S-LOK
Compression Tube Fittings

The best partner for value creation
We support the innovations of customer



01

Catalogue No. S-LOK Oct.2020

Tube to Tube Union

Union
SU  18

Union Elbow
SL  19

Reducing Union
SUR  20

Union Tee
ST  22

Union Cross
SX  23

Reducing Union Tee
STR  24

Bulkhead Union
SUB  26

Tube to Male Pipe

Male Connector
SMC-N  27

Male Connector
SMC-R  28

Male Connector for Bonded Seal
SMC-G  29

Thermocouple Connector
SMCT  30

Male Connector for Metal Gasket
SOM  32

Bulkhead Male Connector
SMCB  33

45° Male Elbow
SLBM  33

Male Elbow
SLM  34

Male Run Tee
STRM  36

Male Branch Tee
STBM  38

Tube to Female Pipe

Female Connector
SCF  40

Gauge Connector
SCG  42

Bulkhead Female Connector
SCBF  43

Female Elbow
SLF  44

Female Run Tee
STRF  45

Female Branch Tee
STBF  46

Stub Tube Connector

Reducer
SR  47

Bulkhead Adapter
SAB  49

Male Adapter
SAM  50

Female Adapter
SAF  52

Gauge Adapter
SAG  53

Port Connector
SCP  54

Reducing Port Connector
SCRP  55

Tube to AN Tube

AN Union
SUA  56

AN Bulkhead Union
SUBA  57

AN Adapter
SAA  57

Tube to SAE O-Ring Seal

SAE Male Connector
SMCS  59

Positionable SAE Male Elbow
SLS  60

Positionable 45° SAE Male Elbow
SLBS  60

Positionable SAE Male Run Tee
STRS  61

Positionable SAE Male Branch Tee
STBS  61

O-Seal Straight Thread Connector
SCOS  63

O-Seal Pipe Thread Connector
SCOP  63

Tube to Weld End

Male Pipe Weld Connector
SCW  64

Male Pipe Weld Elbow
SLW  65

Tube Socket Weld Connector
SCSW  65

Tube Socket Weld Elbow
SLSW  65

Welding Bulkhead Union
SBUW  66

Tube to Flange

Flange Adapter
SF  67

Plug and Cap

Plug
SP  68

Cap
SC  69

Spare Parts

Tube Insert
SI  70

Nut
SN  70

Front Ferrule
SFF  71

Back Ferrule
SFB  71

Ferrule Set
SFS10  71

Bulkhead Retainer
SBR  72

ETC

Dielectric Fitting
SEU  72

Hydraulic Swaging Unit
SWG-MNL  73

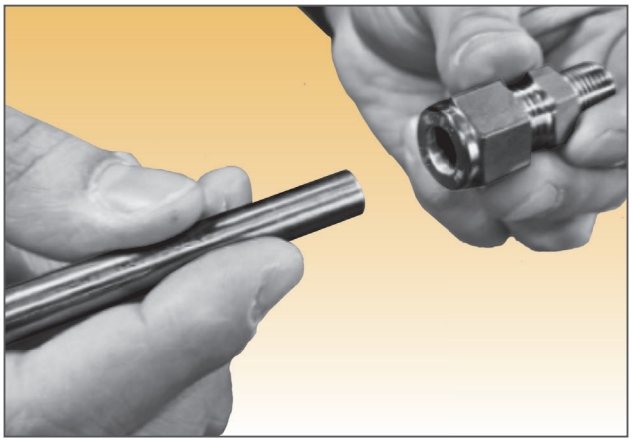
Electric Swaging Unit
SWG-AT  74

Gap Gauge for Pull-up Inspection
SIG  75

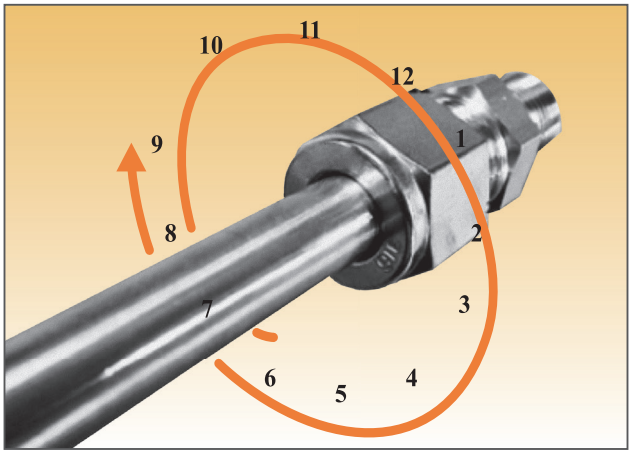
Liquid Gas Leak Detectors
S·detec  75

Installation Instruction

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

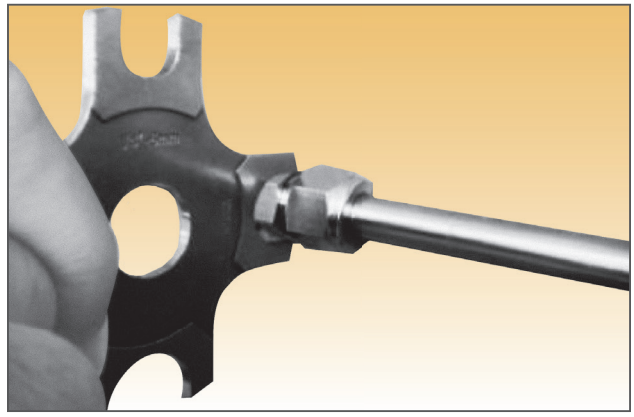


- Mark the nut at the 6 o'clock position before placing the spanner.



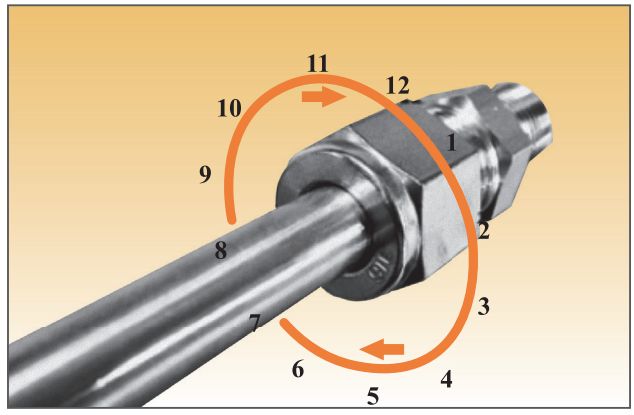
- While holding the fitting body steady, tight the nut with the spanner by turning 1-1/4 clockwise.
- Make sure that the spanner's starting point at 6 o'clock is being positioned at 9 o'clock after tightening 1-1/4 clockwise.
- Tighten the nut only 3/4 turn to the 3 o'clock position for 1/16″, 1/8″ and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

Gaugeability



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

Reassembly Instruction



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

Introduction

S-LOK tube fittings are manufactured under very strict quality control to assure maximum reliable performance.
S-LOK tube fittings require no special tools assembly. Connections cam be quickly and easily made by simple insertion and tightening the nuts.
S-LOK tube fittings has been specifically designed for use on instrumentation, process and control systems and equipment employed in chemical, petroleum, power generating and pulp and paper plants.
S-LOK tube fittings could also be used in extensive applications of other fields where very high quality tube fittings are required.

Construction

S-LOK tube fittings are composed of four precision part ; body, nut, front ferrule and back ferrule.
By screwing the nut onto the body, the nut is tightened against the tapered area of the body, and its edge is compressed tightly against the tube by curling inward.
The back ferrule is also located between the body and nut.
As the front ferrule rolls, the back ferrule rolls up and bites into the tube resulting in the connection of tube and the fitting as well as a non-leakage effected.
The double ferrule design achieves the leak proof sealing by assembly motion being transmitted axially through the tubing. This results in no radial movement of the tubing upon assembly. Therefore, the tube is not stressed and the mechanical integrity is maintained. This is the result of close monitoring of tolerance control in machining, and hardness of each and every part of S-LOK tube fittings.
Through this swaging action, S-LOK tube fittings are mechanically integrated with the tube connected.



Materials

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

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

Pressure Ratings

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

Tubing

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

- General Rules.

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

- Consider the following in selecting tube.

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

Temperature Ranges

The maximum and minimum operating temperatures for various tubing material.

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

Temperature De-rating Factors

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

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

Example : Tube S316 3/8 O.D. x 0.035˝ at 700 °F
3,300psi x 0.82=2.706psi
Therefore 2.706psi is the maximum allowable working pressure of S316 3/8˝ O.D x 0.035˝ wall tubing.

Stainless Steel Tubing

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

Stainless Steel Fractional Tubing

Tube O.D (inch)	Tube Wall Thickness (inch)															
	0.010	0.012	0.014	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
1/16	5,600	6,800	8,100	9,400	12,000											
1/8						8,500	10,900					Working pressure (psig)				
3/16						5,400	7,000	10,200								
1/4						4,000	5,100	7,500	10,200							
5/16							4,000	5,800	8,000							
3/8							3,300	4,800	6,500	7500						
1/2							2,600	3,700	5,100	6,700						
5/8		For gas service, applying tube wall thickness should only be selected from the outside of the shaded boundary.						2,900	4,000	5,200	6,000					
3/4								2,400	3,300	4,200	4,900	5,800				
7/8								2,000	2,800	3,600	4,200	4,800				
1									2,400	3,100	3,600	4,200	4,700			
1-1/4										2,400	2,800	3,300	3,600	4,100	4,900	
1-1/2											2,300	2,700	3,000	3,400	4,000	4,900
2												2,000	2,200	2,500	2,900	3,600

Stainless Steel Metric Tubing

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

- Working pressure are based on allowable stress value of 20,000psi (137,800kPa) as specified in ASME B31.3 within the temperature range of -29°C to 37°C (-20°F to 100°F), considering ultimate tensile strength 75,000psi (516,700kPa).
- Pressure calculation are based on Maximum O.D and minimum wall thickness and no allowance is made for corrosion and erosion.
- Welded tubing Based on ASME B31.3 for weld integrity, a de-rating factor must be applied to welded tubing. For double butt seam tubing, multiply by 0.85, For single butt seam tubing, multiply by 0.80.

Carbon Steel Tubing

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

Carbon Steel Fractional Tubing

Tube O.D (inch)	Tube Wall Thickness (inch)													
	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.148	0.165	0.180	0.220
1/16	9,700													
1/8		8,000	10,200								Working pressure (psig)			
3/16		5,100	6,600	9,600										
1/4		3,700	4,800	7,000	9,600									
5/16			3,700	5,500	7,500									
3/8			3,100	4,500	6,200									
1/2			2,300	3,200	4,500	5,900								
5/8			1,800	2,600	3,500	4,600	5,300							
3/4				2,100	2,900	3,700	4,300	5,100						
7/8	For gas service, applying tube wall thickness should only be selected from the outside of the shaded boundary.			1,800	2,400	3,200	3,700	4,300						
1				1,500	2,100	2,700	3,200	3,700	4,100					
1-1/4					1,600	2,100	2,500	2,900	3,200	3,600	4,000	4,600	5,000	
1-1/2						1,800	2,000	2,400	2,600	2,900	3,300	3,700	4,100	5,100
2							1,500	1,700	1,900	2,100	2,400	2,700	3,000	3,700

Carbon Steel Metric Tubing

Tube O.D (mm)	Tube Wall Thickness (mm)												
	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0	3.5	4.0	4.5
3	630	790											
6	290	370	460	590						Working pressure (bar)			
8		270	330	430									
10		210	260	330									
12		170	210	270	330	380	420						
14		150	180	230	280	320	350						
15		140	170	210	260	290	330						
16		130	150	200	240	270	300	350					
18			140	170	210	240	270	310					
20			120	160	190	210	240	270	310				
22			110	140	170	190	210	240	280				
25			100	120	150	170	180	210	240	260			
28	For gas service, applying tube wall thickness should only be selected from the outside of the shaded boundary.					150	160	190	210	230	270		
30						140	150	170	200	210	250		
32						130	140	160	180	200	230	270	
38							120	130	150	160	190	230	260

- Working pressure are based on allowable stress value of 15,700psi (108,2000kPa) as specified in ASME B31.3 within the temperature range of -29°C to 37°C (-20°F to 100°F), considering ultimate tensile strength 47,000psi (324,000kPa).
- Pressure calculation are based on Maximum O.D and minimum wall thickness and no allowance is made for corrosion and erosion.

Copper Tubing

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

Copper Fractional Tubing

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

Copper Metric Tubing

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

- Working pressure are based on allowable stress value of 6,000psi (41,300kPa) as specified in ASME B31.3 within the temperature range of -29°C to 37°C (-20°F to 100°F), considering ultimate tensile strength 30,000psi (206,700kPa).
- Pressure calculation are based on Maximum O.D and minimum wall thickness and no allowance is made for corrosion and erosion.

Alloy 400 Tubing

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

Alloy 400 Fractional Tubing

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

Alloy 400 Metric Tubing

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

- Working pressure are based on allowable stress value of 20,000psi (137,800kPa) as specified in ASME B31.3 within the temperature range of -29°C to 37°C (-20°F to 100°F), considering ultimate tensile strength 70,000psi (482,300kPa).
- Pressure calculation are based on Maximum O.D and minimum wall thickness and no allowance is made for corrosion and erosion.

Special Alloy Tubing

When special alloy tubing is selected, we recommend:
Full annealed seamless (or welded and cold-drawn, where permitted) alloy tubing to the ASTM specification as shown below.
Tubing should be free of scratches for bending of aring.

Tube Material	ASTM code	MAX. Hardness
Alloy C-276	B622	HRB 100
Alloy 20	B729	HRB 95
Alloy 600	B167	HRB 92

Tube Material	ASTM code	MAX. Hardness
Alloy 625	B444	HRC 25
Alloy 825	B163	HR15T 90
Alloy 6Mo	A269	HRB 96

Cryogenic Service

S-LOK tube fittings in 316 stainless steel provide highly reliable performance from cryogenic temperatures to high temperature levels. 316 stainless steel temperature range : -196°C to 649°C (-321°F to 1200°F).
Cryogenic temperature are considered to be temperatures below : -73°C (-100°F)

Proper Tube Handling

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

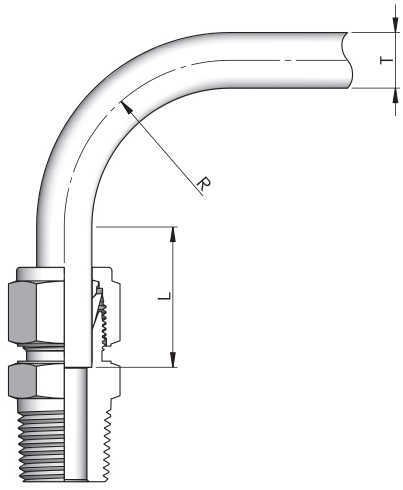
- Tubing should never be dragged out of a tubing rack.
- Tubing should never be dragged across cement, asphalt, gravel or any other rough surface.
- Tubing cutter wheel and hacksaw blade should always be sharp.
- Try not to take deep cuts with each turn of the cutter or stroke of the saw.
- Tube end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

Tube Bending

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

Tube O.D (T) (inch)	Straight Length (L)
1/16	1/2
1/8	23/32
3/16	3/4
1/4	13/16
5/16	7/8
3/8	15/16
1/2	1-3/16
5/8	1-1/4
3/4	1-1/4
7/8	1-5/16
1	1-1/2
1-1/4	2
1-1/2	2-13/32
2	3-1/4

Tube O.D (T) (mm)	Straight Length (L)
3	19
6	21
8	23
10	25
12	31
14	32
15	32
16	32
18	32
20	34
22	40
25	46
28	50
32	54
38	63
50	80



T : Tube O.D
R : Radius
Follow the bented tube vendor's recommendation.
L : Straight tubing length is required from the beginning of the bend to the tubing end.

Pressure Rating

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

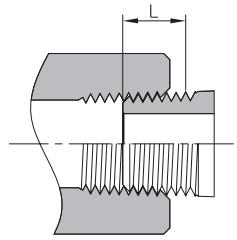
NPT/ISO Pipe Size (inch)	Stainless Steel 316				Brass				Carbon Steel			
	Male		Female		Male		Female		Male		Female	
	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
1/16	11,000	758	6,700	462	5,500	378	3,300	227	11,000	758	6,700	462
1/8	10,000	689	6,500	448	5,000	345	3,200	221	10,000	689	6500	448
1/4	8,000	551	6,600	455	4,000	276	3,300	227	8,000	551	6,600	455
3/8	7,800	538	5,300	365	3,900	269	2,600	179	7,800	538	5,300	365
1/2	7,700	531	4,900	338	3,800	262	2,400	165	7,700	531	4,900	338
3/4	7,300	503	4,600	317	3,600	248	2,300	159	7,300	503	4,600	317
1	5,300	365	4,400	303	2,600	179	2,200	152	5,300	365	4,400	303
1-1/4	6,000	414	5,000	345	3,000	207	2,500	172	6,000	414	5,000	345
1-1/2	5,000	345	4,600	317	2,500	172	2,300	159	5,000	345	4,600	317
2	3,900	269	3,900	269	1,900	131	1,900	131	3,900	269	3,900	269

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

Pipe Thread Sealant

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

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



Elastomer Seal Temperature Rating

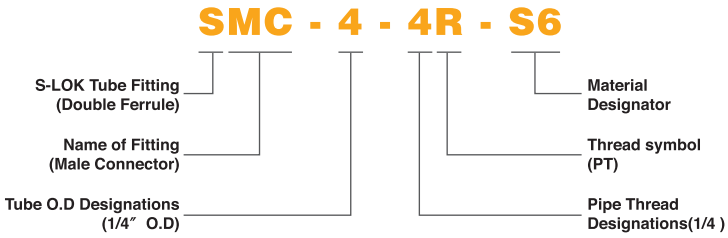
When elastomer seal is used in the fitting, care must be taken for allowable working temperature.

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

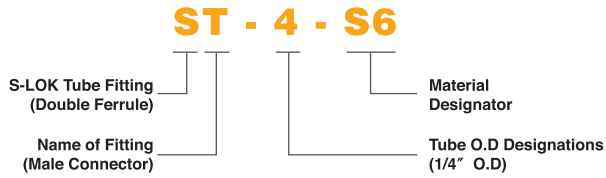
Ordering Information

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

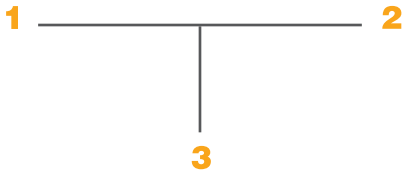
Example 1 : Tube to Pipe ends

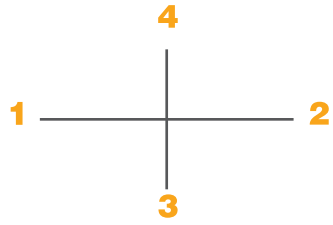


Example 2 : Tube to Tube ends



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





Example 4 : Single Ferrule type To order, use “O” as a suffix to the desired type of fitting ordering designation.

