



**S.D. INDUSTRIES**

**Double Ferrule Compression Tube Fittings**



**We deliver confidence through quality products**



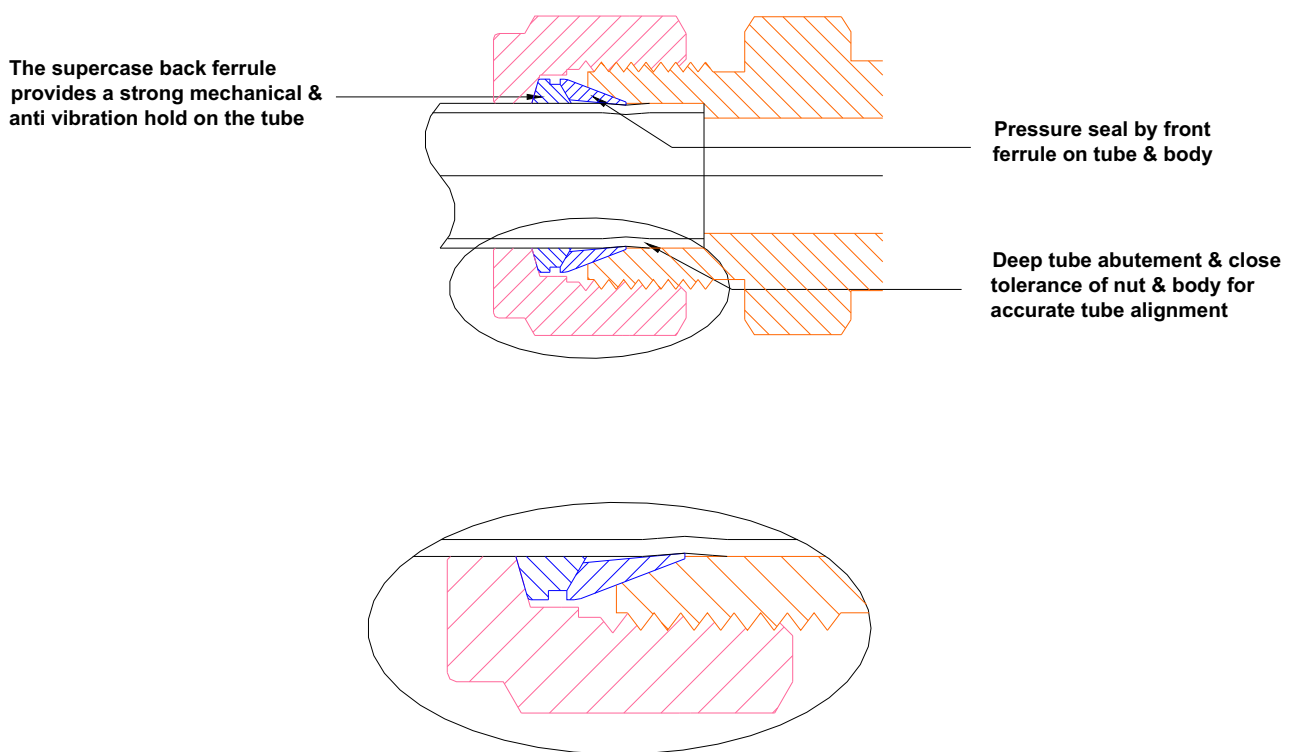
## DOUBLE FERRULE COMPRESSION TUBE FITTINGS

### PRINCIPLE

The double ferrule compression tube fitting consists of four precision-engineered parts designed to provide secure leak proof joints capable of satisfying high pressure, vacuum & vibration application. The four parts are body, front ferrule, back ferrule & nut.

Fittings are supplied complete & ready for use. As the nut is tightened, the front ferrule swages onto the tube as it moves down the cone of the body creating a prominent leak-proof seal on both tube and body by the interface pressure and surface finish of mating components. The super case back ferrule then deforms inwards in the cone of the front ferrule, forming into the tube & creating a strong mechanical hold on the tube.

The internal diameter of the body & nut are closely controlled diameters, which constrain the tube within in a close tolerance of its axis ensuring accurate alignment within the assembled fitting.



The double ferrule compression tube fitting does not in any way reduce the strength of the tube. Therefore tubes with very thin walls can be used without affecting the safety of your installations. These fittings can also be used on plastics or glass tubes, in latter case PTFE ferrules are used. These ensure perfect tightness without the risk of breakage.



## ☛ FEATURES

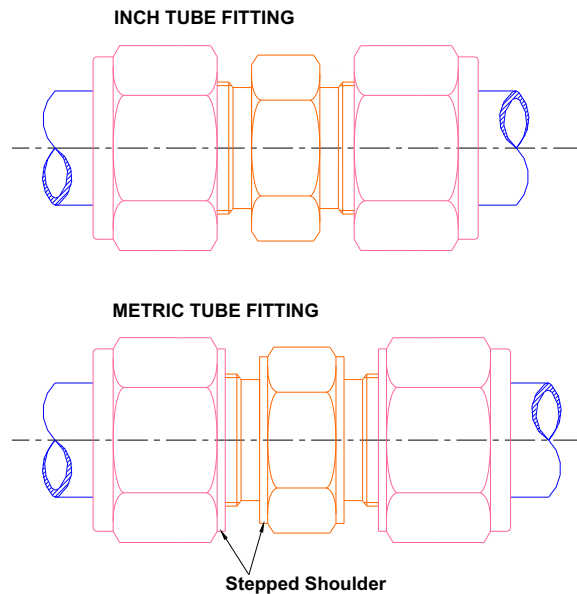
- No twisting of the tube during installation.
- Re-usable, can be assembled & taken apart several times.
- Withstands high vacuum & pressure.
- Forged bodies (in case of tees & elbows) are used to ensure close grain structure for high pressure & good results.

## ☛ IDENTIFICATION BETWEEN METRIC & INCH FITTINGS

SD metric tube fittings are similar in appearance to tube fittings in inch sizes.

The significant difference however is in the internal diameter of the tube fitting components.

Due to the external similarity between metric & inch sizes a stepped shoulder has been machined on the body of metric fitting & the nut.



## ☛ APPLICATION

The SD double ferrule fitting has been specifically designed for use on instrumentation, process & control systems, together with equipment employed in chemical, petroleum, power generation & pulp & paper plants.



## DOUBLE FERRULE COMPRESSION TUBE FITTINGS

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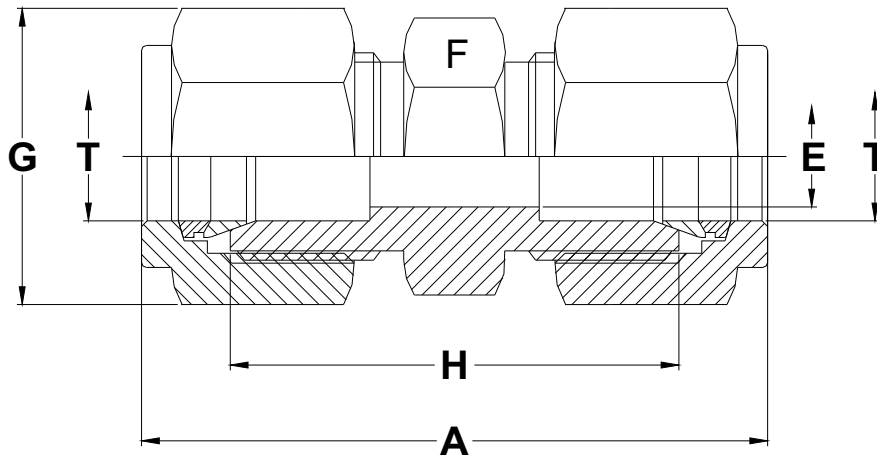
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**UNION**



**INCH OD Tubes**

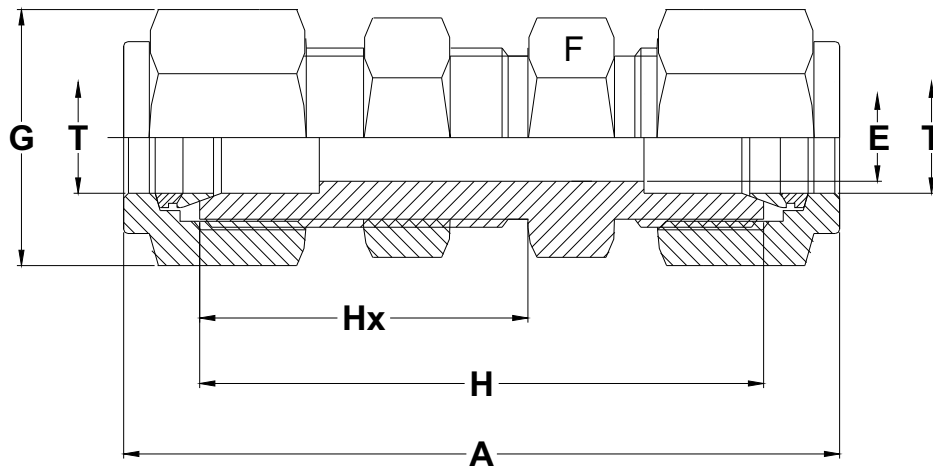
TUBE OD - T	A	E	F	G	H	PART NO.
inch	mm	mm	mm	mm	mm	
1/8	35.6	2.4	11	11	22.4	2D-U
1/4	40.9	4.8	14	14	26.2	4D-U
5/16	42.9	6.3	14	16	28.2	5D-U
3/8	45	7.1	16	17	30.2	6D-U
1/2	51.3	10.4	22	22	31	8D-U
5/8	52	12.7	24	25	31.8	10D-U
3/4	53.6	15.8	27	28.5	33.3	12D-U
7/8	55.2	18.2	30	32	34.8	14D-U
1	64.8	22.3	35	38	40.4	16D-U

