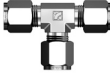




















SUPERLOK Tube Fitting

- Double/Single Ferrule Compression Fittings
- Tubing Tools



SUPERLOK Tube Fitting Index

UNION			TEE / CROSS			AN TUBE		
	SU Union	10P		SUT Union Tee	36P		SAF An Flare	53P
	SRU Reducing Union	11P		SRUT Reducing Union Tee	37P		SAU An Union	54P
	SBHRU Bulkhead Reducing Union	12P		SMBT Male Branch Tee	38P		SAA An Adapter	54P
	SBHU Bulkhead Union	13P		SPMBT Positionable Male Branch Tee	39P	O-RING SEAL		
CONNECTOR				SMRT Male Run Tee	40P		SOSC O-Seal Straight Thread Connector	55P
	SMC Male Connector	14P		SPMRT Positionable Male Run Tee	41P		SOPC O-Seal Pipe Thread Connector	55P
	SMC-GM Male Connector for Metal Gasket Seal	18P		SFBT Female Branch Tee	42P		SSMC SAE/MS Male Connector	56P
	SGMC Male Connector for Bonded Washer Seal	19P		SFRT Female Run Tee	43P	WELD END		
	SFC Female Connector	21P		SABT Adjustable Branch Tee	44P		SPWC Male Pipe Weld Connector	60P
	SGC Gauge Connector	23P		SART Adjustable Run Tee	44P		SMPWE Male Pipe Weld Elbow	61P
	SMCB Bulkhead Male Connector	24P		SUC Union Cross	45P		SSWC Tube Socket Weld Connector	61P
	SFCB Bulkhead Female Connector	25P	STUB TUBE CONNECTOR				SSWE Tube Socket Weld Elbow	61P
ELBOWS				SR Reducer	46P	PLUG & CAP		
	SUE Union Elbow	26P		SRB Bulkhead Reducer	48P		SP Plug	62P
	SRUE Reducing Union Elbow	27P		SMA Male Adapter	49P		SC Cap	62P
	SHUE 45° Union Elbow	27P		SFA Female Adapter	50P	SPARE PART		
	SME Male Elbow	28P		SPC Port Connector	51P		SN Nut	63P
	SHME 45° Male Elbow	31P		SRPC Reducing Port Connector	52P		SFF Front Ferrule	63P
	SPHME 45° Positionable Male Elbow	32P		SFTC Lap Joint Flange Tube Connector	53P		SBF Back Ferrule	64P
	SPME Positionable Male Elbow	32P					SFS Ferrule Set	64P
	SFE Female Elbow	34P					SI Insert	64P
	SAE Adjustable Elbow	35P					SBHR Bulkhead Retainer	65P
							SVP Vent Protector	65P

Ordering Information

Example :

SMC - 8 - 8N - B
1 2-1 2-2 3

1. Type of Fitting

Please refer to SUPERLOK tube fitting index on page 2.

Example :

- SU** = Union **SMC** = Male Connector **SUE** = Union Elbow **SUT** = Union Tee
- SWC** = Weld connector **SR** = Reducer **SAU** = An union **SP** = Plug

2. Size of Fitting

2-1. Tube O.D

Fractional Tube	OD (Inch)	1/16	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1-1/4	1-1/2	2
	Designator	1	2	3	4	5	6	8	10	12	14	16	20	24	32
Metric Tube	OD (mm)	2	3	4	6	8	10	12	16	20	22	25	28	32	38
	Designator	2M	3M	4M	6M	8M	10M	12M	16M	20M	22M	25M	28M	32M	38M

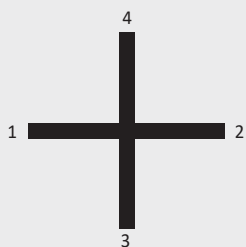
2-2. Pipe Thread Size or tube size

Size (inch)	1/8	1/4	3/8	1/2	3/4	1	Standards
ISO Tapered	2R	4R	6R	8R	12R	16R	JIS B0203(PT), DIN2999, BSPT
NPT	2N	4N	6N	8N	12N	16N	ANSI B1.20.1
ISO Parallel	2G	4G	6G	8G	12G	16G	JIS B0202(PF), ISO 228/1, BSPP
Unified Screw	2U	4U	6U	8U	12U	16U	AMERICAN STANDARD UNIFIED SCREW THREAD

3. Material

- (Blank)** = 316 Stainless Steel
- 36L** = 316L Stainless Steel
- B** = Brass
- AL** = Aluminum
- 15** = Carbon Steel A105
- S45C** = Carbon Steel S45C
- M40** = Monel Alloy 400
- 825** = Alloy 825
- 625** = Alloy 625
- 276** = Alloy C-276
- A20** = Alloy 20

Ordering numbers for Tees and Crosses



- TEE: First indicate the size of the run (1 to 2) and then the size of the branch (3).
- CROSS: First indicate the size of the run (1 to 2) and then the size of the branch (3 to 4).

Ex. 1) SMBT - 6 - 6N

Male Branch Tee, 3/8" x 3/8" NPT, Stainless Steel 316

Ex. 2) SUC - 8 - M40

Union Cross, 1/2"x1/2", Monel 400

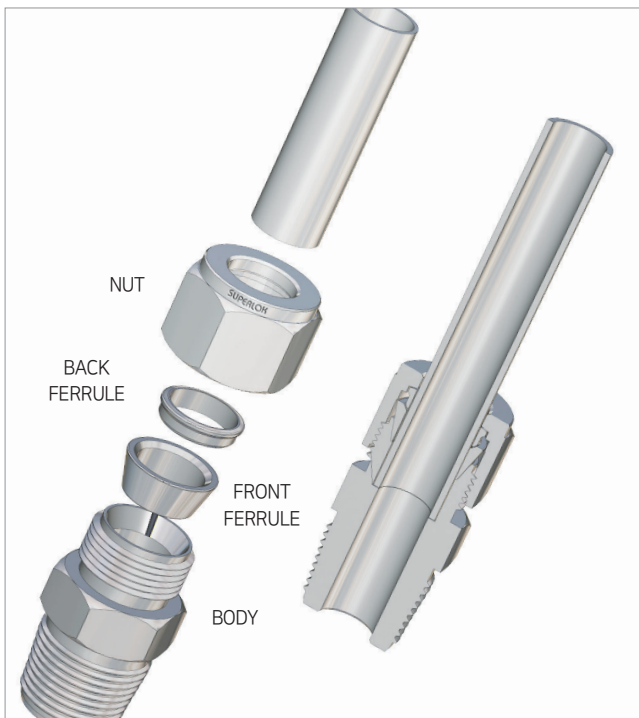
※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.

Features of SUPERLOK Tube Fittings



Structure of SUPERLOK

SUPERLOK Tube Fittings consist of four precision parts that are manufactured under the strictest of quality control. These four precision parts together make up the best Tube Fitting in the world. SUPERLOK Tube Fittings secure leak free connections providing customers with confidence and appreciation of overall reliability of the installed systems.



SUPERLOK Installation Instruction

1. Installation under 1 inch / 25mm

SUPERLOK Tube Fittings shall be delivered to the customer completely assembled and ready for installation. Turning the nut to the finger tight position is the only requirement before starting the installation. Fittings should not be disassembled before installation to maintain cleanliness and prevent unwanted foreign material from entering the system. Care in the proper selection of tubing also contributes to a safe and reliable installation.

Step 1

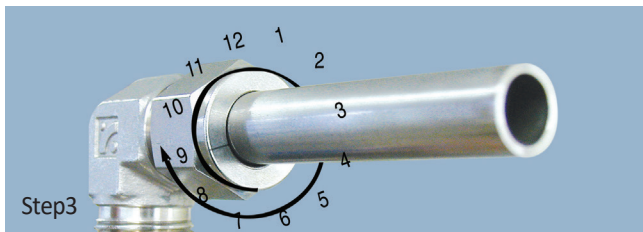
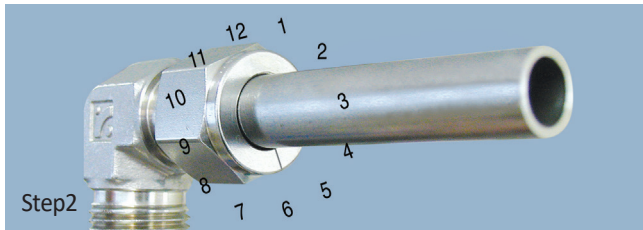
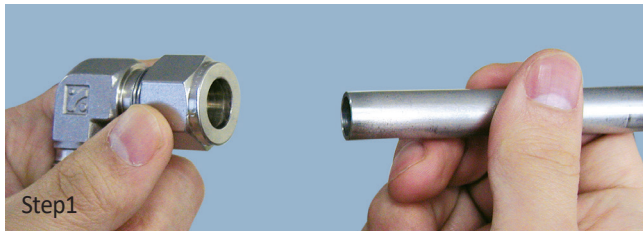
Insert the tubing into the SUPERLOK Tube Fitting making sure the tubing is bottomed out and is in complete contact with the shoulder of the fitting. Also, the nut should be in the finger-tight position at this time.

Step 2

Before tightening, mark the SUPERLOK nut at the 6 o'clock position.

Step 3

Hold the fitting body safely with a back-up wrench and tighten the nut 1-1/4 turns until your mark reaches the 9 o'clock position. Note: For 1/16", 1/8" and 3/16"; 2, 3 and 4 mm tube fittings, tighten the nut 3/4 of a turn to the 3 o'clock position.



Gaugeability

On initial installation, the SUPERLOK Inspection Gauge assures the installer or inspector that a fitting has been sufficiently tightened.

Position the SUPERLOK Inspection Gauge next to the gap between the nut and the body.

- If the gauge will not enter the gap, the fitting is sufficiently tightened.
- If the gauge will enter the gap, additional tightening is required.



* To order the gap inspection gauges, please refer to page 67.

2. Installation for high pressure or severe service systems

Since tubing has different O.D. tolerances, it is important to have a common starting point to take out in dimensional variations. This is done by tightening the fitting slightly until the tubing can not freely rotate in the fitting as it can in the finger-tight position. At this point tighten the nut 1-1/4 turns.

Safety Considerations on Installations for High Pressure Systems

1. Make sure the proper tubing wall thickness is selected in accordance with pressure ratings (See page 9). Tubing should have a hardness of HRB 80 or less.
2. Do not assemble or disassemble fittings when the system is pressurized.

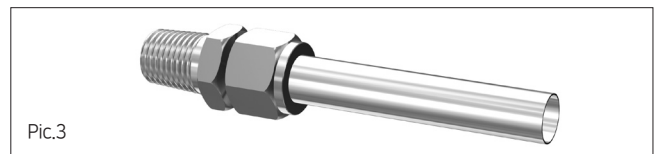
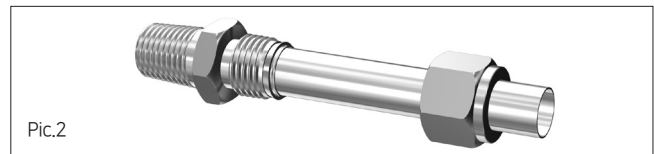
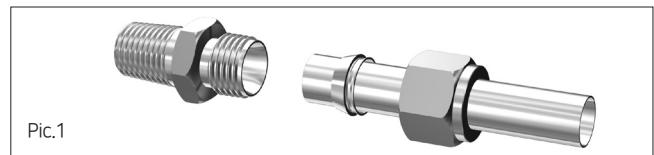
3. Re-tightening Instructions

Step 1

Pic. 1 shows the fitting in the disconnected position. Insert the tubing with the pre-swaged ferrules into the fitting body making sure the front ferrule is firmly seated as shown in Pic. 2 .

Step 2

Finger-tighten the nut and then with a wrench turn the nut to the original 9 o'clock position. At this point a slight change of resistance will be felt. Tighten the nut slightly more as the change in resistance is felt and the installation is complete as shown in Pic. 3 by tightening slightly more.



Technical Information

Hardness Limitation

High quality stainless steel tubing that is fully annealed; Seamless or Welded per ASTM A269, A213 or equivalent should be used with SUPERLOK Tube fittings. The tubing must be a maximum hardness of HRB 90 or less on the Rockwell Scale, however HRB 80 is more suitable for bending and offers a greater difference in hardness to the ferrules. This difference in hardness offers more ease in assembly and better interaction between the ferrules and the tubing.

Compatibility

SUPERLOK Tube fittings are designed and manufactured to be interchangeable with other Tube Fittings manufactured by other industry leading manufacturers. When required compatibility testing can be performed by an independent third party and the reports can be provided. Please consult BMT(SUPERLOK) sales representative for compatibility

Gas System Application

SUPERLOK Tube Fittings are appropriate for Gas Systems, but the implementation of certain standards mentioned below should be adhered to just as in other systems.

1. Tubing hardness must be less than that of the ferrules.
2. Tubing should be free of surface imperfections, defects and round in shape.
3. Refer to Table 2 on page 9 for selection of the appropriate wall thickness. (Only shaded areas should be selected for Gas Systems)
4. Tubing ends must be cut squarely and perpendicular to the center-line of the tubing. After the tubing is cut it must be deburred on both the inside and outside with a High quality fully sharpened deburring tool.
5. Follow the SUPERLOK Installation Instructions from pages 4 to 5 in the catalog.
6. Do not attempt to bend the tubing after a fitting has been installed in a fixed position.
7. Tubing Systems should be installed to allow for adequate expansion and contraction as well as ease of maintenance.

Material and Marking

Material	Bar Stock	Forging	Body Marking
SS316, SS316/316L	ASTM A479, ASTM A276	ASTM A182	316
SS316L	ASTM A479, ASTM A276	ASTM A182	316L
6-MO	ASTM A479	ASTM A182	6MO
Monel, Alloy 400	ASTM B164	ASTM B564	M40
Inconel, Alloy 600	ASTM B166	ASTM B564	600
Inconel, Alloy 625	ASTM B446	ASTM B564	625
Incoloy, Alloy 825	ASTM B425	ASTM B564	825
Hastelloy, Alloy C-276	ASTM B574	ASTM B564	276
Brass	ASTM B16, ASTM B453	ASTM B283	BRA (Bar Stock), BRASS (Forging)

SUPERLOK tube fittings are available in various materials - but are not limited to – the materials listed in the above table.

The standard material is 316/316L stainless steel.

Straight fittings are machined from cold finished bar stock and shaped bodies (elbows, crosses, and tees) are machined from forgings. For materials not listed above, please contact BMT head quarter or your SUPERLOK representative.

Maximum Temperature by Materials

Aluminum	400 °F	204 °C
Copper	400 °F	204 °C
Steel	375 °F	191 °C
SUS304	1000 °F	538 °C
SUS316	1200 °F	649 °C
MONEL	800 °F	427 °C

Please refer to ASME B31.3 concerning the detailed information about the maximum & minimum temperature of various materials.

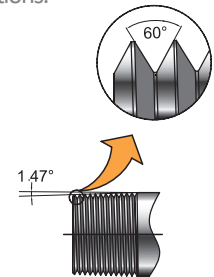
Vacuum, Cryogenic and High Temperature Applications

SUPERLOK Tube Fittings have been tested in vacuum, Cryogenic and High Temperatures insuring repeatable and reliable performance in the severest of applications.

Threads

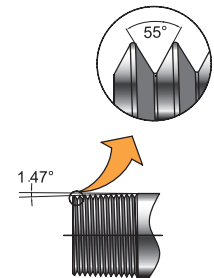
1. NPT (National Pipe Thread)

- Thread angle 60°
- Tapered angle 1° 47'
- Manufactured by the standard of ASME B 1.20.1



2. ISO 7/1 Taperad Thread

- Thread angle 55°
- Tapered angle 1° 47'
- Equivalent to the standard of DIN2999, BS21(BSPT) and JIS B0203(PT).

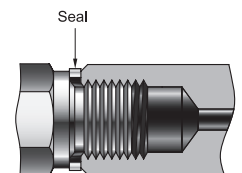


3. ISO 228/1 Parallel Thread

- Thread angle 55°
- Equivalent to the standard of BS 2779 (BSPP), JIS B0202 (PF).
- As the thread in accordance with ISO 228/1 cannot be sealed perfectly, the sealing shall be done by the following method.
- Use a gasket or O-Ring to seal.

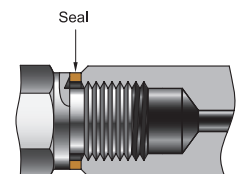
① Bonded Washer Seal

Be sealed by contacting the inclined surface of the hex body of male thread to the surface of the female thread. In case of sealing, a washer which composed of metal and elastic material is located at the center of tapered surface.



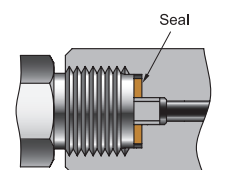
② Metal Gasket Seal

A Metal gasket(generally copper) is sealed between the body of male thread and the surface of female thread.



③ Metal Gasket Seal

This is a method to insert a gasket into the flat surface of thread's inside. The sealing shall be completed with pushing the gasket by male thread surface.



4. UNF Thread

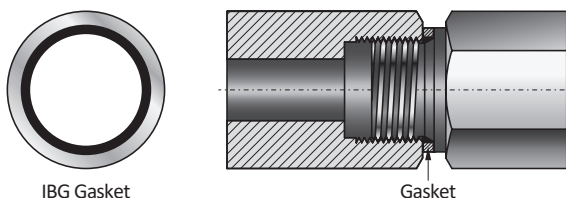
- Thread angle 60°
- This is classified into UN, UNC and UNF. The standard is classified by the diameter of thread and the number of threads per inch.
- ASME B 1.1

ISO/BSP Parallel Gaskets

IBG Gasket

Steel and Stainless Steel

IBG provides a seal with male ISO/BSP parallel threads. The IBG gasket is a NBR or VITON inner ring bonded to a stainless steel or carbon steel outer ring as recommended in DIN 3852. It can be used with end connections designed in accordance with ISO 228 / DIN 3852 Part 2.



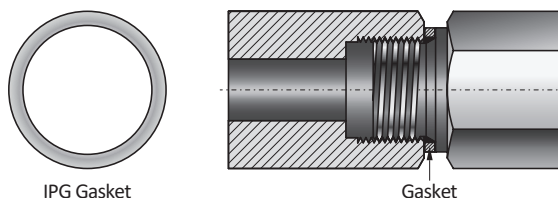
IBG Gasket

Gasket

IPG Gasket

Copper and Stainless Steel

IPG provides a seal with male ISO/BSP parallel threads. The IPG gasket is an all-metal 316 stainless steel or Copper gasket. It can be used with end connections designed in accordance with ISO 228 / DIN 3852 Part 2.



IPG Gasket

Gasket

Ordering Information

Example : **IBG - 8 - 01**

1
2

1. Size of Gasket

Tube OD(inch)	1/4	3/8	1/2	3/4	1
Designator	4	6	8	12	16

2. Material

- 01** = SUS316 + NBR
- 02** = CARBON + NBR
- 03** = SUS316 + VITON

3. IBG Part Number

ISO Thread Size (inch)	Material		
	01	02	03
1/4	IBG-4-01	IBG-4-02	IBG-4-03
3/8	IBG-6-01	IBG-6-02	IBG-6-03
1/2	IBG-8-01	IBG-8-02	IBG-8-03
3/4	IBG-12-01	IBG-12-02	IBG-12-03
1	IBG-16-01	IBG-16-02	IBG-16-03

Ordering Information

Example : **IPG - 8 - CU**

1
2

1. Size of Gasket

Tube OD(inch)	1/4	3/8	1/2	3/4	1
Designator	4	6	8	12	16

2. Material

- (Blank)** = SUS316
- CU** = Copper

3. IPG Part Number

ISO Thread Size (inch)	Material	
	(Blank)	CU
1/4	IPG-4	IPG-4-CU
3/8	IPG-6	IPG-6-CU
1/2	IPG-8	IPG-8-CU
3/4	IPG-12	IPG-12-CU
1	IPG-16	IPG-16-CU

Tube Standard Information

Tube Selection

Suitable tubing selection is essential in performance of tubing system. When selecting tubing material, size and wall thickness, customer must consider pressure, flux (flow), temperature, environment and compatibility of system.

Consideration facts at the selection of tube

1. Quality of the tube materials & manufacturing method.
2. Thickness and outer diameter of tube.
3. Surface treatment of tube.
4. Hardness of tube.
5. Concentricity of tube.

Tube Bending

Tubing must have a minimum straight length before the start of any bend when inserting the tube into a SUPERLOK Tube Fitting. Tubing where the minimum straight length is not adhered can result in leakage and jeopardize the integrity of the system. See the chart below for minimum straight lengths.

The recommended straight line length of tube in Tube bending

Tube OD (inch)	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1
*L(mm)	18.25	19.05	20.63	22.20	23.81	30.16	31.75	31.75	33.30	38.10

*L: The straight line length of tubing from the ending part of tubing to the beginning part of bending

Quality of Tubing Material

Tubing must be free of surface imperfections and suitable for Bending.

Carbon steel tubing

- ASTM A179 or equivalent.
- Carbon steel tubing for an oil pressure usage of high quality, annealed and seamless.
- Maximum hardness : HRB72.
- Tubing must be free from scars and shall be suitable for bending and expansion works.

Copper tubing

- ASTM B68, B75 or equivalent.
- Copper tubing of high quality, annealed and seamless.

Stainless steel tubing

- ASTM A213, A269 or equivalent.
- Stainless steel tubing of high quality, annealed and seamless. (316, 304, 321, etc.)
- Hardness : below HRB 80.
- Tubing must be free from scars and shall be suitable for bending and expansion works.

Monel tubing

- ASTM B165 or equivalent.
- 400 alloy tubing of high quality, annealed and seamless
- Hardness : below HRB 75.
- Tubing must be free from scars and shall be suitable for bending and expansion works.

A pressure Grade Coefficient of Tubing owing to Temperature Change.

Table 1

°F	°C	Copper	304SS	316SS	Monel
200	93	0.80	1.00	1.00	0.88
400	204	0.50	0.93	0.96	0.79
600	316	-	0.82	0.85	0.79
800	427	-	0.76	0.79	0.76
1000	538	-	0.69	0.76	-
1200	649	-	0.30	0.37	-

Multiply the allowable working pressure in Table 2 by the coefficient in Table1 in order to decide allowable pressure at high temperature. (See page 8, 9)

Example

SS316
 (3/8" O.D of tube) X (0.049" wall thickness)
 1200°F : 4800 psi X 0.37 = 1776 psi

The applicable operation pressure of SS 316 tubing for wall thickness 3/8" O.D x 0.049" is 1776 psi at 1200°F.

Table 2 Stainless Steel Tubing

Stainless Steel tubing which is high quality (such as 304, 316, 316L and so on), fully annealed and seamless ASTM A269, A213 or equivalent.

STAINLESS STEEL TRACTIONAL TUBE (Working Pressure, psig)

Tube OD (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	5600	6800	8100	9400	12000											
1/8						8500	10900									
3/16						5400	7000	10200								
1/4						4000	5100	7500	10200							
5/16							4000	5800	8000							
3/8							3300	4800	6500							
1/2							2600	3700	5100	6700						
5/8								2900	4000	5200	6000					
3/4								2400	3300	4200	4900	5800				
7/8								2000	2800	3600	4200	4800				
1									2400	3100	3600	4200	4700			
1 1/4										2400	2800	3300	3600	4100	4900	
1 1/2											2300	2700	3000	3400	4000	4900
2												2000	2200	2500	2900	3600

*For gas service, select a tube wall thickness inside the grey shaded area.

STAINLESS STEEL METRIC TUBE (Working Pressure, psig)

Tube OD (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	9800													
4	7200	9700												
6	4600	6200	7900	10400										
8		4400	5600	7600										
10		3400	4400	5900	7300	8400								
12		2900	3600	4700	6000	6900								
14		2300	2900	3900	4900	5600	6200							
15		2100	2700	3600	4400	5200	5800							
16			2600	3300	4200	4700	5300	5800						
18			2100	3000	3700	4200	4700	5500						
20			2000	2600	3300	3700	4200	4700	5500					
22			1700	2400	3000	3400	3700	4300	4900					
25					2600	2900	3300	3700	4300	4600				
28						2600	2900	3300	3700	4000	4700			
30							2400	2700	3000	3400	3700	4400		
32							2300	2400	2900	3300	3400	4200	4700	
38								2000	2400	2700	2900	3400	3900	4400

*For gas service, select a tube wall thickness inside the grey shaded area.

Allowable stress value between -20°F and 100°F (-28.9°C ~ 37.8°C) is 19,500 psi

Safety factor is 4 (Ultimate tensile strength is 75,000 psi)

- The above data are based on the minimum wall thickness and the maximum O. D. allowed by and under the standard of ASTM A269.
- The dimensions are not considered to erosion or corrosion.

Table 3 Copper Tubing

Copper tubing conforming to ASTM B75 and B88, with allowable pressure ratings based on ASME B31.1 and B31.3.

COPPER FRACTIONAL TUBE (Working Pressure, psig)

Tube OD (inch)	TUBE WALL THICKNESS (inch)										
	0.020	0.028	0.030	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134
1/16	3600										
1/8		2700	3000	3600							
3/16		1800	1900	2300	3400						
1/4		1300	1400	1600	2500	3500					
5/16				1300	1900	2700					
3/8				1000	1600	2200					
1/2				800	1100	1600	2100				
5/8					900	1200	1600	1900			
3/4					700	1000	1300	1500	1800		
7/8					600	800	1100	1300	1500		
1					500	700	900	1100	1300	1500	
1 1/8						600	800	1000	1100	1300	1400

*For gas service, select a tube wall thickness inside the grey shaded area.

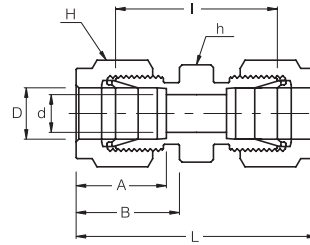
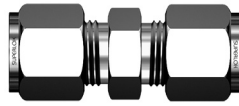
COPPER METRIC TUBE (Working Pressure, psig)

Tube OD (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
2	3200									
3	2900									
4	2000	2900								
6	1600	2000	2500	3200						
8		1500	1700	2300						
10		1200	1500	1900						
12		900	1200	1500	1900	2000				
14		700	900	1300	1600	1700				
15			900	1200	1500	1600	1700			
16				1000	1300	1500	1600	1700		
18				900	1200	1300	1500	1600		
20				900	1000	1200	1300	1500	1600	
22				700	900	1000	1200	1300	1500	
25				600	700	900	1000	1200	1300	1500
28					600	700	900	1000	1200	1300

*For gas service, select a tube wall thickness inside the grey shaded area.

Allowable stress value between -20°F ~ 100°F (-28°C and 37°C) is 6000 psi.

