24	17.78	32.51	39.87
SR - 4-6	1/4	6.35	3/8	9.52	4.82	1/2	12.70	9/16	14.28	15.24	17.78	33.27	40.64
SR - 4-8	1/4	6.35	1/2	12.70	4.82	9/16	14.28	9/16	14.28	15.24	17.78	38.86	46.22
SR - 4-10	1/4	6.35	5/8	15.87	4.82	11/16	17.46	9/16	14.28	15.24	17.78	40.64	48.00
SR - 4-12	1/4	6.35	3/4	19.05	4.82	13/16	20.64	9/16	14.28	15.24	17.78	40.38	47.75
SR - 5-6	5/16	7.93	3/8	9.52	6.35	9/16	14.28	5/8	15.87	16.25	18.54	34.54	41.91
SR - 5-8	5/16	7.93	1/2	12.70	6.35	9/16	14.28	5/8	15.87	16.25	18.54	40.13	47.49
SR - 6-4	3/8	9.52	1/4	6.35	4.82	5/8	15.87	11/16	17.46	16.76	19.30	34.03	41.40
SR - 6-6	3/8	9.52	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	35.81	43.18
SR - 6-8	3/8	9.52	1/2	12.70	7.11	5/8	15.87	11/16	17.46	16.76	19.30	41.14	48.51
SR - 6-10	3/8	9.52	5/8	15.87	7.11	11/16	17.46	11/16	17.46	16.76	19.30	42.92	50.29
SR - 6-12	3/8	9.52	3/4	19.05	7.11	13/16	20.64	11/16	17.46	16.76	19.30	42.92	50.29
SR - 8-4	1/2	12.70	1/4	6.35	4.82	13/16	20.64	7/8	22,22	22.86	21.84	34.79	44.95
SR - 8-6	1/2	12.70	3/8	9.52	7.11	13/16	20.64	7/8	22.22	22.86	21.84	36.57	46.73
SR - 8-8	1/2	12.70	1/2	12.70	9.90	13/16	20.64	7/8	22.22	22.86	21.84	42.16	52.32
SR - 8-10	1/2	12.70	5/8	15.87	10.41	13/16	20.64	7/8	22.22	22.86	21.84	43.68	53.84
SR - 8-12	1/2	12.70	3/4	19.05	10.41	13/16	20.64	7/8	22.22	22.86	21.84	43.68	53.84
SR - 8-16	1/2	12.70	1	25.40	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	50.03	60.19
SR-10-12	5/8	15.87	3/4	19.05	12.70	15/16	23.81	1	25.40	24.38	21.84	44.45	54.61
SR-10-14	5/8	15.87	7/8	22.22	12.70	15/16	23.81	1	25.40	24.38	21.84	45.97	56.13
SR-10-16	5/8	15.87	1	25.40	12.70	1-1/16	26.98	1	25.40	24.38	21.84	50.80	60.96
SR-12-8	3/4	19.05	1/2	12.70	9.90	1-1/16	26.98	1-1/8	28.57	24.38	21.84	44.45	54.61
SR-12-16	3/4	19.05	1	25.40	15.74	1-1/16	26.98	1-1/8	28.57	24.38	21.84	52.32	62.48
SR-16-20	1	25.40	1-1/4	31.75	22.35	1-3/8	34.93	1-1/2	38.10	31.24	26.41	68.32	80.51
SR-16-24	1	25.40	1-1/2	38.10	22.35	1-5/8	41.28	1-1/2	38.10	31.24	26.41	76.96	89.15
SR-16-32	1	25.40	2	50.80	22.35	2-1/8	53.98	1-1/2	38.10	31.24	26.41	100.33	112.52
SR-20-24	1-1/4	31.75	1-1/2	38.10	27.68	1-7/8	47.63	2-1/4	57.15	41.14	38.86	82.04	104.14
SR-20-32	1-1/4	31.75	2	50.80	27.68	1-7/8	47.63	3	76.20	41.14	38.86	103.12	125.22
SR-24-32	1-1/2	38.10	2	50.80	34.03	2-1/4	57.15	3	76.20	50.03	45.21	104.14	131.31

### Reducer **SR**





#### Connects metric tube to fractional S-LOK port

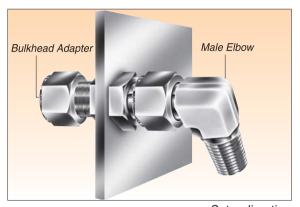
		Tube O.I		Е	Width ac	cross flat			,	
Part No.	D	[ in	D1 mm	Mln.	h	Н	Α	В	l	L
SR - 2M-2	2	1/8	3.17	1.7	12	12	12.9	15.3	26.9	33.5
SR - 3M-2	3	1/8	3.17	2.0	12	12	12.9	15.3	26.9	33.5
SR - 3M-4	3	1/4	6.35	2.4	12	12	12.9	15.3	29.5	36.1
SR - 4M-4	4	1/4	6.35	2.4	12	12	13.7	16.1	30.5	37.1
SR - 6M-2	6	1/8	3.18	2.0	14	14	15.3	17.7	29.5	36.9
SR - 6M-4	6	1/4	6.35	4.8	14	14	15.3	17.7	31.8	39.2
SR - 6M-5	6	5/16	7.93	4.8	14	14	15.3	17.7	32.5	39.9
SR - 6M-6	6	3/8	9.52	4.8	14	14	15.3	17.7	33.3	40.7
SR - 6M-8	6	1/2	12.70	4.8	14	14	15.3	17.7	38.9	46.3
SR - 8M-6	8	3/8	9.52	6.4	15	16	16.2	18.6	34.5	42.0
SR - 8M-8	8	1/2	12.70	6.4	15	16	16.2	18.6	40.1	47.6
SR -10M-6	10	3/8	9.52	7.1	18	19	17.2	19.5	36.6	44.2
SR -10M-8	10	1/2	12.70	7.9	18	19	17.2	19.5	42.2	49.8
SR -12M-8	12	1/2	12.70	9.5	22	22	22.8	22.0	42.2	52.3
SR -12M-12	12	3/4	19.05	9.5	22	22	22.8	22.0	43.7	53.8
SR -18M-12	18	3/4	19.05	15.1	27	30	24.4	22.0	46.0	56.1
SR -18M-16	18	1	25.40	15.1	27	30	24.4	22.0	52.3	62.4
SR -25M-16	25	1	25.40	20.2	35	38	31.3	26.5	57.2	69.5

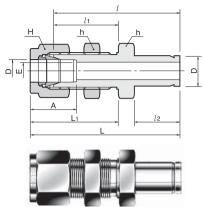
#### Connects metric tube to metric S-LOK port

David Na	Tube	0.D.	Е	Width a	cross flat	^	В	l	
Part No.	D	D <sub>1</sub>	Mln.	h	Н	Α	В	ι	L
SR-2M-3M	2	3	1.7	12	12	12.9	15.3	26.9	35.3
SR-3M-4M	3	4	2.4	12	12	12.9	15.3	28.4	35.0
SR-3M-6M	3	6	2.4	12	12	12.9	15.3	29.5	36.1
SR-3M-10M	3	10	2.4	12	12	12.9	15.3	31.8	38.4
SR-4M-6M	4	6	2.4	12	12	13.7	16.1	30.5	37.1
SR-6M-3M	6	3	1.8	14	14	15.3	17.7	29.5	36.9
SR-6M-8M	6	8	4.8	14	14	15.3	17.7	32.5	39.9
SR-6M-10M	6	10	4.8	14	14	15.3	17.7	33.3	40.7
SR-6M-12M	6	12	4.8	14	14	15.3	17.7	38.9	46.3
SR-8M-6M	8	6	4.6	15	16	16.2	18.6	32.8	40.3
SR-8M-10M	8	10	6.4	15	16	16.2	18.6	34.5	42.0
SR-8M-12M	8	12	6.4	15	16	16.2	18.6	40.1	47.6
SR-10M-6M	10	6	4.6	18	19	17.2	19.5	34.8	42.4
SR-10M-12M	10	12	7.9	18	19	17.2	19.5	42.2	49.8
SR-10M-15M	10	15	7.9	18	19	17.2	19.5	43.7	51.3
SR-10M-18M	10	18	7.9	19	19	17.2	19.5	43.7	51.3
SR-12M-6M	12	6	4.6	22	22	22.8	22.0	34.8	44.9
SR-12M-10M	12	10	7.7	22	22	22.8	22.0	36.6	46.7
SR-12M-16M	12	16	9.5	22	22	22.8	22.0	43.7	53.8
SR-12M-18M	12	18	9.5	22	22	22.8	22.0	43.7	53.8
SR-12M-20M	12	20	9.5	22	22	22.8	22.0	46.0	56.1
SR-12M-22M	12	22	9.5	24	22	22.8	22.0	46.0	56.1
SR-12M-25M	12	25	9.5	27	22	22.8	22.0	52.3	62.4
SR-16M-12M	16	12	9.1	24	25	24.4	22.0	42.9	53.0
SR-18M-12M	18	12	9.1	27	30	24.4	22.0	44.5	54.6
SR-18M-16M	18	16	12.7	27	30	24.4	22.0	46.0	56.1
SR-18M-20M	18	20	15.1	27	30	24.4	22.0	47.5	57.6
SR-18M-22M	18	22	15.1	27	30	24.4	22.0	47.5	57.6
SR-18M-25M	18	25	15.1	27	30	24.4	22.0	52.3	62.4
SR-20M-16M	20	16	12.7	30	32	26.0	22.0	47.8	57.9
SR-20M-18M	20	18	13.9	30	32	26.0	22.0	47.8	57.9
SR-20M-22M	20	22	15.8	30	32	26.0	22.0	49.3	59.4
SR-20M-25M	20	25	15.8	30	32	26.0	22.0	54.1	64.2
SR-22M-18M	22	18	13.9	30	32	26.0	22.0	47.8	57.9
SR-22M-20M	22	20	15.1	30	32	26.0	22.0	49.3	59.4
SR-22M-25M	22	25	18.3	30	32	26.0	22.0	54.1	64.2
SR-25M-18M	25	18	13.9	35	38	31.3	26.5	50.8	63.1
SR-25M-20M	25	20	15.1	35	38	31.3	26.5	52.3	64.6

