FIRTECH

37° Flared Tube Fittings

FITOK

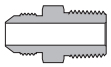
Contents

Tube Cap Assembly - TCA

A-92

Nuts - N

A-92

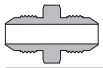
Male Connectors - CM

A-92

Female Connectors - CF

A-94

Unions - U

A-95

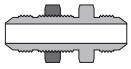
Large Hex Unions - HU

A-95

Reducing Adapters - RA

A-95

Sleeves - SL

A-95

Bulkhead Unions - BU

A-96

Bulkhead Lock Nuts - BN

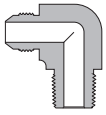
A-96

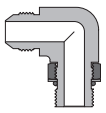
Tube Caps - TC

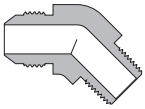
A-96

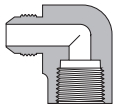
Tube Plugs - TP

A-96

Male Elbows - LM

A-97

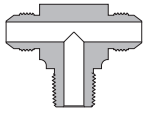
Adjustable Male Elbows - LP

A-97

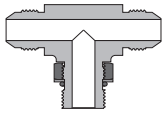
45° Male Elbows - VM

A-98

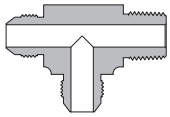
Female Elbows - LF

A-98

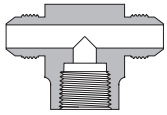
Union Elbows - LU

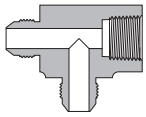
A-99

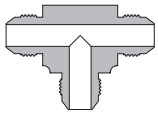
Male Branch Tees - TTM

A-100

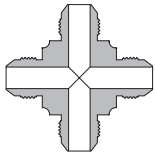
Adjustable Male Branch Tees - TTP

A-100

Male Run Tees - TMT

A-101

Female Branch Tees - TTF

A-101

Female Run Tees - TFT

A-102

Union Tees - TTT

A-102

Union Crosses - C

A-103

Features

◎ Fittings are designed and manufactured in compliance with SAE J514
◎ The hardened threads with smooth surface finish avoid galling and help to extend the fitting service life
◎ Radius junction design for elbows provides smooth flow path
◎ Stainless steel nut threads are silver-plated to minimize the friction with the body threads
◎ Every fitting is marked with size, material and heat number
◎ Fittings are easy to disconnect and retighten
◎ All male threads are protected by plastic caps

Technical Data

◎ Size range from 1/8" to 2" and 3 mm to 50 mm.
◎ Thread Specification:

Thread Type	Reference Specification
NPT	ASME B1.20.1, SAE AS71051
Unified (SAE)	ASME B1.1, SAE J475

◎ The working temperature of FITOK 37° flare tube fittings is the same as that of FITOK 6 series tube fittings.
◎ Working Pressure:

Nom. SAE Dash Size	Nom. Tube O.D. Size (in.)	37° Flare St. Thread	SAE St. Thread Union and Bulkhead (psig/bar)
2	1/8	5/16-24	5000 (345)
3	3/16	3/8-24	5000 (345)
4	1/4	7/16-20	5000 (345)
5	5/16	1/2-20	5000 (345)
6	3/8	9/16-18	5000 (345)
8	1/2	3/4-16	4500 (310)
10	5/8	7/8-14	3500 (241)
12	3/4	1 1/16-12	3500 (241)
14	7/8	1 3/16-12	3000 (207)
16	1	1 5/16-12	3000 (207)
20	1 1/4	1 5/8-12	2500 (172)
24	1 1/2	1 7/8-12	2000 (138)
32	2	2 1/2-12	1500 (103)

1. Working pressures given are for fittings of stainless steel only. Contact FITOK Group or our authorized distributors for working pressure of other materials.
2. Four times safety factor applied for above working pressure.

Materials

Material	Bar Stock	Forging	Designator
316 Stainless Steel	ASTM A276 ASME SA479, EN 1.4401	ASTM A182, ASME SA182, EN 1.4401	SS
Aluminum	ASTM B211	ASTM B247	AL
Brass	ASTM B16/B453	ASTM B283	B
Carbon Steel	ASTM A108	ASTM A105	CS

Ordering Information

Add the material designator as a prefix to the basic ordering number to get the complete ordering number.

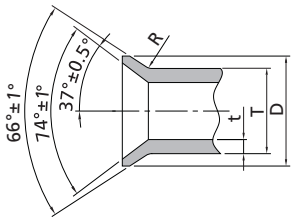
For example:

1. Male connector with 1/4" tube, 1/4 NPT thread and 316 stainless steel material, the complete ordering number is **SS-CM-AN4-NS4.**
2. Sleeve with 6 mm tube and 316 stainless steel material, the complete ordering number is **SS-SL-AN6M.**

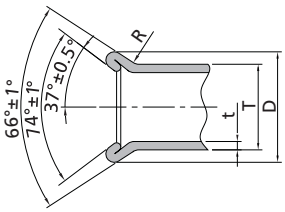
Flaring Operation

Tube flaring is carried out in two different ways, single wall flare on thick wall tubes and double wall flare on thin wall tubes to reinforce same. Refer to the table below:

Thick Tubes



Thin Tubes



Fractional Tubing

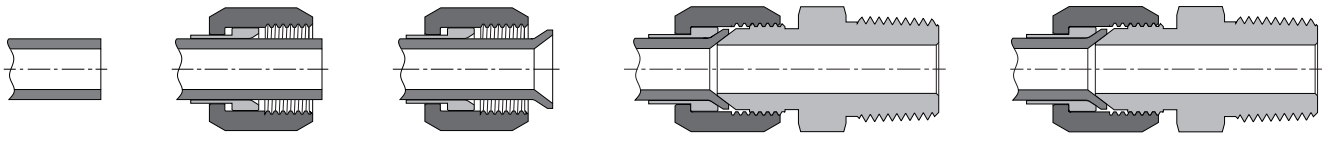
T-Tube O.D. in	Dimensions		
	D (mm)	t (in.)	R (mm)
1/4	8.6-9.1	0.020-0.065	0.8
5/16	10.2-10.9	0.020-0.065	0.8
3/8	11.6-12.4	0.020-0.065	1.0
1/2	16.0-16.7	0.028-0.083	1.5
5/8	19.3-20.0	0.035-0.095	1.5
3/4	23.3-24.1	0.035-0.109	2.0
7/8	26.4-27.1	0.035-0.109	2.0
1	29.7-30.4	0.035-0.120	2.3
1 1/4	37.5-38.3	0.049-0.120	2.3
1 1/2	43.2-43.9	0.049-0.120	2.8
2	59.2-59.9	0.065-0.134	2.8

Metric Tubing

T-Tube O.D. (mm)	Dimensions		
	D (mm)	t (mm)	R (mm)
6	8.4-9.2	0.5-1.5	0.8
8	10.1-10.8	0.5-1.5	0.8
10	12.0-12.5	0.5-1.5	1.0
12	16.0-16.7	1.0-2.0	1.5
14	18.8-19.5	1.0-2.5	1.5
15	19.4-20.0	1.0-2.5	1.5
16	19.4-20.0	1.0-2.5	1.5
18	23.5-24.0	1.0-3.0	2.0
20	24.0-24.5	1.0-3.0	2.0
22	26.2-27.2	1.0-3.0	2.0
25	29.5-30.2	1.0-3.0	2.3
30	37.4-38.0	1.5-3.0	2.3
32	37.6-38.3	1.5-3.0	2.3
38	43.5-44.5	1.5-3.0	2.8
50	58.9-59.6	1.5-3.5	2.8

Installation Instructions

1. Cut the tube to the proper length.
2. Insert the tube into the nut and sleeve.
3. Form the flare to 37° dimension according to SAE J533. See flaring operation.
4. Finger-tighten the nut.
5. Tighten the nut 1/4 turn with wrench while holding steady the body of the fitting.



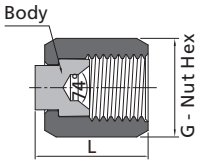
Step 1 Step 2 Step 3 Step 4 Step 5

Cautions:

◎ Do not loosen or tighten fittings when system is pressurized.
◎ Please use proper thread sealants on tapered pipe threads.

