

C-LOK

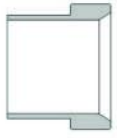
C-LOK Instrument Valve Co.,Ltd.

SAE 37° Flared Tube Fittings

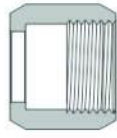


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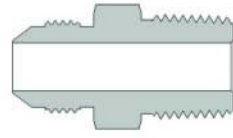
04 Sleeves



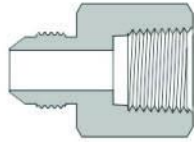
04 Nuts



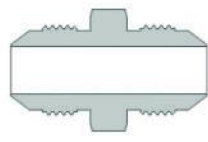
04 Male Connectors



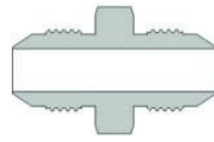
06 Female Connectors



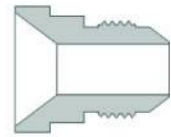
07 Unions



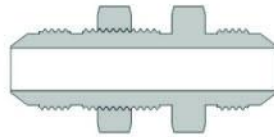
07 Large Hex Unions



07 Reducing Adapters



08 Bulkhead Unions



08 Bulkhead Lock Nuts



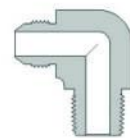
08 Tube Plugs



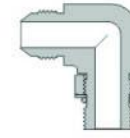
08 Tube Caps



09 Male Elbows



09 Adjustable Male Elbows



10 45° Male Elbows



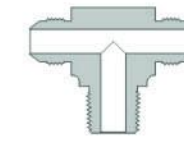
10 Female Elbows



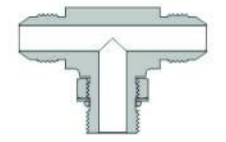
11 Union Elbows



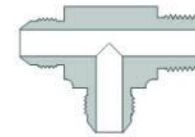
12 Male Branch Tees



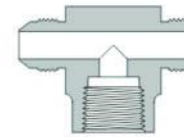
12 Adjustable Male Branch Tees



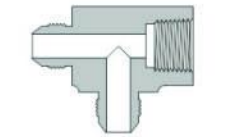
13 Male Run Tees



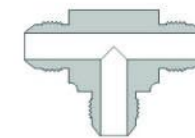
13 Female Branch Tees



14 Female Run Tees



14 Union Tees



15 Union Crosses



Sleeves

- 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 with elbows provides smooth flow path.
- Stainless steel nut threads are silver-plated to minimize the friction with the body threads.
- Every fitting is stamped with size, material and heat code.
- Fittings are easy to disconnect and retighten.
- All male threads are protected with plastic caps.

Technical Data

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

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

- The working temperature of C-LOK 37° flare tube fitting are the same as the C-LOK tube fittings.
- Working pressures:

Nom. SAE Dash Size	Nom. Tube O.D. Size(in.)	37° Flare St. Thread	Nom. Pipe Size	SAE St. Thread Union and Bulkhead (psig/bar)	Fittings with Pipe Threads (psig/bar)
2	1/8	5/16-24	1/8	5000(345)	5000(345)
3	3/16	3/8-24	1/8	5000(345)	5000(345)
4	1/4	7/16-20	1/8	5000(345)	5000(345)
5	5/16	1/2-20	1/8	5000(345)	5000(345)
6	3/8	9/16-18	1/4	5000(345)	4000(276)
8	1/2	3/4-16	3/8	4500(310)	3000(207)
10	5/8	7/8-14	1/2	3500(241)	3000(207)
12	3/4	1 1/16-12	3/4	3500(241)	2500(172)
14	7/8	1 3/16-12	3/4	3000(207)	2500(172)
16	1	1 5/16-12	1	3000(207)	2000(138)
20	1 1/4	1 5/8-12	1 1/4	2500(172)	1150(79)
24	1 1/2	1 7/8-12	1 1/2	2000(138)	1000(69)
32	2	2 1/2-12	2	1500(103)	1000(69)

- Working pressure given are for carbon steel only. Contact the authorized representative or C-LOK for other materials' working pressure.
- Four times safety factor applied for above working pressure.

Materials

Material	Bar Stock	Forging	Designator
316 Stainless Steel	ASTM A276, ASME SA479, EN1.4401	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

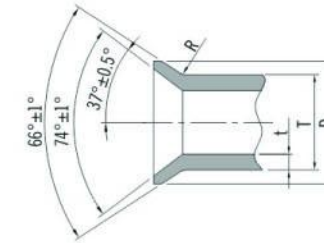
Add the material designator as a prefix to the basic ordering number to get the complete ordering number.
For example:

- Male connector with 1/4" tube, 1/4 NPT thread and 316 stainless steel material, the complete ordering number is SS-CM-AN4-NT4.
- Sleeve with 6 mm tube and 316 stainless steel material, the complete ordering number is SS-SL-6M.

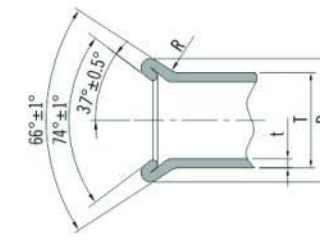
Flaring Operation

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 below table:

Thick Tubes



Thin Tubes



Fractional Tubing

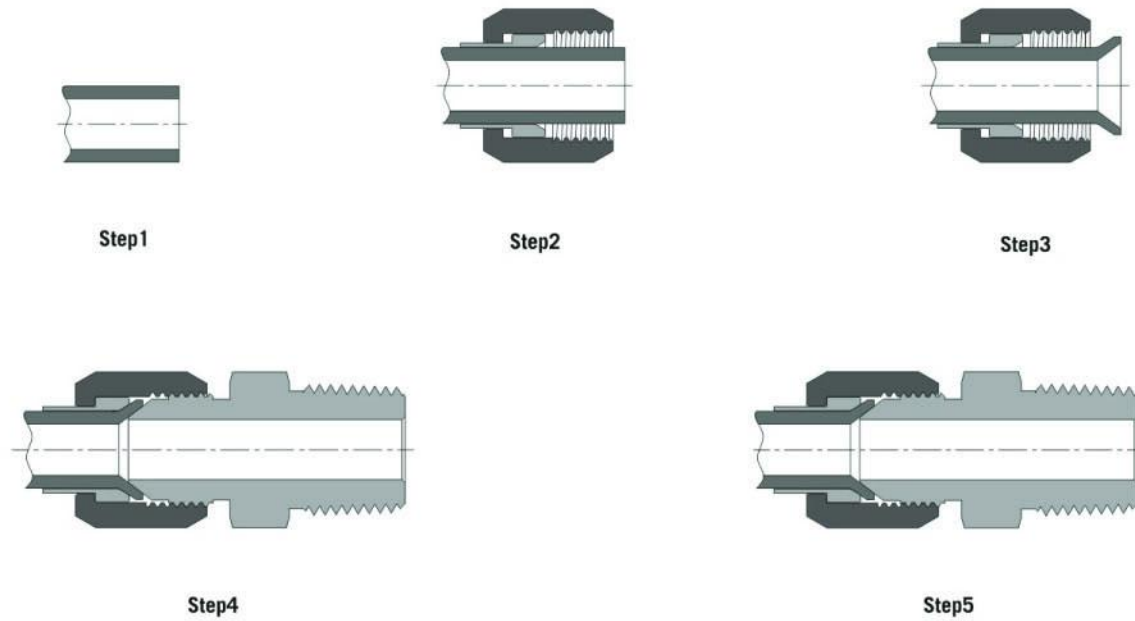
T-Tube O.D.(IN.)	Dimension		
	D(mm)	t(in.)	R(mm)
1/4	8.6-9.1	0.020-0.065	0.8
5/16	10.2-10.9	0.020-0.065	0.8
3/8	11.6-12.4	0.020-0.065	1.0
1/2	16.0-16.7	0.028-0.083	1.5
5/8	19.3-20.0	0.035-0.095	1.5
3/4	23.3-24.1	0.035-0.109	2.0
7/8	26.4-27.1	0.035-0.109	2.0
1	29.7-30.4	0.035-0.120	2.3
1 1/4	37.5-38.3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

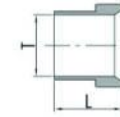
1. Cut the tube to the proper length.
2. Insert the tube into the nut and sleeve.
3. Form the flare to 37° dimension according to SAE J533. See flaring operation.
4. Finger-tighten the nut.
5. Tighten the nut 1/4 turns with wrench while holding steady the body of the fitting.