## Bulkhead Adapter **SAB**

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



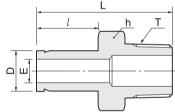


Set a direction

#### Connects fractional tube to fractional S-LOK port

Part No.		e O.D. D	E	h	Width ac	ross flat F	l	Α	l	l1	l2	L	L <sub>1</sub>	Panel Hole	Panel Max
	in	mm	Min.	in	mm	in	mm							Drill Size	Thickness
SAB - 2-2	1/8	3.17	2.03	1/2	12.70	7/16	11.11	12.70	42.92	24.63	13.45	49.53	31.24	8.33	12.70
SAB - 4-4	1/4	6.35	4.82	5/8	15.87	9/16	14.28	15.24	48.51	26.16	15.74	55.88	33.52	11.50	10.16
SAB - 6-6	3/8	9.52	7.11	3/4	19.05	11/16	17.46	16.76	53.84	29.46	17.50	61.21	36.83	14.68	11.17
SAB - 8-8	1/2	12.70	10.41	15/16	23.81	7/8	22.22	22.86	62.73	31.75	23.11	72.89	41.91	19.44	12.70
SAB - 10-10	5/8	15.87	12.70	1-1/16	26.98	1	25.40	24.38	65.02	32.51	24.70	75.18	42.67	22.62	12.70
SAB - 16-16	1	25.40	20.32	1-5/8	41.28	1-1/2	38.10	31.24	88.13	45.21	31.70	100.33	57.40	33.73	19.05
SAB - 20-20	1-1/4	31.75	27.68	1-7/8	47.63	1-7/8	47.63	41.14	102.07	47.75	40.00	124.17	69.85	41.67	19.05
SAB - 24-24	1-1/2	38.10	34.03	2-1/4	57.15	2-1/4	57.15	50.03	118.33	49.27	51.50	145.51	76.45	49.61	19.05
SAB - 32-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	148.79	56.38	68.40	185.82	93.71	57.94	19.05



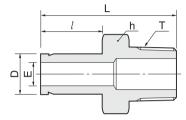




#### Connects metric S-LOK port to female ISO tapered thread

Part No.	Tube O.D. D	T R(PT)	E Min.	Width across flat h	l	L
SAM-3M-2R	3	1/8	1.9	12	13.15	29.4
SAM-6M-2R	6	1/8	4.1	12	15.75	32.8
SAM-6M-4R	6	1/4	4.1	14	15.75	38.1
SAM-8M-4R	8	1/4	5.6	14	16.50	39.1
SAM-10M-4R	10	1/4	7.1	14	17.50	39.9
SAM-10M-6R	10	3/8	7.1	17	17.50	40.6
SAM-10M-8R	10	1/2	7.1	22	17.50	46.2
SAM-12M-4R	12	1/4	8.8	14	23.50	46.5
SAM-12M-6R	12	3/8	8.8	17	23.50	46.5
SAM-12M-8R	12	1/2	8.8	22	23.50	51.8
SAM-18M-8R	18	1/2	13.9	22	24.90	53.2
SAM-18M-12R	18	3/4	13.9	27	24.90	53.2
SAM-28M-16R	28	1	22.5	35	31.70	74.7
SAM-28M-20R	28	1-1/4	22.5	46	31.70	76.2
SAM-32M-20R	32	1-1/4	26.5	46	40.00	81.0
SAM-38M-24R	38	1-1/2	31.6	55	51.50	92.2

## Male Adapter **SAM**





#### Connects fractional S-LOK port to female NPT thread

Part No.		o.D.	T	E	Width ac		l	L
	in	mm	(NPT)	Min.	in	mm		
SAM - 2-2N	1/8	3.17	1/8	2.03	7/16	11.11	13.45	29.50
SAM - 2-4N	1/8	3.17	1/4	2.03	9/16	14.28	13.45	34.80
SAM - 3-2N	3/16	4.76	1/8	3.04	7/16	11.11	14.20	30.22
SAM - 3-4N	3/16	4.76	1/4	3.04	9/16	14.28	14.20	35.56
SAM - 4-2N	1/4	6.35	1/8	4.31	7/16	11.11	15.75	31.80
SAM - 4-4N	1/4	6.35	1/4	4.31	9/16	14.28	15.75	37.08
SAM - 4-6N	1/4	6.35	3/8	4.31	11/16	17.46	15.75	37.84
SAM - 4-8N	1/4	6.35	1/2	4.31	7/8	22.22	15.75	43.43
SAM - 5-2N	5/16	7.93	1/8	5.58	7/16	11.11	16.80	32.76
SAM - 5-4N	5/16	7.93	1/4	5.58	9/16	14.28	16.80	38.10
SAM - 6-2N	3/8	9.52	1/8	6.86	7/16	11.11	17.50	33.50
SAM - 6-4N	3/8	9.52	1/4	6.86	9/16	14.28	17.50	38.90
SAM - 6-6N	3/8	9.52	3/8	6.86	11/16	17.46	17.50	39.60
SAM - 6-8N	3/8	9.52	1/2	6.86	7/8	22.22	17.50	45.20
SAM - 8-4N	1/2	12.70	1/4	9.40	9/16	14.28	23.20	44.50
SAM - 8-6N	1/2	12.70	3/8	9.40	11/16	17.46	23.20	45.20
SAM - 8-8N	1/2	12.70	1/2	9.40	7/8	22.22	23.20	50.50
SAM - 10-6N	5/8	15.87	3/8	11.90	11/16	17.46	24.70	47.40
SAM - 10-8N	5/8	15.87	1/2	11.90	7/8	22.22	24.70	52.30
SAM - 10-12N	5/8	15.87	3/4	11.90	1-1/16	26.98	24.70	52.30
SAM - 12-8N	3/4	19.05	1/2	14.73	7/8	22.22	24.70	52.30
SAM - 12-12N	3/4	19.05	3/4	14.73	1-1/16	26.98	24.70	52.30
SAM - 12-16N	3/4	19.05	1	14.73	1-3/8	34.92	24.70	57.91
SAM - 14-12N	7/8	22.22	3/4	17.27	1-1/16	26.98	26.70	54.30
SAM - 16-12N	1	25.40	3/4	20.32	1-1/16	26.98	31.70	58.70
SAM - 16-16N	1	25.40	1	20.32	1-3/8	34.92	31.70	66.00
SAM - 20-20N	1-1/4	31.75	1-1/4	25.90	1-3/4	44.45	40.00	80.26
SAM - 24-24N	1-1/2	38.10	1-1/2	31.75	2-1/8	53.98	51.50	94.48
SAM - 32-32N	2	50.80	2	43.68	2-3/4	69.85	68.40	119.38

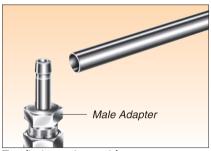
### S-LOK Adapter eliminates alignment problems



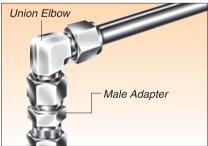
In the direction shown the female port is required to connect with tubing.



The male elbow is positioning in the wrong direction.

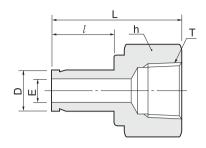


To eliminate the problem, use a male adapter into the female port.



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

# Female Adapter





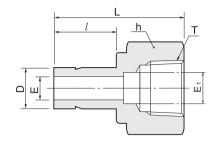
#### Connects fractional S-LOK port to male NPT thread

		O.D.	Т	Е	Width ac			
Part No.		)	(NPT)	Min.	h		l	L
	in	mm	(INF I)	IVIII I.	in	mm		
SAF - 2-2N	1/8	3.17	1/8	2.03	9/16	14.28	13.45	31.50
SAF-2-4N	1/8	3.17	1/4	2.03	3/4	19.05	13.45	35.30
SAF-3-2N	3/16	4.76	1/8	3.04	9/16	14.28	14.20	32.00
SAF-3-4N	3/16	4.76	1/4	3.04	3/4	19.05	14.20	35.81
SAF - 4-2N	1/4	6.35	1/8	4.31	9/16	14.28	15.75	33.02
SAF - 4-4N	1/4	6.35	1/4	4.31	3/4	19.05	15.75	37.10
SAF - 4-6N	1/4	6.35	3/8	4.31	7/8	22.22	15.75	39.37
SAF - 4-8N	1/4	6.35	1/2	4.31	1-1/16	26.98	15.75	45.50
SAF-5-2N	5/16	7.93	1/8	5.58	9/16	14.28	16.80	34.29
SAF - 5-4N	5/16	7.93	1/4	5.58	3/4	19.05	16.80	37.59
SAF-6-2N	3/8	9.52	1/8	6.86	9/16	14.28	17.50	34.29
SAF-6-4N	3/8	9.52	1/4	6.86	3/4	19.05	17.50	38.10
SAF-6-6N	3/8	9.52	3/8	6.86	7/8	22.22	17.50	40.38
SAF - 6-8N	3/8	9.52	1/2	6.86	1-1/16	26.98	17.50	46.73
SAF-8-4N	1/2	12.70	1/4	9.4	3/4	19.05	23.20	43.43
SAF-8-6N	1/2	12.70	3/8	9.4	7/8	22.22	23.20	45.46
SAF-8-8N	1/2	12.70	1/2	9.4	1-1/16	26.98	23.20	51.80
SAF - 10-6N	5/8	15.87	3/8	11.9	7/8	22.22	24.70	48.26
SAF - 10-8N	5/8	15.87	1/2	11.9	1-1/16	26.98	24.70	53.84
SAF - 10-12N	5/8	15.87	3/4	11.9	1-5/16	33.33	24.70	55.37
SAF - 12-8N	3/4	19.05	1/2	14.73	1-1/16	26.98	24.70	52.83
SAF - 12-12N	3/4	19.05	3/4	14.73	1-5/16	33.33	24.70	54.86
SAF-12-16N	3/4	19.05	1	14.73	1-5/8	41.27	24.70	58.42
SAF - 14-12N	7/8	22.22	3/4	17.27	1-5/16	33.33	26.70	57.15
SAF - 16-12N	1	25.40	3/4	20.32	1-5/16	33.33	31.70	60.70
SAF-16-16N	1	25.40	1	20.32	1-5/8	41.27	31.70	64.26
SAF - 20-20N	1-1/4	31.75	1-1/4	25.9	2-1/8	53.98	40.00	77.72
SAF - 24-24N	1-1/2	38.10	1-1/2	31.75	2-3/8	60.33	51.50	88.90
SAF - 32-32N	2	50.80	2	43.68	2-7/8	73.03	68.40	107.44