**METRIC OD Tubes**

TUBE OD - T	A	E	F	G	H	PART NO.
mm	mm	mm	mm	mm	mm	
3	35.3	2.4	11	11	22.1	D-U3
6	41	4.8	14	14	26.2	D-U6
8	43.2	6.3	16	16	26.2	D-U8
10	46.2	7.9	17	19	31	D-U10
12	51.2	9.5	22	22	31	D-U12
14	52	11.1	24	25	31	D-U14
15	52	11.9	24	25	31.8	D-U15
16	52	12.7	24	25	31.8	D-U16
18	53.5	15.1	27	30	33.3	D-U18
20	55	15.9	30	32	34.8	D-U20
22	55	18.3	30	32	34.8	D-U22
25	65	21.8	35	38	40.4	D-U25



## BULKHEAD UNION



### INCH OD Tubes

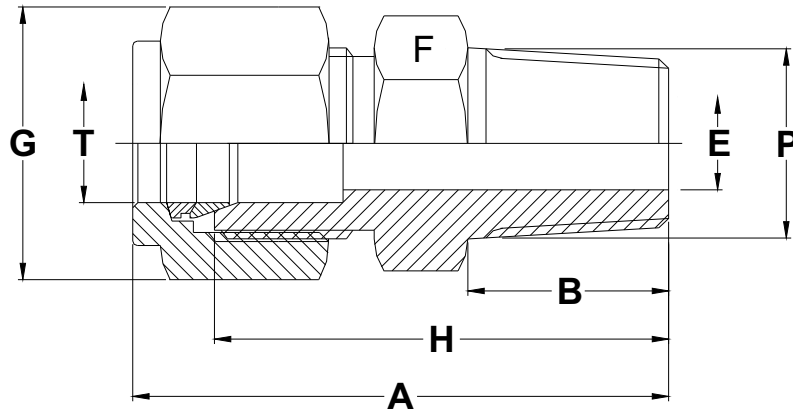
TUBE OD - T	A	E	F	G	H	Hx	PART NO.
inch	mm	mm	mm	mm	mm	mm	
1/8	51.3	2.4	11	11	38.1	24.6	2D-UB
1/4	57.6	4.8	16	14	43	26.2	4D-UB
5/16	60.7	6.3	17	16	46	28.5	5D-UB
3/8	62.2	7.1	22	17	47.5	29.5	6D-UB
1/2	71.1	10.4	24	22	50.8	31.8	8D-UB
5/8	72.6	12.7	27	25	52.3	32.5	10D-UB
3/4	79	15.8	30	28.5	58.6	37.4	12D-UB
1	95.6	22.3	35	38	71.3	45.2	16D-UB

### METRIC OD Tubes

TUBE OD - T	A	E	F	G	H	Hx	PART NO.
mm	mm	mm	mm	mm	mm	mm	
3	51.3	2.4	14	11	38.1	24.6	D-UB3
6	57.7	4.8	16	14	42.9	26.2	D-UB6
8	61	6.3	17	16	46	28.6	D-UB8
10	63.7	7.9	22	19	48.5	29.4	D-UB10
12	71	9.5	24	22	50.8	31.8	D-UB12
14	72.5	11.1	27	25	52.3	32.5	D-UB14
15	72.5	11.9	27	25	52.3	32.5	D-UB15
16	72.5	12.7	27	25	52.3	32.5	D-UB16
18	78.9	15.1	30	30	58.7	37.3	D-UB18
20	84.5	15.9	35	32	64.3	42.9	D-UB20
25	95.6	22.3	35	38	71.3	45.2	D-UB25



**MALE CONNECTOR**



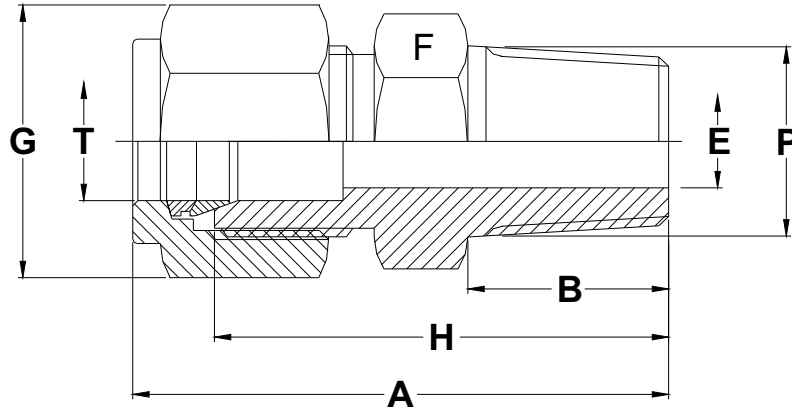
**INCH OD Tubes X Male NPT Threads**

TUBE OD - T	P	A	E	F	G	H	PART NO.
inch	NPT (M)	mm	mm	mm	mm	mm	
1/8	1/8	30.5	2.4	11	11	23.9	2D-MCN
1/8	1/4	35.6	2.4	14	11	29.0	2-4D-MCN
1/4	1/8	32.8	4.8	14	14	25.4	4-2D-MCN
1/4	1/4	37.8	4.8	14	14	30.5	4D-MCN
1/4	3/8	38.4	4.8	19	14	31.0	4-6D-MCN
1/4	1/2	44.7	4.8	22	14	37.4	4-8D-MCN
5/16	1/4	38.6	6.3	14	16	31.2	5-4D-MCN
3/8	1/8	35.3	4.8	16	17	27.9	6-2D-MCN
3/8	1/4	39.8	7.1	16	17	32.5	6-4D-MCN
3/8	3/8	39.8	7.1	19	17	32.5	6D-MCN
3/8	1/2	46.8	7.1	22	17	38.9	6-8D-MCN
1/2	1/4	43.4	7.1	22	22	33.3	8-4D-MCN
1/2	3/8	43.4	9.6	22	22	33.3	8-6D-MCN
1/2	1/2	49	10.4	22	22	38.9	8D-MCN
1/2	3/4	50.5	10.4	27	22	40.4	8-12D-MCN
1/2	1	57.1	10.4	35	22	47.0	8-16D-MCN
5/8	3/8	44.2	9.6	24	25	34.0	10-6D-MCN
5/8	1/2	49	10.4	24	25	38.9	10-8D-MCN
3/4	1/2	50.5	10.4	27	28.5	40.4	12-8D-MCN
3/4	3/4	50.5	15.8	27	28.5	40.4	12D-MCN
3/4	1	57.1	15.8	35	28.5	47.0	12-16D-MCN
7/8	3/4	50.5	15.8	30	32	40.4	14-12D-MCN
1	1/2	57.4	10.4	35	38	45.2	16-8D-MCN
1	3/4	57.4	15.8	35	38	45.2	16-12D-MCN
1	1	62.2	22.3	35	38	50.0	16D-MCN





## MALE CONNECTOR



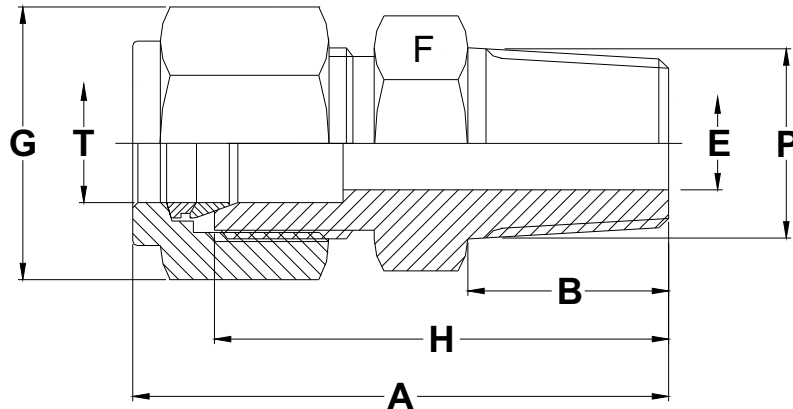
### METRIC OD Tubes X Male NPT Threads

TUBE OD - T	P	A	E	F	G	H	PART NO.
mm	NPT (M)	mm	mm	mm	mm	mm	
3	1/8	30.5	2.4	11	11	23.9	D-MC3-N2
3	1/4	35.6	2.4	14	11	29.0	D-MC3-N4
6	1/8	32.8	4.8	14	14	25.4	D-MC6-N2
6	1/4	37.9	4.8	14	14	30.5	D-MC6-N4
6	3/8	38.4	4.8	19	14	31.0	D-MC6-N6
6	1/2	44.7	4.8	20	14	37.3	D-MC6-N8
8	1/8	34.2	4.8	14	16	26.7	D-MC8-N2
8	1/4	38.7	6.3	14	16	31.2	D-MC8-N4
8	3/8	39.3	6.3	19	16	31.8	D-MC8-N6
8	1/2	45.6	6.3	22	16	38.1	D-MC8-N8
10	1/8	36.3	4.8	17	19	28.7	D-MC10-N2
10	1/4	40.9	7.9	19	19	33.3	D-MC10-N4
10	3/8	40.9	7.9	19	19	33.3	D-MC10-N6
10	1/2	46.5	7.9	22	19	38.9	D-MC10-N8
12	1/4	43.4	7.1	22	22	33.3	D-MC12-N4
12	3/8	43.4	9.5	22	22	33.3	D-MC12-N6
12	1/2	49	9.5	22	22	38.9	D-MC12-N8
12	3/4	50.5	9.5	27	22	40.4	D-MC12-N12
12	1	57.1	9.5	35	22	47.0	D-MC12-N16
14	3/8	44.1	9.5	24	25	34.0	D-MC14-N6
14	1/2	49	11.1	24	25	38.9	D-MC14-N8
16	3/8	44.1	9.5	24	25	34.0	D-MC16-N6
16	1/2	49	11.9	24	25	38.9	D-MC16-N8
16	3/4	50.5	12.7	27	25	40.4	D-MC16-N12
18	1/2	50.5	11.9	27	30	40.4	D-MC18-N8
18	3/4	50.5	15.1	27	30	40.4	D-MC18-N12
20	1/2	52.3	15.9	30	32	42.2	D-MC20-N8
20	3/4	57.1	18.3	35	32	42.2	D-MC20-N12
25	1/2	57.5	11.9	35	38	45.2	D-MC25-N8
25	3/4	57.5	15.8	35	38	45.2	D-MC25-N12
25	1	62.3	21.8	35	38	50.0	D-MC25-N16