Cautions:

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

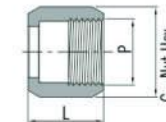
Sleeves



SAE 070115

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

Nuts

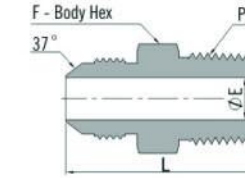


SAE 070110

Tube O.D.		P- SAE/MS Thread Size	Basic Ordering Number	Dimension, mm	
in.	mm			L	G
1/8	3	5/16-24	-N-AN2	14.0	9.5
3/16	4	3/8-24	-N-AN3	15.5	11.1
1/4	6	7/16-20	-N-AN4	15.8	14.3
5/16	8	1/2-20	-N-AN5	17.3	15.9
3/8	10	9/16-18	-N-AN6	18.5	17.5
1/2	12	3/4-16	-N-AN8	21.6	22.2
5/8	16	7/8-14	-N-AN10	24.9	25.4
3/4	18	1 1/16-12	-N-AN12	26.2	31.8
7/8	22	1 3/16-12	-N-AN14	27.7	34.9
1	25	1 5/16-12	-N-AN16	28.7	38.1
1 1/4	32	1 5/8-12	-N-AN20	31.2	50.8
1 1/2	38	1 7/8-12	-N-AN24	36.1	57.2
2	50	2 1/2-12	-N-AN32	44.5	73.0

Dimensions are for reference only, subject to change.

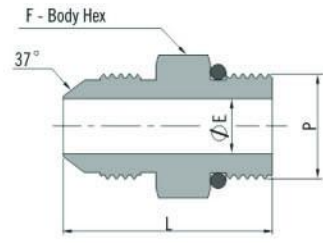
Male Connector



SAE 070102

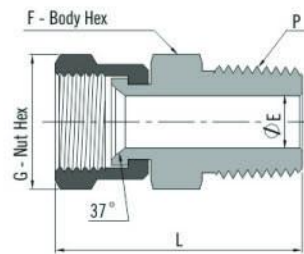
Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension, mm		
in.	mm			L	E	F
1/8	3	1/8	-CM-AN2-NT2	28.2	1.6	11.1
3/16	4	1/8	-CM-AN3-NT2	29.0	3.2	11.1
1/4	6	1/8	-CM-AN4-NT2	31.0	4.4	12.7
1/4	6	1/4	-CM-AN4-NT4	36.0	4.4	14.3
1/4	6	1/2	-CM-AN4-NT8	42.7	4.4	22.2
5/16	8	1/8	-CM-AN5-NT2	31.0	4.8	14.3
5/16	8	1/4	-CM-AN5-NT4	36.1	6.0	14.3
3/8	10	1/8	-CM-AN6-NT2	31.8	4.8	15.9
3/8	10	1/4	-CM-AN6-NT4	36.3	7.1	15.9
3/8	10	3/8	-CM-AN6-NT6	36.3	7.5	19.1
3/8	10	1/2	-CM-AN6-NT8	42.5	7.5	22.2
1/2	12	1/4	-CM-AN8-NT4	38.9	7.1	20.6
1/2	12	3/8	-CM-AN8-NT6	38.9	9.9	20.6
1/2	12	1/2	-CM-AN8-NT8	45.5	9.9	22.2
1/2	12	3/4	-CM-AN8-NT12	47.0	9.9	28.6
5/8	16	3/8	-CM-AN10-NT6	43.1	9.9	23.8
5/8	16	1/2	-CM-AN10-NT8	48.0	12.3	23.8
5/8	16	3/4	-CM-AN10-NT12	49.5	12.3	28.6
3/4	18	3/4	-CM-AN12-NT12	52.3	15.5	28.6
3/4	18	1	-CM-AN12-NT16	57.1	15.5	34.9
7/8	22	3/4	-CM-AN14-NT12	53.1	18.3	31.8
1	25	3/4	-CM-AN16-NT12	53.5	18.3	34.9
1	25	1	-CM-AN16-NT16	58.4	21.5	34.9
1 1/4	32	1	-CM-AN20-NT16	61.5	23.8	42.9
1 1/4	32	1 1/4	-CM-AN20-NT20	62.2	27.5	42.9
1 1/2	38	1 1/4	-CM-AN24-NT20	68.1	31.7	50.8
1 1/2	38	1 1/2	-CM-AN24-NT24	68.1	33.0	50.8
2	50	2	-CM-AN32-NT32	79.0	45.0	66.7

Male Connectors



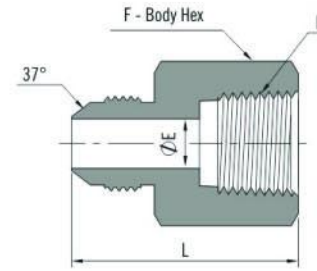
SAE 070120

Tube O.D.		P-SAE/MS Thread Size	Basic Ordering Number	Dimension,mm		
in.	mm			L	E	F
1/8	3	5/16-24	-CM-AN2-ST5	26.9	1.6	11.1
3/16	4	3/8-24	-CM-AN3-DT6	27.9	3.2	12.7
1/4	6	7/16-20	-CM-AN4-ST7	31.2	4.4	14.3
1/4	6	1/2-20	-CM-AN4-ST8	31.2	4.4	15.9
1/4	6	9/16-18	-CM-AN4-ST9	33.0	4.4	17.5
1/4	6	3/4-16	-CM-AN4-ST12	34.8	4.4	22.2
5/16	8	1/2-20	-CM-AN5-ST8	21.2	6.0	15.9
3/8	10	9/16-18	-CM-AN6-ST9	33.0	7.5	17.5
3/8	10	3/4-16	-CM-AN6-ST12	35.1	7.5	22.2
3/8	10	7/8-14	-CM-AN6-ST14	38.1	7.5	25.4
1/2	12	9/16-18	-CM-AN8-ST9	36.6	7.5	20.6
1/2	12	3/4-16	-CM-AN8-ST12	37.6	9.9	22.2
1/2	12	7/8-14	-CM-AN8-ST14	40.6	9.9	25.4
1/2	12	1 1/16-12	-CM-AN8-ST17	44.7	9.9	31.8
5/8	16	3/4-16	-CM-AN10-ST12	40.6	10.7	23.8
5/8	16	7/8-14	-CM-AN10-ST14	43.2	12.3	25.4
5/8	16	1 1/16-12	-CM-AN10-ST17	47.2	12.3	31.8
3/4	18	3/4-16	-CM-AN12-ST12	45.2	10.7	28.6
3/4	18	7/8-14	-CM-AN12-ST14	46.4	12.7	28.6
3/4	18	1 1/16-12	-CM-AN12-ST17	50.0	15.5	31.8
3/4	18	1 5/16-12	-CM-AN12-ST21	50.8	15.5	38.1
7/8	22	1 3/16-12	-CM-AN14-ST19	50.5	18.3	34.9
7/8	22	1 5/16-12	-CM-AN14-ST21	51.3	18.3	38.1
1	25	1 1/16-12	-CM-AN16-ST17	51.1	16.7	34.9
1	25	1 3/16-12	-CM-AN16-ST19	51.8	18.3	34.9
1	25	1 5/16-12	-CM-AN16-ST21	51.8	21.5	38.1