Dimensions

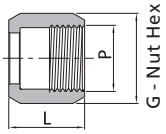
Tube cap assembly



SAE 070112A

T-Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)	
in.	mm		L	G
1/8	3	-TCA-AN2	0.60 (15.3)	0.37 (9.5)
3/16	4	-TCA-AN3	0.66 (16.8)	0.44 (11.1)
1/4	6	-TCA-AN4	0.67 (17.1)	0.56 (14.3)
5/16	8	-TCA-AN5	0.77 (19.5)	0.63 (15.9)
3/8	10	-TCA-AN6	0.81 (20.5)	0.69 (17.5)
1/2	12	-TCA-AN8	0.94 (23.9)	0.87 (22.2)
5/8	16	-TCA-AN10	1.07 (27.1)	1.00 (25.4)
3/4	18	-TCA-AN12	1.24 (31.6)	1.25 (31.8)
7/8	22	-TCA-AN14	1.26 (32.0)	1.37 (34.9)
1	25	-TCA-AN16	1.29 (32.8)	1.50 (38.1)
1 1/4	32	-TCA-AN20	1.39 (35.4)	2.00 (50.8)
1 1/2	38	-TCA-AN24	1.70 (43.2)	2.25 (57.2)
2	50	-TCA-AN32	2.07 (52.6)	2.87 (73.0)

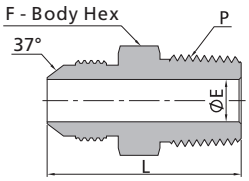
Nuts



SAE 070110

Tube O.D.		P-SAE/MS Thread Size	Basic Ordering Number	Dimensions, in. (mm)	
in.	mm			L	G
1/8	3	5/16-24	-N-AN2	0.55 (14.0)	0.37 (9.5)
3/16	4	3/8-24	-N-AN3	0.61 (15.5)	0.44 (11.1)
1/4	6	7/16-20	-N-AN4	0.62 (15.8)	0.56 (14.3)
5/16	8	1/2-20	-N-AN5	0.68 (17.3)	0.63 (15.9)
3/8	10	9/16-18	-N-AN6	0.73 (18.5)	0.69 (17.5)
1/2	12	3/4-16	-N-AN8	0.85 (21.6)	0.87 (22.2)
5/8	16	7/8-14	-N-AN10	0.98 (24.9)	1.00 (25.4)
3/4	18	1 1/16-12	-N-AN12	1.03 (26.2)	1.25 (31.8)
7/8	22	1 3/16-12	-N-AN14	1.09 (27.7)	1.37 (34.9)
1	25	1 5/16-12	-N-AN16	1.13 (28.7)	1.50 (38.1)
1 1/4	32	1 5/8-12	-N-AN20	1.23 (31.2)	2.00 (50.8)
1 1/2	38	1 7/8-12	-N-AN24	1.42 (36.1)	2.25 (57.2)
2	50	2 1/2-12	-N-AN32	1.75 (44.5)	2.87 (73.0)

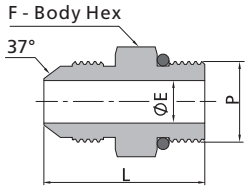
Male Connectors



SAE 070102

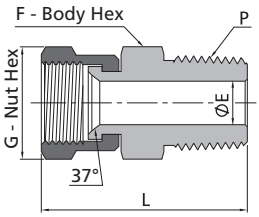
Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)		
in.	mm			L	E	F
1/8	3	1/8	-CM-AN2-NS2	1.11 (28.2)	0.06 (1.6)	0.44 (11.1)
3/16	4	1/8	-CM-AN3-NS2	1.14 (29.0)	0.13 (3.2)	0.44 (11.1)
1/4	6	1/8	-CM-AN4-NS2	1.22 (31.0)	0.17 (4.4)	0.50 (12.7)
1/4	6	1/4	-CM-AN4-NS4	1.42 (36.0)	0.17 (4.4)	0.56 (14.3)
1/4	6	1/2	-CM-AN4-NS8	1.68 (42.7)	0.17 (4.4)	0.87 (22.2)
5/16	8	1/8	-CM-AN5-NS2	1.22 (31.0)	0.19 (4.8)	0.56 (14.3)
5/16	8	1/4	-CM-AN5-NS4	1.42 (36.1)	0.24 (6.0)	0.56 (14.3)
3/8	10	1/8	-CM-AN6-NS2	1.25 (31.8)	0.19 (4.8)	0.63 (15.9)
3/8	10	1/4	-CM-AN6-NS4	1.43 (36.3)	0.28 (7.1)	0.63 (15.9)
3/8	10	3/8	-CM-AN6-NS6	1.43 (36.3)	0.30 (7.5)	0.75 (19.1)
3/8	10	1/2	-CM-AN6-NS8	1.67 (42.5)	0.30 (7.5)	0.87 (22.2)
1/2	12	1/4	-CM-AN8-NS4	1.53 (38.9)	0.28 (7.1)	0.81 (20.6)
1/2	12	3/8	-CM-AN8-NS6	1.53 (38.9)	0.39 (9.9)	0.81 (20.6)
1/2	12	1/2	-CM-AN8-NS8	1.79 (45.5)	0.39 (9.9)	0.87 (22.2)
1/2	12	3/4	-CM-AN8-NS12	1.85 (47.0)	0.39 (9.9)	1.13 (28.6)
5/8	16	3/8	-CM-AN10-NS6	1.70 (43.1)	0.38 (9.6)	0.94 (23.8)
5/8	16	1/2	-CM-AN10-NS8	1.89 (48.0)	0.48 (12.3)	0.94 (23.8)
5/8	16	3/4	-CM-AN10-NS12	1.95 (49.5)	0.48 (12.3)	1.13 (28.6)
3/4	18	3/4	-CM-AN12-NS12	2.06 (52.3)	0.61 (15.5)	1.13 (28.6)
3/4	18	1	-CM-AN12-NS16	2.25 (57.1)	0.61 (15.5)	1.37 (34.9)
7/8	22	3/4	-CM-AN14-NS12	2.09 (53.1)	0.62 (15.7)	1.25 (31.8)
1	25	3/4	-CM-AN16-NS12	2.11 (53.5)	0.62 (15.7)	1.37 (34.9)
1	25	1	-CM-AN16-NS16	2.30 (58.4)	0.85 (21.5)	1.37 (34.9)
1 1/4	32	1	-CM-AN20-NS16	2.42 (61.5)	0.88 (22.4)	1.69 (42.9)
1 1/4	32	1 1/4	-CM-AN20-NS20	2.45 (62.2)	1.08 (27.5)	1.69 (42.9)
1 1/2	38	1 1/4	-CM-AN24-NS20	2.68 (68.1)	1.13 (28.6)	2.00 (50.8)
1 1/2	38	1 1/2	-CM-AN24-NS24	2.68 (68.1)	1.30 (33.0)	2.00 (50.8)
2	50	2	-CM-AN32-NS32	3.11 (79.0)	1.77 (45.0)	2.63 (66.7)

Male Connectors



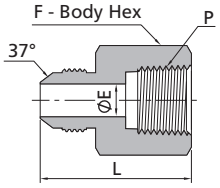
SAE 070120

Tube O.D.		P-SAE/MS Thread Size	Basic Ordering Number	Dimensions, in. (mm)		
in.	mm			L	E	F
1/8	3	5/16-24	-CM-AN2-ST5	1.06 (26.9)	0.06 (1.6)	0.44 (11.1)
3/16	4	3/8-24	-CM-AN3-ST6	1.10 (27.9)	0.13 (3.2)	0.50 (12.7)
1/4	6	7/16-20	-CM-AN4-ST7	1.23 (31.2)	0.17 (4.4)	0.56 (14.3)
1/4	6	1/2-20	-CM-AN4-ST8	1.23 (31.2)	0.17 (4.4)	0.63 (15.9)
1/4	6	9/16-18	-CM-AN4-ST9	1.30 (33.0)	0.17 (4.4)	0.69 (17.5)
1/4	6	3/4-16	-CM-AN4-ST12	1.37 (34.8)	0.17 (4.4)	0.87 (22.2)
5/16	8	1/2-20	-CM-AN5-ST8	1.23 (31.2)	0.24 (6.0)	0.63 (15.9)
3/8	10	9/16-18	-CM-AN6-ST9	1.30 (33.0)	0.30 (7.5)	0.69 (17.5)
3/8	10	3/4-16	-CM-AN6-ST12	1.38 (35.1)	0.30 (7.5)	0.87 (22.2)
3/8	10	7/8-14	-CM-AN6-ST14	1.50 (38.1)	0.30 (7.5)	1.00 (25.4)
1/2	12	9/16-18	-CM-AN8-ST9	1.44 (36.6)	0.30 (7.5)	0.81 (20.6)
1/2	12	3/4-16	-CM-AN8-ST12	1.48 (37.6)	0.39 (9.9)	0.87 (22.2)
1/2	12	7/8-14	-CM-AN8-ST14	1.60 (40.6)	0.39 (9.9)	1.00 (25.4)
1/2	12	1 1/16-12	-CM-AN8-ST17	1.76 (44.7)	0.39 (9.9)	1.25 (31.8)
5/8	16	3/4-16	-CM-AN10-ST12	1.60 (40.6)	0.42 (10.7)	0.94 (23.8)
5/8	16	7/8-14	-CM-AN10-ST14	1.70 (43.2)	0.48 (12.3)	1.00 (25.4)
5/8	16	1 1/16-12	-CM-AN10-ST17	1.86 (47.2)	0.48 (12.3)	1.25 (31.8)
3/4	18	3/4-16	-CM-AN12-ST12	1.78 (45.2)	0.42 (10.7)	1.13 (28.6)
3/4	18	7/8-14	-CM-AN12-ST14	1.83 (46.4)	0.50 (12.7)	1.13 (28.6)
3/4	18	1 1/16-12	-CM-AN12-ST17	1.97 (50.0)	0.61 (15.5)	1.25 (31.8)
3/4	18	1 5/16-12	-CM-AN12-ST21	2.00 (50.8)	0.61 (15.5)	1.50 (38.1)
7/8	22	1 3/16-12	-CM-AN14-ST19	1.99 (50.5)	0.72 (18.3)	1.37 (34.9)
7/8	22	1 5/16-12	-CM-AN14-ST21	2.02 (51.3)	0.72 (18.3)	1.50 (38.1)
1	25	1 1/16-12	-CM-AN16-ST17	2.01 (51.1)	0.66 (16.7)	1.37 (34.9)
1	25	1 3/16-12	-CM-AN16-ST19	2.04 (51.8)	0.72 (18.3)	1.37 (34.9)
1	25	1 5/16-12	-CM-AN16-ST21	2.04 (51.8)	0.85 (21.5)	1.50 (38.1)



