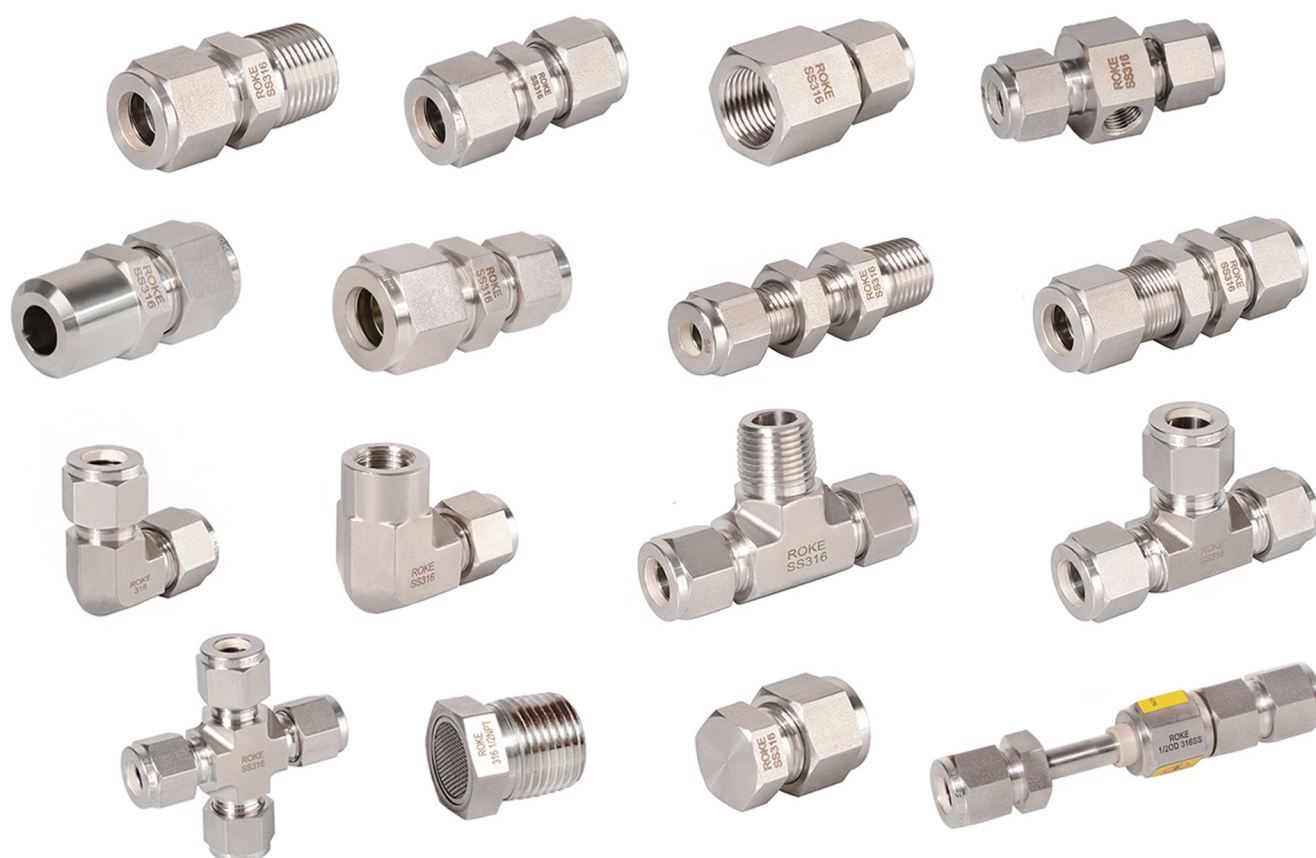


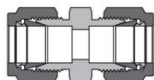
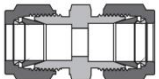
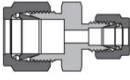
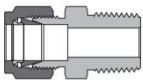
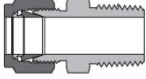
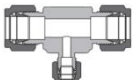
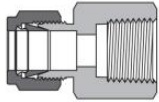
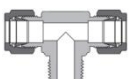
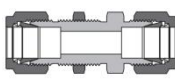
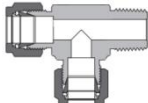
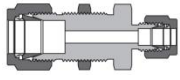
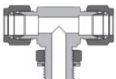
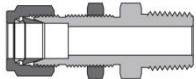
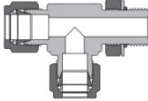
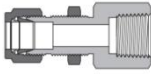
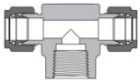
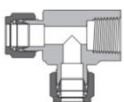
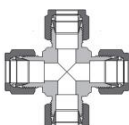
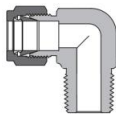
Tube Fittings

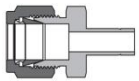
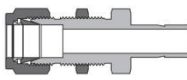
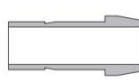
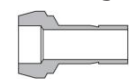
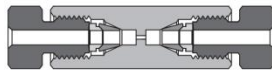
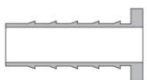
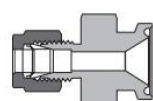
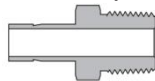
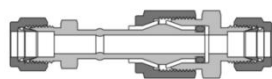
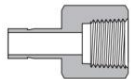
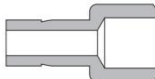
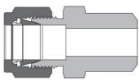
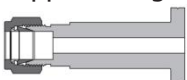


ROKE
Valves ,Fittings and Tubing

www.chinaroke.com

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Pressure Ratings

ROKE tube fittings have excellent gas and liquid sealing performance, and have the same high pressure bearing capacity as stainless steel precision tubing. Please note that high quality precision tubing should be selected.

1. Working pressure and thickness of Fractional stainless steel tubing (at room temperature)

Tube OD In.	Tube Wall Thickness (in.)													
	0.012	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
	Working Pressure (psig)													
1/16	6800	9000	11000											
1/8				8500	10000									
3/16				5400	6800	10000								
1/4				4000	5000	7500	10000							
5/16					4000	5800	8000							
3/8					3300	4800	6500							
1/2					2600	3700	5000	6500						
5/8						2900	4000	5000						
3/4						2400	3300	4200	4800					
7/8						2000	2800	3600	4000	4600				
1							2400	3000	3500	4000	4500			
1.1/4								2400	2700	3200	3500	3800		
1.1/2									2300	2600	2800	3200	3800	
2										2000	2200	2400	2700	3300

2. Working pressure and thickness of Metric stainless steel tubing (at room temperature)

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	5.0
	Working Pressure (bar)													
3	670													
6	310	420	540	700										
8		310	390	520										
10		240	300	400	510	580								
12		200	250	330	410	470								
14		160	200	270	340	380	420							
15		150	190	250	310	360	400							
16			170	230	290	330	370	400						
18			150	200	260	290	320	360						
20			140	180	230	260	300	330						
22			140	160	200	220	260	280	300					
25					180	200	220	250	280	300				
28						180	200	220	250	270	300			
30						170	180	210	230	250	280			
32						160	170	200	220	240	270	300		
38							140	160	180	200	230	250	300	
42								140	160	180	200	230	250	
50										150	180	200	220	250

Working Pressure of Thread Ends

ISO Parallel Thread

ISO Parallel Thread (G, RP, PF, BSPP)				
Item	Thread Size	Material	Working Pressure	
			psig	bar
1	1/8	SS316/316L Carbon Steel	4570	315
2	1/4		4570	315
3	3/8		4570	315
4	1/2		2320	160
5	3/4		2320	160
6	1		2320	160

Tapered Threads

NPT & ISO Tapered Threads

Thread Size	SS316/316L				Alloy 400				Ti				Brass			
	Male		Female		Male		Female		Male		Female		Male		Female	
	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
1/16	11000	757	6700	460	9900	682	6000	413	8800	606	5300	365	5500	378	3300	227
1/8	10000	690	6500	447	9000	620	5800	399	8000	551	5200	358	5000	344	3200	220
1/4	8000	551	6600	454	7200	496	5900	406	6400	440	5200	358	4000	275	3300	227
3/8	7800	537	5300	365	7000	482	4700	323	6200	427	4200	289	3900	268	2600	179
1/2	7700	530	4900	337	6900	475	4400	303	6100	420	3900	268	3800	261	2400	165
3/4	7300	502	4600	316	6500	447	4100	282	5800	399	3600	248	3600	248	2300	158
1	5300	365	4400	303	4700	323	3900	268	4200	289	3500	241	2600	179	2200	151
1 1/4	6000	410	5000	344	5400	372	4500	312	4800	330	4000	275	3000	200	2500	172
1 1/2	5000	344	4600	317	4500	310	4100	282	4000	275	3600	248	2500	172	2300	158
2	3900	268	3900	268	3500	241	3500	241	3100	213	3100	213	1900	130	1900	130

SAE/MS Straight Threads

SAE/MS Straight Threads (UN, UNJ)

Item	Thread Size	Material	Non-adjustable		Adjustable	
			psig	bar	psig	bar
1	5/16-24	SS316/316L Carbon Steel	5075	350	5075	350
2	3/8-24		5075	350	5075	350
3	7/16-20		5075	350	4570	315
4	1/2-20		5075	350	4570	315
5	9/16-18		5075	350	4060	280
6	3/4-16		4570	315	4060	280
7	7/8-14		3630	250	3050	210
8	1.1/16-12		3630	250	3050	210
9	1.3/16-12		3050	210	2540	175
10	1.5/16-12		3050	210	2540	175
11	1.5/8-12		2540	175	2030	140
12	1.7/8-12		2540	175	2030	140
13	2.1/2-12		2030	140	1520	105

Metric Threads

Metric Threads (M)

Item	Thread Size	Material	Non-adjustable		Adjustable	
			psig	bar	psig	bar
1	M8*1	SS316/316L Carbon Steel	5800	400	4570	315
2	M10*1		5800	400	4570	315
3	M12*1.5		5800	400	4570	315
4	M14*1.5		5800	400	4570	315
5	M16*1.5		4570	315	3630	250
6	M18*1.5		4570	315	3630	250
7	M22*1.5		4570	315	3630	250
8	M27*2		2900	200	2320	160
9	M30*2		2900	200	2320	160
10	M33*2		2900	200	2320	160
11	M42*2		2900	200	2320	160
12	M48*2		2900	200	2320	160
13	M60*2		2320	160	1450	100

Working Temperature

Tube Ends: The working temperature of the tube ends is same as the tubings. it is related to the material. The working temperature range of the different materials is as follows:

Item	Material	Minimum Temperature	Maximum Temperature
1	SS316/SS316L	325° F (-198°C)	800° F (426°C)
2	Alloy 400	325° F (-198°C)	800° F (426°C)
3	Brass	-325° F (-198°C)	400° F (204°C)

Thread Ends: The working temperatures of the thread ends may be limited by the teflon tape or thread sealant or, when applicable, the gaskets or O-rings as follow

Item	Component	Material	Minimum Temperature	Maximum Temperature
1	RS Gasket	Buna N	-13°F (-25°C)	230°F (110°C)
		Fluorocarbon FKM	5°F (-15°C)	400°F (204°C)
2	RP/RG Gasket	Brass	-325°F (-198°C)	400°F (204°C)
		Stainless Steel	-425°F (-254°C)	1000°F (538°C)
3	RG Gasket	PTFE	-65°F (-54°C)	450°F (232°C)
		Vulcanized Fibre	-76°F (-60°C)	221°F (105°C)
4	O-ring	Buna N	-22°F (-30°C)	230°F (110°C)
		Fluorocarbon FKM	-4°F (-20°C)	400°F (204°C)

Note: When using appropriate thread sealant on cone pipe threads, it should be ensured that the working temperature does not exceed the temperature that the sealant can withstand.

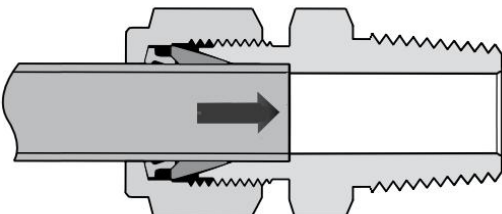
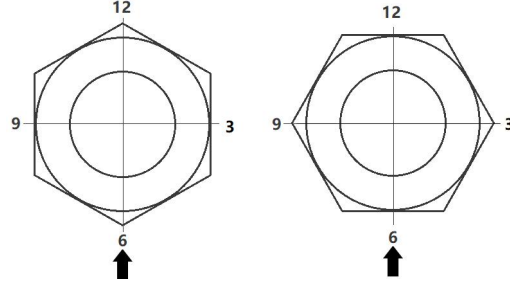
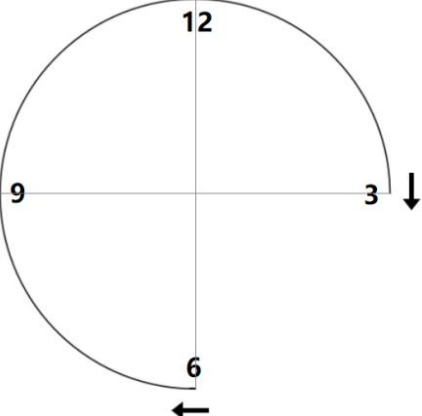
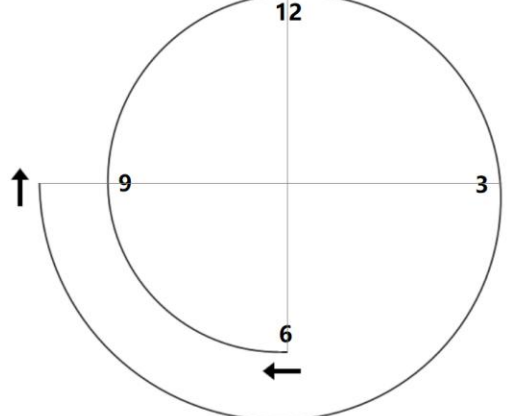
Marerials

Item	Material	Bar Stock	Forging	Designator
1	SS 316L	ASTM A479 EN 1.4404	ASTM A182 EN 1.4404	SS
2	SS 316	ASTM A479 EN 1.4401	ASTM A182 EN 1.4401	S6
3	SS 304	ASTM A479 EN 1.4301	ASTM A182 EN 1.4301	S4
4	SS 321	ASTM A479 EN 1.4541	ASTM A182 EN 1.4541	S1
5	SS 316Ti	ASTM A479 EN 1.4571	ASTM A182 EN 1.4571	ST
6	6Mo (S31254)	ASTM A479	ASTM A182	SM
7	904L	ASTM A479	ASTM A182	S9
8	Titanium (Grade 4)	ASTM B348	ASTM B381	TI
9	Duplex 2205	ASTM A479	ASTM A182	D5
10	Super Duplex 2507	ASTM A479	ASTM A182	D7
11	Alloy 20	ASTM A479	ASTM B462	A20
12	Alloy 400	ASTM B164	ASTM B564	A40
13	Alloy 600	ASTM B166	ASTM B564	A60
14	Alloy 625	ASTM B446	ASTM B564	625
15	Alloy 825	ASTM B425	ASTM B564	825
16	Alloy C-276	ASTM B574	ASTM B564	276
17	Carbon Steel	ASTM A108	ASTM A105	CS
18	Brass	ASTM B16/B453	ASTM B283	B
19	Nylon	ASTM D4066	/	PN
20	PTFE	ASTM D1710	/	PT

Installation Instructions

Tube Fittings Up to 1 in./25 mm

These instructions apply both to traditional fittings and to fittings with the advanced back-ferrule geometry.

 Fully insert the tube into the fitting and against the shoulder; rotate the nut finger-tight.	 Mark the nut at the 6 o' clock position.
 1/16, 1/8, and 3/16 in.; 2, 3, and 4 mm tube fittings, tighten the nut only three-quarters turn to the 3 o' clock position.	 1/4 to 1 inch., and 6mm to 25 mm tube fittings, tighten the nut one and one-quarters turn to the 9 o' clock position.

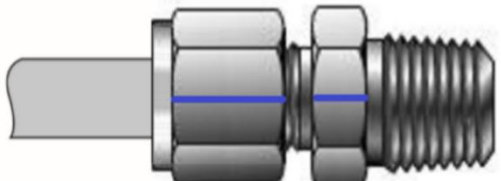
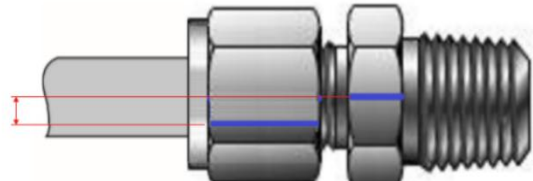
Tube Fittings Over 1 in./25 mm

1. Preswage the ferrules onto the tube using the Multihead Hydraulic Swaging Unit (MHSU).
2. Apply the lubricant lightly to the body threads and the rear surface of the back ferrule.
3. Insert the tube with preswaged ferrules into the fitting until the front ferrule seats against the fitting body; rotate the nut finger-tight.
4. Mark the nut at the 6 o' clock position.
5. While holding the fitting body steady, tighten the nut one-half turn to the 12 o' clock position.

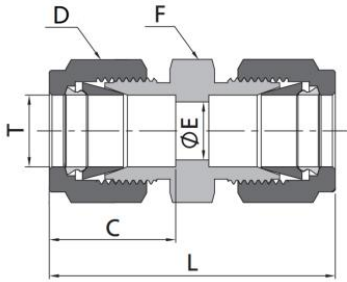
Reassembly-All Sizes

ROKE tube fittings can be disassembled and reassembled more than 15 times. Always depressurize the system before disassembling. Prior to disassembly, mark a line long the nut and fitting body flats. Use the marks to ensure that you return the nut to the previously pulled-up position.

Insert the tube with preswaged ferrules into the fitting until the front ferrule seats against the fitting body. While holding the fitting body steady, rotate the nut with a wrench to the previously pulled-up position, as indicated by the marks on the tube and flats. At this point, you will feel a significant increase in resistance. Tighten the nut slightly about 1/8 turn.

Draw a straight line between the nut and the body before disassembly 	When reinstalling, exceed the straight line about 1/8 turn 
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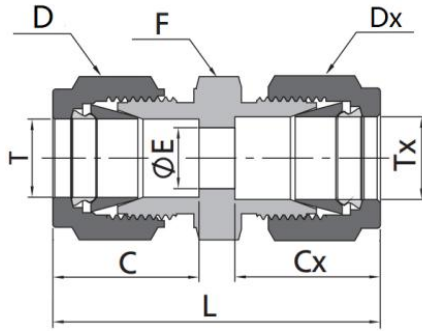
Tube Unions



Fractional Tube						
T- Tube O.D. (in.)	Basic Ordering Number	Dimension, in(mm)				
		L	C	D	F	E
1/16	-TU-FT1	0.99(25.1)	0.34(8.6)	0.31(7.9)	0.44(11.1)	0.05(1.3)
1/8	-TU-FT2	1.40(35.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)
3/16	-TU-FT3	1.47(37.3)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)
1/4	-TU-FT4	1.61(40.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
5/16	-TU-FT5	1.69(42.9)	0.64(16.2)	0.63(15.9)	0.56(14.3)	0.25(6.4)
3/8	-TU-FT6	1.77(45.0)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
1/2	-TU-FT8	2.02(51.3)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
5/8	-TU-FT10	2.05(52.1)	0.96(24.4)	1.00(25.4)	0.94(23.9)	0.50(12.7)
3/4	-TU-FT12	2.11(53.6)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
7/8	-TU-FT14	2.17(55.1)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)
1	-TU-FT16	2.55(64.8)	1.23(31.2)	1.5(38.1)	1.37(34.9)	0.88(22.4)
1 1/8	-TU-FT18	2.55(64.8)	1.23(31.2)	1.75(44.5)	1.63(41.3)	0.97(24.6)
1 1/4	-TU-FT20	3.63(92.2)	1.62(41.1)	1.87(47.6)	1.75(44.5)	1.09(27.7)
1 1/2	-TU-FT24	4.25(108.0)	1.97(50.0)	2.25(57.2)	2.13(54.0)	1.34(34.0)
2	-TU-FT32	5.88(149.4)	2.66(67.6)	3.00(76.2)	2.75(70.0)	1.81(46.0)

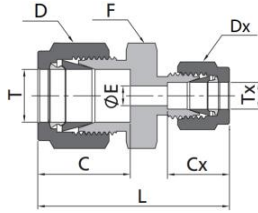
Metric Tube						
T- Tube O.D. (mm)	Basic Ordering Number	Dimension, mm(inch.)				
		L	C	D	F	E
2	-TU-MT2	35.6(1.40)	12.9(0.51)	12.0(0.47)	12.0(0.47)	1.7(0.07)
3	-TU-MT3	35.3(1.39)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)
4	-TU-MT4	37.3(1.47)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)
6	-TU-MT6	41.0(1.61)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
8	-TU-MT8	43.2(1.70)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
10	-TU-MT10	46.2(1.82)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.9(0.31)
12	-TU-MT12	51.2(2.02)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
14	-TU-MT14	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	11.1(0.44)
15	-TU-MT15	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	11.9(0.47)
16	-TU-MT16	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	12.7(0.50)
18	-TU-MT18	53.5(2.11)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	-TU-MT20	55.0(2.17)	26.0(1.02)	32.0(1.26)	30.0(1.18)	15.9(0.63)
22	-TU-MT22	55.0(2.17)	26.0(1.02)	32.0(1.26)	30.0(1.18)	18.3(0.72)
25	-TU-MT25	65.0(2.56)	31.3(1.23)	38.0(1.50)	35.0(1.38)	21.8(0.86)
28	-TU-MT28	85.0(3.35)	36.6(1.44)	46.0(1.81)	41.0(1.61)	21.8(0.86)
30	-TU-MT30	92.7(3.65)	39.6(1.56)	50.0(1.97)	46.0(1.81)	26.2(1.03)
32	-TU-MT32	97.3(3.83)	42.0(1.65)	50.0(1.97)	46.0(1.81)	28.6(1.13)
38	-TU-MT38	113.6(4.47)	49.4(1.94)	60.0(2.36)	55.0(2.17)	33.7(1.33)
50	-TU-MT50	146.4(5.76)	67.6(2.66)	75.0(2.95)	70.0(2.75)	46.0(1.81)

Conversion Unions



Metric Tube to Fractional Tube									
T-Tube O.D. (mm)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimension, in(mm)						
			L	C	D	F	E	Cx	Dx
3	1/8	-CU-MT3-FT2	35.2(1.39)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)	12.7(0.50)	11.1(0.44)
4	1/8	-CU-MT4-FT2	36.5(1.44)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)	12.7(0.50)	11.1(0.44)
4	1/4	-CU-MT4-FT4	39.4(1.55)	13.7(0.54)	12.0(0.47)	14.0(0.55)	2.4(0.09)	15.2(0.60)	14.3(0.56)
6	1/8	-CU-MT6-FT2	38.5(1.52)	15.3(0.60)	14.0(0.55)	14.0(0.55)	2.4(0.09)	12.7(0.50)	11.1(0.44)
6	1/4	-CU-MT6-FT4	41.0(1.61)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)	15.2(0.60)	14.3(0.56)
6	5/16	-CU-MT6-FT5	42.3(1.67)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)	16.2(0.64)	15.9(0.63)
8	1/4	-CU-MT8-FT4	42.3(1.67)	16.2(0.64)	16.0(0.63)	15.0(0.59)	4.8(0.19)	15.2(0.60)	14.3(0.56)
8	3/8	-CU-MT8-FT6	44.3(1.74)	16.2(0.64)	16.0(0.63)	16.0(0.63)	6.4(0.25)	16.8(0.66)	17.5(0.69)
10	1/8	-CU-MT10-FT2	41.8(1.65)	17.2(0.68)	19.0(0.75)	18.0(0.71)	2.4(0.09)	12.7(0.50)	11.1(0.44)
10	1/4	-CU-MT10-FT4	44.5(1.75)	17.2(0.68)	19.0(0.75)	18.0(0.71)	4.8(0.19)	15.2(0.60)	14.3(0.56)
10	5/16	-CU-MT10-FT5	45.1(1.78)	17.2(0.68)	19.0(0.75)	18.0(0.71)	6.4(0.25)	16.2(0.64)	15.9(0.63)
10	3/8	-CU-MT10-FT6	45.9(1.81)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.1(0.28)	16.8(0.66)	17.5(0.69)
12	5/16	-CU-MT12-FT5	47.8(1.88)	22.8(0.90)	22.0(0.87)	22.0(0.87)	6.4(0.25)	16.2(0.64)	15.9(0.63)
12	3/8	-CU-MT12-FT6	48.4(1.91)	22.8(0.90)	22.0(0.87)	22.0(0.87)	7.1(0.28)	16.8(0.66)	17.5(0.69)
12	1/2	-CU-MT12-FT8	51.2(2.02)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)	22.9(0.90)	22.2(0.87)
15	1/2	-CU-MT15-FT8	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	10.4(0.41)	22.9(0.90)	22.2(0.87)
16	5/8	-CU-MT16-FT10	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	12.7(0.50)	24.4(0.96)	25.4(1.00)
18	3/4	-CU-MT18-FT12	53.5(2.11)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)	24.4(0.96)	28.6(1.13)
20	1/2	-CU-MT20-FT8	55.0(2.17)	26.0(1.02)	32.0(1.26)	30.0(1.18)	10.4(0.41)	22.9(0.90)	22.2(0.87)
20	1	-CU-MT20-FT16	62.8(2.47)	26.0(1.02)	32.0(1.26)	35.0(1.38)	15.9(0.63)	31.2(1.23)	38.1(1.50)
25	1	-CU-MT25-FT16	65.0(2.56)	31.3(1.23)	38.0(1.50)	35.0(1.38)	21.8(0.86)	31.2(1.23)	38.1(1.50)
28	1	-CU-MT28-FT16	79.6(3.13)	36.6(1.44)	46.0(1.81)	41.0(1.61)	21.8(0.86)	31.2(1.23)	38.1(1.50)
30	1	-CU-MT32-FT16	85.3(3.35)	39.6(1.56)	50.0(1.97)	46.0(1.81)	21.8(0.86)	31.2(1.23)	38.1(1.50)
32	1	-CU-MT32-FT16	86.5(3.40)	42.0(1.65)	50.0(1.97)	46.0(1.81)	21.8(0.86)	31.2(1.23)	38.1(1.50)
38	1	-CU-MT38-FT16	95.4(3.76)	49.4(1.94)	60.0(2.36)	55.0(2.17)	21.8(0.86)	31.2(1.23)	38.1(1.50)
50	2	-CU-MT50-FT32	149.4(5.88)	65.0(2.56)	75.0(2.95)	70.0(2.76)	46.0(1.81)	67.6(2.66)	76.2(3.00)

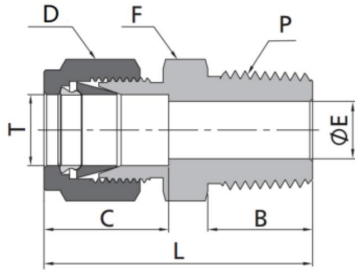
Reducing Unions



Fractional Tube									
T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimension, in(mm)						
			L	C	D	F	E	Cx	Gx
1/8	1/16	-RU-FT2-FT1	1.22(31.0)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.05(1.3)	0.34(8.6)	0.31(7.9)
3/16	1/16	-RU-FT3-FT1	1.27(32.3)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.05(1.3)	0.34(8.6)	0.31(7.9)
3/16	1/8	-RU-FT3-FT2	1.44(36.6)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.09(2.3)	0.50(12.7)	0.44(11.1)
1/4	1/16	-RU-FT4-FT1	1.35(34.3)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.05(1.3)	0.34(8.6)	0.31(7.9)
1/4	1/8	-RU-FT4-FT2	1.52(38.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.09(2.3)	0.50(12.7)	0.44(11.1)
1/4	3/16	-RU-FT4-FT3	1.55(39.4)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.12(3.0)	0.54(13.7)	0.50(12.7)
5/16	1/8	-RU-FT5-FT2	1.56(39.6)	0.64(16.2)	0.63(15.9)	0.56(14.3)	0.09(2.3)	0.50(12.7)	0.44(11.1)
5/16	1/4	-RU-FT5-FT4	1.66(42.2)	0.64(16.2)	0.63(15.9)	0.56(14.3)	0.19(4.8)	0.60(15.2)	0.56(14.3)
3/8	1/16	-RU-FT6-FT1	1.44(36.6)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.05(1.3)	0.34(8.6)	0.31(7.9)
3/8	1/8	-RU-FT6-FT2	1.61(40.9)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.09(2.3)	0.50(12.7)	0.44(11.1)
3/8	1/4	-RU-FT6-FT4	1.70(43.2)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.19(4.8)	0.60(15.2)	0.56(14.3)
1/2	1/4	-RU-FT8-FT4	1.85(47.0)	0.90(22.8)	0.87(22.2)	0.81(20.6)	0.19(4.8)	0.60(15.2)	0.56(14.3)
1/2	3/8	-RU-FT8-FT6	1.91(48.5)	0.90(22.8)	0.87(22.2)	0.81(20.6)	0.28(7.1)	0.66(16.8)	0.69(17.5)
5/8	3/8	-RU-FT10-FT6	1.94(49.3)	0.96(24.4)	1.00(25.4)	0.94(23.9)	0.28(7.1)	0.66(16.8)	0.69(17.5)
5/8	1/2	-RU-FT10-FT8	2.05(52.1)	0.96(24.4)	1.00(25.4)	0.94(23.9)	0.41(10.4)	0.90(22.8)	0.87(22.2)
3/4	1/4	-RU-FT12-FT4	1.94(49.3)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.19(4.8)	0.60(15.2)	0.56(14.3)
3/4	3/8	-RU-FT12-FT6	2.00(50.8)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.28(7.1)	0.66(16.8)	0.69(17.5)
3/4	1/2	-RU-FT12-FT8	2.11(53.6)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.41(10.4)	0.90(22.8)	0.87(22.2)
1	1/2	-RU-FT16-FT8	2.38(60.5)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.41(10.4)	0.90(22.8)	0.87(22.2)
1	3/4	-RU-FT16-FT12	2.38(60.5)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.96(24.4)	1.13(28.6)

Metric Tube									
T-Tube O.D. (mm)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimension, mm(in.)						
			L	C	D	F	E	Cx	Gx
3	2	-RU-MT3-MT2	35.3(1.39)	12.9(0.51)	12.0(0.47)	12.0(0.47)	1.7(0.07)	12.9(0.51)	12.0(0.47)
6	3	-RU-MT6-MT3	38.6(1.52)	15.3(0.60)	14.0(0.55)	14.0(0.55)	2.4(0.09)	12.9(0.51)	12.0(0.47)
6	4	-RU-MT6-MT4	39.4(1.55)	15.3(0.60)	14.0(0.55)	14.0(0.55)	2.4(0.09)	13.7(0.54)	12.0(0.47)
8	6	-RU-MT8-MT6	42.3(1.67)	16.3(0.64)	16.0(0.63)	15.0(0.59)	4.8(0.19)	15.3(0.60)	14.0(0.55)
10	6	-RU-MT10-MT6	44.5(1.75)	17.2(0.68)	19.0(0.75)	18.0(0.71)	4.8(0.19)	15.3(0.60)	14.0(0.55)
10	8	-RU-MT10-MT8	45.1(1.78)	17.2(0.68)	19.0(0.75)	18.0(0.71)	6.4(0.25)	16.3(0.64)	16.0(0.63)
12	8	-RU-MT12-MT8	47.8(1.88)	22.8(0.90)	22.0(0.87)	22.0(0.87)	6.4(0.25)	16.3(0.64)	16.0(0.63)
12	10	-RU-MT12-MT10	48.7(1.92)	22.8(0.90)	22.0(0.87)	22.0(0.87)	7.9(0.31)	17.2(0.68)	19.0(0.75)
16	10	-RU-MT16-MT10	49.5(1.95)	24.4(0.96)	25.0(0.98)	24.0(0.94)	7.9(0.31)	17.2(0.68)	19.0(0.75)
16	12	-RU-MT16-MT12	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	9.5(0.37)	22.8(0.90)	22.0(0.87)
18	12	-RU-MT18-MT12	53.5(2.11)	24.4(0.96)	30.0(1.18)	27.0(1.06)	9.5(0.37)	22.8(0.90)	22.0(0.87)
25	18	-RU-MT25-MT18	61.0(2.40)	31.3(1.23)	38.0(1.50)	35.0(1.38)	15.1(0.59)	24.4(0.96)	30.0(1.18)
25	20	-RU-MT25-MT20	62.3(2.45)	31.3(1.23)	38.0(1.50)	35.0(1.38)	15.9(0.63)	26.0(1.02)	32.0(1.26)
30	20	-RU-MT30-MT20	75.4(2.97)	39.6(1.56)	50.0(1.97)	46.0(1.81)	15.9(0.63)	26.0(1.02)	32.0(1.26)
30	25	-RU-MT30-MT25	80.1(3.15)	39.6(1.56)	50.0(1.97)	46.0(1.81)	21.8(0.86)	31.3(1.23)	38.0(1.50)
32	20	-RU-MT32-MT20	77.8(3.06)	42.0(1.65)	50.0(1.97)	46.0(1.81)	15.9(0.63)	26.0(1.02)	32.0(1.26)
32	25	-RU-MT32-MT25	82.3(3.24)	42.0(1.65)	50.0(1.97)	46.0(1.81)	21.8(0.86)	31.3(1.23)	38.0(1.50)
38	25	-RU-MT38-MT25	92.0(3.62)	49.4(1.94)	60.0(2.36)	55.0(2.17)	21.8(0.86)	31.3(1.23)	38.0(1.50)
38	30	-RU-MT38-MT30	104.6(4.12)	49.4(1.94)	60.0(2.36)	55.0(2.17)	26.2(1.03)	39.6(1.56)	50.0(1.97)

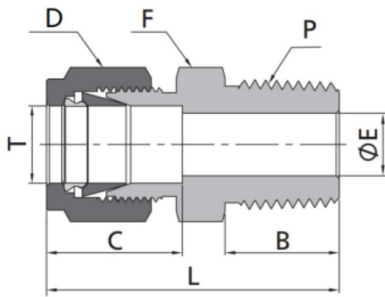
Male Connectors



Fractional Tube to NPT Thread

T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimension, in. (mm)					
			L	B	C	E	D	F
1/16	1/16	-MC-FT1-MN1	0.94(23.9)	0.38(9.7)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.31(7.9)
1/16	1/8	-MC-FT1-MN2	1.03(26.2)	0.38(9.7)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)
1/8	1/16	-MC-FT2-MN1	1.17(29.7)	0.38(9.7)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.44(11.1)
1/8	1/8	-MC-FT2-MN2	1.20(30.5)	0.38(9.7)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.44(11.1)
1/8	1/4	-MC-FT2-MN4	1.40(35.6)	0.56(14.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)
3/16	1/8	-MC-FT3-MN2	1.23(31.2)	0.38(9.7)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.44(11.1)
3/16	1/4	-MC-FT3-MN4	1.43(36.3)	0.56(14.2)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)
1/4	1/16	-MC-FT4-MN1	1.29(32.8)	0.38(9.7)	0.60(15.2)	0.12(3.0)	0.56(14.3)	0.50(12.7)
1/4	1/8	-MC-FT4-MN2	1.29(32.8)	0.38(9.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.50(12.7)
1/4	1/4	-MC-FT4-MN4	1.49(37.8)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	3/8	-MC-FT4-MN6	1.51(38.4)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.69(17.5)
1/4	1/2	-MC-FT4-MN8	1.75(44.5)	0.75(19.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
5/16	1/8	-MC-FT5-MN2	1.34(34.0)	0.38(9.7)	0.64(16.3)	0.19(4.8)	0.63(15.9)	0.56(14.3)
5/16	1/4	-MC-FT5-MN4	1.52(38.6)	0.38(9.7)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.56(14.3)
5/16	3/8	-MC-FT5-MN6	1.54(39.1)	0.56(14.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.69(17.5)
5/16	1/2	-MC-FT5-MN8	1.79(45.5)	0.75(19.1)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.87(22.2)
3/8	1/8	-MC-FT6-MN2	1.39(35.3)	0.38(9.7)	0.66(16.8)	0.19(4.8)	0.69(17.5)	0.63(15.9)
3/8	1/4	-MC-FT6-MN4	1.57(39.9)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)
3/8	3/8	-MC-FT6-MN6	1.57(39.9)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.69(17.5)
3/8	1/2	-MC-FT6-MN8	1.82(46.2)	0.75(19.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	3/4	-MC-FT6-MN12	2.14(54.4)	0.75(19.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
3/8	1	-MC-FT6-MN16	1.88(47.8)	0.94(23.9)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.37(34.9)
1/2	1/4	-MC-FT8-MN4	1.71(43.4)	0.56(14.2)	0.90(22.9)	0.28(7.1)	0.87(22.2)	0.81(20.6)
1/2	3/8	-MC-FT8-MN6	1.71(43.4)	0.56(14.2)	0.90(22.9)	0.38(9.7)	0.87(22.2)	0.81(20.6)
1/2	1/2	-MC-FT8-MN8	1.93(49.0)	0.75(19.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	3/4	-MC-FT8-MN12	1.99(50.5)	0.75(19.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)
1/2	1	-MC-FT8-MN16	2.25(57.2)	0.94(23.9)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.37(34.9)
5/8	1/4	-MC-FT10-MN4	1.74(44.2)	0.56(14.2)	0.96(24.4)	0.28(7.1)	1.00(25.4)	0.94(23.8)
5/8	3/8	-MC-FT10-MN6	1.74(44.2)	0.56(14.2)	0.96(24.4)	0.38(9.7)	1.00(25.4)	0.94(23.8)
5/8	1/2	-MC-FT10-MN8	1.93(49.0)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.00(25.4)	0.94(23.8)
5/8	3/4	-MC-FT10-MN12	1.99(50.5)	0.75(19.1)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)
3/4	3/8	-MC-FT12-MN6	1.99(50.5)	0.56(14.2)	0.96(24.4)	0.41(10.4)	1.13(28.6)	1.06(27.0)
3/4	1/2	-MC-FT12-MN8	2.25(57.2)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)
3/4	3/4	-MC-FT12-MN12	1.99(50.5)	0.75(19.1)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)
3/4	1	-MC-FT12-MN16	2.25(57.2)	0.94(23.9)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.37(34.9)
7/8	1/2	-MC-FT14-MN8	2.26(57.4)	0.75(19.1)	1.02(25.9)	0.47(11.9)	1.25(31.8)	1.19(30.2)
7/8	3/4	-MC-FT14-MN12	2.45(62.2)	0.75(19.1)	1.02(25.9)	0.62(15.7)	1.25(31.8)	1.19(30.2)
7/8	1	-MC-FT14-MN16	2.45(62.2)	0.94(23.9)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.37(34.9)
1	1/2	-MC-FT16-MN8	3.04(77.2)	0.75(19.1)	1.23(31.2)	0.47(11.9)	1.50(38.1)	1.37(34.9)
1	3/4	-MC-FT16-MN12	3.04(77.2)	0.75(19.1)	1.23(31.2)	0.62(15.7)	1.50(38.1)	1.37(34.9)
1	1	-MC-FT16-MN16	3.50(88.9)	0.94(23.9)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)
1 1/8	1	-MC-FT18-MN16	2.45(62.2)	0.94(23.9)	1.23(31.2)	0.88(22.4)	1.81(46.0)	1.63(41.3)
1 1/4	1	-MC-FT20-MN16	3.04(77.2)	0.94(23.9)	1.62(41.1)	0.88(22.4)	1.87(47.6)	1.75(44.5)
1 1/4	1 1/4	-MC-FT20-MN20	3.04(77.2)	0.94(23.9)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.75(44.5)
1 1/2	1 1/2	-MC-FT24-MN24	3.50(88.9)	1.03(26.2)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.13(54.0)
2	2	-MC-FT32-MN32	4.47(113.5)	1.07(27.2)	2.66(67.6)	1.81(46.0)	3.00(76.2)	2.75(70.0)

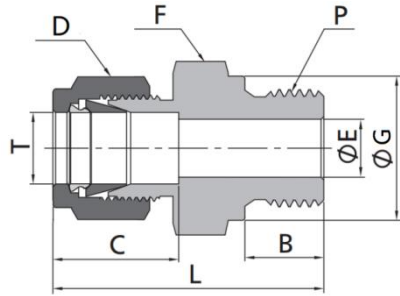
Male Connectors



Fractional Tube to RT Thread

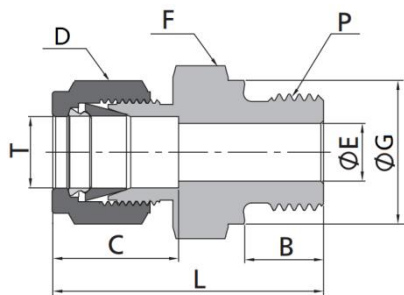
T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimension, in. (mm)					
			L	B	C	E	D	F
1/8	1/8	-MC-FT2-MR2	1.20(30.5)	0.38(9.7)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.44(11.1)
1/8	1/4	-MC-FT2-MR4	1.40(35.6)	0.56(14.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)
3/16	1/8	-MC-FT3-MR2	1.23(31.2)	0.38(9.7)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.44(11.1)
3/16	1/4	-MC-FT3-MR4	1.43(36.3)	0.56(14.2)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)
1/4	1/8	-MC-FT4-MR2	1.29(32.8)	0.38(9.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.50(12.7)
1/4	1/4	-MC-FT4-MR4	1.49(37.8)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	3/8	-MC-FT4-MR6	1.51(38.4)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.69(17.5)
1/4	1/2	-MC-FT4-MR8	1.76(44.7)	0.75(19.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
5/16	1/8	-MC-FT5-MR2	1.34(34.0)	0.38(9.7)	0.64(16.3)	0.19(4.8)	0.63(15.9)	0.56(14.3)
5/16	1/4	-MC-FT5-MR4	1.52(38.6)	0.56(14.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.56(14.3)
5/16	3/8	-MC-FT5-MR6	1.54(39.1)	0.56(14.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.69(17.5)
3/8	1/8	-MC-FT6-MR2	1.39(35.3)	0.38(9.7)	0.66(16.8)	0.19(4.8)	0.69(17.5)	0.63(15.9)
3/8	1/4	-MC-FT6-MR4	1.57(39.9)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)
3/8	3/8	-MC-FT6-MR6	1.57(39.9)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.69(17.5)
3/8	1/2	-MC-FT6-MR8	1.82(46.2)	0.75(19.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	3/4	-MC-FT6-MR12	1.88(47.8)	0.75(19.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
3/8	1	-MC-FT6-MR16	1.88(47.8)	0.94(23.9)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.37(34.9)
1/2	1/4	-MC-FT3-MR4	1.71(43.4)	0.56(14.2)	0.90(22.9)	0.28(7.1)	0.87(22.2)	0.81(20.6)
1/2	3/8	-MC-FT3-MR6	1.71(43.4)	0.56(14.2)	0.90(22.9)	0.38(9.7)	0.87(22.2)	0.81(20.6)
1/2	1/2	-MC-FT3-MR8	1.93(49.0)	0.75(19.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	3/4	-MC-FT3-MR12	1.99(50.5)	0.75(19.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)
1/2	1	-MC-FT8-MR16	2.25(57.2)	0.94(23.9)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.37(34.9)
5/8	1/2	-MC-FT10-MR8	1.93(49.0)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.00(25.4)	0.94(23.8)
5/8	3/4	-MC-FT10-MR12	1.99(50.5)	0.75(19.1)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)
3/4	1/2	-MC-FT12-MR8	2.25(57.2)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)
3/4	3/4	-MC-FT12-MR12	1.99(50.5)	0.75(19.1)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)
3/4	1	-MC-FT12-MR16	2.25(57.2)	0.94(23.9)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.37(34.9)
1	1/2	-MC-FT16-MR8	3.04(77.2)	0.75(19.1)	1.23(31.2)	0.47(11.9)	1.50(38.1)	1.37(34.9)
1	3/4	-MC-FT16-MR12	2.26(57.4)	0.75(19.1)	1.23(31.2)	0.62(15.7)	1.50(38.1)	1.37(34.9)
1	1	-MC-FT16-MR16	2.45(62.2)	0.94(23.9)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)
1 1/8	1	-MC-FT18-MR16	2.45(62.2)	0.94(23.9)	1.23(31.2)	0.88(22.4)	1.81(46.0)	1.63(41.3)
1 1/4	1	-MC-FT20-MR16	3.04(77.2)	0.94(23.9)	1.62(41.1)	0.88(22.4)	1.87(47.6)	1.75(44.5)
1 1/4	1 1/4	-MC-FT20-MR20	3.04(77.2)	0.94(23.9)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.75(44.5)
1 1/2	1 1/2	-MC-FT24-MR24	3.50(88.9)	1.03(26.2)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.13(54.0)
2	2	-MC-FT32-MR32	4.47(113.5)	1.07(27.2)	2.66(67.6)	1.81(46.0)	3.00(76.2)	2.75(70.0)