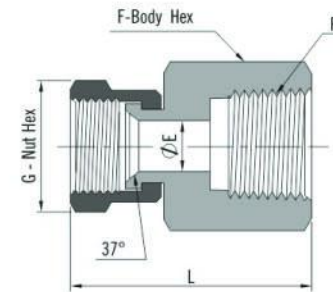
Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	G	F
1/8	3	1/8	-CM-AS2-NT2	30.0	1.6	11.1	11.1
3/16	4	1/8	-CM-AS3-NT2	32.0	3.2	12.7	11.1
1/4	6	1/8	-CM-AS4-NT2	34.2	4.4	14.3	12.7
5/16	8	1/8	-CM-AS5-NT2	35.0	6.0	15.9	14.3
3/8	10	1/4	-CM-AS6-NT4	40.2	7.5	17.5	15.9
1/2	12	3/8	-CM-AS8-NT6	42.7	9.9	22.2	20.6
5/8	16	1/2	-CM-AS10-NT8	51.3	12.3	25.4	23.8
3/4	18	3/4	-CM-AS12-NT12	54.5	15.5	31.8	28.6
7/8	22	3/4	-CM-AS14-NT12	56.0	18.0	34.9	31.8
1	25	1	-CM-AS16-NT16	63.7	21.5	38.1	34.9
1 1/4	32	1 1/4	-CM-AS20-NT20	68.9	27.5	50.8	42.9
1 1/2	38	1 1/2	-CM-AS24-NT24	77.6	33.0	57.2	50.8
2	50	2	-CM-AS32-NT32	92.9	45.0	73.0	66.7

Female Connectors



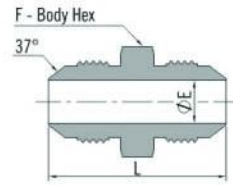
SAE 070103

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension,mm		
in.	mm			L	E	F
1/8	3	1/8	-CF-AN2-NT2	28.4	1.6	14.3
3/16	4	1/8	-CF-AN3-NT2	28.7	3.2	14.3
1/4	6	1/8	-CF-AN4-NT2	30.2	4.4	14.3
1/4	6	1/4	-CF-AN4-NT4	35.5	4.4	19.1
5/16	8	1/8	-CF-AN5-NT2	29.7	6.0	14.3
5/16	8	1/4	-CF-AN5-NT4	35.3	6.0	19.1
3/8	10	1/4	-CF-AN6-NT4	35.6	7.5	19.1
3/8	10	3/8	-CF-AN6-NT6	37.1	7.5	22.2
1/2	12	3/8	-CF-AN8-NT6	39.6	9.9	22.2
1/2	12	1/2	-CF-AN8-NT8	45.6	9.9	28.6
5/8	16	1/2	-CF-AN10-NT8	48.0	12.3	28.6
3/4	18	1/2	-CF-AN12-NT8	52.1	15.5	28.6
3/4	18	3/4	-CF-AN12-NT12	52.3	15.5	34.9
7/8	22	3/4	-CF-AN14-NT12	52.3	18.3	34.9
1	25	1	-CF-AN16-NT16	59.7	21.5	41.3
1 1/4	32	1 1/4	-CF-AN20-NT20	63.2	27.5	50.8
1 1/2	38	1 1/2	-CF-AN24-NT24	66.5	33.0	60.3
2	50	2	-CF-AN32-NT32	75.4	45.0	73.0



Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	G	F
1/8	3	1/8	-CF-AS2-NT2	36.1	1.6	11.1	14.3
3/16	4	1/8	-CF-AS3-NT2	37.3	3.2	12.7	14.3
1/4	6	1/8	-CF-AS4-NT2	39.7	4.4	14.3	14.3
5/16	8	1/8	-CF-AS2-NT2	40.5	6.0	15.9	14.3
3/8	10	1/4	-CF-AS6-NT4	45.8	7.5	17.5	19.1
1/2	12	3/8	-CF-AS8-NT6	47.0	9.9	22.2	22.2
5/8	16	1/2	-CF-AS10-NT8	51.6	12.3	25.4	28.6
3/4	18	3/4	-CF-AS12NT12	66.6	15.5	31.8	34.9
7/8	22	3/4	-CF-AS14-NT12	67.8	18.0	34.9	34.9
1	25	1	-CF-AS16-NT16	73.5	21.5	38.1	41.3
1 1/4	32	1 1/4	-CF-AS20-NT20	78.1	27.5	50.8	50.8
1 1/2	38	1 1/2	-CF-AS24-NT24	86.7	33.0	60.3	60.3
2	50	2	-CF-AS32-NT32	89.3	45.0	73.0	66.7

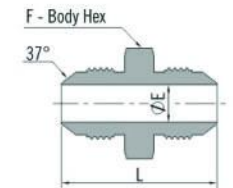
Unions



SAE 070101

Tube O.D.		Basic Ordering Number	Dimension, mm		
in.	mm		L	E	F
1/8	3	-U-SN2	29.7	1.6	11.1
3/16	4	-U-AN3	31.2	3.2	11.1
1/4	6	-U-AN4	34.8	4.4	12.7
5/16	8	-U-AN5	34.8	6.0	14.3
3/8	10	-U-AN6	35.8	7.5	15.9
1/2	12	-U-AN8	41.1	9.9	20.6
5/8	16	-U-AN10	47.8	12.3	23.8
3/4	18	-U-AN12	54.9	15.5	28.6
7/8	22	-U-AN14	56.1	18.3	31.8
1	25	-U-AN16	57.2	21.5	34.9
1 1/4	32	-U-AN20	61.7	27.5	42.9
1 1/2	38	-U-AN24	69.8	33.0	50.8
2	50	-U-AN32	86.4	45.0	66.7

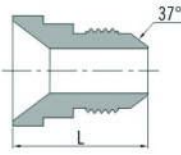
Large Hex Unions



SAE 070119

Tube O.D.		Basic Ordering Number	Dimension, mm		
in.	mm		L	E	F
1/8	3	-HU-AN2	29.7	1.6	14.3
3/16	4	-HU-AN3	31.2	3.2	15.9
1/4	6	-HU-AN4	34.8	4.4	17.5
5/16	8	-HU-AN5	34.8	6.0	19.1
3/8	10	-HU-AN6	35.8	7.5	20.6
1/2	12	-HU-AN8	41.1	9.9	25.4
5/8	16	-HU-AN10	47.8	12.3	28.6
3/4	18	-HU-AN12	54.9	15.5	34.9
7/8	22	-HU-AN14	56.1	18.3	38.1
1	25	-HU-AN16	57.2	21.5	41.3
1 1/4	32	-HU-AN20	61.7	27.5	47.6
1 1/2	38	-HU-AN24	69.8	33.0	54.0
2	50	-HU-AN32	86.4	45.0	69.9