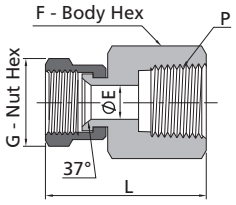
Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	G	F
1/8	3	1/8	-CM-AS2-NS2	1.18 (30.0)	0.06 (1.6)	0.44 (11.1)	0.44 (11.1)
3/16	4	1/8	-CM-AS3-NS2	1.26 (32.0)	0.13 (3.2)	0.50 (12.7)	0.44 (11.1)
1/4	6	1/8	-CM-AS4-NS2	1.35 (34.2)	0.17 (4.4)	0.56 (14.3)	0.50 (12.7)
5/16	8	1/8	-CM-AS5-NS2	1.38 (35.0)	0.24 (6.0)	0.63 (15.9)	0.56 (14.3)
3/8	10	1/4	-CM-AS6-NS4	1.58 (40.2)	0.30 (7.5)	0.69 (17.5)	0.63 (15.9)
1/2	12	3/8	-CM-AS8-NS6	1.68 (42.7)	0.39 (9.9)	0.87 (22.2)	0.81 (20.6)
5/8	16	1/2	-CM-AS10-NS8	2.02 (51.3)	0.48 (12.3)	1.00 (25.4)	0.94 (23.8)
3/4	18	3/4	-CM-AS12-NS12	2.15 (54.5)	0.61 (15.5)	1.25 (31.8)	1.13 (28.6)
7/8	22	3/4	-CM-AS14-NS12	2.20 (56.0)	0.71 (18.0)	1.37 (34.9)	1.25 (31.8)
1	25	1	-CM-AS16-NS16	2.51 (63.7)	0.85 (21.5)	1.50 (38.1)	1.37 (34.9)
1 1/4	32	1 1/4	-CM-AS20-NS20	2.71 (68.9)	1.08 (27.5)	2.00 (50.8)	1.69 (42.9)
1 1/2	38	1 1/2	-CM-AS24-NS24	3.06 (77.6)	1.30 (33.0)	2.25 (57.2)	2.00 (50.8)
2	50	2	-CM-AS32-NS32	3.66 (92.9)	1.77 (45.0)	2.87 (73.0)	2.63 (66.7)

Female Connectors



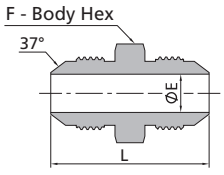
SAE 070103

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)		
in.	mm			L	E	F
1/8	3	1/8	-CF-AN2-NS2	1.12 (28.4)	0.06 (1.6)	0.56 (14.3)
3/16	4	1/8	-CF-AN3-NS2	1.13 (28.7)	0.13 (3.2)	0.56 (14.3)
1/4	6	1/8	-CF-AN4-NS2	1.19 (30.2)	0.17 (4.4)	0.56 (14.3)
1/4	6	1/4	-CF-AN4-NS4	1.39 (35.3)	0.17 (4.4)	0.75 (19.1)
5/16	8	1/8	-CF-AN5-NS2	1.17 (29.7)	0.24 (6.0)	0.56 (14.3)
5/16	8	1/4	-CF-AN5-NS4	1.39 (35.3)	0.24 (6.0)	0.75 (19.1)
3/8	10	1/4	-CF-AN6-NS4	1.40 (35.6)	0.30 (7.5)	0.75 (19.1)
3/8	10	3/8	-CF-AN6-NS6	1.46 (37.1)	0.30 (7.5)	0.87 (22.2)
1/2	12	3/8	-CF-AN8-NS6	1.56 (39.6)	0.39 (9.9)	0.87 (22.2)
1/2	12	1/2	-CF-AN8-NS8	1.80 (45.6)	0.39 (9.9)	1.13 (28.6)
5/8	16	1/2	-CF-AN10-NS8	1.89 (48.0)	0.48 (12.3)	1.13 (28.6)
3/4	18	1/2	-CF-AN12-NS8	2.05 (52.1)	0.61 (15.5)	1.13 (28.6)
3/4	18	3/4	-CF-AN12-NS12	2.06 (52.3)	0.61 (15.5)	1.37 (34.9)
7/8	22	3/4	-CF-AN14-NS12	2.06 (52.3)	0.72 (18.3)	1.37 (34.9)
1	25	1	-CF-AN16-NS16	2.35 (59.7)	0.85 (21.5)	1.63 (41.3)
1 1/4	32	1 1/4	-CF-AN20-NS20	2.49 (63.2)	1.08 (27.5)	2.00 (50.8)
1 1/2	38	1 1/2	-CF-AN24-NS24	2.62 (66.5)	1.30 (33.0)	2.37 (60.3)
2	50	2	-CF-AN32-NS32	2.97 (75.4)	1.77 (45.0)	2.87 (73.0)



Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	G	F
1/8	3	1/8	-CF-AS2-NS2	1.42 (36.1)	0.06 (1.6)	0.44 (11.1)	0.56 (14.3)
3/16	4	1/8	-CF-AS3-NS2	1.47 (37.3)	0.13 (3.2)	0.50 (12.7)	0.56 (14.3)
1/4	6	1/8	-CF-AS4-NS2	1.56 (39.7)	0.17 (4.4)	0.56 (14.3)	0.56 (14.3)
5/16	8	1/8	-CF-AS5-NS2	1.59 (40.5)	0.24 (6.0)	0.63 (15.9)	0.56 (14.3)
3/8	10	1/4	-CF-AS6-NS4	1.80 (45.8)	0.30 (7.5)	0.69 (17.5)	0.75 (19.1)
1/2	12	3/8	-CF-AS8-NS6	1.85 (47.0)	0.39 (9.9)	0.87 (22.2)	0.87 (22.2)
5/8	16	1/2	-CF-AS10-NS8	2.03 (51.6)	0.48 (12.3)	1.00 (25.4)	1.13 (28.6)
3/4	18	3/4	-CF-AS12-NS12	2.62 (66.6)	0.61 (15.5)	1.25 (31.8)	1.37 (34.9)
7/8	22	3/4	-CF-AS14-NS12	2.67 (67.8)	0.71 (18.0)	1.37 (34.9)	1.37 (34.9)
1	25	1	-CF-AS16-NS16	2.89 (73.5)	0.85 (21.5)	1.50 (38.1)	1.63 (41.3)
1 1/4	32	1 1/4	-CF-AS20-NS20	3.07 (78.1)	1.08 (27.5)	2.00 (50.8)	2.00 (50.8)
1 1/2	38	1 1/2	-CF-AS24-NS24	3.41 (86.7)	1.30 (33.0)	2.37 (60.3)	2.37 (60.3)
2	50	2	-CF-AS32-NS32	3.52 (89.3)	1.77 (45.0)	2.87 (73.0)	2.63 (66.7)

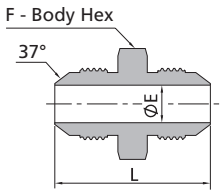
Unions



SAE 070101

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)		
in.	mm		L	E	F
1/8	3	-U-AN2	1.17 (29.7)	0.06 (1.6)	0.44 (11.1)
3/16	4	-U-AN3	1.23 (31.2)	0.13 (3.2)	0.44 (11.1)
1/4	6	-U-AN4	1.37 (34.8)	0.17 (4.4)	0.50 (12.7)
5/16	8	-U-AN5	1.37 (34.8)	0.24 (6.0)	0.56 (14.3)
3/8	10	-U-AN6	1.41 (35.8)	0.30 (7.5)	0.63 (15.9)
1/2	12	-U-AN8	1.62 (41.1)	0.39 (9.9)	0.81 (20.6)
5/8	16	-U-AN10	1.88 (47.8)	0.48 (12.3)	0.94 (23.8)
3/4	18	-U-AN12	2.16 (54.9)	0.61 (15.5)	1.13 (28.6)
7/8	22	-U-AN14	2.21 (56.1)	0.72 (18.3)	1.25 (31.8)
1	25	-U-AN16	2.25 (57.2)	0.85 (21.5)	1.37 (34.9)
1 1/4	32	-U-AN20	2.43 (61.7)	1.08 (27.5)	1.69 (42.9)
1 1/2	38	-U-AN24	2.75 (69.8)	1.30 (33.0)	2.00 (50.8)
2	50	-U-AN32	3.40 (86.4)	1.77 (45.0)	2.63 (66.7)

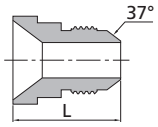
Large Hex Unions



SAE 070119

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)		
in.	mm		L	E	F
1/8	3	-HU-AN2	1.17 (29.7)	0.06 (1.6)	0.56 (14.3)
3/16	4	-HU-AN3	1.23 (31.2)	0.13 (3.2)	0.63 (15.9)
1/4	6	-HU-AN4	1.37 (34.8)	0.17 (4.4)	0.69 (17.5)
5/16	8	-HU-AN5	1.37 (34.8)	0.24 (6.0)	0.75 (19.1)
3/8	10	-HU-AN6	1.41 (35.8)	0.30 (7.5)	0.81 (20.6)
1/2	12	-HU-AN8	1.62 (41.1)	0.39 (9.9)	1.00 (25.4)
5/8	16	-HU-AN10	1.88 (47.8)	0.48 (12.3)	1.13 (28.6)
3/4	18	-HU-AN12	2.16 (54.9)	0.61 (15.5)	1.37 (34.9)
7/8	22	-HU-AN14	2.21 (56.1)	0.72 (18.3)	1.50 (38.1)
1	25	-HU-AN16	2.25 (57.2)	0.85 (21.5)	1.63 (41.3)
1 1/4	32	-HU-AN20	2.43 (61.7)	1.08 (27.5)	1.87 (47.6)
1 1/2	38	-HU-AN24	2.75 (69.8)	1.30 (33.0)	2.13 (54.0)
2	50	-HU-AN32	3.40 (86.4)	1.77 (45.0)	2.75 (69.9)