**MALE CONNECTOR**

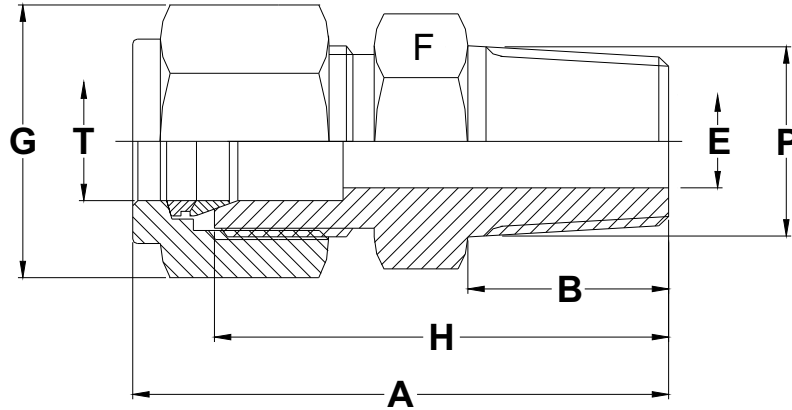


**INCH OD Tubes X Male ISO Tapered Pipe Threads**

TUBE OD - T	P	A	E	F	G	H	PART NO.
inch	BSPT (M)	mm	mm	mm	mm	mm	
1/8	1/8	30.5	2.4	11	11	23.9	2D-MCR
1/8	1/4	35.6	2.4	14	11	29.0	2-4D-MCR
1/4	1/8	32.8	4.8	14	14	25.4	4-2D-MCR
1/4	1/4	37.8	4.8	14	14	30.5	4D-MCR
1/4	3/8	38.4	4.8	19	14	31.0	4-6D-MCR
1/4	1/2	44.7	4.8	22	14	37.4	4-8D-MCR
5/16	1/4	38.6	6.3	14	16	31.2	5-4D-MCR
3/8	1/8	35.3	4.8	16	17	27.9	6-2D-MCR
3/8	1/4	39.8	7.1	16	17	32.5	6-4D-MCR
3/8	3/8	39.8	7.1	19	17	32.5	6D-MCR
3/8	1/2	46.8	7.1	22	17	38.9	6-8D-MCR
1/2	1/4	43.4	7.1	22	22	33.3	8-4D-MCR
1/2	3/8	43.4	9.6	22	22	33.3	8-6D-MCR
1/2	1/2	49	10.4	22	22	38.9	8D-MCR
1/2	3/4	50.5	10.4	27	22	40.4	8-12D-MCR
1/2	1	57.1	10.4	35	22	47.0	8-16D-MCR
5/8	3/8	44.2	9.6	24	25	34.0	10-6D-MCR
5/8	1/2	49	10.4	24	25	38.9	10-8D-MCR
3/4	1/2	50.5	10.4	27	28.5	40.4	12-8D-MCR
3/4	3/4	50.5	15.8	27	28.5	40.4	12D-MCR
3/4	1	57.1	15.8	35	28.5	47.0	12-16D-MCR
7/8	3/4	50.5	15.8	30	32	40.4	14-12D-MCR
1	1/2	57.4	10.4	35	38	45.2	16-8D-MCR
1	3/4	57.4	15.8	35	38	45.2	16-12D-MCR
1	1	62.2	22.3	35	38	50.0	16D-MCR



## MALE CONNECTOR

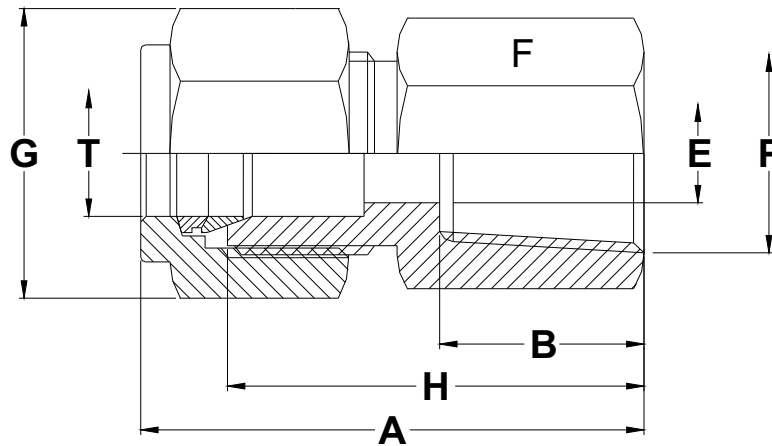


METRIC OD Tubes X Male ISO Tapered Pipe Threads

TUBE OD	P	A	E	F	G	H	PART NO.
mm	BSPT (M)	mm	mm	mm	mm	mm	
3	1/8	30.5	2.4	11	11	23.9	D-MC3-R2
3	1/4	35.6	2.4	14	11	29.0	D-MC3-R4
6	1/8	32.8	4.8	14	14	25.4	D-MC6-R2
6	1/4	37.9	4.8	14	14	30.5	D-MC6-R4
6	3/8	38.4	4.8	19	14	31.0	D-MC6-R6
6	1/2	44.7	4.8	20	14	37.3	D-MC6-R8
8	1/8	34.2	4.8	14	16	26.7	D-MC8-R2
8	1/4	38.7	6.3	14	16	31.2	D-MC8-R4
8	3/8	39.3	6.3	19	16	31.8	D-MC8-R6
8	1/2	45.6	6.3	22	16	38.1	D-MC8-R8
10	1/8	36.3	4.8	17	19	28.7	D-MC10-R2
10	1/4	40.9	7.9	19	19	33.3	D-MC10-R4
10	3/8	40.9	7.9	19	19	33.3	D-MC10-R6
10	1/2	46.5	7.9	22	19	38.9	D-MC10-R8
12	1/4	43.4	7.1	22	22	33.3	D-MC12-R4
12	3/8	43.4	9.5	22	22	33.3	D-MC12-R6
12	1/2	49	9.5	22	22	38.9	D-MC12-R8
12	3/4	50.5	9.5	27	22	40.4	D-MC12-R12
12	1	57.1	9.5	35	22	47.0	D-MC12-R16
14	3/8	44.1	9.5	24	25	34.0	D-MC14-R6
14	1/2	49	11.1	24	25	38.9	D-MC14-R8
16	3/8	44.1	9.5	24	25	34.0	D-MC16-R6
16	1/2	49	11.9	24	25	38.9	D-MC16-R8
16	3/4	50.5	12.7	27	25	40.4	D-MC16-N12
18	1/2	50.5	11.9	27	30	40.4	D-MC18-N8
18	3/4	50.5	15.1	27	30	40.4	D-MC18-R12
20	1/2	52.3	15.9	30	32	42.2	D-MC20-R8
20	3/4	57.1	18.3	35	32	42.2	D-MC20-R12
25	1/2	57.5	11.9	35	38	45.2	D-MC25-R8
25	3/4	57.5	15.8	35	38	45.2	D-MC25-R12
25	1	62.3	21.8	35	38	50.0	D-MC25-R16



**FEMALE CONNECTOR**

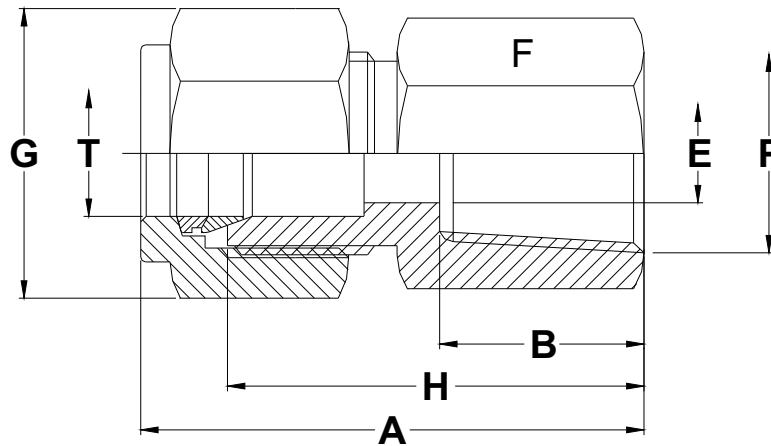


**INCH OD Tubes X Female NPT Threads**

TUBE OD - T	P	A	B	E	F	G	H	PART NO.
inch	NPT (F)	mm	mm	mm	mm	mm	mm	
1/8	1/8	28.7	10.4	2.4	14	11	22.1	<b>2D-FCN</b>
1/8	1/4	33.6	15	2.4	19	11	26.9	<b>2-4D-FCN</b>
1/4	1/8	31.2	9.9	4.8	14	14	23.9	<b>4-2D-FCN</b>
1/4	1/4	35.8	15	4.8	19	14	28.5	<b>4D-FCN</b>
1/4	3/8	37.6	15	4.8	22	14	30.2	<b>4-6D-FCN</b>
1/4	1/2	42.4	19.8	4.8	27	14	35.0	<b>4-8D-FCN</b>
3/8	1/4	37.6	15	7.1	19	17	30.2	<b>6-4D-FCN</b>
3/8	3/8	39.1	15	7.1	22	17	31.8	<b>6D-FCN</b>
3/8	1/2	43.9	19.8	7.1	27	17	36.6	<b>6-8D-FCN</b>
1/2	1/4	40.4	15	7.1	22	22	30.2	<b>8-4D-FCN</b>
1/2	3/8	41.9	15	10.4	22	22	30.2	<b>8-6D-FCN</b>
1/2	1/2	46.7	19.8	10.4	27	22	36.6	<b>8D-FCN</b>
5/8	3/8	41.9	15	12.7	24	25	31.8	<b>10-6D-FCN</b>
5/8	1/2	46.7	19.8	12.7	27	25	36.6	<b>10-8D-FCN</b>
3/4	1/2	46.7	19.8	15.8	27	28.5	36.6	<b>12-8D-FCN</b>
3/4	3/4	48.3	20.6	15.8	35	28.5	38.1	<b>12D-FCN</b>
7/8	3/4	49.8	20.6	18.3	35	32	39.6	<b>14-12D-FCN</b>
1	3/4	53.4	20.6	22.3	35	38	41.2	<b>16-12D-FCN</b>
1	1	62.3	25.4	22.3	41	38	50.0	<b>16D-FCN</b>