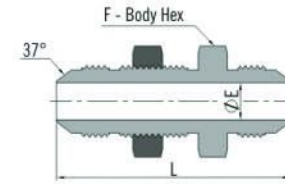
Reducing Adapters



SAE 070123

Tube O.D.		Basic Ordering Number	L (mm)
In.-mm	In.-mm		
3/8-10	1/4-6	-RA-AN6-AN4	24.6
1/2-12	1/4-6	-RA-AN8-AN4	25.4
1/2-12	3/8-10	-RA-AN8-AN6	25.4
5/8-16	1/4-6	-RA-AN10-AN4	26.2
5/8-16	3/8-10	-RA-AN10-AN6	26.2
3/4-18	1/4-6	-RA-AN12-AN4	27.7
3/4-18	3/8-10	-RA-AN12-AN6	27.7
3/4-18	1/2-12	-RA-AN12-AN8	30.2
7/8-22	3/8-10	-RA-AN14-AN6	28.7
7/8-22	5/8-16	-RA-AN14-AN10	33.7
1-25	1/4-6	-RA-AN16-AN4	31.0
1-25	3/8-10	-RA-AN16-AN6	31.0
1-25	1/2-12	-RA-AN16-AN8	32.3
1-25	5/8-16	-RA-AN16-AN10	35.1
1-25	3/4-18	-RA-AN16-AN12	37.3
1 1/4-32	3/4-18	-RA-AN20-AN12	38.3
1 1/4-32	1-25	-RA-AN20-AN16	40.3
1 1/2-38	1/2-12	-RA-AN24-AN8	39.6
1 1/2-38	3/4-18	-RA-AN24-AN12	41.4
1 1/2-38	1-25	-RA-AN24-AN16	41.4
2-50	1 1/2-38	-RA-AN32-AN24	48.5

Bulkhead Unions



SAE 070601

Tube O.D.		Basic Ordering Number	Dimension, mm		
in.	mm		L	E	F
3/16	4	-BU-AN3	48.3	3.2	15.9
1/4	6	-BU-AN4	52.6	4.4	17.5
5/16	8	-BU-AN5	52.6	6.0	19.1
3/8	10	-BU-AN6	55.4	7.5	20.6
1/2	12	-BU-AN8	62.0	9.9	25.4
5/8	16	-BU-AN10	69.6	12.3	28.6
3/4	18	-BU-AN12	78.5	15.5	34.9
7/8	22	-BU-AN14	79.2	18.3	38.1
1	25	-BU-AN16	79.8	21.5	41.3
1 1/4	32	-BU-AN20	84.1	27.5	47.6
1 1/2	38	-BU-AN24	89.4	33.0	54.0
2	50	-BU-AN32	106.7	45.0	69.9

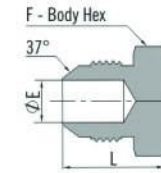
Bulkhead Lock Nuts



SAE 070118

Tube O.D.		Basic Ordering Number	Dimension, mm	
in.	mm		L	G
3/16	4	-BN-AB3	5.6	15.9
1/4	6	-BN-AB4	7.1	17.5
5/16	8	-BN-AB5	7.1	19.1
3/8	10	-BN-AB6	6.9	20.6
1/2	12	-BN-AB8	7.9	25.4
5/8	16	-BN-AB10	9.1	28.6
3/4	18	-BN-AB12	10.4	34.9
7/8	22	-BN-AB14	10.4	38.1
1	25	-BN-AB16	10.4	41.3
1 1/4	32	-BN-AB20	10.4	47.6
1 1/2	38	-BN-AB24	10.4	54.0
2	50	-BN-AB32	10.4	69.9

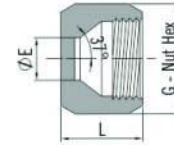
Tube Plugs



SAE 070109

Tube O.D.		Basic Ordering Number	Dimension, mm		
in.	mm		L	E	F
1/8	3	-TP-AN2	17.8	1.6	11.1
3/16	4	-TP-AN3	18.5	3.2	11.1
1/4	6	-TP-AN4	20.3	4.4	12.7
5/16	8	-TP-AN5	20.3	6.0	14.3
3/8	10	-TP-AN6	21.3	7.5	15.9
1/2	12	-TP-AN8	23.9	9.9	20.6
5/8	16	-TP-AN10	27.9	12.3	23.8
3/4	18	-TP-AN12	32.5	15.5	28.6
7/8	22	-TP-AN14	33.3	18.3	31.8
1	25	-TP-AN16	33.8	21.5	34.9
1 1/4	32	-TP-AN20	36.8	27.5	42.9
1 1/2	38	-TP-AN24	41.9	33.0	50.8
2	50	-TP-AN32	52.1	45.0	66.7

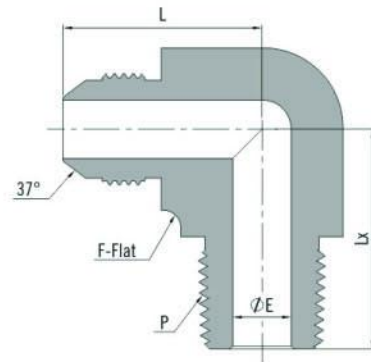
Tube Caps



SAE 070112

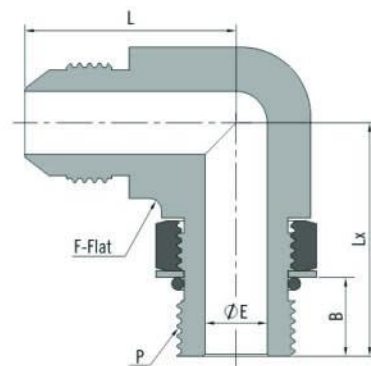
Tube O.D.		Basic Ordering Number	Dimension, mm		
in.	mm		L	E	G
1/8	3	-TC-AN2	12.7	1.6	9.5
3/16	4	-TC-AN3	14.3	3.2	11.1
1/4	6	-TC-AN4	15.1	4.4	14.3
5/16	8	-TC-AN5	15.5	6.0	15.9
3/8	10	-TC-AN6	15.9	7.5	20.6
1/2	12	-TC-AN8	19.1	9.9	22.2
5/8	16	-TC-AN10	21.4	12.3	25.4
3/4	18	-TC-AN12	23.0	15.5	31.8
7/8	22	-TC-AN14	24.6	18.3	34.9
1	25	-TC-AN16	25.8	21.5	38.1
1 1/4	32	-TC-AN20	27.0	27.5	50.8
1 1/2	38	-TC-AN24	30.2	33.0	57.2
2	50	-TC-AN32	36.5	45.0	73.0