Male Connectors



Fractional Tube to ISO Parallel Thread

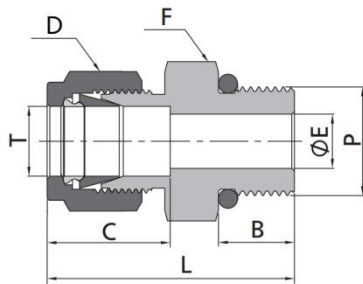
T-Tube O.D. (in.)	P-RS Size	Basic Ordering Number	Dimension, in. (mm)						
			L	B	C	E	D	F	G
1/8	1/8	-MC-FT2-RS2	1.18(30.0)	0.28(7.1)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)	0.54(13.7)
1/8	1/4	-MC-FT2-RS4	1.39(35.3)	0.44(11.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)	0.71(18.0)
1/8	3/8	-MC-FT2-RS6	1.43(36.3)	0.44(11.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.87(22.2)	0.86(21.8)
1/4	1/8	-MC-FT4-RS2	1.27(32.3)	0.28(7.1)	0.60(15.2)	0.16(4.0)	0.56(14.3)	0.56(14.3)	0.54(13.7)
1/4	1/4	-MC-FT4-RS4	1.48(37.6)	0.44(11.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.71(18.0)
1/4	3/8	-MC-FT4-RS6	1.53(38.9)	0.44(11.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)	0.86(21.8)
1/4	1/2	-MC-FT4-RS8	1.76(44.7)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)	1.02(25.9)
3/8	1/8	-MC-FT6-RS2	1.49(37.8)	0.28(7.1)	0.66(16.8)	0.16(4.0)	0.69(17.5)	0.63(15.9)	0.54(13.7)
3/8	1/4	-MC-FT6-RS4	1.54(39.1)	0.44(11.2)	0.66(16.8)	0.23(5.9)	0.69(17.5)	0.75(19.1)	0.71(18.0)
3/8	3/8	-MC-FT6-RS6	1.59(40.4)	0.44(11.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)	0.86(21.8)
3/8	1/2	-MC-FT6-RS8	1.82(46.2)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)	1.02(25.9)
1/2	1/4	-MC-FT8-RS4	1.68(42.7)	0.44(11.2)	0.90(22.9)	0.23(5.9)	0.87(22.2)	0.81(20.6)	0.71(18.0)
1/2	3/8	-MC-FT8-RS6	1.70(43.2)	0.44(11.2)	0.90(22.9)	0.31(7.9)	0.87(22.2)	0.87(22.2)	0.86(21.8)
1/2	1/2	-MC-FT8-RS8	1.93(49.0)	0.56(14.2)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)	1.02(25.9)
3/4	1/2	-MC-FT12-RS8	1.93(49.0)	0.56(14.2)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)	1.02(25.9)
3/4	3/4	-MC-FT12-RS12	2.08(52.9)	0.62(15.7)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.31(33.3)	1.26(32.0)
1	1/2	-MC-FT16-RS8	2.19(55.5)	0.56(14.2)	1.23(31.2)	0.47(11.9)	1.50(38.1)	1.37(34.9)	1.02(25.9)
1	3/4	-MC-FT16-RS12	2.27(57.7)	0.62(15.7)	1.23(31.2)	0.63(16.0)	1.50(38.1)	1.37(34.9)	1.26(32.0)
1	1	-MC-FT16-RS16	2.36(59.9)	0.72(18.3)	1.23(31.2)	0.78(19.8)	1.50(38.1)	1.63(41.3)	1.54(39.1)



Fractional Tube to ISO Parallel Thread

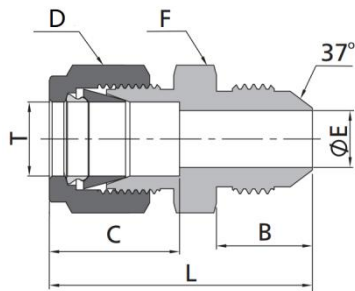
T-Tube O.D. (in.)	P-RP Size	Basic Ordering Number	Dimension, in. (mm)						
			L	B	C	E	D	F	G
1/8	1/8	-MC-FT2-RP2	1.18(30.0)	0.28(7.1)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)	0.54(13.8)
1/8	1/4	-MC-FT2-RP4	1.39(35.3)	0.44(11.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)	0.70(17.8)
1/4	1/8	-MC-FT4-RP2	1.27(32.3)	0.28(7.1)	0.60(15.2)	0.16(4.1)	0.56(14.3)	0.56(14.3)	0.54(13.8)
1/4	1/4	-MC-FT4-RP4	1.48(37.6)	0.44(11.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.70(17.8)
1/2	3/8	-MC-FT8-RP6	1.59(40.4)	0.44(11.2)	0.90(22.9)	0.31(7.9)	0.87(22.2)	0.87(22.2)	0.86(21.8)
1/2	1/2	-MC-FT8-RP8	1.93(49.0)	0.56(14.2)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)	1.02(25.9)
3/4	1/2	-MC-FT12-RP8	1.93(49.0)	0.56(14.2)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)	1.02(25.9)
3/4	3/4	-MC-FT12-RP12	2.08(52.9)	0.62(15.7)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.31(33.3)	1.26(32.0)
1	1	-MC-FT16-RP16	2.36(59.9)	0.72(18.3)	1.23(31.2)	0.78(19.8)	1.50(38.1)	1.63(41.3)	1.53(38.8)

Male Connectors



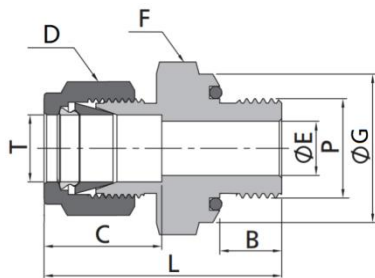
Fractional Tube to SAE/MS Thread								
T-Tube O.D. (in.)	P-SAE/MS Size	Basic Ordering Number	Dimension, in. (mm)					
			L	B	C	E	D	F
1/16	5/16-24	-MC-FT1-ST5	0.92(23.4)	030(7.6)	0.34(8.6)	0.05(1.3)	0.31 (7.9)	0.44(11.1)
1/8	5/16-24	-MC-FT2-ST5	1.18(30.0)	030(7.6)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.44(11.1)
1/8	7/16-20	-MC-FT2-ST7	1.24(31.5)	036(9.1)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)
1/8	9/16-18	-MC-FT2-ST9	1.31(33.3)	039(9.9)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.69(17.5)
3/16	3/8-24	-MC-FT3-ST6	1.20(30.5)	030(7.6)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.50(12.7)
1/4	5/16-24	-MC-FT4-ST5	1.27(32.3)	030(7.6)	0.60(15.2)	0.09(2.3)	0.56(14.3)	0.50(12.7)
1/4	7/16-20	-MC-FT4-ST7	1.34(34.0)	036(9.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	9/16-18	-MC-FT4-ST9	1.40(35.6)	039(9.9)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.69(17.5)
1/4	3/4-16	-MC-FT4-ST12	1.48(37.6)	0.44(11.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
1/4	7/8-14	-MC-FT4-ST14	1.60(40.6)	0.50(12.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.00(25.4)
5/16	1/2-20	-MC-FT5-ST8	1.37(34.8)	036(9.1)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.63(15.9)
3/8	7/16-20	-MC-FT6-ST7	1.40(35.6)	0.36(9.1)	0.66(16.8)	0.20(5.1)	0.69(17.5)	0.63(15.9)
3/8	9/16-18	-MC-FT6-ST9	1.46(37.1)	039(9.9)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.69(17.5)
3/8	3/4-16	-MC-FT6-ST12	1.54(39.1)	0.44(11.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	7/8-14	-MC-FT6-ST14	1.66(42.2)	0.50(12.7)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.00(25.4)
1/2	9/16-18	-MC-FT8-ST9	1.54(39.1)	039(9.9)	0.90(22.9)	0.28(7.1)	0.87(22.2)	0.81 (20.6)
1/2	3/4-16	-MC-FT8-ST12	1.65(41.9)	0.44(11.2)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	7/8-14	-MC-FT8-ST14	1.77(45.0)	0.50(12.7)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.00(25.4)
1/2	1 1/16-12	-MC-FT8-ST17	1.93(49.0)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.25(31.8)
5/8	3/4-16	-MC-FT10-ST12	1.65(41.9)	0.44(11.2)	0.96(24.4)	0.42(10.7)	1.00(25.4)	0.94(23.8)
5/8	7/8-14	-MC-FT10-ST14	1.78(45.2)	0.50(12.7)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.00(25.4)
3/4	3/4-16	-MC-FT12-ST12	1.81(46.0)	0.44(11.2)	0.96(24.4)	0.42(10.7)	1.13(28.6)	1.06(27.0)
3/4	1 1/16-12	-MC-FT12-ST17	1.93(49.0)	0.59(15.0)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.25(31.8)
3/4	1 5/16-12	-MC-FT12-ST21	1.96(49.8)	0.59(15.0)	0.96(24.4)	0.63(16.0)	1.13(28.6)	1.50(38.1)
7/8	1 3/16-12	-MC-FT14-ST19	1.93(49.0)	0.59(15.0)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.37(34.9)
1	1 1/16-12	-MC-FT16-ST17	2.10(53.3)	0.59(15.0)	1.23(31.2)	0.54(13.8)	1.50(38.1)	1.37(34.9)
1	1 5/16-12	-MC-FT16-ST21	2.14(54.4)	0.59(15.0)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.50(38.1)
1 1/4	1 5/8-12	-MC-FT20-ST26	2.69(68.3)	0.59(15.0)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.87(47.6)
1 1/2	1 7/8-12	-MC-FT24-ST30	3.06(77.7)	0.59(15.0)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.13(54.0)

Male Connectors



Fractional Tube to 37° Flared

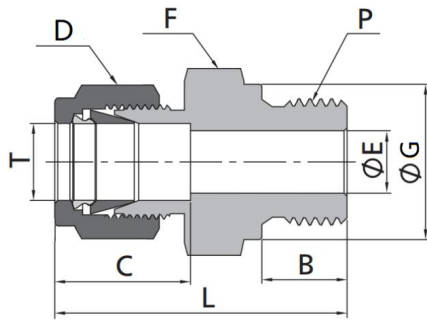
T-Tube O.D. (in.)	Flared Size	Basic Ordering Number	Dimension, in. (mm)					
			L	B	C	E	D	F
1/16	1/8	-MC-FT1-AN2	1.07(27.2)	0.45(11.4)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)
1/8	1/8	-MC-FT2-AN2	1.27(32.3)	0.45(11.4)	0.50(12.7)	0.06(1.5)	0.44(11.1)	0.44(11.1)
1/8	1/4	-MC-FT2-AN4	1.38(35.1)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.50(12.7)
3/16	3/16	-MC-FT3-AN3	1.32(33.5)	0.48(12.2)	0.54(13.7)	0.09(2.3)	0.50(12.7)	0.44(11.1)
1/4	1/4	-MC-FT4-AN4	1.48(37.6)	0.55(14.0)	0.60(15.2)	0.17(4.3)	0.56(14.3)	0.50(12.7)
5/16	5/16	-MC-FT5-AN5	1.51(38.4)	0.55(14.0)	0.64(16.2)	0.23(5.8)	0.63(15.9)	0.56(14.3)
3/8	1/4	-MC-FT6-AN4	1.56(39.6)	0.55(14.0)	0.66(16.8)	0.17(4.3)	0.69(17.5)	0.63(15.9)
3/8	3/8	-MC-FT6-AN6	1.56(39.6)	0.56(14.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)
1/2	1/2	-MC-FT8-AN8	1.81(46.0)	0.66(16.7)	0.90(22.8)	0.39(9.9)	0.87(22.2)	0.81(20.6)
5/8	5/8	-MC-FT10-AN10	1.93(49.0)	0.76(19.3)	0.96(24.5)	0.48(12.3)	1.00(25.4)	0.94(23.8)
3/4	3/4	-MC-FT12-AN12	2.10(53.3)	0.86(21.9)	0.96(24.4)	0.61(15.5)	1.13(28.6)	1.13(28.6)
1	1	-MC-FT16-AN16	2.42(61.5)	0.91(23.1)	1.23(31.2)	0.84(21.3)	1.50(38.1)	1.37(34.9)



Fractional Tube to SAE/MS Thread

T-Tube O.D. (in.)	P-SAE/MS Size	Basic Ordering Number	Dimension, in. (mm)						
			L	B	C	E	D	F	G
1/16	5/16-24	-MC-FT1-OS5	1.05(26.7)	0.34(8.6)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.56(14.3)	0.55(14.0)
1/8	5/16-24	-MC-FT2-OS5	1.29(32.8)	0.34(8.6)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)	0.55(14.0)
3/16	3/8-24	-MC-FT3-OS6	1.35(34.3)	0.38(9.7)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.63(15.9)	0.62(15.7)
1/4	7/16-20	-MC-FT4-OS7	1.51(38.4)	0.41(10.4)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.74(18.8)
5/16	1/2-20	-MC-FT5-OS8	1.60(40.6)	0.44(11.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.87(22.2)	0.86(21.8)
3/8	9/16-18	-MC-FT6-OS9	1.67(42.4)	0.47(11.9)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.94(23.8)	0.93(23.6)
1/2	3/4-16	-MC-FT8-OS12	1.81(46.0)	0.47(11.9)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.13(28.6)	1.12(28.4)
3/4	1 1/16-12	-MC-FT12-OS17	2.06(52.3)	0.56(14.2)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.50(38.1)	1.49(37.8)
1	1 5/16-12	-MC-FT16-OS21	2.29(58.2)	0.56(14.2)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.75(44.5)	1.74(44.2)

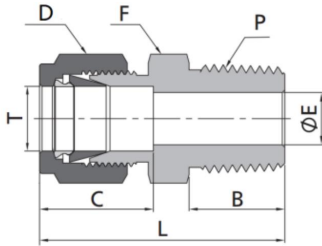
Male Connectors



Fractional Tube to Metric Thread

T-Tube O.D. (in.)	P-Metric Size	Basic Ordering Number	Dimension, in. (mm)						
			L	B	C	E	D	F	G
1/8	M14x 1.5	-MC-FT2-MS14	1.44(36.7)	0.47(12.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)	0.75(19.0)
1/8	M16x 1.5	-MC-FT2-MS16	1.48(37.5)	0.47(12.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.87(22.2)	0.83(21.0)
1/8	M18x 1.5	-MC-FT2-MS18	1.52(38.5)	0.47(12.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.94(23.8)	0.91(23.0)
1/8	M20x 1.5	-MC-FT2-MS20	1.62(41.1)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	1.00(25.4)	0.98(25.0)
1/4	M14x 1.5	-MC-FT4-MS14	1.50(38.0)	0.47(12.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.75(19.0)
1/4	M16x 1.5	-MC-FT4-MS16	1.57(39.9)	0.47(12.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)	0.83(21.0)
1/4	M18x 1.5	-MC-FT4-MS18	1.61(40.8)	0.47(12.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.94(23.8)	0.91(23.0)
1/4	M20x 1.5	-MC-FT4-MS20	1.72(43.6)	0.55(14.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.00(25.4)	0.98(25.0)
3/8	M14x 1.5	-MC-FT6-MS14	1.63(41.3)	0.47(12.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.0)
3/8	M16x 1.5	-MC-FT6-MS16	1.63(41.3)	0.47(12.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)	0.83(21.0)
3/8	M18x 1.5	-MC-FT6-MS18	1.65(41.8)	0.47(12.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.94(23.8)	0.91(23.0)
3/8	M20x 1.5	-MC-FT6-MS20	1.78(45.1)	0.55(14.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.00(25.4)	0.98(25.0)
1/2	M16x 1.5	-MC-FT8-MS16	1.73(44.0)	0.47(12.0)	0.90(22.8)	0.35(9.0)	0.87(22.2)	0.87(22.2)	0.83(21.0)
1/2	M18x 1.5	-MC-FT8-MS18	1.73(44.0)	0.47(12.0)	0.90(22.9)	0.39(10.0)	0.87(22.2)	0.94(23.8)	0.91(23.0)
1/2	M20x 1.5	-MC-FT8-MS20	1.89(47.9)	0.55(14.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.00(25.4)	0.98(25.0)
1/2	M22x 1.5	-MC-FT8-MS22	1.91(48.5)	0.55(14.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)	1.06(27.0)

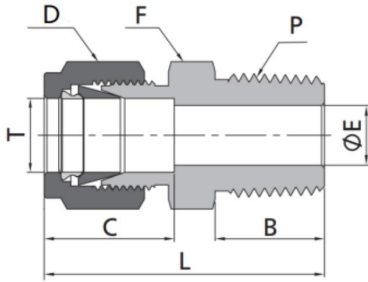
Male Connectors



Metric Tube to NPT Thread

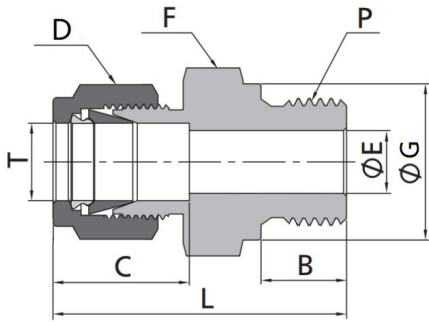
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimension, mm. (in.)					
			L	B	C	E	D	F
2	1/8	-MC-MT2-MN2	30.5(1.20)	9.7(0.38)	12.9(0.51)	1.7(0.07)	12.0(0.47)	12.0(0.47)
3	1/8	-MC-MT3-MN2	30.5(1.20)	9.7(0.38)	12.9(0.51)	2.4(0.09)	12.0(0.47)	12.0(0.47)
3	1/4	-MC-MT3-MN4	35.6(1.40)	14.2(0.56)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)
4	1/8	-MC-MT4-MN2	31.2(1.23)	9.7(0.38)	13.7(0.54)	2.4(0.09)	12.0(0.47)	12.0(0.47)
4	1/4	-MC-MT4-MN4	36.3(1.43)	14.2(0.56)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)
6	1/8	-MC-MT6-MN2	32.8(1.29)	9.7(0.38)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	-MC-MT6-MN4	37.9(1.49)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	3/8	-MC-MT6-MN6	38.4(1.51)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	18.0(0.71)
8	1/8	-MC-MT8-MN2	34.2(1.35)	9.7(0.38)	16.2(0.64)	4.8(0.19)	16.0(0.63)	15.0(0.59)
8	1/4	-MC-MT8-MN4	38.7(1.52)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	15.0(0.59)
8	3/8	-MC-MT8-MN6	39.3(1.55)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)
10	1/4	-MC-MT10-MN4	40.9(1.61)	14.2(0.56)	17.2(0.68)	7.1(0.28)	19.0(0.75)	18.0(0.71)
10	3/8	-MC-MT10-MN6	40.9(1.61)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	18.0(0.71)
10	1/2	-MC-MT10-MN8	46.5(1.83)	19.1(0.75)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
12	1/4	-MC-MT12-MN4	43.4(1.71)	14.2(0.56)	22.8(0.90)	7.1(0.28)	22.0(0.87)	22.0(0.87)
12	3/8	-MC-MT12-MN6	43.4(1.71)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	1/2	-MC-MT12-MN8	49.0(1.93)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	3/4	-MC-MT12-MN12	50.5(1.99)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
14	1/8	-MC-MT14-MN2	38.8(1.53)	9.7(0.38)	24.4(0.96)	4.8(0.19)	25.0(0.98)	24.0(0.94)
14	1/4	-MC-MT14-MN4	44.1(1.74)	14.2(0.56)	24.4(0.96)	7.1(0.28)	25.0(0.98)	24.0(0.94)
14	3/8	-MC-MT14-MN6	44.1(1.74)	14.2(0.56)	24.4(0.96)	9.5(0.37)	25.0(0.98)	24.0(0.94)
14	1/2	-MC-MT14-MN8	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.1(0.44)	25.0(0.98)	24.0(0.94)
14	3/4	-MC-MT14-MN12	50.5(1.99)	19.1(0.75)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)
15	1/2	-MC-MT15-MN8	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.9(0.47)	25.0(0.98)	24.0(0.94)
15	3/4	-MC-MT15-MN12	50.5(1.99)	19.1(0.75)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)
16	1/4	-MC-MT16-MN4	44.1(1.74)	14.2(0.56)	24.4(0.96)	7.1(0.28)	25.0(0.98)	24.0(0.94)
16	3/8	-MC-MT16-MN6	44.1(1.74)	14.2(0.56)	24.4(0.96)	9.5(0.37)	25.0(0.98)	24.0(0.94)
16	1/2	-MC-MT16-MN8	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.9(0.47)	25.0(0.98)	24.0(0.94)
16	3/4	-MC-MT16-MN12	50.5(1.99)	19.1(0.75)	24.4(0.96)	12.7(0.5)	25.0(0.98)	27.0(1.06)
18	3/8	-MC-MT18-MN6	45.6(1.80)	14.2(0.56)	24.4(0.96)	9.5(0.37)	30.0(1.18)	27.0(1.06)
18	1/2	-MC-MT18-MN8	50.5(1.99)	19.1(0.75)	24.4(0.96)	11.9(0.47)	30.0(1.18)	27.0(1.06)
18	3/4	-MC-MT18-MN12	50.5(1.99)	19.1(0.75)	24.4(0.96)	15.1(0.59)	30.0(1.18)	27.0(1.06)
20	1/2	-MC-MT20-MN8	52.3(2.06)	19.1(0.75)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
20	3/4	-MC-MT20-MN12	52.3(2.06)	19.1(0.75)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
20	1	-MC-MT20-MN16	57.1(2.25)	23.9(0.94)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)
22	1/2	-MC-MT22-MN8	52.3(2.06)	19.1(0.75)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
22	3/4	-MC-MT22-MN12	52.3(2.06)	19.1(0.75)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
22	1	-MC-MT22-MN16	57.1(2.25)	23.9(0.94)	26.0(1.02)	18.3(0.72)	32.0(1.26)	35.0(1.38)
25	1/2	-MC-MT25-MN8	57.5(2.26)	19.1(0.75)	31.3(1.23)	11.9(0.47)	38.0(1.50)	35.0(1.38)
25	3/4	-MC-MT25-MN12	57.5(2.26)	19.1(0.75)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)
25	1	-MC-MT25-MN16	62.3(2.45)	23.9(0.94)	31.3(1.23)	21.8(0.86)	38.0(1.50)	35.0(1.38)
28	1	-MC-MT28-MN16	72.4(2.85)	23.9(0.94)	36.6(1.44)	21.8(0.86)	46.0(1.81)	41.0(1.61)
28	1 1/4	-MC-MT28-MN20	73.1(2.88)	23.9(0.94)	36.6(1.44)	21.8(0.86)	46.0(1.81)	46.0(1.81)
30	1 1/4	-MC-MT30-MN20	77.2(3.04)	23.9(0.94)	39.6(1.56)	26.2(1.03)	50.0(1.97)	46.0(1.81)
32	1 1/4	-MC-MT32-MN20	79.6(3.13)	23.9(0.94)	42.0(1.65)	28.6(1.13)	50.0(1.97)	46.0(1.81)
38	1 1/2	-MC-MT38-MN24	91.6(3.61)	26.2(1.03)	49.4(1.94)	33.7(1.33)	60.0(2.36)	55.0(2.17)
50	2	-MC-MT50-MN32	113.5(4.47)	27.2(1.07)	65.0(2.56)	45.2(1.78)	75.0(2.95)	70.0(2.75)

Male Connectors



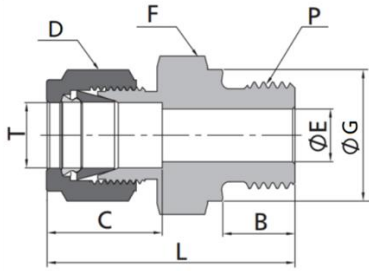
Metric Tube to RT Thread								
T-Tube O.D. (mm)	P-RT Size	Basic Ordering Number	Dimension, mm. (in.)					
			L	B	C	E	D	F
2	1/8	-MC-MT2-MR2	30.5(1.20)	9.7(0.38)	12.9(0.51)	1.7(0.07)	12.0(0.47)	12.0(0.47)
3	1/8	-MC-MT3-MR2	30.5(1.20)	9.7(0.38)	12.9(0.51)	2.4(0.09)	12.0(0.47)	12.0(0.47)
3	1/4	-MC-MT3-MR4	35.6(1.40)	14.2(0.56)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)
4	1/8	-MC-MT4-MR2	31.2(1.23)	9.7(0.38)	13.7(0.54)	2.4(0.09)	12.0(0.47)	12.0(0.47)
4	1/4	-MC-MT4-MR4	36.3(1.43)	14.2(0.56)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)
6	1/8	-MC-MT6-MR2	32.8(1.29)	9.7(0.38)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	-MC-MT6-MR4	37.9(1.49)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	3/8	-MC-MT6-MR6	38.4(1.51)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	18.0(0.71)
8	1/8	-MC-MT8-MR2	34.2(1.35)	9.7(0.38)	16.2(0.64)	4.8(0.19)	16.0(0.63)	15.0(0.59)
8	1/4	-MC-MT8-MR4	38.7(1.52)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	15.0(0.59)
8	3/8	-MC-MT8-MR6	39.2(1.54)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)
10	1/4	-MC-MT10-MR4	40.9(1.61)	14.2(0.56)	17.2(0.68)	7.1(0.28)	19.0(0.75)	18.0(0.71)
10	3/8	-MC-MT10-MR6	40.9(1.61)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	18.0(0.71)
10	1/2	-MC-MT10-MR8	46.5(1.83)	19.1(0.75)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
12	1/4	-MC-MT12-MR4	43.4(1.71)	14.2(0.56)	22.8(0.90)	7.1(0.28)	22.0(0.87)	22.0(0.87)
12	3/8	-MC-MT12-MR6	43.4(1.71)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	1/2	-MC-MT12-MR8	49.0(1.93)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	3/4	-MC-MT12-MR12	50.5(1.99)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
14	1/4	-MC-MT14-MR4	44.1(1.74)	14.2(0.56)	22.4(0.88)	7.1(0.28)	25.0(0.98)	24.0(0.94)
14	3/8	-MC-MT14-MR6	44.1(1.74)	14.2(0.56)	22.4(0.88)	7.9(0.31)	25.0(0.98)	24.0(0.94)
14	1/2	-MC-MT14-MR8	49.0(1.93)	19.1(0.75)	22.4(0.88)	11.1(0.44)	25.0(0.98)	24.0(0.94)
14	3/4	-MC-MT14-MR12	50.5(1.99)	19.1(0.75)	22.4(0.88)	11.1(0.44)	25.0(0.98)	27.0(1.06)
15	1/2	-MC-MT15-MR8	49.0(1.93)	19.1(0.75)	22.4(0.88)	11.9(0.47)	25.0(0.98)	24.0(0.94)
16	1/4	-MC-MT16-MR4	44.1(1.74)	14.2(0.56)	22.4(0.88)	7.1(0.28)	25.0(0.98)	24.0(0.94)
16	3/8	-MC-MT16-MR6	44.1(1.74)	14.2(0.56)	22.4(0.88)	9.5(0.37)	25.0(0.98)	24.0(0.94)
16	1/2	-MC-MT16-MR8	49.0(1.93)	19.1(0.75)	22.4(0.88)	11.9(0.47)	25.0(0.98)	24.0(0.94)
16	3/4	-MC-MT16-MR12	50.5(1.99)	19.1(0.75)	22.4(0.88)	12.7(0.5)	25.0(0.98)	27.0(1.06)
18	1/2	-MC-MT18-MR8	50.5(1.99)	19.1(0.75)	22.4(0.88)	11.9(0.47)	30.0(1.18)	27.0(1.06)
18	3/4	-MC-MT18-MR12	50.5(1.99)	19.1(0.75)	22.4(0.88)	15.1(0.59)	30.0(1.18)	27.0(1.06)
20	1/2	-MC-MT20-MR8	52.3(2.06)	19.1(0.75)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
20	3/4	-MC-MT20-MR12	52.3(2.06)	19.1(0.75)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
22	3/4	-MC-MT22-MR12	52.3(2.06)	19.1(0.75)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
22	1	-MC-MT22-MR16	57.1(2.25)	23.9(0.94)	26.0(1.02)	18.3(0.72)	32.0(1.26)	35.0(1.38)
25	1/2	-MC-MT25-MR8	57.5(2.26)	19.1(0.75)	31.3(1.23)	11.9(0.47)	38.0(1.50)	35.0(1.38)
25	3/4	-MC-MT25-MR12	57.5(2.26)	19.1(0.75)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)
25	1	-MC-MT25-MR16	62.3(2.45)	23.9(0.94)	31.3(1.23)	21.8(0.86)	38.0(1.50)	35.0(1.38)
28	1	-MC-MT28-MR16	72.4(2.85)	23.9(0.94)	36.6(1.44)	21.8(0.86)	46.0(1.81)	41.0(1.61)
28	1 1/4	-MC-MT28-MR20	73.1(2.88)	23.9(0.94)	36.6(1.44)	21.8(0.86)	46.0(1.81)	46.0(1.81)
30	1 1/4	-MC-MT30-MR20	77.2(3.04)	23.9(0.94)	39.6(1.56)	26.2(1.03)	50.0(1.97)	46.0(1.81)
32	1 1/4	-MC-MT32-MR20	79.6(3.13)	23.9(0.94)	42.0(1.65)	28.6(1.13)	50.0(1.97)	46.0(1.81)
38	1 1/2	-MC-MT38-MR24	91.6(3.61)	26.2(1.03)	49.4(1.94)	33.7(1.33)	60.0(2.36)	55.0(2.17)
50	2	-MC-MT50-MR32	113.5(4.47)	27.2(1.07)	65.0(2.56)	45.2(1.78)	75.0(2.95)	70.0(2.75)

Male Connectors



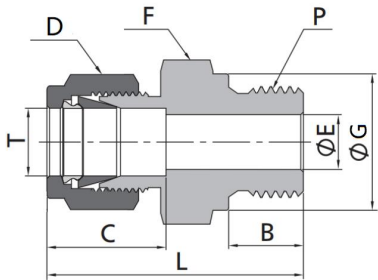
Metric Tube to ISO Parallel Thread									
T-Tube O.D. (mm)	P-RS Size	Basic Ordering Number	Dimension, mm. (in.)						
			L	B	C	E	D	F	G
2	1/8	-MC-MT2-RS2	30.0(1.18)	7.1(0.28)	12.9(0.51)	1.7(0.07)	12.0(0.47)	14.0(0.55)	13.7(0.54)
3	1/8	-MC-MT3-RS2	30.0(1.18)	7.1(0.28)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)	13.7(0.54)
3	1/4	-MC-MT3-RS4	35.3(1.39)	11.2(0.44)	12.9(0.51)	2.4(0.09)	12.0(0.47)	19.0(0.75)	18.0(0.71)
4	1/8	-MC-MT4-RS2	30.7(1.21)	7.1(0.28)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)	13.7(0.54)
4	1/4	-MC-MT4-RS4	36.0(1.42)	11.2(0.44)	13.7(0.54)	2.4(0.09)	12.0(0.47)	19.0(0.75)	18.0(0.71)
6	1/8	-MC-MT6-RS2	32.3(1.27)	7.1(0.28)	15.3(0.60)	4.0(0.16)	14.0(0.55)	14.0(0.55)	13.7(0.54)
6	1/4	-MC-MT6-RS4	37.6(1.48)	11.2(0.44)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)	18.0(0.71)
6	3/8	-MC-MT6-RS6	38.9(1.53)	11.2(0.44)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)	21.6(0.85)
8	1/8	-MC-MT8-RS2	33.2(1.31)	7.1(0.28)	16.2(0.64)	4.0(0.16)	16.0(0.63)	15.0(0.59)	14.5(0.57)
8	1/4	-MC-MT8-RS4	38.5(1.52)	11.2(0.44)	16.2(0.64)	6.4(0.25)	16.0(0.63)	19.0(0.75)	18.0(0.71)
8	3/8	-MC-MT8-RS6	39.8(1.57)	11.2(0.44)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)	21.6(0.85)
10	1/4	-MC-MT10-RS4	39.4(1.55)	11.2(0.44)	17.2(0.68)	5.9(0.23)	19.0(0.75)	19.0(0.75)	18.0(0.71)
10	3/8	-MC-MT10-RS6	40.6(1.60)	11.2(0.44)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	21.6(0.85)
10	1/2	-MC-MT10-RS8	46.5(1.83)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)	25.9(1.02)
12	1/4	-MC-MT12-RS4	42.6(1.68)	11.2(0.44)	22.8(0.90)	5.9(0.23)	22.0(0.87)	22.0(0.87)	21.6(0.85)
12	3/8	-MC-MT12-RS6	43.1(1.70)	11.2(0.44)	22.8(0.90)	7.9(0.31)	22.0(0.87)	22.0(0.87)	21.6(0.85)
12	1/2	-MC-MT12-RS8	49.0(1.93)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)	25.9(1.02)
12	3/4	-MC-MT12-RS12	52.8(2.08)	15.7(0.62)	22.8(0.90)	9.5(0.37)	22.0(0.87)	35.0(1.38)	32.0(1.26)
14	3/8	-MC-MT14-RS6	43.9(1.73)	11.2(0.44)	24.4(0.96)	7.9(0.31)	25.0(0.98)	24.0(0.94)	21.6(0.85)
14	1/2	-MC-MT14-RS8	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)	25.9(1.02)
14	3/4	-MC-MT14-RS12	52.8(2.08)	15.7(0.62)	24.4(0.96)	11.1(0.44)	25.0(0.98)	35.0(1.38)	32.0(1.26)
15	3/8	-MC-MT15-RS6	43.9(1.73)	11.2(0.44)	24.4(0.96)	7.9(0.31)	25.0(0.98)	24.0(0.94)	21.6(0.85)
15	1/2	-MC-MT15-RS8	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	25.9(1.02)
15	3/4	-MC-MT15-RS12	52.8(2.08)	15.7(0.62)	24.4(0.96)	11.9(0.47)	25.0(0.98)	35.0(1.38)	32.0(1.26)
16	3/8	-MC-MT16-RS6	43.9(1.73)	11.2(0.44)	24.4(0.96)	7.9(0.31)	25.0(0.98)	24.0(0.94)	21.6(0.85)
16	1/2	-MC-MT16-RS8	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	25.9(1.02)
18	1/2	-MC-MT18-RS8	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	30.0(1.18)	27.0(1.06)	25.9(1.02)
18	3/4	-MC-MT18-RS12	52.8(2.08)	15.7(0.62)	24.4(0.96)	15.1(0.59)	30.0(1.18)	35.0(1.38)	32.0(1.26)
20	1/2	-MC-MT20-RS8	50.5(1.99)	14.2(0.56)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)	25.9(1.02)
20	3/4	-MC-MT20-RS12	52.8(2.08)	15.7(0.62)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	32.0(1.26)
22	3/4	-MC-MT22-RS12	52.8(2.08)	15.7(0.62)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	32.0(1.26)
22	1	-MC-MT22-RS16	55.3(2.18)	18.3(0.72)	26.0(1.02)	18.3(0.72)	32.0(1.26)	41.0(1.61)	39.1(1.54)
25	3/4	-MC-MT25-RS12	57.5(2.26)	15.7(0.62)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)	32.0(1.26)
25	1	-MC-MT25-RS16	60.1(2.37)	18.3(0.72)	31.3(1.23)	19.8(0.78)	38.0(1.50)	41.0(1.61)	39.1(1.54)
28	1	-MC-MT28-RS16	70.1(2.76)	18.3(0.72)	36.6(1.44)	19.8(0.78)	46.0(1.81)	41.0(1.61)	39.1(1.54)
28	1 1/4	-MC-MT28-RS20	73.9(2.91)	19.8(0.78)	36.6(1.44)	21.8(0.86)	46.0(1.81)	50.0(1.97)	49.0(1.93)
30	1 1/4	-MC-MT30-RS20	76.5(3.01)	19.8(0.78)	39.6(1.56)	25.0(0.98)	50.0(1.97)	50.0(1.97)	49.0(1.93)
32	1 1/4	-MC-MT32-RS20	78.9(3.11)	19.8(0.78)	42.0(1.65)	25.0(0.98)	50.0(1.97)	50.0(1.97)	49.0(1.93)
38	1 1/2	-MC-MT38-RS24	90.8(3.57)	22.1(0.87)	49.4(1.94)	31.8(1.25)	60.0(2.36)	55.0(2.17)	54.7(2.15)

Male Connectors



Metric Tube to ISO Parallel Thread

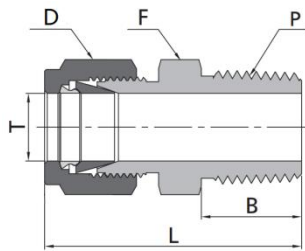
T-Tube O.D. (mm)	P-RP Size	Basic Ordering Number	Dimension, mm. (in.)						
			L	B	C	E	D	F	G
3	1/8	-MC-MT3-RP2	30.0(1.18)	7.1(0.28)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)	13.8(0.54)
4	1/8	-MC-MT4-RP2	30.7(1.21)	7.1(0.28)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)	13.8(0.54)
6	1/4	-MC-MT6-RP4	37.6(1.48)	11.2(0.44)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)	18.0(0.71)
8	1/4	-MC-MT8-RP4	38.5(1.52)	11.2(0.44)	16.2(0.64)	5.9(0.23)	16.0(0.63)	19.0(0.75)	18.0(0.71)
10	3/8	-MC-MT10-RP6	40.6(1.60)	11.2(0.44)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	21.8(0.86)
12	3/8	-MC-MT12-RP6	43.1(1.70)	11.2(0.44)	22.8(0.90)	7.9(0.31)	22.0(0.87)	22.0(0.87)	21.8(0.86)
12	1/2	-MC-MT12-RP8	49.0(1.93)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)	26.0(1.02)
15	1/2	-MC-MT15-RP8	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	26.0(1.02)
16	1/2	-MC-MT16-RP8	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	26.0(1.02)
18	1/2	-MC-MT18-RP8	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	30.0(1.18)	27.0(1.06)	26.0(1.02)
20	3/4	-MC-MT20-RP12	52.8(2.08)	15.7(0.62)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	32.0(1.26)
22	3/4	-MC-MT22-RP12	52.8(2.08)	15.7(0.62)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	32.0(1.26)
25	1	-MC-MT25-RP16	60.1(2.37)	18.3(0.72)	31.3(1.23)	19.8(0.78)	38.0(1.50)	41.0(1.61)	39.0(1.54)
28	1	-MC-MT28-RP16	70.1(2.76)	18.3(0.72)	36.6(1.44)	19.8(0.78)	46.0(1.81)	41.0(1.61)	39.0(1.54)
28	1 1/4	-MC-MT28-RP20	73.9(2.91)	19.8(0.78)	36.6(1.44)	21.8(0.86)	46.0(1.81)	50.0(1.97)	49.0(1.93)
30	1 1/4	-MC-MT30-RP20	76.5(3.01)	19.8(0.78)	39.6(1.56)	26.2(1.03)	50.0(1.97)	50.0(1.97)	49.0(1.93)
32	1 1/4	-MC-MT32-RP20	78.9(3.11)	19.8(0.78)	42.0(1.65)	28.6(1.13)	50.0(1.97)	50.0(1.97)	49.0(1.93)
38	1 1/2	-MC-MT38-RP24	89.3(3.52)	20.6(0.81)	49.4(1.94)	31.8(1.25)	60.0(2.36)	55.0(2.17)	54.7(2.15)



Metric Tube to Metric Thread

T-Tube O.D. (mm)	P-Metric Size	Basic Ordering Number	Dimension, mm(in.)						
			L	B	C	E	D	F	G
6	M8x 1	-MC-MT6-MS8	33.3(1.31)	8.0(0.31)	15.3(0.60)	3.0(0.12)	14.0(0.55)	14.0(0.55)	12.0(0.47)
6	M10x 1	-MC-MT6-MS10	33.3(1.31)	8.0(0.31)	15.3(0.60)	4.0(0.16)	14.0(0.55)	14.0(0.55)	14.0(0.55)
8	M10x 1	-MC-MT8-MS10	34.1(1.34)	8.0(0.31)	16.2(0.64)	5.0(0.20)	16.0(0.63)	15.0(0.59)	14.0(0.55)
8	M12x 1.5	-MC-MT8-MS12	40.4(1.59)	12.0(0.47)	16.2(0.64)	6.0(0.24)	16.0(0.63)	18.0(0.71)	17.0(0.67)
10	M12x 1.5	-MC-MT10-MS12	40.7(1.60)	12.0(0.47)	17.2(0.68)	6.0(0.24)	19.0(0.75)	18.0(0.71)	17.0(0.67)
10	M14x 1.5	-MC-MT10-MS14	41.5(1.63)	12.0(0.47)	17.2(0.68)	7.9(0.31)	19.0(0.75)	19.0(0.75)	19.0(0.75)
12	M16x 1.5	-MC-MT12-MS16	45.5(1.79)	12.0(0.47)	22.8(0.90)	9.0(0.35)	22.0(0.87)	22.0(0.87)	21.0(0.83)
12	M20x 1.5	-MC-MT12-MS20	48.0(1.89)	14.0(0.55)	22.8(0.90)	9.5(0.37)	22.0(0.87)	25.0(0.98)	25.0(0.98)
14	M20x 1.5	-MC-MT14-MS20	48.0(1.89)	14.0(0.55)	24.4(0.96)	11.1(0.44)	25.0(0.98)	25.0(0.98)	25.0(0.98)
16	M20x 1.5	-MC-MT16-MS20	48.0(1.89)	14.0(0.55)	24.4(0.96)	12.0(0.47)	25.0(0.98)	25.0(0.98)	25.0(0.98)
18	M20x 1.5	-MC-MT18-MS20	48.5(1.91)	14.0(0.55)	24.4(0.96)	12.0(0.47)	30.0(1.18)	27.0(1.06)	25.0(0.98)
20	M20x 1.5	-MC-MT20-MS20	50.0(1.97)	14.0(0.55)	26.0(1.02)	12.0(0.47)	32.0(1.26)	30.0(1.18)	25.0(0.98)
22	M24x 1.5	-MC-MT22-MS24	50.5(1.99)	14.0(0.55)	26.0(1.02)	15.0(0.59)	32.0(1.26)	30.0(1.18)	32.0(1.26)
25	M27x2	-MC-MT25-MS27	57.5(2.26)	16.0(0.63)	31.3(1.23)	16.8(0.66)	38.0(1.50)	35.0(1.38)	32.0(1.26)