SMCO - 4 - 4R - S6 **STO - 4 - S6**

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

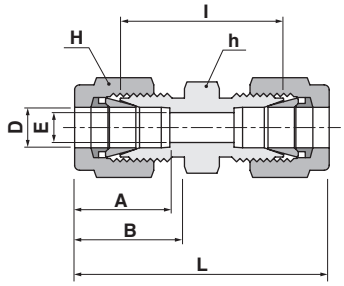
Pipe Thread Size Designator			
Nominal Pipe Size	Identifier	Nominal Pipe Size	Identifier
1/8	2	1	16
1/4	4	1-1/4	20
3/8	6	1-1/2	24
1/2	8	2	32
3/4	12		

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

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

Union

SU





Connects fractional tube

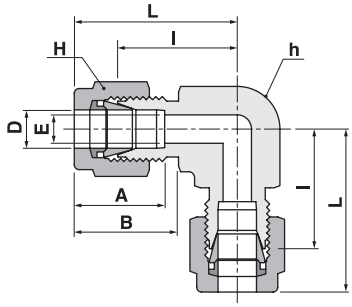
Part No.	Tube O.D		E	Width across flat				A	B	I	L
	D			h		H					
	in	mm	Min	in	mm	in	mm				
SU-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	17.50	25.15
SU-2	1/8	3.17	2.28	7/16	11.11	7/16	11.11	12.70	15.24	22.35	35.56
SU-3	3/16	4.76	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.13	37.33
SU-4	1/4	6.35	4.82	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	53.89
SU-14	7/8	22.22	18.28	1-3/16	30.16	1-1/4	31.75	25.90	21.84	35.05	55.37
SU-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	40.38	64.77
SU-20	1-1/4	31.75	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	48.00	92.20
SU-24	1-1/2	38.10	34.03	2-1/8	53.97	2-1/4	57.15	50.03	45.21	53.60	107.95
SU-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	74.70	14935

Connects metric tube

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

Union Elbow

SL





Connects fractional tube

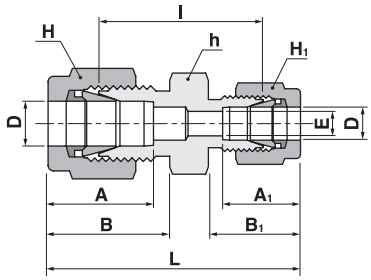
Part No.	Tube O.D D		E	Width across flat h		H		A	B	l	L
	in	mm	Min	in	mm	in	mm				
SL-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
SL-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
SL-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.35
SL-4	1/4	6.35	4.82	1/2	12.70	9/16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

Connects metric tube

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

Reducing Union

SUR



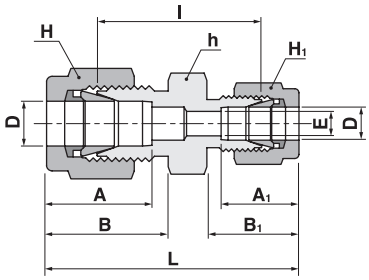


Connects fractional tube

Part No.	Tube O.D				E	Width across flat						A	A_1	B	B_1	I	L
	D		D_1			h		H		H_1							
	in	mm	in	mm	Min	in	mm	in	mm	in	mm						
SUR-2-1	1/8	3.17	1/16	1.59	1.27	7/16	11.11	7/16	11.11	5/16	7.93	12.70	8.63	15.24	10.92	20.60	30.91
SUR-3-1	3/16	4.76	1/16	1.59	1.27	7/16	11.11	1/2	12.70	5/16	7.93	13.71	8.63	16.00	10.92	21.84	32.25
SUR-3-2	3/16	4.76	1/8	3.17	2.28	7/16	11.11	1/2	12.70	7/16	11.11	13.71	12.70	16.00	15.24	23.36	36.57
SUR-4-1	1/4	6.35	1/16	1.59	1.27	1/2	12.70	9/16	14.28	5/16	7.93	15.24	8.63	17.78	10.92	23.11	34.29
SUR-4-2	1/4	6.35	1/8	3.17	2.28	1/2	12.70	9/16	14.28	7/16	11.11	15.24	12.70	17.78	15.24	24.63	38.60
SUR-4-3	1/4	6.35	3/16	4.76	3.04	1/2	12.70	9/16	14.28	1/2	12.70	15.24	13.71	17.78	16.00	25.40	39.37
SUR-5-2	5/16	7.93	1/8	3.17	2.28	9/16	14.28	5/8	15.87	7/16	11.11	16.25	12.70	18.54	15.24	25.90	39.87
SUR-5-4	5/16	7.93	1/4	6.35	4.82	9/16	14.28	5/8	15.87	9/16	14.28	16.25	15.24	18.54	17.78	27.43	42.16
SUR-6-1	3/8	9.52	1/16	1.59	1.27	5/8	15.87	11/16	17.46	5/16	7.93	16.76	8.63	19.30	10.92	25.40	36.57
SUR-6-2	3/8	9.52	1/8	3.17	2.28	5/8	15.87	11/16	17.46	7/16	11.11	16.76	12.70	19.30	15.24	26.92	40.89
SUR-6-4	3/8	9.52	1/4	6.35	4.82	5/8	15.87	11/16	17.46	9/16	14.28	16.76	15.24	19.30	17.78	28.44	43.18
SUR-6-5	3/8	9.52	5/16	7.93	6.35	5/8	15.87	11/16	17.46	5/8	15.87	16.76	16.25	19.30	18.54	29.46	44.19
SUR-8-2	1/2	12.70	1/8	3.17	2.28	13/16	20.64	7/8	22.22	7/16	11.11	22.86	12.70	21.84	15.24	28.44	45.21
SUR-8-4	1/2	12.70	1/4	6.35	4.82	13/16	20.64	7/8	22.22	9/16	14.28	22.86	15.24	21.84	17.78	29.46	46.99
SUR-8-6	1/2	12.70	3/8	9.52	7.11	13/16	20.64	7/8	22.22	11/16	17.46	22.86	16.76	21.84	19.30	30.98	48.51
SUR-10-6	5/8	15.87	3/8	9.52	7.11	15/16	23.81	1	25.40	11/16	17.46	24.38	16.76	21.84	19.30	31.75	49.27
SUR-10-8	5/8	15.87	1/2	12.70	10.41	15/16	23.81	1	25.40	7/8	22.22	24.38	22.86	21.84	21.84	31.75	52.07
SUR-12-4	3/4	19.05	1/4	6.35	4.82	1-1/16	26.98	1-1/8	28.58	9/16	14.28	24.38	15.24	21.84	17.78	31.75	49.27
SUR-12-6	3/4	19.05	3/8	9.52	7.11	1-1/16	26.98	1-1/8	28.58	11/16	17.46	24.38	16.76	21.84	19.30	33.27	50.80
SUR-12-8	3/4	19.05	1/2	12.70	10.41	1-1/16	26.98	1-1/8	28.58	7/8	22.22	24.38	22.86	21.84	21.84	33.27	53.59
SUR-12-10	3/4	19.05	5/8	15.87	12.70	1-1/16	26.98	1-1/8	28.58	1	25.40	24.38	24.38	21.84	21.84	33.27	53.59
SUR-16-8	1	25.40	1/2	12.70	10.41	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.24	22.86	26.41	21.84	40.89	63.24
SUR-16-12	1	25.40	3/4	19.05	15.74	1-3/8	34.92	1-1/2	38.10	1-1/8	28.58	31.24	24.38	26.41	21.84	40.38	62.73

Reducing Union

SUR





Connects metric tube

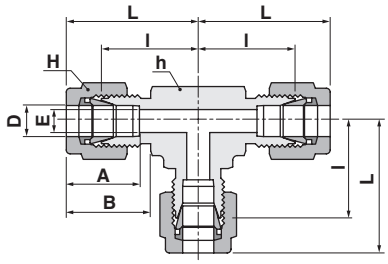
Part No.	Tube O.D		E	Width across flat			A	A_1	B	B_1	I	L
	D	D_1		h	H	H_1						
SUR-3M-2M	3	2	1.7	12	12	12	12.9	12.9	15.3	15.3	22.1	35.3
SUR-6M-2M	6	2	1.7	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
SUR-6M-3M	6	3	2.4	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
SUR-6M-4M	6	4	2.4	14	14	12	15.3	13.7	17.7	16.1	25.4	39.4
SUR-8M-6M	8	6	4.8	15	16	14	16.2	15.3	18.6	17.7	27.4	42.3
SUR-10M-6M	10	6	4.8	18	19	14	17.2	15.3	19.5	17.7	29.5	44.5
SUR-10M-8M	10	8	6.4	18	19	16	17.2	16.2	19.5	18.6	30.3	45.1
SUR-12M-6M	12	6	4.8	22	22	14	22.8	15.3	22.0	17.7	29.5	47.0
SUR-12M-8M	12	8	6.4	22	22	16	22.8	16.2	22.0	18.6	30.2	47.8
SUR-12M-10M	12	10	7.9	22	22	19	22.8	17.2	22.0	19.5	31.0	48.7
SUR-16M-10M	16	10	7.9	24	25	19	24.4	17.2	22.0	19.5	31.8	49.5
SUR-16M-12M	16	12	9.5	24	25	22	24.4	22.8	22.0	22.0	31.8	52.0
SUR-18M-12M	18	12	9.5	27	30	22	24.4	22.8	22.0	22.0	33.3	53.5
SUR-25M-18M	25	18	15.1	35	38	30	31.3	24.4	26.5	22.0	38.6	61.0
SUR-25M-20M	25	20	15.9	35	38	32	31.3	26.0	26.5	22.0	39.9	62.3

Connects metric tube to fractional tube

Part No.	Tube O.D			E	Width across flat			A	A_1	B	B_1	I	L
	D	D_1			h	H	H_1						
		in	mm	Min									
SUR-3M-2	3	1/8	3.17	2.4	12	12	11.1	12.9	12.8	15.3	15.2	22.1	35.2
SUR-4M-2	4	1/8	3.17	2.4	12	12	11.1	13.7	12.8	16.1	15.2	23.4	36.5
SUR-4M-4	4	1/4	6.35	2.4	14	12	14.3	13.7	15.3	16.1	17.7	25.4	39.4
SUR-6M-2	6	1/8	3.17	2.4	14	14	11.1	15.3	12.8	17.7	15.2	24.6	38.5
SUR-6M-4	6	1/4	6.35	4.8	14	14	14.3	15.3	15.8	17.7	17.7	26.2	41.0
SUR-6M-5	6	5/16	7.93	4.8	14	14	15.9	15.3	16.2	17.7	18.6	27.4	42.3
SUR-8M-4	8	1/4	6.35	4.8	15	16	14.3	16.2	15.3	18.6	17.7	27.4	42.3
SUR-10M-2	10	1/8	3.17	2.4	18	19	11.1	17.2	12.8	19.5	15.2	27.7	41.8
SUR-10M-4	10	1/4	6.35	4.8	18	19	14.3	17.2	15.3	19.5	17.7	29.5	44.5
SUR-10M-5	10	5/16	7.93	6.4	18	19	15.9	17.2	16.2	19.5	18.6	30.3	45.1
SUR-10M-6	10	3/8	9.52	7.1	18	19	17.5	17.2	16.9	19.5	18.6	31.0	45.9
SUR-12M-5	12	5/16	7.93	6.4	22	22	15.9	22.8	16.2	22.0	18.6	30.2	47.8
SUR-12M-6	12	3/8	9.52	7.1	22	22	17.5	22.8	16.9	22.0	19.2	31.0	48.4
SUR-12M-8	12	1/2	12.70	9.5	22	22	22.2	22.8	22.8	22.0	22.0	31.0	51.2
SUR-15M-8	15	1/2	12.70	10.3	24	25	22.2	24.4	22.8	22.0	22.0	31.8	52.0
SUR-16M-10	16	5/8	19.05	12.7	24	25	25.4	24.4	24.4	22.0	22.0	31.8	52.0
SUR-18M-12	18	3/4	19.05	15.1	27	30	28.6	24.4	24.4	22.0	22.0	33.3	53.5
SUR-20M-12	20	3/4	19.05	15.9	30	32	28.6	26.0	24.4	22.0	22.0	34.8	54.9
SUR-20M-16	20	1	25.40	15.9	34.9	32	38.1	26.0	31.2	22.0	26.4	38.0	60.3
SUR-22M-16	22	1	25.40	18.3	34.9	32	38.1	26.0	31.2	22.0	26.4	38.2	60.3

Union Tee

ST





Connects fractional tube

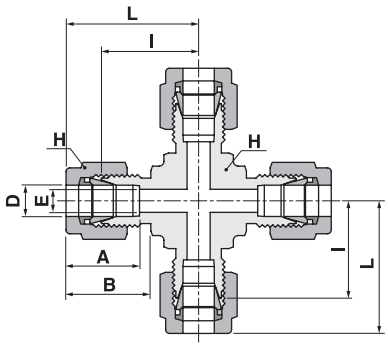
Part No.	Tube O.D D		E	Width across flat h		Width across flat H		A	B	I	L
	in	mm	Min.	in	mm	in	mm				
ST-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
ST-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
ST-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.35
ST-4	1/4	6.35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

Connects metric tube

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

Union Cross

SX





Connects fractional tube

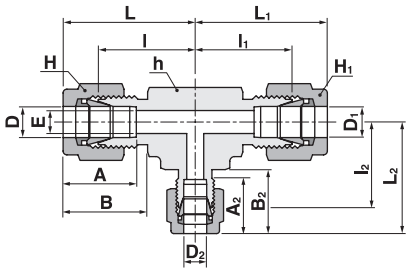
Part No.	Tube O.D D		E	Width across flat h		H		A	B	I	L
	in	mm	Min.	in	mm	in	mm				
SX-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
SX-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
SX-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.35
SX-4	1/4	6.35	4.82	1/2	12.70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

Connects metric tube

Part No.	Tube O.D D	E Min.	Width across flat h	H	A	B	I	L
SX-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
SX-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SX-4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
SX-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SX-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
SX-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
SX-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SX-15M	15	11.9	27	25	24.4	22.0	28.7	38.8
SX-16M	16	12.7	27	25	24.4	22.0	28.7	38.8
SX-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
SX-20M	20	15.9	31.8	32	26.0	22.0	34.5	42.6
SX-22M	22	18.3	31.8	32	26.0	22.0	34.5	42.6
SX-25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1
SX-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
SX-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
SX-38M	38	33.7	55.0	60	49.4	47.9	56.4	84.0

Reducing Union Tee

STR



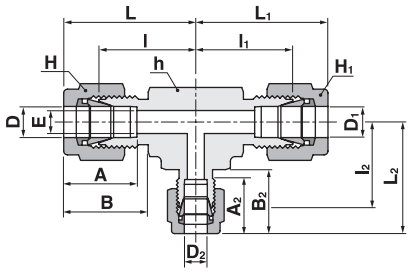


Connects fractional tube

Part No.	Tube O.D						E	A	A_1	A_2	B	B_1	B_2	Width across flat								I	ℓ_1	ℓ_2	L	L_1	L_2
	D		D_1		D_2									h		H		H_1		H_2							
	in	mm	in	mm	in	mm	Min.							in	mm	in	mm	in	mm	in	mm						
STR-4-2	1/4	6.35	1/4	6.35	1/8	3.17	2.28	15.24	15.24	12.70	17.78	17.78	15.24	1/2	12.70	9/16	14.28	9/16	14.28	7/16	11.11	19.55	19.55	17.90	26.91	26.91	24.50
STR-4-6	1/4	6.35	1/4	6.35	3/8	9.52	4.82	15.24	15.24	16.76	17.78	17.78	19.30	5/8	15.87	9/16	14.28	9/16	14.28	11/16	17.46	21.92	21.92	23.10	29.28	29.28	30.46
STR-4-8-8	1/4	6.35	1/2	12.70	1/2	12.70	4.82	15.24	22.86	22.86	17.78	21.84	21.84	13/16	20.64	9/16	14.28	7/8	22.22	7/8	22.22	24.40	25.90	25.90	31.76	36.06	36.06
STR-6-4-6	3/8	9.52	1/4	6.35	3/8	9.52	4.82	16.76	15.24	16.76	19.30	17.78	19.30	5/8	15.87	11/16	17.46	9/16	14.28	11/16	17.46	23.10	21.92	23.10	30.46	29.28	30.46
STR-6-4	3/8	9.52	3/8	9.52	1/4	6.35	4.82	16.76	16.76	15.24	19.30	19.30	17.78	5/8	15.87	11/16	17.46	11/16	17.46	9/16	14.28	23.10	23.10	21.92	30.46	30.46	29.28
STR-6-8	3/8	9.52	3/8	9.52	1/2	12.70	7.11	16.76	16.76	22.86	19.30	19.30	21.84	13/16	20.64	11/16	17.46	11/16	17.46	7/8	22.22	25.90	25.90	25.90	33.26	33.26	36.06
STR-8-4-6	1/2	12.70	1/4	6.35	3/8	9.52	4.82	22.86	15.24	16.76	21.84	17.78	19.30	13/16	20.64	7/8	22.22	9/16	14.28	11/16	17.46	25.90	25.90	25.90	36.06	33.26	33.26
STR-8-4-8	1/2	12.70	1/4	6.35	1/2	12.70	4.82	22.86	15.24	22.86	21.84	17.78	21.84	13/16	20.64	7/8	22.22	9/16	14.28	7/8	22.22	25.90	24.40	25.90	36.06	31.76	36.06
STR-8-6-6	1/2	12.70	3/8	9.52	3/8	9.52	7.11	22.86	16.76	16.76	21.84	19.30	19.30	13/16	20.64	7/8	22.22	11/16	17.46	11/16	17.46	25.90	25.90	25.90	36.06	33.26	33.26
STR-8-4	1/2	12.70	1/2	12.70	1/4	6.35	4.82	22.86	22.86	15.24	21.84	21.84	17.78	13/16	20.64	7/8	22.22	7/8	22.22	9/16	14.28	25.90	25.90	24.40	36.06	36.06	31.76
STR-8-6	1/2	12.70	1/2	12.70	3/8	9.52	7.11	22.86	22.86	16.76	21.84	21.84	19.30	13/16	20.64	7/8	22.22	7/8	22.22	11/16	17.46	25.90	25.90	25.90	36.06	36.06	33.26
STR-10-6	5/8	15.87	5/8	15.87	3/8	9.52	7.11	24.38	24.38	16.76	21.84	21.84	19.30	15/16	23.81	1	25.40	1	25.40	11/16	17.46	28.70	28.70	28.70	38.86	38.86	36.06
STR-12-8-12	3/4	19.05	1/2	12.70	3/4	19.05	10.41	24.38	22.86	24.38	21.84	21.84	21.84	1-1/16	26.98	1-1/8	28.58	7/8	22.22	1-1/8	28.58	29.71	29.71	29.71	39.87	39.87	39.87
STR-12-4	3/4	19.05	3/4	19.05	1/4	6.35	4.82	24.38	24.38	15.24	21.84	21.84	17.78	1-1/16	26.98	1-1/8	28.58	1-1/8	28.58	9/16	14.28	29.71	29.71	28.21	39.87	39.87	35.57
STR-12-6	3/4	19.05	3/4	19.05	3/8	9.52	7.11	24.38	24.38	16.76	21.84	21.84	19.30	1-1/16	26.98	1-1/8	28.58	1-1/8	28.58	11/16	17.46	29.71	29.71	29.71	39.87	39.87	35.57
STR-12-8	3/4	19.05	3/4	19.05	1/2	12.70	10.41	24.38	24.38	22.86	21.84	21.84	21.84	1-1/16	26.98	1-1/8	28.58	1-1/8	28.58	7/8	22.22	29.71	29.71	29.71	39.87	39.87	38.37
STR-12-16	3/4	19.05	3/4	19.05	1	25.40	15.74	24.38	24.38	31.24	21.84	21.84	26.41	1-3/8	34.92	1-1/8	28.58	1-1/8	28.58	1-1/2	38.10	34.43	34.43	36.83	49.02	49.02	45.70
STR-12-20	3/4	19.05	3/4	19.05	1-1/4	31.75	15.74	24.38	24.38	41.14	21.84	21.84	38.86	1-11/16	42.86	1-1/8	28.58	1-1/8	28.58	1-7/8	47.63	39.41	39.41	44.45	49.57	49.57	66.55
STR-14-8	7/8	22.22	7/8	22.22	1/2	12.70	10.41	25.90	25.90	22.86	21.84	21.84	21.84	1-1/4	31.75	1-1/4	31.75	1-1/4	31.75	7/8	22.22	34.54	34.54	34.54	44.70	44.70	44.70
STR-16-12-12	1	25.40	3/4	19.05	3/4	19.05	15.74	31.24	24.38	24.38	26.41	21.84	21.84	1-3/8	34.92	1-1/2	38.10	1-1/8	28.58	1-1/8	28.58	36.83	35.54	35.54	49.02	45.70	45.70
STR-16-4	1	25.40	1	25.40	1/4	6.35	4.82	31.24	31.24	15.24	26.41	26.41	17.78	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	9/16	14.28	36.83	36.83	33.04	49.02	49.02	40.40
STR-16-6	1	25.40	1	25.40	3/8	9.52	7.11	31.24	31.24	16.76	26.41	26.41	19.30	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	11/16	17.46	36.83	36.83	34.54	49.02	49.02	41.90
STR-16-8	1	25.40	1	25.40	1/2	12.70	10.41	31.24	31.24	22.86	26.41	26.41	21.84	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	7/8	22.22	36.83	36.83	34.54	49.02	49.02	44.70
STR-16-12	1	25.40	1	25.40	3/4	19.05	15.74	31.24	31.24	24.38	26.41	26.41	21.84	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	1-1/8	28.58	36.83	36.83	35.54	49.02	49.02	45.70
STR-20-12-12	1-1/4	31.75	3/4	19.05	3/4	19.05	15.74	41.14	24.38	24.38	38.86	21.84	21.84	1-11/16	42.86	1-7/8	47.63	1-1/8	28.58	1-1/8	28.58	44.45	39.41	39.41	66.55	49.57	49.57
STR-20-12	1-1/4	31.75	1-1/4	31.75	3/4	19.05	15.74	41.14	41.14	24.38	38.86	38.86	21.84	1-11/16	42.86	1-7/8	47.63	1-7/8	47.63	1-1/8	28.58	44.45	44.45	39.41	66.55	66.55	49.57
STR-24-20-20	1-1/2	38.10	1-1/4	31.75	1-1/4	31.75	27.68	50.03	41.14	41.14	45.21	38.86	38.86	2	50.80	2-1/4	57.15	1-7/8	47.63	1-7/8	47.63	50.80	49.62	49.62	77.97	71.72	71.72
STR-24-8	1-1/2	38.10	1-1/2	38.10	1/2	12.70	10.41	50.03	50.03	22.86	45.21	45.21	21.84	2	50.80	2-1/4	57.15	2-1/4	57.15	7/8	22.22	50.80	50.80	44.58	77.97	77.97	54.74
STR-24-12	1-1/2	38.10	1-1/2	38.10	3/4	19.05	15.74	50.03	50.03	24.38	45.21	45.21	21.84	2	50.80	2-1/4	57.15	2-1/4	57.15	1-1/8	28.58	50.80	50.80	44.58	77.97	77.97	54.74
STR-24-16	1-1/2	38.10	1-1/2	38.10	1	25.40	22.35	50.03	50.03	31.24	45.21	45.21	26.41	2	50.80	2-1/4	57.15	2-1/4	57.15	1-1/2	38.10	50.80	50.80	47.75	77.97	77.97	59.94