SU Union



Connects Fractional Tubes

Part No.	Tube OD D (inch)	d Min	Width Across Flat		A	B	I	L
			h (inch)	H (inch)				
SU - 1	1/16	1.27	5/16	5/16	8.63	10.92	17.52	25.15
SU - 2	1/8	2.28	7/16	7/16	12.70	15.24	22.35	35.56
SU - 3	3/16	3.04	7/16	1/2	13.71	16.00	24.13	37.33
SU - 4	1/4	4.82	1/2	9/16	15.24	17.78	26.16	40.89
SU - 5	5/16	6.35	9/16	5/8	16.25	18.54	28.19	42.92
SU - 6	3/8	7.11	5/8	11/16	16.76	19.30	30.22	44.95
SU - 8	1/2	10.41	13/16	7/8	22.86	21.84	30.98	51.30
SU - 10	5/8	12.70	15/16	1	24.38	21.84	31.75	52.07
SU - 12	3/4	15.74	1-1/16	1-1/8	24.38	21.84	33.27	53.59
SU - 14	7/8	18.28	1-3/16	1-1/4	25.90	21.84	34.79	55.11
SU - 16	1	22.35	1-3/8	1-1/2	31.24	26.41	40.38	64.77
SU - 20	1-1/4	27.69	1-3/4	1-7/8	41.15	38.86	48.00	92.20
SU - 24	1-1/2	34.04	2-1/8	2-1/4	50.04	45.21	53.59	107.95
SU - 32	2	45.97	2-3/4	3	67.56	62.74	74.68	149.35

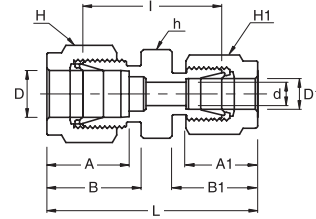
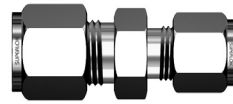
Connects Metric Tubes

Part No.	Tube OD D	d Min	Width Across Flat		A	B	I	L
			h	H				
SU - 2M	2	1.7	12	12	12.9	15.3	22.4	35.6
SU - 3M	3	2.4	12	12	12.9	15.3	22.1	35.3
SU - 4M	4	2.4	12	12	13.7	16.1	24.1	37.3
SU - 6M	6	4.8	14	14	15.3	17.7	26.2	41.0
SU - 8M	8	6.4	15	16	16.2	18.6	28.2	43.2
SU - 10M	10	7.9	18	19	17.2	19.5	31.0	46.2
SU - 12M	12	9.5	22	22	22.8	22.0	31.0	51.2
SU - 15M	15	11.9	24	25	24.4	22.0	31.8	52.0
SU - 16M	16	12.7	24	25	24.4	22.0	31.8	52.0
SU - 18M	18	15.1	27	30	24.4	22.0	33.3	53.5
SU - 20M	20	15.9	30	32	26.0	22.0	34.8	55.0
SU - 22M	22	18.3	30	32	26.0	22.0	34.8	55.0
SU - 25M	25	21.8	35	38	31.3	26.5	40.4	65.0

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SRU

Reducing Union



Connects Fractional Tubes

Part No.	Tube OD		d Min	Width Across Flat			A	A1	B	B1	I	L
	D (inch)	D1 (inch)		h (inch)	H (inch)	H1 (inch)						
SRU - 2 - 1	1/8	1/16	1.27	7/16	7/16	5/16	12.7	8.63	15.24	10.92	20.60	31.00
SRU - 3 - 2	3/16	1/8	2.28	7/16	1/2	7/16	13.71	12.70	16.00	15.24	23.36	36.57
SRU - 4 - 2	1/4	1/8	2.28	1/2	9/16	7/16	15.24	12.70	17.78	15.24	24.63	38.60
SRU - 4 - 3	1/4	3/16	3.04	1/2	9/16	1/2	15.24	13.71	17.78	16.00	25.40	39.37
SRU - 5 - 2	5/16	1/8	2.28	9/16	5/8	7/16	16.25	12.70	18.54	15.24	25.90	39.87
SRU - 5 - 4	5/16	1/4	4.82	9/16	5/8	9/16	16.25	15.24	18.54	17.78	27.43	42.16
SRU - 6 - 2	3/8	1/8	2.28	5/8	11/16	7/16	16.76	12.70	19.30	15.24	26.92	40.89
SRU - 6 - 4	3/8	1/4	4.82	5/8	11/16	9/16	16.76	15.24	19.30	17.78	28.44	43.18
SRU - 6 - 5	3/8	5/16	6.35	5/8	11/16	5/8	16.76	16.25	19.30	18.54	29.46	44.19
SRU - 8 - 2	1/2	1/8	2.28	13/16	7/8	7/16	22.86	12.70	21.84	15.24	28.44	45.21
SRU - 8 - 4	1/2	1/4	4.82	13/16	7/8	9/16	22.86	15.24	21.84	17.78	29.46	46.99
SRU - 8 - 6	1/2	3/8	7.11	13/16	7/8	11/16	22.86	16.76	21.84	19.30	30.98	48.51
SRU - 10 - 6	5/8	3/8	7.11	15/16	1	11/16	24.38	16.76	21.84	19.30	31.75	49.27
SRU - 10 - 8	5/8	1/2	10.41	15/16	1	7/8	24.38	22.86	21.84	21.84	31.75	52.07
SRU - 12 - 4	3/4	1/4	4.82	1-1/16	1-1/8	9/16	24.38	15.24	21.84	17.78	31.75	49.27
SRU - 12 - 6	3/4	3/8	7.11	1-1/16	1-1/8	11/16	24.38	16.76	21.84	19.30	33.27	50.80
SRU - 12 - 8	3/4	1/2	10.41	1-1/16	1-1/8	7/8	24.38	22.86	21.84	21.84	33.27	53.59
SRU - 12 - 10	3/4	5/8	12.70	1-1/16	1-1/8	1	24.38	24.38	21.84	21.84	33.27	53.59
SRU - 16 - 8	1	1/2	10.41	1-3/8	1-1/2	7/8	31.24	22.86	26.41	21.84	39.50	63.24
SRU - 16 - 12	1	3/4	15.74	1-3/8	1-1/2	1-1/8	31.24	24.38	26.41	21.84	39.00	62.73

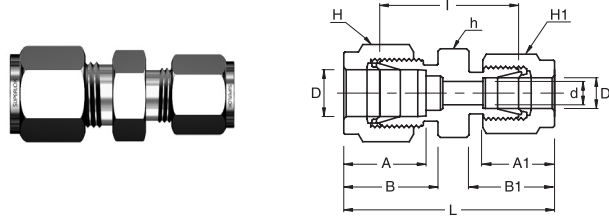
Connects Metric Tubes

Part No.	Tube OD		d Min	Width Across Flat			A	A1	B	B1	I	L
	D	D1		h	H	H1						
SRU - 6M - 3M	6	3	2.4	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
SRU - 6M - 4M	6	4	2.4	14	14	12	15.3	13.7	17.7	16.1	25.4	39.4
SRU - 8M - 6M	8	6	4.8	15	16	14	16.2	15.3	18.6	17.7	27.4	42.3
SRU - 10M - 6M	10	6	4.8	18	19	14	17.2	15.3	19.5	17.7	29.5	44.5
SRU - 10M - 8M	10	8	6.4	18	19	16	17.2	16.2	19.5	18.6	30.0	45.1
SRU - 12M - 6M	12	6	4.8	22	22	14	22.8	15.3	22.0	17.7	29.5	47.0
SRU - 12M - 8M	12	8	6.4	22	22	16	22.8	16.2	22.0	18.6	30.2	47.8
SRU - 12M - 10M	12	10	7.9	22	22	19	22.8	17.2	22.0	19.5	31.0	48.7
SRU - 16M - 12M	16	12	9.5	24	25	22	24.4	22.8	22.0	22.0	31.8	52.0
SRU - 25M - 18M	25	18	15.1	35	38	30	31.3	24.4	26.5	22.0	38.6	61.0
SRU - 25M - 20M	25	20	15.9	35	38	32	31.3	26.0	26.5	22.0	39.9	62.3

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SRU

Reducing Union

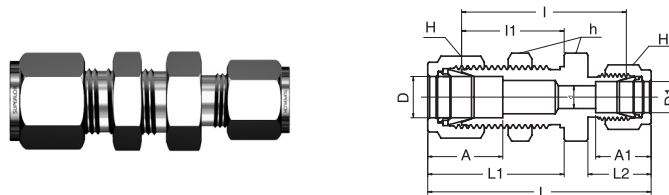


Connects Fractional Tube To Metric Tube

Part No.	Tube OD		d Min	Width Across Flat			A	A1	B	B1	I	L
	D1 (inch)	D		h	H	H						
SRU - 2 - 3M	1/8	3	2.4	12	12	11.1	12.9	12.8	15.3	15.2	22.1	35.2
SRU - 2 - 4M	1/8	4	2.4	12	12	11.1	13.7	12.8	16.1	15.2	23.4	36.5
SRU - 4 - 4M	1/4	4	2.4	14	12	14.3	13.7	15.3	16.1	17.7	25.4	39.4
SRU - 2 - 6M	1/8	6	2.4	14	14	11.1	15.3	12.8	17.7	15.2	24.6	38.5
SRU - 4 - 6M	1/4	6	4.8	14	14	14.3	15.3	15.3	17.7	17.7	26.2	41.0
SRU - 5 - 6M	5/16	6	4.8	14	14	15.9	15.3	16.2	17.7	18.6	27.4	42.3
SRU - 4 - 8M	1/4	8	4.8	15	16	14.3	16.2	15.3	18.6	17.7	27.4	42.3
SRU - 2 - 10M	1/8	10	2.4	18	19	11.1	17.2	12.8	19.5	15.2	27.7	41.8
SRU - 4 - 10M	1/4	10	4.8	18	19	14.3	17.2	15.3	19.5	17.7	29.5	44.5
SRU - 5 - 10M	5/16	10	6.4	18	19	15.9	17.2	16.2	19.5	18.6	30.0	45.1
SRU - 6 - 10M	3/8	10	7.1	18	19	17.5	17.2	16.9	19.5	19.2	31.0	45.9
SRU - 5 - 12M	5/16	12	6.4	22	22	15.9	22.8	16.2	22.0	18.6	30.2	47.8
SRU - 6 - 12M	3/8	12	7.1	22	22	17.5	22.8	16.9	22.0	19.2	31.0	48.4
SRU - 8 - 12M	1/2	12	9.5	22	22	22.2	22.8	22.8	22.0	22.0	31.0	51.2
SRU - 8 - 15M	1/2	15	10.3	24	25	22.2	24.4	22.8	22.0	22.0	31.8	52.0
SRU - 10 - 16M	5/8	16	12.7	24	25	25.4	24.4	24.4	22.0	22.0	31.8	52.0
SRU - 12 - 18M	3/4	18	15.1	27	30	28.6	24.4	24.4	22.0	22.0	33.3	53.5
SRU - 12 - 20M	3/4	20	15.9	30	32	28.6	26.0	24.4	22.0	22.0	34.8	54.9
SRU - 16 - 20M	1	20	15.9	35	32	38.1	26.0	31.2	22.0	26.4	40.4	62.8
SRU - 16 - 25M	1	25	21.8	35	38	38.1	31.3	31.3	26.5	26.5	40.4	65.0

SBHRU

Bulkhead Reducing Union



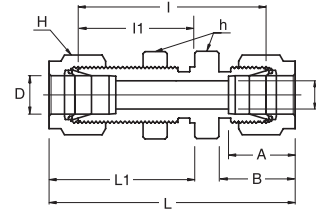
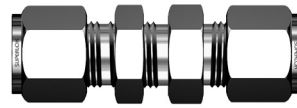
Connects Fractional Tubes

Part No.	Tube OD		d Min	Width Across Flat			A	A1	I	I1	L	L1	L2	Panel Hole Drill Size	Panel Max. Thickness
	D (inch)	D1 (inch)		h (inch)	H (inch)	H1 (inch)									
SBHRU - 4 - 2	1/4	1/8	2.28	5/8	9/16	7/16	15.24	12.70	41.14	26.16	55.11	33.52	15.24	11.50	10.16
SBHRU - 6 - 4	3/8	1/4	4.82	3/4	11/16	9/16	16.76	15.24	45.97	29.46	60.70	36.57	17.78	14.68	11.17
SBHRU - 8 - 4	1/2	1/4	4.82	15/16	7/8	9/16	22.86	15.24	49.27	31.75	66.80	41.91	17.78	19.44	12.70

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SBHU

Bulkhead Union



Connects Fractional Tubes

Part No.	Tube O.D. D (inch)	d Min	Width Across Flat		A	B	I	I1	L	L1	Panel Hole Drill Size	Panel Max. Thickness
			h (inch)	H (inch)								
SBHU - 1	1/16	1.27	5/16	5/16	8.63	10.92	23.87	13.46	31.50	17.27	5.16	3.05
SBHU - 2	1/8	2.28	1/2	7/16	12.70	15.24	38.10	24.63	51.30	31.24	8.33	12.70
SBHU - 3	3/16	3.04	9/16	1/2	13.71	16.00	40.38	25.40	53.59	32.00	9.92	12.70
SBHU - 4	1/4	4.82	5/8	9/16	15.24	17.78	42.92	26.16	57.65	33.52	11.50	10.16
SBHU - 5	5/16	6.35	11/16	5/8	16.25	18.54	45.97	28.44	60.70	35.81	13.09	11.17
SBHU - 6	3/8	7.11	3/4	11/16	16.76	19.30	47.49	29.46	62.23	36.83	14.68	11.17
SBHU - 8	1/2	10.41	15/16	7/8	22.86	21.84	50.80	31.75	71.12	41.91	19.44	12.70
SBHU - 10	5/8	12.70	1-1/16	1	24.38	21.84	52.32	32.51	72.64	42.67	22.62	12.70
SBHU - 12	3/4	15.74	1-3/16	1-1/8	24.38	21.84	58.67	37.33	78.99	47.49	25.79	16.76
SBHU - 14	7/8	18.28	1-3/8	1-1/4	25.90	21.84	64.26	42.92	84.58	53.08	28.97	19.05
SBHU - 16	1	22.35	1-5/8	1-1/2	31.24	26.41	71.37	45.21	95.75	57.40	33.73	19.05

Connects Metric Tubes

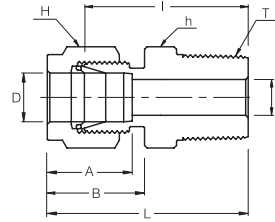
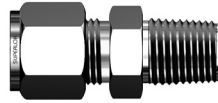
Part No.	Tube O.D. D	d Min	Width Across Flat			A	B	I	I1	L	L1	Panel Hole Drill Size	Panel Max. Thickness
			h	h1*	H								
SBHU - 3M	3	2.4	14	12.7	12	12.9	15.3	38.1	24.6	51.3	31.2	8.3	12.7
SBHU - 4M	4	2.4	14	14.3	12	13.7	16.1	40.4	25.4	53.6	32.0	9.9	12.7
SBHU - 6M	6	4.8	16	15.9	14	15.3	17.7	42.9	26.2	57.7	33.6	11.5	10.2
SBHU - 8M	8	6.4	18	17.5	16	16.2	18.6	46.0	28.6	61.0	36.1	13.1	11.2
SBHU - 10M	10	7.9	22	22.0	19	17.2	19.5	48.5	29.4	63.7	37.0	16.2	11.2
SBHU - 12M	12	9.5	24	23.8	22	22.8	22.0	50.8	31.8	71.0	41.9	19.5	12.7
SBHU - 15M	15	11.9	27	27.0	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
SBHU - 16M	16	12.7	27	27.0	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
SBHU - 18M	18	15.1	30	30.0	30	24.4	22.0	58.7	37.3	78.9	47.4	26.0	16.8
SBHU - 20M	20	15.9	35	35.0	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	17.0
SBHU - 22M	22	18.3	35	35.0	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	19.1
SBHU - 25M	25	21.8	41.3	41.3	38	31.3	26.5	71.4	45.2	95.9	57.5	33.7	19.1

h1* : Metric Tubes Bulkhead Hexagon application only

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SMC

Male Connector



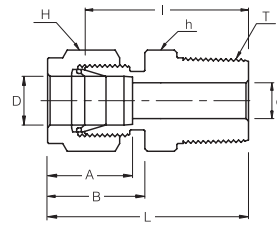
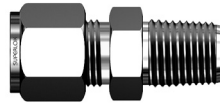
Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T (NPT)	d Min	Width Across Flat		A	B	I	L
				h (inch)	H (inch)				
SMC - 1 - 1N	1/16	1/16	1.27	5/16	5/16	8.63	10.92	20.00	23.83
SMC - 1 - 2N	1/16	1/8	1.27	7/16	7/16	8.63	10.92	22.35	26.23
SMC - 2 - 2N	1/8	1/8	2.28	7/16	7/16	12.70	15.24	23.87	30.48
SMC - 2 - 4N	1/8	1/4	2.28	9/16	7/16	12.70	15.24	28.95	35.56
SMC - 2 - 6N	1/8	3/8	2.28	11/16	7/16	12.70	15.24	29.21	35.81
SMC - 2 - 8N	1/8	1/2	2.28	7/8	7/16	12.70	15.24	35.56	42.16
SMC - 3 - 2N	3/16	1/8	3.04	7/16	1/2	13.71	16.00	24.63	31.24
SMC - 3 - 4N	3/16	1/4	3.04	9/16	1/2	13.71	16.00	29.71	36.32
SMC - 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	25.40	32.76
SMC - 4 - 4N	1/4	1/4	4.82	9/16	9/16	15.24	17.78	30.48	37.84
SMC - 4 - 6N	1/4	3/8	4.82	11/16	9/16	15.24	17.78	30.98	38.35
SMC - 4 - 8N	1/4	1/2	4.82	7/8	9/16	15.24	17.78	37.33	44.70
SMC - 4 - 12N	1/4	3/4	4.82	1-1/16	9/16	15.24	17.78	38.86	46.22
SMC - 5 - 2N	5/16	1/8	4.82	9/16	5/8	16.25	18.54	26.67	34.03
SMC - 5 - 4N	5/16	1/4	6.35	9/16	5/8	16.25	18.54	31.24	38.60
SMC - 5 - 6N	5/16	3/8	6.35	11/16	5/8	16.25	18.54	31.75	39.11
SMC - 6 - 2N	3/8	1/8	4.82	5/8	11/16	16.76	19.30	27.94	35.30
SMC - 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	32.51	39.87
SMC - 6 - 6N	3/8	3/8	7.11	11/16	11/16	16.76	19.30	32.51	39.87
SMC - 6 - 8N	3/8	1/2	7.11	7/8	11/16	16.76	19.30	38.86	46.22
SMC - 6 - 12N	3/8	3/4	7.11	1-1/16	11/16	16.76	19.30	40.38	47.75
SMC - 8 - 2N	1/2	1/8	4.82	13/16	7/8	22.86	21.84	28.70	38.86
SMC - 8 - 4N	1/2	1/4	7.11	13/16	7/8	22.86	21.84	33.27	43.43
SMC - 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	33.27	43.43
SMC - 8 - 8N	1/2	1/2	10.41	7/8	7/8	22.86	21.84	38.86	49.02
SMC - 8 - 12N	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	40.38	50.54
SMC - 8 - 16N	1/2	1	10.41	1-3/8	7/8	22.86	21.84	46.99	57.15
SMC - 10 - 6N	5/8	3/8	9.65	15/16	1	24.38	21.84	34.03	44.19
SMC - 10 - 8N	5/8	1/2	11.93	15/16	1	24.38	21.84	38.86	49.02
SMC - 10 - 12N	5/8	3/4	12.70	1-1/16	1	24.38	21.84	40.38	50.54
SMC - 12 - 8N	3/4	1/2	11.93	1-1/16	1-1/8	24.38	21.84	40.38	50.54
SMC - 12 - 12N	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	40.38	50.54
SMC - 12 - 16N	3/4	1	15.74	1-3/8	1-1/8	24.38	21.84	46.99	57.15
SMC - 14 - 12N	7/8	3/4	15.74	1-3/16	1-1/4	25.90	21.84	40.38	50.54
SMC - 14 - 16N	7/8	1	18.28	1-3/8	1-1/4	25.90	21.84	46.99	57.15
SMC - 16 - 8N	1	1/2	11.93	1-3/8	1-1/2	31.24	26.41	45.21	57.40
SMC - 16 - 12N	1	3/4	15.74	1-3/8	1-1/2	31.24	26.41	45.21	57.40
SMC - 16 - 16N	1	1	22.35	1-3/8	1-1/2	31.24	26.41	50.03	62.23
SMC - 20 - 16N	1-1/4	1	22.35	1-3/4	1-7/8	41.15	38.86	55.12	77.22
SMC - 20 - 20N	1-1/4	1-1/4	27.69	1-3/4	1-7/8	41.15	38.86	55.12	77.22
SMC - 24 - 24N	1-1/2	1-1/2	34.04	2-1/8	2-1/4	50.04	45.21	61.72	88.90
SMC - 32 - 32N	2	2	45.97	2-3/4	3	67.56	62.74	76.20	113.54

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- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

SMC

Male Connector



Connects Fractional Tube To Female ISO Tapered Thread

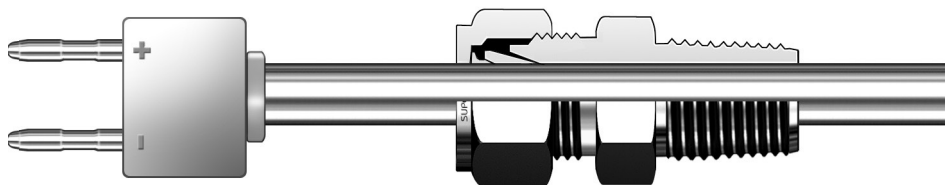
Part No.	Tube OD D (inch)	T R (PT)	d Min	Width Across Flat		A	B	I	L
				h (inch)	H (inch)				
SMC - 2 - 2R	1/8	1/8	2.28	7/16	7/16	12.70	15.24	23.87	30.48
SMC - 2 - 4R	1/8	1/4	2.28	9/16	7/16	12.70	15.24	28.95	35.56
SMC - 4 - 2R	1/4	1/8	4.82	1/2	9/16	15.24	17.78	25.40	32.76
SMC - 4 - 4R	1/4	1/4	4.82	9/16	9/16	15.24	17.78	30.48	37.84
SMC - 4 - 6R	1/4	3/8	4.82	11/16	9/16	15.24	17.78	30.98	38.35
SMC - 4 - 8R	1/4	1/2	4.82	7/8	9/16	15.24	17.78	37.33	44.70
SMC - 5 - 2R	5/16	1/8	4.82	9/16	5/8	16.25	18.54	26.67	34.03
SMC - 5 - 4R	5/16	1/4	6.35	9/16	5/8	16.25	18.54	31.24	38.60
SMC - 6 - 2R	3/8	1/8	4.82	5/8	11/16	16.76	19.30	27.94	35.30
SMC - 6 - 4R	3/8	1/4	7.11	5/8	11/16	16.76	19.30	32.51	39.87
SMC - 6 - 6R	3/8	3/8	7.11	11/16	11/16	16.76	19.30	32.51	39.87
SMC - 6 - 8R	3/8	1/2	7.11	7/8	11/16	16.76	19.30	38.86	46.22
SMC - 8 - 4R	1/2	1/4	7.11	13/16	7/8	22.86	21.84	33.27	43.43
SMC - 8 - 6R	1/2	3/8	9.65	13/16	7/8	22.86	21.84	33.27	43.43
SMC - 8 - 8R	1/2	1/2	10.41	7/8	7/8	22.86	21.84	38.86	49.02
SMC - 8 - 12R	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	40.38	50.54
SMC - 12 - 12R	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	40.38	50.54
SMC - 16 - 16R	1	1	22.35	1-3/8	1-1/2	31.24	26.41	50.03	62.23

Bored - Through Fittings for Thermocouples

SUPERLOK Bored-Through MALE CONNECTORS accommodate thermocouples or dip tubes.

To order suffix “-TM” to the Size designator. (Example : SU-8-TM, SMC-8-8N-TM-B)

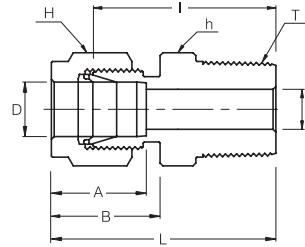
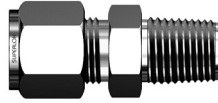
Note - The root diameter of the pipe thread end of male connectors makes it impractical to bore through all male connectors.



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- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

SMC

Male Connector



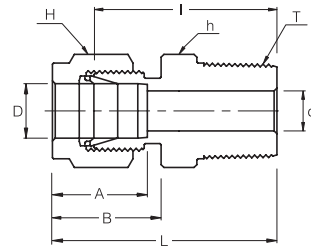
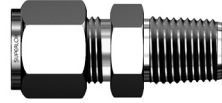
Connects Metric Tube To Female NPT Thread

Part No.	Tube OD D	T (NPT)	d Min	Width Across Flat		A	B	I	L
				h	H				
SMC - 2M - 2N	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
SMC - 3M - 2N	3	1/8	2.4	12	12	12.9	15.3	23.9	30.5
SMC - 3M - 4N	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
SMC - 4M - 2N	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
SMC - 4M - 4N	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
SMC - 6M - 2N	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
SMC - 6M - 4N	6	1/4	4.8	14	14	15.3	17.7	30.5	37.9
SMC - 6M - 6N	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
SMC - 6M - 8N	6	1/2	4.8	22	14	15.3	17.7	37.3	44.7
SMC - 8M - 2N	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
SMC - 8M - 4N	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
SMC - 8M - 6N	8	3/8	6.4	18	16	16.2	18.6	31.8	39.3
SMC - 8M - 8N	8	1/2	6.4	22	16	16.2	18.6	38.1	45.6
SMC - 10M - 2N	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
SMC - 10M - 4N	10	1/4	7.9	18	19	17.2	19.5	33.3	40.9
SMC - 10M - 6N	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
SMC - 10M - 8N	10	1/2	7.9	22	19	17.2	19.5	38.9	46.5
SMC - 12M - 2N	12	1/8	4.8	22	22	22.8	22.0	28.7	38.8
SMC - 12M - 4N	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
SMC - 12M - 6N	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
SMC - 12M - 8N	12	1/2	9.5	22	22	22.8	22.0	38.9	49.0
SMC - 12M - 12N	12	3/4	9.5	27	22	22.8	22.0	40.4	50.5
SMC - 14M - 4N	14	1/4	7.1	24	25	24.4	22.0	34.0	44.1
SMC - 14M - 6N	14	3/8	9.5	24	25	24.4	22.0	34.0	44.1
SMC - 14M - 8N	14	1/2	11.1	24	25	24.4	22.0	38.9	49.0
SMC - 16M - 6N	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
SMC - 16M - 8N	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
SMC - 16M - 12N	16	3/4	12.7	27	25	24.4	22.0	40.4	50.5
SMC - 18M - 8N	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
SMC - 18M - 12N	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
SMC - 20M - 8N	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
SMC - 20M - 12N	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC - 22M - 12N	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC - 22M - 16N	22	1	18.3	35	32	26.0	22.0	47.0	57.1
SMC - 25M - 12N	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
SMC - 25M - 16N	25	1	21.8	35	38	31.3	26.5	50.0	62.3
SMC - 28M - 16N	28	1	21.8	41	46	36.6	36.6	51.6	72.4
SMC - 28M - 20N	28	1-1/4	21.8	44.4	46	36.6	36.6	52.3	73.1
SMC - 30M - 20N	30	1-1/4	26.2	46	50	39.6	39.2	55.6	77.2
SMC - 32M - 20N	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
SMC - 38M - 24N	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

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 - Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

SMC

Male Connector



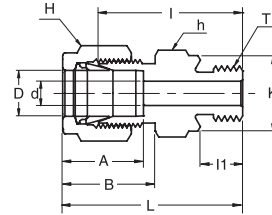
Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube OD D	T R (PT)	d Min	Width Across Flat		A	B	I	L
				h	H				
SMC - 2M - 2R	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
SMC - 3M - 2R	3	1/8	2.4	12	12	12.9	15.3	23.9	30.5
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	30.5	37.9
SMC - 6M - 6R	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
SMC - 6M - 8R	6	1/2	4.8	22	14	15.3	17.7	37.3	44.7
SMC - 8M - 2R	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
SMC - 8M - 4R	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
SMC - 8M - 6R	8	3/8	6.4	18	16	16.2	18.6	31.8	39.3
SMC - 8M - 8R	8	1/2	6.4	22	16	16.2	18.6	38.1	45.6
SMC - 10M - 2R	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
SMC - 10M - 4R	10	1/4	7.9	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	38.9	46.5
SMC - 12M - 4R	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
SMC - 12M - 6R	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
SMC - 12M - 8R	12	1/2	9.5	22	22	22.8	22.0	38.9	49.0
SMC - 12M - 12R	12	3/4	9.5	27	22	22.8	22.0	40.4	50.5
SMC - 15M - 8R	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
SMC - 16M - 4R	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
SMC - 16M - 6R	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
SMC - 16M - 8R	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
SMC - 16M - 12R	16	3/4	12.7	27	25	24.4	22.0	40.4	50.5
SMC - 18M - 8R	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
SMC - 18M - 12R	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
SMC - 20M - 8R	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
SMC - 20M - 12R	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC - 22M - 12R	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC - 22M - 16R	22	1	18.3	35	32	26.0	22.0	47.0	57.1
SMC - 25M - 12R	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
SMC - 25M - 16R	25	1	21.8	35	38	31.3	26.5	50.0	62.3
SMC - 28M - 16R	28	1	21.8	41	46	36.6	36.6	51.6	72.4
SMC - 28M - 20R	28	1-1/4	21.8	44.4	46	36.6	36.6	52.3	73.1
SMC - 30M - 20R	30	1-1/4	26.2	46	50	39.6	39.2	55.6	77.2
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