Thermocouple Connectors



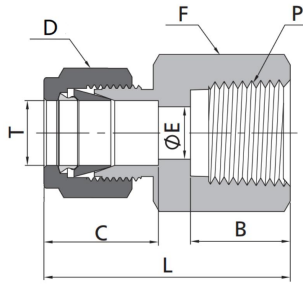
Fractional Tube to NPT Thread

T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimension, in. (mm)			
			L	B	C	D
1/16	1/16	-TMC-FT1-MN1	0.94(23.9)	0.38(9.7)	0.31(7.9)	0.31(7.9)
1/16	1/8	-TMC-FT1-MN2	1.03(26.2)	0.38(9.7)	0.31(7.9)	0.44(11.1)
1/8	1/16	-TMC-FT2-MN1	1.17(29.7)	0.38(9.7)	0.44(11.1)	0.44(11.1)
1/8	1/8	-TMC-FT2-MN2	1.20(30.5)	0.38(9.7)	0.44(11.1)	0.44(11.1)
1/8	1/4	-TMC-FT2-MN4	1.40(35.6)	0.56(14.2)	0.44(11.1)	0.56(14.3)
3/16	1/8	-TMC-FT3-MN2	1.23(31.2)	0.38(9.7)	0.50(12.7)	0.44(11.1)
3/16	1/4	-TMC-FT3-MN4	1.43(36.3)	0.56(14.2)	0.50(12.7)	0.56(14.3)
1/4	1/8	-TMC-FT4-MN2	1.29(32.8)	0.38(9.7)	0.56(14.3)	0.50(12.7)
1/4	1/4	-TMC-FT4-MN4	1.49(37.8)	0.56(14.2)	0.56(14.3)	0.56(14.3)
1/4	3/8	-TMC-FT4-MN6	1.51(38.4)	0.56(14.2)	0.56(14.3)	0.69(17.5)
1/4	1/2	-TMC-FT4-MN8	1.76(44.7)	0.75(19.1)	0.56(14.3)	0.87(22.2)
5/16	1/4	-TMC-FT5-MN4	1.52(38.6)	0.56(14.2)	0.63(15.9)	0.56(14.3)
3/8	1/4	-TMC-FT6-MN4	1.57(39.9)	0.56(14.2)	0.69(17.5)	0.63(15.9)
3/8	3/8	-TMC-FT6-MN6	1.57(39.9)	0.56(14.2)	0.69(17.5)	0.69(17.5)
3/8	1/2	-TMC-FT6-MN8	1.82(46.2)	0.75(19.1)	0.69(17.5)	0.87(22.2)
1/2	1/2	-TMC-FT8-MN8	1.93(49.0)	0.75(19.1)	0.87(22.2)	0.87(22.2)
1/2	3/4	-TMC-FT8-MN12	1.99(50.5)	0.75(19.1)	0.87(22.2)	1.06(27.0)
5/8	3/4	-TMC-FT10-MN12	1.99(50.5)	0.75(19.1)	1.00(25.4)	1.06(27.0)
3/4	3/4	-TMC-FT12-MN12	1.99(50.5)	0.75(19.1)	1.13(28.6)	1.06(27.0)
1	1	-TMC-FT16-MN16	2.45(62.2)	0.94(23.9)	1.50(38.1)	1.37(34.9)

Metric Tube to NPT Thread

T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimension, mm. (in.)			
			L	B	C	D
2	1/8	-TMC-MT2-MN2	30.5(1.20)	9.7(0.38)	12.0(0.47)	12.0(0.47)
3	1/8	-TMC-MT3-MN2	30.5(1.20)	9.7(0.38)	12.0(0.47)	12.0(0.47)
3	1/4	-TMC-MT3-MN4	35.6(1.40)	14.2(0.56)	12.0(0.47)	14.0(0.55)
4	1/8	-TMC-MT4-MN2	31.2(1.23)	9.7(0.38)	12.0(0.47)	12.0(0.47)
4	1/4	-TMC-MT4-MN4	36.3(1.43)	14.2(0.56)	12.0(0.47)	14.0(0.55)
6	1/8	-TMC-MT6-MN2	32.8(1.29)	9.7(0.38)	14.0(0.55)	14.0(0.55)
6	1/4	-TMC-MT6-MN4	37.9(1.49)	14.2(0.56)	14.0(0.55)	14.0(0.55)
8	1/4	-TMC-MT8-MN4	38.7(1.52)	14.2(0.56)	16.0(0.63)	15.0(0.59)
8	3/8	-TMC-MT8-MN6	39.3(1.55)	14.2(0.56)	16.0(0.63)	18.0(0.71)
10	3/8	-TMC-MT10-MN6	40.9(1.61)	14.2(0.56)	19.0(0.75)	18.0(0.71)
10	1/2	-TMC-MT10-MN8	46.5(1.83)	19.1(0.75)	19.0(0.75)	22.0(0.87)
12	3/8	-TMC-MT12-MN6	43.4(1.71)	14.2(0.56)	22.0(0.87)	22.0(0.87)
12	1/2	-TMC-MT12-MN8	49.0(1.93)	19.1(0.75)	22.0(0.87)	22.0(0.87)
12	3/4	-TMC-MT12-MN12	50.5(1.99)	19.1(0.75)	22.0(0.87)	27.0(1.06)
14	1/2	-TMC-MT14-MN8	49.0(1.93)	19.1(0.75)	25.0(0.98)	24.0(0.94)
14	3/4	-TMC-MT14-MN12	50.5(1.99)	19.1(0.75)	25.0(0.98)	27.0(1.06)
15	1/2	-TMC-MT15-MN8	49.0(1.93)	19.1(0.75)	25.0(0.98)	24.0(0.94)

Female Connectors



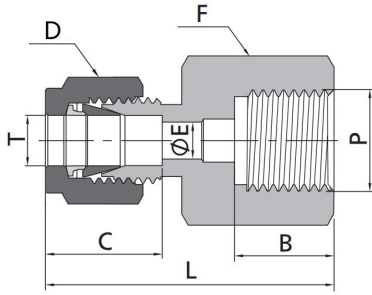
Fractional Tube to NPT Thread

T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimension, in(mm)					
			L	B	C	E	D	F
1/16	1/16	-FC-FT1-FN1	0.93(23.6)	0.39(9.9)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)
1/16	1/8	-FC-FT1-FN2	0.96(24.4)	0.41(10.4)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.56(14.3)
1/8	1/8	-FC-FT2-FN2	1.13(28.7)	0.41(10.4)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)
1/8	1/4	-FC-FT2-FN4	1.32(33.5)	0.59(15.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)
3/16	1/8	-FC-FT3-FN2	1.17(29.7)	0.41(10.4)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)
1/4	1/8	-FC-FT4-FN2	1.23(31.2)	0.41(10.4)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	1/4	-FC-FT4-FN4	1.41(35.8)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)
1/4	3/8	-FC-FT4-FN6	1.48(37.6)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
5/16	1/8	-FC-FT5-FN2	1.26(32.0)	0.41(10.4)	0.64(16.3)	0.16(4.1)	0.63(15.9)	0.56(14.3)
5/16	1/4	-FC-FT5-FN4	1.45(36.8)	0.59(15.0)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.75(19.1)
3/8	1/8	-FC-FT6-FN2	1.29(32.8)	0.41(10.4)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)
3/8	1/4	-FC-FT6-FN4	1.48(37.6)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)
3/8	3/8	-FC-FT6-FN6	1.54(39.1)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.0)
3/8	1/2	-FC-FT6-FN8	1.73(43.9)	0.78(19.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	1/4	-FC-FT8-FN4	1.59(40.4)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)
1/2	3/8	-FC-FT8-FN6	1.65(41.9)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	1/2	-FC-FT8-FN8	1.84(46.7)	0.78(19.8)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)
1/2	3/4	-FC-FT8-FN12	1.90(48.3)	0.81(20.6)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.31(33.3)
5/8	1/2	-FC-FT10-FN8	1.84(46.7)	0.78(19.8)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)
3/4	1/2	-FC-FT12-FN8	1.84(46.7)	0.78(19.8)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)
3/4	3/4	-FC-FT12-FN12	1.90(48.3)	0.81(20.6)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.31(33.3)
7/8	3/4	-FC-FT14-FN12	1.96(49.8)	0.81(20.6)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.31(33.3)
1	3/4	-FC-FT16-FN12	2.10(53.3)	0.81(20.6)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)
1	1	-FC-FT16-FN16	2.45(62.2)	1.00(25.4)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)
1 1/4	1 1/4	-FC-FT20-FN20	2.94(74.7)	1.00(25.4)	1.62(41.1)	1.09(27.7)	1.87(47.6)	2.13(54.0)
1 1/2	1 1/2	-FC-FT24-FN24	3.30(83.8)	1.09(27.7)	1.97(50.0)	1.43(36.3)	2.25(57.2)	2.37(60.3)
2	2	-FC-FT32-FN32	4.00(101.6)	1.13(28.8)	1.81(67.6)	2.66(66.0)	3.00(76.2)	2.75(70.0)

Fractional Tube to RT Thread

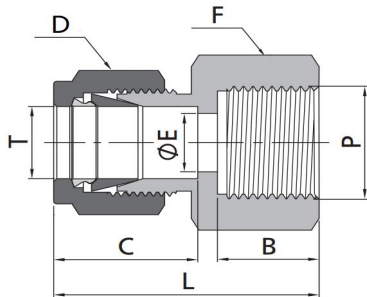
T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimension, in(mm)					
			L	B	C	E	D	F
1/4	1/8	-FC-FT4-FR2	1.23(31.2)	0.41(10.4)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	1/4	-FC-FT4-FR4	1.41(35.8)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)
1/4	3/8	-FC-FT4-FR6	1.48(37.6)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
1/4	1/2	-FC-FT4-FR8	1.67(42.4)	0.78(19.8)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)
3/8	1/4	-FC-FT6-FR4	1.48(37.6)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)
3/8	3/8	-FC-FT6-FR6	1.54(39.1)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	1/2	-FC-FT6-FR8	1.73(43.9)	0.78(19.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	1/4	-FC-FT8-FR4	1.59(40.4)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)
1/2	3/8	-FC-FT8-FR6	1.65(41.9)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	1/2	-FC-FT8-FR8	1.84(46.7)	0.78(19.8)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)

Female Connectors



Fractional Tube to ISO Parallel Thread

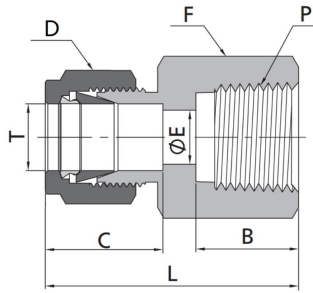
T-Tube O.D. (in.)	P-RG Size	Basic Ordering Number	Dimension, in(mm)					
			L	B	C	E	D	F
1/8	1/4	-FC-FT2-FG4	1.39(35.3)	0.51(12.9)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)
1/8	3/8	-FC-FT2-FG6	1.52(38.7)	0.56(14.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.94(23.8)
1/4	1/4	-FC-FT4-FG4	1.48(37.6)	0.51(12.9)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)
1/4	3/8	-FC-FT4-FG6	1.48(37.6)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.94(23.8)
1/4	1/2	-FC-FT4-FG8	1.71(43.4)	0.74(18.8)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)
5/16	1/4	-FC-FT5-FG4	1.51(38.4)	0.51(12.9)	0.64(16.3)	0.22(5.6)	0.63(15.9)	0.75(19.1)
5/16	3/8	-FC-FT5-FG6	1.54(39.2)	0.56(14.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.94(23.8)
5/16	1/2	-FC-FT5-FG8	1.61(40.9)	0.74(18.8)	0.64(16.3)	0.28(7.1)	0.63(15.9)	1.06(27.0)
3/8	1/4	-FC-FT6-FG4	1.54(39.1)	0.51(12.9)	0.66(16.8)	0.22(5.6)	0.69(17.5)	0.75(19.1)
3/8	3/8	-FC-FT6-FG6	1.52(38.6)	0.56(14.2)	0.66(16.8)	0.21(5.4)	0.69(17.5)	0.94(23.8)
3/8	1/2	-FC-FT6-FG8	1.65(41.9)	0.74(18.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	1/4	-FC-FT8-FG4	1.65(41.9)	0.51(12.9)	0.90(22.9)	0.22(5.6)	0.87(22.2)	0.87(22.2)
1/2	3/8	-FC-FT8-FG6	1.75(44.5)	0.56(14.2)	0.90(22.9)	0.25(6.4)	0.87(22.2)	0.94(23.8)
1/2	1/2	-FC-FT8-FG8	1.90(48.3)	0.74(18.8)	0.90(22.9)	0.28(7.1)	0.87(22.2)	1.06(27.0)



Fractional Tube to Metric Thread

T-Tube O.D. (in.)	P-RG Size	Basic Ordering Number	Dimension, in(mm)					
			L	B	C	E	D	F
1/8	M14 x 1.5	-FC-FT2-FM14	1.27(32.3)	0.51(13.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)
1/8	M16 x 1.5	-FC-FT2-FM16	1.31(33.3)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.87(22.2)
1/8	M18 x 1.5	-FC-FT2-FM18	1.35(34.3)	0.59(15.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	1.00(25.4)
1/4	M16 x 1.5	-FC-FT4-FM16	1.41(35.8)	0.55(14.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
1/4	M18 x 1.5	-FC-FT4-FM18	1.45(36.8)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.00(25.4)
1/4	M20 x 1.5	-FC-FT4-FM20	1.49(37.8)	0.63(16.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)
3/8	M14 x 1.5	-FC-FT6-FM14	1.46(37.1)	0.51(13.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)
3/8	M16 x 1.5	-FC-FT6-FM16	1.48(37.5)	0.55(14.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	M18 x 1.5	-FC-FT6-FM18	1.52(38.5)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.00(25.4)
3/8	M20 x 1.5	-FC-FT6-FM20	1.56(39.5)	0.63(16.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	M16 x 1.5	-FC-FT8-FM16	1.63(41.4)	0.55(14.0)	0.90(22.9)	0.33(8.4)	0.87(22.2)	0.87(22.2)
1/2	M18 x 1.5	-FC-FT8-FM18	1.67(42.4)	0.59(15.0)	0.90(22.9)	0.38(9.6)	0.87(22.2)	1.00(25.4)
1/2	M20 x 1.5	-FC-FT8-FM20	1.71(43.4)	0.63(16.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)
1/2	M22 x 1.5	-FC-FT8-FM22	1.75(44.4)	0.67(17.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)

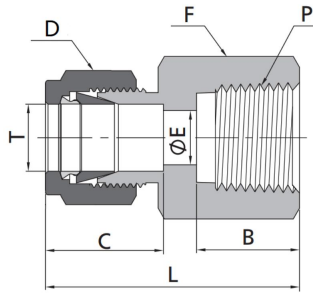
Female Connectors



Metric Tube to NPT Thread

T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimension,mm(in.)					
			L	B	C	E	D	F
3	1/8	-FC-MT3-FN2	28.7(1.13)	10.4(0.41)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)
3	1/4	-FC-MT3-FN4	33.5(1.32)	15.0(0.59)	12.9(0.51)	2.4(0.09)	12.0(0.47)	19.0(0.75)
4	1/8	-FC-MT4-FN2	29.7(1.17)	10.4(0.41)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)
6	1/8	-FC-MT6-FN2	31.3(1.23)	10.4(0.41)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	-FC-MT6-FN4	35.8(1.41)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	3/8	-FC-MT6-FN6	37.7(1.48)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)
6	1/2	-FC-MT6-FN8	42.5(1.67)	19.8(0.78)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)
8	1/8	-FC-MT8-FN2	32.1(1.26)	10.4(0.41)	16.2(0.64)	4.8(0.19)	16.0(0.63)	15.0(0.59)
8	1/4	-FC-MT8-FN4	37.0(1.46)	15.0(0.59)	16.2(0.64)	6.4(0.25)	16.0(0.63)	19.0(0.75)
8	3/8	-FC-MT8-FN6	38.5(1.52)	15.0(0.59)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)
8	1/2	-FC-MT8-FN8	43.3(1.70)	19.8(0.78)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)
10	1/8	-FC-MT10-FN2	33.0(1.30)	10.4(0.41)	17.2(0.68)	4.8(0.19)	19.0(0.75)	15.0(0.59)
10	1/4	-FC-MT10-FN4	37.8(1.49)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	19.0(0.75)
10	3/8	-FC-MT10-FN6	39.4(1.55)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
10	1/2	-FC-MT10-FN8	44.2(1.74)	19.8(0.78)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)
12	1/4	-FC-MT12-FN4	40.3(1.59)	15.0(0.59)	22.8(0.90)	7.9(0.31)	22.0(0.87)	22.0(0.87)
12	3/8	-FC-MT12-FN6	41.9(1.65)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	1/2	-FC-MT12-FN8	46.7(1.84)	19.8(0.78)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
12	3/4	-FC-MT12-FN12	49.7(1.96)	20.6(0.81)	22.8(0.90)	9.5(0.37)	22.0(0.87)	35.0(1.38)
14	3/4	-FC-MT14-FN12	49.7(1.96)	20.6(0.81)	24.4(0.96)	11.1(0.44)	25.0(0.98)	35.0(1.38)
15	1/2	-FC-MT15-FN8	46.7(1.84)	19.8(0.78)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)
16	3/8	-FC-MT16-FN6	41.9(1.65)	15.0(0.59)	24.4(0.96)	9.5(0.37)	25.0(0.98)	27.0(1.06)
16	1/2	-FC-MT16-FN8	46.9(1.85)	19.8(0.78)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)
20	1/2	-FC-MT20-FN8	47.9(1.89)	19.8(0.78)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
20	3/4	-FC-MT20-FN12	49.7(1.96)	20.6(0.81)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)
22	3/4	-FC-MT22-FN12	49.7(1.96)	20.6(0.81)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)
22	1	-FC-MT22-FN16	57.9(2.28)	25.4(1.00)	26.0(1.02)	18.3(0.72)	32.0(1.26)	41.0(1.61)
25	3/4	-FC-MT25-FN12	53.4(2.10)	20.6(0.81)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)
25	1	-FC-MT25-FN16	62.3(2.45)	25.4(1.00)	31.3(1.23)	21.8(0.86)	38.0(1.50)	41.0(1.61)
32	1 1/4	-FC-MT32-FN20	74.7(2.94)	25.4(1.00)	41.1(1.62)	27.7(1.09)	50.0(1.97)	55.0(2.17)
38	1 1/2	-FC-MT38-FN24	83.8(3.30)	27.7(1.09)	50.0(1.97)	36.3(1.43)	55.0(2.17)	60.0(2.36)
50	2	-FC-MT50-FN32	101.6(4.00)	28.8(1.13)	65.0(2.56)	45.2(1.78)	75.0(2.95)	70.7(2.75)

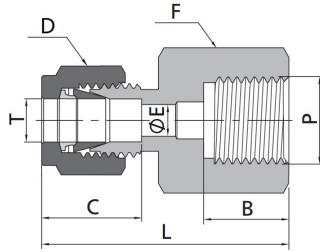
Female Connectors



Metric Tube to RT Thread

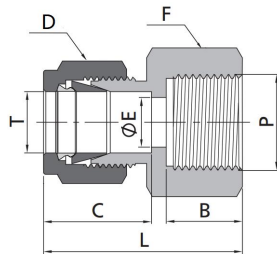
T-Tube O.D. (mm)	P-RT Size	Basic Ordering Number	Dimension,mm(in.)					
			L	B	C	E	D	F
3	1/8	-FC-MT3-FR2	28.7(1.13)	10.4(0.41)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)
6	1/8	-FC-MT6-FR2	31.3(1.23)	10.4(0.41)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	-FC-MT6-FR4	35.8(1.41)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	3/8	-FC-MT6-FR6	36.9(1.45)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)
6	1/2	-FC-MT6-FR8	42.5(1.67)	19.8(0.78)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)
8	1/8	-FC-MT8-FR2	32.1(1.26)	10.4(0.41)	16.2(0.64)	6.4(0.25)	16.0(0.63)	15.0(0.59)
8	1/4	-FC-MT8-FR4	37.0(1.46)	15.0(0.59)	16.2(0.64)	6.4(0.25)	16.0(0.63)	19.0(0.75)
8	3/8	-FC-MT8-FR6	38.5(1.52)	15.0(0.59)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)
8	1/2	-FC-MT8-FR8	43.3(1.70)	19.8(0.78)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)
10	1/8	-FC-MT10-FR2	33.0(1.30)	10.4(0.41)	17.2(0.68)	7.9(0.31)	19.0(0.75)	18.0(0.71)
10	1/4	-FC-MT10-FR4	37.8(1.49)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	19.0(0.75)
10	3/8	-FC-MT10-FR6	39.4(1.55)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
10	1/2	-FC-MT10-FR8	44.2(1.74)	19.8(0.78)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)
12	1/8	-FC-MT12-FR2	35.5(1.40)	10.4(0.41)	22.8(0.90)	8.3(0.33)	22.0(0.87)	22.0(0.87)
12	1/4	-FC-MT12-FR4	40.3(1.59)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	3/8	-FC-MT12-FR6	41.9(1.65)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	1/2	-FC-MT12-FR8	46.7(1.84)	19.8(0.78)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
12	3/4	-FC-MT12-FR12	49.0(1.93)	20.6(0.81)	22.8(0.90)	9.5(0.37)	22.0(0.87)	35.0(1.38)
15	1/2	-FC-MT15-FR8	46.7(1.84)	19.8(0.78)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)
16	1/2	-FC-MT16-FR8	48.4(1.91)	19.8(0.78)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)
16	3/4	-FC-MT16-FR12	49.7(1.96)	20.6(0.81)	24.4(0.96)	12.7(0.5)	25.0(0.98)	35.0(1.38)
20	1/2	-FC-MT20-FR8	47.9(1.89)	19.8(0.78)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
20	3/4	-FC-MT20-FR12	49.7(1.96)	20.6(0.81)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)
22	3/4	-FC-MT22-FR12	49.7(1.96)	20.6(0.81)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)
22	1	-FC-MT22-FR16	57.9(2.28)	25.4(1.00)	26.0(1.02)	18.3(0.72)	32.0(1.26)	41.0(1.61)
25	3/4	-FC-MT25-FR12	53.4(2.10)	20.6(0.81)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)
25	1	-FC-MT25-FR16	62.3(2.45)	25.4(1.00)	31.3(1.23)	21.8(0.86)	38.0(1.50)	41.0(1.61)
25	3/4	-FC-MT25-FR12	53.4(2.10)	20.6(0.81)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)
25	1	-FC-MT25-FR16	62.3(2.45)	25.4(1.00)	31.3(1.23)	21.8(0.86)	38.0(1.50)	41.0(1.61)
32	1 1/4	-FC-MT32-FR20	74.7(2.94)	25.4(1.00)	41.1(1.62)	27.7(1.09)	50.0(1.97)	55.0(2.17)
38	1 1/2	-FC-MT38-FR24	83.8(3.30)	27.7(1.09)	50.0(1.97)	36.3(1.43)	55.0(2.17)	60.0(2.36)
50	2	-FC-MT50-FR32	101.6(4.00)	28.8(1.13)	65.0(2.56)	45.2(1.78)	75.0(2.95)	70.7(2.75)

Female Connectors



Metric Tube to ISO Parallel Thread

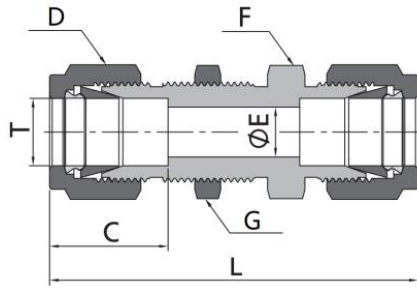
T-Tube O.D. (in.)	P-RG Size	Basic Ordering Number	Dimension, mm(in.)					
			L	B	C	E	D	F
3	1/4	-FC-MT3-FG4	35.3(1.39)	12.9(0.51)	12.9(0.51)	2.4(0.09)	12.0(0.47)	19.0(0.75)
6	1/4	-FC-MT6-FG4	37.6(1.48)	12.9(0.51)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	3/8	-FC-MT6-FG6	37.6(1.48)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	24.0(0.94)
6	1/2	-FC-MT6-FG8	43.5(1.71)	18.8(0.74)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)
8	1/4	-FC-MT8-FG4	38.5(1.52)	12.9(0.51)	16.2(0.64)	6.4(0.25)	16.0(0.63)	19.0(0.75)
8	3/8	-FC-MT8-FG6	36.2(1.43)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	24.0(0.94)
8	1/2	-FC-MT8-FG8	41.0(1.61)	18.8(0.74)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)
10	1/4	-FC-MT10-FG4	39.4(1.55)	12.9(0.51)	17.2(0.68)	5.9(0.23)	19.0(0.75)	19.0(0.75)
10	3/8	-FC-MT10-FG6	38.8(1.53)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	24.0(0.94)
10	1/2	-FC-MT10-FG8	42.1(1.66)	18.8(0.74)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)
12	1/4	-FC-MT12-FG4	41.9(1.65)	12.9(0.51)	22.8(0.90)	5.9(0.23)	22.0(0.87)	22.0(0.87)
12	3/8	-FC-MT12-FG6	44.4(1.75)	14.2(0.56)	22.8(0.90)	7.9(0.31)	22.0(0.87)	24.0(0.94)
12	1/2	-FC-MT12-FG8	48.2(1.90)	18.8(0.74)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
20	1/2	-FC-MT20-FG8	54.3(2.14)	18.8(0.74)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
22	1/2	-FC-MT22-FG8	54.3(2.14)	18.8(0.74)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)



Metric Tube to Metric Thread

T-Tube O.D. (mm)	P-Metric Size	Basic Ordering Number	Dimension, mm(in.)					
			L	B	C	E	D	F
6	M10 x 1	-FC-MT6-FM10	32.7(1.29)	11.0(0.43)	15.3(0.60)	4.0(0.16)	14.0(0.55)	16.0(0.63)
6	M14 x 1.5	-FC-MT6-FM14	34.2(1.35)	13.0(0.51)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	M20 x 1.5	-FC-MT6-FM20	37.7(1.48)	16.0(0.63)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)
8	M8 x 1	-FC-MT8-FM8	31.6(1.24)	9.0(0.35)	16.2(0.64)	3.2(0.13)	16.0(0.63)	14.0(0.55)
8	M10 x 1	-FC-MT8-FM10	33.6(1.32)	11.0(0.43)	16.2(0.64)	4.0(0.16)	16.0(0.63)	16.0(0.63)
8	M14 x 1.5	-FC-MT8-FM14	35.6(1.40)	13.0(0.51)	16.2(0.64)	6.0(0.24)	16.0(0.63)	19.0(0.75)
8	M20 x 1.5	-FC-MT8-FM20	38.6(1.52)	16.0(0.63)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)
10	M16 x 1.5	-FC-MT10-FM16	38.1(1.50)	14.0(0.55)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
12	M20 x 1.5	-FC-MT12-FM20	44.9(1.77)	16.0(0.63)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
14	M10 x 1	-FC-MT14-FM10	42.5(1.67)	11.0(0.43)	24.4(0.96)	4.0(0.16)	25.0(0.98)	24.0(0.94)
14	M20 x 1.5	-FC-MT14-FM20	44.9(1.77)	16.0(0.63)	24.4(0.96)	10.8(0.43)	25.0(0.98)	27.0(1.06)
14	M22 x 1.5	-FC-MT14-FM22	45.9(1.81)	17.0(0.67)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)
16	M20 x 1.5	-FC-MT16-FM20	44.9(1.77)	16.0(0.63)	24.4(0.96)	10.8(0.43)	26.0(1.02)	27.0(1.06)
20	M20 x 1.5	-FC-MT20-FM20	46.5(1.83)	16.0(0.63)	26.0(1.02)	10.8(0.43)	32.0(1.26)	30.0(1.18)
25	M27 x 2	-FC-MT25-FM27	54.4(2.14)	18.0(0.71)	31.3(1.23)	16.1(0.63)	38.0(1.50)	35.0(1.38)

Bulkhead Unions



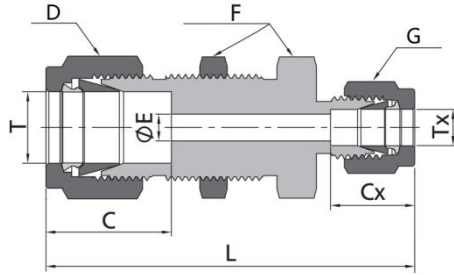
Fractional Tube

T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in(mm)						Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
		L	C	E	D	F	G		
1/16	-BU-FT1	1.24(31.5)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.31(7.9)	0.31(7.9)	0.20(5.2)	0.12(3.0)
1/8	-BU-FT2	2.02(51.3)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.50(12.7)	0.50(12.7)	0.33(8.3)	0.50(12.7)
3/16	-BU-FT3	2.11(53.6)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.39(9.9)	0.50(12.7)
1/4	-BU-FT4	2.27(57.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
5/16	-BU-FT5	2.39(60.7)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.44(11.2)
3/8	-BU-FT6	2.45(62.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
1/2	-BU-FT8	2.80(71.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
5/8	-BU-FT10	2.86(72.6)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.50(12.7)
3/4	-BU-FT12	3.11(79.0)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.66(16.8)
7/8	-BU-FT14	3.33(84.6)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.31(33.3)	1.37(34.9)	1.14(29.0)	0.75(19.1)
1	-BU-FT16	3.77(95.8)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.75(19.1)
1 1/4	-BU-FT20	4.85(123.2)	1.62(41.1)	1.09(27.8)	1.87(47.6)	1.87(47.6)	1.87(47.6)	1.64(41.7)	0.75(19.1)
1 1/2	-BU-FT24	5.48(139.2)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.25(57.2)	2.25(57.2)	1.95(49.6)	0.75(19.1)
2	-BU-FT32	7.10(180.3)	2.66(67.6)	1.81(46.0)	3.00(76.2)	3.00(76.2)	3.00(76.2)	2.28(57.9)	0.75(19.1)

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number	Dimension, mm(in)						Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
		L	C	E	D	F	G		
3	-BU-MT3	51.3(2.02)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)	14.0(0.55)	8.3(0.33)	12.7(0.50)
4	-BU-MT4	53.6(2.11)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)	14.0(0.55)	9.9(0.39)	12.7(0.50)
6	-BU-MT6	57.7(2.27)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	16.0(0.63)	11.5(0.45)	10.2(0.40)
8	-BU-MT8	61.0(2.40)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)	18.0(0.71)	13.1(0.52)	11.2(0.44)
10	-BU-MT10	63.7(2.51)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
12	-BU-MT12	71.0(2.80)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)
14	-BU-MT14	72.5(2.85)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)	27.0(1.06)	22.5(0.89)	12.7(0.50)
15	-BU-MT15	72.5(2.85)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	27.0(1.06)	22.8(0.90)	12.7(0.50)
16	-BU-MT16	72.5(2.85)	24.4(0.96)	12.7(0.50)	25.0(0.98)	27.0(1.06)	27.0(1.06)	22.8(0.90)	12.7(0.50)
18	-BU-MT18	78.9(3.11)	24.4(0.96)	15.1(0.59)	30.0(1.18)	30.0(1.18)	30.0(1.18)	26.0(1.02)	16.8(0.66)
20	-BU-MT20	84.5(3.33)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	35.0(1.38)	29.0(1.14)	19.0(0.75)
25	-BU-MT25	96.0(3.78)	31.3(1.23)	21.8(0.86)	38.0(1.50)	41.0(1.61)	41.0(1.61)	34.0(1.34)	19.0(0.75)
30	-BU-MT30	124.0(4.88)	39.6(1.56)	26.2(1.03)	50.0(1.97)	50.0(1.97)	50.0(1.97)	40.5(1.59)	19.0(0.75)
32	-BU-MT32	128.0(5.04)	42.0(1.65)	28.6(1.13)	50.0(1.97)	50.0(1.97)	50.0(1.97)	42.5(1.67)	19.0(0.75)
38	-BU-MT38	145.0(5.71)	49.4(1.94)	33.7(1.33)	60.0(2.36)	60.0(2.36)	60.0(2.36)	50.5(1.99)	19.0(0.75)
50	-BU-MT38	180.0(7.08)	65.0(2.56)	45.2(1.78)	75.0(2.95)	75.0(2.95)	75.0(2.95)	57.9(2.28)	19.0(0.75)

Bulkhead Reducing Unions



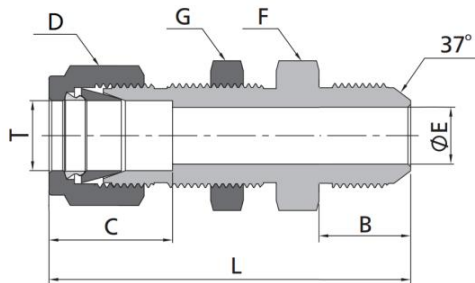
Fractional Tube

T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimension, in.(mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	C	E	D	F	Cx	G		
1/4	1/8	-BRU-FT4-FT2	2.17(55.1)	0.60(15.2)	0.09(2.3)	0.56(14.3)	0.63(15.9)	0.50(12.7)	0.44(11.1)	0.45(11.5)	0.40(10.2)
3/8	1/4	-BRU-FT6-FT4	2.39(60.7)	0.66(16.8)	0.19(4.8)	0.69(17.5)	0.75(19.1)	0.60(15.2)	0.56(14.3)	0.58(14.7)	0.44(11.2)
1/2	1/4	-BRU-FT8-FT4	2.63(66.8)	0.90(22.9)	0.19(4.8)	0.87(22.2)	0.94(23.8)	0.60(15.2)	0.56(14.3)	0.76(19.4)	0.50(12.7)

Metric Tube

T-Tube O.D. (mm)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimension, mm(in.)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	C	E	D	F	Cx	G		
6	3	-BRU-MT6-MT3	55.1(2.17)	15.3(0.60)	2.4(0.09)	14.0(0.55)	16.0(0.63)	12.9(0.51)	12.0(0.47)	11.5(0.45)	10.2(0.40)
8	6	-BRU-MT8-MT6	60.1(2.37)	16.2(0.64)	4.8(0.19)	16.0(0.63)	18.0(0.71)	15.3(0.60)	14.0(0.55)	13.1(0.52)	11.2(0.44)
12	8	-BRU-MT12-MT8	67.6(2.66)	22.8(0.90)	6.4(0.25)	22.0(0.87)	24.0(0.94)	16.2(0.64)	16.0(0.63)	19.5(0.77)	12.7(0.50)

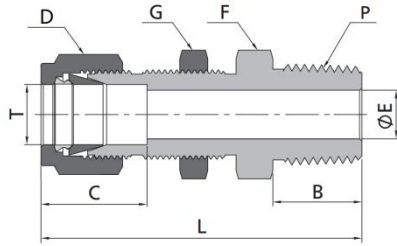
Bulkhead Flared Connectors



Fractional Tube to 37° Flared

T-Tube O.D. (in.)	Tube Flared Size	Basic Ordering Number	Dimension, in.(mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	D	F	G		
1/8	1/8	-BMC-FT2-AN2	1.91(48.5)	0.45(11.4)	0.50(12.7)	0.06(1.5)	0.44(11.1)	0.50(12.7)	0.50(12.7)	0.33(8.3)	0.50(12.7)
1/8	1/4	-BMC-FT2-AN4	2.04(51.8)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.63(15.9)	0.63(15.9)	0.33(8.3)	0.51(12.7)
3/16	3/16	-BMC-FT3-AN3	1.98(50.3)	0.48(12.2)	0.54(13.7)	0.09(2.3)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.39(9.9)	0.50(12.7)
1/4	1/4	-BMC-FT4-AN4	2.12(53.8)	0.55(14.0)	0.60(15.2)	0.17(4.3)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
5/16	5/16	-BMC-FT5-AN5	2.21(56.1)	0.55(14.0)	0.64(16.2)	0.23(5.8)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.56(14.3)
3/8	1/4	-BMC-FT6-AN4	2.25(57.2)	0.55(14.0)	0.66(16.8)	0.17(4.3)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	3/8	-BMC-FT6-AN6	2.25(57.2)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
1/2	1/2	-BMC-FT8-AN8	2.59(65.8)	0.66(16.8)	0.90(22.8)	0.39(9.9)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
5/8	5/8	-BMC-FT10-AN10	2.74(69.6)	0.76(19.3)	0.96(24.4)	0.48(12.3)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
3/4	3/4	-BMC-FT12-AN12	3.11(79.0)	0.86(21.8)	0.96(24.4)	0.61(15.5)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.66(16.8)
1	1	-BMC-FT16-AN16	3.64(92.5)	0.91(23.1)	1.23(31.2)	0.84(21.3)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.75(19.1)

Bulkhead Male Connectors



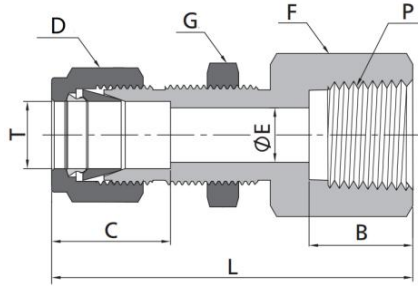
Fractional Tube to NPT Thread

T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimension, in.(mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	D	F	G		
1/16	1/16	-BMC-FT1-MN1	1.19(30.2)	0.38(9.7)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.31(7.9)	0.31(7.9)	0.20(5.2)	0.25(6.4)
1/16	1/8	-BMC-FT1-MN2	1.27(32.3)	0.38(9.7)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)	0.31(7.9)	0.20(5.2)	0.25(6.4)
1/8	1/8	-BMC-FT2-MN2	1.83(46.5)	0.38(9.7)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.50(12.7)	0.50(12.7)	0.33(8.3)	0.50(12.7)
3/16	1/8	-BMC-FT3-MN2	1.89(48.0)	0.38(9.7)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.39(9.9)	0.50(12.7)
1/4	1/8	-BMC-FT4-MN2	1.95(49.5)	0.38(9.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	1/4	-BMC-FT4-MN4	2.13(54.1)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	3/8	-BMC-FT4-MN6	2.16(54.9)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.69(17.5)	0.69(17.5)	0.45(11.5)	0.40(10.2)
1/4	1/2	-BMC-FT4-MN8	2.37(60.3)	0.75(19.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)	0.87(22.2)	0.45(11.5)	0.40(10.2)
5/16	1/8	-BMC-FT5-MN2	2.08(52.8)	0.38(9.7)	0.64(16.3)	0.19(4.8)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.44(11.2)
5/16	1/4	-BMC-FT5-MN4	2.27(57.7)	0.56(14.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.44(11.2)
3/8	1/8	-BMC-FT6-MN2	2.08(52.9)	0.38(9.7)	0.66(16.8)	0.19(4.8)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	1/4	-BMC-FT6-MN4	2.26(57.4)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	3/8	-BMC-FT6-MN6	2.26(57.4)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	1/2	-BMC-FT6-MN8	2.51(63.8)	0.75(19.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)	0.87(22.2)	0.58(14.7)	0.44(11.2)
1/2	1/8	-BMC-FT8-MN2	2.31(58.7)	0.38(9.7)	0.90(22.9)	0.19(4.8)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	1/4	-BMC-FT8-MN4	2.49(63.2)	0.56(14.2)	0.90(22.9)	0.28(7.1)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	3/8	-BMC-FT8-MN6	2.49(63.2)	0.56(14.2)	0.90(22.9)	0.38(9.7)	0.87(22.0)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	1/2	-BMC-FT8-MN8	2.71(68.8)	0.75(19.1)	0.90(22.9)	0.41(10.4)	0.87(22.0)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
5/8	3/8	-BMC-FT10-MN6	2.63(66.7)	0.56(14.2)	0.96(24.4)	0.38(9.7)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
5/8	1/2	-BMC-FT10-MN8	2.81(71.5)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
3/4	1/2	-BMC-FT12-MN8	3.00(76.2)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.66(16.8)
3/4	3/4	-BMC-FT12-MN12	3.00(76.2)	0.75(19.1)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.66(16.8)
7/8	3/4	-BMC-FT14-MN12	3.31(84.1)	0.75(19.1)	1.02(25.9)	0.62(15.7)	1.25(31.8)	1.31(33.3)	1.31(33.3)	1.14(29.0)	0.75(19.1)
1	3/4	-BMC-FT16-MN12	3.48(88.4)	0.75(19.1)	1.23(31.2)	0.62(15.7)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.75(19.1)
1	1	-BMC-FT16-MN16	3.67(93.2)	0.94(23.9)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.75(19.1)

Metric Tube to NPT Thread

T-Tube O.D. (mm.)	P-NPT Size	Basic Ordering Number	Dimension, mm. (in.)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	D	F	G		
6	1/8	-BMC-MT6-MN2	49.6(1.95)	9.7(0.38)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	16.0(0.63)	11.5(0.45)	10.2(0.40)
6	1/4	-BMC-MT6-MN4	53.6(2.11)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	16.0(0.63)	11.5(0.45)	10.2(0.40)
8	1/8	-BMC-MT8-MN2	52.3(2.06)	9.7(0.38)	16.2(0.64)	4.8(0.19)	16.0(0.63)	18.0(0.71)	18.0(0.71)	13.1(0.52)	11.2(0.44)
8	1/4	-BMC-MT8-MN4	57.5(2.26)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)	18.0(0.71)	13.1(0.52)	11.2(0.44)
10	1/4	-BMC-MT10-MN4	58.4(2.30)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
10	3/8	-BMC-MT10-MN6	58.4(2.30)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
10	1/2	-BMC-MT10-MN8	63.1(2.48)	19.1(0.75)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
12	1/4	-BMC-MT12-MN4	63.9(2.52)	14.2(0.56)	22.8(0.90)	7.9(0.31)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)
12	3/8	-BMC-MT12-MN6	63.9(2.52)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)
12	1/2	-BMC-MT12-MN8	68.8(2.71)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)