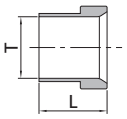
Reducing Adapters



SAE 070123

Tube O.D.		Basic Ordering Number	L in.(mm)
in.-mm	in.-mm		
3/8-10	1/4-6	-RA-AN6-AN4	0.97 (24.6)
1/2-12	1/4-6	-RA-AN8-AN4	1.00 (25.4)
1/2-12	3/8-10	-RA-AN8-AN6	1.00 (25.4)
5/8-16	1/4-6	-RA-AN10-AN4	1.03 (26.2)
5/8-16	3/8-10	-RA-AN10-AN6	1.03 (26.2)
3/4-18	1/4-6	-RA-AN12-AN4	1.09 (27.7)
3/4-18	3/8-10	-RA-AN12-AN6	1.09 (27.7)
3/4-18	1/2-12	-RA-AN12-AN8	1.19 (30.2)
7/8-22	3/8-10	-RA-AN14-AN6	1.13 (28.7)
7/8-22	5/8-16	-RA-AN14-AN10	1.33 (33.7)
1-25	1/4-6	-RA-AN16-AN4	1.22 (31.0)
1-25	3/8-10	-RA-AN16-AN6	1.22 (31.0)
1-25	1/2-12	-RA-AN16-AN8	1.27 (32.3)
1-25	5/8-16	-RA-AN16-AN10	1.38 (35.1)
1-25	3/4-18	-RA-AN16-AN12	1.47 (37.3)
1 1/4-32	3/4-18	-RA-AN20-AN12	1.53 (38.8)
1 1/4-32	1-25	-RA-AN20-AN16	1.59 (40.3)
1 1/2-38	1/2-12	-RA-AN24-AN8	1.56 (39.6)
1 1/2-38	3/4-18	-RA-AN24-AN12	1.63 (41.4)
1 1/2-38	1-25	-RA-AN24-AN16	1.63 (41.4)
2-50	1 1/2-38	-RA-AN32-AN24	1.91 (48.5)

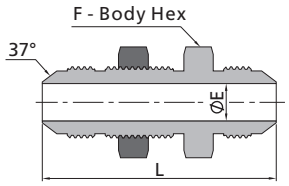
Sleeves



SAE 070115

T-Tube O.D.		Basic Ordering Number		L in.(mm)
in.	mm	in.	mm	
1/8	3	-SL-AN2	-SL-AN3M	0.34 (8.6)
3/16	4	-SL-AN3	-SL-AN4M	0.34 (8.6)
1/4	6	-SL-AN4	-SL-AN6M	0.41 (10.4)
5/16	8	-SL-AN5	-SL-AN8M	0.44 (11.2)
3/8	10	-SL-AN6	-SL-AN10M	0.50 (12.7)
1/2	12	-SL-AN8	-SL-AN12M	0.56 (14.2)
5/8	16	-SL-AN10	-SL-AN16M	0.66 (16.8)
3/4	18	-SL-AN12	-SL-AN18M	0.68 (17.3)
7/8	22	-SL-AN14	-SL-AN22M	0.76 (19.3)
1	25	-SL-AN16	-SL-AN25M	0.78 (19.8)
1 1/4	32	-SL-AN20	-SL-AN32M	0.91 (23.1)
1 1/2	38	-SL-AN24	-SL-AN38M	1.12 (28.4)
2	50	-SL-AN32	-SL-AN50M	1.19 (30.2)

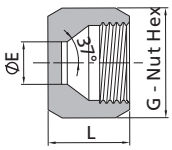
Bulkhead Unions



SAE 070601

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)		
in.	mm		L	E	F
3/16	4	-BU-AN3	1.90 (48.3)	0.13 (3.2)	0.63 (15.9)
1/4	6	-BU-AN4	2.07 (52.6)	0.17 (4.4)	0.69 (17.5)
5/16	8	-BU-AN5	2.07 (52.6)	0.24 (6.0)	0.75 (19.1)
3/8	10	-BU-AN6	2.18 (55.4)	0.30 (7.5)	0.81 (20.6)
1/2	12	-BU-AN8	2.44 (62.0)	0.39 (9.9)	1.00 (25.4)
5/8	16	-BU-AN10	2.74 (69.6)	0.48 (12.3)	1.13 (28.6)
3/4	18	-BU-AN12	3.09 (78.5)	0.61 (15.5)	1.37 (34.9)
7/8	22	-BU-AN14	3.12 (79.2)	0.72 (18.3)	1.50 (38.1)
1	25	-BU-AN16	3.14 (79.8)	0.85 (21.5)	1.63 (41.3)
1 1/4	32	-BU-AN20	3.31 (84.1)	1.08 (27.5)	1.87 (47.6)
1 1/2	38	-BU-AN24	3.52 (89.4)	1.30 (33.0)	2.13 (54.0)
2	50	-BU-AN32	4.20 (106.7)	1.77 (45.0)	2.75 (69.9)

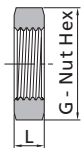
Tube Caps



SAE 070112

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)		
in.	mm		L	E	G
1/8	3	-TC-AN2	0.50 (12.7)	0.06 (1.6)	0.37 (9.5)
3/16	4	-TC-AN3	0.56 (14.3)	0.13 (3.2)	0.44 (11.1)
1/4	6	-TC-AN4	0.59 (15.1)	0.17 (4.4)	0.56 (14.3)
5/16	8	-TC-AN5	0.61 (15.5)	0.24 (6.0)	0.63 (15.9)
3/8	10	-TC-AN6	0.63 (15.9)	0.30 (7.5)	0.69 (17.5)
1/2	12	-TC-AN8	0.75 (19.1)	0.39 (9.9)	0.87 (22.2)
5/8	16	-TC-AN10	0.84 (21.4)	0.48 (12.3)	1.00 (25.4)
3/4	18	-TC-AN12	0.91 (23.0)	0.61 (15.5)	1.25 (31.8)
7/8	22	-TC-AN14	0.97 (24.6)	0.72 (18.3)	1.37 (34.9)
1	25	-TC-AN16	1.02 (25.8)	0.85 (21.5)	1.50 (38.1)
1 1/4	32	-TC-AN20	1.06 (27.0)	1.08 (27.5)	2.00 (50.8)
1 1/2	38	-TC-AN24	1.19 (30.2)	1.30 (33.0)	2.25 (57.2)
2	50	-TC-AN32	1.44 (36.5)	1.77 (45.0)	2.87 (73.0)

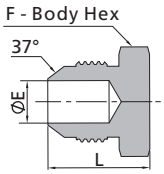
Bulkhead Lock Nuts



SAE 070118

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)	
in.	mm		L	G
3/16	4	-BN-AN3	0.22 (5.6)	0.63 (15.9)
1/4	6	-BN-AN4	0.28 (7.1)	0.69 (17.5)
5/16	8	-BN-AN5	0.28 (7.1)	0.75 (19.1)
3/8	10	-BN-AN6	0.27 (6.9)	0.81 (20.6)
1/2	12	-BN-AN8	0.31 (7.9)	1.00 (25.4)
5/8	16	-BN-AN10	0.36 (9.1)	1.13 (28.6)
3/4	18	-BN-AN12	0.41 (10.4)	1.37 (34.9)
7/8	22	-BN-AN14	0.41 (10.4)	1.50 (38.1)
1	25	-BN-AN16	0.41 (10.4)	1.63 (41.3)
1 1/4	32	-BN-AN20	0.41 (10.4)	1.87 (47.6)
1 1/2	38	-BN-AN24	0.41 (10.4)	2.13 (54.0)
2	50	-BN-AN32	0.41 (10.4)	2.75 (69.9)

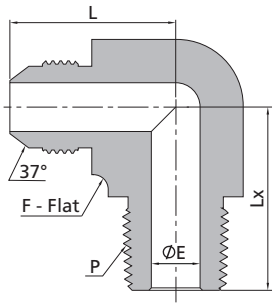
Tube Plugs



SAE 070109

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)		
in.	mm		L	E	F
1/8	3	-TP-AN2	0.70 (17.8)	0.06 (1.6)	0.44 (11.1)
3/16	4	-TP-AN3	0.73 (18.5)	0.13 (3.2)	0.44 (11.1)
1/4	6	-TP-AN4	0.80 (20.3)	0.17 (4.4)	0.50 (12.7)
5/16	8	-TP-AN5	0.80 (20.3)	0.24 (6.0)	0.56 (14.3)
3/8	10	-TP-AN6	0.84 (21.3)	0.30 (7.5)	0.63 (15.9)
1/2	12	-TP-AN8	0.94 (23.9)	0.39 (9.9)	0.81 (20.6)
5/8	16	-TP-AN10	1.10 (27.9)	0.48 (12.3)	0.94 (23.8)
3/4	18	-TP-AN12	1.28 (32.5)	0.61 (15.5)	1.13 (28.6)
7/8	22	-TP-AN14	1.31 (33.3)	0.72 (18.3)	1.25 (31.8)
1	25	-TP-AN16	1.33 (33.8)	0.85 (21.5)	1.37 (34.9)
1 1/4	32	-TP-AN20	1.45 (36.8)	1.08 (27.5)	1.69 (42.9)
1 1/2	38	-TP-AN24	1.65 (41.9)	1.30 (33.0)	2.00 (50.8)
2	50	-TP-AN32	2.05 (52.1)	1.77 (45.0)	2.63 (66.7)