Reducing Union Tee

STR



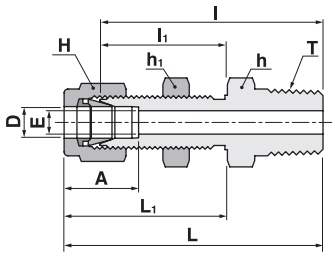


Connects metric tube

Part No.	Tube O.D			E	A	A_1	A_2	B	B_1	B_2	Width across flat				l	ℓ_1	ℓ_2	L	L_1	L_2
	D	D_1	D_2	Min.							h	H	H_1	H_2						
STR-3M-6M	3	3	6	2.4	12.9	12.9	15.3	15.3	15.3	17.7	12.7	12	12	14	18.0	18.0	19.6	24.6	24.6	27.0
STR-8M-6M	8	8	6	4.8	16.2	16.2	15.3	18.6	18.6	17.7	15	16	16	14	21.3	21.3	20.5	28.8	28.8	28.0
STR-10M-6M	10	10	6	4.8	17.2	17.2	15.3	19.5	19.5	17.7	17.4	19	19	14	23.9	23.9	22.4	31.5	31.5	29.8
STR-10M-12M	10	10	12	7.9	17.2	17.2	22.8	19.5	19.5	22.0	20.6	19	19	22	25.9	25.9	25.9	33.5	33.5	36.0
STR-12M-6M-10M	12	6	10	4.8	22.8	15.3	17.2	22.0	17.7	19.5	20.6	22	14	19	25.9	24.4	25.9	36.0	31.8	33.5
STR-12M-6M-12M	12	6	12	4.8	22.8	15.3	22.8	22.0	17.7	22.0	20.6	22	14	22	25.9	24.4	25.9	36.0	31.8	36.0
STR-12M-10M-10M	12	10	10	7.9	22.8	17.2	17.2	22.0	19.5	19.5	20.6	22	19	19	25.9	25.9	25.9	36.0	33.5	33.5
STR-12M-10M	12	12	10	7.9	22.8	22.8	17.2	22.0	22.0	19.5	20.6	22	22	19	25.9	25.9	25.9	36.0	36.0	33.5
STR-12M-6M	12	12	6	4.8	22.8	22.8	15.3	22.0	22.0	17.7	20.6	22	22	14	25.9	25.9	24.4	36.0	36.0	31.8
STR-15M-12M	15	15	12	9.8	24.4	24.4	22.8	28.7	28.7	22.0	25.4	25	25	22	28.7	28.7	28.7	38.8	38.8	38.8
STR-16M-12M	16	16	12	9.8	24.4	24.4	22.8	28.7	28.7	22.0	25.4	25	25	22	28.7	28.7	28.7	38.8	38.8	38.8
STR-18M-12M	18	18	12	9.8	24.4	24.4	22.8	29.7	29.7	22.0	27.0	30	30	22	29.7	29.7	29.5	39.8	39.8	39.6
STR-20M-12M-20M	20	12	20	9.8	26.0	22.8	26.0	34.5	22.0	34.5	34.9	32	22	32	32.5	32.5	32.5	42.6	42.6	42.6
STR-20M-6M	20	20	6	4.8	26.0	26.0	15.3	34.5	34.5	17.7	34.9	32	32	14	32.5	32.5	31.0	42.6	42.6	38.4
STR-20M-10M	20	20	10	7.9	26.0	26.0	17.2	34.5	34.5	19.5	34.9	32	32	19	32.5	32.5	32.5	42.6	42.6	40.1
STR-20M-12M	20	20	12	9.8	26.0	26.0	22.8	34.5	34.5	22.0	34.9	32	32	22	32.5	32.5	32.5	42.6	42.6	42.6
STR-20M-25M	20	20	25	15.9	26.0	26.0	31.3	34.5	34.5	26.5	34.9	32	32	38	34.3	34.3	36.8	44.4	44.4	49.1
STR-20M-32M	20	20	32	15.9	26.0	26.0	42.0	34.5	34.5	41.6	46.0	32	32	50	42.5	42.5	49.3	52.6	52.6	72.3
STR-22M-12M	22	22	12	9.8	26.0	26.0	22.8	34.5	34.5	22.0	34.9	32	32	22	32.5	32.5	32.5	42.6	42.6	42.6
STR-25M-20M-20M	25	20	20	15.9	31.3	26.0	26.0	26.5	34.5	34.5	34.9	38	32	32	36.8	34.3	34.3	49.1	44.4	44.4
STR-25M-10M	25	25	10	7.9	31.3	31.3	17.2	26.5	26.5	19.5	34.9	38	38	19	36.8	36.8	34.3	49.1	49.1	38.9
STR-25M-12M	25	25	12	9.8	31.3	31.3	22.8	26.5	26.5	22.0	34.9	38	38	22	36.8	36.8	34.3	49.1	49.1	44.4
STR-25M-20M	25	25	20	15.9	31.3	31.3	26.0	26.5	26.5	34.5	34.9	38	38	32	36.8	36.8	34.3	49.1	49.1	44.4
STR-32M-20M	32	32	20	15.9	42.0	42.0	26.0	41.6	41.6	34.5	46.0	38	38	32	49.3	49.3	42.5	72.3	72.3	52.6
STR-38M-32M-32M	38	32	32	28.6	49.4	42.0	42.0	47.9	41.6	41.6	50.8	60	38	38	56.4	54.7	54.7	84.0	77.7	77.7
STR-38M-20M	38	38	20	15.9	49.4	49.4	26.0	47.9	47.9	34.5	50.8	60	60	32	56.4	56.4	47.9	84.0	84.0	58.0
STR-38M-25M	38	38	25	21.8	49.4	49.4	31.3	47.9	47.9	26.5	50.8	60	60	38	56.4	56.4	50.4	84.0	84.0	62.7

Bulkhead Union

SUB





Connects fractional tube

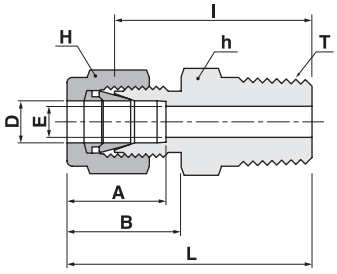
Part No.	Tube O.D D		E	Width across flat h		H		A	B	I	I_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
	in	mm	Min.	in	mm	in	mm								
SUB-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	23.87	13.46	31.50	17.27	5.16	3.05
SUB-2	1/8	3.17	2.28	1/2	12.70	7/16	11.11	12.70	15.24	38.10	24.63	51.30	31.24	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	71.10	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

Connects metric tube

Part No.	Tube O.D D	E Min.	Width across flat h	H	A	B	I	I_1	L	L_1	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	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



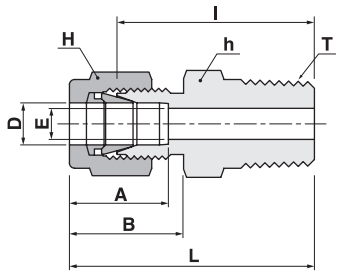


Connects fractional tube to female NPT thread

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

Male Connector

SMC-R



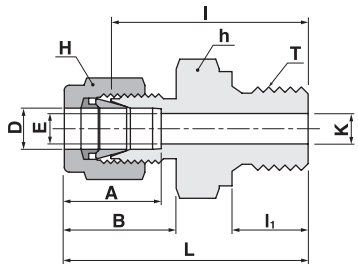


Connects metric tube to female ISO taper thread

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

Male Connector for Bonded Seal

SMC-G





Connects fractional tube to female ISO parallel thread

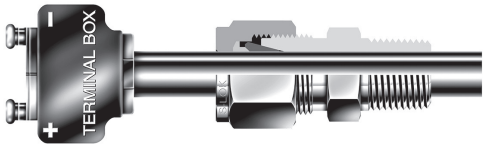
Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	I	l_1	L	K
	in	mm	G(PF)	Min.	in	mm	in	mm						
SMC-2-2G	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	23.37	7.11	29.97	13.72
SMC-2-4G	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	28.70	11.18	35.31	18.03
SMC-2-6G	1/8	3.17	3/8	2.28	7/8	22.22	7/16	11.11	12.70	15.24	29.72	11.18	36.21	21.84
SMC-4-2G	1/4	6.35	1/8	4.82	9/16	14.28	9/16	14.28	15.24	17.78	24.89	7.11	32.26	13.72
SMC-4-4G	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.23	11.18	37.59	18.03
SMC-4-6G	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	61.50	11.18	38.86	21.84
SMC-4-8G	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	37.34	14.22	44.70	25.91
SMC-6-4G	3/8	9.52	1/4	7.11	3/4	19.05	11/16	17.46	16.76	19.30	31.75	11.18	39.12	18.03
SMC-6-6G	3/8	9.52	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	33.02	11.18	40.39	21.84
SMC-6-8G	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	38.86	14.22	46.23	25.91
SMC-8-4G	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	32.51	11.18	42.67	18.03
SMC-8-6G	1/2	12.70	3/8	10.41	7/8	22.22	7/8	22.22	22.86	21.84	33.02	11.18	43.18	21.84
SMC-8-8G	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.86	14.22	49.02	25.91
SMC-12-8G	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	38.86	14.22	49.02	25.91
SMC-12-12G	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	42.67	15.75	52.83	32.00
SMC-16-8G	1	25.40	1/2	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	14.22	55.88	25.91
SMC-16-16G	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	47.75	18.29	59.94	39.12
SMC-20-20G	1-1/4	31.75	1-1/4	27.68	2	50.80	1-7/8	47.63	41.14	38.86	51.16	20.00	73.26	49.00
SMC-24-24G	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	57.57	22.00	84.75	55.00

Connects metric tube to female ISO parallel thread

Part No.	Tube O.D D	T G(PF)	E Min.	Width across flat h	H	A	B	I	l_1	L	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	4.8	14	14	15.3	17.7	24.9	7.1	32.3	13.8
SMC-6M-4G	6	1/4	4.8	19	14	15.3	17.7	30.2	11.2	37.6	18.0
SMC-6M-6G	6	3/8	4.8	22	14	15.3	17.7	31.5	11.2	38.9	21.8
SMC-6M-8G	6	1/2	4.8	27	14	15.3	17.7	37.3	14.2	44.7	26.0
SMC-8M-2G	8	1/8	6.4	15	16	16.2	18.6	25.7	7.1	33.2	13.8
SMC-8M-4G	8	1/4	6.4	19	16	16.2	18.6	31.0	11.2	38.5	18.0
SMC-8M-6G	8	3/8	6.4	22	16	16.2	18.6	32.3	11.2	39.8	21.8
SMC-8M-8G	8	1/2	6.4	27	16	16.2	18.6	38.1	14.2	45.6	26.0
SMC-10M-4G	10	1/4	7.9	19	19	17.2	19.5	31.8	11.2	39.4	18.0
SMC-10M-6G	10	3/8	7.9	22	19	17.2	19.5	33.0	11.2	40.6	21.8
SMC-10M-8G	10	1/2	7.9	27	19	17.2	19.5	38.9	14.2	46.5	26.0
SMC-12M-4G	12	1/4	9.5	22	22	22.8	22.0	32.5	11.2	42.6	18.0
SMC-12M-6G	12	3/8	9.5	22	22	22.8	22.0	33.0	11.2	43.1	21.8
SMC-12M-8G	12	1/2	9.5	27	22	22.8	22.0	38.9	14.2	49.0	26.0
SMC-12M-12G	12	3/4	9.5	35	22	22.8	22.0	42.7	15.7	52.8	32.0
SMC-16M-6G	16	3/8	12.7	24	25	24.4	22.0	33.8	11.2	43.9	21.8
SMC-16M-8G	16	1/2	12.7	27	25	24.4	22.0	38.9	14.2	49.0	26.0
SMC-18M-8G	18	1/2	15.1	27	30	24.4	22.0	38.9	14.2	49.0	26.0
SMC-18M-12G	18	3/4	15.1	35	30	24.4	22.0	42.7	15.7	52.8	32.0
SMC-20M-8G	20	1/2	15.9	30	32	26.0	22.0	40.4	14.2	50.5	26.0
SMC-20M-12G	20	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SMC-22M-12G	22	3/4	18.3	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SMC-22M-16G	22	1	18.3	41	32	26.0	22.0	45.2	18.3	55.3	39.0
SMC-25M-12G	25	3/4	21.8	35	38	31.3	26.5	45.2	15.7	57.5	32.0
SMC-25M-16G	25	1	21.8	41	38	31.3	26.5	47.8	18.3	60.1	39.0
SMC-28M-16G	28	1	21.8	41	46	36.6	36.6	49.3	18.3	70.1	39.0
SMC-28M-20G	28	1-1/4	21.8	50	46	36.6	36.6	53.1	19.8	73.9	49.0
SMC-32M-20G	32	1-1/4	28.6	50	50	42.0	41.6	55.9	19.8	78.9	49.0
SMC-38M-24G	38	1-1/2	33.7	55	60	49.4	47.9	63.2	22.1	90.8	54.7

Thermoccouple Connector

SMCT



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

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

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

ISO Pipe Thread

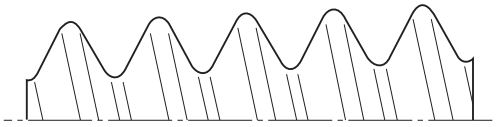
The International Standards Organization created the ISO 228/1 and 7/1 threads to standardize the nomenclature of several international pipe threads.

ISO 7/1

The ISO 7/1 is a tapered thread that is sealing threads working by interference fit. This still requires thread sealant for pressure-tight seal by filling the voids between threads, and further, this prevents galling on piping threads. The sealant usually contains a lubricant.
The ISO 7/1 is described in following codes.
1. BS 21(BSPT) 2. JIS B0203(PT) 3. ISO 7/1 4. DIN 2999 (male thread only)

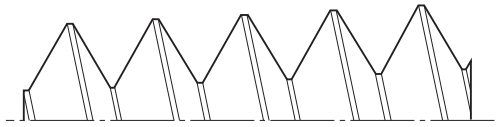
The ISO 7/1 looks similar to the NPT thread. See how different they are as illustrated below.

ISO 7/1 tapered pipe thread

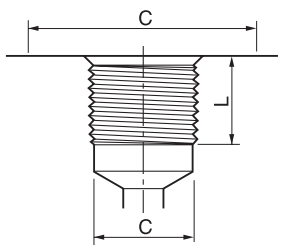


*55°thread angle
*Pitch measured in millimeters
*Truncation of root and crest are round
*Taper angle 1°47'

NPT tapered pipe threads



*60°thread angle
*Pitch measured in Inches
*Truncation of root and crest are flat
*Taper angle 1°47'



ISO Internal Parallel Pipe Thread

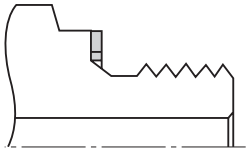
S-LOK Pipe Thread Designator	ISO Female Parallel Pipe Size	Minimum Full Thread Depth L	Thread Minor Diameter D	Minmum Flat Diameter for SGB & SGC C
2	1/8	0.31	0.337 / 0.348	0.59
4	1/4	0.47	0.450 / 0.468	0.75
6	3/8	0.47	0.588 / 0.606	0.91
8	1/2	0.55	0.733 / 0.755	1.06
12	3/4	0.63	0.949 / 0.971	1.30
16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

ISO 228/1

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

ISO 228/1 is described in following codes.
1.BS 2779(BSPP) 2.DIN-ISO 228/1 3.JIS B0202(PF) 4.ISO 228/1

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

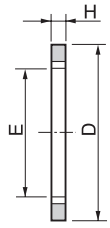


Sealing by compression against face of body
Reference DIN 3852 Type A

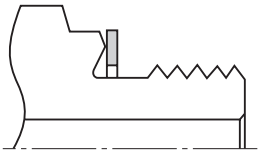
A self-centering taper is constructed at the hex. This taper centers a bonded washer to seal to the surface surrounding the female thread.

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

Ordering Number	E		H		D	
	in	mm	in	mm	in	mm
SGB-2-	0.41	10.4	0.08	2.0	0.63	16.0
SGB-4-	0.54	13.7	0.08	2.0	0.81	20.6
SGB-6-	0.68	17.3	0.08	2.0	0.94	23.9
SGB-8-	0.85	21.6	0.10	2.5	1.13	28.7
SGB-12-	1.06	27.2	0.10	2.5	1.38	35.1
SGB-16-	1.33	33.8	0.10	3.2	1.69	42.9
SGB-20-	1.67	42.4	0.10	3.2	2.01	51.1
SGB-24-	1.92	48.8	0.10	3.2	2.33	59.2





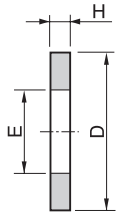


Sealing by gasket (washer)
Reference DIN 3852 Type B

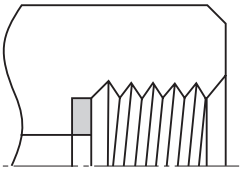
A metal gasket performs the sealing between the reverse bevel of the fitting and the face of the female threaded component.