Male Elbows



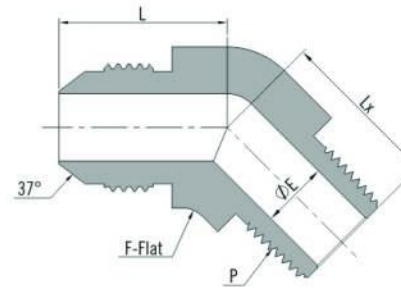
SAE 070202							
Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	F	Lx
1/8	3	1/8	-LM-AN2-NT2	19.6	1.6	11.1	18.3
3/16	4	1/8	-LM-AN3-NT2	21.1	3.2	11.1	18.3
1/4	6	1/8	-LM-AN4-NT2	22.6	4.4	12.7	19.8
1/4	6	1/4	-LM-AN4-NT4	26.9	4.4	14.3	27.7
5/16	8	1/8	-LM-AN5-NT2	24.1	4.8	14.3	19.8
5/16	8	1/4	-LM-AN5-NT4	26.9	6.0	14.3	27.7
3/8	10	1/8	-LM-AN6-NT2	26.9	4.8	14.3	19.8
3/8	10	1/4	-LM-AN6-NT4	26.9	7.1	17.5	27.7
3/8	10	3/8	-LM-AN6-NT6	29.0	7.5	20.6	22.8
3/8	10	1/2	-LM-AN6-NT8	31.2	7.5	20.6	27.7
1/2	12	1/4	-LM-AN8-NT4	31.8	7.1	20.6	31.0
1/2	12	3/8	-LM-AN8-NT6	31.8	9.9	20.6	31.0
1/2	12	1/2	-LM-AN8-NT8	33.7	9.9	25.4	37.3
1/2	12	3/4	-LM-AN8-NT12	36.0	9.9	20.6	40.4
5/8	16	3/8	-LM-AN10NT6	36.8	9.9	25.4	33.0
5/8	16	1/2	-LM-AN10-NT8	36.8	12.3	20.6	37.3
5/8	16	3/4	-LM-AN10NT12	38.9	12.3	25.4	40.4
3/4	18	3/4	-LM-AN12-NT12	42.2	15.5	27.0	40.4
3/4	18	1	-LM-AN12-NT16	42.2	15.5	31.8	50.4
7/8	22	3/4	-LM-AN14-NT12	45.7	18.3	31.8	42.9
1	25	3/4	-LM-AN16-NT12	46.0	18.3	34.9	45.2
1	25	1	-LM-AN16-NT16	46.0	21.5	34.9	50.2
1 1/4	32	1	-LM-AN20-NT16	52.3	23.8	42.9	59.6
1 1/4	32	1 1/4	-LM-AN20-NT20	52.3	27.5	42.9	60.5
1 1/2	38	1 1/2	-LM-AN24-NT24	59.2	33.0	50.8	67.1
2	50	2	-LM-AN32-NT32	77.7	45.0	63.5	76.2

Adjustable Male Elbows



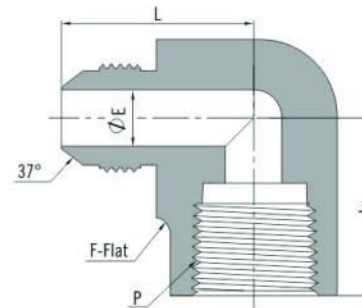
SAE 070220								
Tube O.D.		P-SAE/MS Thread Size	Basic Ordering Number	Dimension,mm				
in.	mm			L	E	F	Lx	B
1/8	3	5/16-24	-LP-AN2-ST5	19.6	1.6	11.1	23.9	8.4
3/16	4	3/8-34	-LP-AN3-ST6	21.1	3.2	11.1	23.9	8.4
1/4	6	7/16-20	-LP-AN4-ST7	22.6	4.4	12.7	26.2	9.8
5/16	8	1/2-20	-LP-AN5-ST8	24.1	6.0	14.3	28.7	9.8
3/8	10	9-16-18	-LP-AN6-ST9	26.9	7.5	15.9	31.8	11.0
1/2	12	3/4-16	-LP-AN8-ST12	31.8	9.9	20.6	36.8	12.5
5/8	16	7/8-14	-LP-AN10-ST14	36.8	12.3	23.8	43.2	14.2
3/4	18	1 1/16-12	-LP-AN12-ST17	42.2	15.5	31.8	49.3	16.5
7/8	22	1 3/16-12	-LP-AN14-ST19	45.7	18.3	31.8	50.8	16.5
1	25	1 5/16-12	-LP-AN16-ST21	46.0	21.5	34.9	52.1	16.5
1 1/4	32	1 5/8-12	-LP-AN20-ST26	52.3	27.5	42.9	57.2	16.5
1 1/2	38	1 7/8-12	-LP-AN24-ST30	59.2	33.0	50.8	60.7	16.5
2	50	2 1/2-12	-LP-AN32-ST40	77.7	45.0	63.5	73.4	16.5

45° Male Elbows



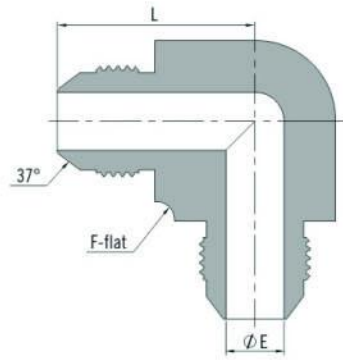
SAE 070302							
Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	F	Lx
1/8	3	1/8	-VM-AN2-NT2	17.5	1.6	11.1	13.2
3/16	4	1/8	-VM-AN3-NT2	17.5	3.2	11.1	13.2
1/4	6	1/8	-VM-AN4-NT2	18.3	4.4	12.7	16.3
5/16	8	1/8	-VM-AN5-NT2	19.6	4.8	14.3	16.3
3/8	10	1/4	-VM-AN6-NT4	21.1	7.1	14.3	21.8
1/2	12	3/8	-VM-AN8-NT6	24.9	9.9	17.5	24.1
5/8	16	1/2	-VM-AN10-NT8	28.2	12.3	20.6	29.7
3/4	18	3/4	-VM-AN12-NT12	32.5	15.5	27.0	30.5
7/8	22	3/4	-VM-AN16-NT16	36.8	18.3	31.8	33.0
1	25	1	-VM-AN14-NT12	37.3	21.5	34.9	37.6
1 1/4	32	1 1/4	-VM-AN20-NT20	40.4	27.5	42.9	42.4
1 1/2	38	1 1/2	-VM-AN24-NT24	45.2	33.0	50.8	45.0
2	50	2	-VM-AN32-NT32	56.4	45.0	63.5	53.0

Female Elbows

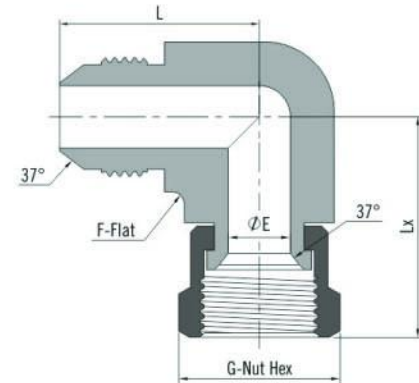


SAE 070203							
Tube O.d.		P-NPT Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	F	Lx
1/8	3	1/8	-LF-AN2-NT2	25.4	1.6	14.3	16.8
3/16	4	1/8	-LF-AN3-NT2	26.2	3.2	14.3	16.8
1/4	6	1/8	-LF-AN4-NT2	27.4	4.4	14.3	16.8
1/4	6	1/4	-LF-AN4-NT4	30.9	4.4	20.6	22.4
5-16	8	1/8	-LF-AN5-NT2	27.4	6.0	14.3	16.8
5/16	8	1/4	-LF-AN5-NT4	30.9	6.0	20.6	22.4
3/8	10	1/8	-LF-AN6-NT2	26.9	7.5	15.9	16.8
3/8	10	1/4	-LF-AN6-NT4	31.2	7.5	20.6	22.4
3/8	10	3/8	-LF-AN6-NT6	33.2	7.5	23.8	25.9
1/2	12	1/4	-LF-AN8-NT4	31.6	9.9	20.6	22.4
1/2	12	3/8	-LF-AN8-NT6	36.1	9.9	23.8	25.9
1/2	12	1/2	-LF-AN8-NT8	36.1	9.9	27.0	31.2
5/8	16	1/2	-LF-AN10-NT8	41.7	12.3	27.0	31.2
3/4	18	1/2	-LF-AN12-NT8	42.1	15.5	31.8	31.2
3/4	18	3/4	-LF-AN12-NT12	48.0	15.5	34.9	34.5
7/8	22	3/4	-LF-AN14-NT12	47.2	18.3	34.9	36.1
1	25	1	-LF-AN16-NT16	55.1	21.5	42.9	41.1
1 1/4	32	1 1/4	-LF-AN20-NT20	59.2	27.5	50.8	43.2
1 1/2	38	1 1/2	-LF-AN24-NT24	73.4	33.0	63.5	52.8
2	50	2	-LF-AN32-NT32	83.8	45.0	63.5	60.7