Bulkhead Female Connectors



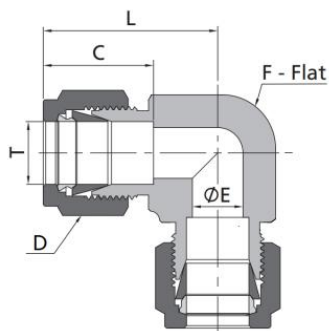
Fractional Tube to NPT Thread

T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimension, in.(mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	D	F	G		
1/16	1/16	-BFC-FT1-FN1	1.03(26.2)	0.39(9.9)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)	0.31(7.9)	0.20(5.2)	0.13(3.2)
1/16	1/8	-BFC-FT1-FN2	1.06(26.9)	0.41(10.4)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.56(14.3)	0.31(7.9)	0.20(5.2)	0.13(3.2)
1/8	1/8	-BFC-FT2-FN2	1.76(44.7)	0.41(10.4)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)	0.50(12.7)	0.33(8.3)	0.50(12.7)
1/8	1/4	-BFC-FT2-FN4	1.95(49.6)	0.59(15.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)	0.50(12.7)	0.33(8.3)	0.50(12.7)
3/16	1/8	-BFC-FT3-FN2	1.79(45.5)	0.41(10.4)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.39(9.9)	0.50(12.7)
1/4	1/8	-BFC-FT4-FN2	1.85(47.0)	0.41(10.4)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	1/4	-BFC-FT4-FN4	2.04(51.8)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	3/8	-BFC-FT4-FN6	2.10(53.3)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	1/2	-BFC-FT4-FN8	2.29(58.2)	0.78(19.8)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)	0.63(15.9)	0.45(11.5)	0.40(10.2)
5/16	1/8	-BFC-FT5-FN2	1.96(49.8)	0.41(10.4)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.56(14.3)	0.69(17.5)	0.52(13.1)	0.44(11.2)
5/16	1/4	-BFC-FT5-FN4	2.38(60.5)	0.59(15.0)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.75(19.1)	0.69(17.5)	0.52(13.1)	0.44(11.2)
3/8	1/8	-BFC-FT6-FN2	1.98(50.3)	0.41(10.4)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	1/4	-BFC-FT6-FN4	2.17(55.1)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	3/8	-BFC-FT6-FN6	2.23(56.6)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	1/2	-BFC-FT6-FN8	2.42(61.5)	0.78(19.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	3/4	-BFC-FT6-FN12	2.57(65.3)	0.81(20.6)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.31(33.3)	0.75(19.1)	0.58(14.7)	0.44(11.2)
1/2	1/4	-BFC-FT8-FN4	2.37(60.2)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	3/8	-BFC-FT8-FN6	2.43(61.7)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	1/2	-BFC-FT8-FN8	2.62(66.5)	0.78(19.8)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	3/4	-BFC-FT8-FN12	2.68(68.1)	0.81(20.6)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.31(33.3)	0.94(23.8)	0.76(19.4)	0.50(12.7)
5/8	3/8	-BFC-FT10-FN6	2.46(62.5)	0.59(15.0)	0.96(24.4)	0.50(12.7)	1.00(25.4)	0.94(23.8)	1.06(27.0)	0.89(22.6)	0.59(15.1)
5/8	1/2	-BFC-FT10-FN8	2.65(67.3)	0.78(19.8)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
3/4	1/2	-BFC-FT12-FN8	2.84(72.2)	0.78(19.8)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)	1.19(30.2)	1.02(25.8)	0.78(19.8)
3/4	3/4	-BFC-FT12-FN12	2.90(73.7)	0.81(20.6)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.31(33.3)	1.19(30.2)	1.02(25.8)	0.78(19.8)
7/8	3/4	-BFC-FT14-FN12	3.18(80.8)	0.81(20.6)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.31(33.3)	1.31(33.3)	1.14(29.0)	0.94(23.8)
1	3/4	-BFC-FT16-FN12	3.33(84.7)	0.81(20.6)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.94(23.8)
1	1	-BFC-FT16-FN16	3.68(93.5)	1.00(25.4)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.94(23.8)

Metric Tube to NPT Thread

T-Tube O.D. (mm.)	P-NPT Size	Basic Ordering Number	Dimension, mm. (in.)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	D	F	G		
6	1/8	-BFC-MT6-FN2	47.2(1.86)	10.4(0.41)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	16.0(0.63)	11.5(0.45)	10.2(0.40)
6	1/4	-BFC-MT6-FN4	51.8(2.04)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)	16.0(0.63)	11.5(0.45)	10.2(0.40)
8	1/8	-BFC-MT8-FN2	49.6(1.95)	10.4(0.41)	16.2(0.64)	4.8(0.19)	16.0(0.63)	18.0(0.71)	18.0(0.71)	13.1(0.52)	11.2(0.44)
10	1/4	-BFC-MT10-FN4	55.2(2.17)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
12	3/8	-BFC-MT12-FN6	60.9(2.40)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)
12	1/2	-BFC-MT12-FN8	66.5(2.62)	19.8(0.78)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)

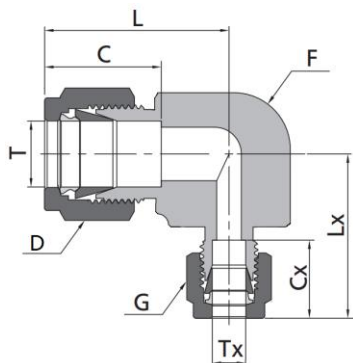
Union Elbows



Fractional Tube						
T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in(mm)				
		L	C	D	F	E
1/16	-UE-FT1	0.70(17.8)	0.34(8.6)	0.31(7.9)	0.37(9.5)	0.05(1.3)
1/8	-UE-FT2	0.88(22.4)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.09(2.3)
3/16	-UE-FT3	1.00(25.4)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)
1/4	-UE-FT4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
5/16	-UE-FT5	1.13(28.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)
3/8	-UE-FT6	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
1/2	-UE-FT8	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
5/8	-UE-FT10	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.5(12.7)
3/4	-UE-FT12	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
7/8	-UE-FT14	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)
1	-UE-FT16	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)
1 1/8	-UE-FT18	2.17(55.1)	1.23(31.2)	1.63(41.3)	1.69(42.9)	0.97(24.6)
1 1/4	-UE-FT20	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)
1 1/2	-UE-FT24	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)
2	-UE-FT32	4.22(107.2)	2.66(67.6)	3.00(76.2)	2.75(70.0)	1.81(46.0)

Metric Tube						
T-Tube O.D. (mm)	Basic Ordering Number	Dimension, mm(in.)				
		L	C	D	F	E
3	-UE-MT3	22.3(0.88)	12.9(0.51)	12.0(0.47)	9.5(0.37)	2.4(0.09)
4	-UE-MT4	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)
6	-UE-MT6	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)
8	-UE-MT8	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	6.4(0.25)
10	-UE-MT10	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)
12	-UE-MT12	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)
14	-UE-MT14	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.0(0.43)
15	-UE-MT15	38.8(1.53)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)
16	-UE-MT16	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	12.7(0.50)
18	-UE-MT18	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	-UE-MT20	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)
22	-UE-MT22	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)
25	-UE-MT25	49.1(1.93)	31.3(1.23)	38.0(1.5)	34.9(1.37)	21.8(0.86)
28	-UE-MT28	64.0(2.52)	36.6(1.44)	46.0(1.81)	42.9(1.69)	21.8(0.86)
30	-UE-MT30	69.9(2.75)	39.6(1.56)	50.0(1.97)	42.9(1.69)	26.2(1.03)
32	-UE-MT32	72.3(2.85)	42.0(1.65)	50.0(1.97)	42.9(1.69)	28.6(1.13)
38	-UE-MT38	84.0(3.31)	49.4(1.94)	60.0(2.36)	50.8(2.00)	33.7(1.33)
50	-UE-MT50	106.0(4.17)	67.6(2.66)	75.0(2.95)	70.0(2.75)	46.0(1.81)

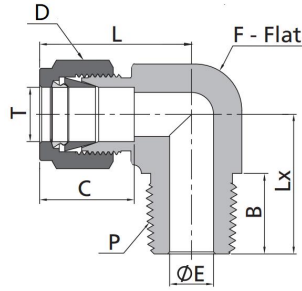
Union Reducing Elbows



Fractional Tube									
T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimension, in(mm)						
			L	C	D	F	Cx	G	Lx
3/16	1/8	-URE-FT3-FT2	1.00(25.4)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.50(12.7)	0.44(11.1)	0.97(24.7)
1/4	1/8	-URE-FT4-FT2	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.50(12.7)	0.44(11.1)	1.00(25.4)
5/16	1/8	-URE-FT5-FT2	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.50(12.7)	0.44(11.1)	1.04(26.4)
5/16	1/4	-URE-FT5-FT4	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.60(15.2)	0.56(14.3)	1.14(29.0)
3/8	1/8	-URE-FT6-FT2	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.50(12.7)	0.44(11.1)	1.04(26.4)
3/8	1/4	-URE-FT6-FT4	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.60(15.2)	0.56(14.3)	1.14(29.0)
3/8	5/16	-URE-FT6-FT5	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.64(16.3)	0.63(15.9)	1.17(29.7)
1/2	1/4	-URE-FT8-FT4	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.60(15.2)	0.56(14.3)	1.27(32.2)
1/2	5/16	-URE-FT8-FT5	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.64(16.3)	0.63(15.9)	1.28(32.5)
1/2	3/8	-URE-FT8-FT6	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.66(16.8)	0.69(17.5)	1.32(33.6)
5/8	3/8	-URE-FT10-FT6	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.66(16.8)	0.69(17.5)	1.40(35.6)
5/8	1/2	-URE-FT10-FT8	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.90(22.9)	0.87(22.2)	1.50(38.1)
3/4	1/4	-URE-FT12-FT4	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.60(15.2)	0.56(14.3)	1.41(35.9)
3/4	3/8	-URE-FT12-FT6	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.66(16.8)	0.69(17.5)	1.47(37.4)
3/4	1/2	-URE-FT12-FT8	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.90(22.9)	0.87(22.2)	1.57(39.9)
7/8	1/4	-URE-FT14-FT4	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.60(15.2)	0.56(14.3)	1.60(40.7)
1	1/2	-URE-FT16-FT8	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.90(22.9)	0.87(22.2)	1.75(44.4)
1	3/4	-URE-FT16-FT12	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.96(24.4)	1.13(28.6)	1.75(44.4)

Metric Tube									
T-Tube O.D. (mm)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimension, mm(in.)						
			L	C	D	F	Cx	G	Lx
8	6	-URE-MT8-MT6	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	15.3(0.60)	14.0(0.55)	27.9(1.10)
10	8	-URE-MT10-MT8	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	16.2(0.64)	16.0(0.63)	30.5(1.20)
12	8	-URE-MT12-MT8	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	16.2(0.64)	16.0(0.63)	32.6(1.28)
14	8	-URE-MT14-MT8	38.8(1.53)	24.4(0.96)	25.0(0.98)	23.8(0.94)	16.2(0.64)	16.0(0.63)	35.4(1.39)
14	10	-URE-MT14-MT10	38.8(1.53)	24.4(0.96)	25.0(0.98)	23.8(0.94)	17.2(0.68)	19.0(0.75)	36.4(1.43)
18	12	-URE-MT18-MT12	39.9(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	22.8(0.90)	22.0(0.87)	38.8(1.53)
22	12	-URE-MT22-MT12	44.7(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	22.8(0.90)	22.0(0.87)	39.8(1.57)
25	18	-URE-MT25-MT20	49.0(1.93)	31.2(1.23)	38.0(1.5)	34.9(1.37)	24.4(0.96)	30.0(1.18)	44.4(1.75)

Male Elbows



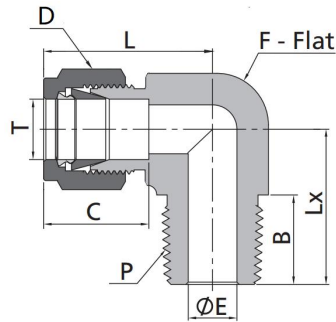
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	C	D	F	E	B	Lx
1/16	1/16	-ME-FT1-MN1	0.75(19.1)	0.34(8.6)	0.31(7.9)	0.44(11.1)	0.05(1.3)	0.38(9.7)	0.70(17.8)
1/16	1/8	-ME-FT1-MN2	0.75(19.1)	0.34(8.6)	0.31(7.9)	0.44(11.1)	0.05(1.3)	0.38(9.7)	0.70(17.8)
1/8	1/16	-ME-FT2-MN1	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.4)	0.38(9.7)	0.70(17.8)
1/8	1/8	-ME-FT2-MN2	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.4)	0.38(9.7)	0.70(17.8)
1/8	1/4	-ME-FT2-MN4	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.4)	0.56(14.2)	0.92(23.4)
3/16	1/8	-ME-FT3-MN2	1.00(25.4)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)	0.38(9.7)	0.74(18.8)
3/16	1/4	-ME-FT3-MN4	1.00(25.4)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)	0.56(14.2)	0.92(23.4)
1/4	1/8	-ME-FT4-MN2	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.74(18.8)
1/4	1/4	-ME-FT4-MN4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.92(23.4)
1/4	3/8	-ME-FT4-MN6	1.17(29.7)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)	0.56(14.2)	1.03(26.2)
5/16	1/4	-ME-FT5-MN4	1.13(28.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)	0.56(14.2)	0.96(24.4)
5/16	3/8	-ME-FT5-MN6	1.20(30.5)	0.64(16.3)	0.63(15.9)	0.69(17.5)	0.25(6.4)	0.56(14.2)	1.03(26.2)
3/8	1/4	-ME-FT6-MN4	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	1.00(25.4)
3/8	3/8	-ME-FT6-MN6	1.23(31.2)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.56(14.2)	1.03(26.2)
3/8	1/2	-ME-FT6-MN8	1.31(33.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.75(19.1)	1.30(33.0)
1/2	1/4	-ME-FT8-MN4	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.28(7.1)	0.56(14.2)	1.11(28.2)
1/2	3/8	-ME-FT8-MN6	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	1.11(28.2)
1/2	1/2	-ME-FT8-MN8	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.75(19.1)	1.30(33.0)
1/2	3/4	-ME-FT8-MN12	1.57(39.9)	0.90(22.9)	0.87(22.2)	1.06(27.0)	0.41(10.4)	0.75(19.1)	1.45(36.8)
5/8	3/8	-ME-FT10-MN6	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.38(9.7)	0.56(14.2)	1.19(30.2)
5/8	1/2	-ME-FT10-MN8	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.47(11.9)	0.75(19.1)	1.38(35.1)
5/8	3/4	-ME-FT10-MN12	1.57(39.9)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.50(12.7)	0.75(19.1)	1.45(36.8)
3/4	1/2	-ME-FT12-MN8	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.47(11.9)	0.75(19.1)	1.45(36.8)
3/4	3/4	-ME-FT12-MN12	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.45(36.8)
7/8	3/4	-ME-FT14-MN12	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.62(15.7)	0.75(19.1)	1.64(41.7)
1	3/4	-ME-FT16-MN12	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.75(19.1)	1.64(41.7)
1	1	-ME-FT16-MN16	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.83(46.5)
1 1/4	1 1/4	-ME-FT20-MN20	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)	0.94(23.9)	2.06(52.4)
1 1/2	1 1/2	-ME-FT24-MN24	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)	1.03(26.2)	2.38(60.5)
2	2	-ME-FT32-MN32	4.22(107.2)	2.66(67.6)	3.00(76.2)	2.75(70.0)	1.81(46.0)	1.07(27.2)	2.78(70.6)

Fractional Tube to RT Thread

T-Tube O.D.(in.)	P-RT SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	C	D	F	E	B	Lx
1/8	1/8	-ME-FT2-RT2	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.4)	0.38(9.7)	0.70(17.8)
1/8	1/4	-ME-FT2-RT4	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.4)	0.56(14.2)	0.92(23.4)
1/4	1/4	ME-FT4-RT4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.92(23.4)
1/4	3/8	--ME-FT4-RT6	1.17(29.7)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)	0.56(14.2)	1.03(26.2)
5/16	1/4	ME-FT5-RT4	1.13(28.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)	0.56(14.2)	0.96(24.4)
3/8	1/4	-ME-FT6-RT4	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	1.00(25.4)
3/8	3/8	-ME-FT6-RT6	1.23(31.2)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.56(14.2)	1.03(26.2)
1/2	3/8	-ME-FT8-RT6	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	1.10(27.9)
1/2	1/2	-ME-FT8-RT8	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.75(19.1)	1.30(33.0)
3/4	1/2	-ME-FT12-RT8	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.47(11.9)	0.75(19.1)	1.45(36.8)
1	1	-ME-FT16-RT16	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.83(46.5)

Male Elbows



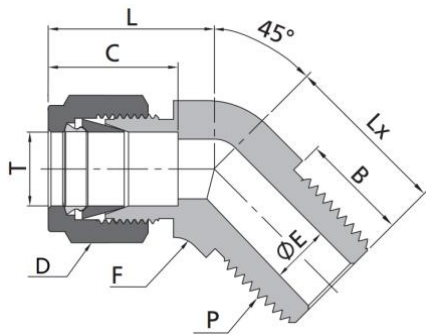
Metric Tube to NPT Thread

T-Tube O.D.(mm)	P-NPT SIZE	Basic Ordering Number	Dimension,mm(in)						
			L	C	D	F	E	B	Lx
3	1/8	-ME-MT3-MN2	23.6(0.93)	12.9(0.51)	12.0(0.47)	11.1(0.44)	2.4(0.09)	9.7(0.38)	17.8(0.70)
3	1/4	-ME-MT3-MN4	24.6(0.97)	12.9(0.51)	12.0(0.47)	12.7(0.50)	2.4(0.09)	14.2(0.56)	23.4(0.92)
4	1/8	-ME-MT4-MN2	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)	9.7(0.38)	18.8(0.74)
4	1/4	-ME-MT4-MN4	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)	14.2(0.56)	23.4(0.92)
6	1/8	-ME-MT6-MN2	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	18.8(0.74)
6	1/4	-ME-MT6-MN4	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	23.4(0.92)
8	1/4	-ME-MT8-MN4	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	6.4(0.25)	14.2(0.56)	24.4(0.96)
8	3/8	-ME-MT8-MN6	30.6(1.20)	16.2(0.64)	16.0(0.63)	17.5(0.69)	6.4(0.25)	14.2(0.56)	26.2(1.03)
10	1/4	-ME-MT10-MN4	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.1(0.28)	14.2(0.56)	26.2(1.03)
10	3/8	-ME-MT10-MN6	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)	14.2(0.56)	26.2(1.03)
10	1/2	-ME-MT10-MN8	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	19.1(0.75)	33.0(1.30)
12	3/8	-ME-MT12-MN6	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	28.2(1.11)
12	1/2	-ME-MT12-MN8	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	33.0(1.30)
15	1/2	-ME-MT15-MN8	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.1(1.38)
16	1/2	-ME-MT16-MN8	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.1(1.38)
16	3/4	-ME-MT16-MN12	39.8(1.57)	24.4(0.96)	25.0(0.98)	27.0(1.06)	12.7(0.50)	19.1(0.75)	36.8(1.45)
18	1/2	-ME-MT18-MN8	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	11.9(0.47)	19.1(0.75)	36.8(1.45)
18	3/4	-ME-MT18-MN12	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)	19.1(0.75)	36.8(1.45)
20	1/2	-ME-MT20-MN8	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	11.9(0.47)	19.1(0.75)	41.7(1.64)
20	3/4	-ME-MT20-MN12	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
22	3/4	-ME-MT22-MN12	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
22	1	-ME-MT22-MN16	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)	23.9(0.94)	46.5(1.83)
25	1	-ME-MT25-MN16	49.1(1.93)	31.3(1.23)	38.0(1.50)	34.9(1.37)	21.8(0.86)	23.9(0.94)	46.5(1.83)
30	1 1/4	-ME-MT30-MN20	69.9(2.75)	39.6(1.56)	50.0(1.97)	42.9(1.69)	26.2(1.03)	23.9(0.94)	53.1(2.09)
32	1 1/4	-ME-MT32-MN20	72.3(2.85)	42.0(1.65)	50.0(1.97)	42.9(1.69)	27.8(1.09)	23.9(0.94)	53.1(2.09)
38	1 1/2	-ME-MT38-MN24	84.0(3.31)	49.4(1.94)	60.0(2.36)	50.8(2.00)	33.7(1.33)	26.2(1.03)	60.4(2.38)
50	2	-ME-MT50-MN32	106.0(4.17)	67.6(2.66)	75.0(2.95)	70.0(2.75)	46.0(1.81)	27.2(1.07)	70.6(2.78)

Metric Tube to RT Thread

T-Tube O.D.(mm)	P-RT SIZE	Basic Ordering Number	Dimension,mm (in)						
			L	C	D	F	E	B	Lx
3	1/8	-ME-MT3-RT2	23.6(0.93)	12.9(0.51)	12.0(0.47)	11.1(0.44)	2.4(0.09)	9.7(0.38)	17.8(0.70)
4	1/8	-ME-MT4-RT2	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)	9.7(0.38)	18.8(0.74)
6	1/4	--ME-MT6-RT4	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	23.4(0.92)
8	1/4	-ME-MT8-RT4	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	6.4(0.25)	14.2(0.56)	24.4(0.96)
10	3/8	-ME-MT10-RT6	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)	14.2(0.56)	26.2(1.03)
12	3/8	-ME-MT12-RT6	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	28.2(1.11)
12	1/2	-ME-MT12-RT8	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	0.5(0.02)	19.1(0.75)	33.0(1.30)
15	1/2	-ME-MT15-RT8	38.1(1.50)	24.4(0.90)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.1(1.38)
16	1/2	-ME-MT16-RT8	38.0(1.50)	24.4(0.90)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.1(1.38)
18	1/2	-ME-MT18-RT8	39.8(1.57)	24.4(0.90)	30.0(1.18)	27.0(1.06)	11.9(0.47)	19.1(0.75)	36.8(1.45)
20	3/4	-ME-MT20-RT12	44.6(1.76)	26.0(0.90)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
22	3/4	-ME-MT22-RT12	44.6(1.76)	26.0(0.90)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
25	1	-ME-MT25-RT16	49.1(1.93)	31.3(0.90)	38.0(1.50)	34.9(1.37)	21.8(0.86)	23.9(0.94)	46.5(1.83)
28	1	-ME-MT28-RT16	64.0(2.52)	36.6(0.90)	46.0(1.81)	42.9(1.69)	21.8(0.86)	23.9(0.94)	53.1(2.09)

45° Male Elbows



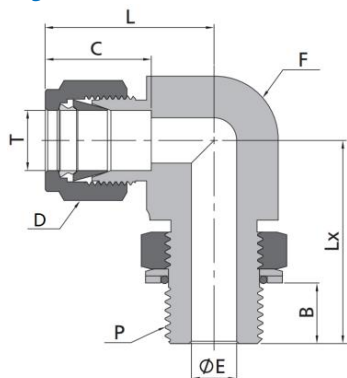
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	C	D	F	E	B	Lx
1/16	1/16	-MV-FT1-MN1	0.62(15.7)	0.34(8.6)	0.31(7.9)	0.37(9.5)	0.05(1.3)	0.38(9.7)	0.57(14.5)
1/8	1/8	-MV-FT2-MN2	0.82(20.8)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)	0.38(9.7)	0.66(16.8)
3/16	1/8	-MV-FT3-MN2	0.85(21.6)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)	0.38(9.7)	0.58(14.7)
1/4	1/8	-MV-FT4-MN2	0.97(24.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.65(16.5)
1/4	1/4	-MV-FT4-MN4	0.97(24.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.83(21.1)
5/16	1/8	-MV-FT5-MN2	1.03(26.1)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.19(4.8)	0.38(9.7)	0.66(16.8)
3/8	1/8	-MV-FT6-MN2	1.10(27.9)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.19(4.8)	0.38(9.7)	0.72(18.3)
3/8	1/4	-MV-FT6-MN4	1.10(27.9)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	0.90(22.9)
3/8	3/8	-MV-FT6-MN6	1.15(29.2)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.75(19.1)	0.95(24.1)
1/2	3/8	-MV-FT8-MN6	1.26(32.0)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.75(19.1)	0.95(24.1)
5/8	1/2	-MV-FT10-MN8	1.21(30.7)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.47(11.9)	0.75(19.1)	1.17(29.7)
3/4	3/4	-MV-FT12-MN12	1.34(34.0)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.22(31.0)
7/8	3/4	-MV-FT14-MN12	1.59(40.4)	1.02(25.9)	1.25(31.8)	1.25(31.8)	0.62(15.7)	0.75(19.1)	1.27(32.3)
1	1	-MV-FT16-MN16	1.59(40.4)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.49(37.8)

Metric Tube to NPT Thread

T-Tube O.D.(mm)	P-NPT SIZE	Basic Ordering Number	Dimension,mm(in)						
			L	C	D	F	E	B	Lx
6	1/8	-MV-MT6-MN2	23.4(0.92)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	16.8(0.66)
6	1/4	-MV-MT6-MN4	23.4(0.92)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	21.8(0.86)
8	1/8	-MV-MT8-MN2	24.3(0.96)	16.2(0.64)	16.0(0.63)	15.9(0.63)	4.8(0.19)	9.7(0.38)	16.8(0.66)
10	1/4	-MV-MT10-MN4	26.6(1.05)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)	14.2(0.56)	24.1(0.95)
12	3/8	-MV-MT12-MN6	29.1(1.15)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	24.1(0.95)
12	1/2	-MV-MT12-MN8	30.7(1.21)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	29.7(1.17)
16	1/2	-MV-MT16-MN8	30.7(1.21)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	29.7(1.17)
18	3/4	-MV-MT18-MN12	34.0(1.34)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)	19.1(0.75)	1.22(31.0)
22	3/4	-MV-MT22-MN12	40.4(1.59)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	32.3(1.27)
25	1	-MV-MT25-MN16	40.4(1.59)	31.3(1.23)	38.0(1.50)	34.9(1.37)	21.8(0.86)	23.9(0.94)	37.8(1.49)

Ajustable Male Elbows



Fractional Tube to SAE/MS Thread

T-Tube O.D.(in.)	P-SAE/MS SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	D	E	F	Lx
1/4	7/16-20	-AME-FT4-ST7	1.12(28.4)	0.39(9.9)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.50(12.7)	1.12(28.4)
1/4	9/16-18	-AME-FT4-ST9	1.20(30.5)	0.44(11.2)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.63(15.9)	1.27(32.3)
5/16	1/2-20	-AME-FT5-ST8	1.19(30.2)	0.39(9.9)	0.64(16.3)	0.63(15.9)	0.23(5.8)	0.56(14.3)	1.16(29.5)
3/8	7/16-20	-AME-FT6-ST7	1.31(33.3)	0.39(9.9)	0.66(16.8)	0.69(17.5)	0.20(5.1)	0.63(15.9)	1.24(31.5)
3/8	9/16-18	-AME-FT6-ST9	1.26(32.0)	0.44(11.2)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.63(15.9)	1.27(32.3)
3/8	3/4-16	-AME-FT6-ST12	1.37(34.8)	0.50(12.7)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.81(20.6)	1.49(37.8)
1/2	9/16-18	-AME-FT8-ST9	1.48(37.6)	0.44(11.2)	0.90(22.9)	0.87(22.2)	0.28(7.1)	0.81(20.6)	1.48(37.5)
1/2	3/4-16	-AME-FT8-ST12	1.48(37.6)	0.50(12.7)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.81(20.6)	1.49(37.8)
5/8	7/8-14	-AME-FT10-ST14	1.56(39.6)	0.56(14.2)	0.96(24.4)	1.00(25.4)	0.50(12.7)	0.94(23.8)	1.71(43.4)
3/4	1 1/16-12	-AME-FT12-ST17	1.63(41.4)	0.66(16.8)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.92(48.8)
7/8	1 3/16-12	-AME-FT14-ST19	1.70(43.2)	0.66(16.8)	1.02(25.9)	1.25(31.8)	0.72(18.3)	1.19(30.2)	1.99(50.5)
1	1 5/16-12	-AME-FT16-ST21	1.99(50.5)	0.66(16.8)	1.23(31.2)	1.50(38.1)	0.88(22.4)	1.37(34.9)	2.11(53.6)
1 1/4	1 5/8-12	-AME-FT20-ST26	2.67(67.8)	0.66(16.8)	1.62(41.1)	1.87(47.6)	1.09(27.7)	1.69(42.9)	2.29(58.2)
1 1/2	1 7/8-12	-AME-FT24-ST30	3.07(78.0)	0.66(16.8)	1.97(50.0)	2.25(57.2)	1.34(34.0)	2.00(50.8)	2.38(60.5)

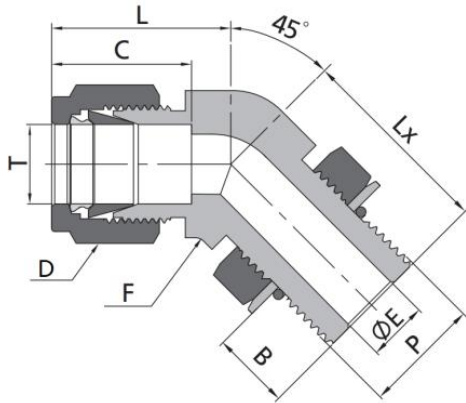
Fractional Tube to ISO Parallel Thread

T-Tube O.D.(in.)	P-BSP SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	D	E	F	Lx
1/4	1/8	-AME-FT4-PP2	1.06(26.9)	0.32(8.1)	0.60(15.2)	0.56(14.3)	0.16(4.1)	0.50(12.7)	1.04(26.4)
1/4	1/4	-AME-FT4-PP4	1.14(29.0)	0.36(9.1)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.63(15.9)	1.27(32.3)
3/8	1/4	-AME-FT6-PP4	1.20(30.5)	0.36(9.1)	0.66(16.8)	0.69(17.5)	0.23(5.8)	0.63(15.9)	1.27(32.3)
3/8	3/8	-AME-FT6-PP6	1.31(33.3)	0.37(9.4)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.81(20.6)	1.46(37.1)
1/2	1/4	-AME-FT8-PP4	1.42(36.1)	0.36(9.1)	0.90(22.9)	0.87(22.2)	0.23(5.8)	0.81(20.6)	1.38(35.1)
1/2	3/8	-AME-FT8-PP6	1.42(36.1)	0.37(9.4)	0.90(22.9)	0.87(22.2)	0.31(7.9)	0.81(20.6)	1.46(37.1)
1/2	1/2	-AME-FT8-PP8	1.50(38.1)	0.51(13.0)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.94(23.8)	1.71(43.4)
5/8	1/2	-AME-FT10-PP8	1.50(38.1)	0.51(13.0)	0.96(24.4)	1.00(25.4)	0.47(11.9)	0.94(23.8)	1.71(43.4)
3/4	1/2	-AME-FT12-PP8	1.57(39.9)	0.51(13.0)	0.96(24.4)	1.13(28.6)	0.47(11.9)	1.06(27.0)	1.78(45.2)
3/4	3/4	-AME-FT12-PP12	1.57(39.9)	0.51(13.0)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.92(48.8)
1	3/4	-AME-FT16-PP12	1.93(49.0)	0.51(13.0)	1.23(31.2)	1.50(38.1)	0.62(15.7)	1.37(34.9)	2.10(53.3)
1	1	-AME-FT16-PP16	1.93(49.0)	0.55(14.0)	1.23(31.2)	1.50(38.1)	0.78(19.8)	1.37(34.9)	2.11(53.6)

Metric Tube to ISO Parallel Thread

T-Tube O.D.(mm)	P-BSP SIZE	Basic Ordering Number	Dimension,mm(in)						
			L	B	C	D	E	F	Lx
6	1/8	-AME-MT6-PP2	27.0(1.06)	8.1(0.32)	15.3(0.60)	14.0(0.55)	4.0(0.16)	12.7(0.50)	26.4(1.04)
6	1/4	-AME-MT6-PP4	29.0(1.14)	9.1(0.36)	15.3(0.60)	14.0(0.55)	4.8(0.19)	15.9(0.63)	32.3(1.27)
8	1/8	-AME-MT8-PP2	28.8(1.13)	8.1(0.32)	16.2(0.64)	16.0(0.63)	4.0(0.16)	14.3(0.56)	27.4(1.08)
8	1/4	-AME-MT8-PP4	29.9(1.18)	9.1(0.36)	16.2(0.64)	16.0(0.63)	5.9(0.23)	15.9(0.63)	32.2(1.27)
10	1/4	-AME-MT10-PP4	33.5(1.32)	9.1(0.36)	17.2(0.68)	19.0(0.75)	5.9(0.23)	20.6(0.81)	35.0(1.38)
10	3/8	-AME-MT10-PP6	33.5(1.32)	9.4(0.37)	17.2(0.68)	19.0(0.75)	7.9(0.31)	20.6(0.81)	37.1(1.46)
12	1/4	-AME-MT12-PP4	36.0(1.42)	9.1(0.36)	22.8(0.90)	22.0(0.87)	5.9(0.23)	20.6(0.81)	35.0(1.38)
12	3/8	-AME-MT12-PP6	36.0(1.42)	9.4(0.37)	22.8(0.90)	22.0(0.87)	7.9(0.31)	20.6(0.81)	37.1(1.46)
12	1/2	-AME-MT12-PP8	38.0(1.50)	13.0(0.51)	22.8(0.90)	22.0(0.87)	9.5(0.37)	23.8(0.94)	43.4(1.71)
12	3/4	-AME-MT12-PP12	39.8(1.57)	13.0(0.51)	22.8(0.90)	22.0(0.87)	9.5(0.37)	27.0(1.06)	48.8(1.92)

45° Adjustable Male Elbows



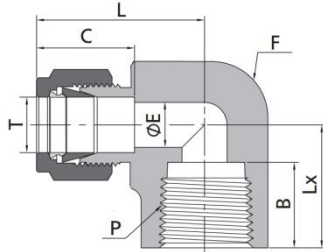
Fractional Tube to SAE/MS Thread

T-Tube O.D.(in.)	P-SAE/MS SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	D	E	F	Lx
1/4	7/16-20	-AMV-FT4-ST7	1.01(25.7)	0.39(9.9)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.50(12.7)	1.01(25.7)
3/8	9/16-18	-AMV-FT6-ST9	1.10(27.9)	0.44(11.2)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.63(15.9)	1.11(28.2)
1/2	3/4-16	-AMV-FT8-ST12	1.26(32.0)	0.50(12.7)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.81(20.6)	1.27(32.3)
3/4	1 1/16-12	-AMV-FT12-ST17	1.57(39.9)	0.66(16.8)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.86(47.2)
1	1 5/16-12	-AMV-FT16-ST21	1.87(47.5)	0.66(16.8)	1.23(31.2)	1.50(38.1)	0.88(22.4)	1.37(34.9)	1.99(50.5)

Fractional Tube to ISO Parallel Thread

T-Tube O.D.(in.)	P-BSP SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	D	E	F	Lx
1/4	1/8	-AMV-FT4-PP2	1.06(26.9)	0.32(8.1)	0.60(15.2)	0.56(14.3)	0.16(4.1)	0.50(12.7)	1.04(26.4)
3/8	1/4	-AMV-FT6-PP4	1.20(30.5)	0.36(9.1)	0.66(16.8)	0.69(17.5)	0.23(5.8)	0.63(15.9)	1.27(32.3)
1/2	1/2	-AMV-FT8-PP8	1.50(38.1)	0.51(13.0)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.94(23.8)	1.71(43.4)
3/4	3/4	-AMV-FT12-PP12	1.57(39.9)	0.51(13.0)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.92(48.8)
1	1	-AMV-FT16-PP16	1.93(49.0)	0.55(14.0)	1.23(31.2)	1.50(38.1)	0.78(19.8)	1.37(34.9)	2.11(53.6)

Female Elbows



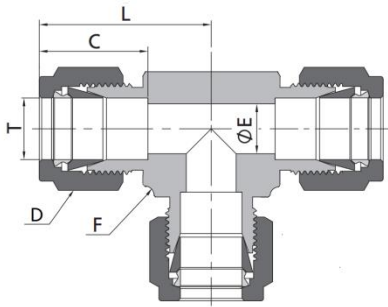
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	D	E	F	Lx
1/16	1/16	-FE-FT1-FN1	0.71(18.0)	0.39(9.9)	0.34(8.6)	0.31(7.9)	0.05(1.3)	0.44(11.1)	0.56(14.2)
1/16	1/8	-FE-FT1-FN2	0.81(20.6)	0.41(10.4)	0.34(8.6)	0.31(7.9)	0.05(1.3)	0.56(14.3)	0.75(19.1)
1/8	1/8	-FE-FT2-FN2	0.97(24.6)	0.41(10.4)	0.50(12.7)	0.44(11.1)	0.09(2.3)	0.56(14.3)	0.75(19.1)
1/8	1/4	-FE-FT2-FN4	1.08(27.4)	0.59(15.0)	0.50(12.7)	0.44(11.1)	0.09(2.3)	0.69(17.5)	0.88(22.4)
3/16	1/8	-FE-FT3-FN2	1.00(25.4)	0.41(10.4)	0.54(13.7)	0.50(12.7)	0.12(3.0)	0.5(12.7)	0.75(19.1)
1/4	1/8	-FE-FT4-FN2	1.06(26.9)	0.41(10.4)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.56(14.3)	0.75(19.1)
1/4	1/4	-FE-FT4-FN4	1.17(29.7)	0.59(15.0)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.69(17.5)	0.88(22.4)
1/4	3/8	-FE-FT4-FN6	1.25(31.8)	0.59(15.0)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.81(20.6)	0.88(22.4)
1/4	1/2	-FE-FT4-FN8	1.36(34.5)	0.78(19.8)	0.60(15.2)	0.56(14.3)	0.19(4.8)	1.00(25.4)	1.12(28.4)
5/16	1/8	-FE-FT5-FN2	1.13(28.7)	0.41(10.4)	0.64(16.3)	0.63(15.9)	0.25(6.4)	0.56(14.3)	0.75(19.1)
5/16	1/4	-FE-FT5-FN4	1.20(30.5)	0.59(15.0)	0.64(16.3)	0.63(15.9)	0.25(6.4)	0.69(17.5)	0.88(22.4)
3/8	1/8	-FE-FT6-FN2	1.20(30.5)	0.41(10.4)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.63(15.9)	0.75(19.1)
3/8	1/4	-FE-FT6-FN4	1.23(31.2)	0.59(15.0)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.69(17.5)	0.88(22.4)
3/8	3/8	-FE-FT6-FN6	1.31(33.3)	0.59(15.0)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.81(20.6)	0.88(22.4)
3/8	1/2	-FE-FT6-FN8	1.42(36.1)	0.78(19.8)	0.66(16.8)	0.69(17.5)	0.28(7.1)	1.00(25.4)	1.12(28.4)
1/2	1/4	-FE-FT8-FN4	1.42(36.1)	0.59(15.0)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.81(20.6)	0.88(22.4)
1/2	3/8	-FE-FT8-FN6	1.42(36.1)	0.59(15.0)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.81(20.6)	0.88(22.4)
1/2	1/2	-FE-FT8-FN8	1.53(38.9)	0.78(19.8)	0.90(22.9)	0.87(22.2)	0.41(10.4)	1.00(25.4)	1.12(28.4)
5/8	3/8	-FE-FT10-FN6	1.50(38.1)	0.59(15.0)	0.96(24.4)	1.00(25.4)	0.50(12.7)	0.94(23.8)	0.88(22.4)
5/8	1/2	-FE-FT10-FN8	1.57(39.9)	0.78(19.8)	0.96(24.4)	1.00(25.4)	0.50(12.7)	1.06(27.0)	1.12(28.4)
3/4	1/2	-FE-FT12-FN8	1.57(39.9)	0.78(19.8)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.12(28.4)
3/4	3/4	-FE-FT12-FN12	1.76(44.7)	0.81(20.6)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.37(34.9)	1.25(31.8)
7/8	3/4	-FE-FT14-FN12	1.76(44.7)	0.81(20.6)	1.02(25.9)	1.25(31.8)	0.72(18.3)	1.37(34.9)	1.25(31.8)
1	3/4	-FE-FN16-FN12	1.93(49.0)	0.81(20.6)	1.23(31.2)	1.50(38.1)	0.88(22.4)	1.37(34.9)	1.25(31.8)
1	1	-FE-FT6-FN16	2.11(53.6)	1.00(25.4)	1.23(31.2)	1.50(38.1)	0.88(22.4)	1.69(42.9)	1.50(38.1)

Metric Tube to NPT Thread

T-Tube O.D.(mm)	P-NPT SIZE	Basic Ordering Number	Dimension,mm(in)						
			L	B	C	D	E	F	Lx
6	1/8	-FE-MT6-FN2	27.0(1.06)	10.4(0.41)	15.3(0.60)	14.0(0.55)	4.8(0.19)	12.7(0.50)	19.0(0.75)
6	1/4	-FE-MT6-FN4	29.8(1.17)	15.0(0.59)	15.3(0.60)	14.0(0.55)	4.8(0.19)	17.5(0.69)	22.4(0.88)
8	1/8	-FE-MT8-FN2	28.8(1.13)	10.4(0.41)	16.2(0.64)	16.0(0.63)	4.8(0.19)	14.3(0.56)	19.1(0.75)
8	1/4	-FE-MT8-FN4	30.6(1.20)	15.0(0.59)	16.2(0.64)	16.0(0.63)	6.4(0.25)	17.5(0.69)	22.4(0.88)
10	1/4	-FE-MT10-FN4	33.5(1.32)	15.0(0.59)	17.2(0.68)	19.0(0.75)	7.9(0.31)	20.6(0.81)	22.4(0.88)
10	3/8	-FE-MT10-FN6	33.5(1.32)	15.0(0.59)	17.2(0.68)	19.0(0.75)	7.9(0.31)	20.6(0.81)	22.4(0.88)
10	1/2	-FE-MT10-FN8	36.6(1.44)	19.8(0.78)	17.2(0.68)	19.0(0.75)	7.9(0.31)	25.4(1.00)	28.5(1.12)
12	1/4	-FE-MT12-FN4	36.0(1.42)	15.0(0.59)	22.8(0.90)	22.0(0.87)	7.9(0.31)	20.6(0.81)	22.4(0.88)
12	3/8	-FE-MT12-FN6	36.0(1.42)	15.0(0.59)	22.8(0.90)	22.0(0.87)	9.5(0.37)	20.6(0.81)	22.4(0.88)
12	1/2	-FE-MT12-FN8	38.8(1.53)	19.8(0.78)	22.8(0.90)	22.0(0.87)	9.5(0.37)	25.4(1.00)	28.4(1.12)
16	3/8	-FE-MT16-FN6	39.5(1.56)	15.0(0.59)	24.4(0.96)	25.0(0.98)	9.5(0.37)	27.0(1.06)	23.6(0.93)
16	1/2	-FE-MT16-FN8	39.5(1.56)	19.8(0.78)	24.4(0.96)	25.0(0.98)	12.7(0.50)	27.0(1.06)	28.5(1.12)