#### Connects metric S-LOK port to male ISO tapered thread

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

# Female Adapter **SAG**





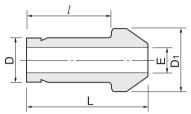
#### Connects fractional S-LOK port to male ISO tapered thread

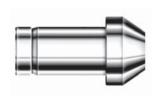
Part No.	Tube [	O.D. O	T	E	E <sub>1</sub>	Width ad	cross flat	l	l <sub>1</sub>	L
	in	mm	G(PF)	Min.		in	mm			
SAG-4-2G	1/4	6.35	1/8	4.3	4.57	9/16	14.28	15.75	12	32
SAG-4-4G	1/4	6.35	1/4	4.3	5.5	3/4	19.05	15.75	12.9	35.3
SAG-6-6G	3/8	9.52	3/8	6.6	6.5	15/16	23.81	17.5	14.1	39.37
SAG-8-8G	1/2	12.7	1/2	7.1	7	1-1/16	26.98	23.2	18.9	45.72

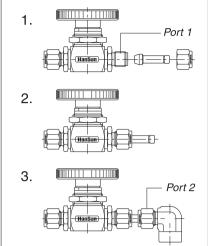
#### Connects metric S-LOK port to male ISO tapered thread

	<u> </u>							
Part No.	Tube O.D. D	T G(PT)	E Min.	E1	Width across flat h	l	l1	L
SAG-6M-2G	6M	1/8	4.1	4	14	15.75	12	32
SAG-6M-4G	6M	1/4	4.1	5.5	19	15.75	13	35.3
SAG-6M-6G	6M	3/8	4.1	6.5	24	15.75	14.22	38.4
SAG-6M-8G	6M	1/2	4.1	7	27	15.75	18.9	42.9
SAG-8M-4G	8M	1/4	5.6	5.5	19	16.5	13	33
SAG-8M-6G	8M	3/8	5.6	6.5	24	16.5	14.22	38.9
SAG-8M-8G	8M	1/2	5.6	7	27	16.5	18.9	43.7
SAG-10M-4G	10M	1/4	7.1	5.5	19	17.5	13	34.5
SAG-10M-6G	10M	3/8	7.1	6.5	24	17.5	14.22	36.1
SAG-10M-8G	10M	1/2	7.1	7	27	17.5	18.9	40.1
SAG-12M-4G	12M	1/4	8.8	5.5	19	23.5	13	40.1
SAG-12M-6G	12M	3/8	8.8	6.5	24	23.5	14.22	44.7
SAG-12M-8G	12M	1/2	8.8	7	27	23.5	18.9	48.8
SAG-15M-8G	15M	1/2	12.7	7	27	24.65	18.9	49
SAG-16M-8G	16M	1/2	12.7	7	27	24.6	18.9	49
SAG-18M-8G	18M	1/2	13.9	7	27	24.9	18.9	49.3
SAG-22M-8G	22M	1/2	18.3	7	27	26.6	18.9	52
SAG-25M-8G	25M	1/2	19.8	7	30	31.7	18.9	56.1

## Port Connector







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

#### Installation Instructions

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

for 1/8", 3mm only 3/4 turn from finger tight.

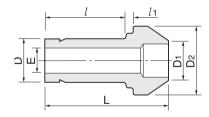
#### Connects two fractional S-LOK ports

Tube O.D. D in mm		Min.	D <sub>1</sub>	l	L
		4.00	0.00	40.00	40.70
1/16	1.59	1.00	3.30	10.66	13.72
1/8	3.17	2.03	6.09	15.75	22.35
1/4	6.35	4.31	9.39	18.79	24.64
5/16	7.93	5.58	10.92	20.06	25.90
3/8	9.52	6.86	12.70	20.32	26.16
1/2	12.70	9.4	15.74	25.90	35.81
3/4	19.05	14.73	22.09	27.68	37.33
1	25.40	20.32	28.44	34.54	48.00
	1/16 1/8 1/4 5/16 3/8 1/2 3/4	1/16 1.59 1/8 3.17 1/4 6.35 5/16 7.93 3/8 9.52 1/2 12.70 3/4 19.05	1/16 1.59 1.00 1/8 3.17 2.03 1/4 6.35 4.31 5/16 7.93 5.58 3/8 9.52 6.86 1/2 12.70 9.4 3/4 19.05 14.73	1/16     1.59     1.00     3.30       1/8     3.17     2.03     6.09       1/4     6.35     4.31     9.39       5/16     7.93     5.58     10.92       3/8     9.52     6.86     12.70       1/2     12.70     9.4     15.74       3/4     19.05     14.73     22.09	1/16     1.59     1.00     3.30     10.66       1/8     3.17     2.03     6.09     15.75       1/4     6.35     4.31     9.39     18.79       5/16     7.93     5.58     10.92     20.06       3/8     9.52     6.86     12.70     20.32       1/2     12.70     9.4     15.74     25.90       3/4     19.05     14.73     22.09     27.68

#### Connects two metric S-LOK ports

Part No.	Tube O.D. D	E Min.	D1	l	L
SCP-3M	3	1.9	6.0	15.70	22.20
SCP-4M	4	2.2	7.0	16.67	25.81
SCP-6M	6	4.1	9.0	18.70	24.60
SCP-8M	8	5.6	11.0	20.00	25.90
SCP-10M	10	7.1	13.1	20.20	26.10
SCP-12M	12	8.8	15.0	26.00	35.80
SCP-15M	15	11.2	19.0	27.78	37.40
SCP-16M	16	12	19.0	27.60	37.40
SCP-18M	18	13.9	21.0	27.91	37.40
SCP-20M	20	15.5	23.0	29.20	38.90
SCP-22M	22	17.9	24.97	29.30	39.20
SCP-25M	25	19.9	28.0	34.50	48.00
SCP-28M	28	22.5	34.3	48.30	63.50
SCP-32M	32	26.5	39.5	52.40	69.70
SCP-38M	38	31.6	47.1	61.40	81.90

### Reducing Port Connector



#### Connects two fractional S-LOK ports

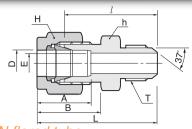
				1					
		Tube	O.D.		_				
Part No.	- [	D <sub>1</sub>		)	E	D2	l	l1	L
	in	mm	in	mm	Min.				
SCRP 2-1	1/8	3.17	1/16	1.59	1.00	6.10	8.64	2.03	17.27
SCRP 4-2	1/4	6.35	1/8	3.17	2.28	9.39	13.45	3.30	22.60
SCRP 6-2	3/8	9.52	1/8	3.17	2.28	12.70	13.45	3.81	23.11
SCRP 6-4	3/8	9.52	1/4	6.35	4.82	12.70	15.75	3.30	24.89
SCRP 8-4	1/2	12.70	1/4	6.35	4.82	15.74	15.75	3.81	29.21
SCRP 8-6	1/2	12.70	3/8	9.52	7.11	15.74	17.50	3.30	30.48
SCRP 12-8	3/4	19.05	1/2	12.70	9.90	22.09	23.20	3.81	37.85
SCRP 16-8	1	25.40	1/2	12.70	9.90	28.40	24.47	4.82	42.67
SCRP 16-12	1	25.40	3/4	19.05	14.98	28.40	25.90	4.06	43.43

#### Connects two metric S-LOK ports



		-0.17					
Dowl No.	Tube	O.D.	Е	Б.	7	1.	
Part No.	D1	D	Min.	D2	l	l1	L
SCRP 6M-3M	6	3	1.9	9.0	13.50	3.2	22.60
SCRP 8M-6M	8	6	4.1	11.0	15.70	3.1	24.70
SCRP 10M-6M	10	6	4.1	13.1	15.70	3.4	25.00
SCRP 10M-8M	10	8	5.6	13.1	16.80	3.1	26.00
SCRP 12M-6M	12	6	4.1	15.0	15.70	3.6	29.10
SCRP 12M-8M	12	8	5.6	15.0	16.80	3.4	29.80
SCRP 12M-10M	12	10	7.1	15.0	17.50	3.1	30.40
SCRP 16M-6M	16	6	4.1	19.0	15.75	3.6	30.40
SCRP 16M-12M	16	12	8.8	19.0	23.10	3.4	36.20
SCRP 28M-25M	28	25	19.8	34.3	33.00	8.2	56.50
SCRP 32M-25M	32	25	19.8	39.5	33.00	9.9	60.30
SCRP 38M-25M	38	25	19.8	47.1	33.00	12.3	65.80