SGC Copper Gasket

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





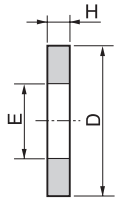


Sealing by gasket.
Reference DIN 3852 Type Y

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

SGG Copper Gasket

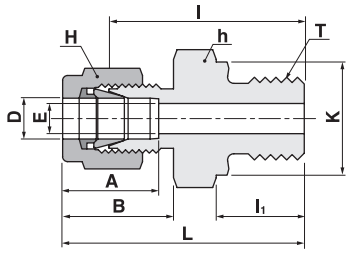
Ordering Number	E		H		D	
	in	mm	in	mm	in	mm
SGG-4-	0.30	7.6	0.08	2.0	0.42	10.7
SGG-6-	0.34	8.6	0.10	2.5	0.56	14.2
SGG-8-	0.36	9.1	0.10	2.5	0.70	17.8





Male Connector
for Metal Gasket

SOM





Connects fractional tube to female ISO parallel thread

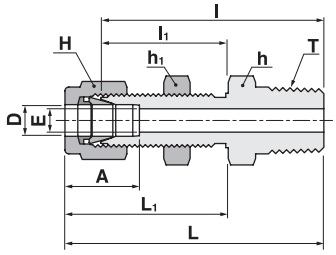
Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	l	l_1	L	K
	in	mm	G(PF)	Min.	in	mm	in	mm						
SOM-2-2G	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	23.37	7.11	29.97	13.72
SOM-2-4G	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	28.70	11.18	35.31	18.03
SOM-2-6G	1/8	3.17	3/8	2.28	7/8	22.22	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	4.82	9/16	14.28	9/16	14.28	15.24	17.78	24.89	7.11	32.26	13.72
SOM-4-4G	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.23	11.18	37.59	18.03
SOM-4-6G	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	61.50	11.18	38.86	21.84
SOM-4-8G	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	37.34	14.22	44.70	25.91
SOM-6-4G	3/8	9.52	1/4	7.11	3/4	19.05	11/16	17.46	16.76	19.30	31.75	11.18	39.12	18.03
SOM-6-6G	3/8	9.52	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	33.02	11.18	40.39	21.84
SOM-6-8G	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	38.86	14.22	46.23	25.91
SOM-8-4G	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	32.51	11.18	42.67	18.03
SOM-8-6G	1/2	12.70	3/8	10.41	7/8	22.22	7/8	22.22	22.86	21.84	33.02	11.18	43.18	21.84
SOM-8-8G	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.86	14.22	49.02	25.91
SOM-12-8G	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	38.86	14.22	49.02	25.91
SOM-12-12G	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	42.67	15.75	52.83	32.00
SOM-16-8G	1	25.40	1/2	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	14.22	55.88	25.91
SOM-16-16G	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	47.75	18.29	59.94	39.12
SOM-20-20G	1-1/4	31.75	1-1/4	27.68	2	50.80	1-7/8	47.63	41.14	38.86	51.16	20.00	73.26	49.00
SOM-24-24G	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	57.57	22.00	84.75	55.00

Connects metric tube to female ISO parallel thread

Part No.	Tube O.D D	T G(PF)	E Min.	Width across flat h	H	A	B	l	l_1	L	K
SOM-3M-2G	3	1/8	2.4	14	12	12.9	15.3	23.4	7.1	30.0	13.8
SOM-3M-4G	3	1/4	2.4	19	12	12.9	15.3	28.7	11.2	35.3	18.0
SOM-4M-2G	4	1/8	2.4	14	12	13.7	16.1	24.1	7.1	30.7	13.8
SOM-6M-2G	6	1/8	4.8	14	14	15.3	17.7	24.9	7.1	32.3	13.8
SOM-6M-4G	6	1/4	4.8	19	14	15.3	17.7	30.2	11.2	37.6	18.0
SOM-6M-6G	6	3/8	4.8	22	14	15.3	17.7	31.5	11.2	38.9	21.8
SOM-6M-8G	6	1/2	4.8	27	14	15.3	17.7	37.3	14.2	44.7	26.0
SOM-8M-2G	8	1/8	6.4	15	16	16.2	18.6	25.7	7.1	33.2	13.8
SOM-8M-4G	8	1/4	6.4	19	16	16.2	18.6	31.0	11.2	38.5	18.0
SOM-8M-6G	8	3/8	6.4	22	16	16.2	18.6	32.3	11.2	39.8	21.8
SOM-8M-8G	8	1/2	6.4	27	16	16.2	18.6	38.1	14.2	45.6	26.0
SOM-10M-4G	10	1/4	7.9	19	19	17.2	19.5	31.8	11.2	39.4	18.0
SOM-10M-6G	10	3/8	7.9	22	19	17.2	19.5	33.0	11.2	40.6	21.8
SOM-10M-8G	10	1/2	7.9	27	19	17.2	19.5	38.9	14.2	46.5	26.0
SOM-12M-4G	12	1/4	9.5	22	22	22.8	22.0	32.5	11.2	42.6	18.0
SOM-12M-6G	12	3/8	9.5	22	22	22.8	22.0	33.0	11.2	43.1	21.8
SOM-12M-8G	12	1/2	9.5	27	22	22.8	22.0	38.9	14.2	49.0	26.0
SOM-12M-12G	12	3/4	9.5	35	22	22.8	22.0	42.7	15.7	52.8	32.0
SOM-16M-6G	16	3/8	12.7	24	25	24.4	22.0	33.8	11.2	43.9	21.8
SOM-16M-8G	16	1/2	12.7	27	25	24.4	22.0	38.9	14.2	49.0	26.0
SOM-18M-8G	18	1/2	15.1	27	30	24.4	22.0	38.9	14.2	49.0	26.0
SOM-18M-12G	18	3/4	15.1	35	30	24.4	22.0	42.7	15.7	52.8	32.0
SOM-20M-8G	20	1/2	15.9	30	32	26.0	22.0	40.4	14.2	50.5	26.0
SOM-20M-12G	20	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SOM-22M-12G	22	3/4	18.3	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SOM-22M-16G	22	1	18.3	41	32	26.0	22.0	45.2	18.3	55.3	39.0
SOM-25M-12G	25	3/4	21.8	35	38	31.3	26.5	45.2	15.7	57.5	32.0
SOM-25M-16G	25	1	21.8	41	38	31.3	26.5	47.8	18.3	60.1	39.0
SOM-28M-16G	28	1	21.8	41	46	36.6	36.6	49.3	18.3	70.1	39.0
SOM-28M-20G	28	1-1/4	21.8	50	46	36.6	36.6	53.1	19.8	73.9	49.0
SOM-32M-20G	32	1-1/4	28.6	50	50	42.0	41.6	55.9	19.8	78.9	49.0
SOM-38M-24G	38	1-1/2	33.7	55	60	49.4	47.9	61.7	20.6	89.3	54.7

Bulkhead
Male Connector

SMCB



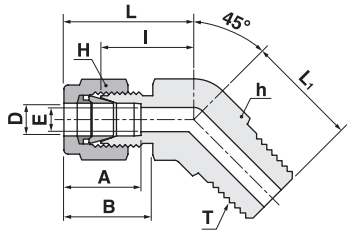


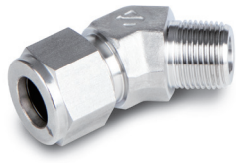
Connects fractional tube to female NPT thread

Part No.	Tube O.D D		T	E	Width across flat h		h_1		H		A	I	I_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
	in	mm	N(NPT)	Min.	in	mm	in	mm	in	mm							
SMCB-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	1/2	12.70	7/16	11.11	12.70	39.87	24.63	46.48	31.24	8.33	12.70
SMCB-4-2N	1/4	6.35	1/8	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	42.16	26.16	49.53	33.52	11.50	10.16
SMCB-4-4N	1/4	6.35	1/4	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	45.97	26.16	53.34	33.52	11.50	10.16
SMCB-6-4N	3/8	9.52	1/4	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	50.03	29.46	57.40	36.83	14.68	11.17
SMCB-6-6N	3/8	9.52	3/8	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	50.03	29.46	57.40	36.83	14.68	11.17
SMCB-6-8N	3/8	9.52	1/2	7.11	7/8	22.22	7/8	22.22	11/16	17.46	16.76	56.38	29.46	63.75	36.83	14.68	11.17
SMCB-8-6N	1/2	12.70	3/8	10.41	15/16	23.81	15/16	23.81	7/8	22.22	22.86	53.08	31.75	63.24	41.91	19.44	12.70
SMCB-8-8N	1/2	12.70	1/2	10.41	15/16	23.81	15/16	23.81	7/8	22.22	22.86	58.67	31.75	68.83	41.91	19.44	12.70
SMCB-12-12N	3/4	19.05	3/4	15.74	1-3/16	30.16	1-3/16	30.16	1-1/8	28.58	24.38	66.04	37.33	76.20	47.49	25.76	16.76
SMCB-16-16N	1	25.40	1	22.35	1-5/8	41.28	1-5/8	41.28	1-1/2	38.10	31.24	81.02	45.21	93.21	57.40	33.73	19.05
SMCB-20-20N	1-1/4	31.75	1-1/4	27.68	1-7/8	47.63	1-7/8	47.63	1-7/8	47.63	41.14	85.97	47.75	108.07	69.85	41.67	19.05
SMCB-24-24N	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	2-1/4	57.15	50.03	93.03	49.27	120.21	76.45	49.61	19.05
SMCB-32-32N	2	50.80	2	45.97	2-3/4	69.85	2-3/4	69.85	3	76.20	67.56	107.29	56.38	144.62	93.71	16.27	19.05

45° Male Elbow

SLBM



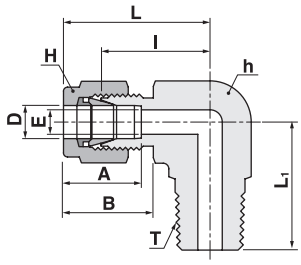


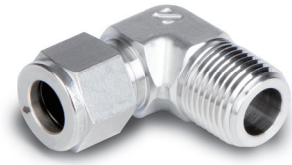
Connects fractional tube to female NPT thread

Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	I	L	L_1
	in	mm	N(NPT)	Min.	in	mm	in	mm					
SLBM-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	17.27	24.63	16.51
SLBM-4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	17.27	24.63	21.08
SLBM-6-2N	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	20.57	27.94	18.28
SLBM-6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	20.57	27.94	22.86
SLBM-6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	21.84	29.21	24.13
SLBM-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	21.84	32.00	24.13
SLBM-8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	21.84	32.00	28.95
SLBM-12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	23.87	34.03	30.98
SLBM-16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	28.19	40.38	37.84

Male Elbow

SLM



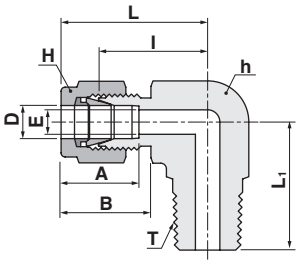


Connects fractional tube to female NPT thread

Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	l	L	L_1
	in	mm	N(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	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
SLM-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.10	26.47	19.10
SLM-4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.81	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	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.81
SLM-5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	29.77	24.50
SLM-5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	26.20
SLM-6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	20.60
SLM-6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
SLM-6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	26.20
SLM-6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	31.42	33.02
SLM-6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
SLM-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
SLM-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
SLM-8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
SLM-8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
SLM-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	30.22
SLM-10-8N	5/8	15.87	1/2	12.70	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	35.10
SLM-10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
SLM-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
SLM-12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	36.83
SLM-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
SLM-16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
SLM-16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	49.70
SLM-20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	49.75
SLM-24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
SLM-32-32N	2	50.80	2	45.97	2-3/4	69.82	3	76.20	67.56	62.54	69.80	107.18	70.61

Male Elbow

SLM



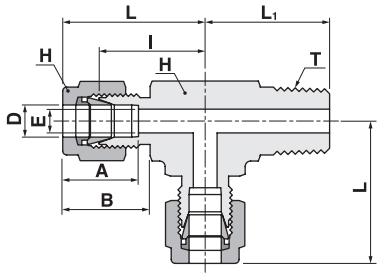


Connects metric tube to female ISO taper thread

Part No.	Tube O.D	T	E	Width across flat		A	B	l	L	L_1
	D	R(PT)	Min.	h	H					
SLM-3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SLM-3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SLM-4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SLM-4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
SLM-6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SLM-6M-4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
SLM-6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
SLM-6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
SLM-8M-2R	8	1/8	6.4	14.3	16	16.2	18.6	21.3	28.8	19.8
SLM-8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
SLM-8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
SLM-8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
SLM-10M-2R	10	1/8	7.9	17.5	19	17.2	19.5	23.9	31.5	23.6
SLM-10M-4R	10	1/4	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
SLM-10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
SLM-10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
SLM-12M-2R	12	1/4	9.5	20.6	22	22.8	22.0	25.9	36.0	23.6
SLM-12M-4R	12	1/4	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SLM-12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SLM-12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SLM-12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
SLM-16M-6R	16	3/8	12.7	25.4	25	24.4	22.0	27.9	38.0	30.2
SLM-16M-8R	16	1/2	12.7	25.4	25	24.4	22.0	27.9	38.0	35.1
SLM-16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
SLM-18M-8R	18	1/2	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
SLM-18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
SLM-20M-8R	20	1/2	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
SLM-20M-12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
SLM-22M-12R	22	3/4	18.3	31.8	32	26.0	22.0	34.5	44.6	41.7
SLM-22M-16R	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
SLM-25M-12R	25	3/4	21.8	34.9	38	31.3	26.5	36.8	49.1	41.7
SLM-25M-16R	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5

Male Run Tee

STRM



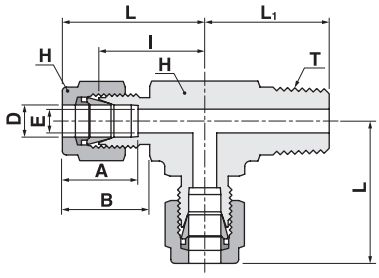


Connects fractional tube to female NPT thread

Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	I	L	L_1
	in	mm	N(NPT)	Min.	in	mm	in	mm					
STRM-1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
STRM-1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
STRM-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
STRM-2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.36
STRM-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	18.79
STRM-3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
STRM-4-1N	1/4	6.35	1/16	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
STRM-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.10	26.47	19.10
STRM-4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.81	27.18	23.87
STRM-4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	26.20
STRM-4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	33.02
STRM-5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.81
STRM-5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	29.77	24.50
STRM-5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	26.20
STRM-6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
STRM-6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	26.20
STRM-6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	31.42	33.02
STRM-6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
STRM-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
STRM-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
STRM-8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
STRM-8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
STRM-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	30.22
STRM-10-8N	5/8	15.87	1/2	12.70	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	35.10
STRM-10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
STRM-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
STRM-12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	36.83
STRM-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
STRM-16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
STRM-16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	49.70
STRM-20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	49.75
STRM-24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
STRM-32-32N	2	50.80	2	45.97	2-3/4	69.82	3	76.20	67.56	62.54	69.80	107.18	70.61

Male Run Tee

STRM



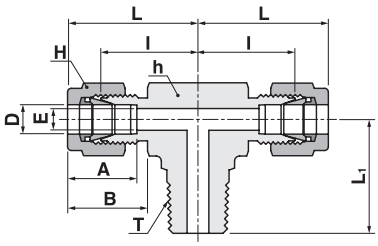


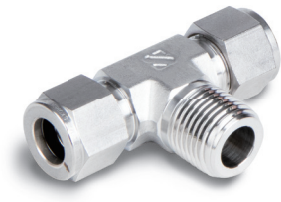
Connects metric tube to female ISO taper thread

Part No.	Tube O.D	T	E	Width across flat		A	B	I	L	L_1
	D	R(PT)	Min.	h	H					
STRM-3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
STRM-3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
STRM-4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
STRM-4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
STRM-6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
STRM-6M-4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
STRM-6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
STRM-6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
STRM-8M-2R	8	1/8	6.4	14.3	16	16.2	18.6	21.3	28.8	19.8
STRM-8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
STRM-8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
STRM-8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
STRM-10M-2R	10	1/8	7.9	17.5	19	17.2	19.5	23.9	31.5	23.6
STRM-10M-4R	10	1/4	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
STRM-10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
STRM-10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
STRM-12M-4R	12	1/4	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
STRM-12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
STRM-12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
STRM-12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
STRM-16M-6R	16	3/8	12.7	25.4	25	24.4	22.0	27.9	38.0	30.2
STRM-16M-8R	16	1/2	12.7	25.4	25	24.4	22.0	27.9	38.0	35.1
STRM-16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
STRM-18M-8R	18	1/2	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
STRM-18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
STRM-20M-8R	20	1/2	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STRM-20M-12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STRM-22M-12R	22	3/4	18.3	31.8	32	26.0	22.0	34.5	44.6	41.7
STRM-22M-16R	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
STRM-25M-12R	25	3/4	21.8	34.9	38	31.3	26.5	36.8	49.1	41.7
STRM-25M-16R	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5

Male Branch Tee

STBM



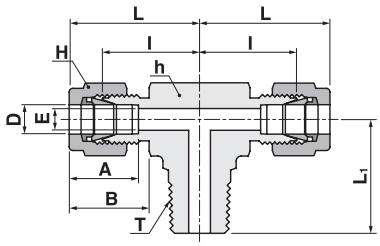


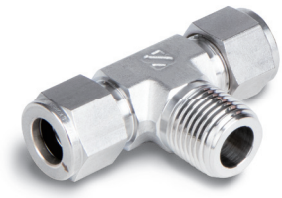
Connects fractional tube to female NPT thread

Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	I	L	L_1
	in	mm	N(NPT)	Min.	in	mm	in	mm					
STBM-1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
STBM-1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
STBM-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
STBM-2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.36
STBM-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	18.79
STBM-3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
STBM-4-1N	1/4	6.35	1/16	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
STBM-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.10	26.47	19.10
STBM-4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.81	27.18	23.87
STBM-4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	26.20
STBM-4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	33.02
STBM-5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.81
STBM-5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	29.77	24.50
STBM-5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	26.20
STBM-6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
STBM-6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	26.20
STBM-6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	31.42	33.02
STBM-6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
STBM-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
STBM-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
STBM-8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
STBM-8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
STBM-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	30.22
STBM-10-8N	5/8	15.87	1/2	12.70	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	35.10
STBM-10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
STBM-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
STBM-12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	36.83
STBM-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
STBM-16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
STBM-16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	49.70
STBM-20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	49.75
STBM-24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
STBM-32-32N	2	50.80	2	45.97	2-3/4	69.82	3	76.20	67.56	62.54	69.80	107.18	70.61

Male Branch Tee

STBM



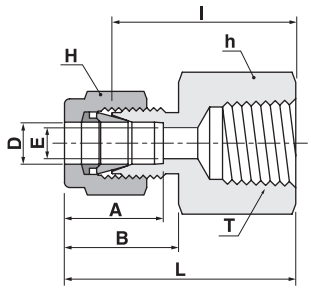


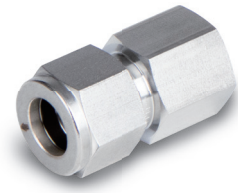
Connects metric tube to female ISO taper thread