## FEMALE CONNECTOR

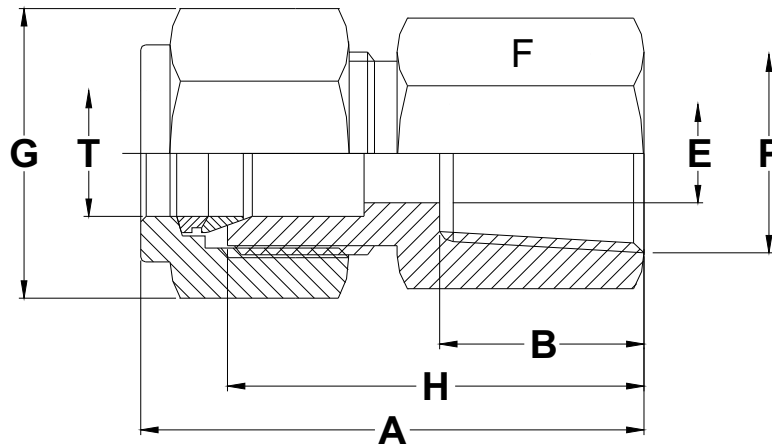


### METRIC OD Tubes X Female NPT Threads

TUBE OD - T	P	A	B	E	F	G	H	PART NO.
mm	NPT (F)	mm	mm	mm	mm	mm	mm	
3	1/8	28.7	10.4	2.4	14	11	22.1	D-FC3-N2
3	1/4	33.6	15	2.4	19	11	26.9	D-FC3-N4
6	1/8	31.2	9.9	4.8	14	14	23.9	D-FC6-N2
6	1/4	35.8	15	4.8	19	14	28.5	D-FC6-N4
6	3/8	37.6	15	4.8	22	14	30.2	D-FC6-N6
6	1/2	42.4	19.8	4.8	27	14	35	D-FC6-N8
10	1/4	37.6	15	7.1	19	17	30.2	D-FC10-N4
10	3/8	39.1	15	7.1	22	17	31.8	D-FC10-N6
10	1/2	43.9	19.8	7.1	27	17	36.6	D-FC10-N8
12	1/4	40.4	15	7.1	22	22	30.2	D-FC12-N4
12	3/8	41.9	15	10.4	22	22	30.2	D-FC12-N6
12	1/2	46.7	19.8	10.4	27	22	36.6	D-FC12-N8
25	3/4	53.4	20.6	22.3	35	38	41.2	D-FC25-N12
25	1	62.3	25.4	22.3	41	38	50	D-FC25-N16



**FEMALE CONNECTOR**

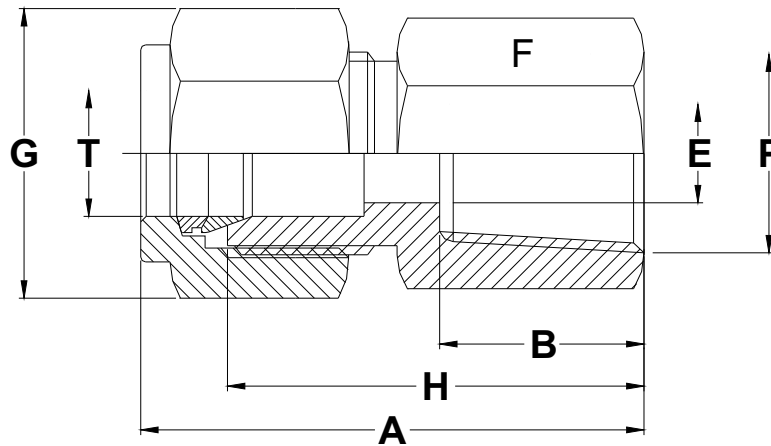


**INCH OD Tubes X Female ISO Tapered Pipe Threads**

TUBE OD - T	P	A	B	E	F	G	H	PART NO.
inch	BSPT (F)	mm	mm	mm	mm	mm	mm	
1/8	1/8	28.7	10.4	2.4	14	11	22.1	2D-FCR
1/8	1/4	33.6	15	2.4	19	11	26.9	2-4D-FCR
1/4	1/8	31.2	9.9	4.8	14	14	23.9	4-2D-FCR
1/4	1/4	35.8	15	4.8	19	14	28.5	4D-FCR
1/4	3/8	37.6	15	4.8	22	14	30.2	4-6D-FCR
1/4	1/2	42.4	19.8	4.8	27	14	35.0	4-8D-FCR
3/8	1/4	37.6	15	7.1	19	17	30.2	6-4D-FCR
3/8	3/8	39.1	15	7.1	22	17	31.8	6D-FCR
3/8	1/2	43.9	19.8	7.1	27	17	36.6	6-8D-FCR
1/2	1/4	40.4	15	7.1	22	22	30.2	8-4D-FCR
1/2	3/8	41.9	15	10.4	22	22	30.2	8-6D-FCR
1/2	1/2	46.7	19.8	10.4	27	22	36.6	8D-FCR
5/8	3/8	41.9	15	12.7	24	25	31.8	10-6D-FCR
5/8	1/2	46.7	19.8	12.7	27	25	36.6	10-8D-FCR
3/4	1/2	46.7	19.8	15.8	27	28.5	36.6	12-8D-FCR
3/4	3/4	48.3	20.6	15.8	35	28.5	38.1	12D-FCR
7/8	3/4	49.8	20.6	18.3	35	32	39.6	14-12D-FCR
1	3/4	53.4	20.6	22.3	35	38	41.2	16-12D-FCR
1	1	62.3	25.4	22.3	41	38	50.0	16D-FCR



## FEMALE CONNECTOR

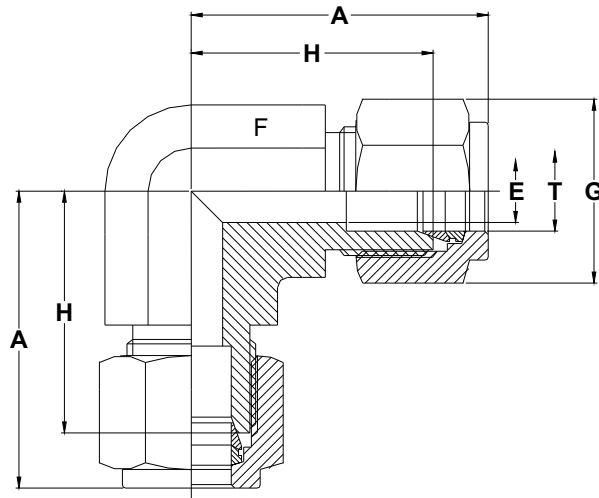


### METRIC OD Tubes X Female ISO Tapered Pipe Threads

TUBE OD - T	P	A	B	E	F	G	H	PART NO.
mm	BSPT (F)	mm	mm	mm	mm	mm	mm	
3	1/8	28.7	10.4	2.4	14	11	22.1	D-FC3-R2
3	1/4	33.6	15	2.4	19	11	26.9	D-FC3-R4
6	1/8	31.2	9.9	4.8	14	14	23.9	D-FC6-R2
6	1/4	35.8	15	4.8	19	14	28.5	D-FC6-R4
6	3/8	37.6	15	4.8	22	14	30.2	D-FC6-R6
6	1/2	42.4	19.8	4.8	27	14	35	D-FC6-R8
10	1/4	37.6	15	7.1	19	17	30.2	D-FC10-R4
10	3/8	39.1	15	7.1	22	17	31.8	D-FC10-R6
10	1/2	43.9	19.8	7.1	27	17	36.6	D-FC10-R8
12	1/4	40.4	15	7.1	22	22	30.2	D-FC12-R4
12	3/8	41.9	15	10.4	22	22	30.2	D-FC12-R6
12	1/2	46.7	19.8	10.4	27	22	36.6	D-FC12-R8
25	3/4	53.4	20.6	22.3	35	38	41.2	D-FC25-R12
25	1	62.3	25.4	22.3	41	38	50	D-FC25-R16



**UNION ELBOW**



**INCH OD Tubes**

TUBE OD - T	A	E	F	G	H	PART NO.
inch	mm	mm	mm	mm	mm	
1/8	22.4	2.4	11	11	15.8	2D-E
1/4	26.9	4.8	14	14	19.6	4D-E
5/16	28.7	6.3	16	16	21.36	5D-E
3/8	30.5	7.1	17	17	23.2	6D-E
1/2	36	10.4	22	22	25.9	8D-E
5/8	38.1	12.7	24	25	27.9	10D-E
3/4	39.9	15.8	27	28.5	29.7	12D-E
7/8	44.7	18.2	35	32	34.6	14D-E
1	49	22.3	35	38	36.8	16D-E