Union Elbows

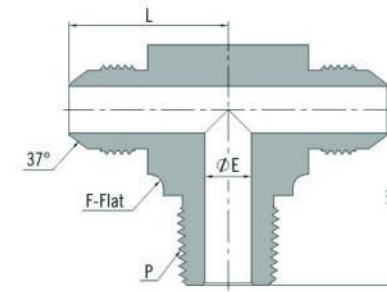


Tube O.D.		Basic Ordering Number	Dimension,mm		
in.	mm		L	E	F
1/8	3	-LU-AN2	19.6	1.6	11.1
3/16	4	-LU-AN3	21.1	3.2	11.1
1/4	6	-LU-AN4	22.6	4.4	12.7
5/16	8	-LU-AN5	24.1	6.0	14.3
3/8	10	-LU-AN6	26.9	7.5	14.3
1/2	12	-LU-AN8	31.8	9.9	20.6
5/8	16	-LU-AN10	36.8	12.3	20.6
3/4	18	-LU-AN12	42.2	15.5	27.0
7/8	22	-LU-AN14	45.7	18.3	31.8
1	25	-LU-AN16	46.0	21.5	34.9
1 1/4	32	-LU-AN20	52.3	27.5	42.9
1 1/2	38	-LU-AN24	59.2	33.0	50.8
2	50	-LU-AN32	77.7	45.0	63.5



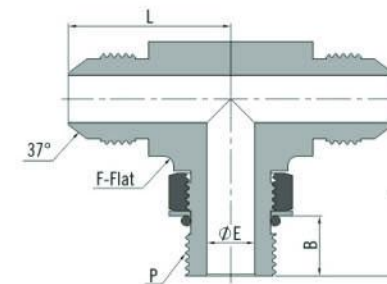
Tube O.D.		Basic Ordering Number	Dimension,mm				
in.	mm		L	E	F	Lx	G
1/8	3	-LU-AN2-AS2	19.6	1.6	11.1	24.6	11.1
3/16	4	-LU-AN3-AS3	21.1	3.2	11.1	25.4	12.7
1/4	6	-LU-AN4-AS4	22.6	4.4	12.7	25.4	14.3
5/16	8	-LU-AN5-AS5	24.1	6.0	14.3	26.9	15.9
3/8	10	-LU-AN6-AS6	26.9	7.5	14.3	31.8	17.5
1/2	12	-LU-AN8-AS8	31.8	9.9	20.6	35.1	22.2
5/8	16	-LU-AN10-AS10	36.8	12.3	20.6	41.1	25.4
3/4	18	-LU-AN12-AS12	42.2	15.5	27.0	44.4	31.8
7/8	22	-LU-AN14-AS14	45.7	18.3	31.8	45.2	34.9
1	25	-LU-AN16-AS16	46.0	21.5	34.9	50.8	38.1
1 1/4	32	-LU-AN20-AS20	52.3	27.5	42.9	58.7	50.8
1 1/2	38	-LU-AN24-AS24	59.2	33.0	50.8	65.8	60.3
2	50	-LU-AN32-AS32	77.7	45.0	63.5	85.9	73.0

Male Branch Tees



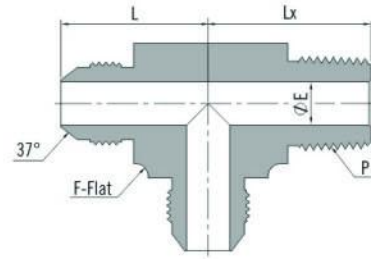
Tube O.D.		P-NPTmm Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	F	Lx
1/8	3	1/8	-TTM-AN2-NT2	19.6	1.6	11.1	18.3
3/16	4	1/8	-TTM-AN3-NT2	21.1	3.2	11.1	18.3
1/4	6	1/8	-TTM-AN4-NT2	22.6	4.4	12.7	19.8
1/4	6	1/4	-TTM-AN4-NT4	26.9	4.4	14.3	27.7
5/16	8	1/8	-TTM-AN5-NT2	24.1	4.8	14.3	19.8
5/16	8	1/4	-TTM-AN5-NT4	26.9	6.0	14.3	27.7
3/8	10	1/8	-TTM-AN6-NT2	26.9	4.8	14.3	22.8
3/8	10	1/4	-TTM-AN6-NT4	26.9	7.1	14.3	27.7
3/8	10	3/8	-TTM-AN6-NT6	29.0	7.5	17.5	31.0
3/8	10	1/2	-TTM-AN6-NT8	31.2	7.5	20.6	37.3
1/2	12	1/4	-TTM-AN8-NT4	31.8	7.1	20.6	31.0
1/2	12	3/8	-TTM-AN8-NT6	31.8	9.9	20.6	31.0
1/2	12	1/2	-TTM-AN8-NT8	33.7	9.9	20.6	37.3
1/2	12	3/4	-TTM-AN8-NT12	36.0	9.9	25.4	40.4
5/8	16	3/8	-TTM-AN10-NT6	36.8	9.9	20.6	33.0
5/8	16	1/2	-TTM-AN10-NT8	36.8	12.3	20.6	37.3
5/8	16	3/4	-TTM-AN10-NT12	38.9	12.3	25.4	40.4
3/4	18	3/4	-TTM-AN12-NT12	42.2	15.5	27.0	40.4
3/4	18	1	-TTM-AN12-NT16	42.2	15.5	31.8	50.4
7/8	22	3/4	-TTM-AN14-NT12	45.7	18.3	31.8	42.9
1	25	3/4	-TTM-AN16-NT12	46.0	18.3	34.9	45.2
1	25	1	-TTM-AN16-NT16	46.0	21.5	34.9	50.0
1 1/4	32	1	-TTM-AN20-NT16	52.3	23.8	42.9	59.6
1 1/4	32	1 1/4	-TTM-AN20-NT20	52.3	27.5	42.9	60.5
1 1/2	38	1 1/2	-TTM-AN24-NT24	59.2	33.0	50.8	67.1
2	50	2	-TTM-AN32-NT32	77.7	45.0	63.5	76.2