Part No.	Tube O.D	T	E	Width across flat		A	B	l	L	L_1
	D	R(PT)	Min.	h	H					
STBM-3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
STBM-3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
STBM-4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
STBM-4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
STBM-6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
STBM-6M-4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
STBM-6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
STBM-6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
STBM-8M-2R	8	1/8	6.4	14.3	16	16.2	18.6	21.3	28.8	19.8
STBM-8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
STBM-8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
STBM-8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
STBM-10M-2R	10	1/8	7.9	17.5	19	17.2	19.5	23.9	31.5	23.6
STBM-10M-4R	10	1/4	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
STBM-10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
STBM-10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
STBM-12M-4R	12	1/4	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
STBM-12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
STBM-12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
STBM-12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
STBM-16M-6R	16	3/8	12.7	25.4	25	24.4	22.0	27.9	38.0	30.2
STBM-16M-8R	16	1/2	12.7	25.4	25	24.4	22.0	27.9	38.0	35.1
STBM-16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
STBM-18M-8R	18	1/2	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
STBM-18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
STBM-20M-8R	20	1/2	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STBM-20M-12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
STBM-22M-12R	22	3/4	18.3	31.8	32	26.0	22.0	34.5	44.6	41.7
STBM-22M-16R	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
STBM-25M-12R	25	3/4	21.8	34.9	38	31.3	26.5	36.8	49.1	41.7
STBM-25M-16R	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5

Female Connector

SCF



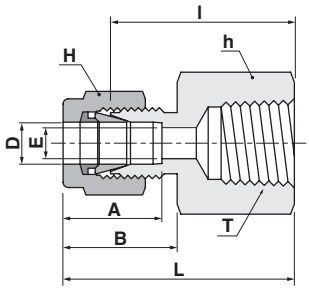


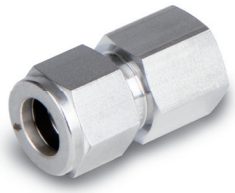
Connects fractional tube to male NPT thread

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

Female Connector

SCF





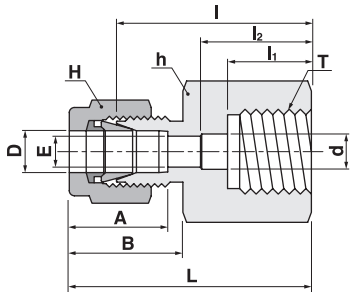
Connects metric tube to male ISO taper thread

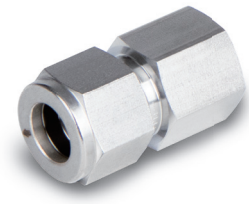
Part No.	Tube O.D	T	E	Width across flat		A	B	I	L
	D	R(PT)	Min.	h	H				
SCF-3M-2R	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
SCF-3M-4R	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
SCF-4M-2R	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
SCF-6M-2R	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
SCF-6M-4R	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8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

Gauge Connector

SCG

See page 31
for SGG gasket





Connects fractional tube to male ISO parallel thread (gauge)

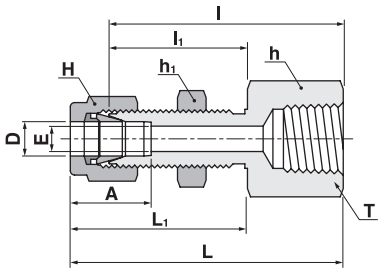
Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	l	l_1	l_2	d	L
	in	mm	G(PF)	Min.	in	mm	in	mm							
SCG-4-2G	1/4	6.35	1/8	4.82	9/16	14.28	9/16	14.28	15.24	17.78	26.30	12.00	17.00	5.60	33.55
SCG-4-4G	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.22	12.95	17.00	5.60	37.59
SCG-4-6G	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	14.22	20.30	6.60	37.59
SCG-4-8G	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	36.07	18.80	24.90	7.10	43.43
SCG-5-4G	5/16	7.93	1/4	6.35	3/4	19.05	5/8	15.87	16.25	18.54	30.98	12.95	-	-	38.60
SCG-5-8G	5/16	7.93	1/2	6.35	1-1/16	26.98	5/8	15.87	16.25	18.54	33.53	18.80	-	-	40.89
SCG-6-4G	3/8	9.52	1/4	7.11	3/4	19.05	11/16	17.46	16.76	19.30	31.75	12.95	-	-	39.12
SCG-6-6G	3/8	9.52	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.24	14.22	-	-	38.61
SCG-6-8G	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	34.54	18.80	-	-	41.91
SCG-8-4G	1/2	12.70	1/4	10.41	1-3/16	20.64	7/8	22.22	22.86	21.84	31.80	12.95	-	-	41.95
SCG-8-6G	1/2	12.70	3/8	10.41	7/8	22.22	7/8	22.22	22.86	21.84	34.29	14.22	-	-	44.45
SCG-8-8G	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.10	18.80	-	-	48.26

Connects metric tube to male ISO parallel thread (gauge)

Part No.	Tube O.D D	T G(PF)	E Min.	Width across flat h	H	A	B	l	l_1	l_2	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	6.4	19	16	16.2	18.6	31.0	13	-	5.5	38.5
SCG-8M-6G	8	3/8	6.4	24	16	16.2	18.6	28.7	14	-	6.5	36.2
SCG-8M-8G	8	1/2	6.4	27	16	16.2	18.6	33.5	19	-	7.0	41.0
SCG-10M-4G	10	1/4	7.9	19	19	17.2	19.5	31.8	13	-	5.5	39.4
SCG-10M-6G	10	3/8	7.9	24	19	17.2	19.5	31.2	14	-	6.5	38.8
SCG-10M-8G	10	1/2	7.9	27	19	17.2	19.5	34.5	19	-	7.0	42.1
SCG-12M-4G	12	1/4	9.5	22	22	22.8	22.0	31.8	13	-	5.5	41.9
SCG-12M-6G	12	3/8	9.5	24	22	22.8	22.0	34.3	14	-	6.5	44.4
SCG-12M-8G	12	1/2	9.5	27	22	22.8	22.0	38.1	19	-	7.0	48.2
SCG-20M-8G	20	1/2	15.9	30	32	26.0	22.0	44.2	19	-	7.0	54.3
SCG-22M-8G	22	1/2	9.5	30	32	22.8	22.0	44.2	19	-	7.0	54.3

Bulkhead Female Connector

SCBF





Connects fractional tube to male NPT thread

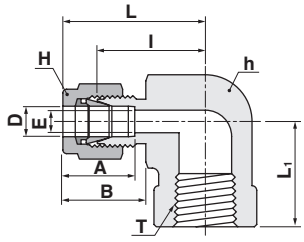
Part No.	Tube O.D D		T	E	Width across flat h		h_1		H		A	l	l_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
	in	mm	N(NPT)	Min.	in	mm	in	mm	in	mm							
SCBF-2-2N	1/8	3.17	1/8	2.28	9/16	14.28	1/2	12.70	7/16	11.11	12.70	38.10	24.63	44.70	31.24	8.33	12.70
SCBF-4-2N	1/4	6.35	1/8	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	39.62	26.16	46.99	33.52	11.50	10.16
SCBF-4-4N	1/4	6.35	1/4	4.82	3/4	19.05	5/8	15.87	9/16	14.28	15.24	44.45	26.16	51.81	33.52	11.50	10.16
SCBF-6-4N	3/8	9.52	1/4	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	47.75	29.46	55.11	36.83	14.68	11.17
SCBF-6-6N	3/8	9.52	3/8	7.11	7/8	22.22	3/4	19.05	11/16	17.46	16.76	49.41	29.46	56.77	36.83	14.68	11.17
SCBF-8-6N	1/2	12.70	3/8	10.41	15/16	23.81	15/16	23.81	7/8	22.22	22.86	51.56	31.75	61.72	41.91	19.44	12.70
SCBF-8-8N	1/2	12.70	1/2	10.41	1-1/16	26.98	15/16	23.81	7/8	22.22	22.86	56.38	31.75	66.54	41.91	19.44	12.70
SCBF-12-12N	3/4	19.05	3/4	15.74	1-5/16	33.33	1-5/16	33.33	1-1/8	28.58	24.38	63.60	37.33	73.51	47.21	25.79	16.76
SCBF-16-16N	1	25.40	1	22.35	1-5/8	41.27	1-5/8	41.27	1-1/2	38.10	31.24	81.04	45.21	93.23	57.40	33.73	19.05
SCBF-20-20N	1-1/4	31.75	1-1/4	27.68	2-1/8	53.98	1-7/8	47.63	1-7/8	47.63	41.14	83.49	47.75	105.59	69.85	41.67	19.05
SCBF-24-24N	1-1/2	38.10	1-1/2	34.03	2-3/8	60.33	2-1/4	57.15	2-1/4	57.15	50.03	87.39	49.27	114.57	76.45	49.61	19.05
SCBF-32-32N	2	50.80	2	45.97	2-1/8	73.03	2-3/4	69.85	3	76.20	67.56	95.30	56.38	132.63	93.71	57.94	19.05

Connects metric tube to male NPT thread

Part No.	Tube O.D	T	E	Width across flat			A	l	l_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
	D	N(NPT)	Min.	h	h_1	H							
SCBF-6M-2N	6	1/8	4.8	15.8	15.8	14	15.3	39.6	26.2	469	35.0	11.5	10.2
SCBF-6M-4N	6	1/4	4.8	19.0	16.0	14	15.3	44.4	26.2	51.8	33.6	11.5	10.2
SCBF-8M-4N	8	1/4	6.4	19.0	17.4	16	16.2	46.7	28.6	53.9	35.6	13.1	11.2
SCBF-12M-8N	12	1/2	9.5	27.0	24.0	22	22.8	56.4	31.8	66.5	41.9	19.5	12.7

Female Elbow

SLF





Connects fractional tube to male NPT thread

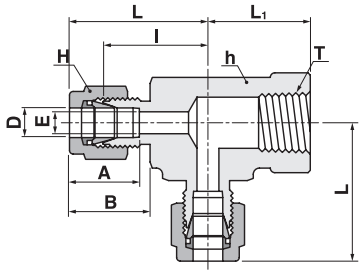
Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	I	L	L_1
	in	mm	N(NPT)	Min.	in	mm	in	mm					
SLF-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
SLF-2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
SLF-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
SLF-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
SLF-4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	22.35
SLF-4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
SLF-4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
SLF-5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
SLF-5-4N	5/16	7.93	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
SLF-6-2N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
SLF-6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
SLF-6-6N	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
SLF-6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
SLF-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
SLF-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
SLF-8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	28.70	38.86	28.44
SLF-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
SLF-10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	29.71	39.87	28.44
SLF-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
SLF-12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
SLF-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
SLF-16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
SLF-16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	50.29	38.10

Connects metric tube to male NPT thread

Part No.	Tube O.D	T	E	Width across flat		A	B	I	L	L_1
	D	N(NPT)	Min.	h	H					
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

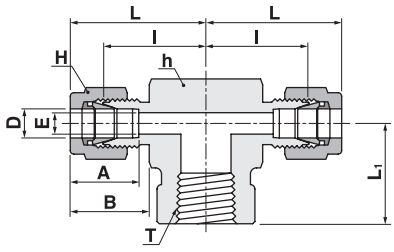
Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	I	L	L_1
	in	mm	N(NPT)	Min.	in	mm	in	mm					
STRF-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
STRF-2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
STRF-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	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	22.35	29.71	22.35
STRF-4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
STRF-4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
STRF-5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
STRF-5-4N	5/16	7.93	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
STRF-6-2N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
STRF-6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
STRF-6-6N	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
STRF-6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
STRF-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
STRF-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
STRF-8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	28.70	38.86	28.44
STRF-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
STRF-10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	29.71	39.87	28.44
STRF-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
STRF-12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
STRF-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
STRF-16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
STRF-16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	50.29	38.10

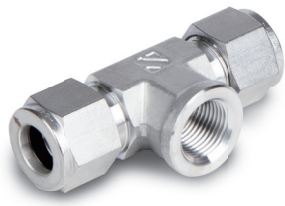
Connects metric tube to male NPT thread

Part No.	Tube O.D	T	E	Width across flat		A	B	I	L	L_1
	D	N(NPT)	Min.	h	H					
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	34.6	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	1/4	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	17.46	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	33.5	22.40
STRF-10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
STRF-10M-8N	10	1/2	7.9	25.40	19	17.2	19.5	28.7	36.1	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	36.2	22.35
STRF-12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	28.40
STRF-16M-8N	16	1/2	12.7	26.98	25	24.4	22.0	29.7	39.5	28.40

Female Branch Tee

STBF





Connects fractional tube to male NPT thread

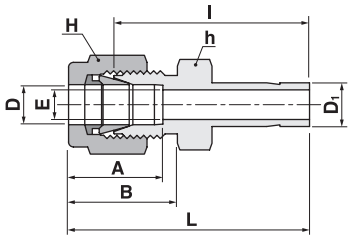
Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	l	L	L_1
	in	mm	N(NPT)	Min.	in	mm	in	mm					
STBF-2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
STBF-2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
STBF-3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
STBF-4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
STBF-4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	22.35
STBF-4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
STBF-4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
STBF-5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
STBF-5-4N	5/16	7.93	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
STBF-6-2N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
STBF-6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
STBF-6-6N	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
STBF-6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
STBF-8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
STBF-8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
STBF-8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	28.70	38.86	28.44
STBF-10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
STBF-10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	29.71	39.87	28.44
STBF-12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
STBF-12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
STBF-14-12N	7/8	22.22	3/4	18.28	1-1/4	31.75	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
STBF-16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
STBF-16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	50.29	38.10

Connects metric tube to male NPT thread

Part No.	Tube O.D	T	E	Width across flat		A	B	l	L	L_1
	D	N(NPT)	Min.	h	H					
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	34.6	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	1/4	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	17.46	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	7.9	25.40	19	17.2	19.5	28.7	36.1	28.40
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	36.2	22.35
STBF-12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	28.40
STBF-16M-8N	16	1/2	12.7	26.98	25	24.4	22.0	29.7	39.5	28.40

Reducer

SR



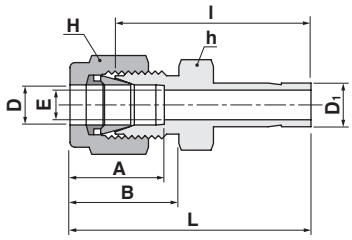


Connects fractional tube to frational S-LOK port

Part No.	Tube O.D				E	Width across flat				A	B	I	L
	D		D_1			h		H					
	in	mm	in	mm	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	57.68	31.49
SR-2-1	1/8	3.17	1/16	1.59	2.28	7/16	11.11	7/16	11.11	12.70	15.24	22.35	28.95
SR-2-2	1/8	3.17	1/8	3.17	2.03	7/16	11.11	7/16	11.11	12.70	15.24	26.92	33.52
SR-2-3	1/8	3.17	3/16	4.76	2.28	7/16	11.11	7/16	11.11	12.70	15.24	27.68	34.29
SR-2-4	1/8	3.17	1/4	6.35	2.28	7/16	11.11	7/16	11.11	12.70	15.24	29.46	36.06
SR-2-6	1/8	3.17	3/8	9.52	2.28	7/16	11.11	7/16	11.11	12.70	15.24	30.98	37.59
SR-2-8	1/8	3.17	1/2	12.70	2.28	9/16	14.28	7/16	11.11	12.70	15.24	37.59	44.19
SR-3-2	3/16	4.76	3/16	4.76	2.03	7/16	11.11	1/2	12.70	13.71	16.00	28.19	34.79
SR-3-4	3/16	4.76	1/4	6.35	3.04	7/16	11.11	1/2	12.70	13.71	16.00	30.48	37.08
SR-4-2	1/4	6.35	1/8	3.17	2.03	1/2	12.70	9/16	14.28	15.24	17.78	29.46	36.83
SR-4-3	1/4	6.35	3/16	4.76	3.04	1/2	12.70	9/16	14.28	15.24	17.78	30.22	37.59
SR-4-4	1/4	6.35	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	31.75	39.11
SR-4-5	1/4	6.35	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	32.51	39.87
SR-4-6	1/4	6.35	3/8	9.52	4.82	1/2	12.70	9/16	14.28	15.24	17.78	33.27	40.64
SR-4-8	1/4	6.35	1/2	12.70	4.82	9/16	14.28	9/16	14.28	15.24	17.78	38.86	46.22
SR-4-10	1/4	6.35	5/8	15.87	4.82	11/16	17.46	9/16	14.28	15.24	17.78	40.64	48.00
SR-4-12	1/4	6.35	3/4	19.05	4.82	13/16	20.64	9/16	14.28	15.24	17.78	40.38	47.75
SR-5-6	5/16	7.93	3/8	9.52	6.35	9/16	14.28	5/8	15.87	16.25	18.54	34.54	41.91
SR-5-8	5/16	7.93	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	40.13	47.49
SR-6-4	3/8	9.52	1/4	6.35	4.82	5/8	15.87	11/16	17.46	16.76	19.30	34.03	41.40
SR-6-6	3/8	9.52	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	35.81	43.18
SR-6-8	3/8	9.52	1/2	12.70	7.11	5/8	15.87	11/16	17.46	16.76	19.30	41.14	48.51
SR-6-10	3/8	9.52	5/8	15.87	7.11	11/16	17.46	11/16	17.46	16.76	19.30	42.92	50.29
SR-6-12	3/8	9.52	3/4	19.05	7.11	13/16	20.64	11/16	17.46	16.76	19.30	42.92	50.29
SR-8-4	1/2	12.70	1/4	6.35	4.82	13/16	20.64	7/8	22.22	22.86	21.84	34.79	44.95
SR-8-6	1/2	12.70	1/2	12.70	7.11	13/16	20.64	7/8	22.22	22.86	21.84	36.57	46.73
SR-8-8	1/2	12.70	1/2	12.70	9.90	13/16	20.64	7/8	22.22	22.86	21.84	42.16	52.32
SR-8-10	1/2	12.70	5/8	15.87	10.41	13/16	20.64	7/8	22.22	22.86	21.84	43.68	53.84
SR-8-12	1/2	12.70	3/4	19.05	10.41	13/16	20.64	7/8	22.22	22.86	21.84	43.68	53.84
SR-8-16	1/2	12.70	1	25.40	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	50.03	60.19
SR-10-12	5/8	15.87	3/4	19.05	12.70	1-1/16	26.98	1	25.40	24.38	21.84	44.45	54.61
SR-10-14	5/8	15.87	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	45.97	56.13
SR-10-16	5/8	15.87	1	25.40	12.70	15/16	23.81	1	25.40	24.38	21.84	50.80	60.96
SR-12-8	3/4	19.05	1/2	12.70	9.90	1-1/16	26.98	1-1/8	28.58	24.38	21.84	44.45	54.61
SR-12-16	3/4	19.05	1	25.40	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	52.32	62.48
SR-16-20	1	25.40	1-1/4	31.75	22.35	1-3/8	34.93	1-1/2	38.10	31.24	26.41	68.32	80.51
SR-16-24	1	25.40	1-1/2	38.10	22.35	1-5/8	41.28	1-1/2	38.10	31.24	26.41	76.96	89.15
SR-16-32	1	25.40	2	50.80	22.35	2-1/8	53.98	1-1/2	38.10	31.24	26.41	100.33	112.52
SR-20-24	1-1/4	31.75	1-1/2	38.10	27.68	1-7/8	47.63	2-1/4	57.15	41.14	38.86	82.04	104.14
SR-20-32	1-1/4	31.75	2	50.80	27.68	2-1/8	53.98	2-1/4	57.15	41.14	38.86	103.12	125.22
SR-24-32	1-1/2	38.10	2	50.80	34.03	2-1/4	57.15	3	76.20	50.03	45.21	101.14	131.31