### AN Union SUA

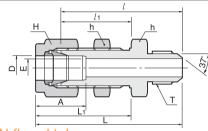




#### Connects fractional tube to AN flared tube

	Tub	e O.D.	AN	Tube										
Part No.		D	Flar	e Size	Thread		h		H	1	Α	В	l	L
	in	mm	in	mm	T(U)	Min.	in	mm	in	mm				
SUA - 1-2	1/16	1.59	1/8	3.17	5/16-24	1.27	7/16	11,11	5/16	7.93	8.63	10.92	23.36	27.17
SUA - 2-2	1/8	3.17	1/8	3.17	5/16-24	1.52	7/16	11,11	7/16	11.11	12.70	15.24	24.89	31.49
SUA - 2-4	1/8	3.17	1/4	6.35	7/16-20	2.28	1/2	12.70	7/16	11.11	12.70	15.24	28.44	35.05
SUA - 4-4	1/4	6.35	1/4	6.35	7/16-20	4.31	1/2	12.70	9/16	14.28	15.24	17.78	30.22	37.59
SUA - 5-5	5/16	7.93	5/16	7.93	1/2-20	5.84	9/16	14.28	5/8	15.87	16.25	18.54	30.98	38.35
SUA - 6-4	3/8	9.52	1/4	6.35	7/16-20	4.31	5/8	15.87	11/16	17.46	16.76	19.30	32.25	39.62
SUA - 6-6	3/8	9.52	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.25	39.62
SUA - 8-8	1/2	12.70	1/2	12.70	3/4-16	9.90	13/16	20.64	7/8	22.22	22.86	21.84	35.81	45.97
SUA -12-12	3/4	19.05	3/4	19.05	1-1/16-12	15.49	1-1/8	28.58	1-1/8	28.58	24.38	21.84	43.18	53.34
SUA -16-16	1	25.40	1	25.40	1-5/16-12	21.33	1-3/8	34.92	1-1/2	38.10	31.24	26.41	49.27	61.46
SUA - 20-20	1-1/4	31.75	1-1/4	31.75	1-5/8-12	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.46	77.56
SUA - 24-24	1-1/2	38.10	1-1/2	38.10	1-7/8-12	34.03	2-1/8	53.97	2-1/4	57.15	50.03	45.21	63.07	90.25
SUA - 32-32	2	50.80	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	67.56	62.73	83.24	120.57

## AN Bulkhead Union

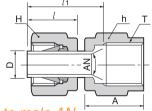




#### Connects fractional tube to AN flared tube

	Tub	e O.D.	AN	Tube	Straight	_	V	/idth ac	ross fla	t						Panel	Panel
Part No.		D	Flare	Size	Thread	E	h	ı	H	1	Α	l	l1	L	L <sub>1</sub>	Hole	Max
	in	mm	in	mm	T(U)	Min.	in	mm	in	mm						Drill Size	Thickness
SUBA - 2-2	1/8	3.17	1/8	3.17	5/16-24	1.77	1/2	12.70	7/16	11.11	13.71	40.85	24.63	47.45	31.23	8.33	12.70
SUBA- 4-4	1/4	6.35	1/4	6.35	7/16-20	4.31	5/8	15.87	9/16	14.28	15.24	46.48	26.16	53.84	33.52	11.50	10.16
SUBA- 6-6	3/8	9.52	3/8	9.52	9/16-18	7.11	3/4	19.05	11/16	17.46	16.76	49.78	29.46	57.15	36.83	14.68	11.17
SUBA- 8-8	1/2	12.70	1/2	12.70	3/4-16	9.90	5/16	23.81	7/8	22.22	22.86	55.62	31.75	65.78	41.91	19.44	12.70
SUBA-12-12	3/4	19.05	3/4	19.05	1-1/16-12	15.49	1-3/16	30.16	1-1/8	28.58	24.38	68.83	37.33	78.99	47.49	25.79	16.76
SUBA-16-16	1	25.40	1	25.40	1-5/16-12	21.33	1-5/8	41.27	1-1/2	38.10	31.24	80.26	45.21	92.45	57.40	33.73	19.05
SUBA-20-20	1-1/4	31.75	1-1/4	31.75	1-5/8-12	27.68	1-7/8	47.63	1-7/8	47.63	41.14	86.37	47.75	108.47	69.85	41.67	19.05
SUBA-24-24	1-1/2	38.10	1-1/2	38.10	1-7/8-12	34.03	2-1/4	57.15	2-1/4	57.15	50.03	94.33	49.27	121.51	76.45	49.61	19.05
SUBA-32-32	2	50.80	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	67.56	114.29	56.38	151.62	93.71	16.27	19.05







#### Connects factional S-LOK port to male AN

	Tub	e O.D.		Tube	Straight		Width ac	ross flat				
Part No.		D	Flar	e Size	Thread	r	ı	H	1	Α	l	l1
	in	mm	in	mm	T(U)	in	mm	in	mm			
SAA-2-2	1/8	3.17	1/8	3.17	5/16-24	3/8	9.52	7/16	11.11	13.71	13.46	18.54
SAA-2-4	1/8	3.17	1/4	6.35	7/16-20	9/16	14.28	7/16	11.11	15.74	13.46	19.05
SAA-4-4	1/4	6.35	1/4	6.35	7/16-20	9/16	14.28	9/16	14.28	15.74	15.74	21.33
SAA-6-6	3/8	9.52	3/8	9.52	9/16-18	11/16	17.46	11/16	17.46	18.28	17.52	24.89
SAA-8-8	1/2	12.70	1/2	12.70	3/4-16	7/8	22.22	7/8	22.22	21.59	23.11	31.75

#### SAE Fittings

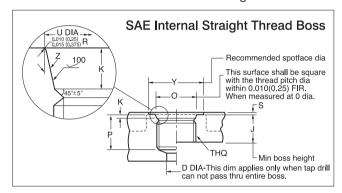
S-LOK SAE straight O-Ring seal fittings are of positionable feature and provide connection tube to straight thread boss. Further this has an advantage of eliminating welding and brazing process when used as bulkhead fitting on thin wall tanks or vessels.

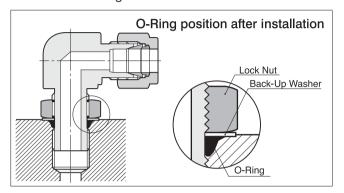
These fittings are designed and manufactured to SAE standards as below:

Male or external fitting end dimensions to SAE J514

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

Female or internal straight thread boss to SAEJ1926. See diagram below.





#### **Details of SAE Internal Straight Thread Boss**

U	n	Ιt	:1	Υ	۱r	Υ

Nom.	Thread	D	J	K	0	P <sup>d</sup>	U <sup>a</sup>	Yc	S <sup>bc</sup>	Z
Tube O.D.	Slze	Min.	Min.	$(\pm 0.2)$	Min.	Min.	(+0.13)		Max	(±1°)
1/8	5/16-24	1.6	10.0	1.9	11	12.0	9.1	17	1.6	12°
3/16	3/8-24	3.2	10.0	1.9	13	12.0	10.7	19	1.6	12°
1/4	7/16-20	4.4	11.5	2.4	15	14.0	12.4	21	1.6	12°
5/16	1/2-20	6.0	11.5	2.4	16	14.0	14.0	23	1.6	12°
3/8	9/16-18	7.5	12.7	2.5	18	15.5	15.6	25	1.6	12°
1/2	3/4-16	10.0	14.3	2.5	22	17.5	20.6	30	2.4	15°
5/8	7/8-14	12.5	16.7	2.5	26	20.0	23.9	34	2.4	15°
3/4	1-1/16-12	16.0	19.0	3.3	32	23.0	29.2	41	2.4	15°
7/8	1-3/16-12	18.0	19.0	3.3	35	23.0	32.3	45	2.4	15°
1	1-5/16-12	21.0	19.0	3.3	38	23.0	35.5	49	3.2	15°
1-1/4	1-5/8-12	27.0	19.0	3.3	48	23.0	43.5	58	3.2	15°
1-1/2	1-7/8-12	33.0	19.0	3.3	54	23.0	49.8	65	3.2	15°
2	2-1/2-12	70.0	19.0	3.3	70	23.0	65.7	88	3.2	15°

- a. Diameter U shall be concentric with the thread pitch diameter within 0.13 full indicator reading (FIR) and shall be free from longitudinal and spiral tool marks. Annular tool marks up to 2.5 micro meters max. shall be permissble.
- b. This is the maximum recommended spotface depth to permit sufficient wrench grip for the proper tightening of the fitting or locknut.
- c. If the face of the boss is on a machined surface, dimensions Y and S need not apply as long as R 0.25/ 0.375 is maintained to avoid damage to the O-Ring during installation.
- d. Tap drill depths given require the use of bottoming taps to produce the specified full thread lengths. Where standard taps are used, the tap drill depths must be increased accordingly.