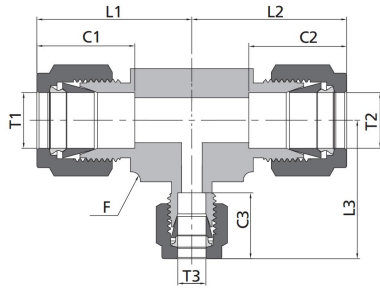
Union Tees



Fractional Tube						
T-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)				
		L	C	D	F	E
1/16	-UT-FT1	0.70(17.8)	0.34(8.6)	0.31(7.9)	0.37(9.5)	0.05(1.3)
1/8	-UT-FT2	0.96(24.4)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.09(2.3)
3/16	-UT-FT3	0.96(24.4)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)
1/4	-UT-FT4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
5/16	-UT-FT5	1.17(29.7)	0.64(16.2)	0.63(15.9)	0.63(15.9)	0.25(6.4)
3/8	-UT-FT6	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
1/2	-UT-FT8	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
5/8	-UT-FT10	1.53(38.9)	0.96(24.4)	1.00(25.4)	1.00(25.4)	0.50(12.7)
3/4	-UT-FT12	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
7/8	-UT-FT14	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)
1	-UT-FT16	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)
1 1/8	-UT-FT18	2.17(55.1)	1.23(31.2)	1.81(46.0)	1.69(42.9)	0.97(24.6)
1 1/4	-UT-FT20	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)
1 1/2	-UT-FT24	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)
2	-UT-FT32	4.22(107.2)	2.66(67.6)	3.00(76.2)	2.75(70.0)	1.81(46.0)

Metric Tube						
T-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm (in.)				
		L	C	D	F	E
2	-UT-MT2	22.3(0.88)	12.9(0.51)	12.0(0.47)	9.5(0.37)	1.7(0.07)
3	-UT-MT3	22.3(0.88)	12.9(0.51)	12.0(0.47)	9.5(0.37)	2.4(0.09)
4	-UT-MT4	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)
6	-UT-MT6	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)
8	-UT-MT8	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)
10	-UT-MT10	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)
12	-UT-MT12	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)
14	-UT-MT14	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	11.1(0.44)
15	-UT-MT15	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	11.9(0.47)
16	-UT-MT16	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	12.7(0.50)
18	-UT-MT18	38.8(1.53)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	-UT-MT20	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)
22	-UT-MT22	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)
25	-UT-MT25	49.1(1.93)	31.3(1.23)	38.0(1.50)	34.9(1.37)	21.8(0.86)
28	-UT-MT28	64.0(2.52)	36.6(1.44)	46.0(1.81)	42.9(1.69)	21.8(0.86)
30	-UT-MT30	69.9(2.75)	39.6(1.56)	50.0(1.97)	42.9(1.69)	26.2(1.03)
32	-UT-MT32	72.3(2.85)	42.0(1.65)	50.0(1.97)	42.9(1.69)	28.6(1.13)
38	-UT-MT38	84.0(3.31)	49.4(1.94)	60.0(2.36)	50.8(2.00)	33.7(1.33)
50	-UT-MT50	106.0(4.17)	67.6(2.66)	75.0(2.95)	70.0(2.75)	46.0(1.81)

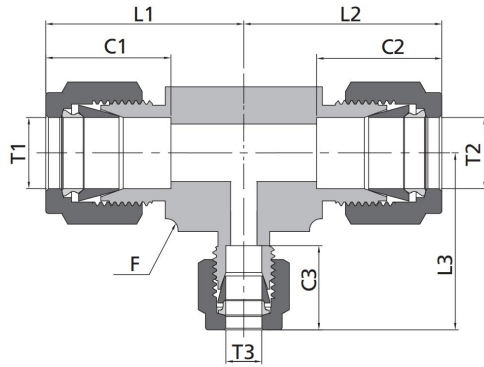
Reducing Union Tees



Fractional Tube

T1- O.D. (in.)	T2- O.D. (in.)	T3- O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)						
				L1	L2	L3	C1	C2	C3	F
1/4	1/4	1/8	-RUT-FT4-FT4-FT2	1.05(26.7)	1.05(26.7)	0.96(24.4)	0.60(15.2)	0.60(15.2)	0.50(12.7)	0.50(12.7)
3/8	1/4	1/4	-RUT-FT6-FT4-FT4	1.20(30.5)	1.14(29.0)	1.14(29.0)	0.66(16.8)	0.60(15.2)	0.60(15.2)	0.63(15.9)
3/8	1/4	3/8	-RUT-FT6-FT4-FT6	1.20(30.5)	1.14(29.0)	1.20(30.5)	0.66(16.8)	0.60(15.2)	0.66(16.8)	0.63(15.9)
3/8	3/8	1/4	-RUT-FT6-FT6-FT4	1.20(30.5)	1.20(30.5)	1.14(29.0)	0.66(16.8)	0.66(16.8)	0.60(15.2)	0.63(15.9)
1/2	1/4	1/4	-RUT-FT8-FT4-FT4	1.42(36.1)	1.25(31.8)	1.25(31.8)	0.90(22.9)	0.60(15.2)	0.60(15.2)	0.81(20.6)
1/2	1/4	1/2	-RUT-FT8-FT4-FT8	1.42(36.1)	1.25(31.8)	1.42(36.1)	0.90(22.9)	0.60(15.2)	0.90(22.9)	0.81(20.6)
1/2	3/8	3/8	-RUT-FT8-FT6-FT6	1.42(36.1)	1.31(33.3)	1.31(33.3)	0.90(22.9)	0.66(16.8)	0.66(16.8)	0.81(20.6)
1/2	3/8	1/2	-RUT-FT8-FT6-FT8	1.42(36.1)	1.31(33.3)	1.42(36.1)	0.90(22.9)	0.66(16.8)	0.90(22.9)	0.81(20.6)
1/2	1/2	1/4	-RUT-FT8-FT8-FT4	1.42(36.1)	1.42(36.1)	1.25(31.8)	0.90(22.9)	0.90(22.9)	0.60(15.2)	0.81(20.6)
1/2	1/2	3/8	-RUT-FT8-FT8-FT6	1.42(36.1)	1.42(36.1)	1.31(33.3)	0.90(22.9)	0.90(22.9)	0.66(16.8)	0.81(20.6)
5/8	3/8	3/8	-RUT-FT10-FT6-FT6	1.53(38.9)	1.42(36.1)	1.42(36.1)	0.96(24.4)	0.66(16.8)	0.66(16.8)	1.00(25.4)
5/8	3/8	1/2	-RUT-FT10-FT6-FT8	1.53(38.9)	1.42(36.1)	1.53(38.9)	0.96(24.4)	0.66(16.8)	0.90(22.9)	1.00(25.4)
5/8	1/2	1/2	-RUT-FT10-FT8-FT8	1.53(38.9)	1.53(38.9)	1.53(38.9)	0.96(24.4)	0.90(22.9)	0.90(22.9)	1.00(25.4)
5/8	5/8	3/8	-RUT-FT10-FT10-FT6	1.53(38.9)	1.53(38.9)	1.42(36.1)	0.96(24.4)	0.96(24.4)	0.66(16.8)	1.00(25.4)
5/8	5/8	1/2	-RUT-FT10-FT10-FT8	1.53(38.9)	1.53(38.9)	1.53(38.9)	0.96(24.4)	0.96(24.4)	0.90(22.9)	1.00(25.4)
3/4	3/8	3/8	-RUT-FT12-FT6-FT6	1.56(39.6)	1.45(36.9)	1.45(36.9)	0.96(24.4)	0.66(16.8)	0.66(16.8)	1.06(27.0)
3/4	1/2	3/8	-RUT-FT12-FT8-FT6	1.56(39.6)	1.56(39.6)	1.45(36.9)	0.96(24.4)	0.90(22.9)	0.66(16.8)	1.06(27.0)
3/4	1/2	1/2	-RUT-FT12-FT8-FT8	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.90(22.9)	0.90(22.9)	1.06(27.0)
3/4	5/8	1/2	-RUT-FT12-FT10-FT8	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.96(24.4)	0.90(22.9)	1.06(27.0)
3/4	5/8	5/8	-RUT-FT12-FT10-FT10	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.96(24.4)	0.96(24.4)	1.06(27.0)
3/4	3/4	1/4	-RUT-FT12-FT12-FT4	1.56(39.6)	1.56(39.6)	1.38(35.1)	0.96(24.4)	0.96(24.4)	0.60(15.2)	1.06(27.0)
3/4	3/4	3/8	-RUT-FT12-FT12-FT6	1.56(39.6)	1.56(39.6)	1.45(36.9)	0.96(24.4)	0.96(24.4)	0.66(16.8)	1.06(27.0)
3/4	3/4	1/2	-RUT-FT12-FT12-FT8	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.96(24.4)	0.90(22.9)	1.06(27.0)
3/4	3/4	5/8	-RUT-FT12-FT12-FT10	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.96(24.4)	0.96(24.4)	1.06(27.0)
7/8	1/2	3/4	-RUT-FT14-FT8-FT12	1.76(44.7)	1.76(44.7)	1.76(44.7)	1.02(25.9)	0.90(22.9)	0.96(24.4)	1.37(34.9)
7/8	5/8	3/8	-RUT-FT14-FT10-FT6	1.76(44.7)	1.76(44.7)	1.65(41.9)	1.02(25.9)	0.96(24.4)	0.66(16.8)	1.37(34.9)
7/8	3/4	1/2	-RUT-FT14-FT12-FT8	1.76(44.7)	1.76(44.7)	1.76(44.7)	1.02(25.9)	0.96(24.4)	0.90(22.9)	1.37(34.9)
7/8	3/4	3/4	-RUT-FT14-FT12-FT12	1.76(44.7)	1.76(44.7)	1.76(44.7)	1.02(25.9)	0.96(24.4)	0.96(24.4)	1.37(34.9)
7/8	7/8	1/4	-RUT-FT14-FT14-FT4	1.76(44.7)	1.76(44.7)	1.59(40.4)	1.02(25.9)	1.02(25.9)	0.60(15.2)	1.37(34.9)
7/8	7/8	3/8	-RUT-FT14-FT14-FT6	1.76(44.7)	1.76(44.7)	1.65(41.9)	1.02(25.9)	1.02(25.9)	0.66(16.8)	1.37(34.9)
1	3/8	3/8	-RUT-FT16-FT6-FT6	1.94(49.3)	1.65(41.9)	1.65(41.9)	1.23(31.2)	0.66(16.8)	0.66(16.8)	1.37(34.9)
1	1/2	1/4	-RUT-FT16-FT8-FT4	1.94(49.3)	1.76(44.7)	1.59(40.4)	1.23(31.2)	0.90(22.9)	0.60(15.2)	1.37(34.9)
1	1/2	3/8	-RUT-FT16-FT8-FT6	1.94(49.3)	1.76(44.7)	1.65(41.9)	1.23(31.2)	0.90(22.9)	0.66(16.8)	1.37(34.9)
1	1/2	1/2	-RUT-FT16-FT8-FT8	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	0.90(22.9)	0.90(22.9)	1.37(34.9)
1	1/2	1	-RUT-FT16-FT8-FT16	1.94(49.3)	1.76(44.7)	1.94(49.3)	1.23(31.2)	0.90(22.9)	1.23(31.2)	1.37(34.9)
1	3/4	3/8	-RUT-FT16-FT12-FT6	1.94(49.3)	1.76(44.7)	1.65(41.9)	1.23(31.2)	0.96(24.4)	0.66(16.8)	1.37(34.9)
1	3/4	1/2	-RUT-FT16-FT12-FT8	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	0.96(24.4)	0.90(22.9)	1.37(34.9)
1	3/4	5/8	-RUT-FT16-FT12-FT10	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	0.96(24.4)	0.96(24.4)	1.37(34.9)
1	3/4	1	-RUT-FT16-FT12-FT16	1.94(49.3)	1.76(44.7)	1.94(49.3)	1.23(31.2)	0.96(24.4)	1.23(31.2)	1.37(34.9)
1	7/8	1/4	-RUT-FT16-FT14-FT4	1.94(49.3)	1.76(44.7)	1.59(40.4)	1.23(31.2)	1.02(25.9)	0.60(15.2)	1.37(34.9)
1	7/8	3/8	-RUT-FT16-FT14-FT6	1.94(49.3)	1.76(44.7)	1.65(41.9)	1.23(31.2)	1.02(25.9)	0.66(16.8)	1.37(34.9)
1	7/8	1/2	-RUT-FT16-FT14-FT8	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	1.02(25.9)	0.90(22.9)	1.37(34.9)
1	7/8	3/4	-RUT-FT16-FT14-FT12	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	1.02(25.9)	0.96(24.4)	1.37(34.9)
1	7/8	7/8	-RUT-FT16-FT14-FT14	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	1.02(25.9)	1.02(25.9)	1.37(34.9)
1	1	1/4	-RUT-FT16-FT16-FT4	1.94(49.3)	1.94(49.3)	1.59(40.4)	1.23(31.2)	1.23(31.2)	0.60(15.2)	1.37(34.9)
1	1	3/8	-RUT-FT16-FT16-FT6	1.94(49.3)	1.94(49.3)	1.65(41.9)	1.23(31.2)	1.23(31.2)	0.66(16.8)	1.37(34.9)
1	1	1/2	-RUT-FT16-FT16-FT8	1.94(49.3)	1.94(49.3)	1.76(44.7)	1.23(31.2)	1.23(31.2)	0.90(22.9)	1.37(34.9)
1	1	5/8	-RUT-FT16-FT16-FT10	1.94(49.3)	1.94(49.3)	1.76(44.7)	1.23(31.2)	1.23(31.2)	0.96(24.4)	1.37(34.9)
1	1	3/4	-RUT-FT16-FT16-FT12	1.94(49.3)	1.94(49.3)	1.76(44.7)	1.23(31.2)	1.23(31.2)	0.96(24.4)	1.37(34.9)
1	1	7/8	-RUT-FT16-FT16-FT14	1.94(49.3)	1.94(49.3)	1.76(44.7)	1.23(31.2)	1.23(31.2)	1.02(25.9)	1.37(34.9)
1 1/4	1 1/4	1	-RUT-FT20-FT20-FT16	2.67(67.8)	2.67(67.8)	2.17(55.1)	1.62(41.2)	1.62(41.2)	1.23(31.3)	1.69(42.9)
1 1/2	1 1/2	1	-RUT-FT24-FT24-FT16	3.10(78.7)	3.10(78.7)	2.36(60.0)	1.97(50.0)	1.97(50.0)	1.23(31.3)	2.00(50.8)

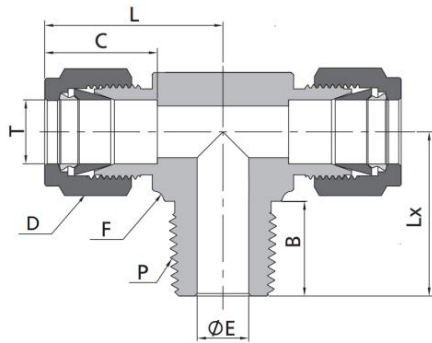
Reducing Union Tees



Metric Tube

T1- O.D. (mm)	T2- O.D. (mm)	T3- O.D. (mm)	Basic Ordering Number	Dimension, mm (in.)						
				L1	L2	L3	C1	C2	C3	F
3	3	6	-RUT-MT3-MT3-MT6	24.7(0.97)	24.7(0.97)	27.0(1.06)	12.9(0.51)	12.9(0.51)	15.3(0.60)	12.7(0.50)
6	6	3	-RUT-MT6-MT6-MT3	27.0(1.06)	27.0(1.06)	25.4(1.00)	15.3(0.60)	15.3(0.60)	12.9(0.51)	12.7(0.50)
6	6	8	-RUT-MT6-MT6-MT8	28.0(1.10)	28.0(1.10)	28.8(1.13)	15.3(0.60)	15.3(0.60)	16.2(0.64)	14.3(0.56)
8	8	6	-RUT-MT8-MT8-MT6	30.0(1.18)	30.0(1.18)	29.0(1.14)	16.2(0.64)	16.2(0.64)	15.3(0.60)	15.9(0.63)
8	8	12	-RUT-MT8-MT8-MT12	35.2(1.39)	35.2(1.39)	36.0(1.42)	16.2(0.64)	16.2(0.64)	22.8(0.90)	20.6(0.81)
10	10	6	-RUT-MT10-MT10-MT6	31.5(1.24)	31.5(1.24)	29.9(1.18)	17.2(0.68)	17.2(0.68)	15.3(0.60)	17.5(0.69)
10	10	8	-RUT-MT10-MT10-MT8	31.5(1.24)	31.5(1.24)	30.7(1.21)	17.2(0.68)	17.2(0.68)	16.2(0.64)	17.5(0.69)
12	12	6	-RUT-MT12-MT12-MT6	36.0(1.42)	36.0(1.42)	31.8(1.25)	22.8(0.90)	22.8(0.90)	15.3(0.60)	20.6(0.81)
12	12	8	-RUT-MT12-MT12-MT8	36.0(1.42)	36.0(1.42)	32.0(1.26)	22.8(0.90)	22.8(0.90)	16.2(0.64)	20.6(0.81)
12	12	14	-RUT-MT12-MT12-MT14	38.0(1.50)	38.0(1.50)	38.0(1.50)	22.8(0.90)	22.8(0.90)	24.4(0.96)	25.4(1.00)
12	12	18	-RUT-MT12-MT12-MT18	39.8(1.57)	39.8(1.57)	39.8(1.57)	22.8(0.90)	22.8(0.90)	24.4(0.96)	27.0(1.06)
14	14	8	-RUT-MT14-MT14-MT8	38.0(1.50)	38.0(1.50)	37.2(1.46)	24.4(0.96)	24.4(0.96)	16.2(0.64)	25.4(1.00)
14	14	10	-RUT-MT14-MT14-MT10	38.0(1.50)	38.0(1.50)	38.0(1.50)	24.4(0.96)	24.4(0.96)	17.2(0.68)	25.4(1.00)
15	15	12	-RUT-MT15-MT15-MT12	38.8(1.53)	38.8(1.53)	38.8(1.53)	24.4(0.96)	24.4(0.96)	22.8(0.90)	25.4(1.00)
16	8	16	-RUT-MT16-MT8-MT16	38.8(1.53)	37.2(1.46)	38.8(1.53)	24.4(0.96)	16.2(0.64)	24.4(0.96)	25.4(1.00)
16	16	12	-RUT-MT16-MT16-MT12	38.8(1.53)	38.8(1.53)	38.9(1.53)	24.4(0.96)	24.4(0.96)	22.8(0.90)	25.4(1.00)
18	18	8	-RUT-MT18-MT18-MT8	39.8(1.57)	39.8(1.57)	39.0(1.54)	24.4(0.96)	24.4(0.96)	16.2(0.64)	27.0(1.06)
18	18	10	-RUT-MT18-MT18-MT10	39.8(1.57)	39.8(1.57)	39.8(1.57)	24.4(0.96)	24.4(0.96)	17.2(0.68)	27.0(1.06)
18	18	12	-RUT-MT18-MT18-MT12	39.8(1.57)	39.8(1.57)	39.8(1.57)	24.4(0.96)	24.4(0.96)	22.8(0.90)	27.0(1.06)
18	18	14	-RUT-MT18-MT18-MT14	39.8(1.57)	39.8(1.57)	39.8(1.57)	24.4(0.96)	24.4(0.96)	24.4(0.96)	27.0(1.06)
20	20	14	-RUT-MT20-MT20-MT14	44.6(1.76)	44.6(1.76)	44.6(1.76)	26.0(1.02)	26.0(1.02)	24.4(0.96)	34.9(1.37)
22	22	12	-RUT-MT22-MT22-MT12	44.6(1.76)	44.6(1.76)	44.6(1.76)	26.0(1.02)	26.0(1.02)	22.8(0.90)	34.9(1.37)
25	25	12	-RUT-MT25-MT25-MT12	49.1(1.93)	49.1(1.93)	44.7(1.76)	31.3(1.23)	31.3(1.23)	22.8(0.90)	34.9(1.37)

Male Branch Tees



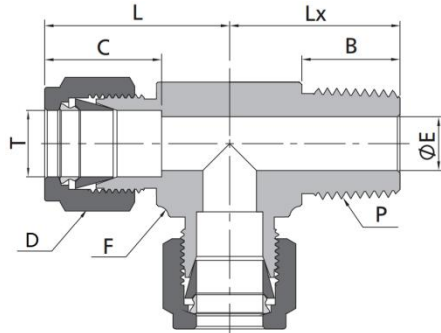
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	C	D	F	E	B	Lx
1/8	1/8	-MBT-FT2-MN2	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)	0.38(9.7)	0.70(17.8)
1/8	1/4	-MBT-FT2-MN4	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.3)	0.56(14.2)	0.92(23.4)
3/16	1/8	-MBT-FT3-MN2	0.96(24.4)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)	0.38(9.7)	0.70(17.8)
1/4	1/8	-MBT-FT4-MN2	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.74(18.8)
1/4	1/4	-MBT-FT4-MN4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.92(23.4)
5/16	1/8	-MBT-FT5-MN2	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.63(15.9)	0.19(4.8)	0.38(9.7)	0.82(20.8)
5/16	1/4	-MBT-FT5-MN4	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.63(15.9)	0.25(6.4)	0.56(14.2)	1.01(25.7)
3/8	1/4	-MBT-FT6-MN4	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	1.00(25.4)
3/8	3/8	-MBT-FT6-MN6	1.31(33.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.56(14.2)	1.11(28.2)
1/2	3/8	-MBT-FT8-MN6	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	1.11(28.2)
1/2	1/2	-MBT-FT8-MN8	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.75(19.1)	1.30(33.0)
5/8	1/2	-MBT-FT10-MN8	1.53(38.9)	0.96(24.4)	1.00(25.4)	1.00(25.4)	0.47(11.9)	0.75(19.1)	1.41(35.8)
3/4	3/4	-MBT-FT12-MN12	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.45(36.8)
7/8	3/4	-MBT-FT14-MN12	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.31(33.3)	0.62(15.7)	0.75(19.1)	1.50(38.1)
1	3/4	-MBT-FT16-MN12	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.31(33.3)	0.62(15.7)	0.75(19.1)	1.67(42.4)
1	1	-MBT-FT16-MN16	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.84(46.7)
1 1/4	1 1/4	-MBT-FT20-MN20	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)	0.94(23.9)	2.06(52.4)
1 1/2	1 1/2	-MBT-FT24-MN24	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)	1.03(26.2)	2.38(60.5)
2	2	-MBT-FT32-MN32	4.22(107.2)	2.66(67.6)	3.00(76.2)	2.75(70.0)	1.81(46.0)	1.07(27.2)	2.78(70.6)

Metric Tube to NPT Thread

T-Tube O.D.(mm)	P-NPT SIZE	Basic Ordering Number	Dimension,mm(in)						
			L	C	D	F	E	B	Lx
6	1/8	-MBT-MT6-MN2	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	18.8(0.74)
6	1/4	-MBT-MT6-MN4	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	23.4(0.92)
8	1/8	-MBT-MT8-MN2	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	4.8(0.19)	9.7(0.38)	20.8(0.82)
8	1/4	-MBT-MT8-MN4	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)	14.2(0.56)	25.4(1.00)
10	1/4	-MBT-MT10-MN4	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	14.2(0.56)	28.2(1.11)
10	3/8	-MBT-MT10-MN6	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	14.2(0.56)	28.2(1.11)
12	1/4	-MBT-MT12-MN4	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	7.9(0.31)	14.2(0.56)	28.2(1.11)
12	3/8	-MBT-MT12-MN6	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	28.2(1.11)
12	1/2	-MBT-MT12-MN8	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	33.0(1.30)
16	1/2	-MBT-MT16-MN8	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	11.9(0.47)	19.1(0.75)	35.8(1.41)

Male Run Tees



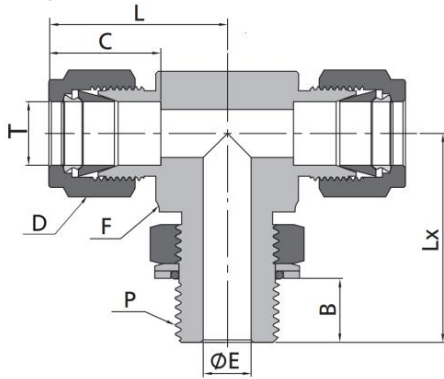
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT SIZE	Basic Ordering Number	Dimension, in(mm)						
			L	C	D	F	E	B	Lx
1/8	1/8	-MRT-FT2-MN2	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)	0.38(9.7)	0.70(17.8)
1/8	1/4	-MRT-FT2-MN4	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.3)	0.56(14.2)	0.92(23.4)
3/16	1/8	-MRT-FT3-MN2	0.96(24.4)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)	0.38(9.7)	0.70(17.8)
1/4	1/8	-MRT-FT4-MN2	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.74(18.8)
1/4	1/4	-MRT-FT4-MN4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.92(23.4)
5/16	1/8	-MRT-FT5-MN2	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.63(15.9)	0.19(4.8)	0.38(9.7)	0.82(20.8)
5/16	1/4	-MRT-FT5-MN4	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.63(15.9)	0.25(6.4)	0.56(14.2)	1.01(25.7)
3/8	1/4	-MRT-FT6-MN4	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	1.00(25.4)
3/8	3/8	-MRT-FT6-MN6	1.31(33.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.56(14.2)	1.11(28.2)
1/2	3/8	-MRT-FT8-MN6	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	1.11(28.2)
1/2	1/2	-MRT-FT8-MN8	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.75(19.1)	1.3(33.0)
5/8	1/2	-MRT-FT10-MN8	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.47(11.9)	0.75(19.1)	1.41(35.8)
3/4	3/4	-MRT-FT12-MN12	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.45(36.8)
7/8	3/4	-MRT-FT14-MN12	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.31(33.3)	0.62(15.7)	0.75(19.1)	1.50(38.1)
1	3/4	-MRT-FT16-MN12	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.31(33.3)	0.62(15.7)	0.75(19.1)	1.67(42.4)
1	1	-MRT-FT16-MN16	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.84(46.7)
1 1/4	1 1/4	-MRT-FT20-MN20	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)	0.94(23.9)	2.06(52.4)
1 1/2	1 1/2	-MRT-FT24-MN24	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)	1.03(26.2)	2.38(60.5)
2	2	-MRT-FT32-MN32	4.22(107.2)	2.66(67.6)	3.00(76.2)	2.75(70.0)	1.81(46.0)	1.07(27.2)	2.78(70.6)

Metric Tube to NPT Thread

T-Tube O.D.(mm)	P-NPT SIZE	Basic Ordering Number	Dimension, mm(in)						
			L	C	D	F	E	B	Lx
6	1/8	-MRT-MT6-MN2	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	18.0(0.71)
6	1/4	-MRT-MT6-MN4	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	23.4(0.92)
8	1/8	-MRT-MT8-MN2	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	4.8(0.19)	9.7(0.38)	20.8(0.82)
8	1/4	-MRT-MT8-MN4	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)	14.2(0.56)	25.4(1.00)
10	1/4	-MRT-MT10-MN4	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	14.2(0.56)	28.2(1.11)
10	1/2	-MRT-MT10-MN8	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	14.2(0.56)	28.2(1.11)
12	1/4	-MRT-MT12-MN4	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	7.9(0.31)	14.2(0.56)	28.2(1.11)
12	3/8	-MRT-MT12-MN6	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	28.2(1.11)
12	1/2	-MRT-MT12-MN8	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	33.0(1.30)
16	1/2	-MRT-MT16-MN8	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.0(1.38)

Adjustable Male Branch Tees



Fractional Tube to ISO Parallel Thread

T-Tube O.D.(in.)	P-BSP SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	E	D	F	Lx
1/4	1/8	-AMB-FT4-PP2	1.06(26.9)	0.32(8.1)	0.60(15.2)	0.16(4.1)	0.56(14.3)	0.50(12.7)	1.04(26.4)
1/4	1/4	-AMB-FT4-PP4	1.14(29.0)	0.36(9.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	1.27(32.3)
3/8	1/4	-AMB-FT6-PP4	1.20(30.5)	0.36(9.1)	0.66(16.8)	0.23(5.8)	0.69(17.5)	0.63(15.9)	1.27(32.3)
1/2	3/8	-AMB-FT8-PP6	1.42(36.1)	0.37(9.4)	0.90(22.9)	0.31(7.9)	0.87(22.2)	0.81(20.6)	1.46(37.1)
1/2	1/2	-AMB-FT8-PP8	1.50(38.1)	0.51(13.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	1.71(43.4)
5/8	1/2	-AMB-FT10-PP8	1.50(38.1)	0.51(13.0)	0.96(24.4)	0.47(11.9)	1.00(25.4)	0.94(23.8)	1.71(43.4)
3/4	1/2	-AMB-FT12-PP8	1.57(39.9)	0.51(13.0)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)	1.78(45.2)
3/4	3/4	-AMB-FT12-PP12	1.57(39.9)	0.51(13.0)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)	1.92(48.8)
1	1	-AMB-FT16-PP16	1.93(49.0)	0.55(14.0)	1.23(31.2)	0.78(19.8)	1.50(38.1)	1.37(34.9)	2.11(53.6)

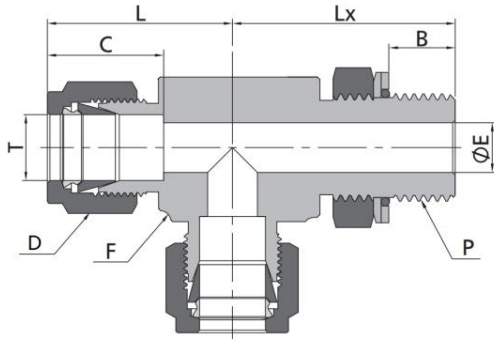
Fractional Tube to SAE/MS Thread

T-Tube O.D.(in.)	P-SAE/MS SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	E	D	F	Lx
1/4	7/16-20	-AMB-FT4-ST7	1.12(28.5)	0.39(9.9)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.50(12.7)	1.12(28.5)
3/8	9/16-18	-AMB-FT6-ST9	1.26(32.0)	0.44(11.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)	1.27(32.3)
1/2	3/4-16	-AMB-FT8-ST12	1.48(37.6)	0.50(12.7)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)	1.49(37.8)
3/4	1 1/16-12	-AMB-FT12-ST17	1.63(41.4)	0.66(16.8)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)	1.92(48.8)
1	1 5/16-12	-AMB-FT16-ST21	1.99(50.5)	0.66(16.8)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)	2.11(53.6)
1 1/4	1 5/8-12	-AMB-FT20-ST26	2.67(67.8)	0.66(16.8)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.69(42.9)	2.29(58.2)
1 1/2	1 7/8-12	-AMB-FT24-ST30	3.07(78.0)	0.66(16.8)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.00(50.8)	2.38(60.5)

Metric Tube to ISO Parallel Thread

T-Tube O.D.(mm)	P-BSP SIZE	Basic Ordering Number	Dimension,mm(in)						
			L	B	C	E	D	F	Lx
6	1/8	-AMB-MT6-PP2	27.0(1.06)	8.1(0.32)	15.3(0.60)	4.0(0.16)	14.0(0.55)	12.7(0.50)	26.4(1.04)
6	1/4	-AMB-MT6-PP4	29.0(1.14)	9.1(0.36)	15.3(0.60)	4.8(0.19)	14.0(0.55)	15.9(0.63)	32.2(1.27)
8	1/8	-AMB-MT8-PP2	28.8(1.13)	8.1(0.32)	16.2(0.64)	4.0(0.16)	16.0(0.63)	14.3(0.56)	27.5(1.08)
8	1/4	-AMB-MT8-PP4	29.9(1.18)	9.1(0.36)	16.2(0.64)	5.9(0.23)	16.0(0.63)	15.9(0.63)	32.2(1.27)
10	1/4	-AMB-MT10-PP4	33.5(1.32)	9.1(0.36)	17.2(0.68)	5.9(0.23)	19.0(0.75)	20.6(0.81)	35.1(1.38)
12	3/8	-AMB-MT12-PP6	36.0(1.42)	9.4(0.37)	22.8(0.90)	7.9(0.31)	22.0(0.87)	20.6(0.81)	37.1(1.46)
12	1/2	-AMB-MT12-PP8	38.0(1.50)	13.0(0.51)	22.8(0.90)	9.5(0.37)	22.0(0.87)	23.8(0.94)	43.5(1.71)

Adjustable Male Run Tees



Fractional Tube to ISO Parallel Thread

T-Tube O.D.(in.)	P-BSP SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	E	D	F	Lx
1/4	1/8	-AMR-FT4-PP2	1.06(26.9)	0.32(8.1)	0.60(15.2)	0.16(4.1)	0.56(14.3)	0.50(12.7)	1.04(26.4)
1/4	1/4	-AMR-FT4-PP4	1.14(29.0)	0.36(9.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	1.27(32.3)
3/8	1/4	-AMR-FT6-PP4	1.20(30.5)	0.36(9.1)	0.66(16.8)	0.23(5.8)	0.69(17.5)	0.63(15.9)	1.27(32.3)
1/2	3/8	-AMR-FT8-PP6	1.42(36.1)	0.37(9.4)	0.90(22.9)	0.31(7.9)	0.87(22.2)	0.81(20.6)	1.46(37.1)
1/2	1/2	-AMR-FT8-PP8	1.50(38.1)	0.51(13.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	1.71(43.4)
5/8	1/2	-AMR-FT10-PP8	1.50(38.1)	0.51(13.0)	0.96(24.4)	0.47(11.9)	1.00(25.4)	0.94(23.8)	1.71(43.4)
3/4	1/2	-AMR-FT12-PP8	1.57(39.9)	0.51(13.0)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)	1.78(45.2)
3/4	3/4	-AMR-FT12-PP12	1.57(39.9)	0.51(13.0)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)	1.92(48.8)
1	1	-AMR-FT16-PP16	1.93(49.0)	0.55(14.0)	1.23(31.2)	0.78(19.8)	1.50(38.1)	1.37(34.9)	2.11(53.6)

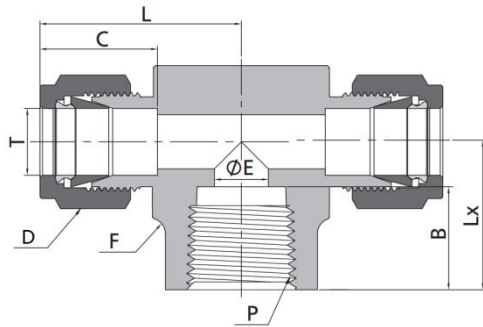
Fractional Tube to SAE/MS Thread

T-Tube O.D.(in.)	P-SAE/MS SIZE	Basic Ordering Number	Dimension,in(mm)						
			L	B	C	E	D	F	Lx
1/4	7/16-20	-AMR-FT4-ST7	1.12(28.5)	0.39(9.9)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.50(12.7)	1.12(28.5)
3/8	9/16-18	-AMR-FT6-ST9	1.26(32.0)	0.44(11.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)	1.27(32.3)
1/2	3/4-16	-AMR-FT8-ST12	1.48(37.6)	0.50(12.7)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)	1.49(37.8)
3/4	1 1/16-12	-AMR-FT12-ST17	1.63(41.4)	0.66(16.8)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)	1.92(48.8)
1	1 5/16-12	-AMR-FT16-ST21	1.99(50.5)	0.66(16.8)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)	2.11(53.6)
1 1/4	1 5/8-12	-AMR-FT20-ST26	2.67(67.8)	0.66(16.8)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.69(42.9)	2.29(58.2)
1 1/2	1 7/8-12	-AMR-FT24-ST30	3.07(78.0)	0.66(16.8)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.00(50.8)	2.38(60.5)

Metric Tube to ISO Parallel Thread

T-Tube O.D.(mm)	P-BSP SIZE	Basic Ordering Number	Dimension,mm(in)						
			L	B	C	E	D	F	Lx
6	1/8	-AMR-MT6-PP2	27.0(1.06)	8.1(0.32)	15.3(0.60)	4.0(0.16)	14.0(0.55)	12.7(0.50)	26.4(1.04)
6	1/4	-AMR-MT4-PP4	29.0(1.14)	9.1(0.36)	15.3(0.60)	4.8(0.19)	14.0(0.55)	15.9(0.63)	32.2(1.27)
8	1/8	-AMR-MT8-PP4	28.8(1.13)	8.1(0.32)	16.2(0.64)	4.0(0.16)	16.0(0.63)	14.3(0.56)	27.5(1.08)
8	1/4	-AMR-MT8-PP6	29.9(1.18)	9.1(0.36)	16.2(0.64)	5.9(0.23)	16.0(0.63)	15.9(0.63)	32.2(1.27)
10	1/4	-AMR-MT10-PP8	33.5(1.32)	9.1(0.36)	17.2(0.68)	5.9(0.23)	19.0(0.75)	20.6(0.81)	35.1(1.38)
12	3/8	-AMR-MT12-PP8	36.0(1.42)	9.4(0.37)	22.8(0.90)	7.9(0.31)	22.0(0.87)	20.6(0.81)	37.1(1.46)
12	1/2	-AMR-MT12-PP8	38.0(1.50)	13.0(0.51)	22.8(0.90)	9.5(0.37)	22.0(0.87)	23.8(0.94)	43.5(1.71)

Female Branch Tees



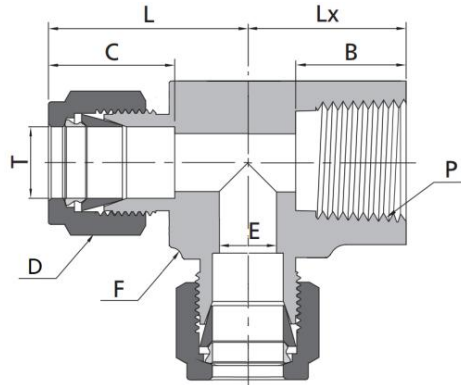
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT SIZE	Basic Ordering Number	Dimension, in(mm)						
			L	C	D	F	E	B	Lx
1/8	1/8	-FBT-FT2-FN2	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.3)	0.41(10.4)	0.75(19.1)
3/16	1/8	-FBT-FT3-FN2	1.01(25.7)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)	0.41(10.4)	0.75(19.1)
1/4	1/8	-FBT-FT4-FN2	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.41(10.4)	0.75(19.1)
1/4	1/4	-FBT-FT4-FN4	1.17(29.7)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)	0.59(15.0)	0.88(22.4)
5/16	1/8	-FBT-FT5-FN2	1.17(29.7)	0.64(16.2)	0.63(15.9)	0.63(15.9)	0.25(6.4)	0.41(10.4)	0.75(19.1)
3/8	1/4	-FBT-FT6-FN4	1.23(31.2)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.59(15.0)	0.88(22.4)
3/8	3/8	-FBT-FT6-FN6	1.31(33.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.59(15.0)	0.88(22.4)
3/8	1/2	-FBT-FT6-FN8	1.42(36.1)	0.66(16.8)	0.69(17.5)	1.00(25.4)	0.28(7.1)	0.78(19.8)	1.12(28.4)
1/2	1/4	-FBT-FT8-FN4	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.59(15.0)	0.88(22.4)
1/2	3/8	-FBT-FT8-FN6	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.59(15.0)	0.88(22.4)
1/2	1/2	-FBT-FT8-FN8	1.53(38.9)	0.90(22.9)	0.87(22.2)	1.00(25.4)	0.41(10.4)	0.78(19.8)	1.12(28.4)
5/8	1/2	-FBT-FT10-FN8	1.53(38.9)	0.96(24.4)	1.00(25.4)	1.00(25.4)	0.50(12.7)	0.78(19.8)	1.12(28.4)
3/4	3/4	-FBT-FT12-FN12	1.76(44.7)	0.96(24.4)	1.13(28.6)	1.37(34.9)	0.62(15.7)	0.81(20.6)	1.25(31.8)
7/8	3/4	-FBT-FT14-FN12	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)	0.81(20.6)	1.25(31.8)
1	3/4	-FBT-FT16-FN12	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.81(20.6)	1.25(31.8)
1	1	-FBT-FT16-FN16	2.11(53.6)	1.23(31.2)	1.50(38.1)	1.69(42.9)	0.88(22.4)	1.00(25.4)	1.50(38.1)

Metric Tube to NPT Thread

T-Tube O.D.(mm)	P-NPT SIZE	Basic Ordering Number	Dimension, mm(in)						
			L	C	D	F	E	B	Lx
6	1/8	-FBT-MT6-FN2	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	10.4(0.41)	19.0(0.75)
6	1/4	-FBT-MT6-FN4	29.8(1.17)	15.3(0.60)	14.0(0.55)	17.5(0.69)	4.8(0.19)	15.0(0.59)	22.4(0.88)
8	1/8	-FBT-MT8-FN2	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)	10.4(0.41)	19.0(0.75)
8	1/4	-FBT-MT8-FN4	30.6(1.2)	16.2(0.64)	16.0(0.63)	17.5(0.69)	6.4(0.25)	15.0(0.59)	22.4(0.88)
10	1/4	-FBT-MT10-FN4	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	15.0(0.59)	22.4(0.88)
12	1/8	-FBT-MT12-FN2	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	6.4(0.25)	10.4(0.41)	22.3(0.88)
12	1/4	-FBT-MT12-FN4	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	15.0(0.59)	22.4(0.88)
12	3/8	-FBT-MT12-FN6	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	15.0(0.59)	22.4(0.88)
12	1/2	-FBT-MT12-FN8	38.8(1.53)	22.8(0.90)	22.0(0.87)	25.4(1.00)	9.5(0.37)	19.8(0.78)	28.5(1.12)
16	1/2	-FBT-MT16-FN8	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	12.7(0.50)	19.8(0.78)	28.4(1.12)

Female Run Tees



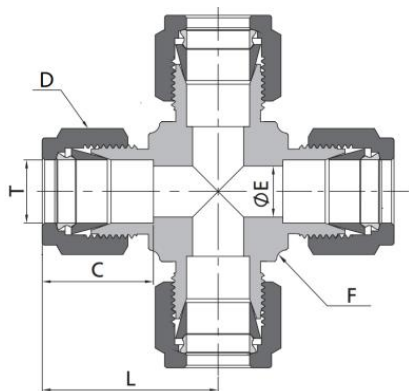
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT SIZE	Basic Ordering Number	Dimension, in(mm)						
			L	C	D	F	E	B	Lx
1/8	1/8	-FRT-FT2-FN2	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.3)	0.41(10.4)	0.75(19.1)
3/16	1/8	-FRT-FT3-FN2	1.01(25.7)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)	0.41(10.4)	0.75(19.1)
1/4	1/8	-FRT-FT4-FN2	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.41(10.4)	0.75(19.1)
1/4	1/4	-FRT-FT4-FN4	1.17(29.7)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)	0.59(15.0)	0.88(22.4)
5/16	1/8	-FRT-FT5-FN2	1.17(29.7)	0.64(16.2)	0.63(15.9)	0.63(15.9)	0.25(6.4)	0.41(10.4)	0.75(19.1)
3/8	1/4	-FRT-FT6-FN4	1.23(31.2)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.59(15.0)	0.88(22.4)
1/2	1/4	-FRT-FT8-FN4	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.59(15.0)	0.88(22.4)
1/2	3/8	-FRT-FT8-FN6	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.59(15.0)	0.88(22.4)
1/2	1/2	-FRT-FT8-FN8	1.57(39.9)	0.90(22.9)	0.87(22.2)	1.06(27.0)	0.41(10.4)	0.78(19.8)	1.12(28.4)
5/8	1/2	-FRT-FT10-FN8	1.57(39.9)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.50(12.7)	0.78(19.8)	1.12(28.4)
3/4	3/4	-FRT-FT12-FN12	1.76(44.7)	0.96(24.4)	1.13(28.6)	1.37(34.9)	0.62(15.7)	0.81(20.6)	1.25(31.8)
7/8	3/4	-FRT-FT14-FN8	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.62(15.7)	0.78(19.8)	1.12(28.4)
7/8	3/4	-FRT-FT14-FN12	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)	0.81(20.6)	1.25(31.8)
1	3/4	-FRT-FT16-FN12	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.81(20.6)	1.25(31.8)
1	1	-FRT-FT16-FN16	2.11(53.6)	1.23(31.2)	1.50(38.1)	1.69(42.9)	0.88(22.4)	1.00(25.4)	1.50(38.1)