Reducer

SR





Connects metric tube to frational S-LOK port

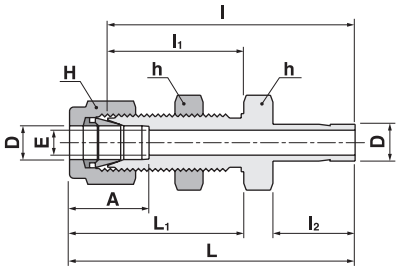
Part No.	Tube O.D			E	Width across flat		A	B	I	L
	D	D_1			h	H				
		in	mm	Min.						
SR-2M-2	2	1/8	3.17	1.7	12	12	12.9	15.3	26.9	33.5
SR-3M-2	3	1/8	3.17	2.0	12	12	12.9	15.3	26.9	33.5
SR-3M-4	3	1/4	6.35	2.4	12	12	12.9	15.3	39.5	36.1
SR-4M-4	4	1/4	6.35	2.4	12	12	13.7	16.1	30.5	37.1
SR-6M-2	6	1/8	3.17	2.0	14	14	15.3	17.7	29.5	36.9
SR-6M-4	6	1/4	6.35	4.8	14	14	15.3	17.7	31.8	39.2
SR-6M-5	6	1/4	6.35	4.8	14	14	15.3	17.7	32.5	39.9
SR-6M-6	6	3/8	9.52	4.8	14	14	15.3	17.7	33.3	40.7
SR-6M-8	6	1/2	12.70	4.8	14	14	15.3	17.7	38.9	46.3
SR-8M-6	8	3/8	9.52	6.4	15	16	16.2	18.6	34.5	42.0
SR-8M-8	8	5/16	7.93	6.4	15	16	16.2	18.6	40.1	47.6
SR-10M-6	10	3/8	9.52	7.1	18	19	17.2	19.5	36.6	44.2
SR-10M-8	10	1/2	12.70	7.9	18	19	17.2	19.5	42.2	49.8
SR-12M-8	12	1/2	12.70	9.5	22	22	22.8	22.0	42.2	52.3
SR-12M-12	12	3/4	19.05	9.5	22	22	22.8	22.0	43.7	53.8
SR-18M-12	18	3/4	19.05	15.1	27	30	24.4	22.0	46.0	56.1
SR-18M-16	18	1	25.40	15.1	27	30	24.4	22.0	52.3	62.4
SR-25M-16	25	1	25.40	20.2	35	38	31.3	26.5	57.2	69.5

Connects metric tube to metric S-LOK port

Part No.	Tube O.D		E	Width across flat		A	B	I	L
	D	D_1	Min.	h	H				
SR-2M-3M	2	3	1.7	12	12	12.9	15.3	26.9	35.3
SR-3M-4M	3	4	2.4	12	12	12.9	15.3	28.4	35.0
SR-3M-6M	3	6	2.4	12	12	12.9	15.3	29.5	36.1
SR-3M-10M	3	10	2.4	12	12	12.9	15.3	31.8	38.4
SR-4M-6M	4	6	2.4	12	12	13.7	16.1	30.5	37.1
SR-6M-3M	6	3	1.8	14	14	15.3	17.7	29.5	36.9
SR-6M-8M	6	8	4.8	14	14	15.3	17.7	32.5	39.9
SR-6M-10M	6	10	4.8	14	14	15.3	17.7	33.3	40.7
SR-6M-12M	6	12	4.8	14	14	15.3	17.7	38.9	46.3
SR-8M-6M	8	6	4.6	15	16	16.2	18.6	32.8	40.3
SR-8M-10M	8	10	6.4	15	16	16.2	18.6	34.5	42.0
SR-8M-12M	8	12	6.4	15	16	16.2	18.6	40.1	47.6
SR-10M-6M	10	6	4.6	18	19	17.2	19.5	34.8	42.4
SR-10M-12M	10	12	7.9	18	19	17.2	19.5	42.2	49.8
SR-10M-15M	10	15	7.9	18	19	17.2	19.5	43.7	51.3
SR-10M-18M	10	18	7.9	19	19	17.2	19.5	43.7	51.3
SR-12M-6M	12	6	4.6	22	22	22.8	22.0	34.8	44.9
SR-12M-10M	12	10	7.7	22	22	22.8	22.0	36.6	46.7
SR-12M-16M	12	16	9.5	22	22	22.8	22.0	43.7	53.8
SR-12M-18M	12	18	9.5	22	22	22.8	22.0	43.7	53.8
SR-12M-20M	12	20	9.5	22	22	22.8	22.0	46.0	56.1
SR-12M-22M	12	22	9.5	24	22	22.8	22.0	46.0	56.1
SR-12M-25M	12	25	9.5	27	22	22.8	22.0	52.3	62.4
SR-16M-12M	16	12	9.1	24	25	24.4	22.0	42.9	53.0
SR-18M-12M	18	12	9.1	27	30	24.4	22.0	44.5	54.6
SR-18M-16M	18	16	12.7	27	30	24.4	22.0	46.0	56.1
SR-18M-20M	18	20	15.1	27	30	24.4	22.0	47.5	57.6
SR-18M-22M	18	22	15.1	27	30	24.4	22.0	47.5	57.6
SR-18M-25M	18	25	15.1	27	30	24.4	22.0	52.3	62.4
SR-20M-16M	20	16	12.7	30	32	26.0	22.0	47.8	57.9
SR-20M-18M	20	18	13.9	30	32	26.0	22.0	47.8	57.9
SR-20M-22M	20	22	15.8	30	32	26.0	22.0	49.3	59.4
SR-20M-25M	20	25	15.8	30	32	26.0	22.0	54.1	64.2
SR-22M-18M	22	18	13.9	30	32	26.0	22.0	47.8	57.9
SR-22M-20M	22	20	15.1	30	32	26.0	22.0	49.3	59.4
SR-22M-25M	22	25	18.3	30	32	26.0	22.0	54.1	64.2
SR-25M-18M	25	18	13.9	35	38	31.3	26.5	50.8	63.1
SR-25M-20M	25	20	15.1	35	38	31.3	26.5	52.3	64.6

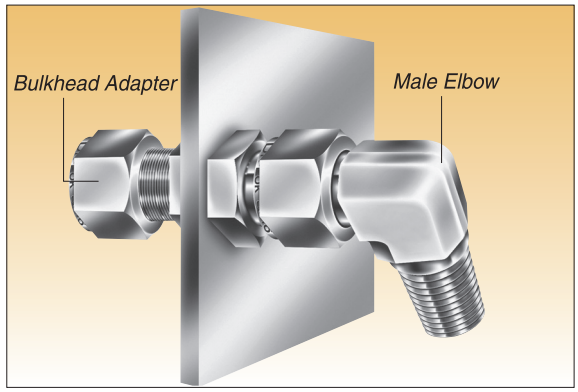
Bulkhead Adapter

SAB





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



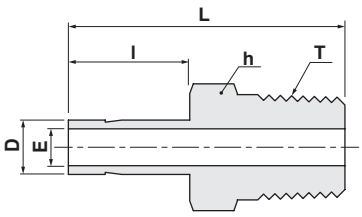
Set a direction

Connects fractional tube to frational S-LOK port

Part No.	Tube O.D D		Tube O.D D_1		E	Width across flat h		Width across flat H		A	I	I_1	I_2	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
	in	mm	in	mm	Min.	in	mm	in	mm								
SAB-2-2	1/8	3.17	1/8	3.17	2.03	1/2	12.70	7/16	11.11	12.70	42.92	24.63	13.45	49.53	31.24	8.33	12.70
SAB-4-4	1/4	6.35	1/4	6.35	4.82	5/8	15.87	9/16	14.28	15.24	48.51	26.16	15.74	55.88	33.52	11.50	10.16
SAB-6-6	3/8	9.52	3/8	9.52	7.11	3/4	19.05	11/16	17.46	16.76	53.84	29.46	17.50	61.21	36.83	14.68	11.17
SAB-8-8	1/2	12.70	1/2	12.70	10.41	15/16	23.81	7/8	22.22	22.86	62.73	31.75	23.11	72.89	41.91	19.44	12.70
SAB-10-10	5/8	15.87	5/8	15.87	12.70	1-1/16	26.98	1	25.40	24.38	65.02	32.51	24.70	75.18	42.67	22.62	12.70
SAB-16-16	1	25.40	1	25.40	20.32	1-5/8	41.28	1-1/2	38.10	31.24	88.13	45.21	31.70	100.33	57.40	33.73	19.05
SAB-20-20	1-1/4	31.75	1-1/4	31.75	27.68	1-7/8	47.63	1-7/8	47.63	41.14	102.07	47.75	42.00	124.17	69.85	41.67	19.05
SAB-24-24	1-1/2	38.10	1-1/2	38.10	34.03	2-1/4	57.15	2-1/4	57.15	50.03	118.33	49.27	51.50	145.51	76.45	49.61	19.05
SAB-32-32	2	50.80	2	50.80	45.97	2-3/4	69.85	3	76.20	57.56	148.79	56.38	68.40	185.82	93.71	57.94	19.05

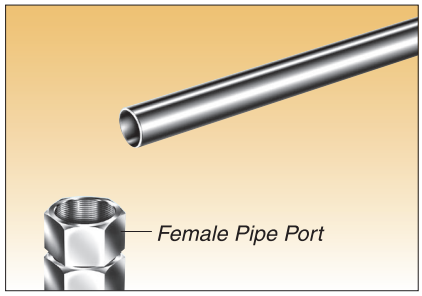
Male Adapter

SAM

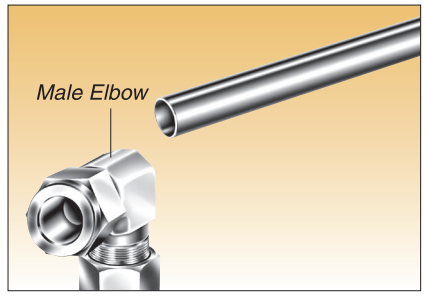




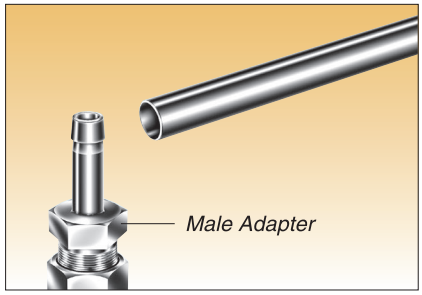
S-LOK Adapter eliminates alignment problems



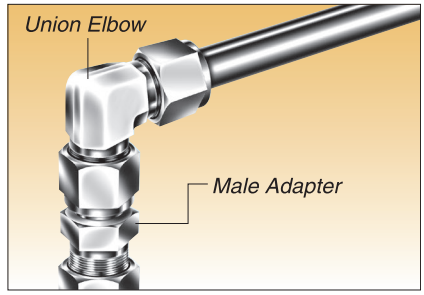
In the direction shown the female port is required to connect with tubing.



The male elbow is positioning in the wrong direction.



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



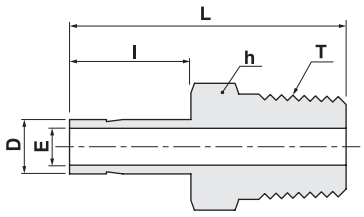
Connect a union elbow to the adapter by tightening the S-LOK port with a wrench while holding the elbow wrench pad in the desired direction

Connects metric tube to female ISO taper thread

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

Male Adapter

SAM



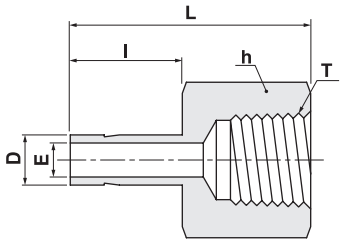


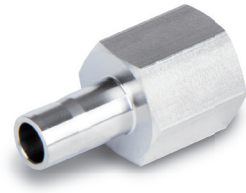
Connects fractional tube to female NPT thread

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

Female Adaper

SAF





Connects fractional tube to male NPT thread

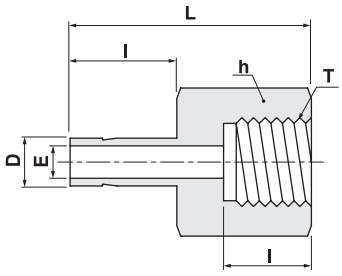
Part No.	Tube O.D D		T	E	Width across flat h		l	L
	in	mm	N(NPT)	Min.	in	mm		
SAF-2-2N	1/8	3.17	1/8	2.03	9/16	14.28	13.45	31.50
SAF-2-4N	1/8	3.17	1/4	2.03	3/4	19.05	13.45	35.30
SAF-3-2N	3/16	4.76	1/8	3.04	9/16	14.28	14.20	32.00
SAF-3-4N	3/16	4.76	1/4	3.04	3/4	19.05	14.20	35.81
SAF-4-2N	1/4	6.35	1/8	4.31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

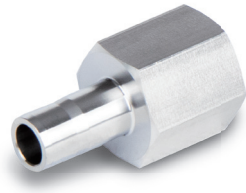
Connects metric tube to male ISO taper thread

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

Gauge Adapter

SAG





Connects fractional tube to male ISO parallel thread

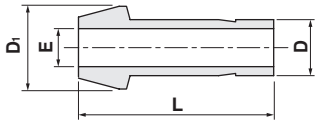
Part No.	Tube O.D D		T	E	E_1	Width across flat h		l	l_1	L
	in	mm	G(PF)	Min.		in	mm			
SAF-4-2G	1/4	6.35	1/8	4.31	4.57	9/16	14.28	15.75	12.0	32.00
SAF-4-4G	1/4	6.35	1/4	4.31	5.50	3/4	19.05	15.75	12.9	35.30
SAF-6-6G	3/8	9.52	3/8	6.50	6.50	7/8	22.22	17.50	16.0	39.37
SAF-8-8G	1/2	12.70	1/2	9.40	7.00	1-1/16	26.98	23.20	18.9	45.72

Connects metric tube to male ISO parallel thread

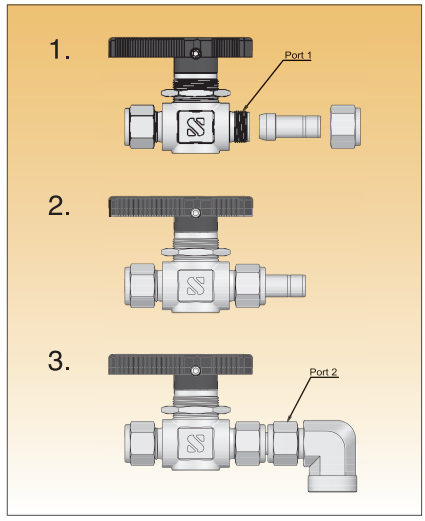
Part No.	Tube O.D D	T G(PF)	E Min.	E_1	Width across flat h	l	l_1	L
SAG-6M-2G	6	1/8	4.1	4.0	14	15.75	12.0	32.0
SAG-6M-4G	6	1/4	4.1	5.5	19	15.75	13.0	35.3
SAG-6M-6G	6	3/8	4.1	6.5	24	15.75	14.2	38.4
SAG-6M-8G	6	1/2	4.1	7.0	27	15.75	18.9	42.9
SAG-8M-4G	8	1/4	5.6	5.5	19	16.5	13.0	33.0
SAG-8M-6G	8	3/8	5.6	6.5	24	16.5	14.2	38.9
SAG-8M-8G	8	1/2	5.6	7.0	27	16.5	18.9	43.7
SAG-10M-4G	10	1/4	7.1	5.5	19	17.5	13.0	34.5
SAG-10M-6G	10	3/8	7.1	6.5	24	17.5	14.2	36.1
SAG-10M-8G	10	1/2	7.1	7.0	27	17.5	18.9	40.1
SAG-12M-4G	12	1/4	8.8	5.5	19	23.5	13.0	40.1
SAG-12M-6G	12	3/8	8.8	6.5	24	23.5	14.2	44.7
SAG-12M-8G	12	1/2	8.8	7.0	27	23.5	18.9	48.8
SAG-15M-8G	15	1/2	12.7	7.0	27	24.65	18.9	49.0
SAG-16M-8G	16	1/2	12.7	7.0	27	24.6	18.9	49.0
SAG-18M-8G	18	1/2	13.9	7.0	27	24.9	18.9	49.3
SAG-22M-8G	22	1/2	18.3	7.0	27	26.6	18.9	52.0
SAG-25M-8G	25	1/2	19.8	7.0	30	31.7	18.9	56.1

Port Connector

SCP







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

Installation Instructions

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

Connects two fractional S-LOK ports

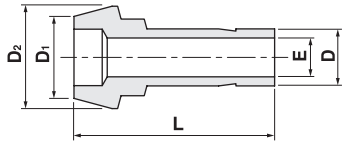
Part No.	Tube O.D D		E	D_1	L
	in	mm	Min		
SCP-1	1/16	1.59	1.00	3.30	13.72
SCP-2	1/8	3.17	2.03	6.09	22.35
SCP-4	1/4	6.35	4.31	9.39	24.64
SCP-5	5/16	7.93	5.58	10.92	25.90
SCP-6	3/8	9.52	6.86	12.70	26.16
SCP-8	1/2	12.70	9.40	15.74	35.81
SCP-12	3/4	19.05	14.73	22.09	37.33
SCP-16	1	25.40	20.32	28.44	48.00

Connects two metric S-LOK ports

Part No.	Tube O.D D	E Min	D_1	L
SCP-3M	3	1.9	6.0	22.2
SCP-4M	4	2.2	7.0	25.8
SCP-6M	6	4.1	9.0	24.6
SCP-8M	8	5.6	11.0	27.2
SCP-10M	10	7.1	13.1	26.1
SCP-12M	12	8.8	15.0	35.8
SCP-15M	15	11.2	19.0	37.4
SCP-16M	16	12.0	19.0	37.4
SCP-18M	18	13.9	21.0	37.4
SCP-20M	20	15.5	23.0	38.9
SCP-22M	22	17.9	25.0	39.2
SCP-25M	25	19.9	28.0	48.0
SCP-28M	28	22.5	34.3	63.5
SCP-32M	32	26.5	39.5	69.7
SCP-38M	38	31.6	47.1	81.9

Reducing
Port Connector

SCRP





Connects two fractional S-LOK ports

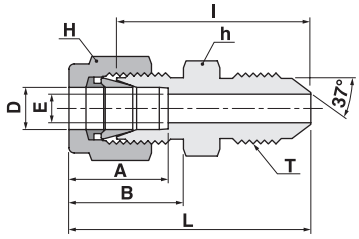
Part No.	Tube O.D				E	D_2	L
	D_1		D				
	in	mm	in	mm	Min		
SCRP-2-1	1/8	3.17	1/16	1.59	1.00	6.10	17.27
SCRP-4-2	1/4	6.35	1/8	3.17	2.28	9.39	22.60
SCRP-6-2	3/8	9.52	1/8	3.17	2.28	12.70	23.11
SCRP-6-4	3/8	9.52	1/4	6.35	4.82	12.70	24.89
SCRP-8-4	1/2	12.70	1/4	6.35	4.82	15.74	29.21
SCRP-8-6	1/2	12.70	3/8	9.52	7.11	15.74	30.48
SCRP-12-8	3/4	19.05	1/2	12.70	9.90	22.09	37.85
SCRP-16-8	1	25.40	1/2	12.70	9.90	28.40	42.67
SCRP-16-12	1	25.40	3/4	19.05	14.98	28.40	43.43

Connects two metric S-LOK ports

Part No.	Tube O.D		E	D_2	L
	D	D_1			
SCRP-6M-3M	6	3	1.9	9.0	22.6
SCRP-8M-6M	8	6	4.1	11.0	24.7
SCRP-10M-6M	10	6	4.1	13.1	25.0
SCRP-10M-8M	10	8	5.6	13.1	26.0
SCRP-12M-6M	12	6	4.1	15.0	29.1
SCRP-12M-8M	12	8	5.6	15.0	29.8
SCRP-12M-10M	12	10	7.1	15.0	30.4
SCRP-16M-6M	16	6	4.1	19.0	30.4
SCRP-16M-12M	16	12	8.8	19.0	36.2
SCRP-28M-25M	28	25	19.8	34.3	56.5
SCRP-32M-25M	32	25	19.8	39.5	60.3
SCRP-38M-25M	38	25	19.8	47.1	65.8