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SMC - GM

Male Connector
For Metal Gasket Seal



Connects Metric Tube To Female ISO Parallel Thread

Part No.	Tube OD D	T G (PF)	d Min	Width Across Flat		A	B	I	I1	L	K
				h	H						
SMC - 3M - 2GM	3	1/8	2.4	14	12	12.9	15.3	23.4	8.0	30.0	14.0
SMC - 3M - 4GM	3	1/4	2.4	19	12	12.9	15.3	28.7	12.0	35.3	18.0
SMC - 4M - 2GM	4	1/8	2.4	14	12	13.7	16.1	24.1	8.0	30.7	14.0
SMC - 6M - 2GM	6	1/8	4.0	14	14	15.3	17.7	24.9	8.0	32.3	14.0
SMC - 6M - 4GM	6	1/4	4.8	19	14	15.3	17.7	30.2	12.0	37.6	18.0
SMC - 6M - 6GM	6	3/8	4.8	22	14	15.3	17.7	31.5	12.0	38.9	22.0
SMC - 6M - 8GM	6	1/2	4.8	27	14	15.3	17.7	37.3	14.0	44.7	26.0
SMC - 8M - 2GM	8	1/8	4.0	15	16	16.2	18.6	25.7	8.0	33.2	14.0
SMC - 8M - 4GM	8	1/4	6.4	19	16	16.2	18.6	31.0	12.0	38.5	18.0
SMC - 8M - 6GM	8	3/8	6.4	22	16	16.2	18.6	32.3	12.0	39.8	22.0
SMC - 8M - 8GM	8	1/2	6.4	27	16	16.2	18.6	38.1	14.0	45.6	26.0
SMC - 10M - 4GM	10	1/4	5.9	19	19	17.2	19.5	31.8	12.0	39.4	18.0
SMC - 10M - 6GM	10	3/8	7.9	22	19	17.2	19.5	33.0	12.0	40.6	22.0
SMC - 10M - 8GM	10	1/2	7.9	27	19	17.2	19.5	38.9	14.0	46.5	26.0
SMC - 12M - 4GM	12	1/4	5.9	22	22	22.8	22.0	32.5	12.0	42.6	18.0
SMC - 12M - 6GM	12	3/8	7.9	22	22	22.8	22.0	33.0	12.0	43.1	22.0
SMC - 12M - 8GM	12	1/2	9.5	27	22	22.8	22.0	38.9	14.0	49.0	26.0
SMC - 12M - 12GM	12	3/4	9.5	35	22	22.8	22.0	42.7	16.0	52.8	32.0
SMC - 15M - 8GM	15	1/2	11.9	27	25	24.4	22.0	38.9	14.0	49.0	26.0
SMC - 16M - 6GM	16	3/8	7.9	24	25	24.4	22.0	33.8	12.0	43.9	22.0
SMC - 16M - 8GM	16	1/2	11.9	27	25	24.4	22.0	38.9	14.0	49.0	26.0
SMC - 18M - 8GM	18	1/2	11.9	27	30	24.4	22.0	38.9	14.0	49.0	26.0
SMC - 18M - 12GM	18	3/4	15.1	35	30	24.4	22.0	42.7	16.0	52.8	32.0
SMC - 20M - 8GM	20	1/2	11.9	30	32	26.0	22.0	40.4	14.0	50.5	26.0
SMC - 20M - 12GM	20	3/4	15.9	35	32	26.0	22.0	42.7	16.0	52.8	32.0
SMC - 22M - 12GM	22	3/4	15.9	35	32	26.0	22.0	42.7	16.0	52.8	32.0
SMC - 22M - 16GM	22	1	18.3	41	32	26.0	22.0	45.2	18.0	55.3	39.0
SMC - 25M - 12GM	25	3/4	15.9	35	38	31.3	26.5	45.2	16.0	57.5	32.0
SMC - 25M - 16GM	25	1	19.8	41	38	31.3	26.5	47.8	18.0	60.1	39.0

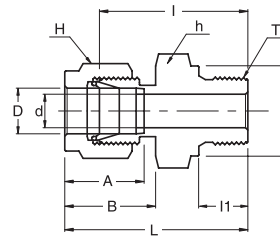
* See page 6 for Explanation of ISO Pipe Thread.

* ISO/BSP parallel gaskets are available. See page 7.

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SGMC

Male Connector
For Bonded Washer Seal



Connects Fractional Tube To Female ISO Parallel Thread

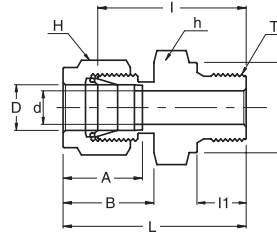
Part No.	Tube OD D (inch)	T G (PF)	d Min	Width Across Flat		A	B	I	I1	L	K
				h (inch)	H (inch)						
SGMC - 1 - 2G	1/16	1/8	1.27	9/16	5/16	8.63	10.92	21.6	8	25.63	13.8
SGMC - 2 - G	1/8	1/8	2.28	9/16	7/16	12.70	15.24	23.2	8	29.81	13.8
SGMC - 2 - 4G	1/8	1/4	2.28	3/4	7/16	12.70	15.24	28.5	12	35.11	17.8
SGMC - 2 - 6G	1/8	3/8	2.28	7/8	7/16	12.70	15.24	29.9	12	36.51	21.8
SGMC - 3 - 2G	3/16	1/8	3.05	9/16	1/2	13.71	16.00	23.9	8	30.50	13.8
SGMC - 3 - 8G	3/16	1/2	3.05	1-1/16	1/2	13.71	16.00	36.3	14	42.90	25.8
SGMC - 4 - 2G	1/4	1/8	4.40	9/16	9/16	15.24	17.78	24.9	8	32.20	13.8
SGMC - 4 - 4G	1/4	1/4	4.83	3/4	9/16	15.24	17.78	30.1	12	37.40	17.8
SGMC - 4 - 6G	1/4	3/8	4.83	7/8	9/16	15.24	17.78	31.5	12	38.80	21.8
SGMC - 4 - 8G	1/4	1/2	4.83	1-1/16	9/16	15.24	17.78	35.9	14	43.20	25.8
SGMC - 5 - 2G	5/16	1/8	4.40	9/16	5/8	16.25	18.54	25.8	8	33.16	13.8
SGMC - 5 - 4G	5/16	1/4	6.35	3/4	5/8	16.25	18.54	31.0	12	38.36	17.8
SGMC - 5 - 6G	5/16	3/8	6.35	7/8	5/8	16.25	18.54	32.3	12	39.66	21.8
SGMC - 5 - 8G	5/16	1/2	6.35	1-1/16	5/8	16.25	18.54	38.2	14	45.56	25.8
SGMC - 6 - 2G	3/8	1/8	4.40	5/8	11/16	16.76	19.30	26.9	8	34.27	13.8
SGMC - 6 - 4G	3/8	1/4	7.11	3/4	11/16	16.76	19.30	31.8	12	39.17	17.8
SGMC - 6 - 6G	3/8	3/8	7.11	7/8	11/16	16.76	19.30	33.0	12	40.37	21.8
SGMC - 6 - 8G	3/8	1/2	7.11	1-1/16	11/16	16.76	19.30	38.9	14	46.27	25.8
SGMC - 6 - 12G	3/8	3/4	7.11	1-3/8	11/16	16.76	19.30	42.7	16	50.07	31.8
SGMC - 6 - 16G	3/8	1	7.11	1-5/8	11/16	16.76	19.30	45.5	18	52.87	38.8
SGMC - 8 - 2G	1/2	1/8	4.40	13/16	7/8	22.86	21.84	28.0	8	38.16	13.8
SGMC - 8 - 4G	1/2	1/4	7.50	13/16	7/8	22.86	21.84	32.5	12	42.66	17.8
SGMC - 8 - 6G	1/2	3/8	9.90	7/8	7/8	22.86	21.84	33.0	12	43.16	21.8
SGMC - 8 - 8G	1/2	1/2	10.41	1-1/16	7/8	22.86	21.84	38.9	14	49.06	25.8
SGMC - 8 - 12G	1/2	3/4	10.41	1-3/8	7/8	22.86	21.84	42.7	16	52.86	31.8
SGMC - 8 - 16G	1/2	1	10.41	1-5/8	7/8	22.86	21.84	45.5	18	55.66	38.8
SGMC - 8 - 20G	1/2	1-1/4	10.41	2-1/8	7/8	22.86	21.84	52.5	20	62.66	48.8
SGMC - 10 - 6G	5/8	3/8	9.90	1-1/16	1	24.38	21.84	36.2	12	46.36	21.8
SGMC - 10 - 8G	5/8	1/2	12.30	1-1/16	1	24.38	21.84	38.7	14	48.86	25.8
SGMC - 10 - 12G	5/8	3/4	12.70	1-3/8	1	24.38	21.84	42.5	16	52.66	31.8
SGMC - 12 - 4G	3/4	1/4	7.50	1-1/16	1-1/8	242.38	21.84	35.5	12	45.66	17.8
SGMC - 12 - 6G	3/4	3/8	9.90	1-1/16	1-1/8	242.38	21.84	36.0	12	46.16	21.8
SGMC - 12 - 8G	3/4	1/2	12.30	1-1/16	1-1/8	242.38	21.84	38.7	14	48.86	25.8
SGMC - 12 - 12G	3/4	3/4	15.50	1-3/8	1-1/8	242.38	21.84	42.5	16	52.66	31.8
SGMC - 12 - 16G	3/4	1	15.75	1-5/8	1-1/8	242.38	21.84	45.3	18	55.46	38.8
SGMC - 14 - 12G	7/8	3/4	15.50	1-3/8	1-1/4	25.90	21.84	42.5	16	52.66	31.8
SGMC - 14 - 16G	7/8	1	18.30	1-5/8	1-1/4	25.90	21.84	45.3	18	55.46	38.8
SGMC - 16 - 6G	1	3/8	9.90	1-3/8	1-1/2	31.24	26.41	41.0	12	53.19	21.8
SGMC - 16 - 8G	1	1/2	12.30	1-3/8	1-1/2	31.24	26.41	43.5	14	55.69	25.8
SGMC - 16 - 12G	1	3/4	15.50	1-3/8	1-1/2	31.24	26.41	45.5	16	57.69	31.8
SGMC - 16 - 16G	1	1	21.50	1-5/8	1-1/2	31.24	26.41	47.8	18	59.99	38.8
SGMC - 20 - 20G	1-1/4	1-1/4	27.50	2-1/8	1-7/8	41.15	38.86	57.4	20	79.50	48.8
SGMC - 24 - 16G	1-1/2	1	21.50	2-1/8	2-1/4	50.04	45.21	56.6	18	83.78	38.8
SGMC - 24 - 20G	1-1/2	1-1/4	27.50	2-1/8	2-1/4	50.04	45.21	58.6	20	85.78	48.8
SGMC - 24 - 24G	1-1/2	1-1/2	33.00	2-1/8	2-1/4	50.04	45.21	57.6	22	84.78	54.8

* ISO/BSP parallel gaskets are available. See page 7.

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SGMC

Male Connector For Bonded Washer Seal



Connects Metric Tube To Female ISO Parallel Thread

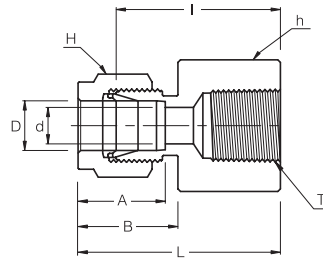
Part No.	Tube OD D	T G (PF)	d Min	Width Across Flat		A	B	I	I1	L	K
				h	H						
SGMC - 3M - 2G	3	1/8	2.4	14	12	12.9	15.3	23.4	8.0	30.0	14.0
SGMC - 3M - 4G	3	1/4	2.4	19	12	12.9	15.3	28.7	12.0	35.3	18.0
SGMC - 4M - 2G	4	1/8	2.4	14	12	13.7	16.1	24.1	8.0	30.7	14.0
SGMC - 6M - 2G	6	1/8	4.0	14	14	15.3	17.7	24.9	8.0	32.3	14.0
SGMC - 6M - 4G	6	1/4	4.8	19	14	15.3	17.7	30.2	12.0	37.6	18.0
SGMC - 6M - 6G	6	3/8	4.8	22	14	15.3	17.7	31.5	12.0	38.9	22.0
SGMC - 6M - 8G	6	1/2	4.8	27	14	15.3	17.7	37.3	14.0	44.7	26.0
SGMC - 8M - 2G	8	1/8	4.0	15	16	16.2	18.6	25.7	8.0	33.2	14.0
SGMC - 8M - 4G	8	1/4	6.4	19	16	16.2	18.6	31.0	12.0	38.5	18.0
SGMC - 8M - 6G	8	3/8	6.4	22	16	16.2	18.6	32.3	12.0	39.8	22.0
SGMC - 8M - 8G	8	1/2	6.4	27	16	16.2	18.6	38.1	14.0	45.6	26.0
SGMC - 10M - 4G	10	1/4	5.9	19	19	17.2	19.5	31.8	12.0	39.4	18.0
SGMC - 10M - 6G	10	3/8	7.9	22	19	17.2	19.5	33.0	12.0	40.6	22.0
SGMC - 10M - 8G	10	1/2	7.9	27	19	17.2	19.5	38.9	14.0	46.5	26.0
SGMC - 12M - 4G	12	1/4	5.9	22	22	22.8	22.0	32.5	12.0	42.6	18.0
SGMC - 12M - 6G	12	3/8	7.9	22	22	22.8	22.0	33.0	12.0	43.1	22.0
SGMC - 12M - 8G	12	1/2	9.5	27	22	22.8	22.0	38.9	14.0	49.0	26.0
SGMC - 12M - 12G	12	3/4	9.5	35	22	22.8	22.0	42.7	16.0	52.8	32.0
SGMC - 16M - 6G	16	3/8	7.9	24	25	24.4	22.0	33.8	12.0	43.9	22.0
SGMC - 16M - 8G	16	1/2	11.9	27	25	24.4	22.0	38.9	14.0	49.0	26.0
SGMC - 18M - 8G	18	1/2	11.9	27	30	24.4	22.0	38.9	14.0	49.0	26.0
SGMC - 18M - 12G	18	3/4	15.1	35	30	24.4	22.0	42.7	16.0	52.8	32.0
SGMC - 20M - 8G	20	1/2	11.9	30	32	26.0	22.0	40.4	14.0	50.5	26.0
SGMC - 20M - 12G	20	3/4	15.9	35	32	26.0	22.0	42.7	16.0	52.8	32.0
SGMC - 22M - 12G	22	3/4	15.9	35	32	26.0	22.0	42.7	16.0	52.8	32.0
SGMC - 22M - 16G	22	1	18.3	41	32	26.0	22.0	45.2	18.0	55.3	39.0
SGMC - 25M - 12G	25	3/4	15.9	35	38	31.3	26.5	45.2	16.0	57.5	32.0
SGMC - 25M - 16G	25	1	19.8	41	38	31.3	26.5	47.8	18.0	60.1	39.0

* See page 12 for Explanation of ISO Pipe Thread.
 * ISO/BSP parallel gaskets are available. See page 13.

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 - Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

SFC

Female Connector



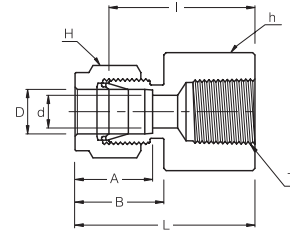
Connects Fractional Tube To Male NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	L
				h (inch)	H (inch)				
SFC - 2 - 2N	1/8	1/8	2.28	9/16	7/16	12.70	15.24	22.09	28.70
SFC - 2 - 4N	1/8	1/4	2.28	3/4	7/16	12.70	15.24	26.92	33.52
SFC - 3 - 2N	3/16	1/8	3.04	9/16	1/2	13.71	16.00	23.11	29.71
SFC - 4 - 2N	1/4	1/8	4.82	9/16	9/16	15.24	17.78	23.87	31.24
SFC - 4 - 4N	1/4	1/4	4.82	3/4	9/16	15.24	17.78	28.44	35.81
SFC - 4 - 6N	1/4	3/8	4.82	7/8	9/16	15.24	17.78	30.22	37.59
SFC - 4 - 8N	1/4	1/2	4.82	1-1/16	9/16	15.24	17.78	35.05	42.41
SFC - 5 - 2N	5/16	1/8	6.35	9/16	5/8	16.25	18.54	24.63	32.00
SFC - 5 - 4N	5/16	1/4	6.35	3/4	5/8	16.25	18.54	29.46	36.83
SFC - 6 - 2N	3/8	1/8	7.11	5/8	11/16	16.76	19.30	25.40	32.76
SFC - 6 - 4N	3/8	1/4	7.11	3/4	11/16	16.76	19.30	30.22	37.59
SFC - 6 - 6N	3/8	3/8	7.11	7/8	11/16	16.76	19.30	31.75	39.11
SFC - 6 - 8N	3/8	1/2	7.11	1-1/16	11/16	16.76	19.30	36.57	43.94
SFC - 6 - 12N	3/8	3/4	7.11	1-5/16	11/16	16.76	19.30	40.38	47.75
SFC - 8 - 4N	1/2	1/4	10.41	13/16	7/8	22.86	21.84	30.22	40.38
SFC - 8 - 6N	1/2	3/8	10.41	7/8	7/8	22.86	21.84	31.75	41.91
SFC - 8 - 8N	1/2	1/2	10.41	1-1/16	7/8	22.86	21.84	36.57	46.73
SFC - 8 - 12N	1/2	3/4	10.41	1-5/16	7/8	22.86	21.84	38.10	48.26
SFC -10 - 6N	5/8	3/8	12.70	15/16	1	24.38	21.84	31.75	41.91
SFC -10 - 8N	5/8	1/2	12.70	1-1/16	1	24.38	21.84	36.57	46.73
SFC -12 - 8N	3/4	1/2	15.74	1-1/16	1-1/8	24.38	21.84	36.57	46.73
SFC -12 - 12N	3/4	3/4	15.74	1-5/16	1-1/8	24.38	21.84	38.10	48.26
SFC -14 - 12N	7/8	3/4	18.28	1-5/16	1-1/4	25.90	21.84	39.62	49.78
SFC -16 - 12N	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	41.14	53.34
SFC -16 - 16N	1	1	22.35	1-5/8	1-1/2	31.24	26.41	50.03	62.23

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SFC

Female Connector

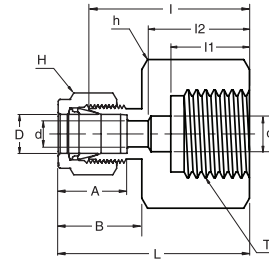
**Connects Metric Tube To Male ISO Tapered Thread**

Part No.	Tube OD D	T* R (PT)	d Min	Width Across Flat		A	B	I	L
				h	H				
SFC - 3M - 2R	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
SFC - 3M - 4R	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
SFC - 4M - 2R	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
SFC - 6M - 2R	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
SFC - 6M - 4R	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
SFC - 6M - 6R	6	3/8	4.8	22	14	15.3	17.7	30.2	37.6
SFC - 6M - 8R	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
SFC - 8M - 2R	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
SFC - 8M - 4R	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
SFC - 8M - 6R	8	3/8	6.4	22	16	16.2	18.6	31.0	38.5
SFC - 8M - 8R	8	1/2	6.4	27	16	16.2	18.6	35.8	43.3
SFC - 10M - 2R	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
SFC - 10M - 4R	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
SFC - 10M - 6R	10	3/8	7.9	22	19	17.2	19.5	31.8	39.4
SFC - 10M - 8R	10	1/2	7.9	27	19	17.2	19.5	36.6	44.2
SFC - 12M - 2R	12	1/8	8.3	22	22	22.8	22.0	25.4	35.5
SFC - 12M - 4R	12	1/4	9.5	22	22	22.8	22.0	30.2	40.3
SFC - 12M - 6R	12	3/8	9.5	22	22	22.8	22.0	31.8	41.9
SFC - 12M - 8R	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
SFC - 12M - 12R	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
SFC - 15M - 8R	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
SFC - 16M - 8R	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
SFC - 20M - 8R	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
SFC - 20M - 12R	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
SFC - 22M - 12R	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
SFC - 22M - 16R	22	1	18.3	41	32	26.0	22.0	47.8	57.9
SFC - 25M - 12R	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
SFC - 25M - 16R	25	1	21.8	41	38	31.3	26.5	50.0	62.3

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SGC

Gauge Connector



Connects Fractional Tube To ISO Parallel Thread

Part No.	Tube OD D (inch)	T G (PF)	d Min	d1	Width Across Flat		A	B	I	I1	I2	L
					h (inch)	H (inch)						
SGC - 4 - 4G	1/4	1/4	4.82	5.58	3/4	9/16	15.24	17.78	30.22	13.00	17.00	37.59
SGC - 4 - 6G	1/4	3/8	4.82	6.60	15/16	9/16	15.24	17.78	30.22	14.20	20.30	37.59
SGC - 4 - 8G	1/4	1/2	4.82	6.60	1-1/16	9/16	15.24	17.78	36.07	18.80	24.90	43.43
SGC - 5 - 4G	5/16	1/4	5.58	-	3/4	5/8	16.25	18.54	30.98	13.00	-	38.35
SGC - 5 - 8G	5/16	1/2	7.11	-	1-1/16	5/8	16.25	18.54	33.53	18.80	-	40.89
SGC - 6 - 4G	3/8	1/4	5.58	-	3/4	11/16	16.76	19.30	31.75	13.00	-	39.12
SGC - 6 - 6G	3/8	3/8	6.60	-	15/16	11/16	16.76	19.30	31.24	14.20	-	38.61
SGC - 6 - 8G	3/8	1/2	7.11	-	1-1/16	11/16	16.76	19.30	34.54	18.80	-	41.91
SGC - 8 - 4G	1/2	1/4	5.58	-	7/8	7/8	22.86	21.84	31.80	13.00	-	41.95
SGC - 8 - 6G	1/2	3/8	6.60	-	15/16	7/8	22.86	21.84	34.29	14.20	-	44.45
SGC - 8 - 8G	1/2	1/2	7.11	7.11	1-1/16	7/8	22.86	21.84	38.10	18.80	-	48.26

Connects Metric Tube To ISO Parallel Thread

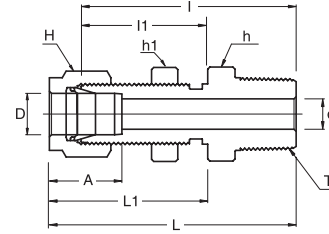
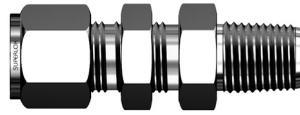
Part No.	Tube OD D (inch)	T G (PF)	d Min	d1	Width Across Flat		A	B	I	I1	I2	L
					h	H						
SGC - 3M - 4G	3	1/4	2.4	5.5	19	12	12.9	15.3	28.7	13	17	35.3
SGC - 6M - 4G	6	1/4	4.8	5.5	19	14	15.3	17.7	30.2	13	17	37.6
SGC - 6M - 6G	6	3/8	4.8	6.5	24	14	15.3	17.7	30.2	14	20	37.6
SGC - 6M - 8G	6	1/2	4.8	7.0	27	14	15.3	17.7	36.1	19	25	43.5
SGC - 8M - 4G	8	1/4	5.5	5.5	19	16	16.2	18.6	31.0	13	-	38.5
SGC - 8M - 6G	8	3/8	6.5	6.5	24	16	16.2	18.6	28.7	14	-	36.2
SGC - 8M - 8G	8	1/2	7.0	7.0	27	16	16.2	18.6	33.5	19	-	41.0
SGC - 10M - 4G	10	1/4	5.5	5.5	19	19	17.2	19.5	31.8	13	-	39.4
SGC - 10M - 6G	10	3/8	6.5	6.5	24	19	17.2	19.5	31.2	14	-	38.8
SGC - 10M - 8G	10	1/2	7.0	7.0	27	19	17.2	19.5	34.5	19	-	42.1
SGC - 12M - 4G	12	1/4	5.5	5.5	22	22	22.8	22.0	31.8	13	-	41.9
SGC - 12M - 6G	12	3/8	6.5	6.5	24	22	22.8	22.0	34.3	14	-	44.4
SGC - 12M - 8G	12	1/2	7.0	7.0	27	22	22.8	22.0	38.1	19	-	48.2
SGC - 20M - 8G	20	1/2	7.0	7.0	30	32	26.0	22.0	44.2	19	-	54.3
SGC - 22M - 8G	22	1/2	7.0	7.0	30	32	26.0	22.0	44.2	19	-	54.3

* See page 6 for Explanation of ISO Pipe Thread.