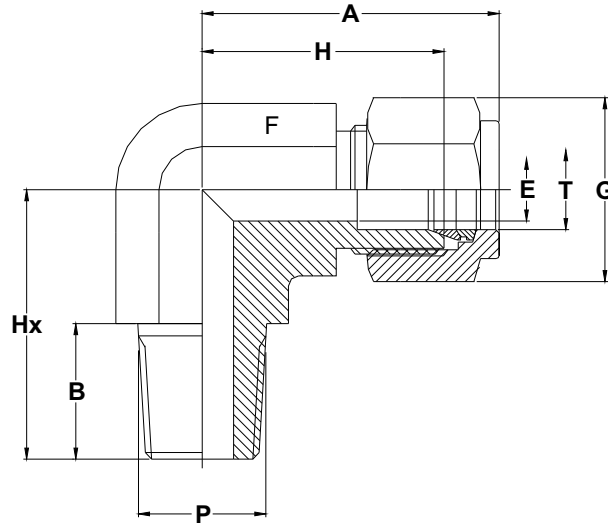
**METRIC OD Tubes**

TUBE OD - T	A	E	F	G	H	PART NO.
mm	mm	mm	mm	mm	mm	
3	22.3	2.4	11	11	15.7	D-E3
6	27	4.8	14	14	19.6	D-E6
8	28.8	6.3	16	16	21.3	D-E8
10	31.5	7.9	17	19	23.9	D-E10
12	36	9.5	22	22	25.9	D-E12
14	38	11.1	24	25	27.9	D-E14
15	38	11.9	24	25	27.9	D-E15
16	39.8	12.7	24	25	27.9	D-E16
18	39.8	15.1	27	30	29.7	D-E18
20	44.6	15.9	32	32	34.5	D-E20
22	44.6	18.3	32	32	34.5	D-E22
25	49.1	21.8	35	35	36.8	D-E25





## MALE ELBOW

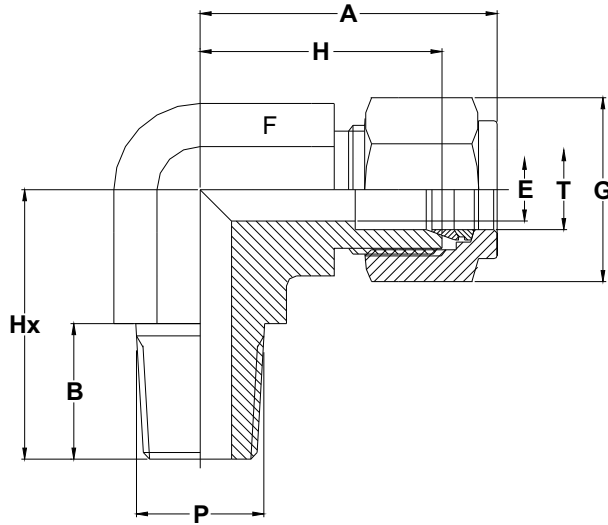


### INCH OD Tubes X Male NPT Threads

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
inch	NPT (M)	mm	mm	mm	mm	mm	mm	mm	
1/8	1/8	23.6	9.6	2.4	11	11	17	17.8	<b>2D-MEN</b>
1/8	1/4	24.6	14.3	2.4	14	11	18	23.4	<b>2-4D-MEN</b>
1/4	1/8	26.9	10.4	4.8	14	14	19.6	19	<b>4-2D-MEN</b>
1/4	1/4	29.7	15	4.8	19	14	22.4	22.4	<b>4D-MEN</b>
1/4	3/8	31.8	15	4.8	22	14	24.4	22.4	<b>4-6D-MEN</b>
1/4	2/4	34.6	19.8	4.8	27	14	27.2	28.5	<b>4-8D-MEN</b>
3/8	1/8	30.5	9.6	4.8	14	17	23.2	19.1	<b>6-2D-MEN</b>
3/8	1/4	30.5	14.3	7.1	17	17	23.2	19.1	<b>6-4D-MEN</b>
3/8	3/8	31.2	15	7.1	17	17	23.9	22.4	<b>6D-MEN</b>
3/8	1/2	33.3	15	7.1	22	17	25.9	22.4	<b>6-8D-MEN</b>
1/2	1/4	36	14.3	4.8	22	22	25.9	28.2	<b>8-4D-MEN</b>
1/2	3/8	36	14.3	9.6	22	22	25.9	28.2	<b>8-6D-MEN</b>
1/2	1/2	36	19.1	10.4	22	22	25.9	33	<b>8D-MEN</b>
1/2	3/4	39.9	19.1	10.4	27	22	29.7	36.8	<b>8-12D-MEN</b>
3/4	1/2	39.9	19.1	11.9	27	29	29.7	36.8	<b>12-8D-MEN</b>
3/4	3/4	39.9	19.1	15.8	27	29	29.7	36.8	<b>12D-MEN</b>
1	3/4	49	19.1	15.8	35	38	36.8	41.6	<b>16-12D-MEN</b>
1	1	49	23.8	22.3	35	38	36.8	46.5	<b>16D-MEN</b>



**MALE ELBOW**

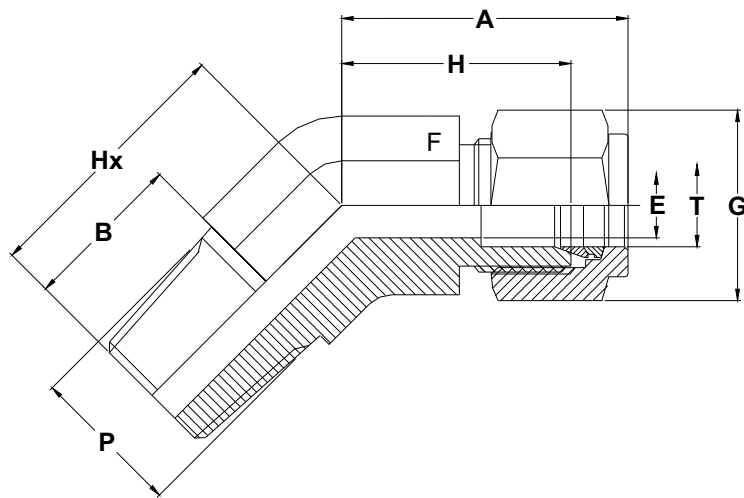


**METRIC OD Tubes X Male NPT Threads**

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
mm	NPT (M)	mm	mm	mm	mm	mm	mm	mm	
3	1/8	23.6	9.6	2.4	11	11	17	17.8	D-ME3-N2
3	1/4	24.6	14.3	2.4	14	11	18	23.4	D-ME3-N4
6	1/8	27	9.6	4.8	14	14	19.6	18.8	D-ME6-N2
6	1/4	27	14.3	4.8	14	14	19.6	23.4	D-ME6-N4
6	3/8	29.8	14.3	4.8	17	14	22.4	26.2	D-ME6-N6
6	1/2	31.8	19.1	4.8	22	14	24.4	33	D-ME6-N8
8	1/8	28.8	9.6	4.8	14	16	21.3	19.8	D-ME8-N2
8	1/4	28.8	14.3	6.3	14	16	21.3	24.4	D-ME8-N4
8	3/8	30.6	14.3	6.3	17	16	23.1	26.2	D-ME8-N6
8	1/2	32.6	19.1	6.3	22	16	25.1	33	D-ME8-N8
10	1/4	31.5	14.3	7.1	17	19	23.9	26.2	D-ME10-N4
10	3/8	31.5	14.3	7.9	17	19	23.9	26.2	D-ME10-N6
10	1/2	33.5	19.1	7.9	22	19	25.9	33	D-ME10-N8
12	1/4	36	14.3	7.1	22	22	25.9	26.2	D-ME12-N4
12	3/8	36	14.3	9.5	22	22	25.9	28.2	D-ME12-N6
12	1/2	36	19.1	9.5	22	22	25.9	33	D-ME12-N8
15	1/2	38	19.1	11.9	24	25	27.9	35.1	D-ME15-N8
16	1/2	38	19.1	11.9	24	25	27.9	35.1	D-ME16-N8
16	3/4	39.8	19.1	11.9	24	25	29.7	36.8	D-ME16-N12
22	3/4	44.6	19.1	15.9	35	32	34.5	41.7	D-ME22-N12
22	1	44.6	23.9	18.3	35	32	34.5	46.5	D-ME22-N16
25	3/4	49.1	19.1	19.9	35	38	36.8	41.7	D-ME25-N12
25	1	49.1	23.9	21.8	35	38	36.8	46.5	D-ME25-N16



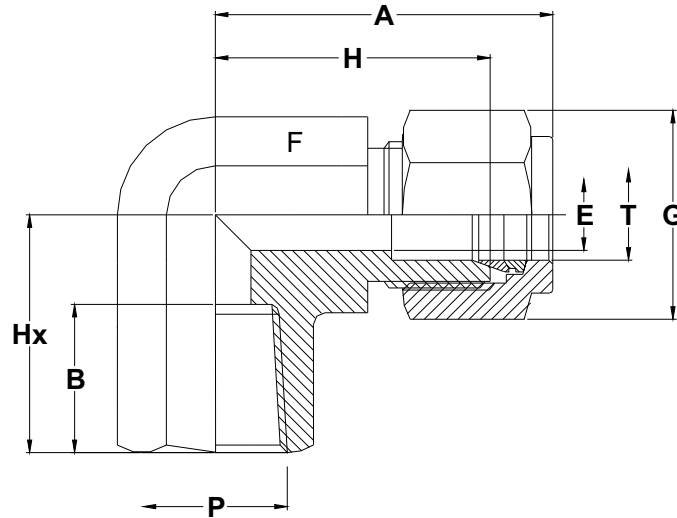
## 45 DEG. MALE ELBOW



TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
inch	NPT (M)	mm	mm	mm	mm	mm	mm	mm	
1/4	1/8	24.6	9.6	4.8	14	14	17.3	16.5	4-2D-AMEN
1/4	1/4	24.6	14.3	4.8	14	14	17.3	21	4D-AMEN
3/8	1/8	27.9	9.6	4.8	14	17	20.6	18.3	6-2D-AMEN
3/8	1/4	27.9	14.3	7.1	17	17	20.6	22.9	6-4D-AMEN
3/8	3/8	29.2	14.3	7.1	17	17	21.8	24.1	6D-AMEN
1/2	3/8	32	14.3	9.6	22	22	21.8	24.1	8-6D-AMEN
1/2	1/2	32	19.1	10.4	22	22	21.8	29	8D-AMEN
3/4	3/4	34	19.1	15.8	27	28.5	23.9	31.8	12D-AMEN
1	1	40.4	23.8	22.3	35	38	26.2	37.8	16D-AMEN