Metric Tube to NPT Thread

T-Tube O.D.(mm)	P-NPT SIZE	Basic Ordering Number	Dimension, mm(in)						
			L	C	D	F	E	B	Lx
6	1/8	-FRT-MT6-FN2	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	10.4(0.41)	19.0(0.75)
6	1/4	-FRT-MT6-FN4	29.8(1.17)	15.3(0.60)	14.0(0.55)	17.5(0.69)	4.8(0.19)	15.0(0.59)	22.4(0.88)
8	1/8	-FRT-MT8-FN2	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	4.8(0.19)	10.4(0.41)	19.0(0.75)
8	1/4	-FRT-MT8-FN4	30.6(1.20)	16.2(0.64)	16.0(0.63)	17.5(0.69)	6.4(0.25)	15.0(0.59)	22.4(0.88)
10	1/4	-FRT-MT10-FN4	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	15.0(0.59)	22.4(0.88)
12	1/4	-FRT-MT12-FN4	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	15.0(0.59)	22.4(0.88)
12	3/8	-FRT-MT12-FN6	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	15.0(0.59)	23.1(0.91)
12	1/2	-FRT-MT12-FN8	38.8(1.53)	22.8(0.90)	22.0(0.87)	25.4(1.00)	9.5(0.37)	19.8(0.78)	28.5(1.12)
16	1/2	-FRT-MT16-FN8	39.8(1.57)	24.4(0.96)	25.0(0.98)	27.0(1.06)	11.9(0.47)	19.8(0.78)	28.4(1.12)

Union Crosses



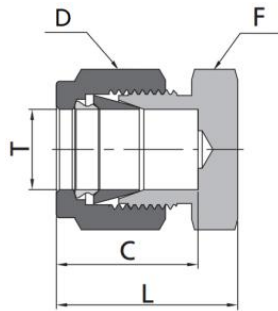
Fractional Tube

T-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)				
		L	C	D	F	E
1/8	-UC-FT2	0.88(22.4)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.09(2.3)
3/16	-UC-FT3	0.96(24.4)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)
1/4	-UC-FT4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
5/16	-UC-FT5	1.17(29.7)	0.64(16.2)	0.63(15.9)	0.63(15.9)	0.25(6.4)
3/8	-UC-FT6	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
1/2	-UC-FT8	1.42(36.1)	0.90(22.9)	0.69(17.5)	0.81(20.6)	0.41(10.4)
5/8	-UC-FT10	1.43(36.3)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.50(12.7)
3/4	-UC-FT12	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
7/8	-UC-FT14	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)
1	-UC-FT16	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)
1 1/8	-UC-FT18	2.17(55.1)	1.23(31.2)	1.81(46.0)	1.69(42.9)	0.97(24.6)
1 1/4	-UC-FT20	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)
1 1/2	-UC-FT24	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)
2	-UC-FT32	4.22(107.2)	2.66(67.6)	3.00(76.2)	2.75(70.0)	1.81(46.0)

Metric Tube

T-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm (in.)				
		L	C	D	F	E
3	-UC-MT3	22.3(0.88)	12.9(0.51)	12.0(0.47)	9.5(0.37)	2.4(0.09)
4	-UC-MT4	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)
6	-UC-MT6	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)
8	-UC-MT8	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)
10	-UC-MT10	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)
12	-UC-MT12	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)
16	-UC-MT16	37.0(1.46)	24.4(0.96)	25.0(0.98)	23.8(0.94)	12.7(0.50)
18	-UC-MT18	38.3(1.51)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	-UC-MT20	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)
22	-UC-MT22	44.7(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)
25	-UC-MT25	49.2(1.94)	31.3(1.23)	38.0(1.50)	34.9(1.37)	21.8(0.86)
28	-UC-MT28	64.0(2.52)	36.6(1.44)	46.0(1.81)	42.9(1.69)	21.8(0.86)
30	-UC-MT30	69.9(2.75)	39.6(1.56)	50.0(1.97)	42.9(1.69)	26.2(1.03)
32	-UC-MT32	72.3(2.85)	42.0(1.65)	50.0(1.97)	42.9(1.69)	28.6(1.13)
38	-UC-MT38	84.0(3.31)	49.4(1.94)	60.0(2.36)	50.8(2.00)	33.7(1.33)
50	-UC-MT50	106.0(4.17)	67.6(2.66)	75.0(2.95)	70.0(2.75)	46.0(1.81)

Caps



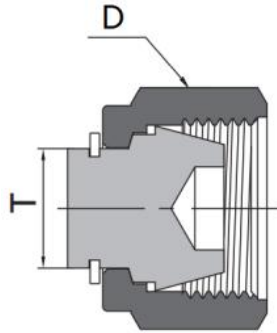
Fractional Tube

T-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)			
		L	C	D	F
1/16	-TC-FT1	0.59(15.0)	0.34(8.6)	0.31(7.9)	0.31(7.9)
1/8	-TC-FT2	0.79(20.1)	0.50(12.7)	0.44(11.1)	0.44(11.1)
3/16	-TC-FT3	0.84(21.3)	0.54(13.7)	0.50(12.7)	0.44(11.1)
1/4	-TC-FT4	0.92(23.4)	0.60(15.2)	0.56(14.3)	0.50(12.7)
5/16	-TC-FT5	0.96(24.4)	0.64(16.3)	0.63(15.9)	0.56(14.3)
3/8	-TC-FT6	1.01(25.7)	0.66(16.8)	0.69(17.5)	0.63(15.9)
1/2	-TC-FT8	1.15(29.2)	0.90(22.9)	0.87(22.2)	0.81(20.6)
5/8	-TC-FT10	1.18(30.0)	0.96(24.4)	1.00(25.4)	0.94(23.8)
3/4	-TC-FT12	1.24(31.5)	0.96(24.4)	1.13(28.6)	1.06(27.0)
7/8	-TC-FT14	1.34(34.0)	1.02(25.9)	1.25(31.8)	1.19(30.2)
1	-TC-FT16	1.51(38.4)	1.23(31.2)	1.50(38.1)	1.37(34.9)
1 1/8	-TC-FT18	1.51(38.4)	1.23(31.2)	1.81(46.0)	1.63(41.3)
1 1/4	-TC-FT20	2.10(53.3)	1.62(41.1)	1.87(47.6)	1.75(44.5)
1 1/2	-TC-FT24	2.54(64.5)	1.97(50.0)	2.25(57.2)	2.13(54.0)
2	-TC-FT32	3.41(86.6)	2.66(67.6)	3.00(76.2)	2.75(70.0)

Metric Tube

T-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm (in.)			
		L	C	D	F
2	-TC-MT2	20.1(0.79)	12.9(0.51)	12.0(0.47)	12.0(0.47)
3	-TC-MT3	20.1(0.79)	12.9(0.51)	12.0(0.47)	12.0(0.47)
4	-TC-MT4	21.3(0.84)	13.7(0.54)	12.0(0.47)	12.0(0.47)
6	-TC-MT6	23.1(0.91)	15.3(0.60)	14.0(0.55)	14.0(0.55)
8	-TC-MT8	24.5(0.96)	16.2(0.64)	16.0(0.63)	15.0(0.59)
10	-TC-MT10	26.6(1.05)	17.2(0.68)	19.0(0.75)	18.0(0.71)
12	-TC-MT12	29.1(1.15)	22.8(0.90)	22.0(0.87)	22.0(0.87)
14	-TC-MT14	29.9(1.18)	24.4(0.96)	22.0(0.87)	24.0(0.94)
15	-TC-MT15	29.9(1.18)	24.4(0.96)	25.0(0.98)	24.0(0.94)
16	-TC-MT16	29.9(1.18)	24.4(0.96)	25.0(0.98)	24.0(0.94)
18	-TC-MT18	31.4(1.24)	24.4(0.96)	30.0(1.18)	27.0(1.06)
20	-TC-MT20	34.0(1.34)	26.0(1.02)	32.0(1.26)	30.0(1.18)
22	-TC-MT22	34.0(1.34)	26.0(1.02)	32.0(1.26)	30.0(1.18)
25	-TC-MT25	38.5(1.52)	31.3(1.23)	38.0(1.50)	35.0(1.38)
28	-TC-MT28	48.5(1.91)	36.6(1.44)	46.0(1.81)	41.0(1.61)
30	-TC-MT30	53.4(2.10)	39.6(1.56)	50.0(1.97)	46.0(1.81)
32	-TC-MT32	55.8(2.20)	42.0(1.65)	50.0(1.97)	46.0(1.81)
38	-TC-MT38	65.4(2.57)	49.4(1.94)	60.0(2.36)	55.0(2.17)
50	-TC-MT50	86.0(3.38)	67.6(2.66)	75.0(2.95)	70.0(2.75)

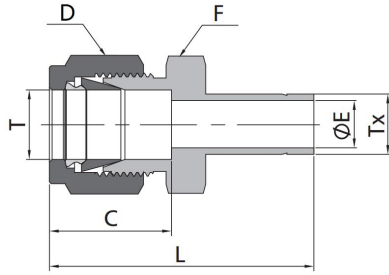
Plugs



Fractional Tube		
T-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)
		D
1/16	-TP-FT1	0.31(7.9)
1/8	-TP-FT2	0.44(11.1)
3/16	-TP-FT3	0.50(12.7)
1/4	-TP-FT4	0.56(14.3)
5/16	-TP-FT5	0.63(15.9)
3/8	-TP-FT6	0.69(17.5)
1/2	-TP-FT8	0.87(22.2)
5/8	-TP-FT10	1.00(25.4)
3/4	-TP-FT12	1.13(28.6)
7/8	-TP-FT14	1.25(31.8)
1	-TP-FT16	1.50(38.1)
1 1/4	-TP-FT20	1.87(47.6)
1 1/2	-TP-FT24	2.25(57.2)
2	-TP-FT32	3.00(76.2)

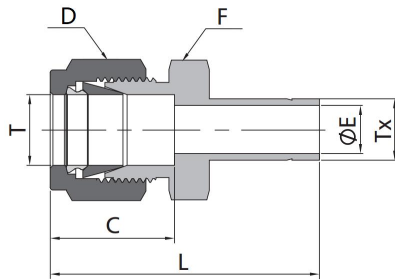
Metric Tube		
T-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm(In.)
		D
2	-TP-MT2	12.0(0.47)
3	-TP-MT3	12.0(0.47)
4	-TP-MT4	12.0(0.47)
6	-TP-MT6	14.0(0.55)
8	-TP-MT8	16.0(0.63)
10	-TP-MT10	19.0(0.75)
12	-TP-MT12	22.0(0.87)
14	-TP-MT14	25.0(0.98)
15	-TP-MT15	25.0(0.98)
16	-TP-MT16	25.0(0.98)
18	-TP-MT18	30.0(1.18)
20	-TP-MT20	32.0(1.26)
22	-TP-MT22	32.0(1.26)
25	-TP-MT25	38.0(1.50)
28	-TP-MT28	46.0(1.81)
30	-TP-MT30	50.0(1.97)
32	-TP-MT32	50.0(1.97)
38	-TP-MT38	60.0(2.36)
50	-TP-MT50	75.0(2.95)

Reducers



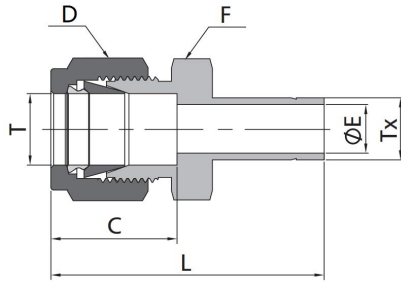
Fractional Tube							
T-Tube O.D.(in.)	Tx-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)				
			L	C	D	F	E
1/16	1/8	-RD-FT1-FTD2	1.15(29.2)	0.34(8.6)	0.31(7.9)	0.31(7.9)	0.05(1.3)
1/16	3/16	-RD-FT1-FTD3	1.18(30.0)	0.34(8.6)	0.31(7.9)	0.31(7.9)	0.05(1.3)
1/16	1/4	-RD-FT1-FTD4	1.24(31.5)	0.34(8.6)	0.31(7.9)	0.31(7.9)	0.05(1.3)
1/8	1/16	-RD-FT2-FTD1	1.14(29.0)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.03(0.8)
1/8	1/8	-RD-FT2-FTD2	1.32(33.5)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.08(2.0)
1/8	3/16	-RD-FT2-FTD3	1.35(34.3)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)
1/8	1/4	-RD-FT2-FTD4	1.42(36.1)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)
1/8	3/8	-RD-FT2-FTD6	1.48(37.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)
1/8	1/2	-RD-FT2-FTD8	1.74(44.2)	0.50(12.7)	0.44(11.1)	0.56(14.3)	0.09(2.3)
3/16	1/8	-RD-FT3-FTD2	1.37(34.8)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.08(2.0)
3/16	1/4	-RD-FT3-FTD4	1.46(37.1)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)
1/4	1/8	-RD-FT4-FTD2	1.45(36.8)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.08(2.0)
1/4	3/16	-RD-FT4-FTD3	1.48(37.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.12(3.0)
1/4	1/4	-RD-FT4-FTD4	1.54(39.1)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.17(4.3)
1/4	5/16	-RD-FT4-FTD5	1.57(39.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
1/4	3/8	-RD-FT4-FTD6	1.60(40.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
1/4	1/2	-RD-FT4-FTD8	1.82(46.2)	0.60(15.2)	0.56(14.3)	0.56(14.3)	0.19(4.8)
1/4	5/8	-RD-FT4-FTD0	1.89(48.0)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)
1/4	3/4	-RD-FT4-FTD2	1.88(47.8)	0.60(15.2)	0.56(14.3)	0.81(20.6)	0.19(4.8)
5/6	3/8	-RD-FT5-FTD6	1.65(41.9)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)
5/16	1/2	-RD-FT5-FTD8	1.87(47.5)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)
3/8	1/4	-RD-FT6-FTD4	1.63(41.4)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.17(4.3)
3/8	3/8	-RD-FT6-FT6	1.70(43.2)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.27(6.9)
3/8	1/2	-RD-FT6-FTD8	1.91(48.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
3/8	5/8	-RD-FT6-FTD0	1.98(50.3)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)
3/8	3/4	-RD-FT6-FTD2	1.98(50.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)
1/2	1/4	-RD-FT8-FTD4	1.77(45.0)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.17(4.3)
1/2	3/8	-RD-FT8-FTD6	1.84(46.7)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.27(6.9)
1/2	1/2	-RD-FT8-FTD8	2.06(52.3)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.37(9.4)
1/2	5/8	-RD-FT8-FTD0	2.12(53.8)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
1/2	3/4	-RD-FT8-FTD2	2.12(53.8)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
1/2	1	-RD-FT8-FTD6	2.37(60.2)	0.90(22.9)	0.87(22.2)	1.06(27.0)	0.41(10.4)
5/8	3/4	-RD-FT10-FD2	2.15(54.6)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.50(12.7)
5/8	7/8	-RD-FT10-FTD14	2.21(56.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.50(12.7)
5/8	1	-RD-FT10-FTD16	2.40(61.0)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.50(12.7)
3/4	3/4	-RD-FT12-FTD12	2.15(54.6)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.58(14.7)
3/4	1	-RD-FT12-FTD16	2.46(62.5)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
1	1 1/4	-RD-FT16-FTD20	3.17(80.5)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)
1	1 1/2	-RD-FT16-FTD24	3.51(89.2)	1.23(31.2)	1.50(38.1)	1.63(41.3)	0.88(22.4)
1	2	-RD-FT16-FTD32	4.43(112.5)	1.23(31.2)	1.50(38.1)	2.13(54.0)	0.96(24.4)
1 1/4	1 1/2	-RD-FT20-FTD24	4.10(104.1)	1.62(41.1)	2.25(57.2)	1.87(47.6)	1.09(27.7)

Reducers



Metric Tube							
T-Tube O.D.(mm)	TX-Tube O.D.(mm)	Basic Ordering Number	Dimension,mm (in.)				
			L	C	D	F	E
2	3	-RD-MT2-MTD3	33.5(1.32)	12.9(0.51)	12.0(0.47)	12.0(0.47)	1.7(0.07)
3	4	-RD-MT3-MTD4	35.0(1.38)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)
3	6	-RD-MT3-MTD6	36.1(1.42)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)
3	10	-RD-MT3-MTD10	38.4(1.51)	12.9(0.51)	12.0(0.47)	14.0(0.55)	2.4(0.09)
4	6	-RD-MT4-MTD6	37.1(1.46)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)
6	3	-RD-MT6-MTD3	36.9(1.45)	15.3(0.60)	14.0(0.55)	14.0(0.55)	1.9(0.07)
6	8	-RD-MT6-MTD8	39.9(1.57)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	10	-RD-MT6-MTD10	40.7(1.60)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	12	-RD-MT6-MTD12	46.3(1.82)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	18	-RD-MT6-MTD18	49.6(1.95)	15.3(0.60)	14.0(0.55)	22.0(0.87)	4.8(0.19)
8	6	-RD-MT8-MTD6	40.3(1.59)	16.2(0.64)	16.0(0.63)	15.0(0.59)	4.1(0.16)
8	10	-RD-MT8-MTD10	42.0(1.65)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
8	12	-RD-MT8-MTD12	47.6(1.87)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
10	6	-RD-MT10-MTD6	42.4(1.67)	17.2(0.68)	19.0(0.75)	18.0(0.71)	4.1(0.16)
10	8	-RD-MT10-MTD8	43.4(1.71)	17.2(0.68)	19.0(0.75)	18.0(0.71)	5.6(0.22)
10	12	-RD-MT10-MTD12	49.8(1.96)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.9(0.31)
10	15	-RD-MT10-MTD15	51.3(2.02)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.9(0.31)
10	18	-RD-MT10-MTD18	51.3(2.02)	17.2(0.68)	19.0(0.75)	22.0(0.87)	7.9(0.31)
12	6	-RD-MT12-MTD6	44.9(1.77)	22.8(0.90)	22.0(0.87)	22.0(0.87)	4.1(0.16)
12	8	-RD-MT12-MTD8	45.9(1.81)	22.8(0.90)	22.0(0.87)	22.0(0.87)	5.6(0.22)
12	10	-RD-MT12-MTD10	46.7(1.84)	22.8(0.90)	22.0(0.87)	22.0(0.87)	7.1(0.28)
12	16	-RD-MT12-MTD16	53.8(2.12)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
12	18	-RD-MT12-MTD18	53.8(2.12)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
12	20	-RD-MT12-MTD20	56.1(2.21)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
12	22	-RD-MT12-MTD22	56.1(2.21)	22.8(0.90)	22.0(0.87)	24.0(0.94)	9.5(0.37)
12	25	-RD-MT12-MTD25	62.4(2.46)	22.8(0.90)	22.0(0.87)	27.0(1.06)	9.5(0.37)
16	12	-RD-MT16-MTD12	53.0(2.09)	24.4(0.96)	25.0(0.98)	24.0(0.94)	8.8(0.35)
18	12	-RD-MT18-MTD12	54.6(2.15)	24.4(0.96)	30.0(1.18)	27.0(1.06)	8.8(0.35)
18	16	-RD-MT18-MTD16	56.1(2.21)	24.4(0.96)	30.0(1.18)	27.0(1.06)	12.0(0.47)
18	20	-RD-MT18-MTD20	57.6(2.27)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
18	22	-RD-MT18-MTD22	57.6(2.27)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
18	25	-RD-MT18-MTD25	62.4(2.46)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	16	-RD-MT20-MTD16	57.9(2.28)	26.0(1.02)	32.0(1.26)	30.0(1.18)	12.0(0.47)
20	18	-RD-MT20-MTD18	57.9(2.28)	26.0(1.02)	32.0(1.26)	30.0(1.18)	13.9(0.55)
20	22	-RD-MT20-MTD22	59.4(2.34)	26.0(1.02)	32.0(1.26)	30.0(1.18)	15.9(0.63)
20	25	-RD-MT20-MTD25	64.2(2.53)	26.0(1.02)	32.0(1.26)	30.0(1.18)	15.8(0.62)
22	18	-RD-MT22-MTD18	57.9(2.28)	26.0(1.02)	32.0(1.26)	30.0(1.18)	13.9(0.55)
22	20	-RD-MT22-MTD20	59.4(2.34)	26.0(1.02)	32.0(1.26)	30.0(1.18)	15.5(0.61)
22	25	-RD-MT22-MTD25	64.2(2.53)	26.0(1.02)	32.0(1.26)	30.0(1.18)	18.3(0.72)
25	18	-RD-MT25-MTD18	63.1(2.48)	31.3(1.23)	38.0(1.50)	35.0(1.38)	13.9(0.55)
25	20	-RD-MT25-MTD20	64.6(2.54)	31.3(1.23)	38.0(1.50)	35.0(1.38)	15.5(0.61)

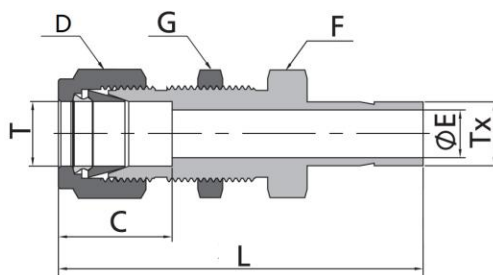
Reducers



Metric Tube to Fractional Tube

T-Tube O.D.(mm)	TX-Tube O.D.(in.)	Basic Ordering Number	Dimension, in.(mm.)				
			L	C	D	F	E
2	1/8	-RD-MT2-FTD2	33.5(1.32)	12.9(0.51)	12.0(0.47)	12.0(0.47)	1.7(0.07)
3	1/8	-RD-MT3-FTD2	33.5(1.32)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.0(0.08)
3	1/4	-RD-MT3-FTD4	36.1(1.42)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)
4	1/4	-RD-MT4-FTD4	37.1(1.46)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)
6	1/8	-RD-MT6-FTD2	36.9(1.45)	15.3(0.60)	14.0(0.55)	14.0(0.55)	2.0(0.08)
6	1/4	-RD-MT6-FTD4	39.2(1.54)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.4(0.17)
6	5/16	-RD-MT6-FTD5	39.9(1.57)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	3/8	-RD-MT6-FTD6	40.7(1.60)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	1/2	-RD-MT6-FTD8	46.3(1.82)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
8	1/4	-RD-MT8-FTD4	40.3(1.59)	16.2(0.64)	16.0(0.63)	15.0(0.59)	4.4(0.17)
8	3/8	-RD-MT8-FTD6	42.0(1.65)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
8	1/2	-RD-MT8-FTD8	47.6(1.87)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
10	3/8	-RD-MT10-FTD6	44.4(1.75)	17.2(0.68)	19.0(0.75)	18.0(0.71)	6.8(0.27)
10	1/2	-RD-MT10-FTD8	49.8(1.96)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.9(0.31)
12	1/2	-RD-MT12-FTD8	52.3(2.06)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.3(0.37)
12	3/4	-RD-MT12-FTD12	53.8(2.12)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
18	3/4	-RD-MT18-FTD12	56.1(2.21)	24.4(0.96)	30.0(1.18)	27.0(1.06)	14.7(0.58)
18	1	-RD-MT18-FTD16	62.4(2.46)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
25	1	-RD-MT25-FTD16	69.5(2.74)	31.3(1.23)	38.0(1.50)	35.0(1.38)	20.2(0.80)

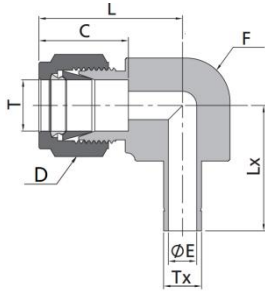
Bulkhead Reducers



Fractional Tube

T-Tube O.D.(in.)	Tx-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)					
			L	C	D	F	G	E
1/8	1/8	-BRD-FT2-FTD2	1.95(49.5)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.50(12.7)	0.08(2.0)
1/4	1/4	-BRD-FT4-FTD4	2.20(55.9)	0.60(15.2)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.17(4.3)
3/8	3/8	-BRD-FT6-FTD6	2.41(61.2)	0.66(16.8)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.27(6.9)
1/2	1/2	-BRD-FT8-FTD8	2.87(72.9)	0.90(22.9)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.37(9.4)
5/8	5/8	-BRD-FT10-FTD10	2.96(75.2)	0.96(24.4)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.47(11.9)
3/4	3/4	-BRD-FT12-FTD12	3.21(81.5)	0.96(24.4)	1.13(28.6)	1.19(30.2)	1.19(30.2)	0.58(14.7)
1	1	-BRD-FT16-FTD16	3.95(100.3)	1.23(31.2)	1.50(38.1)	1.63(41.3)	1.63(41.3)	0.80(20.3)

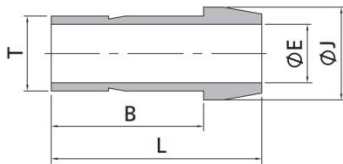
Reducer Elbows



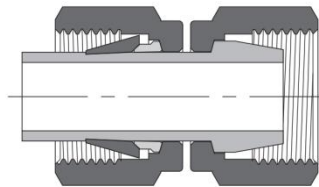
Metric Tube

T-Tube O.D.(mm)	Tx-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm (in.)					
			L	C	D	F	G	E
6	6	-RDE-MT6-MTD6	27.0(1.06)	27.0(1.06)	27.0(1.06)	27.0(1.06)	27.0(1.06)	27.0(1.06)
12	12	-RDE-MT12-MTD12	38.1(1.50)	38.1(1.50)	38.1(1.50)	38.1(1.50)	38.1(1.50)	38.1(1.50)

Port Connectors



1" /25 mm and below



1 1/4" /28 mm and above

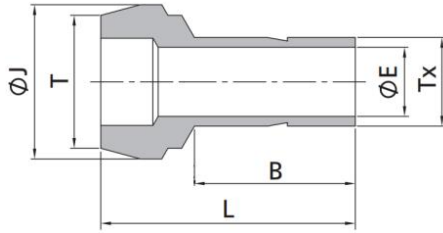
Fractional Tube

T-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)			
		L	B	E	J
1/16	-PC-FTD1	0.54(13.7)	0.42(10.7)	0.03(0.8)	0.13(3.3)
1/8	-PC-FTD2	0.88(22.4)	0.62(15.7)	0.08(2.0)	0.24(6.1)
1/4	-PC-FTD4	0.97(24.6)	0.74(18.8)	0.17(4.3)	0.37(9.4)
5/16	-PC-FTD5	1.02(25.9)	0.79(20.1)	0.22(5.6)	0.43(10.9)
3/8	-PC-FTD6	1.03(26.2)	0.80(20.3)	0.27(6.9)	0.50(12.7)
1/2	-PC-FTD8	1.41(35.8)	1.02(25.9)	0.37(9.4)	0.62(15.7)
5/8	-PC-FTD10	1.64(41.7)	1.11(28.1)	0.47(11.9)	0.81(20.5)
3/4	-PC-FTD12	1.65(41.9)	1.09(27.7)	0.58(14.7)	0.87(22.1)
1	-PC-FTD16	1.89(48.0)	1.36(34.5)	0.80(20.3)	1.12(28.4)
1 1/4	-PC-FTD20	2.72(69.1)	1.99(50.6)	1.02(25.9)	1.47(37.4)
1 1/2	-PC-FTD24	3.31(84.1)	2.34(59.4)	1.25(31.8)	1.80(45.8)

Metric Tube

T-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm (in.)			
		L	B	E	J
3	-PC-MTD3	22.2(0.87)	15.7(0.62)	1.9(0.07)	6.0(0.24)
6	-PC-MTD6	24.6(0.97)	18.7(0.74)	4.1(0.16)	9.0(0.35)
8	-PC-MTD8	25.9(1.02)	20.0(0.79)	5.6(0.22)	11.0(0.43)
10	-PC-MTD10	26.1(1.03)	20.2(0.80)	7.1(0.28)	13.1(0.52)
12	-PC-MTD12	35.8(1.41)	26.0(1.02)	8.8(0.35)	15.0(0.59)
15	-PC-MTD15	37.8(1.49)	27.6(1.09)	11.2(0.44)	19.6(0.77)
16	-PC-MTD16	37.8(1.49)	27.6(1.09)	12.0(0.47)	20.6(0.81)
18	-PC-MTD18	37.8(1.49)	27.7(1.09)	13.9(0.55)	21.0(0.83)
20	-PC-MTD20	39.4(1.55)	29.2(1.15)	15.5(0.61)	24.6(0.97)
25	-PC-MTD25	49.3(1.94)	34.5(1.36)	19.9(0.78)	31.2(1.23)
28	-PC-MTD28	63.5(2.50)	48.3(1.90)	22.5(0.89)	34.4(1.35)
30	-PC-MTD30	67.6(2.66)	52.2(2.06)	24.3(0.96)	37.4(1.47)
32	-PC-MTD32	69.7(2.74)	52.4(2.06)	26.5(1.04)	39.4(1.55)
38	-PC-MTD38	81.9(3.22)	61.4(2.42)	31.6(1.24)	45.8(1.80)

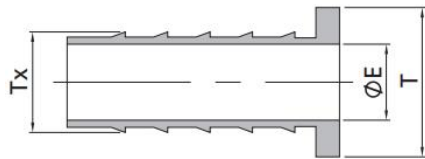
Reducing Port Connectors



Fractional Tube						
T-Tube O.D.(in.)	Tx-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	J
1/8	1/16	-RPC-FT2-FTD1	0.68(17.3)	0.34(8.6)	0.03(0.8)	0.24(6.1)
1/4	1/16	-RPC-FT4-FTD1	0.71(18.0)	0.34(8.6)	0.03(0.8)	0.37(9.4)
1/4	1/8	-RPC-FT4-FTD2	0.89(22.6)	0.53(13.5)	0.08(2.0)	0.37(9.4)
3/8	1/8	-RPC-FT6-FTD2	0.91(23.1)	0.53(13.5)	0.08(2.0)	0.50(12.7)
3/8	1/4	-RPC-FT6-FTD4	0.98(24.9)	0.62(15.7)	0.17(4.3)	0.50(12.7)
1/2	1/4	-RPC-FT8-FTD4	1.15(29.2)	0.62(15.7)	0.17(4.3)	0.62(15.7)
1/2	3/8	-RPC-FT8-FTD6	1.20(30.5)	0.69(17.5)	0.27(6.9)	0.62(15.7)
3/4	1/2	-RPC-FT12-FTD8	1.49(37.8)	0.91(23.1)	0.37(9.4)	0.87(22.1)
1	1/2	-RPC-FT16-FTD8	1.69(42.9)	0.96(24.4)	0.37(9.4)	1.12(28.5)
1	3/4	-RPC-FT16-FTD12	1.72(43.7)	1.02(25.9)	0.58(14.7)	1.12(28.5)

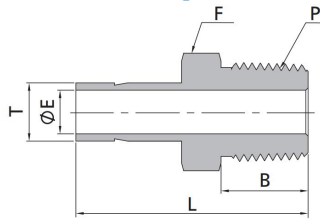
Metric Tube						
T-Tube O.D.(mm)	Tx-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm (in.)			
			L	B	E	J
6	3	-RPC-MT6-MTD3	22.6(0.89)	13.5(0.53)	1.9(0.07)	9.0(0.35)
8	6	-RPC-MT8-MTD6	24.7(0.97)	15.7(0.62)	4.1(0.16)	11.0(0.43)
10	6	-RPC-MT10-MTD6	25.0(0.98)	15.7(0.62)	4.1(0.16)	13.1(0.52)
10	8	-RPC-MT10-MTD8	26.3(1.04)	17.0(0.67)	5.6(0.22)	13.1(0.52)
12	6	-RPC-MT12-MTD6	29.6(1.17)	15.7(0.62)	4.1(0.16)	15.0(0.59)
12	8	-RPC-MT12-MTD8	29.8(1.17)	16.8(0.66)	5.6(0.22)	15.0(0.59)
12	10	-RPC-MT12-MTD10	30.4(1.20)	17.5(0.69)	7.1(0.28)	15.0(0.59)
16	12	-RPC-MT16-MTD12	36.2(1.43)	23.1(0.91)	8.8(0.35)	19.0(0.75)
28	25	-RPC-MT28-MTD25	56.5(2.22)	33.0(1.30)	19.8(0.78)	34.3(1.35)
32	25	-RPC-MT32-MTD25	60.3(2.37)	33.0(1.30)	19.8(0.78)	39.5(1.56)
38	25	-RPC-MT38-MTD25	65.8(2.59)	33.0(1.30)	19.8(0.78)	47.1(1.85)

Insert for Soft Plastic Tubings

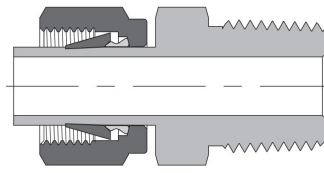


Fractional Tube				Metric Tube			
T-Tube O.D.(in.)	Tx-Tube I.D. (in.)	Basic Ordering Number	E in. (mm)	T-Tube O.D.(mm)	Tx-Tube I.D. (mm)	Basic Ordering Number	E mm (in.)
3/16	1/8	-IN-FT3-2	0.09(2.3)	6	4	-IN-MT6-4	2.8(0.11)
1/4	1/8	-IN-FT4-2	0.09(2.3)	8	6	-IN-MT8-6	4.4(0.17)
1/4	3/16	-IN-FT4-3	0.14(3.5)	10	8	-IN-MT10-8	6.4(0.25)
5/16	1/4	-IN-FT5-4	0.19(4.8)	12	8	-IN-MT12-8	6.4(0.25)
3/8	3/16	-IN-FT6-3	0.12(3.0)	12	10	-IN-MT12-10	8.3(0.33)
3/8	1/4	-IN-FT6-4	0.19(4.8)				
1/2	1/4	-IN-FT8-4	0.19(4.8)				
1/2	3/8	-IN-FT8-6	0.31(7.9)				
5/8	1/2	-IN-FT10-8	0.44(11.1)				
3/4	1/2	-IN-FT12-8	0.44(11.1)				
1	3/4	-IN-FT16-12	0.69(17.5)				

Male Adaptors



1" and below



1 1/4" and above

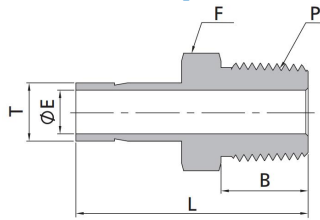
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT Size	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/16	1/8	-MAD-FTD1-MN2	1.00(25.4)	0.38(9.7)	0.03(0.8)	0.44(11.1)
1/8	1/8	-MAD-FTD2-MN2	1.16(29.5)	0.38(9.7)	0.08(2.0)	0.44(11.1)
1/8	1/4	-MAD-FTD2-MN4	1.37(34.8)	0.56(14.2)	0.08(2.0)	0.56(14.3)
3/16	1/8	-MAD-FTD3-MN2	1.19(30.2)	0.38(9.7)	0.12(3.0)	0.44(11.1)
3/16	1/4	-MAD-FTD3-MN4	1.40(35.6)	0.56(14.2)	0.12(3.0)	0.56(14.3)
1/4	1/8	-MAD-FTD4-MN2	1.25(31.8)	0.38(9.7)	0.17(4.3)	0.44(11.1)
1/4	1/4	-MAD-FTD4-MN4	1.46(37.1)	0.56(14.2)	0.17(4.3)	0.56(14.3)
1/4	3/8	-MAD-FTD4-MN6	1.49(37.8)	0.56(14.2)	0.17(4.3)	0.69(17.5)
1/4	1/2	-MAD-FTD4-MN8	1.71(43.4)	0.75(19.1)	0.17(4.3)	0.87(22.2)
5/16	1/8	-MAD-FTD5-MN2	1.29(32.8)	0.38(9.7)	0.19(4.8)	0.44(11.1)
5/16	1/4	-MAD-FTD5-MN4	1.50(38.1)	0.56(14.2)	0.22(5.6)	0.56(14.3)
5/16	3/8	-MAD-FTD5-MN6	1.53(38.9)	0.56(14.2)	0.22(5.6)	0.69(17.5)
5/16	1/2	-MAD-FTD5-MN8	1.74(44.2)	0.75(19.1)	0.22(5.6)	0.87(22.2)
3/8	1/8	-MAD-FTD6-MN2	1.32(33.5)	0.38(9.7)	0.19(4.8)	0.44(11.1)
3/8	1/4	-MAD-FTD6-MN4	1.53(38.9)	0.56(14.2)	0.27(6.9)	0.56(14.3)
3/8	3/8	-MAD-FTD6-MN6	1.56(39.6)	0.56(14.2)	0.27(6.9)	0.69(17.5)
3/8	1/2	-MAD-FTD6-MN8	1.78(45.2)	0.75(19.1)	0.27(6.9)	0.87(22.2)
1/2	1/4	-MAD-FTD8-MN4	1.75(44.5)	0.56(14.2)	0.28(7.1)	0.56(14.3)
1/2	3/8	-MAD-FTD8-MN6	1.78(45.2)	0.56(14.2)	0.37(9.4)	0.69(17.5)
1/2	1/2	-MAD-FTD8-MN8	2.00(50.8)	0.75(19.1)	0.37(9.4)	0.87(22.2)
5/8	1/2	-MAD-FTD10-MN8	2.06(52.3)	0.75(19.1)	0.47(11.9)	0.87(22.2)
3/4	1/2	-MAD-FTD12-MN8	2.06(52.3)	0.75(19.1)	0.47(11.9)	0.87(22.2)
3/4	3/4	-MAD-FTD12-MN12	2.06(52.3)	0.75(19.1)	0.58(14.7)	1.06(27.0)
3/4	1	-MAD-FTD12-MN16	2.41(61.2)	0.94(23.9)	0.81(20.7)	1.37(34.9)
1	3/4	-MAD-FTD16-MN12	2.31(58.7)	0.75(19.1)	0.62(15.7)	1.06(27.0)
1	1	-MAD-FTD16-MN16	2.60(66.0)	0.94(23.9)	0.80(20.3)	1.37(34.9)
1 1/4	1 1/4	-MAD-FTD20-MN20	3.16(80.3)	0.94(23.9)	1.02(25.9)	1.75(44.5)
1 1/2	1 1/2	-MAD-FTD24-MN24	3.72(94.5)	1.03(26.2)	1.25(31.8)	2.13(54.0)

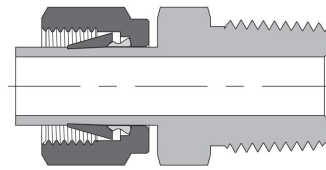
Fractional Tube to RT Thread

T-Tube O.D.(mm)	P-RT Size	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/8	1/8	-MAD-FTD2-RT2	1.16(29.5)	0.38(9.7)	0.08(2.0)	0.44(11.1)
1/8	1/4	-MAD-FTD2-RT4	1.37(34.8)	0.56(14.2)	0.08(2.0)	0.56(14.3)
1/4	1/8	-MAD-FTD4-RT2	1.25(31.8)	0.38(9.7)	0.17(4.3)	0.44(11.1)
1/4	1/4	-MAD-FTD4-RT4	1.46(37.1)	0.56(14.2)	0.17(4.3)	0.56(14.3)
1/4	3/8	-MAD-FTD4-RT6	1.49(37.8)	0.56(14.2)	0.17(4.3)	0.69(17.5)
1/4	1/2	-MAD-FTD4-RT8	1.71(43.4)	0.75(19.1)	0.17(4.3)	0.87(22.2)
5/16	1/8	-MAD-FTD5-RT2	1.29(32.8)	0.38(9.7)	0.19(4.8)	0.44(11.1)
5/16	1/4	-MAD-FTD5-RT4	1.50(38.1)	0.56(14.2)	0.22(5.6)	0.56(14.3)
3/8	1/4	-MAD-FTD6-RT4	1.53(38.9)	0.56(14.2)	0.27(6.9)	0.56(14.3)
3/8	3/8	-MAD-FTD6-RT6	1.56(39.6)	0.56(14.2)	0.27(6.9)	0.69(17.5)
3/8	1/2	-MAD-FTD6-RT8	1.78(45.2)	0.75(19.1)	0.27(6.9)	0.87(22.2)
1/2	1/4	-MAD-FTD8-RT4	1.75(44.5)	0.56(14.2)	0.28(7.1)	0.56(14.3)
1/2	3/8	-MAD-FTD8-RT6	1.78(45.2)	0.56(14.2)	0.37(9.4)	0.69(17.5)
1/2	1/2	-MAD-FTD8-RT8	2.00(50.8)	0.75(19.1)	0.37(9.4)	0.87(22.2)
5/8	3/8	-MAD-FTD10-RT6	1.91(48.5)	0.56(14.2)	0.37(9.4)	0.69(17.5)
5/8	1/2	-MAD-FTD10-RT8	2.06(52.3)	0.75(19.1)	0.47(11.9)	0.87(22.2)
3/4	3/4	-MAD-FTD12-RT12	2.06(52.3)	0.75(19.1)	0.58(14.7)	1.06(27.0)
1	1	-MAD-FTD16-RT16	2.60(66.0)	0.94(23.9)	0.81(20.7)	1.37(34.9)