Adjustable Male Branch Tees



Tube O.D.		P-SAE/M Thread Size	Basic Ordering Number	Dimension,mm				
in.	mm			L	E	F	Lx	B
1/8	3	5/16-24	-TTP-AN2-ST5	19.6	1.6	11.1	23.9	8.4
3/16	4	3/8-34	-TTP-AN3-ST6	21.1	3.2	11.1	23.9	8.4
1/4	6	7/16-20	-TTP-AN4-ST7	22.6	4.4	12.7	26.2	9.8
5/16	8	1/2-20	-TTP-AN5-ST8	24.1	6.0	14.3	28.7	9.8
3/8	10	9/16-18	-TTP-AN6-ST9	26.9	7.5	15.9	31.8	11.0
1/2	12	3/4-16	-TTP-AN8-ST12	31.8	9.9	20.6	36.8	12.5
5/8	16	7/8-14	-TTP-AN10-ST14	36.8	12.3	23.8	43.2	14.2
3/4	18	1 1/16-12	-TTP-AN12-ST17	42.2	15.5	31.8	49.3	16.5
7/8	22	1 3/16-12	-TTP-AN14-ST19	45.7	18.3	31.8	50.8	16.5
1	25	1 5/16-12	-TTP-AN16-ST21	46.0	21.5	34.9	52.1	16.5
1 1/4	32	1 5/8-12	-TTP-AN20-ST26	52.3	27.5	42.9	57.2	16.5
1 1/2	38	1 7/8-12	-TTP-AN24-ST30	59.2	33.0	50.8	60.7	16.5
2	50	2 1/2-12	-TTP-AN32-ST40	77.7	45.0	63.5	73.4	16.5

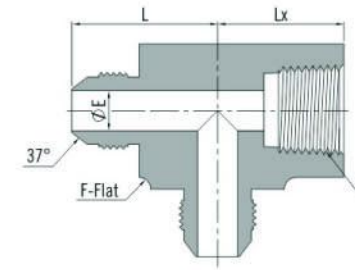
Male Run Tees



SAE 070424

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	F	Lx
1/8	3	1/8	-TMT-AN2-NT2	19.6	1.6	11.1	18.3
3/16	4	1/8	-TMT-AN3-NT2	21.1	3.2	11.1	18.3
1/4	6	1/8	-TMT-AN4-NT2	22.6	4.4	12.7	19.8
1/4	6	1/4	-TMT-AN4-NT4	26.9	4.4	14.3	27.7
5/16	8	1/8	-TMT-AN5-NT2	24.1	4.8	14.3	19.8
5/16	8	1/4	-TMT-AN5-NT4	26.9	6.0	14.3	27.7
3/8	10	1/8	-TMT-AN6-NT2	26.9	4.8	14.3	22.8
3/8	10	1/4	-TMT-AN6-NT4	26.9	7.1	14.3	27.7
3/8	10	3/8	-TMT-AN6-NT6	29.0	7.5	17.5	31.0
3/8	10	1/2	-TMT-AN6-NT8	31.2	7.5	20.6	37.3
1/2	12	1/4	-TMT-AN8-NT4	31.8	7.1	20.6	31.0
1/2	12	3/8	-TMT-AN8-NT6	31.8	9.9	20.6	31.0
1/2	12	1/2	-TMT-AN8-NT8	33.7	9.9	20.6	37.3
1/2	12	3/4	-TMT-AN8-NT12	36.0	9.9	25.4	40.4
5/8	16	3/8	-TMT-AN10-NT6	36.8	9.9	20.6	33.0
5/8	16	1/2	-TMT-AN10-NT8	36.8	12.3	20.6	37.3
5/8	16	3/4	-TMT-AN10-NT12	38.9	12.3	25.4	40.4
3/4	18	3/4	-TMT-AN12-NT12	42.2	15.5	27.0	40.4
3/4	18	1	-TMT-AN12-NT16	42.2	15.5	31.8	50.4
7/8	22	3/4	-TMT-AN14-NT12	45.7	18.3	31.8	42.9
1	25	3/4	-TMT-AN16-NT12	46.0	18.3	34.9	45.2
1	25	1	-TMT-AN16-NT16	46.0	21.5	34.9	50.0
1 1/4	32	1	-TMT-AN20-NT16	52.3	23.8	42.9	59.6
1 1/4	32	1 1/4	-TMT-AN20-NT20	52.3	27.5	42.9	60.5
1 1/2	38	1 1/2	-TMT-AN24-NT24	59.2	33.0	50.8	67.1
2	50	2	-TMT-AN32-NT32	77.7	45.0	63.5	76.2

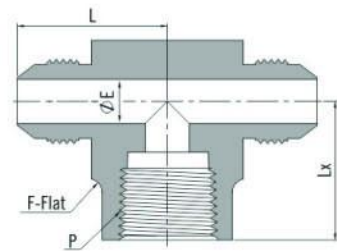
Female Run Tees



SAE 070426

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	F	Lx
1/8	3	1/8	-TFT-AN2-NT2	25.4	1.6	14.3	16.8
3/16	4	1/8	-TFT-AN3-NT2	26.2	3.2	14.3	16.8
1/4	6	1/8	-TFT-AN4-NT2	27.4	4.4	14.3	16.8
1/4	6	1/4	-TFT-AN4-NT4	30.9	4.4	20.6	22.4
5/16	8	1/8	-TFT-AN5-NT2	27.4	6.0	14.3	16.8
5/16	8	1/4	-TFT-AN5-NT4	30.9	6.0	20.6	22.4
3/8	10	1/8	-TFT-AN6-NT2	26.9	7.5	15.9	16.8
3/8	10	1/4	-TFT-AN6-NT4	31.2	7.5	20.6	22.4
3/8	10	3/8	-TFT-AN6-NT6	33.2	7.5	23.8	25.9
1/2	12	1/4	-TFT-AN8-NT4	31.6	9.9	20.6	22.4
1/2	12	3/8	-TFT-AN8-NT6	36.1	9.9	23.8	25.9
1/2	12	1/2	-TFT-AN8-NT8	36.1	9.9	27.0	31.2
5/8	16	1/2	-TFT-AN10-NT8	41.7	12.3	27.0	31.2
3/4	18	1/2	-TFT-AN12-NT8	42.1	15.5	31.8	31.2
3/4	18	3/4	-TFT-AN12-NT12	48.0	15.5	34.9	34.5
7/8	22	3/4	-TFT-AN14-NT12	47.2	18.3	34.9	36.1
1	25	1	-TFT-AN16-NT16	55.1	21.5	42.9	41.1
1 1/4	32	1 1/4	-TFT-AN20-NT20	59.2	27.5	50.8	43.2
1 1/2	38	1 1/2	-TFT-AN24-NT24	73.4	33.0	63.5	52.8
2	50	2	-TFT-AN32-NT32	83.3	45.0	63.5	60.7