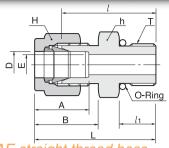
#### O-Ring and straight thread size for SAE Fittings Bosses

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

#### Installation Instruction

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

## SAE Male Connector

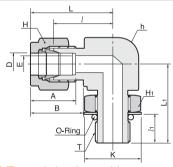




#### Connects fractional tube to SAE straight thread boss

5		O.D.	Straight Thread	Е		Width ac								O-Ring
Part No.		)		Min.	h	1		1	Α	В	l	l1	L	Unifom
	in	mm	T(u)		in	mm	in	mm						SIze Numbe
SMCS-2-2U	1/8	3.17	5/16-24	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.26	7.62	29.97	-902
SMCS-4-4U	1/4	6.35	7/16-20	4.82	9/16	14.28	9/16	14.28	15.24	17.78	26.67	9.14	34.03	-904
SMCS-4-6U	1/4	6.35	9/16-18	4.82	11/16	17.46	9/16	14.28	15.24	17.78	28.19	9.90	35.56	-906
SMCS-4-8U	1/4	6.35	3/4-16	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	11.17	37.59	-908
SMCS-4-10U	1/4	6.35	7/8-14	4.82	1	25.40	9/16	14.28	15.24	17.78	33.27	12.70	40.64	-910
SMCS-5-5U	5/16	7.93	1/2-20	5.84	5/8	15.87	5/8	15.87	16.25	18.54	27.43	9.14	34.79	-905
SMCS-6-4U	3/8	9.52	7/16-20	5.08	5/8	15.87	11/16	17.46	16.76	19.30	28.19	9.14	35.56	-904
SMCS-6-6U	3/8	9.52	9/16-18	7.11	11/16	17.46	11/16	17.46	16.76	19.30	29.71	9.90	37.08	-906
SMCS-6-8U	3/8	9.52	3/4-16	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.75	11.17	39.11	-908
SMCS-6-10U	3/8	9.52	7/8-14	7.11	1	25.40	11/16	17.46	16.76	19.30	34.79	12.70	42.16	-910
SMCS-8-6U	1/2	12.70	9/16-18	7.11	13/16	20.64	7/8	22.22	22.86	21.84	28.95	9.90	39.11	-906
SMCS-8-8U	1/2	12.70	3/4-16	10.41	7/8	22.22	7/8	22.22	22.86	21.84	31.75	11.17	41.91	-908
SMCS-8-10U	1/2	12.70	7/8-14	10.41	1	25.40	7/8	22,22	22.86	21.84	34.79	12.70	44.95	-910
SMCS-8-12U	1/2	12.70	1-1/16-12	10.41	1-1/4	31.75	7/8	22,22	22.86	21.84	38.86	14.98	49.02	-912
SMCS-10-8U	5/8	15.87	3/4-16	10.66	15/16	23.81	1	25.40	24.38	21.84	31.75	11.17	41.91	-908
SMCS-10-10U	5/8	15.87	7/8-14	12.70	1	25.40	1	25.40	24.38	21.84	35.05	12.70	45.21	-910
SMCS-12-8U	3/4	19.05	3/4-16	10.66	1-1/16	26.98	1-1/8	28.57	24.38	21.84	35.81	11.17	45.97	-908
SMCS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/4	31.75	1-1/8	28.57	24.38	21.84	38.86	14.98	49.02	-912
SMCS-14-14U	7/8	22.22	1-3/16-12	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	38.86	14.98	49.02	-914
SMCS-16-12U	1	25.40	1-1/16-12	16.76	1-3/8	34.92	1-1/2	38.10	31.24	26.41	41.14	14.98	53.34	-912
SMCS-16-16U	1	25.40	1-5/16-12	22.35	1-1/2	38.10	1-1/2	38.10	31.24	26.41	42.16	14.98	54.35	-916
SMCS-20-20U	1-1/4	31.75	1-5/8-12	27.68	1-7/8	47.63	1-7/8	47.63	41.14	38.86	46.22	14.98	68.32	-920
SMCS-24-24U	1-1/2	38.10	1-7/8-12	34.03	2-1/8	53.98	2-1/4	57.15	50.03	45.21	50.54	14.98	77.72	-924
SMCS-32-32U	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	67.56	62.73	64.26	14.98	101.60	-932

Positionable SAE Male Elbow **SLS** 

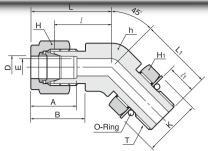




#### Connects fractional tube to SAE straight thread boss

	Tub	e O.D.	Straight	_		W	idth ac	ross flat										O-Ring
Part No.		D	Thread	E	r	1	H	ł	Н	1	Α	В	l	l 1	L	L <sub>1</sub>	K	Unifom
	in	mm	T(u)	Min.	in	mm	in	mm	in	mm								S <b>I</b> ze Numbe
SLS-4-4U	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
SLS-5-5U	5/16	7.93	1/2-20	5.84	9/16	14.28	5/8	15.87	5/8	15.87	16.25	18.54	22.86	9.90	30.22	29.46	18.28	-905
SLS-6-6U	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
SLS-6-8U	3/8	9.52	3/4-16	7.11	13/16	20.64	11/16	17.46	7/8	22,22	16.76	19.30	27.43	12.70	34.79	37.84	25.65	-908
SLS-8-8U	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
SLS-10-10U	5/8	15.87	7/8-14	12.70	1	25.40	1	25.40	1	25.40	24.38	21.84	29.46	14.22	39.62	43.43	29.46	-910
SLS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	-912
SLS-14-14U	7/8	22.22	1-3/16-12	18.28	1-1/4	31.75	1-1/4	31.75	1-3/8	34.92	25.90	21.84	33.02	16.76	43.18	50.54	40.38	-914
SLS-16-16U	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	53.59	43.94	-916
SLS-20-20U	1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.76	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	-920
SLS-24-24U	1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
SLS-32-32U	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	-932

#### Positionable 45° SAE Male Elbow SLBS

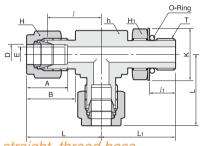




#### Connects fractional tube to SAE straight thread boss

	Tuk	e O.D.	Straight			V	/idth ad	cross fla	at									O-Ring
Part No.		D	Thread	E	r	1	Н	1	H	<u></u>	Α	В	l	l1	L	L <sub>1</sub>	K	Unifom
	in	mm	⁻ T(u)	Min.	in	mm	in	mm	in	mm								Size Number
SLBS-4-4U	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	18.28	9.90	25.65	25.65	16.5	1 -904
SLBS-6-6U	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	20.57	11.17	27.94	28.19	20.0	6 -906
SLBS-8-8U	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	21.84	12.70	32.00	32.25	25.6	5 -908
SLBS-12-12	J 3/4	19.05	1-1/16-12	15.74	1-1/8	28.58	1-1/8	28.58	1-1/4	31.75	24.38	21.84	29.71	16.76	39.87	47.24	36.5	7 -912
SLBS-16-16	J 1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	35.30	16.76	47.49	50.54	43.9	4 -916

#### Positionable SAE Male Run Tee STRS

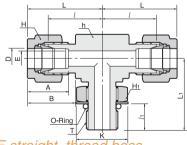




#### Connects fractional tube to SAE straight thread boss

	Tub	e O.D.	Straight	_		٧	/idth a	cross fla	at									O-Ring
Part No.		)	Thread T(u)	E Min.		1	, F	•	, H		Α	В	l	l1	L	L <sub>1</sub>		Unifom Size Number
	in	mm	i (u)		in	mm	in	mm	in	mm							,	ALC NUMBER
STRS-4-4U	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
STRS-6-6U	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
STRS-8-8U	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
STRS-12-12	U 3/4	19.05	1-1/16-12	15.74	1-1/8	26.98	1-1/8	28.58	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	' -912
STRS-16-16	iU 1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	50.54	43.94	-916
STRS-20-20	U 1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.86	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	-920
STRS-24-24	U 1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
STRS-32-32	.U 2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	-932

#### Positionable SAE Male Branch Tee STBS





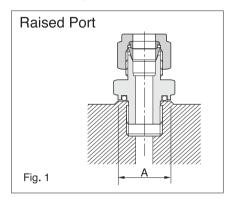
#### Connects fractional tube to SAE straight thread boss

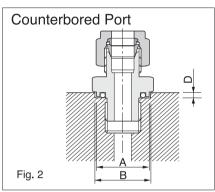
		Tub	e O.D.	Straight	г		٧	Vidth a	cross fl	at									O-Ring
Pa	rt No.		D	Thread	E	r	1	H	1	H	11	Α	В	l	l1	L	L <sub>1</sub>		Unifom
		in	mm	T(u)	Min.	in	mm	in	mm	in	mm								Slze Number
STI	BS-4-4U	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
STI	BS-6-6U	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	906
STI	BS-8-8U	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
STI	BS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/16	26.98	1-1/8	28.58	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	' -912
STI	BS-16-16U	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	53.59	43.94	-916
STI	BS-20-20U	1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.86	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	920
STI	BS-24-24U	1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
STI	BS-32-32U	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	932

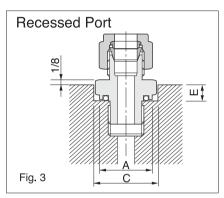
#### O-Seal Connector

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

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







#### Mounting Dimensions for O-seal connectors

Mounting D	11110110101	10 101 0	3001 0011	1001010								
					Dian	neter				De	pth	
Saehan-LOK	Straight	Pipe	/	A	E	3		0	[	)	E	≣
Part No.	Thread	Thread	M	in.	M	lin.	M	lin.	М	ax.	М	ax.
			Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
SCOS-2-2U	5/16-24	-	0.50	12.7	0.59	15.0	0.66	16.8	0.09	2.3	0.16	5.6
SCOS-3-3U	3/8-24	-	0.56	14.2	0.66	16.8	0.75	19.1	0.09	2.3	0.22	5.6
SCOS-4-4U	7/16-20	-	0.69	17.5	0.78	19.8	0.88	22.4	0.16	4.1	0.28	7.1
SCOS-5-5U	1/2-20	-	0.75	19.1	0.91	23.1	1.03	26.2	0.16	4.1	0.31	7.9
SCOS-6-6U	9/16-18	-	0.81	20.6	0.97	24.6	1.09	27.7	0.16	4.1	0.31	7.9
SCOS-8-8U	3/4-16	-	1.00	25.4	1.16	29.5	1.31	33.3	0.16	4.1	0.34	8.6
SCOS-12-12U	1-1/16-12	-	1.41	35.8	1.53	38.9	1.75	44.5	0.22	5.6	0.50	12.7
SCOS-16-16U	1-5/16-12	-	1.69	42.9	1.78	45.2	2.03	51.6	0.22	5.6	0.56	14.2
SCOP-2-2	-	1/8 NPT	0.69	17.5	0.78	19.8	0.88	22.4	0.16	4.1	0.28	7.1
SCOP-4-2	-	1/8 NPT	0.69	17.5	0.78	19.8	0.88	22.4	0.16	4.1	0.28	7.1
SCOP-4-4	-	1/4 NPT	0.87	22.1	0.97	24.6	1.09	27.7	0.16	4.1	0.31	7.9
SCOP-6-6	-	3/8 NPT	1.00	25.4	1.16	29.5	1.31	33.3	0.16	4.1	0.34	8.6
SCOP-6-8	-	1/2 NPT	1.22	31.0	1.34	34.0	1.53	38.9	0.22	5.6	0.44	11.2
SCOP-8-8	-	1/2 NPT	1.22	31.0	1.34	34.0	1.53	38.9	0.22	5.6	0.44	11.2