**FEMALE ELBOW**

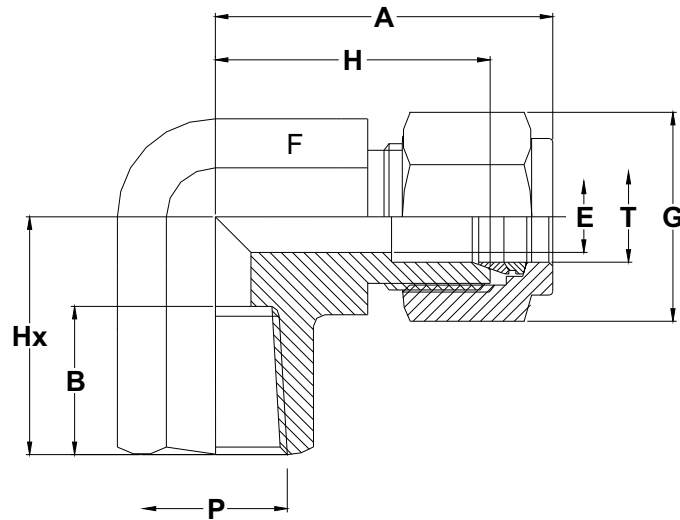


**INCH OD Tubes X Female NPT Threads**

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
inch	NPT (F)	mm	mm	mm	mm	mm	mm	mm	
1/8	1/8	24.6	10.4	2.4	14	11	18	19	<b>2D-FEN</b>
1/8	1/4	27.4	15	2.4	19	11	20.8	22.4	<b>2-4D-FEN</b>
1/4	1/8	26.9	10.4	4.8	14	14	19.6	19	<b>4-2D-FEN</b>
1/4	1/4	29.7	15	4.8	19	14	22.4	22.4	<b>4D-FEN</b>
1/4	3/8	31.8	15	4.8	22	14	24.4	22.4	<b>4-6D-FEN</b>
1/4	2/4	34.6	19.8	4.8	27	14	27.2	28.5	<b>4-8D-FEN</b>
3/8	1/8	30.5	10.4	7.1	17	17	23.2	19.1	<b>6-2D-FEN</b>
3/8	1/4	31.2	15	7.1	19	17	23.9	22.4	<b>6-4D-FEN</b>
3/8	3/8	33.3	15	7.1	22	17	25.9	22.4	<b>6D-FEN</b>
3/8	1/2	36	19.8	7.1	27	17	28.7	28.5	<b>6-8D-FEN</b>
1/2	1/4	36	15	7.1	22	22	25.9	22.4	<b>8-4D-FEN</b>
1/2	3/8	36	15	10.4	22	22	25.9	22.4	<b>8-6D-FEN</b>
1/2	1/2	38.9	19.8	10.4	17	22	28.7	28.5	<b>8D-FEN</b>
3/4	1/2	39.9	19.8	15.8	27	28.5	29.7	28.5	<b>12-8D-FEN</b>
3/4	3/4	44.7	20.6	15.8	35	28.5	34.6	31.8	<b>12D-FEN</b>
1	3/4	49	20.6	22.3	35	38	36.8	31.8	<b>16-12D-FEN</b>
1	1	53.6	25.4	22.3	41	38	41.4	38.1	<b>16D-FEN</b>



## FEMALE ELBOW

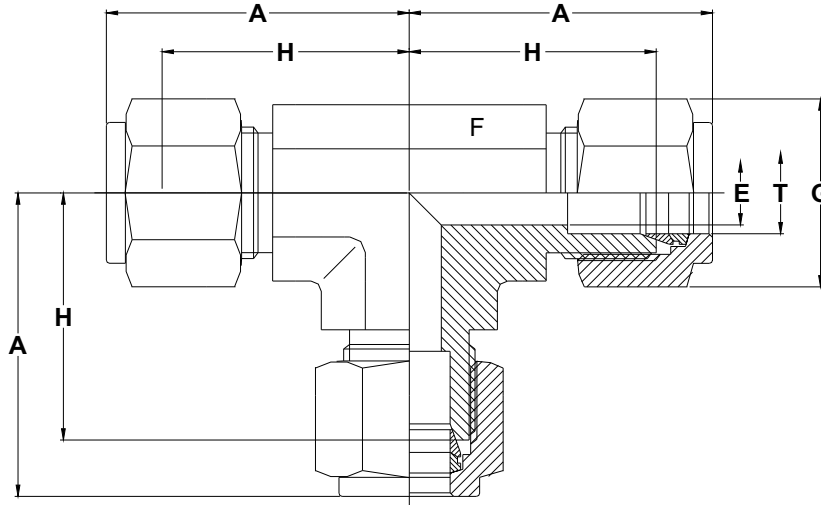


### METRIC OD Tubes X Female NPT Threads

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
mm	NPT (F)	mm	mm	mm	mm	mm	mm	mm	
3	1/8	24.6	10.4	2.4	14	11	18	19	DFE3-N2
3	1/4	27.4	15	2.4	19	11	20.8	22.4	DFE3-N4
6	1/8	27	10.4	4.8	14	14	19.6	19	D-FE6-N2
6	1/4	29.8	15	4.8	19	14	22.4	22.4	D-FE6-N4
6	1/2	34.6	19.8	4.8	27	14	27.2	28.5	D-FE6-N8
8	1/4	30.6	15	6.3	19	16	23.1	22.4	D-FE8-N4
8	3/8	32.6	15	6.3	22	16	25.1	22.4	D-FE8-N6
10	1/4	33.5	15	7.9	19	19	25.9	22.4	D-FE10-N4
10	3/8	33.5	15	7.9	22	19	25.9	22.4	D-FE10-N6
12	1/4	36	15	9.5	22	22	25.9	22.4	D-FE12-N4
12	3/8	36	15	9.5	22	22	25.9	22.4	D-FE12-N6
12	1/2	38.8	19.8	9.5	27	22	28.7	28.5	D-FE12-N8
16	1/2	39.5	19.8	12.7	27	25	29.7	28.5	D-FE16-N8
25	3/4	49	20.6	22.3	35	38	36.8	31.8	D-FE25-N12
25	1	53.6	25.4	22.3	41	38	41.4	38.1	D-FE25-N16



**UNION TEE**



**INCH OD Tubes**

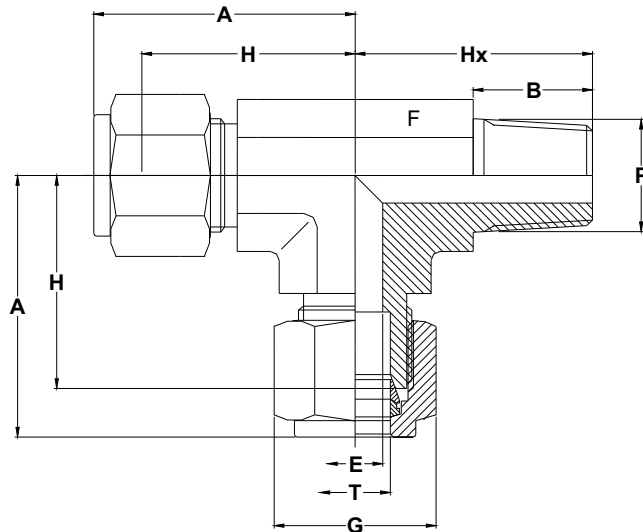
TUBE OD - T	A	E	F	G	H	PART NO.
inch	mm	mm	mm	mm	mm	
1/8	22.4	2.4	11	11	15.8	2D-T
1/4	26.9	4.8	14	14	19.6	4D-T
5/16	28.7	6.3	16	16	21.36	5D-T
3/8	30.5	7.1	17	17	23.2	6D-T
1/2	36	10.4	22	22	25.9	8D-T
5/8	38.1	12.7	24	25	27.9	10D-T
3/4	39.9	15.8	27	28.5	29.7	12D-T
7/8	44.7	18.2	35	32	34.6	14D-T
1	49	22.3	35	38	36.8	16D-T

**METRIC OD Tubes**

TUBE OD - T	A	E	F	G	H	PART NO.
mm	mm	mm	mm	mm	mm	
3	22.3	2.4	11	11	15.7	D-T3
6	27	4.8	14	14	19.6	D-T6
8	28.8	6.3	16	16	21.3	D-T8
10	31.5	7.9	17	19	23.9	D-T10
12	36	9.5	22	22	25.9	D-T12
14	38	11.1	24	25	27.9	D-T14
15	38	11.9	24	25	27.9	D-T15
16	39.8	12.7	24	25	27.9	D-T16
18	39.8	15.1	27	30	29.7	D-T18
20	44.6	15.9	32	32	34.5	D-T20
22	44.6	18.3	32	32	34.5	D-T22
25	49.1	21.8	35	38	36.8	D-T25