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SMCB

Bulkhead Male Connector



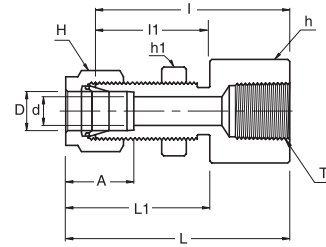
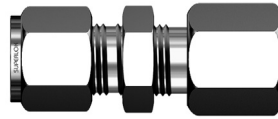
Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat			A	I	I1	L	L1	Panel Hole Drill Size	Panel Max. Thickness
				h (inch)	h1 (inch)	H (inch)							
SMCB - 2 - 2N	1/8	1/8	2.28	1/2	1/2	7/16	12.70	39.87	24.63	46.48	31.24	8.33	12.70
SMCB - 4 - 2N	1/4	1/8	4.82	5/8	5/8	9/16	15.24	42.16	26.16	49.53	33.52	11.50	10.16
SMCB - 4 - 4N	1/4	1/4	4.82	5/8	5/8	9/16	15.24	46.73	26.16	54.10	33.52	11.50	10.16
SMCB - 6 - 4N	3/8	1/4	7.11	3/4	3/4	11/16	16.76	50.03	29.46	57.40	36.83	14.68	11.17
SMCB - 6 - 6N	3/8	3/8	7.11	3/4	3/4	11/16	16.76	50.03	29.46	57.40	36.83	14.68	11.17
SMCB - 6 - 8N	3/8	1/2	7.11	7/8	3/4	11/16	16.76	56.38	29.46	63.75	36.83	14.68	11.17
SMCB - 8 - 6N	1/2	3/8	9.65	15/16	15/16	7/8	22.86	53.08	31.75	63.24	41.91	19.44	12.70
SMCB - 8 - 8N	1/2	1/2	10.41	15/16	15/16	7/8	22.86	58.67	31.75	68.83	41.91	19.44	12.70
SMCB - 12 - 12N	3/4	3/4	15.74	1-3/16	1-3/16	1-1/8	24.38	66.04	37.33	76.20	47.49	25.79	16.76
SMCB - 16 - 16N	1	1	22.35	1-5/8	1-5/8	1-1/2	31.24	81.02	45.21	93.21	57.40	33.73	19.05

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SFCB

Bulkhead Female Connector



Connects Fractional Tube To Male NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat			A	I	I1	L	L1	Panel Hole Drill Size	Panel Max. Thickness
				h (inch)	h1 (inch)	H (inch)							
SFCB - 2 - 2N	1/8	1/8	2.28	9/16	1/2	7/16	12.70	38.10	24.63	44.70	31.24	8.33	12.70
SFCB - 4 - 2N	1/4	1/8	4.82	5/8	5/8	9/16	15.24	39.62	26.16	46.99	33.52	11.50	10.16
SFCB - 4 - 4N	1/4	1/4	4.82	3/4	5/8	9/16	15.24	44.45	26.16	51.81	33.52	11.50	10.16
SFCB - 6 - 4N	3/8	1/4	7.11	3/4	3/4	11/16	16.76	47.75	29.46	55.11	36.83	14.68	11.17
SFCB - 8 - 6N	1/2	3/8	10.41	15/16	15/16	7/8	22.86	51.56	31.75	61.72	41.91	19.44	12.70
SFCB - 8 - 8N	1/2	1/2	10.41	1-1/16	15/16	7/8	22.86	56.38	31.75	66.54	41.91	19.44	12.70
SFCB - 12 - 12N	3/4	3/4	15.74	1-1/4	1-3/16	1-1/8	24.38	63.60	37.33	73.51	47.49	25.79	16.76

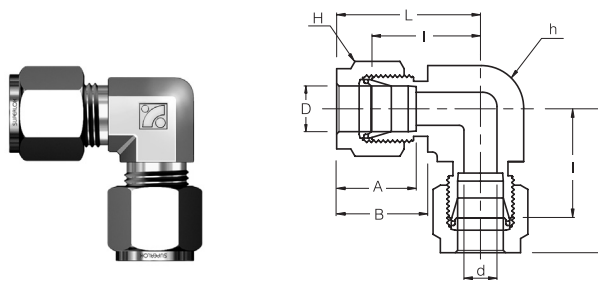
Connects Metric Tube To Male NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat			A	I	I1	L	L1	Panel Hole Drill Size	Panel Max. Thickness
				h	h1	H							
SFCB - 6M - 2N	6	1/8	4.8	15.8	15.8	14	15.3	39.6	27.7	46.90	35.00	11.5	10.2
SFCB - 6M - 4N	6	1/4	4.8	19.0	16.0	14	15.3	44.4	26.2	51.80	33.60	11.5	10.2
SFCB - 8M - 4N	8	1/4	6.3	19.0	17.4	16	16.2	46.7	28.4	53.85	35.55	13.1	11.2
SFCB - 12M - 8N	12	1/2	9.5	27.0	24.0	22	22.8	56.4	31.8	66.50	41.90	19.5	12.7

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SUE

Union Elbow



Connects Fractional Tubes

Part No.	Tube OD D (inch)	d Min	Width Across Flat		A	B	I	L
			h (inch)	H (inch)				
SUE - 1	1/16	1.27	3/8	5/16	8.63	10.92	14.00	18.03
SUE - 2	1/8	2.28	3/8	7/16	12.70	15.24	15.74	22.35
SUE - 3	3/16	3.04	1/2	1/2	13.71	16.00	18.54	25.14
SUE - 4	1/4	4.82	1/2	9/16	15.24	17.78	20.10	27.40
SUE - 5	5/16	6.35	5/8	5/8	16.25	18.54	22.35	29.71
SUE - 6	3/8	7.11	5/8	11/16	16.76	19.30	23.11	30.48
SUE - 8	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
SUE - 10	5/8	12.70	15/16	1	24.38	21.84	27.94	38.10
SUE - 12	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87
SUE - 14	7/8	18.28	1-3/8	1-1/4	25.90	21.84	34.54	44.70
SUE - 16	1	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02
SUE - 20	1-1/4	27.69	1-11/16	1-7/8	41.15	38.86	44.45	66.55
SUE - 24	1-1/2	34.04	2	2-1/4	50.04	45.21	50.80	77.98
SUE - 32	2	45.97	2-3/4	3	67.56	62.74	69.85	107.19

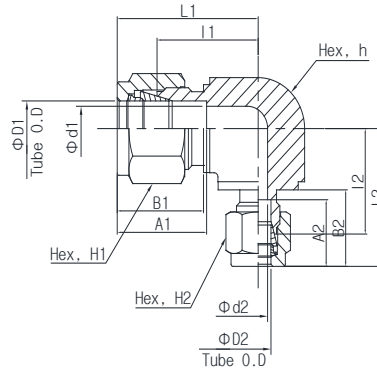
Connects Metric Tubes

Part No.	Tube OD D	d Min	Width Across Flat		A	B	I	L
			h	H				
SUE 2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
SUE - 3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SUE - 4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
SUE - 6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SUE - 8M	8	6.4	15.9	16	16.2	18.6	22.4	29.9
SUE - 10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
SUE - 12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SUE - 15M	15	11.9	23.8	25	24.4	22.0	27.9	38.8
SUE - 16M	16	12.7	23.8	25	24.4	22.0	27.9	38.0
SUE - 18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
SUE - 20M	20	15.9	34.9	32	26.0	22.0	34.5	44.6
SUE - 22M	22	18.3	34.9	32	26.0	22.0	34.5	44.6
SUE - 25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1
SUE - 28M	28	21.8	41	46	36.6	36.6	43.2	64.0
SUE - 30M	30	26.2	42.9	50	39.6	39.2	48.3	69.9
SUE - 32M	32	28.6	42.9	50	42.0	41.6	49.3	72.3
SUE - 38M	38	33.7	55	60	49.4	47.9	56.4	84.0

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SRUE

Reducing Union Elbow

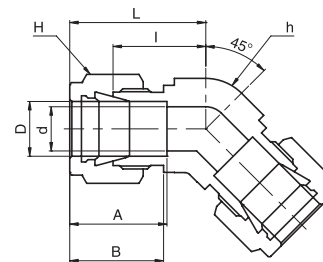
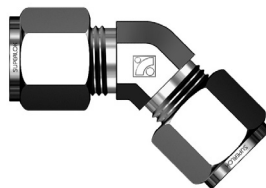


Connects Fractional Tubes

Part No.	Tube OD D (inch)		d (Min)		Width Across Flat h (inch)			A	A1	B	B1	I	I1	L	L1
	D	D1	d	d1	h	H	H1								
SRUE - 2 - 1	1/8	1/16	2.28	1.27	3/8	7/16	5/16	12.8	8.9	15.1	10.9	15.7	14.1	22.1	17.9
SRUE - 4 - 2	1/4	1/8	4.83	2.28	1/2	9/16	7/16	15.5	12.8	17.8	15.1	20.1	18.4	27.6	24.8
SRUE - 6 - 2	3/8	1/8	7.11	2.28	5/8	11/16	7/16	17.0	12.8	19.4	15.1	23.1	19.9	30.6	26.3
SRUE - 6 - 4	3/8	1/4	7.11	4.83	5/8	11/16	9/16	17.0	15.5	19.4	17.8	23.1	21.5	30.6	29.0
SRUE - 8 - 4	1/2	1/4	10.41	4.83	13/16	7/8	9/16	22.9	15.5	22.1	17.8	25.9	24.6	36.1	32.1
SRUE - 8 - 6	1/2	3/8	10.41	7.11	13/16	7/8	11/16	22.9	17.0	22.1	19.4	25.9	26.1	36.1	33.6
SRUE - 12 - 6	3/4	3/8	15.75	7.11	1-1/16	1-1/8	11/16	24.6	17.0	22.1	19.4	29.7	30.0	40.1	37.5
SRUE - 12 - 8	3/4	1/2	15.75	10.41	1-1/16	1-1/8	7/8	24.6	22.9	22.1	22.1	29.7	29.7	40.1	39.9
SRUE - 16 - 6	1	3/8	22.35	7.11	1-3/8	1-1/2	11/16	31.5	17.0	26.7	19.4	36.8	34.7	49.2	42.2
SRUE - 16 - 8	1	1/2	22.35	10.41	1-3/8	1-1/2	7/8	31.5	22.9	26.7	22.1	36.8	34.7	49.2	44.9
SRUE - 16 - 12	1	3/4	22.35	15.75	1-3/8	1-1/2	1-1/8	31.5	24.6	26.7	22.1	36.8	34.5	49.2	44.9

SHUE

45° Union Elbow

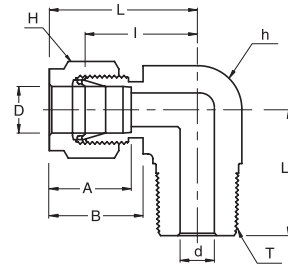


Connects Fractional Tubes

Part No.	Tube OD D (inch)	d Min	Width Across Flat		A	B	I	L
			h (inch)	H (inch)				
SHUE - 2	1/8	2.28	1/2	7/16	12.70	15.00	15.70	22.00
SHUE - 4	1/4	4.82	1/2	9/16	15.24	17.78	17.27	24.63
SHUE - 6	3/8	7.11	5/8	11/16	15.76	19.30	20.57	27.94
SHUE - 8	1/2	10.41	13/16	7/8	22.86	21.84	21.84	32.00
SHUE - 12	3/4	15.74	1-1/16	1-1/8	24.38	21.88	21.30	31.48
SHUE - 16	1	22.35	1-3/8	1-1/2	31.24	26.44	28.20	40.39

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SME
Male Elbow



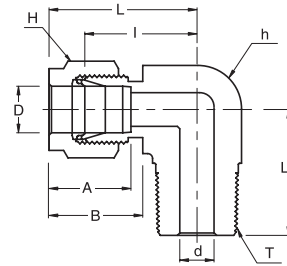
Connects Metric Tube To Female NPT Thread

Part No.	Tube OD D	T (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h	H					
SME - 3M - 2N	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SME - 3M - 4N	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SME - 4M - 2N	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SME - 4M - 4N	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
SME - 6M - 2N	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SME - 6M - 4N	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
SME - 6M - 6N	6	3/8	4.8	15.9	14	15.3	17.7	22.4	29.8	26.2
SME - 6M - 8N	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
SME - 8M - 2N	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
SME - 8M - 4N	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
SME - 8M - 6N	8	3/8	6.4	15.9	16	16.2	18.6	23.1	30.6	26.2
SME - 8M - 8N	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
SME - 10M - 2N	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	21.6
SME - 10M - 4N	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
SME - 10M - 6N	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
SME - 10M - 8N	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
SME - 12M - 4N	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SME - 12M - 6N	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SME - 12M - 8N	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SME - 12M - 12N	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
SME - 16M - 6N	16	3/8	9.5	23.8	25	24.4	22.0	27.9	38.0	30.2
SME - 16M - 8N	16	1/2	11.9	23.8	25	24.4	22.0	27.9	38.0	35.1
SME - 16M - 12N	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
SME - 18M - 8N	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
SME - 18M - 12N	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
SME - 20M - 8N	20	1/2	11.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME - 20M - 12N	20	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME - 22M - 12N	22	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME - 22M - 16N	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
SME - 25M - 12N	25	3/4	15.9	34.9	38	31.3	26.5	36.8	49.1	41.7
SME - 25M - 16N	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5
SME - 30M - 20N	30	1-1/4	26.2	42.9	50	39.6	39.2	48.3	69.9	53.1
SME - 32M - 20N	32	1-1/4	27.8	42.9	50	42.0	41.6	49.3	72.3	53.1
SME - 38M - 24N	38	1-1/2	33.7	55	60	49.4	47.9	56.4	84.0	60.4

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SME

Male Elbow



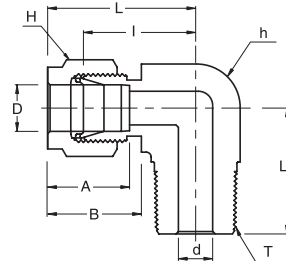
Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube OD D	T R (PT)	d Min	Width Across Flat		A	B	I	L	L1
				h	H					
SME - 3M - 2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SME - 3M - 4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SME - 4M - 2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SME - 4M - 4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
SME - 6M - 2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SME - 6M - 4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
SME - 6M - 6R	6	3/8	4.8	15.9	14	15.3	17.7	22.4	29.8	26.2
SME - 6M - 8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
SME - 8M - 2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
SME - 8M - 4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
SME - 8M - 6R	8	3/8	6.4	15.9	16	16.2	18.6	23.1	30.6	26.2
SME - 8M - 8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
SME - 10M - 4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
SME - 10M - 6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
SME - 10M - 8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
SME - 12M - 2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
SME - 12M - 4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SME - 12M - 6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SME - 12M - 8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SME - 12M - 12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
SME - 16M - 6R	16	3/8	9.5	23.8	25	24.4	22.0	27.9	38.0	30.2
SME - 16M - 8R	16	1/2	11.9	23.8	25	24.4	22.0	27.9	38.0	35.1
SME - 18M - 8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
SME - 18M - 12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
SME - 20M - 8R	20	1/2	11.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME - 20M - 12R	20	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME - 22M - 12R	22	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME - 22M - 16R	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
SME - 25M - 12R	25	3/4	15.9	34.9	38	31.3	26.5	36.8	49.1	41.7
SME - 25M - 16R	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5

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SME

Male Elbow



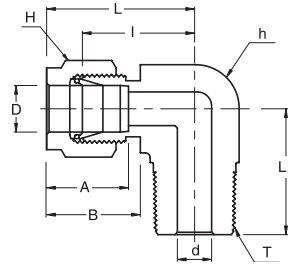
Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h (inch)	H (inch)					
SME - 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.00	24.30	18.80
SME - 2 - 4N	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.00	24.30	23.36
SME - 3 - 2N	3/16	1/8	3.04	1/2	1/2	13.71	16.00	18.79	25.40	18.79
SME - 3 - 4N	3/16	1/4	3.04	1/2	1/2	13.71	16.00	18.79	25.40	23.36
SME - 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	18.79
SME - 4 - 4N	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.36
SME - 4 - 6N	1/4	3/8	4.82	5/8	9/16	15.24	17.78	22.35	29.71	26.16
SME - 4 - 8N	1/4	1/2	4.82	13/16	9/16	15.24	17.78	24.38	31.75	33.02
SME - 5 - 2N	5/16	1/8	4.82	9/16	5/8	16.25	18.54	21.33	28.70	19.81
SME - 5 - 4N	5/16	1/4	6.35	9/16	5/8	16.25	18.54	21.33	28.70	24.38
SME - 5 - 6N	5/16	3/8	6.35	11/16	5/8	16.25	18.54	23.11	30.48	26.16
SME - 6 - 2N	3/8	1/8	4.82	5/8	11/16	16.76	19.30	23.11	30.48	20.82
SME - 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.11	30.48	25.40
SME - 6 - 6N	3/8	3/8	7.11	5/8	11/16	16.76	19.30	23.87	31.24	26.16
SME - 6 - 8N	3/8	1/2	7.11	13/16	11/16	16.76	19.30	25.90	33.27	33.02
SME - 6 - 12N	3/8	3/4	7.11	1-1/16	11/16	16.76	19.30	29.71	37.08	36.83
SME - 8 - 4N	1/2	1/4	7.11	13/16	7/8	22.86	21.84	25.90	36.06	28.19
SME - 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.19
SME - 8 - 8N	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
SME - 8 - 12N	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	29.71	39.87	36.83
SME - 10 - 6N	5/8	3/8	9.65	15/16	1	24.38	21.84	27.94	38.10	30.22
SME - 10 - 8N	5/8	1/2	11.93	15/16	1	24.38	21.84	27.94	38.10	35.10
SME - 10 - 12N	5/8	3/4	12.70	1-1/16	1	24.38	21.84	29.71	39.87	36.83
SME - 12 - 8N	3/4	1/2	11.93	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83
SME - 12 - 12N	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83
SME - 14 - 12N	7/8	3/4	15.74	1-3/8	1-1/4	25.90	21.84	34.54	44.70	41.65
SME - 16 - 1 2N	1	3/4	15.74	1-3/8	1-1/2	31.24	26.41	36.83	49.02	41.65
SME - 16 - 16N	1	1	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02	46.48
SME - 20 - 20N	1-1/4	1-1/4	27.69	1-11/16	1-7/8	41.15	38.86	44.45	66.55	47.75
SME - 24 - 24N	1-1/2	1-1/2	34.04	2	2-1/4	50.04	45.21	50.80	77.98	60.45
SME - 32 - 32N	2	2	45.97	2-3/4	3	67.56	62.74	69.85	107.19	70.61

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SME

Male Elbow

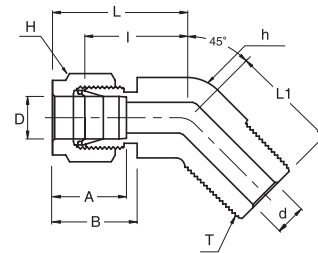
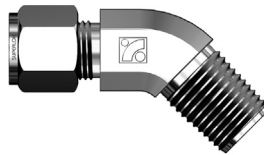


Connects Fractional Tube To Female ISO Tapered Thread

Part No.	Tube OD D (inch)	T R (PT)	d Min	Width Across Flat		A	B	I	L	L1
				h (inch)	H (inch)					
SME - 4 - 2R	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	18.79
SME - 4 - 4R	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.36
SME - 4 - 6R	1/4	3/8	4.82	5/8	9/16	15.24	17.78	22.35	29.71	26.16
SME - 4 - 8R	1/4	1/2	4.82	13/16	9/16	15.24	17.78	24.38	31.75	33.02
SME - 5 - 4R	5/16	1/4	6.35	9/16	5/8	16.25	18.54	21.33	28.70	24.38
SME - 6 - 4R	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.11	30.48	25.40
SME - 6 - 6R	3/8	3/8	7.11	5/8	11/16	16.76	19.30	23.87	31.24	26.16
SME - 8 - 6R	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.91	36.07	28.20
SME - 8 - 8R	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.91	36.07	33.02

SHME

45° Male Elbow



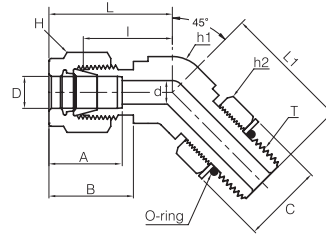
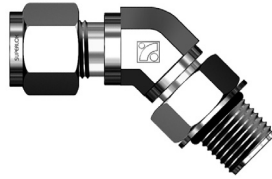
Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h (inch)	H (inch)					
SHME - 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	17.27	24.63	16.51
SHME - 4 - 4N	1/4	1/4	4.82	1/2	9/16	15.24	17.78	17.27	24.63	21.08
SHME - 6 - 2N	3/8	1/8	4.82	5/8	11/16	16.76	19.30	20.57	27.94	18.28
SHME - 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	20.57	27.94	22.86
SHME - 6 - 6N	3/8	3/8	7.11	13/16	11/16	16.76	19.30	21.84	29.21	24.13
SHME - 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	21.84	32.00	24.13
SHME - 8 - 8N	1/2	1/2	10.41	13/16	7/8	22.86	21.84	21.84	32.00	28.95

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SPHME

45° Positionable Male Elbow

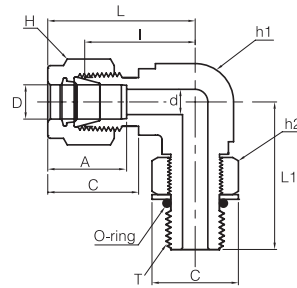
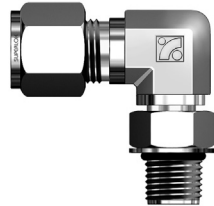


Connects Fractional Tube To SAE/MS Straight Thread

Part No.	Tube OD D (inch)	T (U)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H(inch)						
SPHME - 4 - 4U	1/4	7/16-20	4.83	1/2	9/16	9/16	15.24	17.78	18.29	25.64	25.65	16.51
SPHME - 6 - 6U	3/8	9/16-18	7.11	5/8	11/16	11/16	16.76	19.30	20.57	27.94	28.19	20.07
SPHME - 8 - 8U	1/2	3/4-16	10.41	13/16	7/8	7/8	22.86	21.84	21.84	32.00	32.26	25.65
SPHME - 12 - 12U	3/4	1-1/16-12	15.75	1-1/8	1-1/4	1-1/8	24.38	24.84	29.72	39.88	47.24	36.58
SPHME - 16 - 16U	1	1-5/16-12	22.35	1-3/8	1-1/2	1-1/2	31.24	26.42	35.31	47.50	50.55	43.94

SPME

Positionable Male Elbow



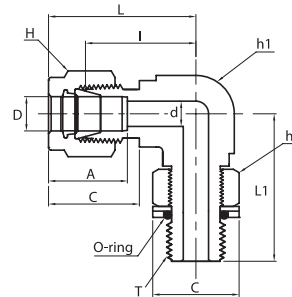
Connects Fractional Tube To SAE/MS Straight Thread

Part No.	Tube OD D (inch)	T (U)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H(inch)						
SPME - 4 - 4U	1/4	7/16-20	4.83	1/2	9/16	9/16	15.24	17.78	21.08	28.45	28.45	16.51
SPME - 4 - 6U	1/4	9/16-18	4.83	5/8	11/16	9/16	15.24	17.78	23.11	30.48	32.26	20.07
SPME - 5 - 5U	5/16	1/2-20	5.84	9/16	5/8	5/8	16.26	18.54	23.60	30.23	29.46	18.29
SPME - 6 - 6U	3/8	9/16-18	7.11	5/8	11/16	11/16	16.76	19.30	24.64	32.00	32.26	20.07
SPME - 6 - 8U	3/8	3/4-16	7.11	13/16	7/8	11/16	16.76	19.30	27.43	34.80	37.85	25.65
SPME - 8 - 8U	1/2	3/4-16	10.41	13/16	7/8	7/8	22.86	21.84	27.43	37.59	37.85	25.65
SPME - 10 - 10U	5/8	7/8-14	12.70	15/16	1	1	24.38	21.84	27.90	39.62	43.43	29.46
SPME - 12 - 12U	3/4	1-1/16-12	15.75	1-1/16	1-1/4	1-1/8	24.38	21.84	29.70	41.40	48.77	36.58
SPME - 14 - 14U	7/8	3/16-12	18.29	1-3/16	1-3/8	1-1/4	25.91	21.84	33.02	43.18	50.55	40.39
SPME - 16 - 16U	1	1-5/16-12	22.35	1-3/8	1-1/2	1-1/2	31.24	26.42	36.80	50.55	53.59	43.94
SPME - 20 - 20U	1-1/4	1-5/8-12	27.69	1-11/16	1-7/8	1-7/8	41.15	38.86	45.72	67.82	58.17	54.86
SPME - 24 - 24U	1-1/2	1-7/8-12	34.04	2	2-1/8	2-1/4	50.04	45.21	50.80	77.98	60.45	62.23
SPME - 32 - 32U	2	2-1/2-12	45.97	2-3/4	2-3/4	3	67.56	62.74	69.85	107.19	71.63	80.26

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SPME

Positionable Male Elbow



Connects Fractional Tube To Female ISO Parallel Thread

Part No.	Tube OD D (inch)	T (PF)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H(inch)						
SPME - 4 - 2G	1/4	1/8	4.06	1/2	9/16	9/16	15.24	17.78	19.56	26.92	26.42	17.27
SPME - 4 - 4G	1/4	1/4	4.83	5/8	3/4	9/16	15.24	17.78	21.59	28.96	32.26	22.86
SPME - 6 - 4G	3/8	1/4	5.84	5/8	3/4	11/16	16.76	19.30	23.60	30.48	32.26	22.86
SPME - 6 - 6G	3/8	3/8	7.11	13/16	7/8	11/16	16.76	19.30	25.91	33.27	37.08	26.42
SPME - 8 - 4G	1/2	1/4	5.84	13/16	3/4	7/8	22.86	21.84	25.91	36.07	35.05	26.42
SPME - 8 - 6G	1/2	3/8	7.87	13/16	7/8	7/8	22.86	21.84	25.91	36.07	37.08	22.86
SPME - 8 - 8G	1/2	1/2	10.41	15/16	1-1/16	7/8	22.86	21.84	27.94	38.10	43.43	26.42
SPME - 10 - 8G	5/8	1/2	11.94	15/16	1-1/16	1	24.38	21.84	27.94	38.10	43.43	32.00
SPME - 12 - 8G	3/4	1/2	11.94	1-1/16	1-1/16	1-1/8	24.38	21.84	29.72	39.88	45.21	32.00
SPME - 12 - 12G	3/4	3/4	15.75	1-1/16	1-3/8	1-1/8	24.38	21.84	29.72	39.88	48.77	41.15
SPME - 16 - 12G	1	3/4	15.75	1-3/8	1-3/8	1-1/2	31.24	26.42	36.83	49.02	53.34	41.15
SPME - 16 - 16G	1	1	19.81	1-3/8	1-5/8	1-1/2	31.24	26.42	36.83	49.02	53.59	48.51

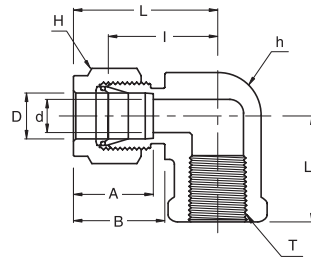
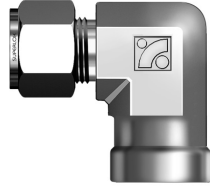
Connects Metric Tube To Female ISO Parallel Thread

Part No.	Tube OD D	T (PF)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H						
SPME - 6M - 2G	6	1/8	4.0	1/2	9/16	14	15.3	17.7	19.6	27.0	26.4	17.3
SPME - 6M - 4G	6	1/4	4.8	5/8	3/4	14	15.3	17.7	21.6	29.0	32.3	22.9
SPME - 8M - 2G	8	1/8	4.0	9/16	9/16	16	16.2	18.6	21.3	28.8	27.4	17.3
SPME - 8M - 4G	8	1/4	5.9	5/8	3/4	16	16.2	18.6	22.4	29.9	32.2	22.9
SPME - 10M - 4G	10	1/4	5.9	13/16	3/4	19	17.2	19.5	25.9	33.5	35.0	22.9
SPME - 10M - 6G	10	3/8	7.9	13/16	7/8	19	17.2	19.5	25.9	33.5	37.1	26.4
SPME - 12M - 4G	12	1/4	5.9	13/16	3/4	22	22.8	22.0	25.9	36.0	35.0	22.9
SPME - 12M - 6G	12	3/8	7.9	13/16	7/8	22	22.8	22.0	25.9	36.0	37.1	26.4
SPME - 12M - 8G	12	1/2	9.5	15/16	1-1/16	22	22.8	22.0	27.9	38.0	43.4	32.0
SPME - 12M - 12G	12	3/4	9.5	1-1/16	1-3/8	22	22.8	22.0	29.7	39.8	48.8	41.1

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SFE

Female Elbow



Connects Fractional Tube To Male NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h (inch)	H (inch)					
SFE - 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.03	24.63	23.40
SFE - 2 - 4N	1/8	1/4	2.28	11/16	7/16	12.70	15.24	20.82	27.43	29.00
SFE - 3 - 2N	3/16	1/8	3.04	1/2	1/2	13.71	16.00	18.79	25.40	23.40
SFE - 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.40
SFE - 4 - 4N	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	29.00
SFE - 4 - 6N	1/4	3/8	4.82	13/16	9/16	15.24	17.78	24.38	31.75	22.35
SFE - 4 - 8N	1/4	1/2	4.82	1	9/16	15.24	17.78	27.17	34.54	37.00
SFE - 5 - 2N	5/16	1/8	6.35	9/16	5/8	16.25	18.54	21.33	28.70	19.05
SFE - 5 - 4N	5/16	1/4	6.35	11/16	5/8	16.25	18.54	23.11	30.48	29.00
SFE - 6 - 2N	3/8	1/8	7.11	5/8	11/16	16.76	19.30	23.11	30.48	19.05
SFE - 6 - 4N	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.87	31.24	29.00
SFE - 6 - 6N	3/8	3/8	7.11	13/16	11/16	16.76	19.30	25.90	33.27	22.35
SFE - 6 - 8N	3/8	1/2	7.11	1	11/16	16.76	19.30	28.70	36.06	37.00
SFE - 8 - 4N	1/2	1/4	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFE - 8 - 6N	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFE - 8 - 8N	1/2	1/2	10.41	1	7/8	22.86	21.84	28.70	38.86	37.00
SFE - 10 - 6N	5/8	3/8	12.70	15/16	1	24.38	21.84	27.94	38.10	22.35
SFE - 10 - 8N	5/8	1/2	12.70	1-1/16	1	24.38	21.84	29.71	39.87	28.44
SFE - 12 - 8N	3/4	1/2	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	28.44
SFE - 12 - 12N	3/4	3/4	15.74	1-3/8	1-1/8	24.38	21.84	34.54	44.70	31.75
SFE - 14 - 12N	7/8	3/4	18.28	1-3/8	1-1/4	25.90	21.84	34.54	44.70	31.75
SFE - 16 - 12N	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02	31.75
SFE - 16 - 16N	1	1	22.35	1-11/16	1-1/2	31.24	26.41	41.40	53.59	38.10