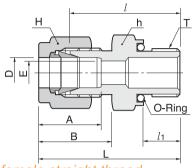
#### When installing an O-ring seal fitting:

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

#### When connecting & disconnecting the tubing to the O-ring fitting:

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

# O-Seal Straight Thread Connector SCOS

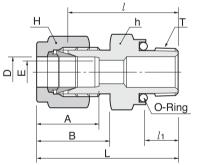




#### Connects fractional tube to female straight thread

	Tub	e O.D.	Straight	Е		Width ac	cross flat							O-Ring
Part No.		<u>D</u>	Thread		r	1	h	<u> </u>	Α	В	l	l1	L	Unifom
	in	mm	T(u)	Min.	in	mm	in	mm						Size Number
SCOS-2-2U	1/8	3.17	5/16-20	2.28	9/16	14.28	7/16	11.11	12.70	15.24	26.16	8.63	32.76	-011
SCOS-3-3U	3/16	4.76	3/8-24	3.04	5/8	15.87	1/2	12.70	13.71	16.00	27.68	9.65	34.29	-012
SCOS-4-4U	1/4	6.35	7/16-20	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.98	10.41	38.35	-111
SCOS-5-5U	5/16	7.93	1/2-20	6.35	7/8	22.22	5/8	15.87	16.25	18.54	33.27	11.17	40.64	-112
SCOS-6-6U	3/8	9.52	9/16-18	7.11	15/16	23.81	11/16	17.46	16.76	19.30	35.05	11.93	42.41	-113
SCOS-8-8U	1/2	12.70	3/4-16	10.41	1-1/8	28.57	7/8	22.22	22.86	21.84	35.81	11.93	45.97	-116
SCOS-12-12U	J 3/4	19.05	1-1/16-12	15.74	1-1/2	38.10	1-1/8	28.58	24.38	21.84	42.16	14.22	52.32	-215
SCOS-16-16U	J 1	25.40	1-5/16-12	22.35	1-3/4	44.45	1-1/2	38.10	31.24	26.41	45.97	14.22	58.16	-219

# O-Seal Pipe Thread Connector SCOP



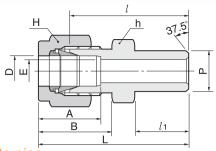


#### Connects fractional tube to female NPT thread

Part No.		e O.D. D mm	T * (NPT)	E Min.	in	Width ad า mm	cross flat	H mm	Α	В	l	l1	L	O-Ring Unifom Slze Number
SCOP-2-2N	1/8	3.17	1/8	2.28	3/4	19.05	7/16	11.11	12.70	15.24	26.16	7.11	32.76	-111
SCOP-4-2N	1/4	6.35	1/8	4.82	3/4	19.05	9/16	14.28	15.24	17.78	27.68	7.11	35.05	-111
SCOP-4-4N	1/4	6.35	1/4	4.82	15/16	23.81	9/16	14.28	15.24	17.78	30.98	9.65	38.35	-113
SCOP-6-4N	3/8	9.52	1/4	7.11	15/16	23.81	11/16	17.46	16.76	19.30	32.51	9.65	39.87	-113
SCOP-6-6N	3/8	9.52	3/8	7.11	1-1/8	28.58	11/16	17.46	16.76	19.30	34.03	10.41	41.40	-116
SCOP-6-8N	3/8	9.52	1/2	7.11	1-5/16	33.33	11/16	17.46	16.76	19.30	39.62	13.46	46.99	-212
SCOP-8-8N	1/2	12.70	1/2	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	39.62	13.46	49.78	-212

<sup>\*</sup>ISO Paralled Threads are available upon request.

#### Male Pipe Weld Connector **SCW**





#### Connects fractional tube to pipe

	Tube	O.D.	Male P	lpe Slze	_		Width ac	ross flat						
Part No.		)		P	E	h	ı	H	1	Α	В	l	l1	L
	in	mm	Nom.	O. D.	Min.	in	mm	in	mm					
SCW-2-2P	1/8	3.17	1/8	10.29	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	9.65	31.24
SCW-3-2P	3/16	4.76	1/8	10.29	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.63	9.65	31.24
SCW-4-2P	1/4	6.35	1/8	10.29	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	9.65	32.76
SCW-4-4P	1/4	6.35	1/4	13.72	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	14.22	37.84
SCW-5-2P	5/16	7.93	1/8	10.29	5.08	9/16	14.28	5/8	15.87	16.25	18.54	26.67	9.65	34.03
SCW-5-4P	5/16	7.93	1/4	13.72	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	14.22	38.60
SCW-6-4P	3/8	9.52	1/4	13.72	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	14.22	39.87
SCW-6-6P	3/8	9.52	3/8	17.15	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	14.22	39.87
SCW-6-8P	3/8	9.52	1/2	21.34	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	19.05	46.33
SCW-8-6P	1/2	12.70	3/8	17.15	10.41	13/16	20.64	7/8	22.22	22.86	21.84	33.27	14.22	43.43
SCW-8-8P	1/2	12.70	1/2	21.34	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	19.05	49.02
SCW-8-12P	1/2	12.70	3/4	26.67	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	40.38	19.05	50.54
SCW-10-8P	5/8	15.87	1/2	21.34	12.70	15/16	23.81	1	25.40	24.38	21.84	38.86	19.05	49.02
SCW-12-12P	3/4	19.05	3/4	26.67	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	19.05	50.54
SCW-16-16P	1	25.40	1	33.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	50.03	23.87	62.23
SCW-20-20P	1-1/4	31.75	1-1/4	42.16	27.68	1-3/4	44.45	2	50.80	41.14	38.86	55.11	23.87	77.21
SCW-24-24P	1-1/2	38.10	1-1/2	48.26	34.03	2-1/8	53.98	2-1/4	57.15	50.03	45.21	61.72	26.16	88.90
SCW-32-32P	2	50.80	2	60.33	47.75	2-3/4	69.85	3	76.20	67.56	62.73	76.20	26.92	113.53

#### Connects metric tube to pipe

Part No.	Tube O.D.		Pipe Size	Е	Width ac	ross flat			1	1.	
Tart No.	D	Nom.	O. D.	Min.	h	H	Α	В	l	l1	L
SCW-3M-2P	3	1/8	10.29	2.4	12	12	12.9	15.3	23.1	9.7	29.7
SCW-4M-2P	4	1/8	10.29	2.4	12	12	13.7	16.1	24.1	9.7	30.7
SCW-6M-2P	6	1/8	10.29	4.8	14	14	15.3	17.7	25.4	9.7	32.8
SCW-6M-4P	6	1/4	13.72	4.8	14	14	15.3	17.7	30.2	14.2	37.6
SCW-8M-2P	8	1/8	10.29	5.1	15	16	16.2	18.6	26.7	9.7	34.2
SCW-8M-4P	8	1/4	13.72	6.4	15	16	16.2	18.6	31.2	14.2	38.7
SCW-8M-8P	8	1/2	21.34	6.4	22	16	16.2	18.6	37.3	19.0	44.8
SCW-10M-4P	10	1/4	13.72	7.1	18	19	17.2	19.5	33.3	14.2	40.9
SCW-10M-6P	10	3/8	17.15	7.9	18	19	17.2	19.5	32.5	14.2	40.1
SCW-10M-8P	10	1/2	21.34	7.9	22	19	17.2	19.5	38.1	19.0	45.7
SCW-12M-4P	12	1/4	13.72	7.1	22	22	22.8	22.0	33.3	14.2	43.4
SCW-12M-6P	12	3/8	17.15	9.5	22	22	22.8	22.0	33.3	14.2	43.4
SCW-12M-8P	12	1/2	21.34	9.5	22	22	22.8	22.0	38.1	19.0	48.2
SCW-14M-6P	14	3/8	17.15	10.3	24	25	24.4	22.0	34.0	14.2	44.1
SCW-15M-8P	15	1/2	21.34	11.9	24	25	24.4	22.0	38.9	19.0	49.0
SCW-16M-8P	16	1/2	21.34	12.7	24	25	24.4	22.0	38.9	19.0	49.0
SCW-18M-8P	18	1/2	21.34	13.5	27	30	24.4	22.0	40.4	19.0	50.5
SCW-32M-20	P 32	1-1/4	42.16	28.6	46	50	42.0	41.6	56.6	23.9	79.6
SCW-38M-24	P 38	1-1/2	48.26	33.7	55	60	49.4	47.9	64.0	26.2	91.6

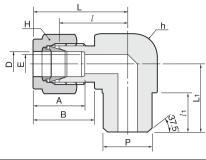
#### S-LOK Welding information

S-LOK weld ends are constructed to Schedule 80 wall or greater.