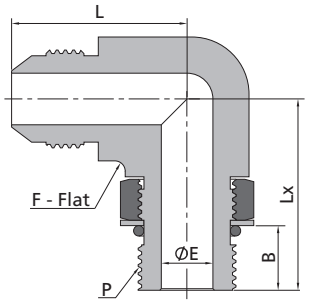
Male Elbows



SAE 070202

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	F	Lx
1/8	3	1/8	-LM-AN2-NS2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)	0.72 (18.3)
3/16	4	1/8	-LM-AN3-NS2	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)	0.72 (18.3)
1/4	6	1/8	-LM-AN4-NS2	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)	0.78 (19.8)
1/4	6	1/4	-LM-AN4-NS4	1.06 (26.9)	0.17 (4.4)	0.56 (14.3)	1.09 (27.7)
5/16	8	1/8	-LM-AN5-NS2	0.95 (24.1)	0.19 (4.8)	0.56 (14.3)	0.78 (19.8)
5/16	8	1/4	-LM-AN5-NS4	1.06 (26.9)	0.24 (6.0)	0.56 (14.3)	1.09 (27.7)
3/8	10	1/8	-LM-AN6-NS2	1.06 (26.9)	0.19 (4.8)	0.56 (14.3)	0.90 (22.8)
3/8	10	1/4	-LM-AN6-NS4	1.06 (26.9)	0.28 (7.1)	0.56 (14.3)	1.09 (27.7)
3/8	10	3/8	-LM-AN6-NS6	1.14 (29.0)	0.30 (7.5)	0.69 (17.5)	1.22 (31.0)
3/8	10	1/2	-LM-AN6-NS8	1.23 (31.2)	0.30 (7.5)	0.81 (20.6)	1.47 (37.3)
1/2	12	1/4	-LM-AN8-NS4	1.25 (31.8)	0.28 (7.1)	0.81 (20.6)	1.22 (31.0)
1/2	12	3/8	-LM-AN8-NS6	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)	1.22 (31.0)
1/2	12	1/2	-LM-AN8-NS8	1.33 (33.7)	0.39 (9.9)	0.81 (20.6)	1.47 (37.3)
1/2	12	3/4	-LM-AN8-NS12	1.42 (36.0)	0.35 (9.0)	1.00 (25.4)	1.59 (40.4)
5/8	16	3/8	-LM-AN10-NS6	1.45 (36.8)	0.39 (9.9)	0.81 (20.6)	1.30 (33.0)
5/8	16	1/2	-LM-AN10-NS8	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)	1.47 (37.3)
5/8	16	3/4	-LM-AN10-NS12	1.53 (38.9)	0.48 (12.3)	1.00 (25.4)	1.59 (40.4)
3/4	18	3/4	-LM-AN12-NS12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)	1.59 (40.4)
3/4	18	1	-LM-AN12-NS16	1.66 (42.2)	0.61 (15.5)	1.25 (31.8)	1.98 (50.4)
7/8	22	3/4	-LM-AN14-NS12	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)	1.69 (42.9)
1	25	3/4	-LM-AN16-NS12	1.81 (46.0)	0.72 (18.3)	1.37 (34.9)	1.78 (45.2)
1	25	1	-LM-AN16-NS16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)	1.97 (50.0)
1 1/4	32	1	-LM-AN20-NS16	2.06 (52.3)	0.94 (23.8)	1.69 (42.9)	2.35 (59.6)
1 1/4	32	1 1/4	-LM-AN20-NS20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)	2.38 (60.5)
1 1/2	38	1 1/2	-LM-AN24-NS24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)	2.64 (67.1)
2	50	2	-LM-AN32-NS32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)	3.00 (76.2)

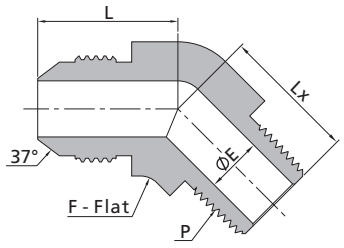
Adjustable Male Elbows



SAE 070220

Tube O.D.		P-SAE/MS Thread Size	Basic Ordering Number	Dimensions, in. (mm)				
in.	mm			L	E	F	Lx	B
1/8	3	5/16-24	-LP-AN2-ST5	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)	0.94 (23.9)	0.33 (8.4)
3/16	4	3/8-24	-LP-AN3-ST6	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)	0.94 (23.9)	0.33 (8.4)
1/4	6	7/16-20	-LP-AN4-ST7	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)	1.03 (26.2)	0.39 (9.8)
5/16	8	1/2-20	-LP-AN5-ST8	0.95 (24.1)	0.24 (6.0)	0.56 (14.3)	1.13 (28.7)	0.39 (9.8)
3/8	10	9/16-18	-LP-AN6-ST9	1.06 (26.9)	0.30 (7.5)	0.63 (15.9)	1.25 (31.8)	0.43 (11.0)
1/2	12	3/4-16	-LP-AN8-ST12	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)	1.45 (36.8)	0.49 (12.5)
5/8	16	7/8-14	-LP-AN10-ST14	1.45 (36.8)	0.48 (12.3)	0.94 (23.8)	1.70 (43.2)	0.56 (14.2)
3/4	18	1 1/16-12	-LP-AN12-ST17	1.66 (42.2)	0.61 (15.5)	1.25 (31.8)	1.94 (49.3)	0.65 (16.5)
7/8	22	1 3/16-12	-LP-AN14-ST19	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)	2.00 (50.8)	0.65 (16.5)
1	25	1 5/16-12	-LP-AN16-ST21	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)	2.05 (52.1)	0.65 (16.5)
1 1/4	32	1 5/8-12	-LP-AN20-ST26	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)	2.25 (57.2)	0.65 (16.5)
1 1/2	38	1 7/8-12	-LP-AN24-ST30	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)	2.39 (60.7)	0.65 (16.5)
2	50	2 1/2-12	-LP-AN32-ST40	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)	2.89 (73.4)	0.65 (16.5)

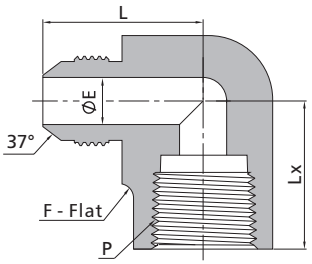
45° Male Elbows



SAE 070302

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	F	Lx
1/8	3	1/8	-VM-AN2-NS2	0.69 (17.5)	0.06 (1.6)	0.44 (11.1)	0.52 (13.2)
3/16	4	1/8	-VM-AN3-NS2	0.69 (17.5)	0.13 (3.2)	0.44 (11.1)	0.52 (13.2)
1/4	6	1/8	-VM-AN4-NS2	0.72 (18.3)	0.17 (4.4)	0.50 (12.7)	0.64 (16.3)
5/16	8	1/8	-VM-AN5-NS2	0.77 (19.6)	0.19 (4.8)	0.56 (14.3)	0.64 (16.3)
3/8	10	1/4	-VM-AN6-NS4	0.83 (21.1)	0.28 (7.1)	0.56 (14.3)	0.86 (21.8)
1/2	12	3/8	-VM-AN8-NS6	0.98 (24.9)	0.39 (9.9)	0.69 (17.5)	0.95 (24.1)
5/8	16	1/2	-VM-AN10-NS8	1.11 (28.2)	0.48 (12.3)	0.81 (20.6)	1.17 (29.7)
3/4	18	3/4	-VM-AN12-NS12	1.28 (32.5)	0.61 (15.5)	1.06 (27.0)	1.20 (30.5)
7/8	22	3/4	-VM-AN14-NS12	1.45 (36.8)	0.72 (18.3)	1.25 (31.8)	1.30 (33.0)
1	25	1	-VM-AN16-NS16	1.47 (37.3)	0.85 (21.5)	1.37 (34.9)	1.48 (37.6)
1 1/4	32	1 1/4	-VM-AN20-NS20	1.59 (40.4)	1.08 (27.5)	1.69 (42.9)	1.67 (42.4)
1 1/2	38	1 1/2	-VM-AN24-NS24	1.78 (45.2)	1.30 (33.0)	2.00 (50.8)	1.77 (45.0)
2	50	2	-VM-AN32-NS32	2.22 (56.4)	1.77 (45.0)	2.50 (63.5)	2.11 (53.6)