Male Adaptors



1" and below



1 1/4" and above

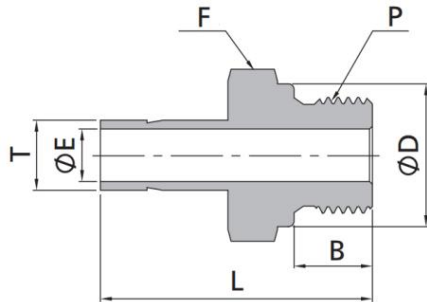
Metric Tube to NPT Thread

T-Tube O.D.(mm)	P-NPT Size	Basic Ordering Number	Dimension, mm (in.)			
			L	B	E	F
3	1/8	-MAD-MTD3-MN2	29.4(1.16)	9.7(0.38)	1.8(0.07)	12.0(0.47)
4	1/8	-MAD-MTD4-MN2	29.4(1.16)	9.7(0.38)	2.0(0.08)	12.0(0.47)
6	1/8	-MAD-MTD6-MN2	32.8(1.29)	9.7(0.38)	4.1(0.16)	12.0(0.47)
6	1/4	-MAD-MTD6-MN4	38.1(1.50)	14.2(0.56)	4.1(0.16)	14.0(0.55)
6	3/8	-MAD-MTD6-MN6	39.2(1.54)	14.2(0.56)	4.1(0.16)	18.0(0.71)
6	1/2	-MAD-MTD6-MN8	42.1(1.66)	19.1(0.75)	4.1(0.16)	22.0(0.87)
8	1/4	-MAD-MTD8-MN4	39.1(1.54)	14.2(0.56)	5.6(0.22)	14.0(0.55)
8	3/8	-MAD-MTD8-MN6	39.9(1.57)	14.2(0.56)	5.6(0.22)	19.0(0.75)
10	1/4	-MAD-MTD10-MN4	39.9(1.57)	14.2(0.56)	7.1(0.28)	14.0(0.55)
10	3/8	-MAD-MTD10-MN6	40.6(1.60)	14.2(0.56)	7.1(0.28)	18.0(0.71)
10	1/2	-MAD-MTD10-MN8	46.2(1.82)	19.1(0.75)	7.1(0.28)	22.0(0.87)
12	1/4	-MAD-MTD12-MN4	46.5(1.83)	14.2(0.56)	7.1(0.28)	14.0(0.55)
12	3/8	-MAD-MTD12-MN6	46.2(1.82)	14.2(0.56)	8.8(0.35)	18.0(0.71)
12	1/2	-MAD-MTD12-MN8	52.1(2.05)	19.1(0.75)	8.8(0.35)	22.0(0.87)
16	1/2	-MAD-MTD16-MN8	50.8(2.00)	19.1(0.75)	12.7(0.50)	22.0(0.87)
16	3/4	-MAD-MTD16-MN12	51.6(2.03)	19.1(0.75)	12.7(0.50)	27.0(1.06)
18	1/2	-MAD-MTD18-MN8	50.8(2.00)	19.1(0.75)	12.7(0.50)	27.0(1.06)
18	3/4	-MAD-MTD18-MN12	51.6(2.03)	19.1(0.75)	14.0(0.55)	27.0(1.06)
20	1/2	-MAD-MTD20-MN8	51.8(2.04)	19.1(0.75)	11.9(0.47)	22.0(0.87)
20	3/4	-MAD-MTD20-MN12	52.4(2.06)	19.1(0.75)	15.1(0.59)	27.0(1.06)
25	1	-MAD-MTD25-MN16	65.9(2.59)	23.9(0.94)	19.8(0.78)	35.0(1.38)
28	1	-MAD-MTD28-MN16	74.4(2.93)	23.9(0.94)	22.2(0.87)	35.0(1.38)
28	1 1/4	-MAD-MTD28-MN20	76.2(3.00)	23.9(0.94)	22.5(0.89)	46.0(1.81)
30	1	-MAD-MTD30-MN16	79.2(3.12)	23.9(0.94)	22.2(0.87)	41.0(1.61)
30	1 1/4	-MAD-MTD30-MN20	80.0(3.15)	23.9(0.94)	24.3(0.96)	46.0(1.81)
32	1 1/4	-MAD-MTD32-MN20	81.0(3.19)	23.9(0.94)	26.5(1.04)	46.0(1.81)
38	1 1/2	-MAD-MTD38-MN24	92.2(3.63)	26.2(1.03)	31.6(1.24)	55.0(2.17)

Metric Tube to RT Thread

T-Tube O.D.(mm)	P-RT Size	Basic Ordering Number	Dimension, mm (in.)			
			L	B	E	F
3	1/8	-MAD-MTD3-RT2	29.4(1.16)	9.7(0.38)	1.8(0.07)	12.0(0.47)
4	1/8	-MAD-MTD4-RT2	29.4(1.16)	9.7(0.38)	2.0(0.08)	12.0(0.47)
6	1/8	-MAD-MTD6-RT2	32.8(1.29)	9.7(0.38)	4.1(0.16)	12.0(0.47)
6	1/4	-MAD-MTD6-RT4	38.1(1.50)	14.2(0.56)	4.1(0.16)	14.0(0.55)
8	1/4	-MAD-MTD8-RT4	39.1(1.54)	14.2(0.56)	5.6(0.22)	14.0(0.55)
8	3/8	-MAD-MTD8-RT6	39.9(1.57)	14.2(0.56)	5.6(0.22)	18.0(0.71)
10	1/4	-MAD-MTD10-RT4	39.9(1.57)	14.2(0.56)	7.1(0.28)	14.0(0.55)
10	3/8	-MAD-MTD10-RT6	40.6(1.60)	14.2(0.56)	7.1(0.28)	18.0(0.71)
10	1/2	-MAD-MTD10-RT8	44.5(1.75)	19.1(0.75)	7.5(0.30)	22.0(0.87)
12	1/4	-MAD-MTD12-RT4	46.5(1.83)	14.2(0.56)	7.1(0.28)	16.0(0.63)
12	3/8	-MAD-MTD12-RT6	46.2(1.82)	14.2(0.56)	8.8(0.35)	18.0(0.71)
12	1/2	-MAD-MTD12-RT8	51.8(2.04)	19.1(0.75)	8.8(0.35)	22.0(0.87)
16	1/2	-MAD-MTD16-RT8	50.8(2.00)	19.1(0.75)	12.7(0.50)	22.0(0.87)
18	3/4	-MAD-MTD18-RT12	51.6(2.03)	19.1(0.75)	14.0(0.55)	27.0(1.06)
20	3/4	-MAD-MTD20-RT12	52.4(2.06)	19.1(0.75)	15.1(0.59)	27.0(1.06)
25	1	-MAD-MTD25-RT16	65.9(2.59)	23.9(0.94)	19.8(0.78)	35.0(1.38)
28	1	-MAD-MTD28-RT16	74.7(2.94)	23.9(0.94)	22.2(0.87)	35.0(1.38)
28	1 1/4	-MAD-MTD28-RT20	76.2(3.00)	23.9(0.94)	22.5(0.89)	46.0(1.81)
30	1 1/4	-MAD-MTD30-RT20	80.0(3.15)	23.9(0.94)	24.3(0.96)	46.0(1.81)
32	1 1/4	-MAD-MTD32-RT20	81.0(3.19)	23.9(0.94)	26.5(1.04)	46.0(1.81)
38	1 1/2	-MAD-MTD38-RT24	92.2(3.63)	26.2(1.03)	31.6(1.24)	55.0(2.17)

Male Adaptors



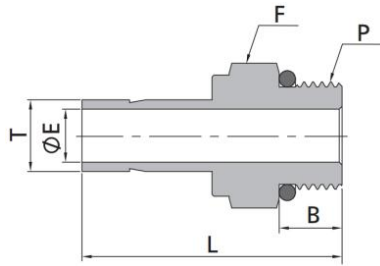
Fractional Tube to ISO Parallel Thread

T-Tube O.D.(in.)	P-RP Size	Basic Ordering Number	Dimension, in. (mm)				
			L	B	E	F	D
1/8	1/8	-MAD-FTD2-RP2	1.22(31.0)	0.28(7.1)	0.08(2.0)	0.56(14.3)	0.54(13.7)
1/8	1/4	-MAD-FTD2-RP4	1.41(35.8)	0.44(11.2)	0.08(2.0)	0.75(19.1)	0.70(17.8)
1/4	1/8	-MAD-FTD4-RP2	1.31(33.3)	0.28(7.1)	0.16(4.1)	0.56(14.3)	0.54(13.7)
1/4	1/4	-MAD-FTD4-RP4	1.50(38.1)	0.44(11.2)	0.17(4.3)	0.75(19.1)	0.70(17.8)
3/8	1/8	-MAD-FTD6-RP2	1.34(34.0)	0.28(7.1)	0.05(1.3)	0.56(14.3)	0.54(13.7)
3/8	1/4	-MAD-FTD6-RP4	1.57(39.9)	0.44(11.2)	0.23(5.8)	0.75(19.1)	0.70(17.8)
3/8	3/8	-MAD-FTD6-RP6	1.60(40.6)	0.44(11.2)	0.27(6.9)	0.87(22.2)	0.85(21.6)
3/8	1/2	-MAD-FTD6-RP8	1.69(42.9)	0.56(14.2)	0.28(7.1)	1.06(27.0)	1.02(25.9)
1/2	1/4	-MAD-FTD8-RP4	1.79(45.5)	0.44(11.2)	0.23(5.8)	0.75(19.1)	0.70(17.8)
1/2	3/8	-MAD-FTD8-RP6	1.82(46.2)	0.44(11.2)	0.31(7.9)	0.87(22.2)	0.85(21.6)
1/2	1/2	-MAD-FTD8-RP8	1.94(49.2)	0.56(14.2)	0.37(9.4)	1.06(27.0)	1.02(25.9)
5/8	1/2	-MAD-FTD10-RP8	1.97(50.0)	0.56(14.2)	0.47(11.9)	1.06(27.0)	1.02(25.9)
3/4	3/4	-MAD-FTD12-RP12	2.16(54.9)	0.63(16.0)	0.58(14.7)	1.31(33.3)	1.26(32.0)
1	1	-MAD-FTD16-RP16	2.54(64.5)	0.72(18.3)	0.80(20.3)	1.63(41.3)	1.53(38.9)

Metric Tube to ISO Parallel Thread

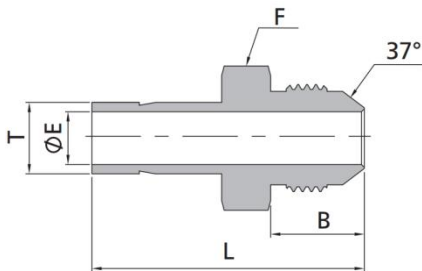
T-Tube O.D.(mm)	P-RS Size	Basic Ordering Number	Dimension, mm (in.)				
			L	B	E	F	
3	1/8	-MAD-MTD3-RS2	31.0(1.22)	7.1(0.28)	1.8(0.07)	14.0(0.55)	13.7(0.54)
4	1/8	-MAD-MTD4-RS2	31.8(1.25)	7.1(0.28)	2.0(0.08)	14.0(0.55)	13.7(0.54)
6	1/8	-MAD-MTD6-RS2	34.3(1.35)	7.1(0.28)	4.0(0.16)	14.0(0.55)	13.7(0.54)
6	1/4	-MAD-MTD6-RS4	39.1(1.54)	11.2(0.44)	4.1(0.16)	19.0(0.75)	17.8(0.70)
8	1/4	-MAD-MTD8-RS4	40.1(1.58)	11.2(0.44)	5.6(0.22)	19.0(0.75)	17.8(0.70)
10	1/4	-MAD-MTD10-RS4	40.9(1.61)	11.2(0.44)	5.9(0.23)	19.0(0.75)	17.8(0.70)
10	3/8	-MAD-MTD10-RS6	41.7(1.64)	11.2(0.44)	7.1(0.28)	22.0(0.87)	21.6(0.85)
10	1/2	-MAD-MTD10-RS8	44.7(1.76)	14.2(0.56)	7.1(0.28)	27.0(1.06)	25.9(1.02)
12	1/4	-MAD-MTD12-RS4	46.7(1.84)	11.2(0.44)	5.9(0.23)	19.0(0.75)	17.8(0.70)
12	3/8	-MAD-MTD12-RS6	47.2(1.86)	11.2(0.44)	7.9(0.31)	22.0(0.87)	21.6(0.85)
12	1/2	-MAD-MTD12-RS8	50.5(1.99)	14.2(0.56)	8.8(0.35)	27.0(1.06)	25.9(1.02)
16	1/2	-MAD-MTD16-RS8	50.8(2.00)	14.2(0.56)	11.9(0.47)	27.0(1.06)	25.9(1.02)
18	3/4	-MAD-MTD18-RS12	55.9(2.20)	16.0(0.63)	13.9(0.55)	33.0(1.30)	32.0(1.26)
20	3/4	-MAD-MTD20-RS12	57.0(2.24)	16.0(0.63)	15.1(0.59)	33.0(1.30)	32.0(1.26)
25	1	-MAD-MTD25-RS16	65.1(2.56)	18.3(0.72)	19.8(0.78)	41.0(1.61)	38.9(1.53)

Male Adaptors



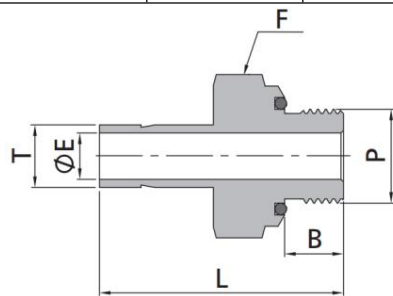
Fractional Tube to SAE/MS Thread

T-Tube O.D.(in.)	P-SAE/MS Size	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/8	5/16-24	-MAD-FTD2-ST5	1.20(30.5)	0.30(7.6)	0.08(2.0)	0.44(11.1)
1/4	7/16-20	-MAD-FTD4-ST7	1.39(35.3)	0.36(9.1)	0.17(4.3)	0.56(14.3)
3/8	7/16-20	-MAD-FTD6-ST7	1.46(37.1)	0.36(9.1)	0.20(5.1)	0.56(14.3)
3/8	9/16-18	-MAD-FTD6-ST9	1.52(38.6)	0.39(9.9)	0.27(6.9)	0.69(17.5)
3/8	3/4-16	-MAD-FTD6-ST12	1.60(40.6)	0.44(11.2)	0.27(6.9)	0.87(22.2)
1/2	9/16-18	-MAD-FTD8-ST9	1.74(44.2)	0.39(9.9)	0.28(7.1)	0.69(17.5)
1/2	3/4-16	-MAD-FTD8-ST12	1.82(46.2)	0.44(11.2)	0.37(9.4)	0.87(22.2)
5/8	7/8-14	-MAD-FTD10-ST14	1.94(49.3)	0.50(12.7)	0.47(11.9)	1.00(25.4)
3/4	1 1/16-12	-MAD-FTD12-ST17	2.10(53.3)	0.59(15.0)	0.58(14.7)	1.25(31.8)
1	1 5/16-12	-MAD-FTD16-ST21	2.41(61.2)	0.59(15.0)	0.80(20.3)	1.50(38.1)



Fractional Tube to Flared

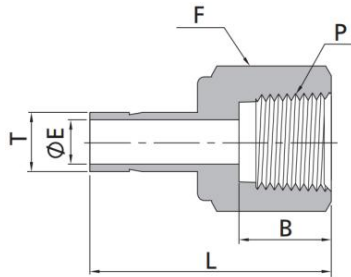
T-Tube O.D.(in.)	Tube Flared Size	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/4	1/4	-MAD-FTD4-AN4	1.46(37.1)	0.55(14.0)	0.17(4.3)	0.50(12.7)
3/8	1/4	-MAD-FTD6-AN4	1.53(38.9)	0.55(14.0)	0.17(4.3)	0.50(12.7)
3/8	3/8	-MAD-FTD6-AN6	1.56(39.6)	0.56(14.2)	0.27(6.9)	0.63(15.9)
1/2	1/2	-MAD-FTD8-AN8	1.91(48.5)	0.66(16.8)	0.37(9.4)	0.81(20.6)
3/4	3/4	-MAD-FTD12-AN12	2.21(56.1)	0.86(21.8)	0.58(14.7)	1.13(28.6)
1	1	-MAD-FTD16-AN16	2.58(65.5)	0.91(23.1)	0.80(20.3)	1.37(34.9)



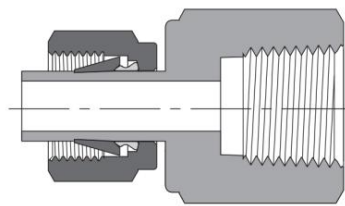
Fractional Tube to SAE/MS Thread

T-Tube O.D.(in.)	P-SAE/MS Thread	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/8	5/16-24	-MAD-FTD2-OS5	1.28(32.5)	0.34(8.6)	0.08(2.0)	0.56(14.3)
3/16	3/8-24	-MAD-FTD3-OS6	1.38(35.1)	0.38(9.7)	0.12(3.0)	0.63(15.9)
1/4	7/16-20	-MAD-FTD4-OS7	1.54(39.1)	0.41(10.4)	0.17(4.3)	0.75(19.1)
5/16	1/2-20	-MAD-FTD5-OS8	1.64(41.7)	0.44(11.2)	0.22(5.6)	0.87(22.2)
3/8	9/16-18	-MAD-FTD6-OS9	1.70(43.2)	0.47(11.9)	0.27(6.9)	0.94(23.8)
1/2	3/4-16	-MAD-FTD8-OS12	1.95(49.5)	0.47(11.9)	0.37(9.4)	1.13(28.6)

Female Adaptors



1" and below



1 1/4" and above

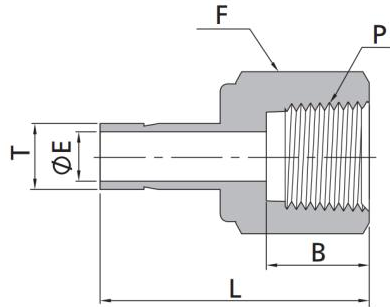
Fractional Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT Size	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/16	1/8	-FAD-FTD1-FN2	1.07(27.2)	0.41(10.4)	0.03(0.8)	0.56(14.3)
1/8	1/8	-FAD-FTD2-FN2	1.24(31.5)	0.41(10.4)	0.08(2.0)	0.56(14.3)
1/8	1/4	-FAD-FTD2-FN4	1.39(35.3)	0.59(15.0)	0.08(2.0)	0.75(19.1)
3/16	1/8	-FAD-FTD3-FN2	1.25(31.8)	0.41(10.4)	0.11(2.9)	0.56(14.3)
3/16	1/4	-FAD-FTD3-FN4	1.41(35.8)	0.59(15.0)	0.12(3.0)	0.75(19.1)
1/4	1/8	-FAD-FTD4-FN2	1.30(33.0)	0.41(10.4)	0.17(4.3)	0.56(14.3)
1/4	1/4	-FAD-FTD4-FN4	1.46(37.1)	0.59(15.0)	0.17(4.3)	0.75(19.1)
1/4	3/8	-FAD-FTD4-FN6	1.55(39.4)	0.59(15.0)	0.17(4.3)	0.87(22.2)
1/4	1/2	-FAD-FTD4-FN8	1.79(45.5)	0.78(19.8)	0.17(4.3)	1.06(27.0)
5/16	1/8	-FAD-FTD5-FN2	1.34(34.0)	0.41(10.4)	0.22(5.6)	0.56(14.3)
5/16	1/4	-FAD-FTD5-FN4	1.48(37.6)	0.59(15.0)	0.22(5.6)	0.75(19.1)
5/16	3/8	-FAD-FTD5-FN6	1.59(40.4)	0.59(15.0)	0.22(5.6)	0.87(22.2)
3/8	1/8	-FAD-FTD6-FN2	1.35(34.3)	0.41(10.4)	0.27(6.9)	0.56(14.3)
3/8	1/4	-FAD-FTD6-FN4	1.50(38.1)	0.59(15.0)	0.27(6.9)	0.75(19.1)
3/8	3/8	-FAD-FTD6-FN6	1.59(40.4)	0.59(15.0)	0.27(6.9)	0.87(22.2)
3/8	1/2	-FAD-FTD6-FN8	1.84(46.7)	0.78(19.8)	0.27(6.9)	1.06(27.0)
1/2	1/4	-FAD-FTD8-FN4	1.71(43.4)	0.59(15.0)	0.37(9.4)	0.75(19.1)
1/2	3/8	-FAD-FTD8-FN6	1.79(45.5)	0.59(15.0)	0.37(9.4)	0.87(22.2)
1/2	1/2	-FAD-FTD8-FN8	2.04(51.8)	0.78(19.8)	0.37(9.4)	1.06(27.0)
5/8	3/8	-FAD-FTD10-FN6	1.86(47.2)	0.59(15.0)	0.47(11.9)	0.87(22.2)
5/8	1/2	-FAD-FTD10-FN8	2.09(53.1)	0.78(19.8)	0.47(11.9)	1.06(27.0)
3/4	1/2	-FAD-FTD12-FN8	2.08(52.8)	0.78(19.8)	0.58(14.7)	1.06(27.0)
3/4	3/4	-FAD-FTD12-FN12	2.16(54.9)	0.81(20.6)	0.58(14.7)	1.31(33.3)
3/4	1	-FAD-FTD12-FN16	2.30(58.4)	1.00(25.4)	0.58(14.7)	1.63(41.3)
7/8	3/4	-FAD-FTD14-FN12	2.22(56.4)	0.81(20.6)	0.58(14.7)	1.31(33.3)
1	3/4	-FAD-FTD16-FN12	2.39(60.7)	0.81(20.6)	0.80(20.3)	1.31(33.3)
1	1	-FAD-FTD16-FN16	2.53(64.3)	1.00(25.4)	0.80(20.3)	1.63(41.3)
1 1/4	1 1/4	-FAD-FTD20-FN20	3.06(77.7)	1.00(25.4)	1.02(25.9)	2.13(54.0)
1 1/2	1 1/2	-FAD-FTD24-FN24	3.50(88.9)	1.09(27.7)	1.25(31.8)	2.37(60.3)

Fractional Tube to RT Thread

T-Tube O.D.(in.)	P-RT Size	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/4	1/8	-FAD-FTD4-FR2	1.30(33.0)	0.41(10.4)	0.17(4.3)	0.56(14.3)
1/4	1/4	-FAD-FTD4-FR4	1.45(36.8)	0.59(15.0)	0.17(4.3)	0.75(19.1)
3/8	1/4	-FAD-FTD6-FR4	1.50(38.1)	0.59(15.0)	0.27(6.9)	0.75(19.1)
3/8	3/8	-FAD-FTD6-FR6	1.59(40.4)	0.59(15.0)	0.27(6.9)	0.87(22.2)
1/2	1/4	-FAD-FTD8-FR4	1.71(43.4)	0.59(15.0)	0.37(9.4)	0.75(19.1)
1/2	3/8	-FAD-FTD8-FR6	1.80(45.7)	0.59(15.0)	0.37(9.4)	0.87(22.2)
1/2	1/2	-FAD-FTD8-FR8	2.05(52.1)	0.78(19.8)	0.37(9.4)	1.06(27.0)

Female Adaptors



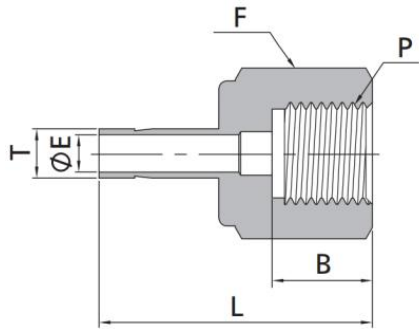
Metric Tube to NPT Thread

T-Tube O.D.(in.)	P-NPT Size	Basic Ordering Number	Dimension, mm (in.)			
			L	B	E	J
3	1/8	-FAD-MTD3-FN2	28.8(1.13)	10.4(0.41)	1.3(0.05)	14.0(0.55)
4	1/8	-FAD-MTD4-FN2	33.3(1.31)	10.4(0.41)	2.0(0.08)	14.0(0.55)
6	1/8	-FAD-MTD6-FN2	32.5(1.28)	10.4(0.41)	4.1(0.16)	14.0(0.55)
6	1/4	-FAD-MTD6-FN4	37.1(1.46)	15.0(0.59)	4.1(0.16)	19.0(0.75)
8	1/8	-FAD-MTD8-FN2	35.1(1.38)	10.4(0.41)	6.4(0.25)	14.0(0.55)
8	1/4	-FAD-MTD8-FN4	37.6(1.48)	15.0(0.59)	5.6(0.22)	19.0(0.75)
8	3/8	-FAD-MTD8-FN6	36.5(1.44)	15.0(0.59)	6.4(0.25)	22.0(0.87)
10	1/4	-FAD-MTD10-FN4	38.1(1.50)	15.0(0.59)	7.1(0.28)	19.0(0.75)
10	3/8	-FAD-MTD10-FN6	40.1(1.58)	15.0(0.59)	7.1(0.28)	22.0(0.87)
10	1/2	-FAD-MTD10-FN8	46.5(1.83)	19.8(0.78)	7.1(0.28)	27.0(1.06)
12	1/4	-FAD-MTD12-FN4	43.7(1.72)	15.0(0.59)	8.8(0.35)	19.0(0.75)
12	3/8	-FAD-MTD12-FN6	42.9(1.69)	15.0(0.59)	9.1(0.36)	22.0(0.87)
12	1/2	-FAD-MTD12-FN8	52.3(2.06)	19.8(0.78)	8.8(0.35)	27.0(1.06)
16	1/2	-FAD-MTD16-FN8	49.2(1.94)	19.8(0.78)	12.7(0.50)	27.0(1.06)
18	3/4	-FAD-MTD18-FN12	52.4(2.06)	20.6(0.81)	14.0(0.55)	32.0(1.26)
20	1/2	-FAD-MTD20-FN8	50.0(1.97)	19.8(0.78)	15.0(0.59)	27.0(1.06)
20	3/4	-FAD-MTD20-FN12	53.2(2.09)	20.6(0.81)	15.1(0.59)	32.0(1.26)
25	1	-FAD-MTD25-FN16	66.7(2.63)	25.4(1.00)	19.8(0.78)	41.0(1.61)

Metric Tube to RT Thread

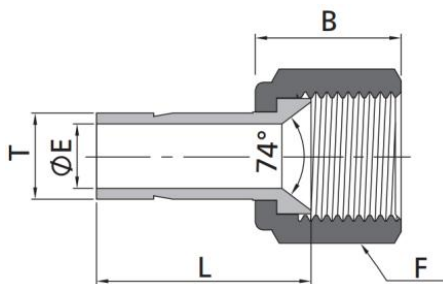
T-Tube O.D.(in.)	P-RT Size	Basic Ordering Number	Dimension, mm (in.)			
			L	B	E	J
3	1/8	-FAD-MTD3-FR2	27.8(1.09)	10.4(0.41)	1.8(0.07)	14.0(0.55)
4	1/8	-FAD-MTD4-FR2	28.6(1.13)	10.4(0.41)	2.0(0.08)	14.0(0.55)
6	1/8	-FAD-MTD6-FR2	33.0(1.30)	10.4(0.41)	4.1(0.16)	14.0(0.55)
8	1/4	-FAD-MTD8-FR4	37.6(1.48)	15.0(0.59)	5.6(0.22)	19.0(0.75)
10	1/4	-FAD-MTD10-FR4	38.1(1.50)	15.0(0.59)	7.1(0.28)	19.0(0.75)
10	3/8	-FAD-MTD10-FR6	36.5(1.44)	15.0(0.59)	7.5(0.30)	22.0(0.87)
10	1/2	-FAD-MTD10-FR8	41.3(1.63)	19.8(0.78)	7.5(0.30)	27.0(1.06)
12	1/4	-FAD-MTD12-FR4	40.5(1.59)	15.0(0.59)	9.1(0.36)	19.0(0.75)
12	3/8	-FAD-MTD12-FR6	43.7(1.72)	15.0(0.59)	9.1(0.36)	22.0(0.87)
12	1/2	-FAD-MTD12-FR8	46.8(1.84)	19.8(0.78)	9.1(0.36)	27.0(1.06)
16	1/2	-FAD-MTD16-FR8	48.4(1.91)	19.8(0.78)	12.7(0.50)	27.0(1.06)
18	3/4	-FAD-MTD18-FR12	52.4(2.06)	20.6(0.81)	14.0(0.55)	32.0(1.26)
20	3/4	-FAD-MTD20-FR12	53.2(2.09)	20.6(0.81)	15.1(0.59)	32.0(1.26)
25	1	-FAD-MTD25-FR16	66.7(2.63)	25.4(1.00)	19.8(0.78)	41.0(1.61)

Female Adaptors



Metric Tube to ISO Parallel Thread

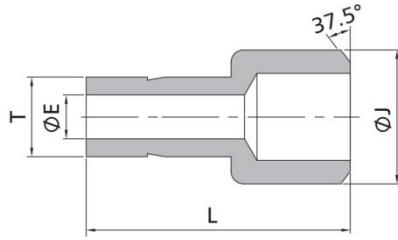
T-Tube O.D.(in.)	P-BSP Size	Basic Ordering Number	Dimension, mm (in.)			
			L	B	E	F
3	1/8	-FAD-MTD3-FG2	28.6(1.13)	9.8(0.39)	1.6(0.06)	14.0(0.55)
3	1/4	-FAD-MTD3-FG4	33.5(1.32)	12.9(0.51)	1.9(0.07)	19.0(0.75)
4	1/8	-FAD-MTD4-FG2	29.4(1.16)	9.8(0.39)	2.0(0.08)	14.0(0.55)
6	1/8	-FAD-MTD6-FG2	31.0(1.22)	9.8(0.39)	4.1(0.16)	14.0(0.55)
6	1/4	-FAD-MTD6-FG4	35.3(1.39)	12.9(0.51)	4.1(0.16)	19.0(0.75)
6	3/8	-FAD-MTD6-FG6	38.4(1.51)	14.2(0.56)	4.1(0.16)	24.0(0.94)
6	1/2	-FAD-MTD6-FG8	42.9(1.69)	18.0(0.71)	4.1(0.16)	27.0(1.06)
8	1/4	-FAD-MTD8-FG4	33.0(1.30)	10.2(0.40)	5.5(0.22)	19.0(0.75)
8	3/8	-FAD-MTD8-FG6	38.9(1.53)	14.2(0.56)	5.6(0.22)	24.0(0.94)
8	1/2	-FAD-MTD8-FG8	43.7(1.72)	18.0(0.71)	5.6(0.22)	27.0(1.06)
10	1/4	-FAD-MTD10-FG4	34.5(1.36)	10.2(0.40)	5.5(0.22)	19.0(0.75)
10	3/8	-FAD-MTD10-FG6	36.1(1.42)	14.2(0.56)	6.5(0.26)	24.0(0.94)
10	1/2	-FAD-MTD10-FG8	41.1(1.62)	18.0(0.71)	7.1(0.28)	27.0(1.06)
12	1/4	-FAD-MTD12-FG4	41.1(1.62)	10.2(0.40)	5.5(0.22)	19.0(0.75)
12	3/8	-FAD-MTD12-FG6	44.7(1.76)	14.2(0.56)	6.5(0.26)	24.0(0.94)
12	1/2	-FAD-MTD12-FG8	48.8(1.92)	18.0(0.71)	7.0(0.28)	27.0(1.06)
16	1/2	-FAD-MTD16-FG8	49.0(1.93)	18.0(0.71)	7.0(0.28)	27.0(1.06)
18	1/2	-FAD-MTD18-FG8	49.3(1.94)	18.0(0.71)	7.0(0.28)	27.0(1.06)



Fractional Tube to Flared

T-Tube O.D.(in.)	Tube Flared Size	Basic Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/8	1/8	-FAD-FTD2-FAN2	0.88(22.4)	0.55(14.0)	0.09(2.4)	0.37(9.5)
1/8	1/4	-FAD-FTD2-FAN4	0.88(22.4)	0.62(15.8)	0.09(2.4)	0.56(14.3)
1/4	1/4	-FAD-FTD4-FAN4	0.96(24.4)	0.62(15.8)	0.18(4.6)	0.56(14.3)
3/8	3/8	-FAD-FTD6-FAN6	1.11(28.1)	0.73(18.5)	0.28(7.1)	0.69(17.5)
1/2	1/2	-FAD-FTD8-FAN8	1.42(36.1)	0.85(21.6)	0.39(9.9)	0.87(22.2)
3/4	3/4	-FAD-FTD12-FAN12	1.49(37.8)	1.03(26.2)	0.58(14.7)	1.25(31.8)

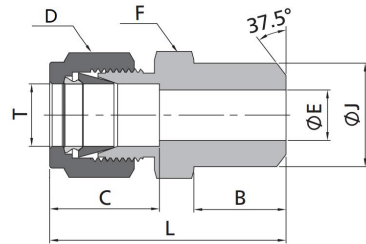
Weld Adaptors



Fractional Tube to Pipe Weld

T-Tube O.D. (in.)	Pipe Weld Size	Basic Ordering Number	Dimension, in. (mm)		
			L	J	E
1/4	1/4	-WAD-FTD4-BW4	1.14(29.0)	0.54(13.7)	0.17(4.3)
3/8	1/2	-WAD-FTD6-BW8	1.46(37.1)	0.84(21.3)	0.27(6.9)
1/2	1/2	-WAD-FTD8-BW8	1.66(42.2)	0.84(21.3)	0.37(9.4)
1/2	3/4	-WAD-FTD8-BW12	1.68(42.7)	1.05(26.7)	0.37(9.4)
3/4	3/4	-WAD-FTD12-BW12	1.87(47.5)	1.05(26.7)	0.58(14.7)

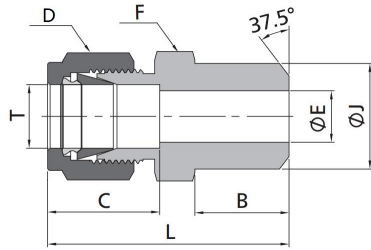
Weld Connectors



Fractional Tube to Pipe Butt Weld

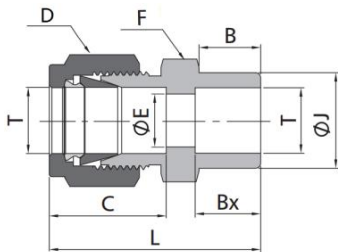
T-Tube O.D.(in.)	Pipe Weld SIZE	Basic Ordering Number	Dimension, in.(mm)						
			L	C	D	F	E	B	J
1/8	1/8	-WDC-FT2-BW2	1.20(30.5)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)	0.38(9.7)	0.41(10.3)
3/16	1/8	-WDC-FT3-BW2	1.23(31.2)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)	0.38(9.7)	0.41(10.3)
1/4	1/8	-WDC-FT4-BW2	1.29(32.8)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.41(10.3)
1/4	1/4	-WDC-FT4-BW4	1.49(37.8)	0.60(15.2)	0.56(14.3)	0.56(14.3)	0.19(4.8)	0.56(14.2)	0.54(13.7)
5/16	1/8	-WDC-FT5-BW2	1.34(34.0)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.21(5.3)	0.38(9.7)	0.41(10.3)
5/16	1/4	-WDC-FT5-BW4	1.52(38.6)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)	0.56(14.2)	0.54(13.7)
3/8	1/4	-WDC-FT6-BW4	1.57(39.9)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	0.54(13.7)
3/8	3/8	-WDC-FT6-BW6	1.57(39.9)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.56(14.2)	0.67(17.1)
3/8	1/2	-WDC-FT6-BW8	1.82(46.2)	0.66(16.8)	0.69(17.5)	0.87(22.2)	0.28(7.1)	0.75(19.1)	0.84(21.3)
3/8	3/4	-WDC-FT6-BW12	1.88(47.8)	0.66(16.8)	0.69(17.5)	1.06(27.0)	0.28(7.1)	0.75(19.1)	1.05(26.7)
1/2	3/8	-WDC-FT8-BW6	1.71(43.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.56(14.2)	0.67(17.1)
1/2	1/2	-WDC-FT8-BW8	1.93(49.0)	0.90(22.9)	0.87(22.2)	0.87(22.2)	0.41(10.4)	0.75(19.1)	0.84(21.3)
1/2	3/4	-WDC-FT8-BW12	1.99(50.5)	0.90(22.9)	0.87(22.2)	1.06(27.0)	0.41(10.4)	0.75(19.1)	1.05(26.7)
5/8	1/2	-WDC-FT10-BW8	1.93(49.0)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.50(12.7)	0.75(19.1)	0.84(21.3)
3/4	1/2	-WDC-FT12-BW8	1.99(50.5)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.55(14.0)	0.75(19.1)	0.84(21.3)
3/4	3/4	-WDC-FT12-BW12	1.99(50.5)	0.96(24.4)	1.10(28.0)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.05(26.7)
1	1	-WDC-FT16-BW16	2.45(62.2)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.31(33.4)
1 1/4	1 1/4	-WDC-FT20-BW20	3.04(77.2)	1.62(41.1)	1.87(47.6)	1.75(44.5)	1.09(27.7)	0.94(23.9)	1.66(42.2)
1 1/2	1 1/2	-WDC-FT24-BW24	3.50(88.9)	1.97(50.0)	2.25(57.2)	2.13(54.0)	1.34(34.0)	1.03(26.2)	1.90(48.3)
2	2	-WDC-FT32-BW32	4.47(113.5)	2.66(67.6)	3.00(76.2)	2.75(70.0)	1.81(46.0)	1.07(27.2)	2.37(60.3)

Weld Connectors



Metric Tube to Pipe Butt Weld

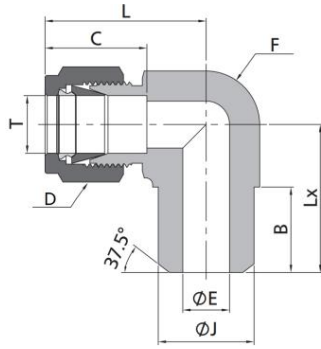
T-Tube O.D.(mm)	Pipe Weld SIZE	Basic Ordering Number	Dimension, mm(in.)						
			L	C	D	F	E	B	J
3	1/8	-WDC-MT3-BW2	30.5(1.20)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)	9.7(0.38)	10.3(0.41)
4	1/8	-WDC-MT4-BW2	31.5(1.24)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)	9.7(0.38)	10.3(0.41)
6	1/8	-WDC-MT6-BW2	32.8(1.29)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)	9.7(0.38)	10.3(0.41)
6	1/4	-WDC-MT6-BW4	37.9(1.49)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)	14.2(0.56)	13.7(0.54)
8	1/8	-WDC-MT8-BW2	34.2(1.35)	16.2(0.64)	16.0(0.63)	15.0(0.59)	5.4(0.21)	9.7(0.38)	10.3(0.41)
8	1/4	-WDC-MT8-BW4	38.7(1.52)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)	14.2(0.56)	13.7(0.54)
8	1/2	-WDC-MT8-BW8	45.6(1.80)	16.2(0.64)	16.0(0.63)	22.0(0.87)	6.4(0.25)	19.1(0.75)	21.3(0.84)
10	1/4	-WDC-MT10-BW4	40.9(1.60)	17.2(0.70)	19.0(0.75)	18.0(0.71)	7.5(0.30)	14.2(0.56)	13.7(0.54)
10	3/8	-WDC-MT10-BW6	40.9(1.60)	17.2(0.70)	19.0(0.75)	18.0(0.71)	7.9(0.31)	14.2(0.56)	17.1(0.67)
10	1/2	-WDC-MT10-BW8	46.5(1.80)	17.2(0.70)	19.0(0.75)	22.0(0.87)	7.9(0.31)	19.1(0.75)	21.3(0.84)
12	1/4	-WDC-MT12-BW4	43.4(1.70)	22.8(0.90)	22.0(0.87)	22.0(0.87)	7.5(0.30)	14.2(0.56)	13.7(0.54)
12	3/8	-WDC-MT12-BW6	43.4(1.70)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)	14.2(0.56)	17.1(0.67)
12	1/2	-WDC-MT12-BW8	49.0(1.90)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)	19.1(0.75)	21.3(0.84)
14	3/8	-WDC-MT14-BW6	44.1(1.70)	24.4(1.00)	25.0(0.98)	24.0(0.94)	10.7(0.42)	14.2(0.56)	17.1(0.67)
15	1/2	-WDC-MT15-BW8	49.0(1.90)	24.4(1.00)	25.0(0.98)	24.0(0.94)	11.9(0.47)	19.1(0.75)	21.3(0.84)
16	1/2	-WDC-MT16-BW8	49.0(1.90)	24.4(1.00)	25.0(0.98)	24.0(0.94)	12.7(0.50)	19.1(0.75)	21.3(0.84)
18	1/2	-WDC-MT18-BW8	50.5(2.00)	24.4(1.00)	30.0(1.18)	27.0(1.06)	13.9(0.55)	19.1(0.75)	21.3(0.84)
30	1 1/4	-WDC-MT30-BW20	77.2(3.00)	39.6(1.60)	50.0(1.97)	46.0(1.81)	26.2(1.03)	23.9(0.94)	42.2(1.66)
32	1 1/4	-WDC-MT32-BW20	79.6(3.10)	42.0(1.70)	50.0(1.97)	46.0(1.81)	28.6(1.13)	23.9(0.94)	42.2(1.66)
38	1 1/2	-WDC-MT38-BW24	91.6(3.60)	49.4(1.90)	60.0(2.36)	55.0(2.17)	33.7(1.33)	26.2(1.03)	48.3(1.9)
50	2	-WDC-MT50-BW32	113.5(4.47)	65.0(2.56)	75.0(2.95)	70.0(2.75)	45.2(1.78)	27.2(1.07)	60.3(2.37)



Fractional Tube to Tube Socket Weld

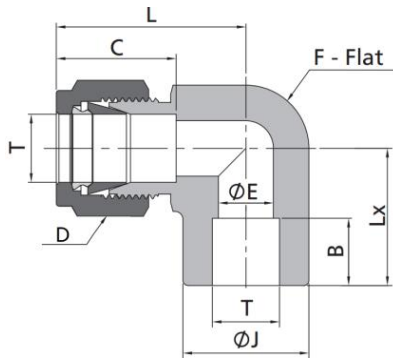
T-Tube O.D.(in.)	Basic Ordering Number	Dimension, mm(in.)							
		L	C	D	F	B	E	Bx	J
1/8	-WDC-FT2-SW2	1.14(29.0)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.34(8.6)	0.09(2.3)	0.10(2.5)	0.31(7.9)
3/16	-WDC-FT3-SW3	1.17(29.7)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.13(3.3)	0.19(4.8)	0.42(10.7)
1/4	-WDC-FT4-SW4	1.32(33.5)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.41(10.4)	0.19(4.8)	0.28(7.1)	0.44(11.2)
3/8	-WDC-FT6-SW6	1.48(37.6)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.47(11.9)	0.28(7.1)	0.31(7.9)	0.62(15.7)
1/2	-WDC-FT8-SW8	1.62(41.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.47(11.9)	0.41(10.4)	0.38(9.7)	0.75(19.1)
5/8	-WDC-FT10-SW10	1.65(41.9)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.47(11.9)	0.50(12.7)	0.41(10.4)	0.92(23.4)
3/4	-WDC-FT12-SW12	1.71(43.4)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.47(11.9)	0.62(15.7)	0.44(11.1)	1.05(26.7)
1	-WDC-FT16-SW16	2.07(52.6)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.56(14.2)	0.88(22.4)	0.62(15.7)	1.31(33.3)

Weld Elbows



Fractional Tube to Pipe Butt Weld

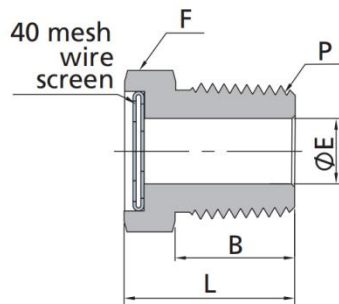
T-Tube O.D.(in.)	Pipe Weld SIZE	Basic Ordering Number	Dimension, in.(mm)							
			L	C	D	F	B	E	Lx	J
1/8	1/8	-WDE-FT2-BW2	0.92(23.4)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.38(9.7)	0.09(2.3)	0.72(18.3)	0.41(10.3)
3/16	1/8	-WDE-FT3-BW2	1.01(25.7)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.38(9.7)	0.13(3.3)	0.74(18.8)	0.41(10.3)
1/4	1/8	-WDE-FT4-BW2	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.38(9.7)	0.19(4.8)	0.74(18.8)	0.41(10.3)
1/4	1/4	-WDE-FT4-BW4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.56(14.2)	0.19(4.8)	0.92(23.4)	0.54(13.7)
3/8	1/4	-WDE-FT6-BW4	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.56(14.2)	0.28(7.1)	1.00(25.4)	0.54(13.7)
1/2	3/8	-WDE-FT8-BW6	1.37(34.8)	0.90(22.9)	0.87(22.2)	0.75(19.1)	0.56(14.2)	0.41(10.4)	1.13(28.8)	0.67(17.1)
1/2	1/2	-WDE-FT8-BW8	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.75(19.1)	0.41(10.4)	1.30(33.0)	0.84(21.3)
5/8	1/2	-WDE-FT10-BW8	1.57(36.3)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.75(19.1)	0.50(12.7)	1.38(35.1)	0.84(21.3)
3/4	3/4	-WDE-FT12-BW12	1.94(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.75(19.1)	0.62(15.7)	1.45(36.8)	1.05(26.7)
1	3/4	-WDE-FT16-BW12	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.75(19.1)	0.88(22.4)	1.65(41.9)	1.05(26.7)
1	1	-WDE-FT16-BW16	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.81(20.6)	0.88(22.4)	1.84(46.7)	1.31(33.4)



Fractional Tube to Tube Socket Weld

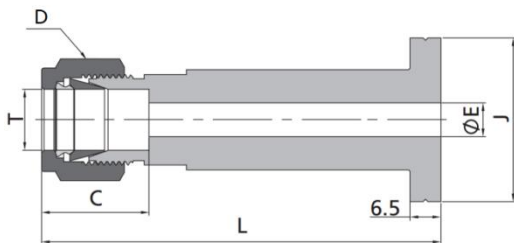
T-Tube O.D.(in.)	Basic Ordering Number	Dimension, in.(mm)							
		L	C	D	F	B	E	Lx	J
1/8	-WDE-FT2-SW2	0.66(16.8)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.10(2.5)	0.09(2.3)	0.63(16.0)	0.38(9.7)
3/16	-WDE-FT3-SW3	0.72(18.3)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.19(4.8)	0.13(3.3)	0.69(17.5)	0.44(11.2)
1/4	-WDE-FT4-SW4	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.28(7.1)	0.19(4.8)	0.77(19.6)	0.50(12.7)
3/8	-WDE-FT6-SW6	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.31(7.9)	0.28(7.1)	0.91(23.1)	0.62(15.7)
1/2	-WDE-FT8-SW8	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.41(10.4)	1.02(25.9)	0.81(20.6)
5/8	-WDE-FT10-SW10	1.16(29.5)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.41(10.4)	0.50(12.7)	1.16(29.5)	0.94(23.9)
3/4	-WDE-FT12-SW12	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.44(11.2)	0.62(15.7)	1.17(29.7)	1.06(26.9)
1	-WDE-FT16-SW16	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.88(22.4)	1.45(36.8)	1.38(35.1)

Vents Protectors



Male Thread					
P-NPT Size	Basic Ordering Number	Dimension, in. (mm)			
		L	F	B	E
1/8	-VP-MN2	0.56(14.2)	0.50(12.7)	0.38(9.7)	0.19(4.8)
1/4	-VP-MN4	0.78(19.8)	0.56(14.3)	0.56(14.2)	0.28(7.1)
3/8	-VP-MN6	0.81(20.6)	0.69(17.5)	0.56(14.2)	0.41(10.4)
1/2	-VP-MN8	1.03(26.2)	0.87(22.2)	0.75(19.1)	0.50(12.7)
3/4	-VP-MN12	1.06(26.9)	1.06(27.0)	0.76(19.2)	0.72(18.3)
1	-VP-MN16	1.37(34.8)	1.37(34.9)	0.94(23.9)	0.88(22.4)

Lapped Flange Connectors

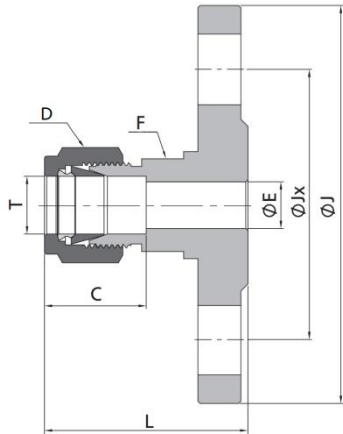


- The flange ends are used with NPS 1/2 lap joint pipe flanges.
- The flange ends are dimensioned to meet "ANSI B16.5 Class 2500" flange specifications.
- The Flange Seal A means surface finish Ra 3.2-6.3 m, the flange Seal B means Ra 6.3-12.5 m.