## MALE RUN TEE



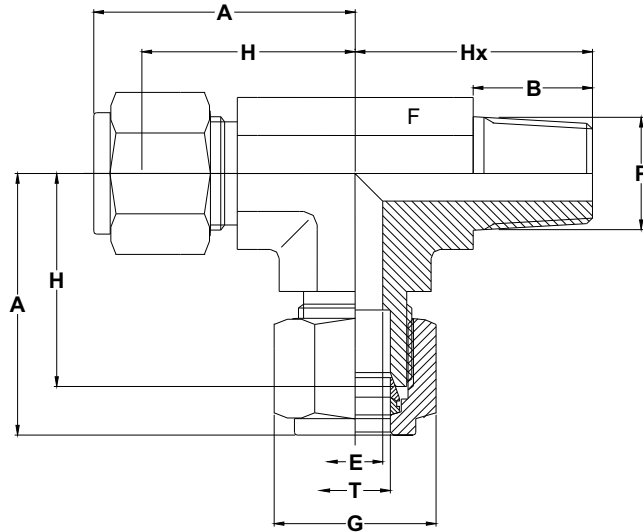
### INCH OD Tubes X Male NPT Threads

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
inch	NPT (M)	mm	mm	mm	mm	mm	mm	mm	
1/8	1/8	23.6	9.6	2.4	11	11	17	17.8	2D-MRTN
1/8	1/4	24.6	14.3	2.4	14	11	18	23.4	2-4D-MRTN
1/4	1/8	26.9	9.6	4.8	14	14	19.6	18.8	4-2D-MRTN
1/4	1/4	26.9	14.3	4.8	14	14	19.6	23.4	4D-MRTN
1/4	3/8	29.7	14.3	4.8	17	14	22.4	26.2	4-6D-MRTN
1/4	2/4	31.8	19.1	4.8	22	14	24.4	33	4-8D-MRTN
3/8	1/4	30.5	14.3	7.1	17	17	23.1	25.4	6-4D-MRTN
3/8	3/8	31.2	14.3	7.1	17	17	23.9	26.2	6D-MRTN
3/8	1/2	33	19.1	7.1	22	17	25.9	33	6-8D-MRTN
1/2	1/4	36	14.3	4.8	22	22	25.9	28.2	8-4D-MRTN
1/2	3/8	36	14.3	9.6	22	22	25.9	28.2	8-6D-MRTN
1/2	1/2	36	19.1	10.4	22	22	25.9	33	8D-MRTN
5/8	1/2	38.1	19.1	11.9	22	25	27.9	35	10-8D-MRTN
3/4	1/2	39.9	19.1	11.9	27	29	29.7	36.8	12-8D-MRTN
3/4	3/4	39.9	19.1	15.8	27	29	29.7	36.8	12D-MRTN
1	3/4	49	19.1	15.8	35	38	36.8	41.6	16-12D-MRTN
1	1	49	23.8	22.3	35	38	36.8	46.5	16D-MRTN





**MALE RUN TEE**

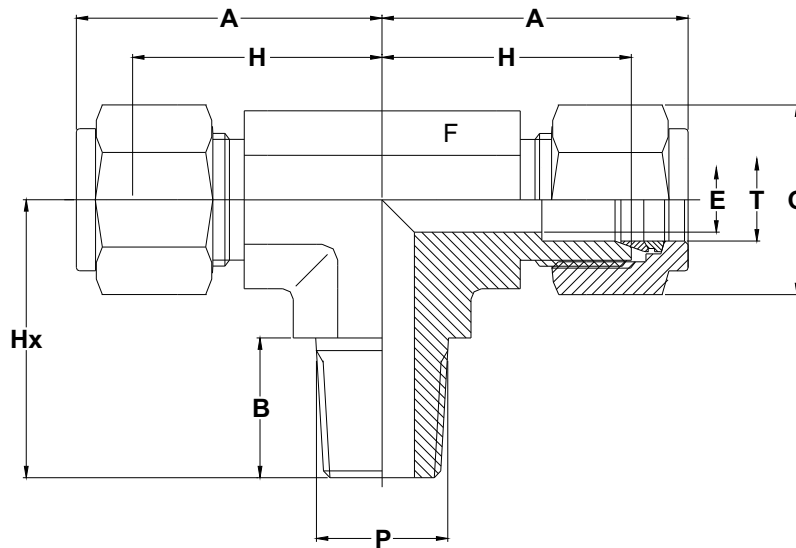


**METRIC OD Tubes X Male NPT Threads**

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
mm	NPT (M)	mm	mm	mm	mm	mm	mm	mm	
3	1/8	23.6	9.6	2.4	11	11	17	17.8	D-MRT3-N2
3	1/4	24.6	14.3	2.4	14	11	18	23.4	D-MRT3-N4
6	1/8	27	9.6	4.8	14	14	19.6	18.8	D-MRT6-N2
6	1/4	27	14.3	4.8	14	14	19.6	23.4	D-MRT6-N4
6	3/8	29.8	14.3	4.8	17	14	22.4	26.2	D-MRT6-N6
8	1/4	28.8	14.3	6.3	14	16	21.3	24.4	D-MRT8-N4
8	3/8	30.6	14.3	6.3	17	16	23.1	26.2	D-MRT8-N6
8	1/2	32.6	19.1	6.3	22	16	25.1	33	D-MRT8-N8
10	1/4	31.5	14.3	7.1	17	19	23.9	26.2	D-MRT10-N4
10	3/8	31.5	14.3	7.9	17	19	23.9	26.2	D-MRT10-N6
10	1/2	33.5	19.1	7.9	22	19	25.9	33	D-MRT10-N8
12	1/4	36	14.3	7.1	22	22	25.9	26.2	D-MRT12-N4
12	3/8	36	14.3	9.5	22	22	25.9	28.2	D-MRT12-N6
12	1/2	36	19.1	9.5	22	22	25.9	33	D-MRT12-N8
16	1/2	38	19.1	11.3	24	25	27.9	35.1	D-MRT16-N8
25	3/4	49.1	19.1	15.8	35	38	36.8	41.7	D-MRT25-N12
25	1	49.1	23.8	21.8	35	38	36.8	46.5	D-MRT25-N16



## MALE BRANCH TEE

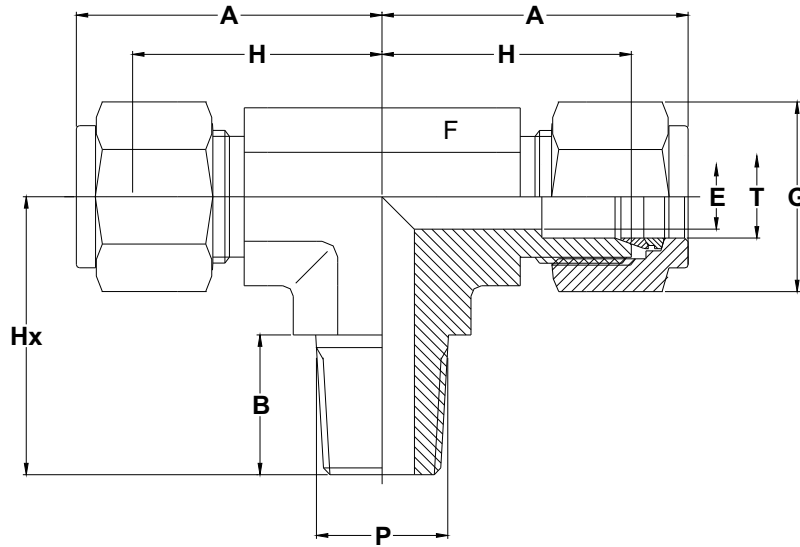


### INCH OD Tubes X Male NPT Threads

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
inch	NPT (M)	mm	mm	mm	mm	mm	mm	mm	
1/8	1/8	23.6	9.6	2.4	11	11	17	17.8	2D-MBTN
1/8	1/4	24.6	14.3	2.4	14	11	18	23.4	2-4D-MBTN
1/4	1/8	26.9	9.6	4.8	14	14	19.6	18.8	4-2D-MBTN
1/4	1/4	26.9	14.3	4.8	14	14	19.6	23.4	4D-MBTN
1/4	3/8	29.7	14.3	4.8	17	14	22.4	26.2	4-6D-MBTN
1/4	2/4	31.8	19.1	4.8	22	14	24.4	33	4-8D-MBTN
3/8	1/4	30.5	14.3	7.1	17	17	23.1	25.4	6-4D-MBTN
3/8	3/8	31.2	14.3	7.1	17	17	23.9	26.2	6D-MBTN
3/8	1/2	33	19.1	7.1	22	17	25.9	33	6-8D-MBTN
1/2	1/4	36	14.3	4.8	22	22	25.9	28.2	8-4D-MBTN
1/2	3/8	36	14.3	9.6	22	22	25.9	28.2	8-6D-MBTN
1/2	1/2	36	19.1	10.4	22	22	25.9	33	8D-MBTN
5/8	1/2	38.1	19.1	11.9	22	25	27.9	35	10-8D-MBTN
3/4	1/2	39.9	19.1	11.9	27	29	29.7	36.8	12-8D-MBTN
3/4	3/4	39.9	19.1	15.8	27	29	29.7	36.8	12D-MBTN
1	3/4	49	19.1	15.8	35	38	36.8	41.6	16-12D-MBTN
1	1	49	23.8	22.3	35	38	36.8	46.5	16D-MBTN



**MALE BRANCH TEE**

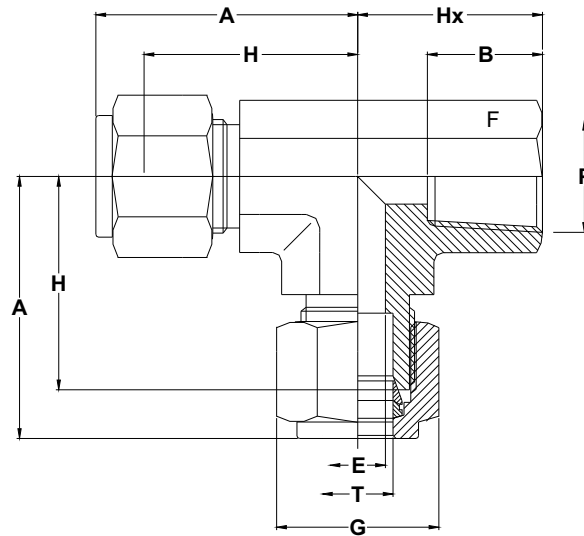


**METRIC OD Tubes X Male NPT Threads**

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
mm	NPT (M)	mm	mm	mm	mm	mm	mm	mm	
3	1/8	23.6	9.6	2.4	11	11	17	17.8	D-MBT3-N2
3	1/4	24.6	14.3	2.4	14	11	18	23.4	D-MBT3-N4
6	1/8	27	9.6	4.8	14	14	19.6	18.8	D-MBT6-N2
6	1/4	27	14.3	4.8	14	14	19.6	23.4	D-MBT6-N4
6	3/8	29.8	14.3	4.8	17	14	22.4	26.2	D-MBT6-N6
8	1/4	28.8	14.3	6.3	14	16	21.3	24.4	D-MBT8-N4
8	3/8	30.6	14.3	6.3	17	16	23.1	26.2	D-MBT8-N6
8	1/2	32.6	19.1	6.3	22	16	25.1	33	D-MBT8-N8
10	1/4	31.5	14.3	7.1	17	19	23.9	26.2	D-MBT10-N4
10	3/8	31.5	14.3	7.9	17	19	23.9	26.2	D-MBT10-N6
10	1/2	33.5	19.1	7.9	22	19	25.9	33	D-MBT10-N8
12	1/4	36	14.3	7.1	22	22	25.9	26.2	D-MBT12-N4
12	3/8	36	14.3	9.5	22	22	25.9	28.2	D-MBT12-N6
12	1/2	36	19.1	9.5	22	22	25.9	33	D-MBT12-N8
16	1/2	38	19.1	11.3	24	25	27.9	35.1	D-MBT16-N8
25	3/4	49.1	19.1	15.8	35	38	36.8	41.7	D-MBT25-N12
25	1	49.1	23.8	21.8	35	38	36.8	46.5	D-MBT25-N16