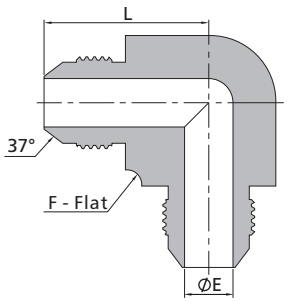
Female Elbows



SAE 070203

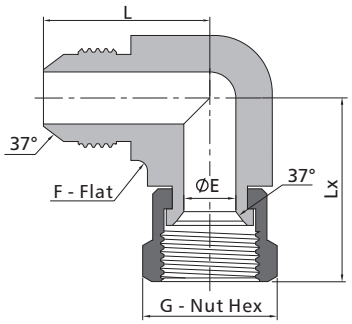
Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	F	Lx
1/8	3	1/8	-LF-AN2-NS2	1.00 (25.4)	0.06 (1.6)	0.56 (14.3)	0.66 (16.8)
3/16	4	1/8	-LF-AN3-NS2	1.03 (26.2)	0.13 (3.2)	0.56 (14.3)	0.66 (16.8)
1/4	6	1/8	-LF-AN4-NS2	1.08 (27.4)	0.17 (4.4)	0.56 (14.3)	0.66 (16.8)
1/4	6	1/4	-LF-AN4-NS4	1.22 (30.9)	0.17 (4.4)	0.81 (20.6)	0.88 (22.4)
5/16	8	1/8	-LF-AN5-NS2	1.08 (27.4)	0.24 (6.0)	0.56 (14.3)	0.66 (16.8)
5/16	8	1/4	-LF-AN5-NS4	1.22 (30.9)	0.24 (6.0)	0.81 (20.6)	0.88 (22.4)
3/8	10	1/8	-LF-AN6-NS2	1.06 (26.9)	0.30 (7.5)	0.63 (15.9)	0.66 (16.8)
3/8	10	1/4	-LF-AN6-NS4	1.23 (31.2)	0.30 (7.5)	0.81 (20.6)	0.88 (22.4)
3/8	10	3/8	-LF-AN6-NS6	1.31 (33.2)	0.30 (7.5)	0.94 (23.8)	1.02 (25.9)
1/2	12	1/4	-LF-AN8-NS4	1.24 (31.6)	0.39 (9.9)	0.81 (20.6)	0.88 (22.4)
1/2	12	3/8	-LF-AN8-NS6	1.42 (36.1)	0.39 (9.9)	0.94 (23.8)	1.02 (25.9)
1/2	12	1/2	-LF-AN8-NS8	1.42 (36.1)	0.39 (9.9)	1.06 (27.0)	1.23 (31.2)
5/8	16	1/2	-LF-AN10-NS8	1.64 (41.7)	0.48 (12.3)	1.06 (27.0)	1.23 (31.2)
3/4	18	1/2	-LF-AN12-NS8	1.66 (42.1)	0.61 (15.5)	1.25 (31.8)	1.23 (31.2)
3/4	18	3/4	-LF-AN12-NS12	1.89 (48.0)	0.61 (15.5)	1.37 (34.9)	1.36 (34.5)
7/8	22	3/4	-LF-AN14-NS12	1.86 (47.2)	0.72 (18.3)	1.37 (34.9)	1.42 (36.1)
1	25	1	-LF-AN16-NS16	2.17 (55.1)	0.85 (21.5)	1.69 (42.9)	1.62 (41.1)
1 1/4	32	1 1/4	-LF-AN20-NS20	2.33 (59.2)	1.08 (27.5)	2.00 (50.8)	1.70 (43.2)
1 1/2	38	1 1/2	-LF-AN24-NS24	2.89 (73.4)	1.30 (33.0)	2.50 (63.5)	2.08 (52.8)
2	50	2	-LF-AN32-NS32	3.30 (83.8)	1.77 (45.0)	2.50 (63.5)	2.39 (60.7)

Union Elbows



SAE 070201

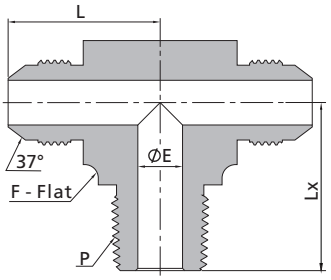
Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)		
in.	mm		L	E	F
1/8	3	-LU-AN2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)
3/16	4	-LU-AN3	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)
1/4	6	-LU-AN4	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)
5/16	8	-LU-AN5	0.95 (24.1)	0.24 (6.0)	0.56 (14.3)
3/8	10	-LU-AN6	1.06 (26.9)	0.30 (7.5)	0.56 (14.3)
1/2	12	-LU-AN8	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)
5/8	16	-LU-AN10	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)
3/4	18	-LU-AN12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)
7/8	22	-LU-AN14	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)
1	25	-LU-AN16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)
1 1/4	32	-LU-AN20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)
1 1/2	38	-LU-AN24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)
2	50	-LU-AN32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)



SAE 070221

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)				
in.	mm		L	E	F	Lx	G
1/8	3	-LU-AN2-AS2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)	0.97 (24.6)	0.44 (11.1)
3/16	4	-LU-AN3-AS3	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)	1.00 (25.4)	0.50 (12.7)
1/4	6	-LU-AN4-AS4	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)	1.00 (25.4)	0.56 (14.3)
5/16	8	-LU-AN5-AS5	0.95 (24.1)	0.24 (6.0)	0.56 (14.3)	1.06 (26.9)	0.63 (15.9)
3/8	10	-LU-AN6-AS6	1.06 (26.9)	0.30 (7.5)	0.56 (14.3)	1.25 (31.8)	0.69 (17.5)
1/2	12	-LU-AN8-AS8	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)	1.38 (35.1)	0.87 (22.2)
5/8	16	-LU-AN10-AS10	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)	1.62 (41.1)	1.00 (25.4)
3/4	18	-LU-AN12-AS12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)	1.75 (44.4)	1.25 (31.8)
7/8	22	-LU-AN14-AS14	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)	1.78 (45.2)	1.37 (34.9)
1	25	-LU-AN16-AS16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)	2.00 (50.8)	1.50 (38.1)
1 1/4	32	-LU-AN20-AS20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)	2.31 (58.7)	2.00 (50.8)
1 1/2	38	-LU-AN24-AS24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)	2.59 (65.8)	2.37 (60.3)
2	50	-LU-AN32-AS32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)	3.38 (85.9)	2.87 (73.0)

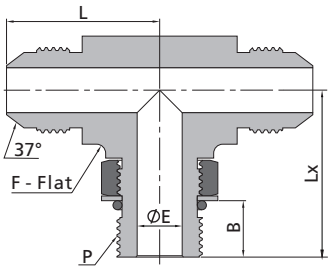
Male Branch Tees



SAE 070425

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	F	Lx
1/8	3	1/8	-TTM-AN2-NS2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)	0.72 (18.3)
3/16	4	1/8	-TTM-AN3-NS2	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)	0.72 (18.3)
1/4	6	1/8	-TTM-AN4-NS2	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)	0.78 (19.8)
1/4	6	1/4	-TTM-AN4-NS4	1.06 (26.9)	0.17 (4.4)	0.56 (14.3)	1.09 (27.7)
5/16	8	1/8	-TTM-AN5-NS2	0.95 (24.1)	0.19 (4.8)	0.56 (14.3)	0.78 (19.8)
5/16	8	1/4	-TTM-AN5-NS4	1.06 (26.9)	0.24 (6.0)	0.56 (14.3)	1.09 (27.7)
3/8	10	1/8	-TTM-AN6-NS2	1.06 (26.9)	0.19 (4.8)	0.56 (14.3)	0.90 (22.8)
3/8	10	1/4	-TTM-AN6-NS4	1.06 (26.9)	0.28 (7.1)	0.56 (14.3)	1.09 (27.7)
3/8	10	3/8	-TTM-AN6-NS6	1.14 (29.0)	0.30 (7.5)	0.69 (17.5)	1.22 (31.0)
3/8	10	1/2	-TTM-AN6-NS8	1.23 (31.2)	0.30 (7.5)	0.81 (20.6)	1.47 (37.3)
1/2	12	1/4	-TTM-AN8-NS4	1.25 (31.8)	0.28 (7.1)	0.81 (20.6)	1.22 (31.0)
1/2	12	3/8	-TTM-AN8-NS6	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)	1.22 (31.0)
1/2	12	1/2	-TTM-AN8-NS8	1.33 (33.7)	0.39 (9.9)	0.81 (20.6)	1.47 (37.3)
1/2	12	3/4	-TTM-AN8-NS12	1.42 (36.0)	0.39 (9.9)	1.00 (25.4)	1.59 (40.4)
5/8	16	3/8	-TTM-AN10-NS6	1.45 (36.8)	0.39 (9.9)	0.81 (20.6)	1.30 (33.0)
5/8	16	1/2	-TTM-AN10-NS8	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)	1.47 (37.3)
5/8	16	3/4	-TTM-AN10-NS12	1.53 (38.9)	0.48 (12.3)	1.00 (25.4)	1.59 (40.4)
3/4	18	3/4	-TTM-AN12-NS12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)	1.59 (40.4)
3/4	18	1	-TTM-AN12-NS16	1.66 (42.2)	0.61 (15.5)	1.25 (31.8)	1.98 (50.4)
7/8	22	3/4	-TTM-AN14-NS12	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)	1.69 (42.9)
1	25	3/4	-TTM-AN16-NS12	1.81 (46.0)	0.72 (18.3)	1.37 (34.9)	1.78 (45.2)
1	25	1	-TTM-AN16-NS16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)	1.97 (50.0)
1 1/4	32	1	-TTM-AN20-NS16	2.06 (52.3)	0.94 (23.8)	1.69 (42.9)	2.35 (59.6)
1 1/4	32	1 1/4	-TTM-AN20-NS20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)	2.38 (60.5)
1 1/2	38	1 1/2	-TTM-AN24-NS24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)	2.64 (67.1)
2	50	2	-TTM-AN32-NS32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)	3.00 (76.2)