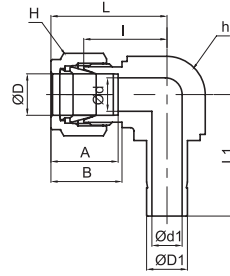
Connects Metric Tube To Male NPT Thread

Part No.	Tube OD D	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h	H					
SFE - 6M - 4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
SFE - 6M - 6N	6	3/8	4.8	20.63	14	15.3	17.7	24.4	31.7	22.40
SFE - 6M - 8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.6	37.00
SFE - 8M - 4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	29.00
SFE - 8M - 8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	37.00
SFE - 10M - 4N	10	1/4	7.9	17.46	19	17.2	19.5	25.9	33.5	29.00
SFE - 10M - 6N	10	3/8	7.9	20.63	19	17.2	19.5	25.9	33.5	22.40
SFE - 10M - 8N	10	1/2	7.9	25.40	19	17.2	19.5	28.7	36.1	37.00
SFE - 12M - 6N	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.2	22.35
SFE - 12M - 8N	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	37.00

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SAE

Adjustable Elbow



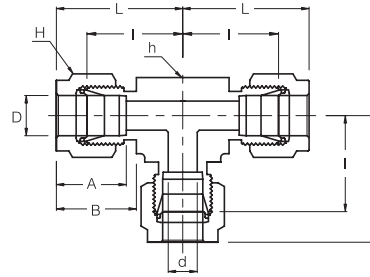
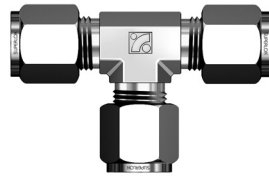
Connects Fractional Tubes To Fractional SUPERLOK® Port

Part No.	Tube OD		d Min	d1 Min	Width Across Flat		A	B	I	L	L1
	D (inch)	D1 (inch)			h (inch)	H (inch)					
SAE - 4	1/4	1/4	4.83	4.4	1/2	9/16	15.24	17.78	19.6	26.92	25
SAE - 6	3/8	3/8	7.11	6.9	5/8	11/16	16.76	19.30	23.9	31.24	29.5
SAE - 8	1/2	1/2	10.41	9.4	13/16	13/16	22.86	21.84	25.9	36.06	37.8
SAE - 10	5/8	5/8	12.7	12	15/16	1	24.38	21.84	27.9	38.10	41.7
SAE - 12	3/4	3/4	15.74	14.8	1-1/16	1-1/16	24.38	21.84	29.7	39.87	43
SAE - 16	1	1	22.35	20.4	1-3/8	1-3/8	31.24	26.41	36.8	49.02	53

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SUT

Union Tee



Connects Fractional Tubes

Part No.	Tube OD D (inch)	d Min	Width Across Flat		A	B	I	L
			h (inch)	H (inch)				
SUT - 1	1/16	1.27	3/8	5/16	8.63	10.92	14.00	18.03
SUT - 2	1/8	2.28	3/8	7/16	12.70	15.24	15.80	22.35
SUT - 3	3/16	3.04	1/2	1/2	13.71	16.00	18.54	25.14
SUT - 4	1/4	4.82	1/2	9/16	15.24	17.78	20.10	27.40
SUT - 5	5/16	6.35	5/8	5/8	16.25	18.54	22.35	29.71
SUT - 6	3/8	7.11	5/8	11/16	16.76	19.30	23.11	30.48
SUT - 8	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
SUT - 10	5/8	12.70	1	1	24.38	21.84	28.70	38.86
SUT - 12	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87
SUT - 14	7/8	18.28	1-3/8	1-1/4	25.90	21.84	34.54	44.70
SUT - 16	1	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02
SUT - 20	1-1/4	27.69	1-11/16	1-7/8	41.15	38.86	44.45	66.55
SUT - 24	1-1/2	34.04	2	2-1/4	50.04	45.21	50.80	77.98
SUT - 32	2	45.97	2-3/4	3	67.56	62.74	69.85	107.19

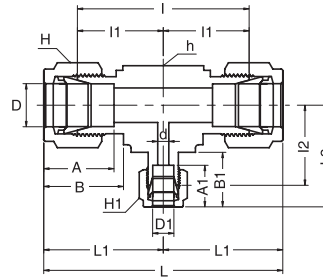
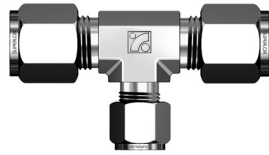
Connects Metric Tubes

Part No.	Tube OD D	d Min	Width Across Flat		A	B	I	L
			h	H				
SUT - 2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
SUT - 3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SUT - 4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
SUT - 6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SUT - 8M	8	6.4	15.9	16	16.2	18.6	22.4	29.9
SUT - 10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
SUT - 12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SUT - 15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
SUT - 16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
SUT - 18M	18	15.1	27.0	30	24.4	22.0	29.7	38.8
SUT - 20M	20	15.9	34.9	32	26.0	22.0	34.5	44.6
SUT - 22M	22	18.3	34.9	32	26.0	22.0	34.5	44.6
SUT - 25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1
SUT - 28M	28	21.8	41	46	36.6	36.6	43.2	64.0
SUT - 30M	30	26.2	42.9	50	39.6	39.2	48.3	69.9
SUT - 32M	32	28.6	42.9	50	42.0	41.6	49.3	72.3
SUT - 38M	38	33.7	55	60	49.4	47.9	56.4	84.0

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SRUT

Reducing Union Tee



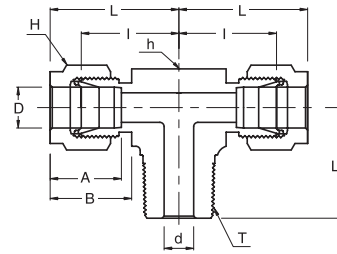
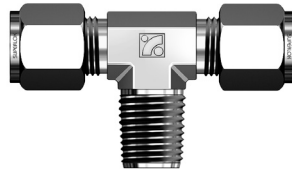
Connects Fractional Tubes

Part No.	Tube OD		d Min	Width Across Flat			A	A1	B	B1	I	I1	I2	L	L1	L2
	D (inch)	D1 (inch)		h (inch)	H (inch)	H1 (inch)										
SRUT - 6 - 4	3/8	1/4	4.82	5/8	11/16	9/16	16.76	15.24	19.30	17.78	46.22	23.11	21.59	60.96	30.48	28.95
SRUT - 8 - 4	1/2	1/4	4.82	13/16	7/8	9/16	22.86	15.24	21.84	17.78	51.81	25.90	24.38	72.13	36.06	31.75
SRUT - 8 - 6	1/2	3/8	7.11	13/16	7/8	11/16	22.86	16.76	21.84	19.30	51.81	25.90	25.90	72.13	36.06	33.27
SRUT - 10 - 6	5/8	3/8	7.11	1	1	11/16	24.38	16.76	21.84	19.30	57.40	28.70	28.70	77.72	38.86	36.06
SRUT - 12 - 6	3/4	3/8	7.11	1 1/16	1 1/8	11/16	24.38	16.76	21.84	19.30	59.43	29.71	29.71	79.75	39.87	37.08
SRUT - 12 - 8	3/4	1/2	10.41	1 1/16	1 1/8	7/8	24.38	22.86	21.84	21.84	59.43	29.71	29.71	79.75	39.87	39.87
SRUT - 16 - 6	1	3/8	7.11	1 3/8	1 1/2	1 1/16	31.24	16.76	26.41	19.30	73.66	36.83	34.54	98.04	49.02	41.91
SRUT - 16 - 8	1	1/2	10.41	1 3/8	1 1/2	7/8	31.24	21.84	26.41	22.86	73.66	36.83	34.54	98.04	49.02	44.70
SRUT - 16 - 12	1	3/4	15.74	1 3/8	1 1/2	1 1/8	31.24	24.38	26.41	21.84	73.66	36.83	34.54	98.04	49.02	44.70

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SMBT

Male Branch Tee



Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h (inch)	H (inch)					
SMBT - 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.30	24.91	18.90
SMBT - 2 - 4N	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.03	24.63	23.36
SMBT - 3 - 2N	3/16	1/8	3.04	1/2	1/2	13.71	16.00	17.78	25.40	18.79
SMBT - 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	18.79
SMBT - 4 - 4N	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.36
SMBT - 5 - 2N	5/16	1/8	4.82	5/8	5/8	16.25	18.54	22.35	29.71	20.82
SMBT - 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.11	30.48	25.40
SMBT - 6 - 6N	3/8	3/8	7.11	5/8	11/16	16.76	19.30	23.10	30.48	28.19
SMBT - 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.19
SMBT - 8 - 8N	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
SMBT - 10 - 8N	5/8	1/2	11.93	1	1	24.38	21.84	28.70	38.86	35.81
SMBT - 12 - 12N	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83

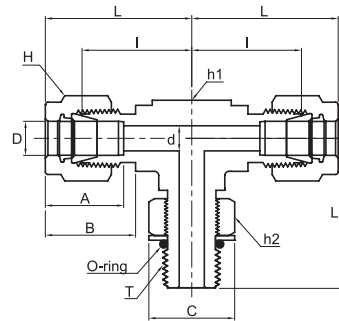
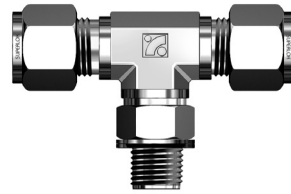
Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube OD D	T* R (PT)	d Min	Width Across Flat		A	B	I	L	L1
				h	H					
SMBT - 3M - 2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SMBT - 3M - 4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SMBT - 4M - 2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SMBT - 6M - 2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SMBT - 6M - 4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
SMBT - 8M - 2R	8	1/8	4.8	15.9	16	16.2	18.6	22.4	29.9	20.8
SMBT - 8M - 4R	8	1/4	6.4	15.9	16	16.2	18.6	22.4	29.9	25.4
SMBT - 10M - 4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
SMBT - 10M - 6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	28.2
SMBT - 12M - 4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SMBT - 12M - 6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SMBT - 12M - 8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SMBT - 16M - 6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
SMBT - 16M - 8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
SMBT - 20M - 12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7

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SPMBT

Positionable Male Branch Tee



Connects Fractional Tube To Female ISO Parallel Thread

Part No.	Tube OD D (inch)	T (PF)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H(inch)						
SPMBT - 4 - 2G	1/4	1/8	4.06	1/2	9/16	9/16	15.24	17.78	19.56	26.92	26.42	17.27
SPMBT - 4 - 4G	1/4	1/4	4.83	5/8	3/4	9/16	15.24	17.78	21.59	28.96	32.26	22.86
SPMBT - 6 - 4G	3/8	1/4	5.08	5/8	3/4	11/16	15.24	19.30	23.11	30.48	32.26	22.86
SPMBT - 8 - 6G	1/2	3/8	7.87	13/16	7/8	7/8	22.86	21.84	25.91	36.07	37.08	26.42
SPMBT - 8 - 8G	1/2	1/2	10.41	15/16	1-1/16	7/8	22.86	21.84	27.94	38.10	43.43	32.00
SPMBT - 10 - 8G	5/8	1/2	11.94	15/16	1-1/16	1	24.38	21.84	27.94	38.10	43.43	32.00
SPMBT - 12 - 8G	3/4	1/2	11.94	1-1/16	1-1/16	1-1/8	24.38	21.84	29.72	39.88	45.21	32.00
SPMBT - 12 - 12G	3/4	3/4	15.75	1-1/16	1-3/8	1-1/8	24.38	21.84	29.72	39.88	48.77	41.15
SPMBT - 16 - 16G	1	1	19.81	1-3/8	1-5/8	1-1/2	31.24	26.42	36.83	49.02	53.59	48.51

Connects Metric Tube To Female ISO Parallel Thread

Part No.	Tube OD D	T (PF)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H						
SPMBT - 6M - 2G	6	1/8	4.0	1/2	9/16	14	15.3	17.7	19.6	27.0	26.4	17.3
SPMBT - 6M - 4G	6	1/4	4.8	5/8	3/4	14	15.3	17.7	21.6	29.0	32.3	22.9
SPMBT - 8M - 2G	8	1/8	4.0	9/16	9/16	16	16.2	18.6	21.3	28.8	27.4	17.3
SPMBT - 8M - 4G	8	1/4	5.9	5/8	3/4	16	16.2	18.6	22.4	29.9	32.2	22.9
SPMBT - 10M - 4G	10	1/4	5.9	13/16	3/4	19	17.2	19.5	25.9	33.5	35.0	22.9
SPMBT - 12M - 6G	12	3/8	7.9	13/16	7/8	22	22.8	22.0	25.9	36.0	37.1	26.4
SPMBT - 12M - 8G	12	1/4	9.5	15/16	1-1/16	22	22.8	22.0	27.9	38.0	43.4	32.0

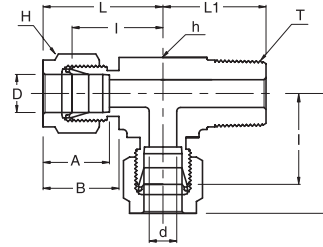
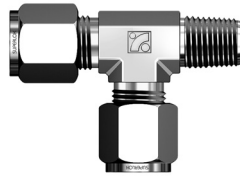
Connects Fractional Tube To SAE/MS Straight Thread

Part No.	Tube OD D (inch)	T (U)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H(inch)						
SPMBT - 4 - 4U	1/4	7/16-20	4.83	1/2	9/16	9/16	15.24	17.78	21.08	28.45	28.45	16.51
SPMBT - 6 - 6U	3/8	9/16-18	7.11	5/8	11/16	11/16	16.76	19.30	24.64	32.00	32.26	20.07
SPMBT - 8 - 8U	1/2	3/4-16	10.41	13/16	7/8	7/8	22.86	21.84	27.43	37.59	37.85	25.65
SPMBT - 12 - 12U	3/4	1-1/16-12	15.75	1-1/16	1-1/4	1-1/8	24.38	21.84	31.24	41.40	48.77	36.58
SPMBT - 16 - 16U	1	1-5/16-12	22.35	1-3/8	1-1/2	1-1/2	31.24	26.42	38.35	50.55	53.59	43.94
SPMBT - 20 - 20U	1-1/4	1-5/8-12	27.69	1-11/16	1-7/8	1-7/8	41.15	38.86	45.72	67.82	58.17	54.86
SPMBT - 24 - 24U	1-1/2	1-7/8-12	34.04	2	2-1/8	2-1/4	50.04	45.21	50.80	77.98	60.45	62.23
SPMBT - 32 - 32U	2	2-1/2-12	45.97	2-3/4	2-3/4	3	67.56	62.74	69.85	107.19	71.63	80.26

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SMRT

Male Run Tee



Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h (inch)	H (inch)					
SMRT - 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.30	24.91	18.90
SMRT - 2 - 4N	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.03	24.63	23.36
SMRT - 3 - 2N	3/16	1/8	3.04	1/2	1/2	13.71	16.00	17.78	25.40	18.79
SMRT - 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	18.79
SMRT - 4 - 4N	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.36
SMRT - 5 - 2N	5/16	1/8	4.82	5/8	5/8	16.25	18.54	22.35	29.71	20.82
SMRT - 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.11	30.48	25.40
SMRT - 6 - 6N	3/8	3/8	7.11	5/8	11/16	16.76	19.30	23.10	30.48	28.19
SMRT - 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.19
SMRT - 8 - 8N	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
SMRT - 10 - 8N	5/8	1/2	11.93	1	1	24.38	21.84	28.70	38.86	35.81
SMRT - 12 - 12N	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83

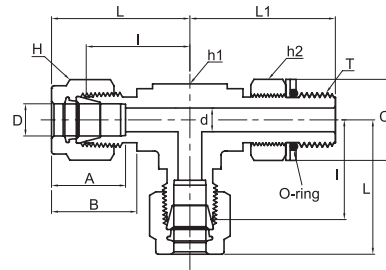
Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube OD D	T* R (PT)	d Min	Width Across Flat		A	B	I	L	L1
				h	H					
SMRT - 3M - 2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SMRT - 3M - 4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SMRT - 4M - 2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SMRT - 6M - 2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SMRT - 6M - 4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
SMRT - 8M - 2R	8	1/8	4.8	15.9	16	16.2	18.6	22.4	29.9	20.8
SMRT - 8M - 4R	8	1/4	6.4	15.9	16	16.2	18.6	22.4	29.9	25.4
SMRT - 10M - 4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
SMRT - 10M - 6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	28.2
SMRT - 12M - 4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SMRT - 12M - 6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SMRT - 12M - 8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SMRT - 16M - 6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
SMRT - 16M - 8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
SMRT - 20M - 12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7

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SPMRT

Positionable Male Run Tee



Connects Fractional Tube To Female ISO Parallel Thread

Part No.	Tube OD D (inch)	T (PF)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H(inch)						
SPMRT - 4 - 2G	1/4	1/8	4.06	1/2	9/16	9/16	15.24	17.78	19.56	26.92	26.42	17.27
SPMRT - 4 - 4G	1/4	1/4	4.83	5/8	3/4	9/16	15.24	17.78	21.59	28.96	32.26	22.86
SPMRT - 6 - 4G	3/8	1/4	5.84	5/8	3/4	11/16	16.76	19.30	23.11	30.48	32.26	22.86
SPMRT - 8 - 6G	1/2	3/8	7.87	13/16	7/8	7/8	22.86	21.84	25.91	36.07	37.08	26.42
SPMRT - 8 - 8G	1/2	1/2	10.41	15/16	1-1/16	7/8	22.86	21.84	27.94	38.10	43.43	32.00
SPMRT - 10 - 8G	5/8	1/2	11.94	15/16	1-1/16	1	24.38	21.84	27.94	38.10	43.43	32.00
SPMRT - 12 - 8G	3/4	1/2	11.94	1-1/16	1-1/16	1-1/8	24.38	21.84	29.72	39.88	45.21	32.00
SPMRT - 12 - 12G	3/4	3/4	15.75	1-1/16	1-3/8	1-1/8	24.38	21.84	29.72	39.88	48.77	41.15
SPMRT - 16 - 16G	1	1	19.81	1-3/8	1-5/8	1-1/2	31.24	26.42	36.83	49.02	53.59	48.51

Connects Metric Tube To Female ISO Parallel Thread

Part No.	Tube OD D	T (PF)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H						
SPMRT - 6M - 2G	6	1/8	4.0	1/2	9/16	14	15.3	17.7	19.6	27.0	26.4	17.3
SPMRT - 6M - 4G	6	1/4	4.8	5/8	3/4	14	15.3	17.7	21.6	29.0	32.2	22.9
SPMRT - 8M - 2G	8	1/8	4.0	9/16	9/16	16	16.2	18.6	21.3	28.8	27.4	17.3
SPMRT - 8M - 4G	8	1/4	6.4	5/8	3/4	16	16.2	18.6	22.4	29.9	32.2	22.9
SPMRT - 10M - 4G	10	1/4	5.9	13/16	3/4	19	17.2	19.5	25.9	33.5	35.0	22.9
SPMRT - 12M - 6G	12	3/8	7.9	13/16	7/8	22	22.8	22.0	25.9	36.0	37.1	26.4
SPMRT - 12M - 8G	12	1/2	9.5	15/16	1-1/16	22	22.8	22.0	27.9	38.0	43.4	22.9

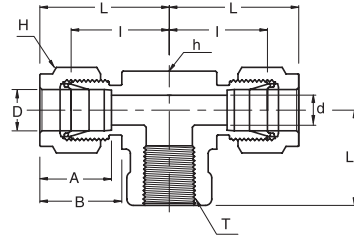
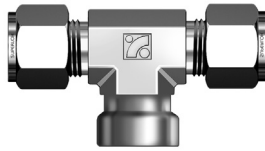
Connects Fractional Tube To SAE/MS Straight Thread

Part No.	Tube OD D (inch)	T (U)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1(inch)	h2(inch)	H(inch)						
SPMRT - 4 - 4U	1/4	7/16-20	4.83	1/2	9/16	9/16	15.24	17.78	21.08	28.45	28.45	16.51
SPMRT - 6 - 6U	3/8	9/16-18	7.11	5/8	11/16	11/16	16.76	19.30	24.64	32.00	32.26	20.07
SPMRT - 8 - 8U	1/2	3/4-16	10.41	13/16	7/8	7/8	22.86	21.84	27.43	37.59	37.85	25.65
SPMRT - 12 - 12U	3/4	1-1/16-12	15.75	1-1/16	1-1/4	1-1/8	24.38	21.84	31.24	41.40	48.77	36.58
SPMRT - 16 - 16U	1	1-5/16-12	22.35	1-3/8	1-1/2	1-1/2	31.24	26.42	38.35	50.55	53.59	43.94
SPMRT - 20 - 20U	1-1/4	1-5/8-12	27.69	1-11/16	1-7/8	1-7/8	41.15	38.86	45.72	67.82	58.17	54.86
SPMRT - 24 - 24U	1-1/2	1-7/8-12	34.04	2	2-1/8	2-1/4	50.04	45.21	50.80	77.98	60.45	62.23
SPMRT - 32 - 32U	2	2-1/2-12	45.97	2-3/4	2-3/4	3	67.56	62.74	69.85	107.19	71.63	80.26

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SFBT

Female Branch Tee



Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h (inch)	H (inch)					
SFBT - 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.03	24.63	19.05
SFBT - 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	19.05
SFBT - 4 - 4N	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	22.35
SFBT - 6 - 4N	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.87	31.24	22.35
SFBT - 6 - 6N	3/8	3/8	7.11	13/16	11/16	16.76	19.30	25.90	33.27	22.35
SFBT - 6 - 8N	3/8	1/2	7.11	1	11/16	16.76	19.30	28.70	36.07	28.45
SFBT - 8 - 4N	1/2	1/4	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFBT - 8 - 6N	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFBT - 8 - 8N	1/2	1/2	10.41	1	7/8	22.86	21.84	28.70	38.86	28.44
SFBT - 10 - 8N	5/8	1/2	12.70	1	1	24.38	21.84	28.70	38.86	28.44
SFBT - 12 - 12N	3/4	3/4	15.74	1-3/8	1-1/8	24.38	21.84	34.54	44.70	31.75
SFBT - 16 - 12N	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02	31.75
SFBT - 16 - 16N	1	1	22.35	1-11/16	1-1/2	31.24	26.41	41.40	53.59	38.10

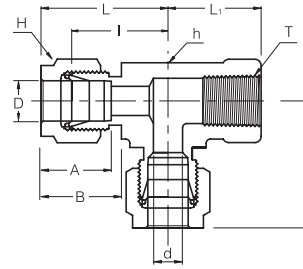
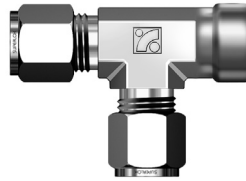
Connects Metric Tube To Female NPT Thread

Part No.	Tube OD D	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h	H					
SFBT - 6M - 2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.0
SFBT - 6M - 4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.4
SFBT - 6M - 6N	6	3/8	4.8	20.63	14	15.3	17.7	24.4	31.7	22.4
SFBT - 6M - 8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.4
SFBT - 8M - 2N	8	1/8	6.4	15.87	16	16.2	18.6	22.4	29.9	19.0
SFBT - 8M - 4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.4
SFBT - 8M - 6N	8	3/8	6.4	20.63	16	16.2	18.6	25.2	32.4	22.4
SFBT - 8M - 8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.4
SFBT - 10M - 4N	10	1/4	7.9	20.63	19	17.2	19.5	25.9	33.5	22.4
SFBT - 10M - 6N	10	3/8	7.9	20.63	19	17.2	19.5	25.9	33.3	22.4
SFBT - 10M - 8N	10	1/2	9.5	25.40	19	17.2	19.5	26.2	33.6	22.4
SFBT - 12M - 4N	12	1/4	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
SFBT - 12M - 6N	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
SFBT - 12M - 8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.4
SFBT - 16M - 8N	16	1/2	12.7	25.40	25	24.4	22.0	28.7	38.8	28.4

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SFRT

Female Run Tee



Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h (inch)	H (inch)					
SFRT - 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.03	24.63	19.05
SFRT - 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	19.05
SFRT - 4 - 4N	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	22.35
SFRT - 6 - 4N	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.87	31.24	22.35
SFRT - 8 - 6N	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFRT - 8 - 8N	1/2	1/2	10.41	1	7/8	22.86	21.84	28.70	39.87	28.44
SFRT - 12 - 12N	3/4	3/4	15.74	1-3/8	1-1/8	24.38	21.84	34.54	44.70	31.75
SFRT - 16 - 12N	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02	31.75
SFRT - 16 - 16N	1	1	22.35	1-11/16	1-1/2	31.24	26.41	41.40	53.59	38.10

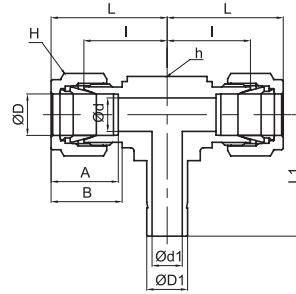
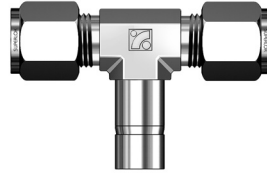
Connects Metric Tube To Female NPT Thread

Part No.	Tube OD D	T* (NPT)	d Min	Width Across Flat		A	B	I	L	L1
				h	H					
SFRT - 6M - 2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.0
SFRT - 6M - 4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.4
SFRT - 6M - 8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.4
SFRT - 8M - 2N	8	1/8	6.4	15.87	16	16.2	18.6	22.4	29.9	19.0
SFRT - 8M - 4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.4
SFRT - 8M - 6N	8	3/8	6.4	20.63	16	16.2	18.6	25.2	32.4	22.4
SFRT - 8M - 8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.4
SFRT - 12M - 4N	12	1/4	9.5	20.63	22	22.8	22.0	25.9	33.5	22.4
SFRT - 12M - 6N	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
SFRT - 12M - 8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.4
SFRT - 16M - 8N	16	1/2	12.7	25.40	25	24.4	22.0	29.7	39.8	28.4

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SABT

Adjustable Branch Tee

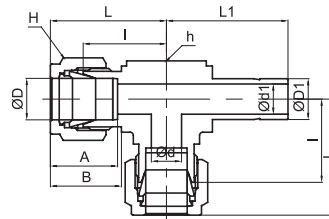


Connects Fractional Tubes To Fractional SUPERLOK® Port

Part No.	Tube OD		d Min	d1 Min	Width Across Flat		A	B	I	L	L1
	D	D1			h (inch)	H (inch)					
SABT - 4	1/4	1/4	4.83	4.4	1/2	9/16	15.24	17.78	20.1	27.34	26.2
SABT - 6	3/8	3/8	7.11	6.9	5/8	11/16	16.76	19.30	23.9	31.24	29.5
SABT - 8	1/2	1/2	10.41	9.4	13/16	13/16	22.86	21.84	25.9	36.06	37.8
SABT - 12	3/4	3/4	15.74	14.8	1-1/16	1-1/16	24.38	21.84	29.7	39.87	43.0
SABT - 16	1	1	22.35	20.4	1-3/8	1-3/8	31.24	26.41	36.8	49.02	53.0

SART

Adjustable Run Tee



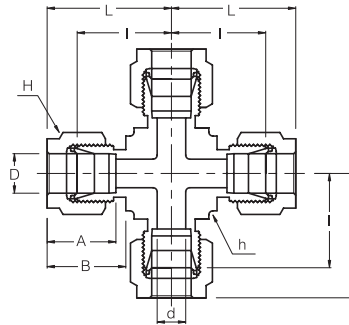
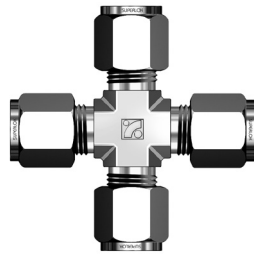
Connects Fractional Tubes To Fractional SUPERLOK® Port