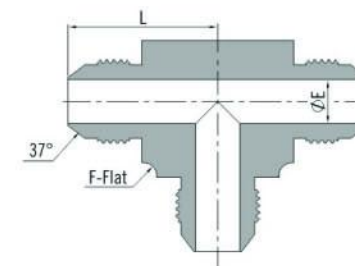
Female Branch Tees



SAE 070427

Tube O.D.		P-NPT Size	Basic Ordering Number	Dimension,mm			
in.	mm			L	E	F	Lx
1/8	3	1/8	-TTF-AN2-NT2	25.4	1.6	14.3	16.8
3/16	4	1/8	-TTF-AN3-NT2	26.2	3.2	14.3	16.8
1/4	6	1/8	-TTF-AN4-NT2	27.4	4.4	14.3	16.8
1/4	6	1/4	-TTF-AN4-NT4	30.9	4.4	20.6	22.4
5/16	8	1/8	-TTF-AN5-NT2	27.4	6.0	14.3	16.8
5/16	8	1/4	-TTF-AN5-NT4	30.9	6.0	20.6	22.4
3/8	10	1/8	-TTF-AN6-NT2	26.9	7.5	15.9	16.8
3/8	10	1/4	-TTF-AN6-NT4	31.2	7.5	20.6	22.4
3/8	10	3/8	-TTF-AN6-NT6	33.2	7.5	23.8	25.9
1/2	12	1/4	-TTF-AN8-NT4	31.6	9.9	20.6	22.4
1/2	12	3/8	-TTF-AN8-NT6	36.1	9.9	23.8	25.9
1/2	12	1/2	-TTF-AN8-NT8	36.1	9.9	27.0	31.2
5/8	16	1/2	-TTF-AN10-NT8	41.7	12.3	27.0	31.2
3/4	18	1/2	-TTF-AN12-NT8	42.1	15.5	31.8	31.2
3/4	18	3/4	-TTF-AN12-NT12	48.0	15.5	34.9	34.5
7/8	22	3/4	-TTF-AN14-NT12	47.2	18.3	34.9	36.1
1	25	1	-TTF-AN16-NT16	55.1	21.5	42.9	41.1
1 1/4	32	1 1/4	-TTF-AN20-NT20	59.2	27.5	50.8	43.2
1 1/2	38	1 1/2	-TTF-AN24-NT24	73.4	33.0	63.5	52.8
2	50	2	-TTF-AN32-NT32	83.8	45.0	63.5	60.7

Union Tees

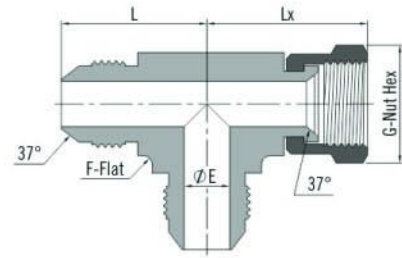


SAE 070401

Tube O.D.		Basic Ordering Number	Dimension,mm		
in.	mm		L	E	F
1/8	3	-TTT-AN2	19.6	1.6	11.1
3/16	4	-TTT-AN3	21.1	3.2	11.1
1/4	6	-TTT-AN4	22.6	4.4	12.7
5/16	8	-TTT-AN5	24.1	6.0	14.3
3/8	10	-TTT-AN6	26.9	7.5	14.3
1/2	12	-TTT-AN8	31.8	9.9	20.6
5/8	16	-TTT-AN10	36.8	12.3	20.6
3/4	18	-TTT-AN12	42.2	15.5	27.0
7/8	22	-TTT-AN14	42.7	18.3	31.8
1	25	-TTT-AN16	46.0	21.5	34.9
1 1/4	32	-TTT-AN20	52.3	27.5	42.9
1 1/2	38	-TTT-AN24	59.2	33.0	50.8
2	50	-TTT-AN32	77.7	45.0	63.5

37° Tube Fittings

Union Tees

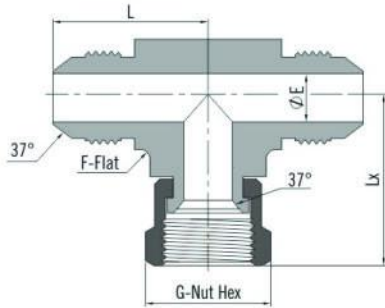


SAE 070432

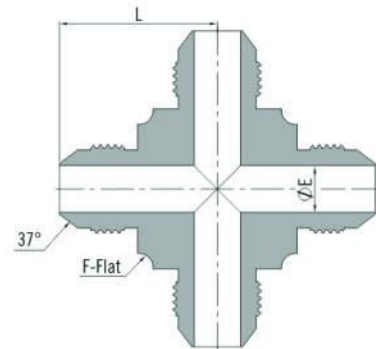
Tube O.D.		Basic Ordering Number	Dimension, mm				
in.	mm		L	E	F	Lx	G
1/8	3	-TTT-AN2-AS2-AN2	19.6	1.6	11.1	24.6	11.1
3/16	4	-TTT-AN3-AS3-AN3	21.1	3.2	11.1	25.4	12.7
1/4	6	-TTT-AN4-AS4-AN4	22.6	4.4	12.7	25.4	14.3
5/16	8	-TTT-AN5-AS5-AN5	24.1	6.0	14.3	26.9	15.9
3/8	10	-TTT-AN6-AS6-AN6	26.9	7.5	14.3	31.8	17.5
1/2	12	-TTT-AN8-AS8-AN8	31.8	9.9	20.6	35.1	22.2
5/8	16	-TTT-AN10-AS10-AN10	36.8	12.3	20.6	41.1	25.4
3/4	18	-TTT-AN12-AS12-AN12	42.2	15.5	27.0	44.4	31.8
7/8	22	-TTT-AN14-AS14-AN14	45.7	18.3	31.8	45.2	34.9
1	25	-TTT-AN16-AS16-AN16	46.0	21.5	34.9	50.8	38.1
1 1/4	32	-TTT-AN20-AS20-AN20	52.3	27.5	42.9	58.7	50.8
1 1/2	38	-TTT-AN24-AS24-AN24	59.2	33.0	50.8	65.8	60.3
2	50	-TTT-AN32-AS32-AN32	77.7	45.0	63.5	85.9	73.0

SAE 070433

Tube O.D.		Basic Ordering Number	Dimension, mm				
in.	mm		L	E	F	Lx	G
1/8	3	-TTT-AN2-AN2-AS2	19.6	1.6	11.1	24.6	11.1
3/16	4	-TTT-AN3-AN3-AS3	21.1	3.2	11.1	25.4	12.7
1/4	6	-TTT-AN4-AN4-AS4	22.6	4.4	12.7	25.4	14.3
5/16	8	-TTT-AN5-AN5-AS5	24.1	6.0	14.3	26.9	15.9
3/8	10	-TTT-AN6-AN6-AS6	26.9	7.5	14.3	31.8	17.5
1/2	12	-TTT-AN8-AN8-AS8	31.8	9.9	20.6	35.1	22.2
5/8	16	-TTT-AN10-AN10-AS10	36.8	12.3	20.6	41.1	25.4
3/4	18	-TTT-AN12-AN12-AS12	42.2	15.5	27.0	44.4	31.8
7/8	22	-TTT-AN14-AN14-AS14	45.7	18.3	31.8	45.2	34.9
1	25	-TTT-AN16-AN16-AS16	46.0	21.5	34.9	50.8	38.1
1 1/4	32	-TTT-AN20-AN20-AS20	52.3	27.5	42.9	58.7	50.8
1 1/2	38	-TTT-AN24-AN24-AS24	59.2	33.0	50.8	65.8	60.3
2	50	-TTT-AN32-AN32-AS32	77.7	45.0	63.5	85.9	73.0



Union Crosses



SAE 070501

Tube O.D.		Basic Ordering Number	Dimension, mm		
in.	mm		L	E	F
1/8	3	-C-AN2	19.6	1.6	11.1
3/16	4	-C-AN3	21.1	3.2	11.1
1/4	6	-C-AN4	22.6	4.4	12.7
5/16	8	-C-AN5	24.1	6.0	14.3
3/8	10	-C-AN6	26.9	7.5	14.3
1/2	12	-C-AN8	31.8	9.9	20.6
5/8	16	-C-AN10	36.8	12.3	20.6
3/4	18	-C-AN12	42.2	15.5	27.0
7/8	22	-C-AN14	45.7	18.3	31.8
1	25	-C-AN16	46.0	21.5	34.9
1 1/4	32	-C-AN20	52.3	27.5	42.9
1 1/2	38	-C-AN24	59.2	33.0	50.8
2	50	-C-AN32	77.7	45.0	63.5