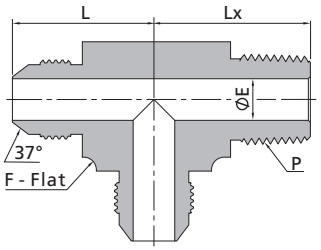
Adjustable Male Branch Tees



SAE 070429

Tube O.D.		P-SAE/MS Thread Size	Basic Ordering Number	Dimensions, in. (mm)				
in.	mm			L	E	F	Lx	B
1/8	3	5/16-24	-TTP-AN2-ST5	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)	0.94 (23.9)	0.33 (8.4)
3/16	4	3/8-24	-TTP-AN3-ST6	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)	0.94 (23.9)	0.33 (8.4)
1/4	6	7/16-20	-TTP-AN4-ST7	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)	1.03 (26.2)	0.39 (9.8)
5/16	8	1/2-20	-TTP-AN5-ST8	0.95 (24.1)	0.24 (6.0)	0.56 (14.3)	1.13 (28.7)	0.39 (9.8)
3/8	10	9/16-18	-TTP-AN6-ST9	1.06 (26.9)	0.30 (7.5)	0.63 (15.9)	1.25 (31.8)	0.43 (11.0)
1/2	12	3/4-16	-TTP-AN8-ST12	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)	1.45 (36.8)	0.49 (12.5)
5/8	16	7/8-14	-TTP-AN10-ST14	1.45 (36.8)	0.48 (12.3)	0.94 (23.8)	1.70 (43.2)	0.56 (14.2)
3/4	18	1 1/16-12	-TTP-AN12-ST17	1.66 (42.2)	0.61 (15.5)	1.25 (31.8)	1.94 (49.3)	0.65 (16.5)
7/8	22	1 3/16-12	-TTP-AN14-ST19	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)	2.00 (50.8)	0.65 (16.5)
1	25	1 5/16-12	-TTP-AN16-ST21	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)	2.05 (52.1)	0.65 (16.5)
1 1/4	32	1 5/8-12	-TTP-AN20-ST26	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)	2.25 (57.2)	0.65 (16.5)
1 1/2	38	1 7/8-12	-TTP-AN24-ST30	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)	2.39 (60.7)	0.65 (16.5)
2	50	2 1/2-12	-TTP-AN32-ST40	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)	2.89 (73.4)	0.65 (16.5)

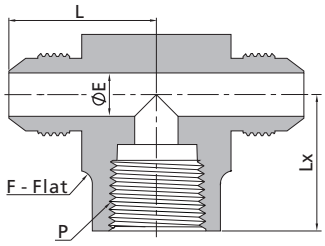
Male Run Tees



SAE 070424

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	F	Lx
1/8	3	1/8	-TMT-AN2-NS2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)	0.72 (18.3)
3/16	4	1/8	-TMT-AN3-NS2	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)	0.72 (18.3)
1/4	6	1/8	-TMT-AN4-NS2	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)	0.78 (19.8)
1/4	6	1/4	-TMT-AN4-NS4	1.06 (26.9)	0.17 (4.4)	0.56 (14.3)	1.09 (27.7)
5/16	8	1/8	-TMT-AN5-NS2	0.95 (24.1)	0.19 (4.8)	0.56 (14.3)	0.78 (19.8)
5/16	8	1/4	-TMT-AN5-NS4	1.06 (26.9)	0.24 (6.0)	0.56 (14.3)	1.09 (27.7)
3/8	10	1/8	-TMT-AN6-NS2	1.06 (26.9)	0.19 (4.8)	0.56 (14.3)	0.90 (22.8)
3/8	10	1/4	-TMT-AN6-NS4	1.06 (26.9)	0.28 (7.1)	0.56 (14.3)	1.09 (27.7)
3/8	10	3/8	-TMT-AN6-NS6	1.14 (29.0)	0.30 (7.5)	0.69 (17.5)	1.22 (31.0)
3/8	10	1/2	-TMT-AN6-NS8	1.23 (31.2)	0.30 (7.5)	0.81 (20.6)	1.47 (37.3)
1/2	12	1/4	-TMT-AN8-NS4	1.25 (31.8)	0.28 (7.1)	0.81 (20.6)	1.22 (31.0)
1/2	12	3/8	-TMT-AN8-NS6	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)	1.22 (31.0)
1/2	12	1/2	-TMT-AN8-NS8	1.33 (33.7)	0.39 (9.9)	0.81 (20.6)	1.47 (37.3)
1/2	12	3/4	-TMT-AN8-NS12	1.42 (36.0)	0.39 (9.9)	1.00 (25.4)	1.59 (40.4)
5/8	16	3/8	-TMT-AN10-NS6	1.45 (36.8)	0.39 (9.9)	0.81 (20.6)	1.30 (33.0)
5/8	16	1/2	-TMT-AN10-NS8	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)	1.47 (37.3)
5/8	16	3/4	-TMT-AN10-NS12	1.53 (38.9)	0.48 (12.3)	1.00 (25.4)	1.59 (40.4)
3/4	18	3/4	-TMT-AN12-NS12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)	1.59 (40.4)
3/4	18	1	-TMT-AN12-NS16	1.66 (42.2)	0.61 (15.5)	1.25 (31.8)	1.98 (50.4)
7/8	22	3/4	-TMT-AN14-NS12	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)	1.69 (42.9)
1	25	3/4	-TMT-AN16-NS12	1.81 (46.0)	0.72 (18.3)	1.37 (34.9)	1.78 (45.2)
1	25	1	-TMT-AN16-NS16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)	1.97 (50.0)
1 1/4	32	1	-TMT-AN20-NS16	2.06 (52.3)	0.94 (23.8)	1.69 (42.9)	2.35 (59.6)
1 1/4	32	1 1/4	-TMT-AN20-NS20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)	2.38 (60.5)
1 1/2	38	1 1/2	-TMT-AN24-NS24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)	2.64 (67.1)
2	50	2	-TMT-AN32-NS32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)	3.00 (76.2)

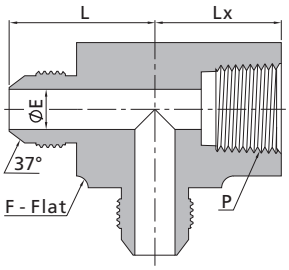
Female Branch Tees



SAE 070427

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	F	Lx
1/8	3	1/8	-TTF-AN2-NS2	1.00 (25.4)	0.06 (1.6)	0.56 (14.3)	0.66 (16.8)
3/16	4	1/8	-TTF-AN3-NS2	1.03 (26.2)	0.13 (3.2)	0.56 (14.3)	0.66 (16.8)
1/4	6	1/8	-TTF-AN4-NS2	1.08 (27.4)	0.17 (4.4)	0.56 (14.3)	0.66 (16.8)
1/4	6	1/4	-TTF-AN4-NS4	1.22 (30.9)	0.17 (4.4)	0.81 (20.6)	0.88 (22.4)
5/16	8	1/8	-TTF-AN5-NS2	1.08 (27.4)	0.24 (6.0)	0.56 (14.3)	0.66 (16.8)
5/16	8	1/4	-TTF-AN5-NS4	1.22 (30.9)	0.24 (6.0)	0.81 (20.6)	0.88 (22.4)
3/8	10	1/8	-TTF-AN6-NS2	1.06 (26.9)	0.30 (7.5)	0.63 (15.9)	0.66 (16.8)
3/8	10	1/4	-TTF-AN6-NS4	1.23 (31.2)	0.30 (7.5)	0.81 (20.6)	0.88 (22.4)
3/8	10	3/8	-TTF-AN6-NS6	1.31 (33.2)	0.30 (7.5)	0.94 (23.8)	1.02 (25.9)
1/2	12	1/4	-TTF-AN8-NS4	1.24 (31.6)	0.39 (9.9)	0.81 (20.6)	0.88 (22.4)
1/2	12	3/8	-TTF-AN8-NS6	1.42 (36.1)	0.39 (9.9)	0.94 (23.8)	1.02 (25.9)
1/2	12	1/2	-TTF-AN8-NS8	1.42 (36.1)	0.39 (9.9)	1.06 (27.0)	1.23 (31.2)
5/8	16	1/2	-TTF-AN10-NS8	1.64 (41.7)	0.48 (12.3)	1.06 (27.0)	1.23 (31.2)
3/4	18	1/2	-TTF-AN12-NS8	1.66 (42.1)	0.61 (15.5)	1.25 (31.8)	1.23 (31.2)
3/4	18	3/4	-TTF-AN12-NS12	1.89 (48.0)	0.61 (15.5)	1.37 (34.9)	1.36 (34.5)
7/8	22	3/4	-TTF-AN14-NS12	1.86 (47.2)	0.72 (18.3)	1.37 (34.9)	1.42 (36.1)
1	25	1	-TTF-AN16-NS16	2.17 (55.1)	0.85 (21.5)	1.69 (42.9)	1.62 (41.1)
1 1/4	32	1 1/4	-TTF-AN20-NS20	2.33 (59.2)	1.08 (27.5)	2.00 (50.8)	1.70 (43.2)
1 1/2	38	1 1/2	-TTF-AN24-NS24	2.89 (73.4)	1.30 (33.0)	2.50 (63.5)	2.08 (52.8)
2	50	2	-TTF-AN32-NS32	3.30 (83.8)	1.77 (45.0)	2.50 (63.5)	2.39 (60.7)