The first step is to remove the nut and ferrules from the S-LOK fitting to protect them from weld heat and cover the threads with a protective device (i.e. another nut or a plug)SP to protect the S-LOK port threads & sealing surface from weld spatter. Only finger-tighten the protective device so that you can use it many times.

The second step is to tack weld at four positions 90° apart to hold the fitting in place to ensure alignment and concentricity of the components, then complete the weld.

### Male Pipe Weld Elbow **SLW**

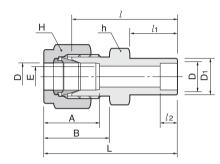




#### Connects fractional tube to pipe

	Tul	oe O.D.	Male P	lpe Slze	_		Width ac	ross flat							
Part No.		D	I	5	E	r	1	H	1	Α	В	l	l1	L	L <sub>1</sub>
	in	mm	Nom.	O. D.	Min.	in	mm	in	mm						
LW-2-2P	1/8	3.17	1/8	10.29	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	9.65	26.92	18.79
LW-4-4P	1/4	6.35	1/4	13.72	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	14.22	26.92	23.36
LW-6-4P	3/8	9.52	1/4	13.72	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	14.22	30.48	25.40
LW-8-8P	1/2	12.70	1/2	21.34	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	19.05	36.06	33.02
LW-12-12P	3/4	19.05	3/4	26.67	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	19.05	39.87	36.83

### Tube Socket Weld Connector

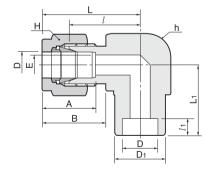




#### Connects fractional tubes

	Tuk	oe O.D.	_			Width a	cross flat							
Part No.		D	E	D1	r	1	H	1	Α	В	l	l <sub>1</sub>	l2	L
	in	mm	Min.		in	mm	in	mm						
SCSW-2-2	1/8	3.17	2.28	7.87	7/16	11.11	7/16	11.11	12.70	15.24	22.35	8.63	6.35	28.95
SCSW-4-4	1/4	6.35	4.82	11.17	1/2	12.70	9/16	14.28	15.24	17.78	26.16	10.41	7.87	33.52
SCSW-6-6	3/8	9.52	7.11	15.74	5/8	15.87	11/16	17.46	16.76	19.30	30.22	11.93	9.65	37.59
SCSW-8-8	1/2	12.70	10.41	19.05	13/16	20.64	7/8	22.22	22.86	21.84	30.98	11.93	12.70	41.14
SCSW-12-12	3/4	19.05	15.74	26.67	1-1/16	26.98	1-1/8	28.58	24.38	21.84	33.27	11.93	14.22	43.43
SCSW-16-16	1	25.40	22.35	33.27	1-3/8	34.92	1-1/2	38.10	31.24	26.41	40.38	14.22	19.05	52.57

### Tube Socket Weld Elbow **SLSW**

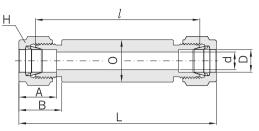




#### Connects fractional tubes

	Tube O D					Width across flat								
Part No.		D	Min,	D <sub>1</sub>	h	<u> </u>	H	<u> </u>	Α	В	l	l1	L	L <sub>1</sub>
	in	mm	IVIIII.		in	mm	in	mm						
SLSW-4-4	1/4	6.35	4.82	12.70	1/2	12.70	9/16	14.28	15.24	17.78	19.55	7.87	26.92	19.55
SLSW-6-6	3/8	9.52	7.11	15.74	5/8	15.87	11/16	17.46	16.76	19.30	23.11	9.65	30.48	23.11
SLSW-8-8	1/2	12.70	10.41	20.57	13/16	20.64	7/8	22.22	22.86	21.84	25.90	12.70	36.06	25.90
SLSW-12-12	3/4	19.05	15.74	26.92	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	14.22	39.87	29.71
SLSW-16-16	1	25.40	22.35	35.05	1-3/8	34.93	1-1/2	38.10	31.24	26.41	36.83	19.05	49.02	36.83







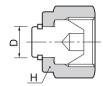
#### Connects fractional Tubes

	Tube	O.D.								
Part No.	[	)	d	H	+	Α	В	l	L	0
	in	mm	min	in	mm					
SBUW-1	1/16	1.59	1.27	5/16	7.93	8.63	10.92	64.2	71.85	10
SBUW-2	1/8	3.17	2.28	7/16	11.11	12.7	15.24	67.2	80.41	12
SBUW-3	3/16	4.76	3.04	7/16	11.11	13.71	16	69	82.2	12
SBUW-4	1/4	6.35	4.82	1/2	12.7	15.24	17.78	70.4	85.13	14
SBUW-5	5/16	7.93	6.35	9/16	14.28	16.25	18.54	73.7	88.43	16
SBUW-6	3/8	9.52	7.11	5/8	15.87	16.76	19.3	73.7	88.43	19
SBUW-8	1/2	12.7	10.41	13/16	20.64	22.86	21.84	73.7	94.02	23
SBUW-10	5/8	15.87	12.7	15/16	23.81	24.38	21.84	73.7	94.02	28
SBUW-12	3/4	19.05	15.74	11/16	26.98	24.38	21.84	73.7	94.02	32
SBUW-14	7/8	22.22	18.28	13/16	30.16	25.9	21.84	73.7	94.02	32
SBUW-16	1	25.4	22.35	13/8	34.92	31.24	26.41	78.5	102.89	35
SBUW-20	1-1/4	31.75	27.68	13/4	44.45	41.14	38.86	83.9	128.1	50
SBUW-24	1-1/2	38.1	34.03	21/8	53.97	50.03	45.21	86.1	140.45	55
SBUW-32	2	50.8	45.97	23/4	69.85	67.56	62.73	100.9	175.55	80

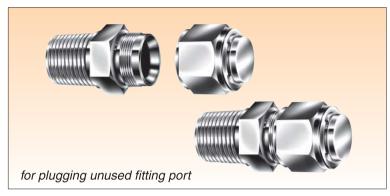
#### Connects Metric Tubes

Part No.	Tube O.D. D	d min	Н	А	В	l	L	0
SBUW-2M	2	1.7	12	12.9	15.3	67.3	80.5	12
SBUW-3M	3	2.4	12	12.9	15.3	67.3	80.5	12
SBUW-4M	4	2.4	12	13.7	16.1	69	82.2	12
SBUW-6M	6	4.8	14	15.3	17.7	70.4	85.2	14
SBUW-8M	8	6.4	16	16.2	18.6	74	89	16
SBUW-10M	10	7.9	19	17.2	19.5	74	89.2	19
SBUW-12M	12	9.5	22	22.8	22	74	94.2	23
SBUW-15M	15	11.9	25	24.4	22	74	94.2	25
SBUW-16M	16	12.7	25	24.4	22	74	94.2	28
SBUW-18M	18	15.1	30	24.4	22	74	94.2	28
SBUW-20M	20	15.9	32	26	22	74	94.2	32
SBUW-22M	22	18.3	32	26	22	74	94.2	32
SBUW-25M	25	21.8	38	31.3	26.5	78.6	103.2	38
SBUW-28M	28	21.8	46	36.6	36.6	81.7	116.3	45
SBUW-30M	30	26.2	50	39.6	39.2	74	117.2	50
SBUW-32M	32	28.6	50	42	41.6	87.1	133.1	50
SBUW-38M	38	33.7	60	49.4	47.9	90.9	146.1	60
SBUW-42M	42	36.5	65	49.4	47.9	90.9	146.1	60









#### Installation Instructions

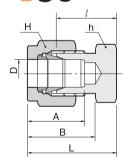
- 1. Remove the nut and ferrules from the body
- 2. With a wrench, 1/4 turn from the finger-tight position, (1/8 turn for 1/8", 3/16" and 2mm, 3mm and 4mm)

#### fractional

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

#### metric

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



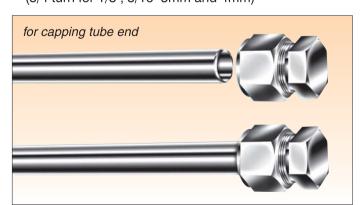


#### Cap end of fractional tube

	Tub	e O.D.	V	Vidth acı	ross flat					
Part N	o	D	h	l .	H	<u> </u>	Α	В	l	L
	in	mm	in	mm	in	mm				
SC-1	1/16	1.59	5/16	7.93	5/16	7.93	8.63	10.92	11.20	14.18
SC-2	1/8	3.17	7/16	11.11	7/16	11.11	12.70	15.24	13.46	20.06
SC-3	3/16	4.76	7/16	11.11	1/2	12.70	13.71	16.00	14.73	21.33
SC-4	1/4	6.35	1/2	12.70	9/16	14.28	15.24	17.78	16.00	23.26
SC-5	5/16	7.93	9/16	14.28	5/8	15.87	16.25	18.54	17.01	24.38
SC-6	3/8	9.52	5/8	15.87	11/16	17.46	16.76	19.30	18.28	25.65
SC-8	1/2	12.70	13/16	20.63	7/8	22.22	22.86	21.84	19.05	29.21
SC-10	5/8	15.87	15/16	23.81	1	25.40	24.38	21.84	19.81	29.97
SC-12	3/4	19.05	1-1/16	26.98	1-1/8	28.57	24.38	21.84	21.33	31.49
SC-14	7/8	22.22	1-3/16	30.16	1-1/4	31.75	25.90	21.84	23.87	34.03
SC-16	1	25.40	1-3/8	34.92	1-1/2	38.10	31.24	26.41	26.16	38.35
SC-20	1-1/4	31.75	1-3/4	44.45	1-7/8	47.63	41.14	38.86	31.24	53.34
SC-24	1-1/2	38.10	2-1/8	53.98	2-1/4	57.15	50.15	45.21	37.33	64.51
SC-32	2	50.80	2-3/4	69.85	3	76.20	67.56	62.73	49.27	86.61