AN Union

SUA



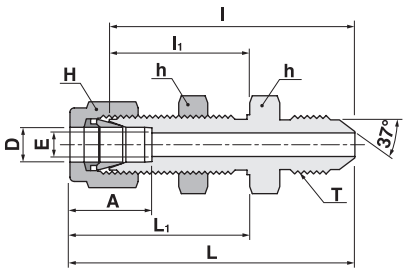


Connects fractional tube to AN ared tube

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

AN Bulkhead Union

SUBA



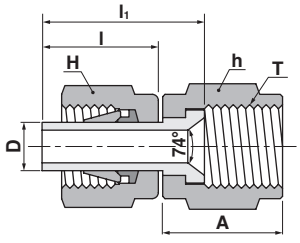


Connects fractional tube to AN ared tube

Part No.	Tube O.D D		AN Tube Flare Size		Straight Thread	E	Width across flat h		Width across flat H		A	I	I_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
	in	mm	in	mm	T	Min.	in	mm	in	mm							
SUBA-2-2	1/8	3.17	1/8	3.17	5/16-24	1.52	1/2	12.70	7/16	11.11	12.70	40.85	24.63	47.45	31.23	8.33	12.70
SUBA-4-4	1/4	6.35	1/4	6.35	7/16-20	4.31	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	47.36	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

AN Adapter

SAA





Connects fractional S-LOK port to male AN

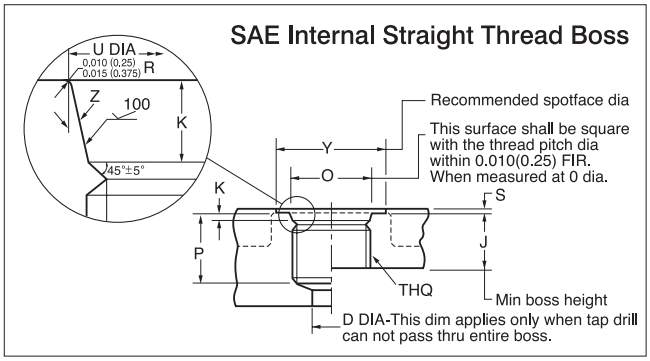
Part No.	Tube O.D D		AN Tube Flare Size		Straight Thread	Width across flat h		Width across flat H		A	I	I_1
	in	mm	in	mm	T	in	mm	in	mm			
SAA-2-2	1/8	3.17	1/8	3.17	5/16-24	3/8	9.52	7/16	11.11	13.71	13.46	18.54
SAA-2-4	1/8	3.17	1/4	6.35	7/16-20	9/16	14.28	7/16	11.11	15.74	13.46	19.05
SAA-4-4	1/4	6.35	1/4	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

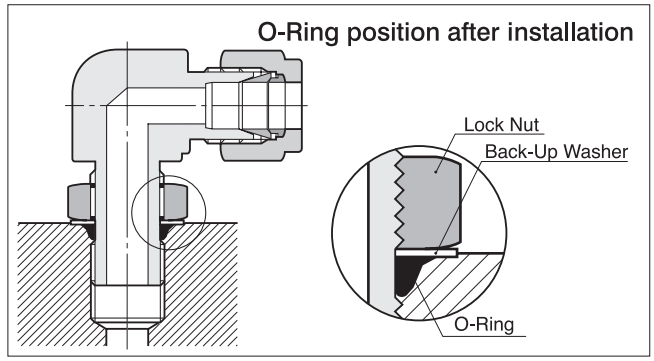
SAE Fittings

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 stnadards 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

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

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

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

Installation Instruction

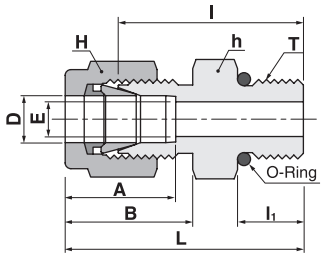
Step 1. Ensure the locknut is fully raisesd.
Step 2. Lubricate the O-Ring with a light oil or petroleum and turn the fitting into the straight thread boss until the metal washer is in contact with the boss.

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 wrech, hold the wrech pad and tighten the locknut until the washer is set against the face of the boss.

SAE Male Connector

SMCS



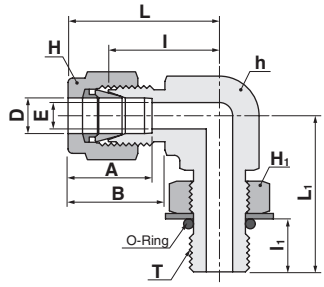


Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D D		Straight Thread	E	Width across flat h		H		A	B	I	l_1	L	O-Ring Unifom Size No.
	in	mm	T	Min.	in	mm	in	mm						
SMCS-2-2U	1/8	3.17	5/16-24	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.26	7.62	29.97	-902
SMCS-4-4U	1/4	6.35	7/16-20	4.82	9/16	14.28	9/16	14.28	15.24	17.78	26.67	9.14	34.03	-904
SMCS-4-6U	1/4	6.35	9/16-18	4.82	11/16	17.46	9/16	14.28	15.24	17.78	28.19	9.90	35.56	-906
SMCS-4-8U	1/4	6.35	3/4-16	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	11.17	37.59	-908
SMCS-4-10U	1/4	6.35	7/8-14	4.82	1	25.40	9/16	14.28	15.24	17.78	33.27	12.70	40.64	-910
SMCS-5-5U	5/16	7.93	1/2-20	5.84	5/8	15.87	5/8	15.87	16.25	18.54	27.43	9.14	34.79	-905
SMCS-6-4U	3/8	9.52	7/16-20	5.08	5/8	15.87	11/16	17.46	16.76	19.30	28.19	9.14	35.56	-904
SMCS-6-6U	3/8	9.52	9/16-18	7.11	11/16	17.46	11/16	17.46	16.76	19.30	29.71	9.90	37.08	-906
SMCS-6-8U	3/8	9.52	3/4-16	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.75	11.17	39.11	-908
SMCS-6-10U	3/8	9.52	7/8-14	7.11	1	25.40	11/16	17.46	16.76	19.30	34.79	12.70	42.16	-910
SMCS-8-6U	1/2	12.70	9/16-18	7.11	13/16	20.64	7/8	22.22	22.86	21.84	28.95	9.90	39.11	-906
SMCS-8-8U	1/2	12.70	3/4-16	10.41	7/8	22.22	7/8	22.22	22.86	21.84	31.75	11.17	41.91	-908
SMCS-8-10U	1/2	12.70	7/8-14	10.41	1	25.40	7/8	22.22	22.86	21.84	34.79	12.70	44.95	-910
SMCS-8-12U	1/2	12.70	1-1/16-12	10.41	1-1/4	31.75	7/8	22.22	22.86	21.84	38.86	14.98	49.02	-912
SMCS-10-8U	5/8	15.87	3/4-16	10.66	15/16	23.81	1	25.40	24.38	21.84	31.75	11.17	41.91	-908
SMCS-10-10U	5/8	15.87	7/8-14	12.70	1	25.40	1	25.40	24.38	21.84	35.05	12.70	45.21	-910
SMCS-12-8U	3/4	19.05	3/4-16	10.66	1-1/16	26.98	1-1/8	28.58	24.38	21.84	35.81	11.17	45.97	-908
SMCS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/4	31.75	1-1/8	28.58	24.38	21.84	38.86	14.98	49.02	-912
SMCS-14-14U	7/8	22.22	1-3/16-12	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	38.86	14.98	49.02	-914
SMCS-16-12U	1	25.40	1-1/16-12	16.76	1-3/8	34.92	1-1/2	38.10	31.24	26.41	41.14	14.98	53.34	-912
SMCS-16-16U	1	25.40	1-5/16-12	22.35	1-1/2	38.10	1-1/2	38.10	31.24	26.41	42.16	14.98	54.35	-916
SMCS-20-20U	1-1/4	31.75	1-5/8-12	27.68	1-7/8	47.63	1-7/8	47.63	41.14	38.86	46.22	14.98	68.32	-920
SMCS-24-24U	1-1/2	38.10	1-7/8-12	34.03	2-1/8	53.98	2-1/4	57.15	50.03	45.21	50.54	14.98	77.72	-924
SMCS-32-32U	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	67.56	62.73	64.26	14.98	101.60	-932

Positiopnable
SAE Male Elbow

SLS



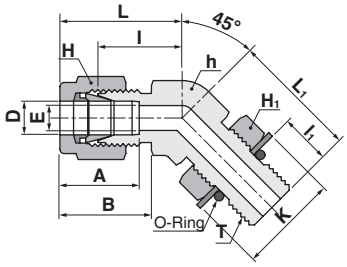


Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D D		Straight Thread	E	Width across flat h		H		H_1		A	B	l	l_1	L	L_1	K	O-Ring Uniform Size No.
	in	mm	T	Min.	in	mm	in	mm	in	mm								
SLS-4-4U	1/4	6.35	7/16-20	4.82	1/2	12	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
SLS-5-5U	5/16	7.93	1/2-20	5.84	9/16	14.28	5/8	15.87	5/8	15.87	16.25	18.54	22.86	9.90	30.22	29.46	18.28	-905
SLS-6-6U	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
SLS-6-8U	3/8	9.52	3/4-16	7.11	13/16	20.64	11/16	17.46	7/8	22.22	16.76	19.30	27.43	12.70	34.79	37.84	25.65	-908
SLS-8-8U	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
SLS-10-10U	5/8	15.87	7/8-14	12.70	1	25.40	1	25.40	1	25.40	24.38	21.84	29.46	14.22	39.62	43.43	29.46	-910
SLS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/16	26.98	1-1/8	28.58	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	-912
SLS-14-14U	7/8	22.22	1-3/16-12	18.28	1-1/4	31.75	1-1/4	31.75	1-3/8	34.92	25.90	21.84	33.02	16.76	43.18	50.54	40.38	-914
SLS-16-16U	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	53.59	43.94	-916
SLS-20-20U	1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.76	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	-920
SLS-24-24U	1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
SLS-32-32U	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	-932

Positiopnable
45°SAE Male Elbow

SLBS



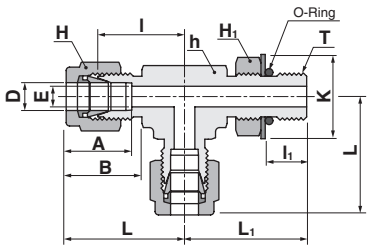


Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D D		Straight Thread	E	Width across flat h		H		H_1		A	B	l	l_1	L	L_1	K	O-Ring Uniform Size No.
	in	mm	T	Min.	in	mm	in	mm	in	mm								
SLBS-4-4U	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
SLBS-6-6U	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
SLBS-8-8U	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
SLBS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/16	26.98	1-1/8	28.58	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	-912
SLBS-16-16U	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	53.59	43.94	-916

Positiopnable
SAE Male Run Tee

STRS



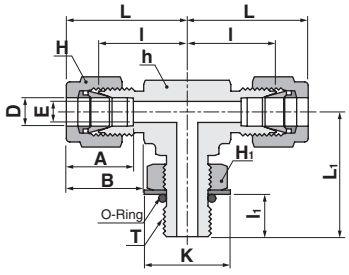


Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D D		Straight Thread	E	Width across flat h		H		H_1		A	B	I	I_1	L	L_1	K	O-Ring Uniform Size No.
	in	mm	T	Min.	in	mm	in	mm	in	mm								
STRS-4-4U	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
STRS-6-6U	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
STRS-8-8U	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
STRS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/16	26.98	1-1/8	28.58	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	-912
STRS-16-16U	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	53.59	43.94	-916
STRS-20-20U	1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.76	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	-920
STRS-24-24U	1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
STRS-32-32U	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	-932

Positionable
SAE Male Branch Tee

STBS





Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D D		Straight Thread	E	Width across flat h		H		H_1		A	B	I	I_1	L	L_1	K	O-Ring Uniform Size No.
	in	mm	T	Min.	in	mm	in	mm	in	mm								
STBS-4-4U	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
STBS-6-6U	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
STBS-8-8U	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
STBS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/16	26.98	1-1/8	28.58	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	-912
STBS-16-16U	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	53.59	43.94	-916
STBS-20-20U	1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.76	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	-920
STBS-24-24U	1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
STBS-32-32U	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	-932

O-Seal Connector

S-LOK O-Ring seal fittings provide leak-tight sealing on both vacuum and high pressure with a smooth & at surface perpendicular to the threaded port to ensure metal to metal contact.
The standard Buna N O-Ring is contained in a precision groove to prevent O-Ring extrusion at high pressure and for a controlled squeeze in a vacuum service.

Raised Port

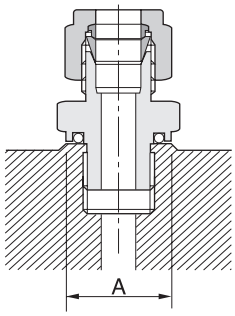


Fig. 1

Counterbored Port

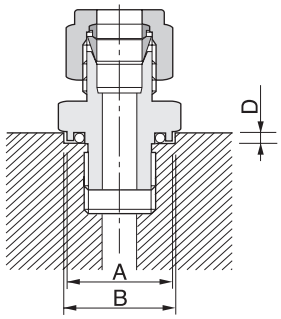


Fig. 2

Recessed Port

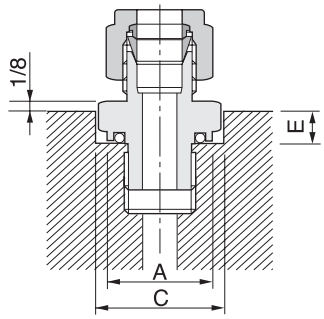


Fig. 3

MountingDimensions for O-seal connectors

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

When installing an O-Ring seal fitting:

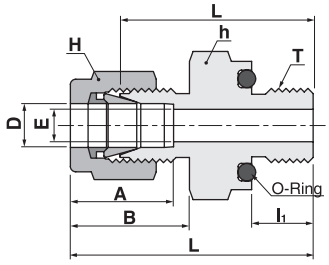
1. Hand-tighten it until the squeeze on the O-Ring can be felt during the last 1/4 turn
2. Snug the fitting lightly with a wrench

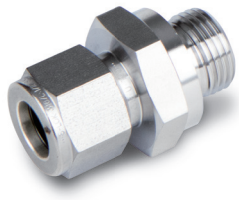
When connecting & disconnecting the tubing to the O-Ring fitting:

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

O-Seal Straight Thread Connector

SCOS



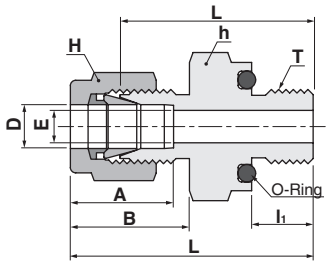


Connects fractional tube to straight thread

Part No.	Tube O.D D		Straight Thread	E	Width across flat h		H		A	B	l	l_1	L	O-Ring Unifom Size No.
	in	mm	T	Min.	in	mm	in	mm						
SCOS-2-2U	1/8	3.17	5/16-24	2.28	9/16	14.28	7/16	11.11	12.70	15.24	26.16	8.63	32.76	-011
SCOS-3-3U	3/16	4.76	3/8-24	3.04	5/8	15.87	1/2	12.70	13.71	16.00	27.68	9.65	34.29	-012
SCOS-4-4U	1/4	6.35	7/16-20	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.98	10.41	38.35	-111
SCOS-5-5U	5/16	7.93	1/2-20	6.35	7/8	22.22	5/8	15.87	16.25	18.54	33.27	11.17	40.64	-112
SCOS-6-6U	3/8	9.52	9/16-18	7.11	15/16	23.81	11/16	17.46	16.76	19.30	35.05	11.93	42.41	-113
SCOS-8-8U	1/2	12.70	3/4-16	10.41	1-1/8	28.57	7/8	22.22	22.86	21.84	35.81	11.93	45.97	-116
SCOS-12-12U	3/4	19.05	1-1/16-12	15.74	1-1/2	38.10	1-1/8	28.58	24.38	21.84	42.16	14.22	52.32	-215
SCOS-16-16U	1	25.40	1-5/16-12	22.35	1-3/4	44.45	1-1/2	38.10	31.24	26.41	45.97	14.22	58.16	-219

O-Seal Pipe Thread Connector

SCOP





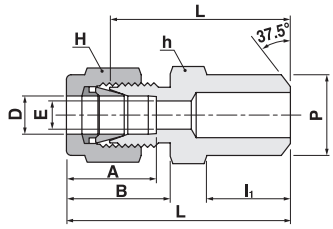
Connects fractional tube to NPT thread

Part No.	Tube O.D D		T	E	Width across flat h		H		A	B	l	l_1	L	O-Ring Unifom Size No.
	in	mm	*(NPT)	Min.	in	mm	in	mm						
SCOP-2-2N	1/8	3.17	1/8	2.28	3/4	19.05	7/16	11.11	12.70	15.24	26.16	7.11	32.76	-111
SCOP-4-2N	1/4	6.35	1/8	4.82	3/4	19.05	9/16	14.28	15.24	17.78	27.68	7.11	35.05	-111
SCOP-4-4N	1/4	6.35	1/4	4.82	15/16	23.81	9/16	14.28	15.24	17.78	30.98	9.65	38.35	-113
SCOP-6-4N	3/8	9.52	1/4	7.11	15/16	23.81	11/16	17.46	16.76	19.30	32.51	9.65	39.87	-113
SCOP-6-6N	3/8	9.52	3/8	7.11	1-1/8	28.58	11/16	17.46	16.76	19.30	34.03	10.41	41.40	-116
SCOP-6-8N	3/8	9.52	1/2	7.11	1-5/16	33.33	11/16	17.46	16.76	19.30	39.62	13.46	46.99	-212
SCOP-8-8N	1/2	12.70	1/2	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	39.62	13.46	49.78	-212

** ISO paralled threads ard available upon request.*

Male Pipe
Weld Connector

SCW





Connects fractional tube to pipe

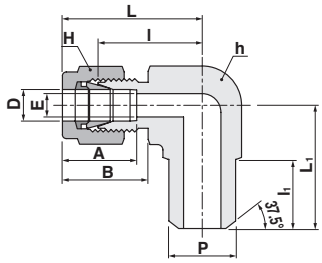
Part No.	Tube O.D		Male Pipe Size		E	Width across flat				A	B	l	l_1	L
	D		P			h		H						
	in	mm	NPS	O.D	Min.	in	mm	in	mm					
SCW-2-2P	1/8	3.17	1/8	10.29	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.20	9.65	31.24
SCW-3-2P	3/16	4.76	1/8	10.29	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.63	9.65	31.24
SCW-4-2P	1/4	6.35	1/8	10.29	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	9.65	32.76
SCW-4-4P	1/4	6.35	1/4	13.72	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	14.22	37.84
SCW-5-2P	5/16	7.93	1/8	10.29	5.08	9/16	14.28	5/8	15.87	16.25	18.54	26.67	9.65	34.03
SCW-5-4P	5/16	7.93	1/4	13.72	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	14.22	38.60
SCW-6-4P	3/8	9.52	1/4	13.72	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	14.22	39.87
SCW-6-6P	3/8	9.52	3/8	17.15	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	14.22	39.87
SCW-6-8P	3/8	9.52	1/2	21.34	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	19.05	46.26
SCW-8-6P	1/2	12.70	3/8	17.15	10.41	13/16	20.64	7/8	22.22	22.86	21.84	33.27	14.22	43.43
SCW-8-8P	1/2	12.70	1/2	21.34	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	19.05	49.02
SCW-8-12P	1/2	12.70	3/4	26.67	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	40.38	19.05	50.54
SCW-10-8P	5/8	15.87	1/2	21.34	12.70	15/16	23.81	1	25.40	24.38	21.84	38.86	19.05	49.02
SCW-12-12P	3/4	19.05	3/4	26.67	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	19.05	50.54
SCW-16-16P	1	25.40	1	33.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	50.03	23.87	62.23
SCW-20-20P	1-1/4	31.75	1-1/4	42.16	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	23.87	77.21
SCW-24-24P	1-1/2	38.10	1-1/2	48.26	34.03	2-1/8	53.98	2-1/4	57.15	50.03	45.21	61.72	26.16	88.90
SCW-32-32P	2	50.80	2	60.33	45.97	2-3/4	69.85	3	76.20	67.56	62.73	76.20	26.92	113.53