Fractional Tube							
T-Tube O.D.(in.)	Flange Seal	Basic Ordering Number	Dimension, in. (mm)				
			L	D	C	E	J
1/4	A	-LFC-FT4A	3.18(80.8)	0.56(14.3)	0.60(15.2)	0.19(4.8)	1.36(34.5)
1/4	B	-LFC-FT4B	3.18(80.8)	0.56(14.3)	0.60(15.2)	0.19(4.8)	1.36(34.5)
3/8	A	-LFC-FT6A	3.26(82.9)	0.69(17.5)	0.66(16.8)	0.28(7.1)	1.36(34.5)
3/8	B	-LFC-FT6B	3.26(82.9)	0.69(17.5)	0.66(16.8)	0.28(7.1)	1.36(34.5)
1/2	A	-LFC-FT8A	3.35(85.1)	0.87(22.2)	0.90(22.9)	0.31(7.9)	1.36(34.5)
1/2	B	-LFC-FT8B	3.35(85.1)	0.87(22.2)	0.90(22.9)	0.31(7.9)	1.36(34.5)

Metric Tube							
T-Tube O.D.(mm)	Flange Seal	Basic Ordering Number	Dimension, mm (in.)				
			L	D	C	E	J
10	A	-LFC-MT10A	82.6(3.25)	19.0(0.75)	17.2(0.68)	7.9(0.31)	34.5(1.36)
10	B	-LFC-MT10B	82.6(3.25)	19.0(0.75)	17.2(0.68)	7.9(0.31)	34.5(1.36)

Flange Adaptors



Fractional Tube to ANSI Flanges B16.5

T-Tube O.D. (in.)	ANSI Flange NPS	Class	Basic Ordering Number Raised Face Flange	Dimension, in. (mm)						
				L	J	Jx	E	C	D	F
1/4	1/2	150	-FGA-FT4-F8-150	1.61(40.9)	3.50(88.9)	2.38(60.5)	0.19(4.8)	0.60(15.2)	0.56(14.3)	0.81(20.6)
3/8	1/2	300	-FGA-FT6-F8-300	1.79(45.5)	3.75(95.3)	2.62(66.5)	0.28(7.1)	0.66(16.8)	0.69(17.5)	0.81(20.6)
1/2	1/2	150	-FGA-FT8-F8-150	1.78(45.2)	3.50(88.9)	2.38(60.5)	0.41(10.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)
1/2	1	150	-FGA-FT8-F16-150	1.90(48.3)	4.25(108.0)	3.12(79.2)	0.41(10.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)
1/2	2	150	-FGA-FT8-F32-150	2.09(53.1)	6.00(152.4)	4.76(121.0)	0.41(10.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)
3/4	1	150	-FGA-FT12-F16-150	1.98(50.3)	4.25(108.0)	3.12(79.2)	0.62(15.7)	0.96(24.4)	1.13(28.6)	1.25(31.8)
1	1	150	-FGA-FT16-F16-150	2.38(60.5)	4.25(108.0)	3.12(79.2)	0.88(22.4)	1.23(31.2)	1.50(38.1)	1.37(34.9)

Metric Tube to DIN Flanges PN40

T-Tube O.D. (mm)	DIN Flange Size DN	Basic Ordering Number Raised Face Flange	Dimension, mm (inch.)						
			L	J	Jx	E	C	D	F
6	25	-FGA-MT6-F25-40P	47.5(1.87)	115.0(4.53)	85.0(3.35)	4.8(0.19)	15.3(0.60)	14.0(0.55)	20.0(0.79)
12	15	-FGA-MT12-F15-40P	48.5(1.91)	95.0(3.74)	65.0(2.56)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
12	25	-FGA-MT12-F25-40P	50.5(1.99)	115.0(4.53)	85.0(3.35)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
12	50	-FGA-MT12-F50-40P	55.3(2.18)	165.0(6.50)	125.0(4.92)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
18	15	-FGA-MT18-F15-40P	51.8(2.04)	95.0(3.74)	65.0(2.56)	15.1(0.59)	24.4(0.96)	30.0(1.18)	32.0(1.26)
18	25	-FGA-MT18-F25-40P	53.8(2.12)	115.0(4.53)	85.0(3.35)	15.1(0.59)	24.4(0.96)	30.0(1.18)	32.0(1.26)
25	25	-FGA-MT25-F25-40P	64.0(2.52)	115.0(4.53)	85.0(3.35)	21.8(0.86)	31.3(1.23)	38.0(1.50)	35.0(1.38)

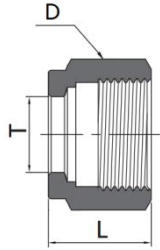
Fractional Tube to JIS Flanges 10K

T-Tube O.D. (in.)	JIS Flange Size DN	Basic Ordering Number Raised Face Flange	Dimension, in. (mm)						
			L	J	Jx	E	C	D	F
1/4"	15	-FGA-FT4-F15-10K	1.66(42.2)	3.74(95.0)	2.76(70.1)	0.19(4.8)	0.60(15.2)	0.56(14.3)	0.81(20.6)
3/8"	15	-FGA-FT6-F15-10K	1.72(43.7)	3.74(95.0)	2.76(70.1)	0.28(7.1)	0.66(16.8)	0.69(17.5)	0.81(20.6)
1/2"	15	-FGA-FT8-F15-10K	1.83(46.5)	3.74(95.0)	2.76(70.1)	0.41(10.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)
3/4"	15	-FGA-FT12-F15-10K	1.91(48.5)	3.74(95.0)	2.76(70.1)	0.62(15.7)	0.96(24.4)	1.13(28.6)	1.25(31.8)
1"	25	-FGA-FT16-F25-10K	2.40(61.0)	4.92(125.0)	3.54(89.9)	0.88(22.4)	1.23(31.2)	1.50(38.1)	1.37(34.9)

Metric Tube to JIS Flanges 10K

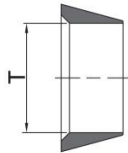
T-Tube O.D. (mm)	DIN Flange Size DN	Basic Ordering Number Raised Face Flange	Dimension, mm (inch.)						
			L	J	Jx	E	C	D	F
12mm	15	-FGA-FT12-F15-10K	1.83(46.5)	3.74(95.0)	2.76(70.0)	0.37(9.5)	0.90(22.8)	0.87(22.0)	0.79(20.0)
18mm	15	-FGA-FT18-F15-10K	1.91(48.5)	3.74(95.0)	2.76(70.0)	0.59(15.1)	0.96(24.4)	1.18(30.0)	1.26(32.0)
25mm	25	-FGA-FT25-F25-10K	2.40(61.0)	4.92(125.0)	3.54(90.0)	0.86(21.8)	1.23(31.3)	1.50(38.0)	1.38(35.0)

Nuts

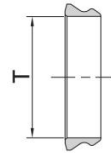


Fractional Tube				Metric Tube			
T-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)		T-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm(in.)	
		D	L			D	L
1/16	-TN-FT1	0.31(7.9)	0.31(7.9)	2	-TN-MT2	12.0(0.47)	11.9(0.47)
1/8	-TN-FT2	0.44(11.1)	0.47(11.9)	3	-TN-MT3	12.0(0.47)	11.9(0.47)
3/16	-TN-FT3	0.50(12.7)	0.47(11.9)	4	-TN-MT4	12.0(0.47)	11.9(0.47)
1/4	-TN-FT4	0.56(14.3)	0.50(12.7)	6	-TN-MT6	14.0(0.55)	12.7(0.50)
5/16	-TN-FT5	0.63(15.9)	0.53(13.5)	8	-TN-MT8	16.0(0.63)	13.5(0.53)
3/8	-TN-FT6	0.69(17.5)	0.56(14.2)	10	-TN-MT10	19.0(0.75)	15.1(0.59)
1/2	-TN-FT8	0.87(22.2)	0.69(17.5)	12	-TN-MT12	22.0(0.87)	17.4(0.69)
5/8	-TN-FT10	1.00(25.4)	0.69(17.5)	14	-TN-MT14	25.0(0.98)	17.4(0.69)
3/4	-TN-FT12	1.13(28.6)	0.69(17.5)	15	-TN-MT15	25.0(0.98)	17.4(0.69)
7/8	-TN-FT14	1.25(31.8)	0.69(17.5)	16	-TN-MT16	25.0(0.98)	17.4(0.69)
1	-TN-FT16	1.50(38.1)	0.81(20.6)	18	-TN-MT18	30.0(1.18)	17.4(0.69)
1 1/8	-TN-FT18	1.81(46.0)	1.21(30.8)	20	-TN-MT20	32.0(1.26)	17.4(0.69)
1 1/4	-TN-FT20	1.87(47.6)	1.25(31.8)	22	-TN-MT22	32.0(1.26)	17.4(0.69)
1 1/2	-TN-FT24	2.25(57.2)	1.50(38.1)	25	-TN-MT25	38.0(1.50)	20.6(0.81)
2	-TN-FT32	3.00(76.2)	2.06(52.3)	28	-TN-MT28	46.0(1.81)	30.6(1.20)
				30	-TN-MT30	50.0(1.97)	32.7(1.29)
				32	-TN-MT32	50.0(1.97)	34.4(1.35)
				38	-TN-MT38	60.0(2.36)	40.6(1.60)
				50	-TN-MT50	75.0(2.95)	52.3(2.06)

Frant Ferrules

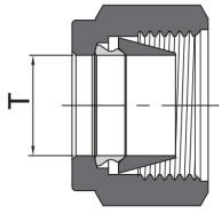


Rear Ferrules



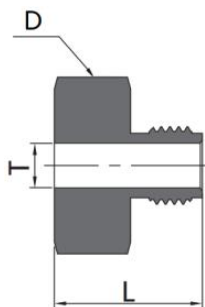
Fractional Tube		Metric Tube		Fractional Tube		Metric Tube	
T-Tube O.D.(in.)	Basic Ordering Number	T-Tube O.D.(mm)	Basic Ordering Number	T-Tube O.D.(in.)	Basic Ordering Number	T-Tube O.D.(mm)	Basic Ordering Number
1/16	-FF-FT1	2	-FF-MT2	1/16	-RF-FT1	2	-RF-MT2
1/8	-FF-FT2	3	-FF-MT3	1/8	-RF-FT2	3	-RF-MT3
3/16	-FF-FT3	4	-FF-MT4	3/16	-RF-FT3	4	-RF-MT4
1/4	-FF-FT4	6	-FF-MT6	1/4	-RF-FT4	6	-RF-MT6
5/16	-FF-FT5	8	-FF-MT8	5/16	-RF-FT5	8	-RF-MT8
3/8	-FF-FT6	10	-FF-MT10	3/8	-RF-FT6	10	-RF-MT10
1/2	-FF-FT8	12	-FF-MT12	1/2	-RF-FT8	12	-RF-MT12
5/8	-FF-FT10	14	-FF-MT14	5/8	-RF-FT10	14	-RF-MT14
3/4	-FF-FT12	15	-FF-MT15	3/4	-RF-FT12	15	-RF-MT15
7/8	-FF-FT14	16	-FF-MT16	7/8	-RF-FT14	16	-RF-MT16
1	-FF-FT16	18	-FF-MT18	1	-RF-FT16	18	-RF-MT18
1 1/8	-FF-FT18	20	-FF-MT20	1 1/8	-RF-FT18	20	-RF-MT20
1 1/4	-FF-FT20	22	-FF-MT22	1 1/4	-RF-FT20	22	-RF-MT22
1 1/2	-FF-FT24	25	-FF-MT25	1 1/2	-RF-FT24	25	-RF-MT25
2	-FF-FT32	28	-FF-MT28	2	-RF-FT32	28	-RF-MT28
		30	-FF-MT30			30	-RF-MT30
		32	-FF-MT32			32	-RF-MT32
		38	-FF-MT38			38	-RF-MT38
		50	-FF-MT50			50	-RF-MT50

Nuts+Ferrules



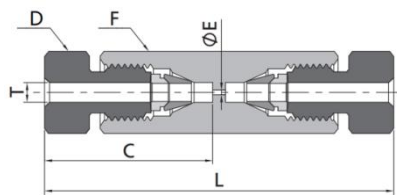
Fractional Tube		Metric Tube	
T Tube O.D.(in.)	Basic Ordering Number	T Tube O.D.(mm)	Basic Ordering Number
1/16	-NF-FT1	2	-NF-MT2
1/8	-NF-FT2	3	-NF-MT3
3/16	-NF-FT3	4	-NF-MT4
1/4	-NF-FT4	6	-NF-MT6
5/16	-NF-FT5	8	-NF-MT8
3/8	-NF-FT6	10	-NF-MT10
1/2	-NF-FT8	12	-NF-MT12
5/8	-NF-FT10	14	-NF-MT14
3/4	-NF-FT12	15	-NF-MT15
7/8	-NF-FT14	16	-NF-MT16
1	-NF-FT16	18	-NF-MT18
1 1/8	-NF-FT18	20	-NF-MT20
1 1/4	-NF-FT20	22	-NF-MT22
1 1/2	-NF-FT24	25	-NF-MT25
2	-NF-FT32	28	-NF-MT28
		30	-NF-MT30
		32	-NF-MT32
		38	-NF-MT38
		50	-NF-MT50

Male Nuts



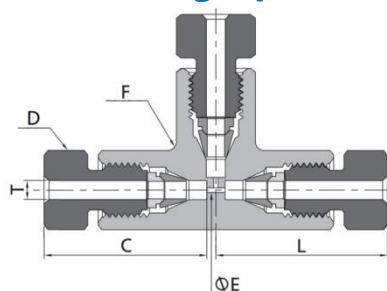
Fractional Tube				Metric Tube			
T-Tube O.D.(in.)	Basic Ordering Number	Dimension, in. (mm)		T-Tube O.D.(mm)	Basic Ordering Number	Dimension, mm (In.)	
		D	L			D	L
1/16	-TMN-FT1	0.25(6.4)	0.38(9.7)	3	-TMN-MT3	10.0(0.39)	13.5(0.53)
1/8	-TMN-FT2	0.37(9.5)	0.53(13.5)	6	-TMN-MT6	14.0(0.55)	15.7(0.62)
1/4	-TMN-FT4	0.50(12.7)	0.62(15.7)	10	-TMN-MT10	22.0(0.87)	22.1(0.87)
1/2	-TMN-FT8	0.94(23.8)	0.87(22.1)	12	-TMN-MT12	24.0(0.94)	22.1(0.87)

Chromatograph Straight Fittings



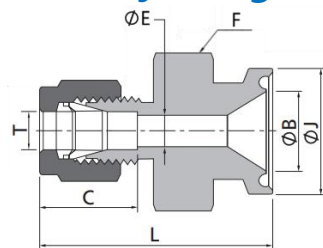
Fractional Tube							
T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)					Dead Volume
		L	C	E	D	F	
1/16	-CF-FT1	1.26(32.0)	0.61(15.5)	0.01(0.25)	0.25(6.4)	0.25(6.4)	$6.6 \times 10^{-4} \text{ cm}^3$

Chromatograph Tee Fittings



Fractional Tube							
T-Tube O.D. (in.)	Basic Ordering Number	Dimension, in. (mm)					Dead Volume
		L	C	E	D	F	
1/16	-CFT-FT1	0.66(16.8)	0.61(15.5)	0.01(0.25)	0.25(6.4)	0.37(9.5)	$2.8 \times 10^{-4} \text{ cm}^3$

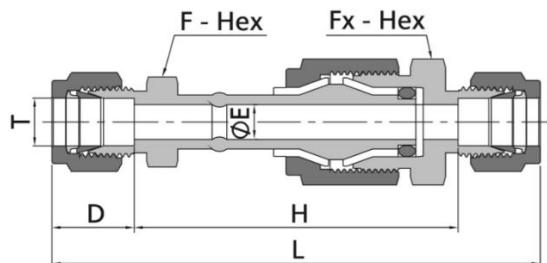
Sanitary Flange Fittings



Fractional Tube								
T Tube O.D.	Flange Size In.	Basic Ordering Number	Dimension, in. (mm)					
			L	B	C	E	F	J
1/4	1/2	-SFF-FT4-SC8	1.57(39.9)	0.37(9.4)	0.60 (15.2)	0.19 (4.8)	1.00 (25.4)	0.98 (24.9)
1/4	3/4	-SFF-FT4-SC12	1.57(39.9)	0.62(15.7)	0.60 (15.2)	0.19 (4.8)	1.00 (25.4)	0.98 (24.9)
1/4	1	-SFF-FT4-SC16	1.57(39.9)	0.87(22.1)	0.60 (15.2)	0.19 (4.8)	1.37(34.9)	1.98 (50.3)
1/4	1 1/2	-SFF-FT4-SC24	1.57(39.9)	1.37(34.8)	0.60 (15.2)	0.19 (4.8)	1.37(34.9)	1.98 (50.3)
3/8	1/2	-SFF-FT6-SC8	1.63 (41.4)	0.37(9.4)	0.66 (16.8)	0.28 (7.1)	1.00 (25.4)	0.98 (24.9)
3/8	3/4	-SFF-FT6-SC12	1.63 (41.4)	0.62(15.7)	0.66 (16.8)	0.28(7.1)	1.00 (25.4)	0.98 (24.9)
3/8	1	-SFF-FT6-SC16	1.63 (41.4)	0.87(22.1)	0.66 (16.8)	0.28 (7.1)	1.37(34.9)	1.98 (50.3)
3/8	1 1/2	-SFF-FT6-SC24	1.63 (41.4)	1.37(34.8)	0.66 (16.8)	0.28 (7.1)	1.37(34.9)	1.98 (50.3)
1/2	1/2	-SFF-FT8-SC8	1.74 (44.2)	0.37(9.4)	0.90 (22.9)	0.37 (9.4)	1.00 (25.4)	0.98 (24.9)
1/2	3/4	-SFF-FT8-SC12	1.74 (44.2)	0.62(15.7)	0.90 (22.9)	0.41 (10.4)	1.00 (25.4)	0.98 (24.9)
1/2	1	-SFF-FT8-SC16	1.74 (44.2)	0.87(22.1)	0.90 (22.9)	0.41 (10.4)	1.37(34.9)	1.98 (50.3)
1/2	1 1/2	-SFF-FT8-SC24	1.74 (44.2)	1.37(34.8)	0.90 (22.9)	0.41 (10.4)	1.37(34.9)	1.98 (50.3)
1	1	-SFF-FT16-SC16	1.91 (48.5)	0.87 (22.2)	1.23 (31.2)	0.87 (22.2)	1.37(34.9)	1.98 (50.3)
1	2	-SFF-FT16-SC32	2.49 (63.2)	1.37(34.8)	1.23 (31.2)	0.88 (22.4)	2.75 (69.9)	2.52 (64.0)

Dielectric Fittings

Component	Material	Technical Data
Insulator	Polyamide-imide	Electrical Resistance of Insulators at 70°F (20°C): $\geq 1 \text{ M}\Omega$ at 1000 V.
O-ring	70 Durometer FKM	Maximum working pressure: 5000 psig (344 bar) at 70 (21).
Backup Ring	Virgin PTFE	Temperature range: -40°F (-40 °C) to 200°F (93°C).

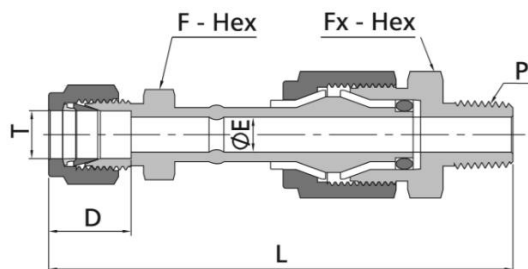


Fractional Tube

T Tube O.D.	Basic Ordering Number	Dimension, in. (mm)					
		L	D	H	E	F	Fx
1/4	-DF-FT4	3.77(95.7)	0.60(15.2)	2.57(65.3)	0.19(4.8)	0.50(12.7)	0.81(20.6)
3/8	-DF-FT6	3.92(99.6)	0.66(16.8)	2.59(65.8)	0.28(7.1)	0.63(15.9)	0.81(20.6)
1/2	-DF-FT8	4.17(106)	0.90(22.9)	2.37(60.2)	0.28(7.1)	0.81(20.6)	0.81(20.6)

Metric Tube

T Tube O.D.	Basic Ordering Number	Dimension, mm(in.)					
		L	D	H	E	F	Fx
6	-DF-MT6	95.7(3.77)	15.2(0.60)	65.3(2.57)	4.8(0.19)	14.0(0.55)	22.0(0.87)
8	-DF-MT8	97.8(3.85)	16.2(0.64)	65.3(2.57)	4.8(0.19)	16.0(0.63)	22.0(0.87)
10	-DF-MT10	99.6(3.92)	17.2(0.68)	65.8(2.59)	7.1(0.28)	19.0(0.75)	22.0(0.87)
12	-DF-MT12	106(4.17)	22.9(0.90)	60.2(2.37)	7.1(0.28)	22.0(0.87)	22.0(0.87)



Fractional Tube

T Tube O.D.	P NPT	Basic Ordering Number	Dimension, in. (mm)				
			L	D	E	F	Fx
1/4	1/4	-DF-FT4-MN4	3.69(93.7)	0.60(15.2)	0.19(4.8)	0.50(12.7)	0.81(20.6)
3/8	3/8	-DF-FT6-MN6	3.73(94.7)	0.66(16.8)	0.28(7.1)	0.63(15.9)	0.81(20.6)
1/2	1/2	-DF-FT8-MN8	4.17(106)	0.90(22.9)	0.28(7.1)	0.81(20.6)	0.81(20.6)

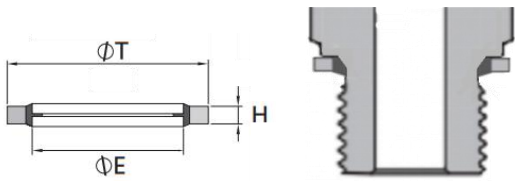
Metric Tube

T Tube O.D.	P NPT	Basic Ordering Number	Dimension, mm (inch.)				
			L	D	E	F	Fx
6	1/4	-DF-FT4-MN4	93.7(3.69)	15.2(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)
10	3/8	-DF-FT6-MN6	94.7(3.73)	16.8(0.66)	7.1(0.28)	19.0(0.75)	22.0(0.87)

RS Gaskets

The RS gasket provides a seal with male ISO parallel threads.

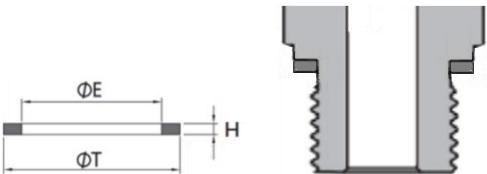
The gasket consists of a fluorocarbon FKM or Buna inner ring bonded to a carbon steel or stainless steel outer ring.

		Material		Material Code
		Inner	Outer	
		FKM	SS 316	SSF-
		NBR	SS 304	S4N-
		FKM	Carbon Steel	CSF-
NBR	Carbon Steel	CSN-		
ISO Parallel Thread Size				
Size BSPP	Basic Ordering Number	Dimension in.(mm)		
		T	E	H
1/8	SSF-RS-MG2	0.63 (16.0)	0.41 (10.4)	0.08 (2.0)
1/4	SSF-RS-MG4	0.81 (20.6)	0.54 (13.7)	0.08 (2.0)
3/8	SSF-RS-MG6	0.94 (23.9)	0.68 (17.3)	0.08 (2.0)
1/2	SSF-RS-MG8	1.13 (28.7)	0.85 (21.6)	0.10 (2.5)
3/4	SSF-RS-MG12	1.38 (35.1)	1.06 (26.9)	0.10 (2.5)
1	SSF-RS-MG16	1.69 (42.9)	1.33 (33.8)	0.10 (2.5)
Metric Thread				
Size M	Basic Ordering Number	Dimension in.(mm)		
		T	E	H
M8*1	SSF-RS-MM8	13.0 (0.51)	8.7 (0.34)	1.0 (0.04)
M10*1	SSF-RS-MM10	16.0 (0.63)	10.7 (0.42)	1.5 (0.06)
M12*1.5	SSF-RS-MM12	18.0 (0.71)	12.7 (0.50)	1.5 (0.06)
M14*1.5	SSF-RS-MM14	22.0 (0.87)	14.7 (0.58)	1.5 (0.06)
M16*1.5	SSF-RS-MM16	24.0 (0.94)	16.7 (0.66)	1.5 (0.06)
M18*1.5	SSF-RS-MM18	26.0 (1.02)	18.7 (0.74)	1.5 (0.06)
M20*1.5	SSF-RS-MM20	28.0 (1.10)	20.7 (0.81)	1.5 (0.06)
M22*1.5	SSF-RS-MM22	30.0 (1.18)	22.7 (0.89)	2.0 (0.08)
M24*1.5	SSF-RS-MM24	32.0 (1.26)	24.7 (0.97)	2.0 (0.08)
M27*2	SSF-RS-MM27	36.0 (1.42)	27.7 (1.09)	2.0 (0.08)
M30*2	SSF-RS-MM30	39.0 (1.54)	30.7 (1.21)	2.0 (0.08)
M33*2	SSF-RS-MM33	42.0 (1.65)	33.7 (1.33)	2.0 (0.08)
M36*2	SSF-RS-MM36	48.0 (1.89)	37.0 (1.46)	2.5 (0.10)
M39*2	SSF-RS-MM39	51.0 (2.00)	40.0 (1.57)	2.5 (0.10)
M42*2	SSF-RS-MM42	54.0 (2.13)	43.2 (1.70)	2.5 (0.10)
M45*2	SSF-RS-MM45	57.0 (2.24)	46.0 (1.81)	3.0 (0.12)
M48*2	SSF-RS-MM48	60.0 (2.36)	49.0 (1.93)	3.0 (0.12)

RP Gaskets

The RP gasket provides a seal with male ISO parallel threads.

The RP gasket may be used with a RS fitting.

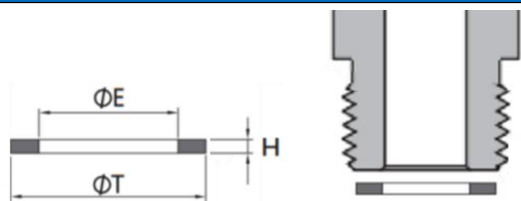
		Material	Material Code
		Coppe	CU-
		SS 316L	SS-
		PTFE	PT-
		PCTFE	PC-
		Vulcanized Fibre	VF-

ISO Parallel Thread Size				
Size BSPP	Basic Ordering Number	Dimension in.(mm)		
		T	E	H
1/8	-RP-MG2	0.59 (15.0)	0.39 (9.9)	0.04 (1.0)
1/4	-RP-MG4	0.75 (19.1)	0.52 (13.2)	0.06 (1.5)
3/8	-RP-MG6	0.91 (23.1)	0.66 (16.8)	0.06 (1.5)
1/2	-RP-MG8	1.06 (26.9)	0.83 (21.1)	0.06 (1.5)
3/4	-RP-MG12	1.30 (33.0)	1.05 (26.7)	0.08 (2.0)
1	-RP-MG16	1.58 (40.1)	1.31 (33.2)	0.08 (2.0)
Metric Thread				
Size M	Basic Ordering Number	Dimension in.(mm)		
		T	E	H
M8*1	-RP-MM8	13.2 (0.52)	8.2 (0.32)	1.5 (0.06)
M10*1	-RP-MM10	15.2 (0.60)	10.2 (0.40)	1.5 (0.06)
M12*1.5	-RP-MM12	18.2 (0.72)	12.2 (0.48)	2.0 (0.08)
M14*1.5	-RP-MM14	20.2 (0.80)	14.2 (0.56)	2.0 (0.08)
M16*1.5	-RP-MM16	22.2 (0.87)	16.2 (0.64)	2.0 (0.08)
M18*1.5	-RP-MM18	24.2 (0.95)	18.2 (0.72)	2.0 (0.08)
M20*1.5	-RP-MM20	26.2 (1.03)	20.2 (0.80)	2.0 (0.08)
M22*1.5	-RP-MM22	28.2 (1.11)	22.2 (0.87)	2.0 (0.08)
M24*1.5	-RP-MM24	30.2 (1.19)	24.2 (0.95)	2.0 (0.08)
M27*2	-RP-MM27	33.3 (1.31)	27.2 (1.07)	2.5 (0.10)
M30*2	-RP-MM30	37.3 (1.47)	30.2 (1.19)	2.5 (0.10)
M33*2	-RP-MM33	40.3 (1.59)	33.2 (1.31)	2.5 (0.10)
M36*2	-RP-MM36	43.3 (1.70)	36.2 (1.43)	2.5 (0.10)
M39*2	-RP-MM39	47.3 (1.86)	39.2 (1.54)	2.5 (0.10)
M42*2	-RP-MM42	50.3 (1.98)	42.2 (1.66)	2.5 (0.10)
M45*2	-RP-MM45	53.3 (2.10)	45.2 (1.78)	2.5 (0.10)
M48*2	-RP-MM48	56.3 (2.22)	48.2 (1.90)	2.5 (0.10)

RG Gaskets

The RG gasket provides a seal on pressure gauges equipped with male ISO parallel threads.

ISO Parallel Thread Size				
Size BSPP	Basic Ordering Number	Dimension in.(mm)		
		T	E	H
1/4	-RG-MG4	0.42 (10.7)	0.30 (7.6)	0.07 (1.8)
3/8	-RG-MG6	0.56 (14.2)	0.34 (8.6)	0.09 (2.3)
1/2	-RG-MG8	0.70 (17.8)	0.36 (9.1)	0.10 (2.5)



Material

Material Code

Coppe

CU-

SS 316L

SS-

PTFE

PT-

PCTFE

PC-

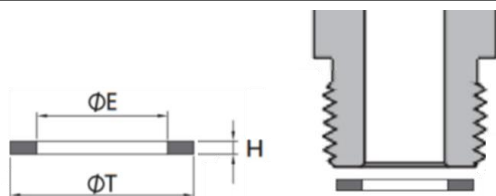
Vulcanized Fibre

VF-

Metric Thread				
Size M	Basic Ordering Number	Dimension in.(mm)		
		T	E	H
M10*1	-RG-MM10	8.3 (0.33)	3.3 (0.13)	1.5 (0.06)
M12*1.5	-RG-MM12	9.7 (0.38)	5.4 (0.21)	2.0 (0.08)
M14*1.5	-RG-MM14	11.7 (0.46)	6.4 (0.25)	2.0 (0.08)
M16*1.5	-RG-MM16	13.7 (0.54)	8.4 (0.33)	2.0 (0.08)
M18*1.5	-RG-MM18	15.7 (0.62)	10.0 (0.39)	2.0 (0.08)
M20*1.5	-RG-MM20	17.6 (0.69)	11.4 (0.45)	2.0 (0.08)
M22*1.5	-RG-MM22	19.6 (0.77)	13.4 (0.53)	2.0 (0.08)
M24*1.5	-RG-MM24	21.6 (0.85)	14.8 (0.58)	2.0 (0.08)
M27*2	-RG-MM27	24.0 (0.95)	16.9 (0.67)	2.5 (0.10)
M30*2	-RG-MM30	27.0 (1.06)	19.5 (0.77)	2.5 (0.10)
M33*2	-RG-MM33	30.0 (1.18)	21.5 (0.85)	2.5 (0.10)
M36*2	-RG-MM36	33.0 (1.30)	23.5 (0.93)	2.5 (0.10)
M39*2	-RG-MM39	36.0 (1.42)	24.5 (0.96)	2.5 (0.10)
M42*2	-RG-MM42	38.9 (1.53)	29.5 (1.16)	2.5 (0.10)
M45*2	-RG-MM45	41.9 (1.64)	30.0 (1.18)	2.5 (0.10)
M48*2	-RG-MM48	44.9 (1.77)	32.5 (1.28)	2.5 (0.10)

RJ Gaskets

The RJ gasket provides a seal on Japanese pressure gauges equipped with male ISO parallel threads.

		Material	Material Code	
		Coppe	CU-	
		SS 316L	SS-	
		PTFE	PT-	
		PCTFE	PC-	
		Vulcanized Fibre	VF-	
ISO Parallel Thread Size				
Size BSPP	Basic Ordering Number	Dimension in.(mm)		
		T	E	H
1/4	-RJ-MG4	0.43 (10.9)	0.22 (5.6)	0.04 (1.0)
3/8	-RJ-MG6	0.55 (13.9)	0.22 (5.6)	0.04 (1.0)
1/2	-RJ-MG8	0.70 (17.8)	0.22 (5.6)	0.04 (1.0)

O-ring



SAM/MS Thread			ISO Parallel Thread Size					
Size SAM/MS	Ordering Number	Material	Size BSPP	Ordering Number	Material			
5/16-24	-VI9-902	90 Durometer Fluorocarbon FKM	1/8	-VI9-MG502	90 Durometer Fluorocarbon FKM			
3/8-24	-VI9-903		1/4	-VI9-MG111				
7/16-20	-VI9-904		3/8	-VI9-MG113				
1/2-20	-VI9-905		1/2	-VI9-MG508				
9/16-18	-VI9-906		3/4	-VI9-MG119				
3/4-16	-VI9-908		1	-VI9-MG217				
7/8-14	-VI9-910							
1 1/16-12	-VI9-912							
1 3/16-12	-VI9-914							
1 5/16-12	-VI9-916							
1 5/8-12	-VI9-920							
1 7/8-12	-VI9-924							
SAM/MS Thread			NPT/ISO Thread			Metric Threads		
Size SAM/MS	Ordering Number	Material	Size NPT/ISO	Ordering Number	Material	Size M	Ordering Number	Material
5/16-24	-BN7-011	70 Durometer NBR	1/8	-BN7-013	70 Durometer NBR	M14*1.5	-BN9-MM14	90 Durometer NBR
3/8-24	-BN7-012		1/4	-BN7-113		M20*1.5	-BN9-MM20	
7/16-20	-BN7-013		3/8	-BN7-116				
1/2-20	-BN7-112		1/2	-BN7-118				
9/16-18	-BN7-113							
3/4-16	-BN7-116							
1 1/16-12	-BN7-121							
1 5/16-12	-BN7-125							

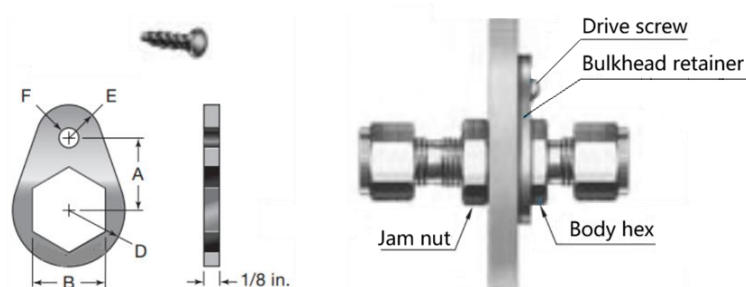
Manual Presetting Tools

For tube fitting installations in close quarters, the presetting tool can make installation easier and more reliable when paired with the table vice.

For installing 1/4" to 1" and 6 mm to 25 mm tube fittings.

	Ordering Number	Size (inch.)		Ordering Number	Size (Metric)
	MPT-FT4	1/4"		MPT-MT6	6 mm
	MPT-FT6	3/8"		MPT-MT8	8 mm
	MPT-FT8	1/2"		MPT-MT10	10 mm
	MPT-FT10	5/8"		MPT-MT12	12 mm
	MPT-FT12	3/4"		MPT-MT14	14 mm
	MPT-FT14	7/8"		MPT-MT15	15 mm
	MPT-FT16	1"		MPT-MT16	16 mm
				MPT-MT18	18 mm
				MPT-MT20	20 mm
				MPT-MT22	22 mm
				MPT-MT25	25 mm

Bulkhead Retainers

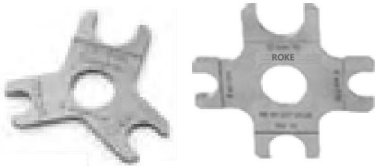


Tube Fitting Size		Ordering Number	Dimensions (in.)						Drive Screw Size	Drill Number
In.	mm		A	B	D	E	F	Drill Hole Dia		
1/16	--	S4-BR-1	3/8	5/16	5/16	5/32	5/32	0.120	6-3/8	31
1/8	--	S4-BR-2	1/2	1/2	13/32	7/32				
3/16	3, 4	S4-BR-3	9/16	9/16	15/32	1/4				
1/4	6	S4-BR-4	5/8	5/8	1/2	9/32				
5/16	--	S4-BR-5	11/16	11/16	9/16	5/16				
--	8	S4-BR-MT8	11/16	18mm	9/16	5/16				
3/8	--	S4-BR-6	3/4	3/4	5/8	11/32	7-32	0.161	10-1/2	20
--	10	S4-BR-MT10	15/16	22mm	3/4	13/32				
1/2	12	S4-BR-8	15/16	15/16	3/4	13/32				
5/8	14,15,16	S4-BR-10	1	1.1/16	13/16	15/32				
3/4	18	S4-BR-12	1.1/16	1.3/16	29/32	15/32				
7/8	--	S4-BR-14	1.1/8	1.5/8	1.1/32	17/32				
1	25	S4-BR-16	1.9/32	1.5/8	1.5/32	9/16				

Gap Inspection Gauges

On initial installation of tube fittings, the gap inspection gauge assures the installer or inspector that a fitting has been sufficiently tightened.

For installing 1/4" to 1" and 6 mm to 25 mm tube fittings.

	Tube Fitting Size		Ordering Number	
	In.	mm	Single Size	Multiple Sizes
Single Size  Multiple Sizes 	1/16	--	GIG-1	GIG-4-6-8 Or GIG-4-6-MT10-8
	1/8	--	GIG-2	
	3/16	3, 4	GIG-3	
	1/4	6	GIG-4	
	5/16	8	GIG-5	
	3/8	--	GIG-6	
	--	10	GIG-MT10	
	1/2	12	GIG-8	
	5/8	14,15,16	GIG-10	
	3/4	18	GIG-12	
	7/8	20,22	GIG-14	
	1	25	GIG-16	

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