Part No.	Tube OD		d Min	d1 Min	Width Across Flat		A	B	I	L	L1
	D	D1			h (inch)	H (inch)					
SART - 4	1/4	1/4	4.83	4.4	1/2	9/16	15.24	17.78	20.1	27.34	26.2
SART - 6	3/8	3/8	7.11	6.9	5/8	11/16	16.76	19.30	23.9	31.24	29.5
SART - 8	1/2	1/2	10.41	9.4	13/16	13/16	22.86	21.84	25.9	36.06	37.8
SART - 12	3/4	3/4	15.74	14.8	1-1/16	1-1/16	24.38	21.84	29.7	39.87	43.0
SART - 16	1	1	22.35	20.4	1-3/8	1-3/8	31.24	26.41	36.8	49.02	53.0

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SUC

Union Cross



Connects Fractional Tubes

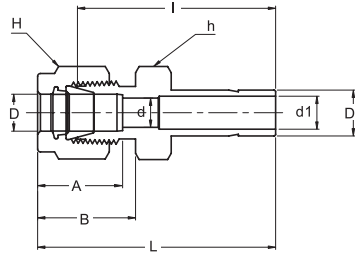
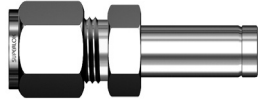
Part No.	Tube OD D (inch)	d Min	Width Across Flat		A	B	I	L
			h (inch)	H (inch)				
SUC - 1	1/16	1.27	3/8	5/16	8.63	10.92	14.00	18.03
SUC - 2	1/8	2.28	3/8	7/16	12.70	15.24	15.74	22.35
SUC - 3	3/16	3.04	1/2	1/2	13.71	16.00	18.54	25.14
SUC - 4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92
SUC - 5	5/16	6.35	5/8	5/8	16.25	18.54	22.35	29.71
SUC - 6	3/8	7.11	5/8	11/16	16.76	19.30	23.11	30.48
SUC - 8	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
SUC - 10	5/8	12.70	15/16	1	24.38	21.84	28.70	38.80
SUC - 12	3/4	15.74	1	1-1/8	24.38	21.84	29.71	39.87
SUC - 14	7/8	18.28	1-3/8	1-1/4	25.90	21.84	34.54	44.70
SUC - 16	1	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02

Connects Metric Tubes

Part No.	Tube OD D	d Min	Width Across Flat		A	B	I	L
			h	H				
SUC - 3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SUC - 6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SUC - 8M	8	6.4	15.9	16	16.2	18.6	22.4	29.9
SUC - 10M	10	7.9	20.6	19	17.2	19.5	25.9	33.5
SUC - 12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SUC - 16M	16	12.7	23.8	25	24.4	22.0	26.9	37.0
SUC - 18M	18	15.1	25.4	30	24.4	22.0	28.2	38.3
SUC - 20M	20	15.9	34.9	32	26.0	22.0	34.5	44.6
SUC - 25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1

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SR
Reducer

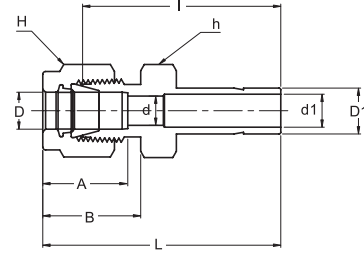
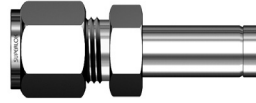


Connects Fractional Tube To Fractional SUPERLOK® Port

Part No.	Tube OD		d Min	d1 Min	Width Across Flat		A	B	I	L
	D (inch)	D1 (inch)			h (inch)	H (inch)				
SR - 2 - 1	1/8	1/16	2.28	0.8	7/16	7/16	12.70	15.24	22.35	28.95
SR - 2 - 2	1/8	1/8	2.28	2.1	7/16	7/16	12.70	15.24	26.92	33.52
SR - 2 - 3	1/8	3/16	2.28	3.0	7/16	7/16	12.70	15.24	27.68	34.29
SR - 2 - 4	1/8	1/4	2.28	4.4	7/16	7/16	12.70	15.24	29.46	36.06
SR - 2 - 6	1/8	3/8	2.28	6.9	7/16	7/16	12.70	15.24	30.98	37.59
SR - 2 - 8	1/8	1/2	2.28	9.4	9/16	7/16	12.70	15.24	37.59	44.19
SR - 3 - 2	3/16	1/8	3.04	2.03	7/16	1/2	13.71	16.00	28.19	34.79
SR - 3 - 4	3/16	1/4	3.04	4.4	7/16	1/2	13.71	16.00	30.48	37.08
SR - 4 - 2	1/4	1/8	4.83	2.1	1/2	9/16	15.24	17.78	29.46	36.83
SR - 4 - 3	1/4	3/16	4.83	3.0	1/2	9/16	15.24	17.78	30.22	37.59
SR - 4 - 4	1/4	1/4	4.83	4.4	1/2	9/16	15.24	17.78	31.75	39.11
SR - 4 - 5	1/4	5/16	4.83	5.6	1/2	9/16	15.24	17.78	32.51	39.87
SR - 4 - 6	1/4	3/8	4.83	6.9	1/2	9/16	15.24	17.78	33.27	40.64
SR - 4 - 8	1/4	1/2	4.83	9.4	9/16	9/16	15.24	17.78	38.86	46.22
SR - 4 - 10	1/4	5/8	4.83	12.0	11/16	9/16	15.24	17.78	40.64	48.00
SR - 4 - 12	1/4	3/4	4.83	14.8	13/16	9/16	15.24	17.78	41.40	47.75
SR - 5 - 6	5/16	3/8	6.35	6.9	9/16	5/8	16.25	18.54	34.54	41.91
SR - 5 - 8	5/16	1/2	6.35	9.4	9/16	5/8	16.25	18.54	40.13	47.49
SR - 6 - 4	3/8	1/4	7.11	4.4	5/8	11/16	16.76	19.30	34.03	41.40
SR - 6 - 6	3/8	3/8	7.11	6.9	5/8	11/16	16.76	19.30	35.81	43.18
SR - 6 - 8	3/8	1/2	7.11	9.4	5/8	11/16	16.76	19.30	41.14	48.51
SR - 6 - 10	3/8	5/8	7.11	12.0	11/16	11/16	16.76	19.30	42.92	50.29
SR - 6 - 12	3/8	3/4	7.11	14.8	13/16	11/16	16.76	19.30	42.92	50.29
SR - 8 - 4	1/2	1/4	10.41	4.4	13/16	7/8	22.86	21.84	34.79	44.95
SR - 8 - 6	1/2	3/8	10.41	6.9	13/16	7/8	22.86	21.84	36.57	46.73
SR - 8 - 8	1/2	1/2	10.41	9.4	13/16	7/8	22.86	21.84	42.16	52.32
SR - 8 - 10	1/2	5/8	10.41	12.0	13/16	7/8	22.86	21.84	43.68	53.84
SR - 8 - 12	1/2	3/4	10.41	14.8	13/16	7/8	22.86	21.84	43.68	53.84
SR - 8 - 16	1/2	1	10.41	20.4	1-1/16	7/8	22.86	21.84	50.03	60.19
SR - 10 - 12	5/8	3/4	12.70	14.8	15/16	1	24.38	21.84	44.45	54.61
SR - 10 - 14	5/8	7/8	12.70	17.0	15/16	1	24.38	21.84	45.97	56.13
SR - 10 - 16	5/8	1	12.70	20.4	1-1/16	1	24.38	21.84	50.80	60.96
SR - 12 - 8	3/4	1/2	15.74	9.4	1-1/16	1-1/8	24.38	21.84	44.45	54.61
SR - 12 - 16	3/4	1	15.74	20.4	1-1/16	1-1/8	24.38	21.84	52.32	62.48

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SR
Reducer

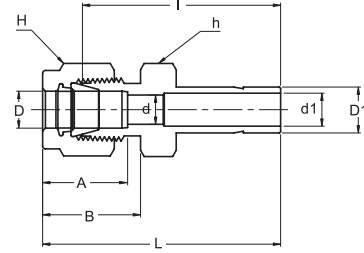
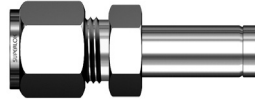


Connects Metric Tube To Metric SUPERLOK® Port

Part No.	Tube OD		d Min	d1 Min	Width Across Flat		A	B	I	L
	D	D1			h	H				
SR- 3M- 4M	3	4	2.4	2.2	12	12	12.9	15.3	28.4	35.0
SR- 3M- 6M	3	6	2.4	4.1	12	12	12.9	15.3	29.5	36.1
SR- 3M- 10M	3	10	2.4	7.1	14	12	12.9	15.3	31.8	38.4
SR- 4M- 6M	4	6	2.4	4.1	12	12	13.7	16.1	30.5	37.1
SR- 6M- 3M	6	3	4.8	1.8	14	14	15.3	17.7	29.5	36.9
SR- 6M- 8M	6	8	4.8	5.6	14	14	15.3	17.7	32.5	39.9
SR- 6M- 10M	6	10	4.8	7.1	14	14	15.3	17.7	33.3	40.7
SR- 6M- 12M	6	12	4.8	8.8	14	14	15.3	17.7	38.9	46.3
SR- 8M- 6M	8	6	6.4	4.1	15	16	16.2	18.6	32.8	40.3
SR- 8M- 10M	8	10	6.4	7.1	15	16	16.2	18.6	34.5	42.0
SR- 8M- 12M	8	12	6.4	8.8	15	16	16.2	18.6	40.1	47.6
SR- 10M- 6M	10	6	7.9	4.1	18	19	17.2	19.5	34.8	42.4
SR- 10M- 8M	10	8	7.9	5.6	18	19	17.2	19.5	35.8	43.4
SR- 10M- 12M	10	12	7.9	8.8	18	19	17.2	19.5	42.2	49.8
SR- 10M- 15M	10	15	7.9	11.2	18	19	17.2	19.5	43.7	51.3
SR- 10M- 18M	10	18	7.9	13.9	22	19	17.2	19.5	43.7	51.3
SR- 12M- 6M	12	6	9.5	4.1	22	22	22.8	22.0	34.8	44.9
SR- 12M- 8M	12	8	9.5	5.6	22	22	22.8	22.0	35.8	45.9
SR- 12M- 10M	12	10	9.5	7.1	22	22	22.8	22.0	36.6	46.7
SR- 12M- 16M	12	16	9.5	12.0	22	22	22.8	22.0	43.7	53.8
SR- 12M- 18M	12	18	9.5	13.9	22	22	22.8	22.0	43.7	53.8
SR- 12M- 20M	12	20	9.5	15.5	22	22	22.8	22.0	46.0	56.1
SR- 12M- 22M	12	22	9.5	17.9	24	22	22.8	22.0	46.0	56.1
SR- 12M- 25M	12	25	9.5	19.9	27	22	22.8	22.0	52.3	62.4
SR- 16M- 12M	16	12	12.7	8.8	27	25	24.4	22.0	42.9	53.0
SR- 18M- 12M	18	12	15.1	8.8	27	30	24.4	22.0	44.5	54.6
SR- 18M- 16M	18	16	15.1	12.0	27	30	24.4	22.0	46.0	56.1
SR- 18M- 20M	18	20	15.1	15.5	27	30	24.4	22.0	47.5	57.6
SR- 18M- 22M	18	22	15.1	17.9	30	30	24.4	22.0	47.5	57.6
SR- 18M- 25M	18	25	15.1	19.9	30	30	24.4	22.0	52.3	62.4
SR- 20M- 16M	20	16	15.9	12.0	30	32	26.0	22.0	47.8	57.9
SR- 20M- 18M	20	18	15.9	13.9	30	32	26.0	22.0	47.8	57.9
SR- 20M- 22M	20	22	15.9	17.9	30	32	26.0	22.0	49.3	59.4
SR- 20M- 25M	20	25	15.9	19.9	30	32	26.0	22.0	54.1	64.2
SR- 22M- 18M	22	18	18.3	13.9	30	32	26.0	22.0	47.8	57.9
SR- 22M- 20M	22	20	18.3	15.5	30	32	26.0	22.0	49.3	59.4
SR- 22M- 25M	22	25	18.3	19.9	30	32	26.0	22.0	54.1	64.2
SR- 25M- 18M	25	18	21.8	13.9	35	38	31.3	26.5	50.8	63.1
SR- 25M- 20M	25	20	21.8	15.5	35	38	31.3	26.5	52.3	64.6

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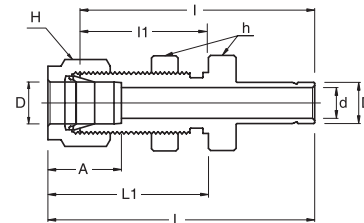
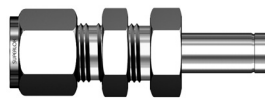
SR
Reducer



Connects Metric Tube To Fractional SUPERLOK® Port

Part No.	Tube OD		d Min	d1 Min	Width Across Flat		A	B	I	L
	D	D1 (inch)			h	H				
SR - 3M - 2	3	1/8	2.4	2.1	12	12	12.9	15.3	26.9	33.5
SR - 3M - 4	3	1/4	2.4	4.4	12	12	12.9	15.3	29.5	36.1
SR - 6M - 4	6	1/4	4.8	4.4	14	14	15.3	17.7	31.8	39.2
SR - 6M - 5	6	5/16	4.8	5.6	14	14	15.3	17.7	32.5	39.9
SR - 6M - 6	6	3/8	4.8	6.9	14	14	15.3	17.7	33.3	40.7
SR - 6M - 8	6	1/2	4.8	9.4	14	14	15.3	17.7	38.9	46.3
SR - 8M - 6	8	3/8	6.4	6.9	15	16	16.2	18.6	34.5	42.0
SR - 8M - 8	8	1/2	6.4	9.4	15	16	16.2	18.6	40.1	47.6
SR - 10M - 6	10	3/8	7.9	6.9	18	19	17.2	19.5	36.6	44.2
SR - 10M - 8	10	1/2	7.9	9.4	18	19	17.2	19.5	42.2	49.8
SR - 12M - 8	12	1/2	9.5	9.4	22	22	22.8	22.0	42.2	52.3
SR - 12M - 12	12	3/4	9.5	14.8	22	22	22.8	22.0	43.7	53.8
SR - 18M - 12	18	3/4	15.1	14.8	27	30	24.4	22.0	46.0	56.1
SR - 18M - 16	18	1	15.1	20.4	27	30	24.4	22.0	52.3	62.4

SRB
Bulkhead Reducer



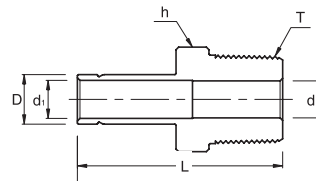
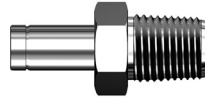
Connects Fractional Tube To Fractional SUPERLOK® Port

Part No.	Tube O.D. D (inch)	d Min	Width Across Flat		A	I	I1	L	L1	Panel Hole Drill Size	Panel Max. Thickness
			h (inch)	H (inch)							
SRB - 2 - 2	1/8	2.1	1/2	7/16	12.70	42.92	24.63	49.53	31.24	8.33	12.70
SRB - 4 - 4	1/4	4.4	5/8	9/16	15.24	48.51	26.16	55.88	33.52	11.50	10.16
SRB - 6 - 6	3/8	6.9	3/4	11/16	16.76	53.84	29.46	61.21	36.83	14.68	11.17
SRB - 8 - 8	1/2	9.4	15/16	7/8	22.86	62.73	31.75	72.89	41.91	19.44	12.70
SRB - 10 - 10	5/8	12.0	1-1/16	1	24.38	65.02	32.51	75.18	42.67	22.62	12.70
SRB - 16 - 16	1	20.4	1-5/8	1-1/2	31.24	88.13	45.21	100.33	57.40	33.73	19.05

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SMA

Male Adapter



Connects Fractional SUPERLOK® Port To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d (Min)	d1	Width Across Flat h (inch)	L
SMA - 2 - 2N	1/8	1/8	4.82	2.10	7/16	29.50
SMA - 2 - 4N	1/8	1/4	7.11	2.10	9/16	34.80
SMA - 3 - 2N	3/16	1/8	4.82	3.04	7/16	30.22
SMA - 3 - 4N	3/16	1/4	7.11	3.04	9/16	35.56
SMA - 4 - 2N	1/4	1/8	4.40	4.40	7/16	31.80
SMA - 4 - 4N	1/4	1/4	4.40	4.40	9/16	37.08
SMA - 4 - 6N	1/4	3/8	4.40	4.40	11/16	37.84
SMA - 4 - 8N	1/4	1/2	4.40	4.40	7/8	43.43
SMA - 5 - 2N	5/16	1/8	4.82	5.60	7/16	32.76
SMA - 5 - 4N	5/16	1/4	6.35	5.60	9/16	38.10
SMA - 6 - 2N	3/8	1/8	4.82	6.90	7/16	33.50
SMA - 6 - 4N	3/8	1/4	6.90	6.90	9/16	38.90
SMA - 6 - 6N	3/8	3/8	6.90	6.90	11/16	39.60
SMA - 6 - 8N	3/8	1/2	6.90	6.90	7/8	45.20
SMA - 8 - 4N	1/2	1/4	7.11	9.40	9/16	44.50
SMA - 8 - 6N	1/2	3/8	9.40	9.40	11/16	45.20
SMA - 8 - 8N	1/2	1/2	9.40	9.40	7/8	50.80
SMA - 10 - 6N	5/8	3/8	9.90	12.00	11/16	47.40
SMA - 10 - 8N	5/8	1/2	12.00	12.00	7/8	52.30
SMA - 10 - 12N	5/8	3/4	14.98	12.00	1-1/16	52.30
SMA - 12 - 8N	3/4	1/2	11.94	14.80	7/8	52.30
SMA - 12 - 12N	3/4	3/4	14.80	14.80	1-1/16	52.30
SMA - 12 - 16N	3/4	1	20.32	14.80	1-3/8	57.91
SMA - 14 - 12N	7/8	3/4	14.98	17.27	1-1/16	54.30
SMA - 16 - 12N	1	3/4	15.74	20.40	1-1/16	58.70
SMA - 16 - 16N	1	1	20.40	20.40	1-3/8	66.00

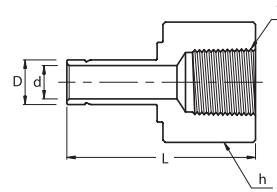
Connects Metric SUPERLOK® Port To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d (Min)	d1	Width Across Flat h (inch)	L
SMA - 6M - 2N	6	1/8	4.1	4.1	12	32.8
SMA - 6M - 4N	6	1/4	4.1	4.1	14	38.1
SMA - 8M - 4N	8	1/4	5.6	5.6	14	39.1
SMA - 10M - 4N	10	1/4	7.1	7.1	14	39.9
SMA - 10M - 6N	10	3/8	7.1	7.1	18	40.6
SMA - 10M - 8N	10	1/2	7.1	7.1	22	46.2
SMA - 12M - 4N	12	1/4	7.1	8.8	16	46.5
SMA - 12M - 8N	12	1/2	11.9	8.8	22	52.0
SMA - 18M - 12N	18	3/4	15.9	13.9	27	54.8

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SFA

Female Adapter

**Connects Fractional SUPERLOK® Port To Male NPT Thread**

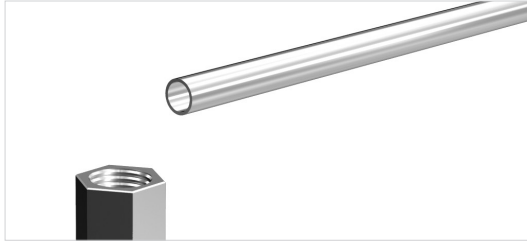
Part No.	Tube OD D (inch)	T* (NPT)	d (Min)	Width Across Flat h (inch)	L
SFA - 2 - 2N	1/8	1/8	2.10	9/16	31.50
SFA - 2 - 4N	1/8	1/4	2.10	3/4	35.30
SFA - 3 - 2N	3/16	1/8	3.04	9/16	32.00
SFA - 3 - 4N	3/16	1/4	3.04	3/4	35.81
SFA - 4 - 2N	1/4	1/8	4.40	9/16	33.02
SFA - 4 - 4N	1/4	1/4	4.40	3/4	37.10
SFA - 4 - 6N	1/4	3/8	4.40	7/8	39.37
SFA - 4 - 8N	1/4	1/2	4.40	1-1/16	45.50
SFA - 5 - 2N	5/16	1/8	5.60	9/16	34.29
SFA - 5 - 4N	5/16	1/4	5.60	3/4	37.59
SFA - 6 - 2N	3/8	1/8	6.90	9/16	34.29
SFA - 6 - 4N	3/8	1/4	6.90	3/4	38.10
SFA - 6 - 6N	3/8	3/8	6.90	7/8	40.38
SFA - 6 - 8N	3/8	1/2	6.90	1-1/16	46.73
SFA - 8 - 4N	1/2	1/4	9.40	3/4	43.43
SFA - 8 - 6N	1/2	3/8	9.40	7/8	45.46
SFA - 8 - 8N	1/2	1/2	9.40	1-1/16	51.80
SFA - 10 - 6N	5/8	3/8	12.00	7/8	48.26
SFA - 10 - 8N	5/8	1/2	12.00	1-1/16	53.08
SFA - 12 - 8N	3/4	1/2	14.80	1-1/16	52.83
SFA - 12 - 12N	3/4	3/4	14.80	1-5/16	54.86
SFA - 12 - 16N	3/4	1	14.80	1-5/8	58.42
SFA - 14 - 12N	7/8	3/4	17.27	1-5/16	57.15
SFA - 16 - 12N	1	3/4	20.40	1-5/16	60.70
SFA - 16 - 16N	1	1	20.40	1-5/8	64.26

Connects Metric SUPERLOK® Port To Male NPT Thread

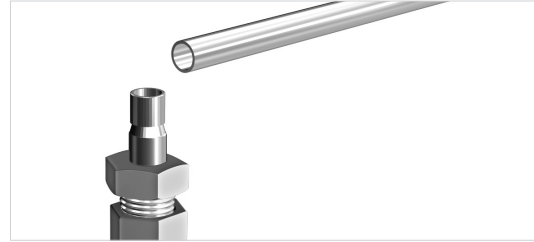
Part No.	Tube OD D (inch)	T* (NPT)	d (Min)	Width Across Flat h (inch)	L
SFA - 3M - 2N	3	1/8	1.8	14	31.2
SFA - 6M - 2N	6	1/8	4.1	14	32.5
SFA - 6M - 4N	6	1/4	4.1	19	37.1
SFA - 8M - 4N	8	1/4	5.6	19	37.6
SFA - 10M - 4N	10	1/4	7.1	19	38.1
SFA - 10M - 6N	10	3/8	7.1	22	40.1
SFA - 10M - 8N	10	1/2	7.1	27	46.5
SFA - 12M - 4N	12	1/4	8.8	19	43.7
SFA - 12M - 6N	12	3/8	8.8	22	46.0
SFA - 12M - 8N	12	1/2	8.8	27	52.3
SFA - 18M - 12N	18	3/4	13.9	32	54.8

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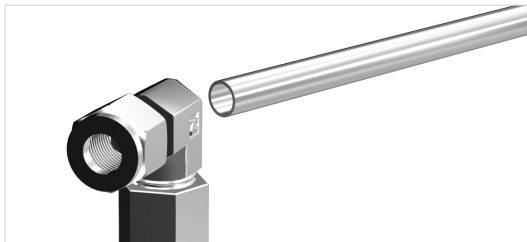
To Solve Adapter Alignment Problems



1. Required installation is to connect tubing in direction shown, to a female port.



3. To connect this situation, merely tighten pipe thread of male adapter into female port.

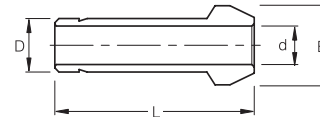


2. With pipe connection tight, the male elbow is pointing in the wrong direction for desired tubing run.



4. Connect union elbow to adapter by tightening SUPERLOK connection with wrench while holding elbow pointing in desired direction. Then insert tubing into the other end of the Union Elbow and connect tubing.

SPC Port Connector



Connects Fractional SUPERLOK® Ports

Part No.	Tube OD D (inch)	d (Min)	E	L
SPC - 2	1/8	2.1	6.09	22.35
SPC - 4	1/4	4.4	9.39	25.30
SPC - 5	5/16	5.6	10.92	25.90
SPC - 6	3/8	6.9	12.70	26.70
SPC - 8	1/2	9.4	15.74	35.81
SPC - 12	3/4	14.8	22.09	38.10
SPC - 16	1	20.4	28.44	48.00

Connects Metric SUPERLOK® Ports

Part No.	Tube OD D (inch)	d (Min)	E	L
SPC - 3M	3	1.9	6.0	22.2
SPC - 6M	6	4.1	9.0	24.6
SPC - 8M	8	5.6	11.0	28.5
SPC - 10M	10	7.1	13.1	26.1
SPC - 12M	12	8.8	15.0	35.8
SPC - 16M	16	12.0	19.0	37.4

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SRPC

Reducing Port Connector

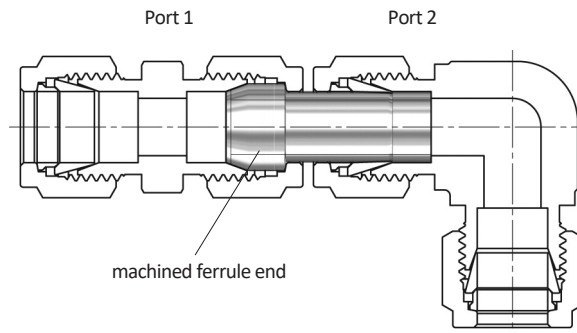


Connects Fractional SUPERLOK® Port To Male AN

Part No.	Tube O.D. D1 (inch)	Reduced Tube O.D. D (inch)	d	E	I	I1	L
SRPC - 2 - 1	1/8	1/16	0.76	6.09	8.63	2.03	17.27
SRPC - 4 - 1	1/4	1/16	0.76	9.39	8.63	3.55	18.03
SRPC - 4 - 2	1/4	1/8	2.10	9.39	13.46	3.30	22.60
SRPC - 6 - 2	3/8	1/8	2.10	12.70	13.46	3.81	23.11
SRPC - 6 - 4	3/8	1/4	4.40	12.70	15.74	3.30	24.89
SRPC - 8 - 4	1/2	1/4	4.40	15.74	15.74	3.81	29.21
SRPC - 8 - 6	1/2	3/8	6.90	15.74	17.52	3.30	30.48
SRPC - 12 - 8	3/4	1/2	9.40	22.09	24.38	3.81	37.84
SRPC - 16 - 8	1	1/2	9.40	28.44	24.38	4.82	42.67
SRPC - 16 - 12	1	3/4	14.80	28.44	25.90	4.06	43.43

Installation Instructions

Port Connector

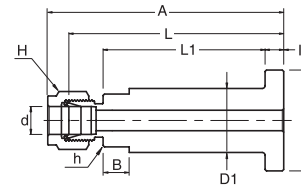
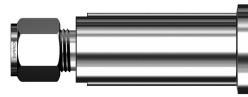


- Remove nut and ferrules from the first of two SUPERLOK ports to be connected.
- Slip nut (no ferrules) over machined ferrule end of port connector.
- Insert port connector into SUPERLOK port 1 and snug by hand.
Tighten with wrench 1/4 turn only. For 1/8 and 3/16 in., 2, 3, and 4mm tube fittings, tighten only 1/8 turn. Subsequent connections are made by tightening slightly with a wrench after snugging the nut by hand.
- Insert other end of port connector into SUPERLOK port 2 and tighten nut 1-1/4 turns from finger-tight.
For 1/16, 1/8 and 3/16 in., 2, 3, and 4mm tube fittings, only 3/4 turn from finger-tight is necessary.