Connects metric tube to pipe

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

Male Pipe
Weld Elbow

SLW



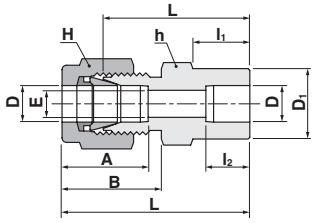


Connects fractional tube to pipe

Part No.	Tube O.D D		Male Pipe Size P		E	Width across flat h		H		A	B	l	l_1	L	L_1
	in	mm	NPS	O.D	Min.	in	mm	in	mm						
SLW-2-2P	1/8	3.17	1/8	10.29	2.28	1/2	12.70	7/16	11.11	12.70	15.24	19.55	9.65	26.92	18.79
SLW-4-4P	1/4	6.35	1/4	13.72	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	14.22	26.92	23.36
SLW-6-4P	3/8	9.52	1/4	13.72	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	14.22	30.48	25.40
SLW-8-8P	1/2	12.70	1/2	21.34	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	19.05	36.06	33.02
SLW-12-12P	3/4	19.05	3/4	26.67	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	19.05	39.87	36.83

Tube Socket
Weld Connector

SCSW



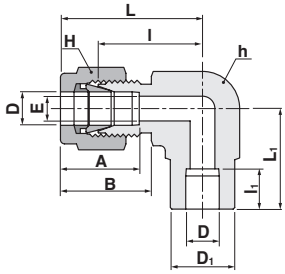


Connects fractional tubes

Part No.	Tube O.D D		E	D_1	Width across flat h		H		A	B	l	l_1	l_2	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



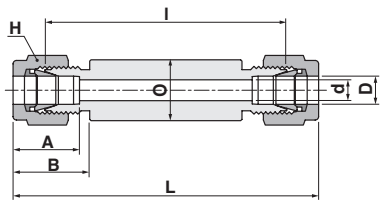


Connects fractional tubes

Part No.	Tube O.D D		E	D_1	Width across flat h		H		A	B	l	l_1	L	L_1
	in	mm	Min.		in	mm	in	mm						
SLSW-4-4	1/4	6.35	4.82	11.17	1/2	12.70	9/16	14.28	15.24	17.78	19.55	7.87	26.92	19.55
SLSW-6-6	3/8	9.52	7.11	15.74	5/8	15.87	11/16	17.46	16.76	19.30	23.11	9.65	30.48	23.11
SLSW-8-8	1/2	12.70	10.41	19.05	13/16	20.64	7/8	22.22	22.86	21.84	25.90	12.70	36.06	25.90
SLSW-12-12	3/4	19.05	15.74	26.67	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	14.22	39.87	29.71
SLSW-16-16	1	25.40	22.35	33.27	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	19.05	49.02	36.83

Welding
Bulkhead Union

SBUW





Connects fractional Tubes

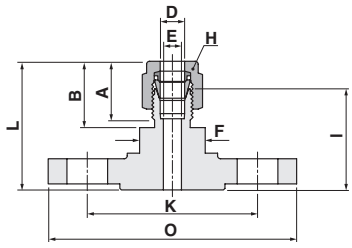
Part No.	Tube O.D. D		d	H		A	B	ℓ	L	O
	in	mm	mm	in	mm					
SBUW-1	1/16	1.59	1.27	5/16	7.93	8.63	10.92	64.2	71.85	10
SBUW-2	1/8	3.17	2.28	7/16	11.11	12.7	15.24	67.2	80.41	12
SBUW-3	3/16	4.76	3.04	1/2	12.70	13.71	16	69	82.2	12
SBUW-4	1/4	6.35	4.82	9/16	14.28	15.24	17.78	70.4	85.13	14
SBUW-5	5/16	7.93	6.35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

Connects Metric Tubes

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

Flange Adapter

SF





Connects fractional Tube to ANSI Flanges

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

Connects Metric Tube to DIN PN40 Flanges

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

Connects fractional Tube to JIS10K Flanges

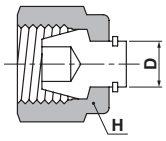
Part No,	Tube O.D. D		JIS Flange	E	H		A	B	F	L	ℓ	K	O
	in	mm	DN	min	in	mm							
SF-15R-4T-10K	1/4	6.35	15	4.82	9/16	14.28	15.24	17.78	20.64	42.16	34.8	70	95
SF-15R-6T-10K	3/8	9.52	15	7.11	11/16	17.46	16.76	19.3	20.64	43.69	36.32	70	95
SF-15R-8T-10K	1/2	12.7	15	10.41	7/8	22.22	22.86	21.84	20.64	46.49	36.32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

Connects Metric Tube to JIS10K Flanges

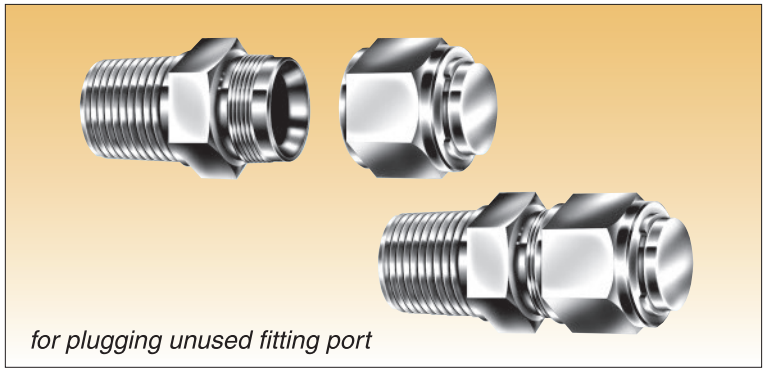
Part No,	Tube O.D. D	JIS Flange DN	E min	H	A	B	F	L	ℓ	K	O
SF-15R-12M-10K	12	15	9.5	22	22.8	22	20	46.5	36.3	70	95
SF-15R-18M-10K	18	15	15.1	30	24.4	22	32	48.5	38.4	70	95
SF-25R-25M-10K	25	25	21.8	38	31.3	26.5	35	61.0	48.8	90	125

Plug

SP







Installation Instructions

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

fractional

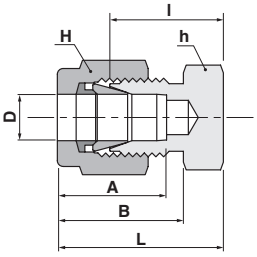
Part No.	Tube O.D. D		Width across flat H	
	in	mm	in	mm
SP-1	1/16	1.59	5/16	7.93
SP-2	1/8	3.17	7/16	11.11
SP-3	3/16	4.76	1/2	12.70
SP-4	1/4	6.35	9/16	14.28
SP-5	5/16	7.93	5/8	15.87
SP-6	3/8	9.52	11/16	17.46
SP-8	1/2	12.70	7/8	22.22
SP-10	5/8	15.87	1	25.40
SP-12	3/4	19.05	1-1/8	28.58
SP-14	7/8	22.22	1-1/4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

metric

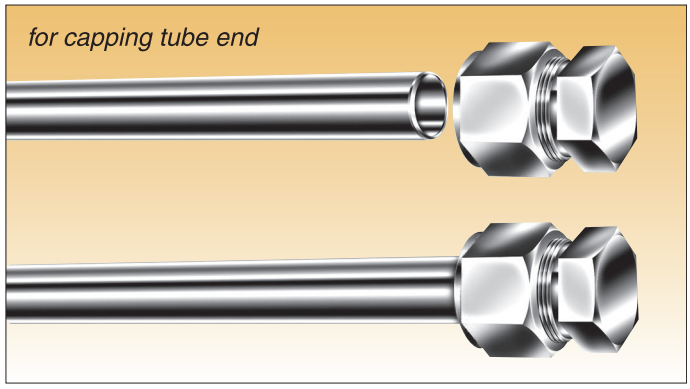
Part No.	Tube O.D. D	Width across flat H
SP-2M	2	12
SP-3M	3	12
SP-4M	4	12
SP-6M	6	14
SP-8M	8	16
SP-10M	10	19
SP-12M	12	22
SP-15M	15	25
SP-16M	16	25
SP-18M	18	30
SP-20M	20	32
SP-22M	22	32
SP-25M	25	38
SP-28M	28	46
SP-32M	32	50
SP-38M	38	60

Cap

SC







Installation Instructions

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

Cap end of fractional tube

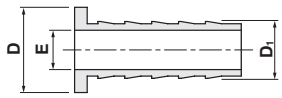
Part No.	Tube O.D. D		Width across flat h		Width across flat H		A	B	ℓ	L
	in	mm	in	mm	in	mm				
SC-1	1/16	1.59	5/16	7.93	5/16	7.93	8.63	10.92	11.20	14.18
SC-2	1/8	3.17	7/16	11.11	7/16	11.11	12.70	15.24	13.46	20.06
SC-3	3/16	4.76	7/16	11.11	1/2	12.70	13.71	16.00	14.73	21.33
SC-4	1/4	6.35	1/2	12.70	9/16	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

Cap end of metric tube

Part No.	Tube O.D. D	Width across flat h	Width across flat H	A	B	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

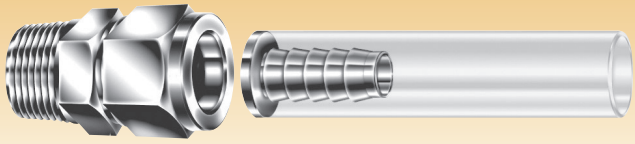
Tube Insert

SI





for Nylon or Soft Plastic Tubing



Installation Instructions

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

fractional

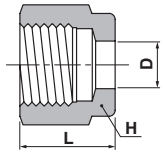
Part No.	Tube O.D. D		Tube I.D. D_1		E
	in	mm	in	mm	
SI-3-2	3/16	4.76	1/8	3.17	2.28
SI-4-2	1/4	6.35	1/8	3.17	2.28
SI-4-3	1/4	6.35	3/16	4.76	3.55
SI-5-2	5/16	7.93	1/8	3.17	2.28
SI-5-3	5/16	7.93	3/16	4.76	3.04
SI-5-4	5/16	7.93	1/4	6.35	4.82
SI-6-3	3/8	9.52	3/16	4.76	3.04
SI-6-4	3/8	9.52	1/4	6.35	4.82
SI-8-4	1/2	12.70	1/4	6.35	4.82
SI-8-6	1/2	12.70	3/8	9.52	7.87
SI-10-6	5/8	15.87	3/8	9.52	7.87
SI-10-8	5/8	15.87	1/2	12.70	11.17
SI-12-8	3/4	19.05	1/2	12.70	11.17
SI-12-10	3/4	19.05	5/8	15.87	14.22
SI-16-12	1	25.40	3/4	19.05	17.52

metric

Part No.	Tube O.D. D	Tube I.D. D_1	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

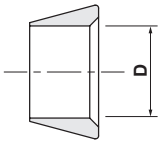
Part No.	Tube O.D. D		Width across flat H		L
	in	mm	in	mm	
SN-1	1/16	1.59	5/16	7.93	7.90
SN-2	1/8	3.17	7/16	11.11	11.93
SN-3	3/16	4.76	1/2	12.70	11.93
SN-4	1/4	6.35	9/16	14.28	12.70
SN-5	5/16	7.93	5/8	15.87	13.46
SN-6	3/8	9.52	11/16	17.46	14.22
SN-8	1/2	12.70	7/8	22.22	17.52
SN-10	5/8	15.87	1	25.40	17.52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

metric

Part No.	Tube O.D. D	Width across flat H	L
SN-2M	2	12	11.8
SN-3M	3	12	11.8
SN-4M	4	12	12
SN-6M	6	14	12.7
SN-8M	8	16	13.5
SN-10M	10	19	13.1
SN-12M	12	22	17.5
SN-15M	15	25	17.5
SN-16M	16	25	17.4
SN-18M	18	30	17.5
SN-20M	20	32	17.5
SN-22M	22	32	17.5
SN-25M	25	38	20.6
SN-28M	28	46	30.6
SN-32M	32	50	34.4
SN-38M	38	60	40.6

Front Ferrule

SFF





fractional

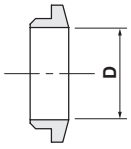
Part No.	Tube O.D. D	
	in	mm
SFF-1	1/16	1.59
SFF-2	1/8	3.17
SFF-3	3/16	4.76
SFF-4	1/4	6.35
SFF-5	5/16	7.93
SFF-6	3/8	9.52
SFF-8	1/2	12.70
SFF-10	5/8	15.87
SFF-12	3/4	19.05
SFF-14	7/8	22.22
SFF-16	1	25.40
SFF-20	1-1/4	31.75
SFF-24	1-1/2	38.10
SFF-32	2	50.80

metric

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

Back Ferrule

SFB





fractional

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

metric

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

Ferrule Set

SFS10



fractional

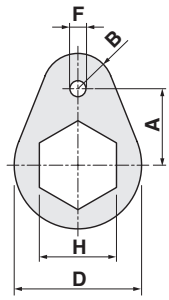
Part No.	Tube O.D.	
	in	mm
SFS10-1	1/16	1.59
SFS10-2	1/8	3.17
SFS10-3	3/16	4.76
SFS10-4	1/4	6.35
SFS10-5	5/16	7.93
SFS10-6	3/8	9.52
SFS10-8	1/2	12.70
SFS10-10	5/8	15.87
SFS10-12	3/4	19.05
SFS10-14	7/8	22.22
SFS10-16	1	25.40

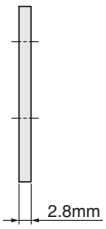
metric

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

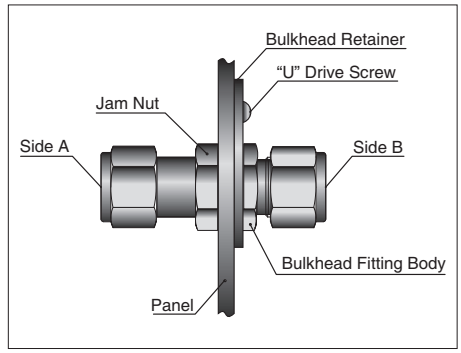
Bulkhead Retainer

SBR







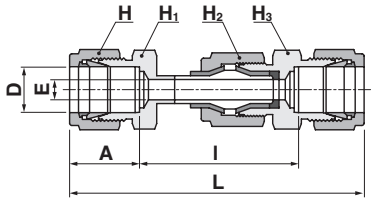


Connects fractional Tube

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

Dielectric Fitting

SEU





Connects fractional Tube or Pipe

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

Technical Data & Dimensions

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

Hydraulic Swaging Unit SWG-MNL

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

Features

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

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

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

Unit Assembly and Set up

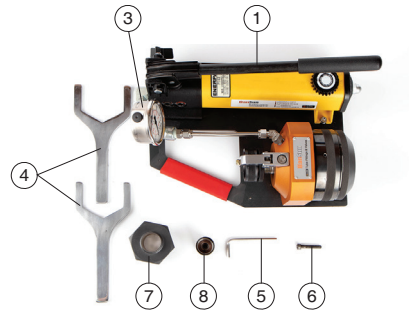
1. Open the vent valve of the hand pump by turning it counterclockwise.
2. Connect the hose to the hand pump and swaging head.
3. Turn the jig and die you want to use on the swaging head clockwise to fasten.
4. Tighten the die to the swaging head with Y wrench.
5. Tighten the bolt tightly with L wrench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

Swaging Unit Operating

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

Assembly with Fitting Body

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



Swaging Unit - SWG-MNL Component

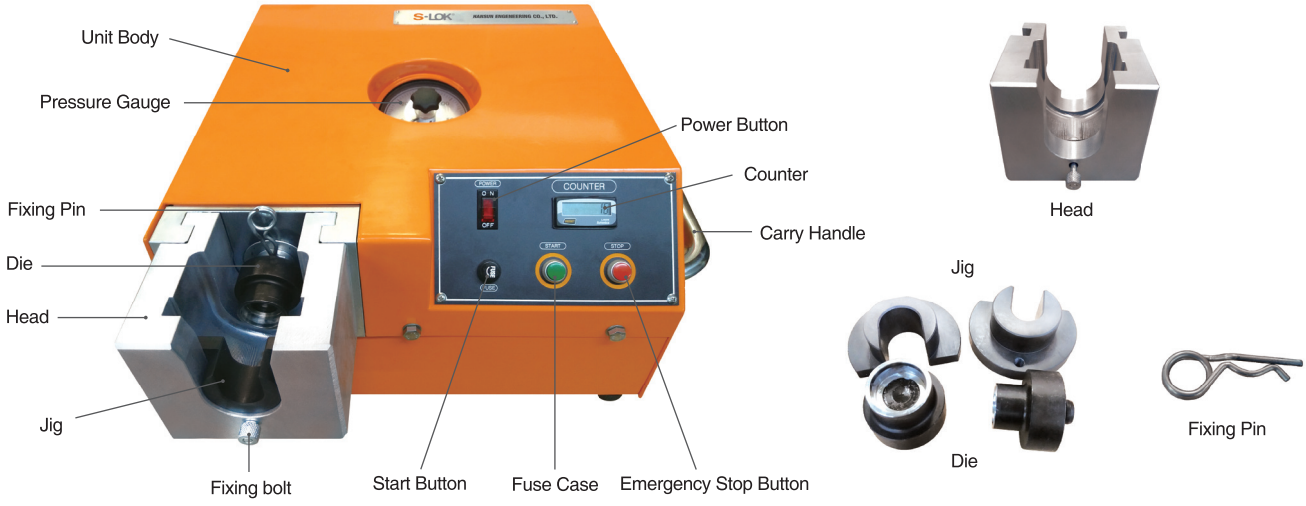
No.	Part Name
1	Hand Pump
2	Swaging Head
3	Pressure Gauge
4	Y Wrench
5	L Wrench
6	Bolt
7	Jig
8	Die

Recommended Minimum Wall Thickness of Tubing

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

Electric Swaging Unit – SWG-AT

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



Features

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

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

Tubing preparation

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

Unit Set Up

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

Unit Set Up

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

Assembly on Fitting Body

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

Gap Gauge for Pull-up Inspection

SIG

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



Multiple Size Gap Gauge

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

Liquid Gas Leak Detectors

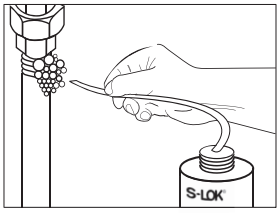
S·detec

- S·detec liquid gas leak detectors detect gas leaks in hard-to-reach areas.
- Flexible tube extends for hard-to-reach areas.
- Detects even on very small leaks and vertical surfaces.
- Easy to use, non-toxic, non-corrisive, non-fammable and free of chlorine.
- S·detec liquid evaporates cleanly after testing.
- Composition : Distilled water, glycerine and others
- Temperature range : -2˚C to 93˚C (28˚F to 200˚F)

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

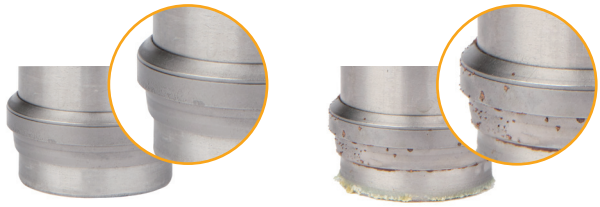


Instructions



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

Product Comparison



Ordering Information

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

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


S-LOK®