#### **Installation Instructions**

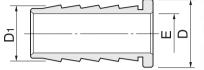
- 1. Insert the tube end into the Cap
- 2. With a wrench, 1-1/4 turns from the finger-tight position, (3/4 turn for 1/8", 3/16" 3mm and 4mm)



#### Cap end of metric tube

Cup cha	0, ,,,,	,0 .0	~ ~				
D. I. NI.	Tube O.D.	Width a	cross flat			,	
Part No.	D	h	Н	Α	В	l	L
SC-2M	2	12	12	12.9	15.3	13.5	20.1
SC-3M	3	12	12	12.9	15.3	13.5	20.1
SC-4M	4	12	12	13.7	16.1	14.7	21.3
SC-6M	6	14	14	15.3	17.7	15.7	23.1
SC-8M	8	15	16	16.2	18.6	17.0	24.5
SC-10M	10	18	19	17.2	19.5	19.0	26.6
SC-12M	12	22	22	22.8	22.0	19.0	29.1
SC-15M	15	24	25	24.4	22.0	19.8	29.9
SC-16M	16	24	25	24.4	22.0	19.8	29.9
SC-18M	18	27	30	24.4	22.0	21.3	31.4
SC-20M	20	30	32	26.0	22.0	23.9	34.0
SC-22M	22	30	32	26.0	22.0	23.9	34.0
SC-25M	25	35	38	31.3	26.5	26.2	38.5
SC-28M	28	41	46	36.6	36.6	27.7	48.5
SC-32M	32	46	50	42.0	41.6	32.8	55.8
SC-38M	38	55	60	49.4	47.9	37.8	65.4

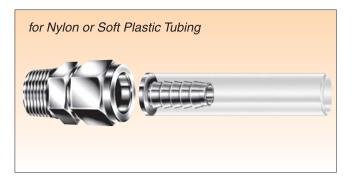
### Tube Insert SI





#### fractional

		Tube	O.D.		
Part No.		D		D <sub>1</sub>	Е
	in	mm	in	mm	
SI-3-2	3/16	4.76	1/8	3.17	2.28
SI-4-2	1/4	6.35	1/8	3.17	2.28
SI-4-3	1/4	6.35	3/16	4.76	3.55
SI-5-2	5/16	7.93	1/8	3.17	2.28
SI-5-3	5/16	7.93	3/16	4.76	3.04
SI-5-4	5/16	7.93	1/4	6.35	4.82
SI-6-3	3/8	9.52	3/16	4.76	3.04
SI-6-4	3/8	9.52	1/4	6.35	4.82
SI-8-4	1/2	12.7	1/4	6.35	4.82
SI-8-6	1/2	12.7	3/8	9.52	7.87
SI-10-6	5/8	15.87	3/8	9.52	7.87
SI-10-8	5/8	15.87	1/2	12.70	11.17
SI-12-8	3/4	19.05	1/2	12.70	11.17
SI-12-10	3/4	19.05	5/8	15.87	14.22
SI-16-12	1	25.4	3/4	19.05	17.52



#### Installation Instructions

The S-LOK Tube Insert supports the soft plastic tubing, thus the tubing does not collapse when the ferrules deform it. When you select a size of Tube Insert, check if the tubing O.D. and I. D. conform to those of the tube insert.

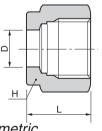
#### metric

B N	Tube	_	
Part No.	D	D <sub>1</sub>	E
SI-6M-4M	6	4	2.8
SI-8M-6M	8	6	4.4
SI-10M-8M	10	8	6.4
SI-12M-8M	12	8	6.4
SI-12M-10M	12	10	8.3

## Nut SN

#### fractional

Tractional	Tub	e O.D.	Width ac	ross flat	
Part No.		D	Н		L
	in	mm	in	mm	
SN-1	1/16	1.59	5/16	7.93	7.90
SN-2	1/8	3.17	7/16	11.11	11.93
SN-3	3/16	4.76	1/2	12.70	11.93
SN-4	1/4	6.35	9/16	14.28	12.70
SN-5	5/16	7.93	5/8	15.87	13.46
SN-6	3/8	9.52	11/16	17.46	14.22
SN-8	1/2	12.70	7/8	22.22	17.52
SN-10	5/8	15.87	1	25.40	17.52
SN-12	3/4	19.05	1-1/8	28.57	17.52
SN-14	7/8	22.22	1-1/4	31.75	17.52
SN-16	1	25.40	1-1/2	38.10	20.57
SN-20	1-1/4	31.75	1-7/8	47.63	31.75
SN-24	1-1/2	38.10	2-1/4	57.15	38.10
SN-32	2	50.80	3	76.20	52.32





mе	etric			
	Part No.	Tube O.D. D	Width across flat H	L
	SN - 2M	2	12	11.90
	SN - 3M	3	12	11.90
	SN - 4M	4	12	11.90
	SN - 6M	6	14	12.70
	SN - 8M	8	16	13.50
	SN - 10M	10	19	15.10
	SN - 12M	12	22	17.40
	SN - 15M	15	25	17.40
	SN - 16M	16	25	17.40
	SN - 18M	18	30	17.40
	SN - 20M	20	32	17.40
	SN - 22M	22	32	17.40
	SN - 25M	25	38	20.60
	SN - 28M	28	46	30.60
	SN - 32M	32	50	34.40
	SN - 38M	38	60	40.60

#### Front Ferrule **SFF**

#### fractional

Part No.	Tube O.D. D	
	in	mm
SFF-1	1/16	1.59
SFF-2	1/8	3.17
SFF-3	3/16	4.76
SFF-4	1/4	6.35
SFF-5	5/16	7.93
SFF-6	3/8	9.52
SFF-8	1/2	12.70
SFF-10	5/8	15.87
SFF-12	3/4	19.05
SFF-14	7/8	22,22
SFF-16	1	25.40
SFF-20	1-1/4	31.75
SFF-24	1-1/2	38.10
SFF-32	2	50.80

#### metric

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

### Back Ferrule **SFB**





#### fractional

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

#### metric

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

### Ferrule Set



#### fractional

Part No.	Tube O.D.	
rait ivo.	in	mm
SFS-1	1/16	1.59
SFS-2	1/8	3.17
SFS-3	3/16	4.76
SFS-4	1/4	6.35
SFS-5	5/16	7.93
SFS-6	3/8	9.52
SFS-8	1/2	12.70
SFS-10	5/8	15.87
SFS-12	3/4	19.05
SFS-14	7/8	22,22
SFS-16	1	25.40

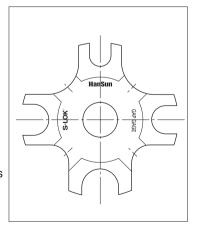
#### metric

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

### Gap Gauge for Pull-up Inspection

S-LOK maintains unbelievably tight tolerance on its each and every part. S-LOK tube fittings are monitored and gauged throughout process. This assures S-LOK consistency and makes S-LOK fittings gaugable.

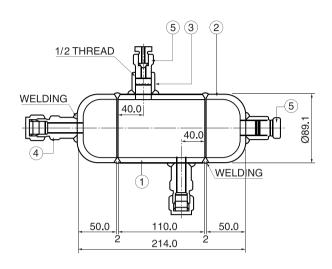
This no-go gauge is the useful tool to inspect if the fittings are pulled up 1-1/4 turns from the finger-tight position. When the gauge doesn't fit the gap between the nut and body hex, the fitting is tightened 1-1/4 turns from the finger-tight position. If the gauge fits the gap, the fittings is not fully tightened.



#### Multiple Size Gap Gauge

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

#### **SEAL & CONDENSATE POT**



#### End Connection Designator

CONNECTION	IDENTIFIER
1/2 NPT	N
1/2 PT	R
1/2 S.W	W
1/2 Shinil LOK	Т

Class Designator Of Fittings

Grade Decorgrants	
SCHDULE NO.	IDENTIFIER
SCH 40	Α
SCH 80	В
SCH 160	С
SCH XXS	D

#### Materials of Constructions

NO.	Description	Materials
1	3" Pipe	Refer to below
2	3" Cap	Refer to below
3	Half Coupling	SS316 or CS
4	Weld Connector	SS316
(5)	Vent Plug	SS316 or CS
6	Hex. Plug	SS316 or CS

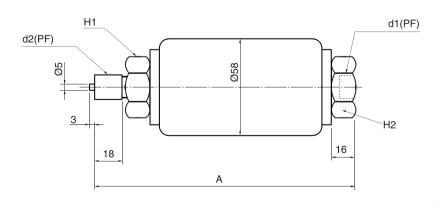
#### Shapes Designator

SHAPES	IDENTIFIER
	Α
<b>-</b>	В
	С
	D
	E
	F

#### Materials Designator

MATERIALS	IDENTIFIER
A335 Gr P11	1
A335 Gr P22	2
A106 Gr B	3
A312 Gr TP304	4
A312 Gr TP316	5
A312 Gr TP304L	6
A312 Gr TP316L	7

### **TANK SYPHON**



							Unit:mm
NO.	TYPE	MATERIAL	DIMENSION (mm)				
NO.			d1, d2	Α	В	H1	H2
TS2	TS10-333SSPF 3/8	SUS316	PF3/8	t61	18	32	32

#### **SPECIFICATION**

- 1.USING PRESSURE:0-150kg<sup>2</sup>/cm 2.MAX. PRESSURE:200kg<sup>2</sup>/cm
- 3.TANK CAPACITY:80cc
- 4.FLUID TEMP:LESS THAN 350°C 5.WEIGHT:1.8Kg