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SFTC

Lap Joint Flange Tube Connector



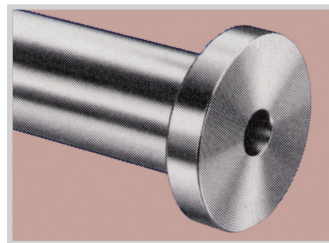
Connects Fractional Tubes

Part No.	Tube Size (inch)	Flange Seat	Dimensions									
			A	B	L1	L	I	h (inch)	H (inch)	D	D1	d (Min)
SFTC - 4 - SM	1/4	SM	80.8	8.9	56.5	74.9	6.5	11/16	9/16	34.5	21.1	4.8
SFTC - 4 - SR	1/4	SR	80.8	8.9	56.5	74.9	6.5	11/16	9/16	34.5	21.1	4.8
SFTC - 6 - SM	3/8	SM	82.3	8.9	56.5	74.9	6.5	11/16	11/16	34.5	21.1	7.1
SFTC - 6 - SR	3/8	SR	82.3	8.9	56.5	74.9	6.5	11/16	11/16	34.5	21.1	7.1
SFTC - 8 - SM	1/2	SM	85.1	8.9	56.5	74.9	6.5	3/4	7/8	34.5	21.1	10.4
SFTC - 8 - SR	1/2	SR	85.1	8.9	56.5	74.9	6.5	3/4	7/8	34.5	21.1	10.4

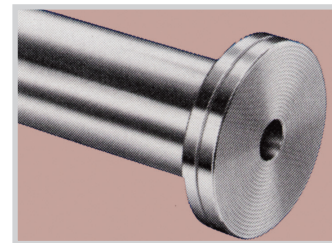
Lap joint flange tube connector provides easy joint between process lines and instruments designed for use with 1/2in Lap joint flanges to ANSI B 16.5 or BS 1560

Flange Seal Finish

Two surface finishes, smooth or serrated, are available on the sealing surface of the stub end.



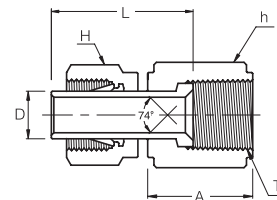
Smooth
Identifier : SM
Ra 3.2 ~ 6.3 micrometer



Serrated
Identifier : SR
Ra 6.3 ~ 12.5 micrometer

SAF

An Flare



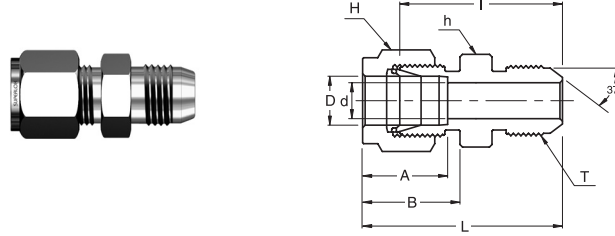
Connects Fractional SUPERLOK® Port To Male AN

Part No.	Tube O.D. D (inch)	AN Tube Flare Size (inch)	Straight Thread T (U)	Width Across Flat		A	L
				h (inch)	H (inch)		
SAF - 2 - 2U	1/8	1/8	5/16-24	3/8	7/16	13.71	18.54
SAF - 2 - 4U	1/8	1/4	7/16-20	9/16	7/16	15.74	19.05
SAF - 4 - 4U	1/4	1/4	7/16-20	9/16	9/16	15.74	23.20
SAF - 6 - 6U	3/8	3/8	9/16-18	11/16	11/16	18.28	27.30
SAF - 8 - 8U	1/2	1/2	3/4-16	7/8	7/8	21.59	34.50

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SAU

An Union

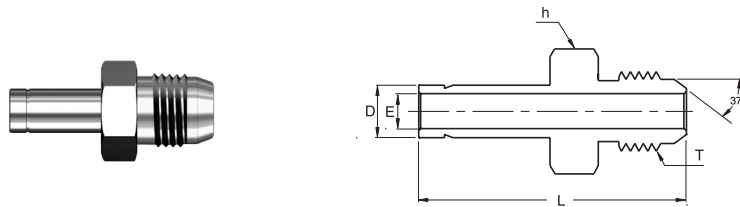


Connects Fractional Tube To An Flared Tubes

Part No.	Tube OD D (inch)	AN Tube Flare Size (inch)	Straight Thread T (U)	d Min	Width Across Flat		A	B	I	L
					h (inch)	H (inch)				
SAU - 2 - 2U	1/8	1/8	5/16-24	1.52	7/16	7/16	12.70	15.24	25.65	32.25
SAU - 2 - 4U	1/8	1/4	7/16-20	2.28	1/2	7/16	12.70	15.24	28.44	35.05
SAU - 4 - 4U	1/4	1/4	7/16-20	4.31	1/2	9/16	15.24	17.78	30.22	37.59
SAU - 5 - 5U	5/16	5/16	1/2-20	5.84	9/16	5/8	16.25	18.54	30.98	38.35
SAU - 6 - 4U	3/8	1/4	7/16-20	4.31	5/8	11/16	16.76	19.30	32.25	39.62
SAU - 6 - 6U	3/8	3/8	9/16-18	7.11	5/8	11/16	16.76	19.30	32.25	39.62
SAU - 8 - 8U	1/2	1/2	3/4-16	9.90	13/16	7/8	22.86	21.84	35.81	45.97
SAU - 12 - 12U	3/4	3/4	1-1/16-12	15.49	1-1/8	1-1/8	24.38	21.84	43.18	53.34
SAU - 16 - 16U	1	1	1-5/16-12	21.33	1-3/8	1-1/2	31.24	26.41	49.27	61.46

SAA

An Adapter



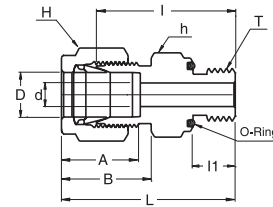
Connects Fractional SUPERLOK® Port To AN Flared Tubes

Part No.	Tube OD D (inch)	AN Tube Flare Size (inch)	Straight Thread T (U)	Width Across Flat h (inch)	E	L
SAA - 4 - 4U	1/4	1/4	7/16-20	1/2	4.40	37.08
SAA - 6 - 4U	3/8	1/4	7/16-20	1/2	6.90	38.86
SAA - 6 - 6U	3/8	3/8	9/16-18	5/8	6.90	39.62
SAA - 8 - 8U	1/2	1/2	3/4-16	13/16	9.40	48.51
SAA - 12 - 12U	3/4	3/4	1-1/16-12	1-1/8	14.80	56.13
SAA - 16 - 16U	1	1	1-5/16-12	1-3/8	20.40	65.53

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SOSC

O-ring Straight Thread Connector

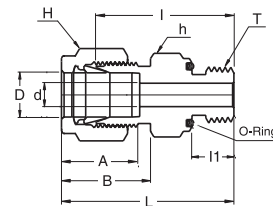


Connects Fractional Tube To Female Straight Thread

Part No.	Tube OD D (inch)	Straight Thread T (U)	d Min	Width Across Flat		A	B	I	I1	L	O-Ring Uniform Size Number
				h (inch)	H (inch)						
SOSC - 2 - 2U	1/8	5/16-24	2.28	9/16	7/16	12.70	15.24	26.16	8.63	32.76	-011
SOSC - 3 - 3U	3/16	3/8-24	3.05	5/8	1/2	13.71	16.00	27.68	9.65	34.29	-012
SOSC - 4 - 4U	1/4	7/16-20	4.82	3/4	9/16	15.24	17.78	30.98	10.41	38.35	-111
SOSC - 5 - 5U	5/16	1/2-20	6.35	7/8	5/8	16.25	18.54	33.27	11.17	40.64	-112
SOSC - 6 - 6U	3/8	9/16-18	7.11	15/16	11/16	16.76	19.30	35.05	11.93	42.41	-114
SOSC - 8 - 8U	1/2	3/4-16	10.41	1-1/8	7/8	22.86	21.84	35.81	11.93	45.97	-116
SOSC - 12 - 12U	3/4	1-1/16-12	15.75	1-1/2	1-1/8	24.38	21.84	42.16	14.22	52.32	-215
SOSC - 16 - 16U	1	1-5/16-12	22.35	1-3/4	1-1/2	31.24	26.41	45.97	14.22	58.16	-219

SOPC

O-Seal Pipe Thread Connector



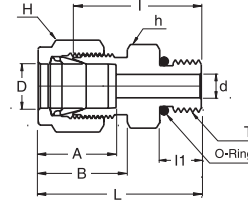
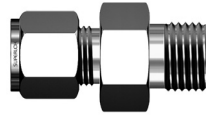
Connects Fractional Tube To Female NPT Thread

Part No.	Tube OD D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	I1	L	O-Ring Uniform Size Number
				h (inch)	H (inch)						
SOPC - 2 - 2N	1/8	1/8	2.28	3/4	7/16	12.70	15.24	26.16	7.11	32.76	-111
SOPC - 4 - 2N	1/4	1/8	4.82	3/4	9/16	15.24	17.78	27.68	7.11	35.05	-111
SOPC - 4 - 4N	1/4	1/4	4.82	15/16	9/16	15.24	17.78	30.98	9.65	38.35	-113
SOPC - 6 - 4N	3/8	1/4	7.11	15/16	11/16	16.76	19.30	32.51	9.65	39.87	-113
SOPC - 6 - 6N	3/8	3/8	7.11	1-1/8	11/16	16.76	19.30	34.03	10.41	41.40	-116
SOPC - 6 - 8N	3/8	1/2	7.11	1-5/16	11/16	16.76	19.30	39.62	13.46	46.99	-212
SOPC - 8 - 8N	1/2	1/2	10.41	1-5/16	7/8	22.86	21.84	39.62	13.46	49.78	-212

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SSMC

SAE/MS Male Connector



Connects Fractional Tube To SAE/MS Straight Thread Boss

Part No.	Tube OD D (inch)	Straight Thread T (U)	d Min	Width Across Flat		A	B	I	l1	L	O-Ring Uniform Size Number
				h (inch)	H (inch)						
SSMC - 2 - 2U	1/8	5/16-24	2.28	7/16	7/16	12.70	15.24	23.36	7.62	29.97	3-902
SSMC - 4 - 4U	1/4	7/16-20	4.82	9/16	9/16	15.24	17.78	26.67	9.14	34.03	3-904
SSMC - 4 - 6U	1/4	9/16-18	4.82	11/16	9/16	15.24	17.78	28.19	9.90	35.56	3-906
SSMC - 4 - 8U	1/4	3/4-16	4.82	7/8	9/16	15.24	17.78	30.22	11.17	37.59	3-908
SSMC - 4 - 10U	1/4	7/8-14	4.82	1	9/16	15.24	17.78	33.27	12.70	40.64	3-910
SSMC - 5 - 5U	5/16	1/2-20	6.35	5/8	5/8	16.25	18.54	27.43	9.14	34.79	3-905
SSMC - 6 - 4U	3/8	7/16-20	5.08	5/8	11/16	16.76	19.30	28.19	9.14	35.56	3-904
SSMC - 6 - 6U	3/8	9/16-18	7.11	11/16	11/16	16.76	19.30	29.71	9.90	37.08	3-906
SSMC - 6 - 8U	3/8	3/4-16	7.11	7/8	11/16	16.76	19.30	31.75	11.17	39.11	3-908
SSMC - 6 - 10U	3/8	7/8-14	7.11	1	11/16	16.76	19.30	34.79	12.70	42.16	3-910
SSMC - 8 - 6U	1/2	9/16-18	7.11	13/16	7/8	22.86	21.84	28.95	9.90	39.11	3-906
SSMC - 8 - 8U	1/2	3/4-16	10.41	7/8	7/8	22.86	21.84	31.75	11.17	41.91	3-908
SSMC - 8 - 10U	1/2	7/8-14	10.41	1	7/8	22.86	21.84	34.79	12.70	44.95	3-910
SSMC - 8 - 12U	1/2	1-1/16-12	10.41	1-1/4	7/8	22.86	21.84	38.86	14.98	49.02	3-912
SSMC - 10 - 8U	5/8	3/4-16	10.66	15/16	1	24.38	21.84	31.75	11.17	41.91	3-908
SSMC - 10 - 10U	5/8	7/8-14	12.70	1	1	24.38	21.84	35.05	12.70	45.21	3-910
SSMC - 12 - 8U	3/4	3/4-16	10.66	1-1/16	1-1/8	24.38	21.84	35.81	11.17	45.97	3-908
SSMC - 12 - 12U	3/4	1-1/16-12	15.74	1-1/4	1-1/8	24.38	21.84	38.86	14.98	49.02	3-912
SSMC - 14 - 14U	7/8	1-3/16-12	18.28	1-3/8	1-1/4	25.90	21.84	38.86	14.98	49.02	3-914
SSMC - 16 - 12U	1	1-1/16-12	16.76	1-3/8	1-1/2	31.24	26.41	41.14	14.98	53.34	3-912
SSMC - 16 - 16U	1	1-5/16-12	22.35	1-1/2	1-1/2	31.24	26.41	42.16	14.98	54.35	3-916

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Mounting Dimensions for O-Seal Connectors

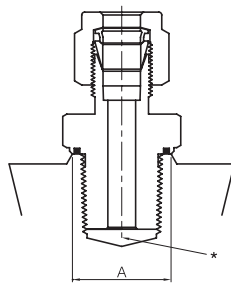


Figure 1

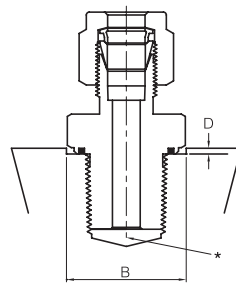


Figure 2

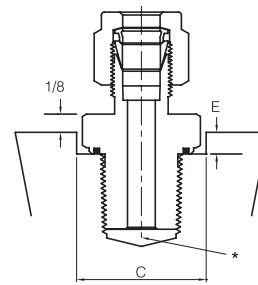


Figure 3

*ALLOW CLEARANCE FOR FULL THREAD

Installation Instruction

In order to prevent the leakage with SUPERLOK O-Seal Fittings, the surface perpendicular to the axis of the thread should be flat. When installing an O-Seal fitting, turn it until finger-tight. (The squeeze on O-Ring can be felt during the last 1/4 turn). After finger-tight installation, snug lightly with a wrench.

When connecting the tubing to the SUPERLOK connector, always use a back-up wrench on the O-Seal fitting hex so it does not turn while the nut is being tightened. Also use a back-up wrench when disconnecting a tubing connection.

For a raised surface, such as Figure 1, it is recommended that the flat surface have a diameter at least as large as dimension “A” for the various size O-Seal fittings. This diameter is sufficient to allow metal-to-metal contact outside of the O-Ring sealing diameter and to prevent O-Ring extrusion at high pressure.

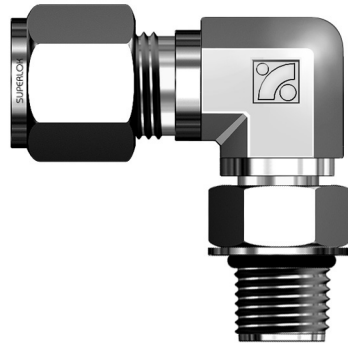
Figure 2 is an O-Seal fitting using with a counter bored or recessed hole. In this case, the diameter “B” is sufficient to allow the round shoulder of the O-seal to clear for proper installation. “D” gives the maximum depth that can be used with this diameter.

Figure 3 shows the usage at deeper grooved or concaved area and “E” is the maximum depth that will allow a thin wrench (1/8”) to hold the O-Seal fitting while the SUPERLOK connection is made to the tubing. The diameter “C” is sufficient to allow the hex of the fitting to turn in the recessed hole.

Basic Ordering Number	Straight Thread	Pipe Thread	A Min. Dia.	B Min. Dia.	C Min. Dia.	D Min. Dia.	E Min. Dia.
SOSC - 1 - 2U	5/16-24	-	12.7	15.0	16.8	2.3	4.1
SOSC - 2 - 2U	5/16-24	-	12.7	15.0	16.8	2.3	5.6
SOPC - 2 - 2N	-	1/8 NPT	17.5	19.8	22.4	4.1	7.1
SOSC - 3 - 3U	3/8-24	-	14.2	16.8	19.1	2.3	5.6
SOSC - 4 - 4U	7/16-20	-	17.5	19.8	22.4	4.1	7.1
SOPC - 4 - 2N	-	1/8 NPT	17.5	19.8	22.4	4.1	7.1
SOPC - 4 - 4N	-	1/4 NPT	22.1	24.6	27.7	4.1	7.9
SOSC - 5 - 5U	1/2-20	-	19.1	23.1	26.2	4.1	7.9
SOSC - 6 - 6U	9/16-18	-	20.6	24.6	27.7	4.1	7.9
SOPC - 6 - 4N	-	1/4 NPT	22.1	24.6	27.7	4.1	7.9
SOPC - 6 - 6N	-	3/8 NPT	25.4	29.5	33.3	4.1	8.6
SOPC - 6 - 8N	-	1/2 NPT	31.0	34.0	38.9	5.6	11.2
SOSC - 8 - 8U	3/4-16	-	25.4	29.5	33.3	4.1	8.6
SOPC - 8 - 8N	-	1/2 NPT	31.0	34.0	38.9	5.6	11.2
SOSC - 12 - 12U	1-1/16-12	-	35.8	38.9	44.5	5.6	12.7
SOSC - 16 - 16U	1-5/16-12	-	42.9	45.2	51.6	5.6	14.2

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SAE/MS Straight Thread Positionable Elbows and Tees



Installation instructions

1. Lubricate O-Ring with the lubricant which is applicable for the system fluid, environment and O-Ring material. (Standard O-Ring materials is viton. Other O-Ring materials are also available).
2. Turn the fittings into the straight thread boss until the metal back-up washer contacts the face of the boss. At this moment, O-Ring gets into inclined groove.
3. Until SUPERLOK's end is oriented in the proper direction, position the fittings by turning to counter clockwise. (no more than 1 turning)
4. Until the washer contacts to the face of the bosses, tighten the fittings with wrench and back-up wrench .

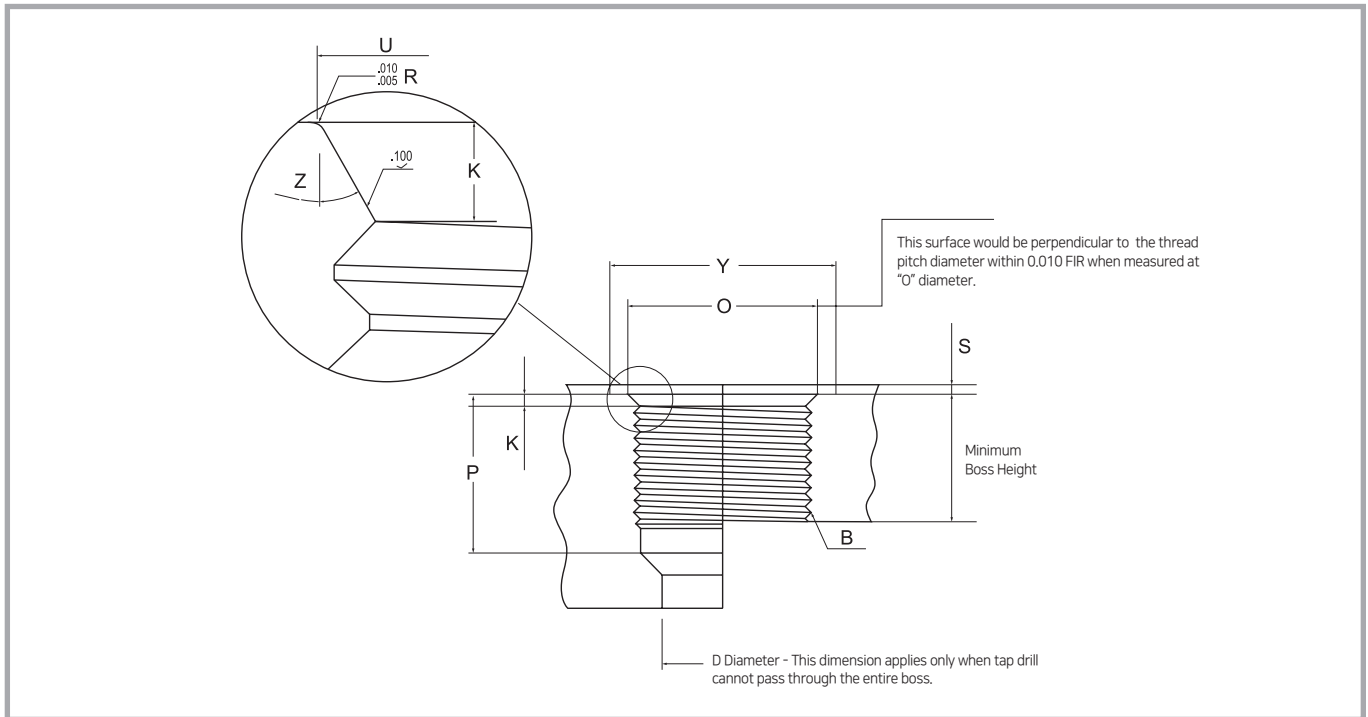
※ Note: SAE/MS's POSITIONABLE TEE and ELBOWS shall be compatible with SAE J1926, MS16142, or O-Ring female straight thread for JIS boss.

O-Ring for SAE/MS Fittings Bosses

Thread size	Inside Dimension (mm)	Cross Section (mm)	O-Ring Size No.	Thread size	Inside Dimension (mm)	Cross Section (mm)	O-Ring Size No.
5/16-24	6.07	1.63	3-902	3/4-16	16.36	2.21	3-908
3/8-24	7.65	1.63	3-903	7/8-14	19.18	2.46	3-910
7/16-20	8.92	1.83	3-904	1-1/16-12	23.47	2.95	3-912
1/2-20	10.52	1.83	3-905	1-3/16-12	26.59	2.95	3-914
9/16-18	11.89	1.98	3-906	1-5/16-12	29.74	2.95	3-916

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SAE/MS Internal Straight Thread Boss



Data for SAE/MS Straight Thread Boss

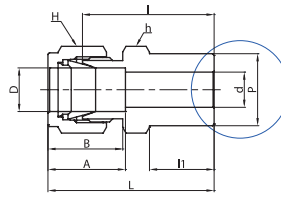
Nom. Tube O.D	Thread Size	B / Straight Thread				D Dia	Full Thread Depth	K	O Dia	P ^④	S ^{②③}	U ^② Dia	Y ^① Dia	Z
		Pitch Dia		Minor Dia										
		Min	Max	Min	Max									
1/8	5/16 - 24	0.2854	0.2902	0.267	0.277	0.062	0.390	0.074	0.438	0.468	0.062	0.358	0.672	12
3/16	3/8 - 24	0.3479	0.3528	0.330	0.340	0.125	0.390	0.074	0.500	0.468	0.062	0.421	0.750	12
1/4	7/16 - 20	0.4050	0.4104	0.383	0.395	0.172	0.454	0.093	0.563	0.547	0.062	0.487	0.828	12
5/16	1/2 - 20	0.4675	0.4731	0.446	0.457	0.234	0.454	0.093	0.625	0.547	0.062	0.550	0.906	12
3/8	9/16 - 18	0.5624	0.5323	0.502	0.515	0.297	0.500	0.097	0.688	0.609	0.062	0.616	0.969	12
1/2	3/4 - 16	0.7094	0.7159	0.682	0.696	0.391	0.562	0.100	0.875	0.688	0.094	0.811	1.188	15
5/8	7/8 - 14	0.8286	0.8356	0.798	0.614	0.484	0.656	0.100	1.000	0.781	0.094	0.942	1.344	15
3/4	1-1/16 - 12	1.0084	1.0158	0.972	0.990	0.609	0.750	1.130	1.250	0.906	0.094	1.148	1.625	15
7/8	1-3/16 - 12	1.1334	1.1409	1.097	1.115	0.719	0.750	1.130	1.375	0.906	0.094	1.273	1.765	15
1	1-5/16 - 12	1.2584	1.2659	1.222	1.240	0.844	0.750	0.130	1.500	0.906	0.125	1.398	1.910	15
1-1/4	1-5/8 - 12	1.5709	1.5785	1.535	1.553	1.078	0.750	0.132	1.875	0.906	0.125	1.713	2.270	15
1-1/2	1-7/8 - 12	1.8209	1.8287	1.785	1.803	1.312	0.750	0.132	2.125	0.906	0.125	1.962	2.560	15
2	2-1/2 - 12	2.4459	2.4540	2.410	2.428	1.781	0.750	0.132	2.750	0.906	0.125	2.587	3.480	15

- ① Diameter U shall be concentric with thread pitch diameter within 0.005 full indicator reading (FIR) and shall be free from longitudinal and spiral tool marks. Annular tool marks shall be less than 100micro inches.
- ② This is the maximum recommended spotface depth to permit sufficient wrench grip for proper tightening of the fitting or locknut
- ③ If the surface of boss surface is machined, dimensions Y and S does not need to be applied.
- ④ Bottoming tap shall be used to satisfy the tap drill depth. Where standard taps are used, the drill depths must be increased accordingly.

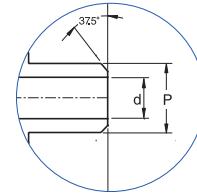
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SPWC

Male Pipe Weld Connector



Standard : Chamfer



*Bevel End (optional): add suffix "BV"
Ex. SPWC-8-8P-BV
Ex. SPWC-8-8P-BV-276

Connects Fractional Tube To Pipe

Part No.	Tube O.D. D (inch)	Male Pipe Size P		d Min	Width Across Flat		A	B	I	I1	L
		Nom.	O.D.		h (inch)	H (inch)					
SPWC - 2 - 2P	1/8	1/8	10.3	2.28	1/16	7/16	12.76	15.06	23.9	9.7	30.26
SPWC - 3 - 2P	3/16	1/8	10.3	3.05	7/16	1/2	14.06	16.35	24.6	9.7	31.55
SPWC - 4 - 2P	1/4	1/8	10.3	4.83	1/2	9/16	15.54	17.86	25.4	9.7	32.96
SPWC - 4 - 4P	1/4	1/4	13.7	4.83	9/16	9/16	15.56	17.86	30.5	14.2	38.06
SPWC - 5 - 2P	5/16	1/8	10.3	5.40	9/16	5/8	16.99	19.29	26.7	9.7	34.79
SPWC - 5 - 4P	5/16	1/4	13.7	6.35	9/16	5/8	16.98	19.28	31.2	14.2	39.28
SPWC - 6 - 4P	3/8	1/4	13.7	7.11	5/8	11/16	17.04	19.43	32.5	14.2	40.03
SPWC - 6 - 6P	3/8	3/8	17.1	7.11	11/16	11/16	17.04	19.43	32.5	14.2	40.03
SPWC - 6 - 8P	3/8	1/2	21.3	7.11	7/8	11/16	17.04	19.43	38.9	19.1	46.43
SPWC - 8 - 6P	1/2	3/8	17.1	10.41	13/16	7/8	23.00	22.15	33.3	14.2	43.55
SPWC - 8 - 8P	1/2	1/2	21.3	10.41	7/8	7/8	22.95	21.15	38.9	19.1	49.15
SPWC - 8 - 12P	1/2	3/4	26.7	10.41	1-1/16	7/8	22.95	22.15	40.4	19.1	50.65
SPWC - 10 - 8P	5/8	1/2	21.3	12.70	1	15/16	24.92	22.32	38.9	19.1	49.52
SPWC - 12 - 12P	3/4	3/4	26.7	15.75	1-1/16	1-1/8	24.74	22.24	40.4	19.1	50.94
SPWC - 16 - 16P	1	1	33.4	22.35	1-3/8	1-1/2	31.51	26.71	50.0	23.9	62.46

Connects Metric Tube To Pipe

Part No.	Tube O.D. D	Male Pipe Size P		d Min	Width Across Flat		A	B	I	I1	L
		Nom.	O.D.		h	H					
SPWC - 3M - 2P	3	1/8	10.3	2.4	12.0	12.0	12.92	15.22	23.9	9.7	30.42
SPWC - 4M - 2P	4	1/8	10.3	2.4	12.0	12.0	14.09	16.49	24.6	9.7	31.59
SPWC - 6M - 2P	6	1/8	10.3	4.8	14.0	14.0	15.46	17.96	25.4	9.7	32.96
SPWC - 6M - 4P	6	1/4	13.7	4.8	14.0	14.0	15.46	17.96	30.5	14.2	38.06
SPWC - 8M - 2P	8	1/8	10.3	5.4	15.0	15.9	16.82	19.22	26.7	9.7	34.82
SPWC - 8M - 4P	8	1/4	13.7	6.4	15.0	15.9	16.82	19.22	26.7	14.2	34.82
SPWC - 8M - 8P	8	1/2	21.3	6.4	22.0	15.9	16.82	19.22	38.1	19.1	46.22
SPWC - 10M - 4P	10	1/4	13.7	7.6	18.0	19.0	17.55	19.85	33.3	14.2	41.25
SPWC - 10M - 6P	10	3/8	17.1	7.9	18.0	19.0	17.55	19.85	33.3	14.2	41.25
SPWC - 10M - 8P	10	1/2	21.3	7.9	22.0	19.0	17.55	19.85	38.9	19.1	46.85
SPWC - 12M - 4P	12	1/4	13.7	7.6	22.2	22.0	23.08	22.28	33.3	14.2	43.68
SPWC - 12M - 6P	12	3/8	17.1	9.5	22.2	22.0	23.08	22.28	33.3	14.2	43.68
SPWC - 12M - 8P	12	1/2	21.3	9.5	22.0	22.0	23.08	22.28	38.9	19.1	49.28
SPWC - 15M - 8P	15	1/2	21.3	11.9	24.0	25.0	24.89	22.49	38.9	19.1	49.49
SPWC - 16M - 8P	16	1/2	21.3	12.7	24.0	25.0	24.88	22.48	38.9	19.1	49.48
SPWC - 18M - 8P	18	1/2	21.3	13.8	27.0	30.0	24.89	22.59	40.0	19.1	50.69

Note : SUPERLOK® weld ends are constructed per schedule 80 wall thickness or greater. Weld End : ANSI B31.1 and B31.3

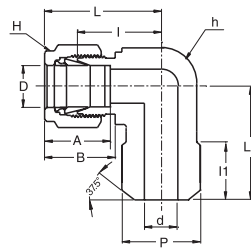
Weld end SUPERLOK® Usage Informations :

- Do weld after removing nut and ferrules from body to protect them from weld heat.
- Do protect thread end or pot and seat area of SUPERLOK® body with another nut and plug.(for easy disassembly just finger tighten it)
- Correct weld procedure is required during welding and after weld completion. suitable heat treatment must be carried out in accordance with industry or your own standard.