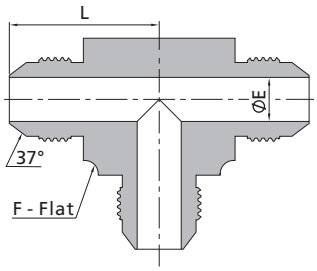
Female Run Tees



SAE 070426

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)			
in.	mm			L	E	F	Lx
1/8	3	1/8	-TFT-AN2-NS2	1.00 (25.4)	0.06 (1.6)	0.56 (14.3)	0.66 (16.8)
3/16	4	1/8	-TFT-AN3-NS2	1.03 (26.2)	0.13 (3.2)	0.56 (14.3)	0.66 (16.8)
1/4	6	1/8	-TFT-AN4-NS2	1.08 (27.4)	0.17 (4.4)	0.56 (14.3)	0.66 (16.8)
1/4	6	1/4	-TFT-AN4-NS4	1.22 (30.9)	0.17 (4.4)	0.81 (20.6)	0.88 (22.4)
5/16	8	1/8	-TFT-AN5-NS2	1.08 (27.4)	0.24 (6.0)	0.56 (14.3)	0.66 (16.8)
5/16	8	1/4	-TFT-AN5-NS4	1.22 (30.9)	0.24 (6.0)	0.81 (20.6)	0.88 (22.4)
3/8	10	1/8	-TFT-AN6-NS2	1.06 (26.9)	0.30 (7.5)	0.63 (15.9)	0.66 (16.8)
3/8	10	1/4	-TFT-AN6-NS4	1.23 (31.2)	0.30 (7.5)	0.81 (20.6)	0.88 (22.4)
3/8	10	3/8	-TFT-AN6-NS6	1.31 (33.2)	0.30 (7.5)	0.94 (23.8)	1.02 (25.9)
1/2	12	1/4	-TFT-AN8-NS4	1.24 (31.6)	0.39 (9.9)	0.81 (20.6)	0.88 (22.4)
1/2	12	3/8	-TFT-AN8-NS6	1.42 (36.1)	0.39 (9.9)	0.94 (23.8)	1.02 (25.9)
1/2	12	1/2	-TFT-AN8-NS8	1.42 (36.1)	0.39 (9.9)	1.06 (27.0)	1.23 (31.2)
5/8	16	1/2	-TFT-AN10-NS8	1.64 (41.7)	0.48 (12.3)	1.06 (27.0)	1.23 (31.2)
3/4	18	1/2	-TFT-AN12-NS8	1.66 (42.1)	0.61 (15.5)	1.25 (31.8)	1.23 (31.2)
3/4	18	3/4	-TFT-AN12-NS12	1.89 (48.0)	0.61 (15.5)	1.37 (34.9)	1.36 (34.5)
7/8	22	3/4	-TFT-AN14-NS12	1.86 (47.2)	0.72 (18.3)	1.37 (34.9)	1.42 (36.1)
1	25	1	-TFT-AN16-NS16	2.17 (55.1)	0.85 (21.5)	1.69 (42.9)	1.62 (41.1)
1 1/4	32	1 1/4	-TFT-AN20-NS20	2.33 (59.2)	1.08 (27.5)	2.00 (50.8)	1.70 (43.2)
1 1/2	38	1 1/2	-TFT-AN24-NS24	2.89 (73.4)	1.30 (33.0)	2.50 (63.5)	2.08 (52.8)
2	50	2	-TFT-AN32-NS32	3.30 (83.8)	1.77 (45.0)	2.50 (63.5)	2.39 (60.7)

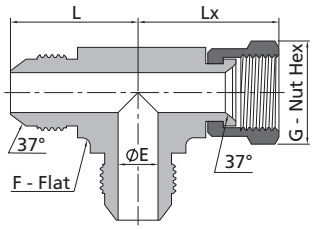
Union Tees



SAE 070401

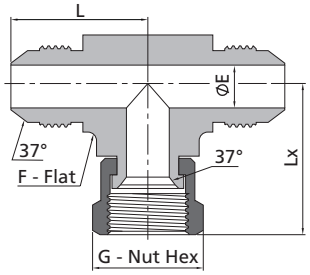
Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)		
in.	mm		L	E	F
1/8	3	-TTT-AN2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)
3/16	4	-TTT-AN3	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)
1/4	6	-TTT-AN4	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)
5/16	8	-TTT-AN5	0.95 (24.1)	0.24 (6.0)	0.56 (14.3)
3/8	10	-TTT-AN6	1.06 (26.9)	0.30 (7.5)	0.56 (14.3)
1/2	12	-TTT-AN8	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)
5/8	16	-TTT-AN10	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)
3/4	18	-TTT-AN12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)
7/8	22	-TTT-AN14	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)
1	25	-TTT-AN16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)
1 1/4	32	-TTT-AN20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)
1 1/2	38	-TTT-AN24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)
2	50	-TTT-AN32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)

Union Tees



SAE 070432

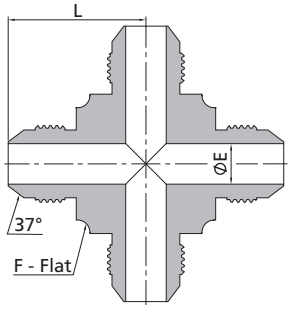
Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)				
in.	mm		L	E	F	Lx	G
1/8	3	-TTT-AN2-AS2-AN2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)	0.97 (24.6)	0.44 (11.1)
3/16	4	-TTT-AN3-AS3-AN3	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)	1.00 (25.4)	0.50 (12.7)
1/4	6	-TTT-AN4-AS4-AN4	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)	1.00 (25.4)	0.56 (14.3)
5/16	8	-TTT-AN5-AS5-AN5	0.95 (24.1)	0.24 (6.0)	0.56 (14.3)	1.06 (26.9)	0.63 (15.9)
3/8	10	-TTT-AN6-AS6-AN6	1.06 (26.9)	0.30 (7.5)	0.56 (14.3)	1.25 (31.8)	0.69 (17.5)
1/2	12	-TTT-AN8-AS8-AN8	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)	1.38 (35.1)	0.87 (22.2)
5/8	16	-TTT-AN10-AS10-AN10	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)	1.62 (41.1)	1.00 (25.4)
3/4	18	-TTT-AN12-AS12-AN12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)	1.75 (44.4)	1.25 (31.8)
7/8	22	-TTT-AN14-AS14-AN14	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)	1.78 (45.2)	1.37 (34.9)
1	25	-TTT-AN16-AS16-AN16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)	2.00 (50.8)	1.50 (38.1)
1 1/4	32	-TTT-AN20-AS20-AN20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)	2.31 (58.7)	2.00 (50.8)
1 1/2	38	-TTT-AN24-AS24-AN24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)	2.59 (65.8)	2.37 (60.3)
2	50	-TTT-AN32-AS32-AN32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)	3.38 (85.9)	2.87 (73.0)



SAE 070433

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)				
in.	mm		L	E	F	Lx	G
1/8	3	-TTT-AN2-AN2-AS2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)	0.97 (24.6)	0.44 (11.1)
3/16	4	-TTT-AN3-AN3-AS3	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)	1.00 (25.4)	0.50 (12.7)
1/4	6	-TTT-AN4-AN4-AS4	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)	1.00 (25.4)	0.56 (14.3)
5/16	8	-TTT-AN5-AN5-AS5	0.95 (24.1)	0.24 (6.0)	0.56 (14.3)	1.06 (26.9)	0.63 (15.9)
3/8	10	-TTT-AN6-AN6-AS6	1.06 (26.9)	0.30 (7.5)	0.56 (14.3)	1.25 (31.8)	0.69 (17.5)
1/2	12	-TTT-AN8-AN8-AS8	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)	1.38 (35.1)	0.87 (22.2)
5/8	16	-TTT-AN10-AN10-AS10	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)	1.62 (41.1)	1.00 (25.4)
3/4	18	-TTT-AN12-AN12-AS12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)	1.75 (44.4)	1.25 (31.8)
7/8	22	-TTT-AN14-AN14-AS14	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)	1.78 (45.2)	1.37 (34.9)
1	25	-TTT-AN16-AN16-AS16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)	2.00 (50.8)	1.50 (38.1)
1 1/4	32	-TTT-AN20-AN20-AS20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)	2.31 (58.7)	2.00 (50.8)
1 1/2	38	-TTT-AN24-AN24-AS24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)	2.59 (65.8)	2.37 (60.3)
2	50	-TTT-AN32-AN32-AS32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)	3.38 (85.9)	2.87 (73.0)

Union Crosses



SAE 070501

Tube O.D.		Basic Ordering Number	Dimensions, in. (mm)		
in.	mm		L	E	F
1/8	3	-C-AN2	0.77 (19.6)	0.06 (1.6)	0.44 (11.1)
3/16	4	-C-AN3	0.83 (21.1)	0.13 (3.2)	0.44 (11.1)
1/4	6	-C-AN4	0.89 (22.6)	0.17 (4.4)	0.50 (12.7)
5/16	8	-C-AN5	0.95 (24.1)	0.24 (6.0)	0.56 (14.3)
3/8	10	-C-AN6	1.06 (26.9)	0.30 (7.5)	0.56 (14.3)
1/2	12	-C-AN8	1.25 (31.8)	0.39 (9.9)	0.81 (20.6)
5/8	16	-C-AN10	1.45 (36.8)	0.48 (12.3)	0.81 (20.6)
3/4	18	-C-AN12	1.66 (42.2)	0.61 (15.5)	1.06 (27.0)
7/8	22	-C-AN14	1.80 (45.7)	0.72 (18.3)	1.25 (31.8)
1	25	-C-AN16	1.81 (46.0)	0.85 (21.5)	1.37 (34.9)
1 1/4	32	-C-AN20	2.06 (52.3)	1.08 (27.5)	1.69 (42.9)
1 1/2	38	-C-AN24	2.33 (59.2)	1.30 (33.0)	2.00 (50.8)
2	50	-C-AN32	3.06 (77.7)	1.77 (45.0)	2.50 (63.5)

FIRTECH
Al. Piłsudskiego 34, 05-270 Marki, Polska
Tel.: +48 22 435-82-44, **Fax.**: +48 22 427-52-66
e-mail: FITOK@FITOKGROUP.PL

FK-IC-GF-04-EN-170522