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SMPWE

Male Pipe Weld Elbow

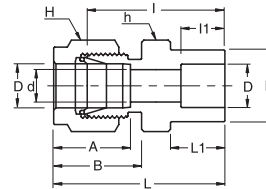
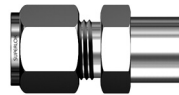


Connects Fractional Tube To Pipe

Part No.	Tube OD D (inch)	Pipe Size (P)		d Min	Width Across Flat		A	B	I	I1	L	L1
		Nom.	O.D.		h (inch)	H (inch)						
SMPWE - 4 - 4P	1/4	1/4	13.70	4.82	1/2	9/16	15.24	17.78	19.55	14.22	26.90	23.37
SMPWE - 6 - 4P	3/8	1/4	13.70	7.11	5/8	11/16	16.76	19.30	23.11	14.22	30.48	25.40
SMPWE - 8 - 8P	1/2	1/2	21.30	10.41	13/16	7/8	22.86	21.84	25.90	19.05	36.06	33.02

SSWC

Tube Socket Weld Connector

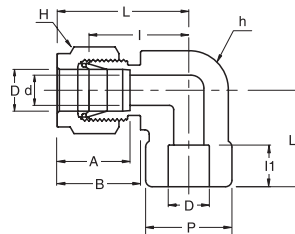


Connects Fractional Tube To Pipe

Part No.	Tube OD D (inch)	d Min	P	Width Across Flat		A	B	I	I1	L	L1
				h (inch)	H (inch)						
SSWC - 2	1/8	2.28	7.87	7/16	7/16	12.70	15.24	22.35	6.35	28.95	8.63
SSWC - 4	1/4	4.82	11.17	1/2	9/16	15.24	17.78	26.16	7.87	33.52	10.41
SSWC - 6	3/8	7.11	15.74	5/8	11/16	16.76	19.30	30.22	9.65	37.59	11.93
SSWC - 8	1/2	10.41	19.05	13/16	7/8	22.86	21.84	30.98	12.70	41.14	11.93
SSWC - 12	3/4	15.74	26.67	1-1/16	1-1/8	24.38	21.84	33.27	14.22	43.43	11.93
SSWC - 16	1	22.35	33.27	1-3/8	1-1/2	31.24	26.41	40.38	19.05	52.57	14.22

SSWE

Tube Socket Weld Elbow

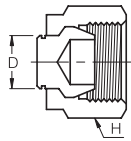


Connects Fractional Tube To Pipe

Part No.	Tube OD D (inch)	d Min	P	Width Across Flat		A	B	I	I1	L	L1
				h (inch)	H (inch)						
SSWE - 4	1/4	4.82	15.00	1/2	9/16	15.24	17.78	19.55	7.87	26.92	19.55
SSWE - 6	3/8	7.11	15.75	5/8	11/16	16.76	19.30	23.11	9.65	30.48	23.11
SSWE - 8	1/2	10.41	20.57	13/16	7/8	22.86	21.84	25.90	12.70	36.06	25.90
SSWE - 12	3/4	15.74	26.92	1-1/16	1-1/8	24.38	21.84	29.71	14.22	39.87	29.71
SSWE - 16	1	22.35	35.05	1-3/8	1-1/2	31.24	26.41	36.83	19.05	49.02	36.83

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SP Plug



Plug provides plugging fitting port

Installation instruction

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

Fractional

Part No.	Tube OD D (inch)	Width Across Flat H (inch)	Part No.	Tube OD D (inch)	Width Across Flat H (inch)
SP - 2	1/8	7/16	SP - 8	1/2	7/8
SP - 3	3/16	1/2	SP - 10	5/8	1
SP - 4	1/4	9/16	SP - 12	3/4	1-1/8
SP - 5	5/16	5/8	SP - 14	7/8	1-1/4
SP - 6	3/8	11/16	SP - 16	1	1-1/2

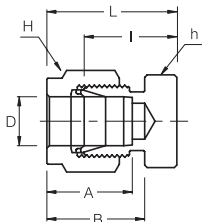
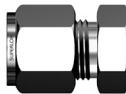
Plugs Unused port of Metric SUPERLOK fittings

Metric

Part No.	Tube OD D (inch)	Width Across Flat H	Part No.	Tube OD D (inch)	Width Across Flat H
SP - 2M	2	12	SP - 15M	15	25
SP - 3M	3	12	SP - 16M	16	25
SP - 4M	4	12	SP - 18M	18	30
SP - 6M	6	14	SP - 20M	20	32
SP - 8M	8	16	SP - 22M	22	32
SP - 10M	10	19	SP - 25M	25	38
SP - 12M	12	22			

Plugs Unused port of Fractional SUPERLOK fittings

SC Cap



Installation instruction

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

Connects Caps End of Fractional Tubes

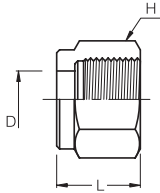
Part No.	Tube OD D (inch)	Width Across Flat		A	B	I	L
		h (inch)	H (inch)				
SC - 1	1/16	5/16	5/16	8.63	10.92	11.20	14.98
SC - 2	1/8	7/16	7/16	12.70	15.24	13.46	20.06
SC - 3	3/16	7/16	1/2	13.71	16.00	14.73	21.33
SC - 4	1/4	1/2	9/16	15.24	17.78	16.00	23.36
SC - 5	5/16	9/16	5/8	16.25	18.54	17.01	24.38
SC - 6	3/8	5/8	11/16	16.76	19.30	18.28	25.65
SC - 8	1/2	13/16	7/8	22.86	21.84	19.05	29.21
SC - 10	5/8	15/16	1	24.38	21.84	19.81	29.97
SC - 12	3/4	1-1/16	1-1/8	24.38	21.84	23.33	33.49
SC - 14	7/8	1-3/16	1-1/4	25.90	21.84	23.87	34.03
SC - 16	1	1-3/8	1/1/2	31.24	26.41	26.16	38.35

Connects Metric Tubes

Part No.	Tube O.D. D	Width Across Flat		A	B	I	L	Part No.	Tube O.D. D	Width Across Flat		A	B	I	L
		h	H							h	H				
SC - 2M	2	12	12	12.9	15.3	13.5	20.1	SC - 15M	15	24	25	24.4	22.0	19.8	29.9
SC - 3M	3	12	12	12.9	15.3	13.5	20.1	SC - 16M	16	24	25	24.4	22.0	19.8	29.9
SC - 4M	4	12	12	13.7	16.1	14.7	21.3	SC - 18M	18	27	30	24.4	22.0	21.3	31.4
SC - 6M	6	14	14	15.3	17.7	15.7	23.1	SC - 20M	20	30	32	26.0	22.0	23.9	34.0
SC - 8M	8	15	16	16.2	18.6	17.0	24.5	SC - 22M	22	30	32	26.0	22.0	23.9	34.0
SC - 10M	10	18	19	17.2	19.5	19.0	26.6	SC - 25M	25	35	38	31.3	26.5	26.2	38.5
SC - 12M	12	22	22	22.8	22.0	19.0	29.1								

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SN
Nut



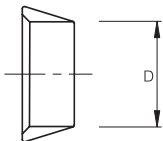
Fractional

Part No.	Tube OD D (inch)	Width Across Flat H (inch)	L	Part No.	Tube OD D (inch)	Width Across Flat H (inch)	L
SN - 1	1/16	5/16	7.90	SN - 8	1/2	7/8	17.30
SN - 2	1/8	7/16	11.93	SN - 10	5/8	1	17.52
SN - 3	3/16	1/2	11.93	SN - 12	3/4	1-1/8	17.52
SN - 4	1/4	9/16	12.70	SN - 14	7/8	1-1/4	17.52
SN - 5	5/16	5/8	13.50	SN - 16	1	1-1/2	20.60
SN - 6	3/8	11/16	14.22				

Metric

Part No.	Tube OD D	Width Across Flat H	L	Part No.	Tube OD D	Width Across Flat H	L
SN - 2M	2	12	11.90	SN - 14M	14	25	17.50
SN - 3M	3	12	11.90	SN - 15M	15	25	17.50
SN - 4M	4	12	11.90	SN - 16M	16	25	17.50
SN - 6M	6	14	12.70	SN - 18M	18	30	17.50
SN - 8M	8	16	13.50	SN - 20M	20	32	17.50
SN - 10M	10	19	15.10	SN - 22M	22	32	17.50
SN - 12M	12	22	17.50	SN - 25M	25	38	20.60

SFF
Front Ferrule



Fractional

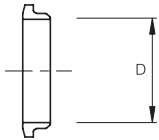
Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)
SFF - 1	1/16	SFF - 8	1/2
SFF - 2	1/8	SFF - 10	5/8
SFF - 3	3/16	SFF - 12	3/4
SFF - 4	1/4	SFF - 14	7/8
SFF - 5	5/16	SFF - 16	1
SFF - 6	3/8		

Metric

Part No.	Tube OD D	Part No.	Tube OD D
SFF - 2M	2	SFF - 14M	14
SFF - 3M	3	SFF - 15M	15
SFF - 4M	4	SFF - 16M	16
SFF - 6M	6	SFF - 18M	18
SFF - 8M	8	SFF - 20M	20
SFF - 10M	10	SFF - 22M	22
SFF - 12M	12	SFF - 25M	25

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SBF
Back Ferrule



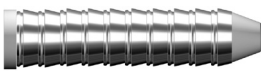
Fractional

Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)
SBF - 1	1/16	SBF - 5	5/16	SBF - 12	3/4
SBF - 2	1/8	SBF - 6	3/8	SBF - 14	7/8
SBF - 3	3/16	SBF - 8	1/2	SBF - 16	1
SBF - 4	1/4	SBF - 10	5/8		

Metric

Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)
SBF - 2M	2	SBF - 10M	10	SBF - 18M	18
SBF - 3M	3	SBF - 12M	12	SBF - 20M	20
SBF - 4M	4	SBF - 14M	14	SBF - 22M	22
SBF - 6M	6	SBF - 15M	15	SBF - 25M	25
SBF - 8M	8	SBF - 16M	16		

SFS
Ferrule Set



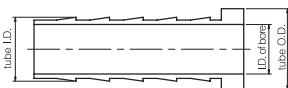
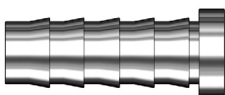
Fractional

Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)
SFS - 1	1/16	SFS - 5	5/16	SFS - 12	3/4
SFS - 2	1/8	SFS - 6	3/8	SFS - 14	7/8
SFS - 3	3/16	SFS - 8	1/2	SFS - 16	1
SFS - 4	1/4	SFS - 10	5/8		

Metric

Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)	Part No.	Tube OD D (inch)
SFS - 2M	2	SFS - 10M	10	SFS - 20M	20
SFS - 3M	3	SFS - 12M	12	SFS - 22M	22
SFS - 4M	4	SFS - 15M	15	SFS - 25M	25
SFS - 6M	6	SFS - 16M	16		
SFS - 8M	8	SFS - 18M	18		

SI
Insert



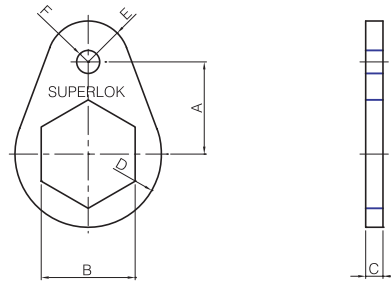
Fractional

Part No.	Tube OD D (inch)	Tube I.D. (inch)	I.D. of Bore	Part No.	Tube OD D (inch)	Tube I.D. (inch)	I.D. of Bore
SI - 3 - 2	3/16	1/8	2.28	SI - 8 - 4	1/2	1/4	4.82
SI - 4 - 2	1/4	1/8	2.28	SI - 8 - 6	1/2	3/8	7.87
SI - 4 - 3	1/4	3/16	3.55	SI - 10 - 6	5/8	3/8	7.87
SI - 5 - 2	5/16	1/8	2.28	SI - 10 - 8	5/8	1/2	11.17
SI - 5 - 3	5/16	3/16	3.04	SI - 12 - 8	3/4	1/2	11.17
SI - 5 - 4	5/16	1/4	4.82	SI - 12 - 10	3/4	5/8	14.22
SI - 6 - 3	3/8	3/16	3.04	SI - 16 - 12	1	3/4	17.52
SI - 6 - 4	3/8	1/4	4.82				

- Dimensions and Drawings are for reference only and are subject to change without prior notice.
- Unless otherwise specified, all dimensions are in millimeters.
- Sizes, pressure classes, and end connections not listed are available upon request.
- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

SBHR

Bulkhead Retainer

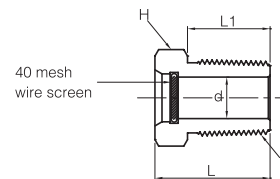
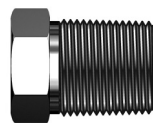


Part No.	A (inch)	B (inch)	C (inch)	D Dia (inch)	E Dia (inch)	F Dia (inch)
SBHR - 1	3/8	5/16	1/8	5/16	5/32	5/32
SBHR - 2	1/2	1/2	1/8	13/32	7/32	5/32
SBHR - 3	9/16	9/16	1/8	15/32	1/4	5/32
SBHR - 4 ①	5/8	5/8	1/8	1/2	9/32	5/32
SBHR - 5	1/16	11/16	1/8	9/16	5/16	5/32
SBHR - 6	3/4	3/4	1/8	5/8	11/32	5/32
SBHR - 8 ②	15/16	15/16	1/8	3/4	13/32	7/32
SBHR - 10 ③	1	1-1/16	1/8	13/16	13/32	7/32
SBHR - 12 ④	1-1/16	1-3/16	1/8	29/32	15/32	7/32
SBHR - 14	1-1/8	1-5/16	1/8	1-1/32	17/32	7/32
SBHR - 16	1-9/32	1-5/8	1/8	1-5/32	9/16	7/32
SBHR - 8M	11/16	18 mm	1/8	9/16	5/16	5/32
SBHR - 10M	15/16	22 mm	1/8	3/4	13/32	7/32

- ① Can be used with 6mm bulkheads
- ② Can be used with 12mm bulkheads
- ③ Can be used with 15mm and 16mm bulkheads
- ④ Can be used with 18mm bulkheads

SVP

Vent Protector



Part No.	T (NPT)	L	L1	d	H (inch)
SVP - 4N	1/4	19.81	14.22	7.11	9/16
SVP - 6N	3/8	20.57	14.22	10.41	11/16
SVP - 8N	1/2	26.16	19.05	12.70	7/8
SVP - 12N	3/4	26.92	19.05	15.70	1-1/16
SVP - 16N	1	33.30	23.90	22.40	1-3/8

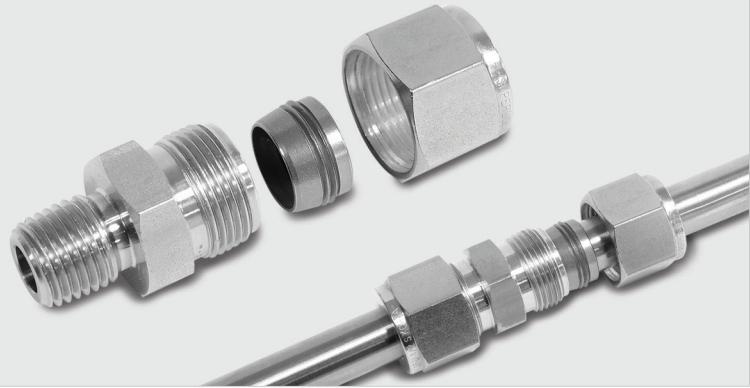
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- Sizes, pressure classes, and end connections not listed are available upon request.
- Dimensions shown with SUPERLOK nuts finger-tight, where applicable.

Single-Ferrule Tube Fittings

Available in sizes from 1/16 to 1 in

Features

- Single ferrule swaging action
- Total component interchangeability
- More tolerant of vibrations
- 316 stainless steel construction
- Heat code traceable



Introduction

SUPERLOK Tube Fitting offers both double-ferrule and single-ferrule tube fittings.

While the double-ferrule design is more popular, there are situations where single-ferrule tube fittings are preferred.

SUPERLOK single-ferrule tube fitting is designed to provide leak-proof, secure connections that can withstand high pressure, vibration and vacuum applications.

This fitting includes single ferrule with body and nut of a standard SUPERLOK tube fitting (double-ferrule design).

Pressure and Temperature Ratings

SUPERLOK single-ferrule tube fittings are identical to standard SUPERLOK tube fittings in pressure and temperature ratings, and with the same dimensions as the standard SUPERLOK tube fittings.

Ordering Information

The single-ferrule tube fittings part numbering system is the same as SUPERLOK Tube Fitting (double ferrule design) except that you add an "S" as a suffix to Tube OD designator.

Example : $\frac{\text{SMC}}{1} - \frac{\text{8S}}{2-1} - \frac{\text{8N}}{2-2} - \frac{\text{M40}}{3}$

1. Type of Fitting

Please refer to SUPERLOK tube fitting index on page 2.

Examples :

- SMC = male connector
- SME = male elbow
- SU = union
- SUT = union tee

3. Material

- (Blank) = 316 Stainless Steel
- 36L = 316L Stainless Steel
- B = Brass
- AL = Aluminum
- 15 = Carbon Steel A105
- S45C = Carbon Steel S45C
- M40 = Monel Alloy 400
- 825 = Alloy 825
- 625 = Alloy 625
- 276 = Alloy C-276

2. Size of Fitting

2-1) Tube OD Designator

Tube OD(inch)	1/4	3/8	1/2	3/4	1
Designator	4S	6S	8S	12S	16S

2-2) Pipe Thread Designator

Size(inch)	1/8	1/4	3/8	1/2	3/4	1
ISO Tapered	2R	4R	6R	8R	12R	16R
Screwed NPT	2N	4N	6N	8N	12N	16N
ISO Parallel	2G	4G	6G	8G	12G	16G
Unified Screw	2U	4U	6U	8U	12U	16U

※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.

Swaging Units

Features

- Compact and rugged table-top unit for mobile and flexible use.
- Manual pressure adjustment with digital display.
- Short assembling times of only few seconds.
- Short set-up times when changing the tube diameter or the working method.
- No initial strain placed on nut or fitting body threads or on body seal surfaces.
- Beeping when pre-swaging is completed.
- Assembly and installation time and operator errors reduced.



SWAGING UNIT
(P/N: SMHS-AMU)

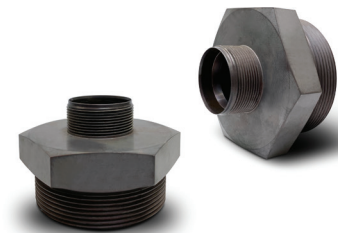
Operating Instructions

1. SETUP

- ① Install the die holder into the swaging unit.
- ② Install the appropriate size die head (same size as the fitting).
- ③ Assemble the ferrules (or sleeve) and nut into the die head.

2. OPERATION

- ① Turn on the power of the swaging unit.
- ② Set the pressure on the digital indicator (please refer to Pressure Setting table).
- ③ Insert the tube until it rests properly against the piston shoulder.
- ④ While holding the tubing end, press the start button of the swaging unit.
- ⑤ Beeping sound when the pre-swaging is completed.
- ⑥ Disassemble the nut and remove the pre-swaged tubing from the swaging unit.
- ⑦ Insert the pre-swaged tubing into the body of SUPERLOK Tube Fitting (or SUPERLOK DIN Tube Fitting) and tighten the nut until finger-tight.
- ⑧ Hold the fitting body stable and tighten the nut clockwise: one-second to three-fourth turn for SUPERLOK Tube Fitting (Double-ferrule type) and one-second turn for SUPERLOK DIN Tube Fitting (DIN2353 Bite-type).



DIE HEAD
(P/N: Refer to "Pressure Setting" section)

Pressure Setting

SUPERLOK Tube Fitting

Inch Size				
Die Head Part Number	316 Seamless Tubing & Wall Thickness			Set Pressure (bar)
	TUBE O.D (Inch)	Min. (Inch)	Max. (Inch)	
SMHS-DH-S8	1/2	0.049	0.083	70
SMHS-DH-S12	3/4	0.065	0.109	100
SMHS-DH-S16	1	0.083	0.12	130
SMHS-DH-S20	1-1/4	0.083	0.156	160
SMHS-DH-S24	1-1/2	0.095	0.188	190
SMHS-DH-S32	2	0.109	0.188	230
Metric Size				
Die Head Part Number	316 Seamless Tubing & Wall Thickness			Set Pressure (bar)
	TUBE O.D (mm)	Min. (mm)	Max. (mm)	
SMHS-DH-S12M	12	1.2	2.0	80
SMHS-DH-S16M	16	1.5	2.2	90
SMHS-DH-S20M	20	1.8	2.8	100
SMHS-DH-S22M	22	1.8	2.8	120
SMHS-DH-S25M	25	2.2	3.0	130
SMHS-DH-S28M	28	2.5	3.5	140
SMHS-DH-S30M	30	2.5	3.5	150
SMHS-DH-S32M	32	2.8	4.0	160
SMHS-DH-S38M	38	3.0	4.5	190

SUPERLOK DIN Tube Fitting (Bite-type)

Light (L) series				
Die Head Part Number	316 Seamless Tubing & Wall Thickness			Set Pressure (bar)
	TUBE O.D (mm)	Min. (mm)	Max. (mm)	
SMHS-DH-D18L	18	1.5	2.0	90
SMHS-DH-D22L	22	1.5	2.0	150
SMHS-DH-D28L	28	1.5	2.0	130
SMHS-DH-D35L	35	2.0	3.0	200
SMHS-DH-D42L	42	2.0	3.0	230
Heavy (S) series				
Die Head Part Number	316 Seamless Tubing & Wall Thickness			Set Pressure (bar)
	TUBE O.D (mm)	Min. (mm)	Max. (mm)	
SMHS-DH-D16S	16	1.5	3.0	100
SMHS-DH-D20S	20	2.0	3.0	150
SMHS-DH-D25S	25	2.5	3.0	130
SMHS-DH-D30S	30	2.5	4.0	220
SMHS-DH-D38S	38	3.0	4.0	230

※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.

Tube Benders

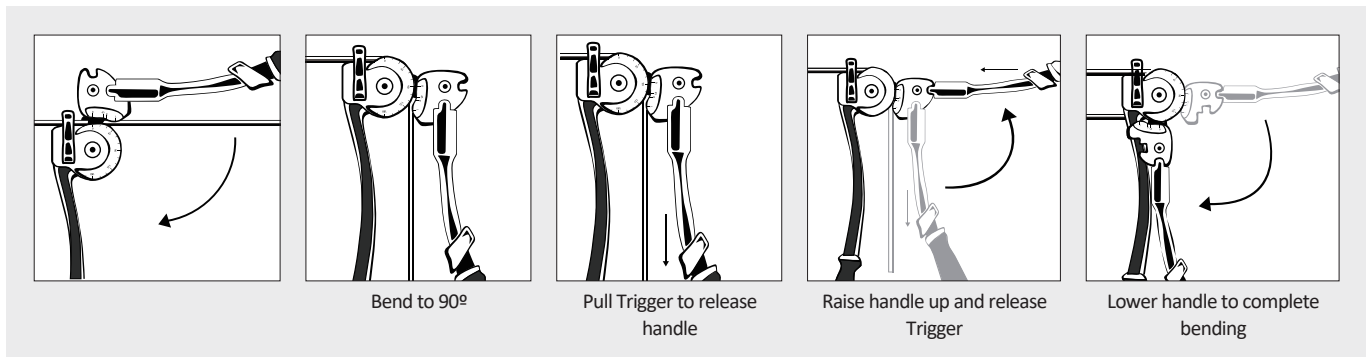
Features

- For bending soft copper, aluminum, brass, steel, stainless steel and other tubing.
- New design for accurate and tight bends up to 180° in stainless steel and other tough metals.
- Patented, quick action trigger release repositions two-stage handle midway through a bend when both handle begin to meet. This feature allows easy fabrication of optimized bends up to 180° with reduced effort, better control and no crossing of handles.
- Rollers in bending handle reduce friction and bending effort, eliminate scoring of tubing.
- Comfortable and durable ergonomically molded cushion grips.
- Vise lug for mounting in vise.
- Clamshell packaging available for 1/4" and 3/8" O.D models.



Operating Procedures

1. Available the setting to adjust the pressure value according to the condition.
2. Activate the buzzer sound when complete to install in normal.
3. Assemble it to check the set pressure value by naked eye.
4. Available to use without electric power supply.



Technical Data

Part No.	Tube OD	Raidius(to center of tube)	Weight (kg)
SDTB-4	1/4	9/16	0.54
SDTB-6	3/8	15/16	1.68
SDTB-8	1/2	1-1/2	3.45

SUPERLOK Inspection Gauges

Part No.	Fitting Size
SIG-468	1/4", 3/8", 1/2"
SIG-1216	3/4", 1"
SIG-2024	1-1/4", 1-1/2"
SIG-6M10M12M	6mm, 10mm, 12mm



Please refer to page 4~5 for installation instruction and gaugeability.

※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.

BMT Co., Ltd.

Headquarters

(46031) 부산시 기장군 장안읍 신소재산단2로 17 (반룡리)

17, Sinsojaesandan 2-ro, Jangan-eup, Gijang-gun, Busan, 46031 South Korea

TEL: +82 51 780 5000 FAX: +82 51 780 5100

E-mail: superlok@superlok.com

WEB: www.superlok.com

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Electric & Energy

Metal Clad Switchgear (MCSG)

Compact Switchboard

Motor Control Center (MCC)

Smart Distribution Board

Energy Management System (EMS)