## FEMALE RUN TEE

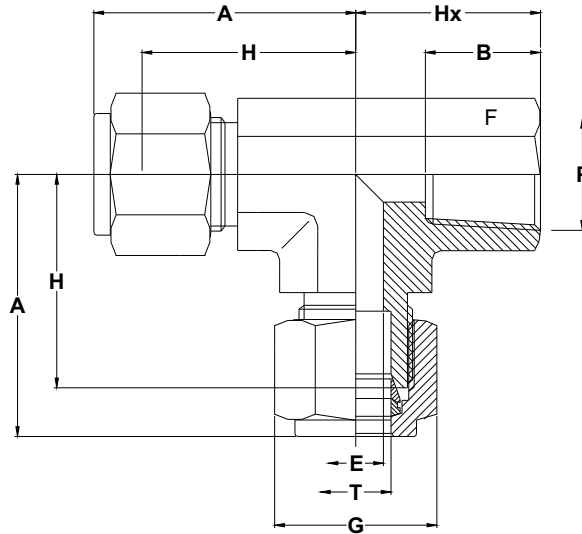


### INCH OD Tubes X Female NPT Threads

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
inch	NPT (F)	mm	mm	mm	mm	mm	mm	mm	
1/8	1/8	24.6	10.4	2.4	14	11	18	19	2D-FRTN
1/4	1/8	26.9	10.4	4.8	14	14	19.6	19	4-2D-FRTN
1/4	1/4	29.7	15	4.8	19	14	22.4	22.4	4D-FRTN
3/8	1/4	31.2	15	7.1	19	17	23.9	22.4	6-4D-FRTN
3/8	3/8	33.3	15	7.1	22	17	25.9	22.4	6D-FRTN
1/2	3/8	36	15	10.4	22	22	25.9	22.4	8-6D-FRTN
1/2	1/2	38.9	19.8	10.4	27	22	28.7	28.5	8D-FRTN
3/4	3/4	44.7	20.6	15.8	35	29	34.6	31.8	12D-FRTN
1	3/4	49	20.6	22.3	35	38	36.8	31.8	16-12D-FRTN
1	1	53.6	25.4	22.3	41	38	41.4	38.1	16D-FRTN



**FEMALE RUN TEE**

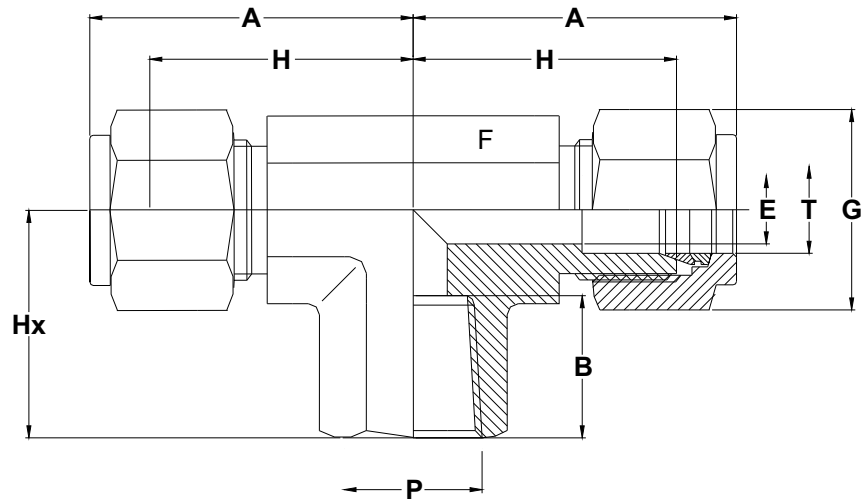


**METRIC OD Tubes X Female NPT Threads**

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
mm	NPT (F)	mm	mm	mm	mm	mm	mm	mm	
3	1/8	24.6	10.4	2.4	14	11	18	19	<b>D-FRT3-N2</b>
6	1/8	27	10.4	4.8	14	14	19.6	19	<b>D-FRT6-N2</b>
6	1/4	29.8	15	4.8	19	14	22.4	22.4	<b>D-FRT6-N4</b>
8	1/8	29.9	10.4	6.3	16	16	22.4	19	<b>D-FRT8-N2</b>
8	1/4	30.6	15	6.3	19	16	23.1	22.4	<b>D-FRT8-N4</b>
10	1/4	33.5	15	7.9	19	19	25.9	22.4	<b>D-FRT10-N4</b>
12	3/8	36	15	9.5	22	22	25.9	22.4	<b>D-FRT12-N6</b>
12	1/2	38.8	19.8	9.5	27	22	28.7	28.2	<b>D-FRT12-N8</b>
16	1/2	39.5	19.8	12.7	27	25	29.7	28.5	<b>D-FRT16-N8</b>

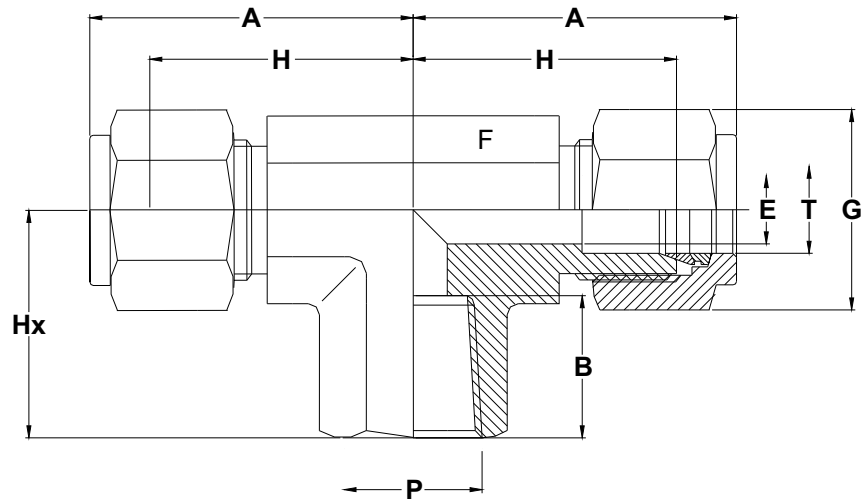


## FEMALE BRANCH TEE



### INCH OD Tubes X Female NPT Threads

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
inch	NPT (F)	mm	mm	mm	mm	mm	mm	mm	
1/8	1/8	24.6	10.4	2.4	14	11	18	19	2D-FBTN
1/4	1/8	26.9	10.4	4.8	14	14	19.6	19	4-2D-FBTN
1/4	1/4	29.7	15	4.8	19	14	22.4	22.4	4D-FBTN
3/8	1/4	31.2	15	7.1	19	17	23.9	22.4	6-4D-FBTN
3/8	3/8	33.3	15	7.1	22	17	25.9	22.4	6D-FBTN
1/2	3/8	36	15	10.4	22	22	25.9	22.4	8-6D-FBTN
1/2	1/2	38.9	19.8	10.4	27	22	28.7	28.5	8D-FBTN
3/4	3/4	44.7	20.6	15.8	35	29	34.6	31.8	12D-FBTN
1	3/4	49	20.6	22.3	35	38	36.8	31.8	16-12D-FBTN
1	1	53.6	25.4	22.3	41	38	41.4	38.1	16D-FBTN

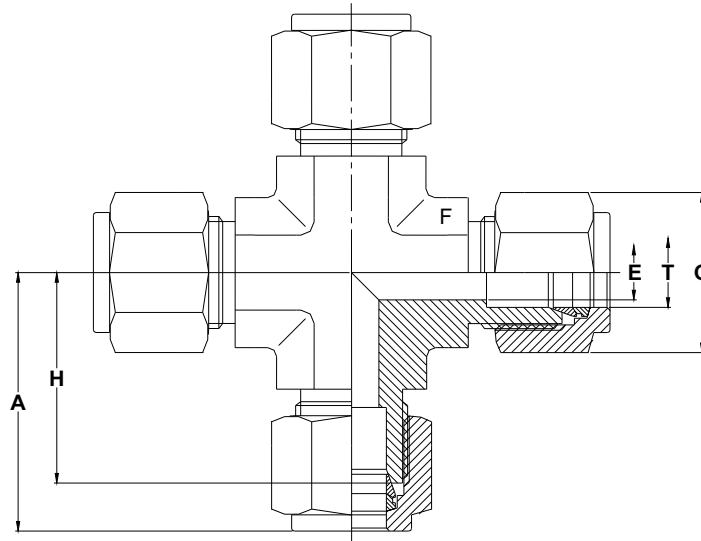
**FEMALE BRANCH TEE****METRIC OD Tubes X Female NPT Threads**

TUBE OD - T	P	A	B	E	F	G	H	Hx	PART NO.
mm	NPT (F)	mm	mm	mm	mm	mm	mm	mm	
3	1/8	24.6	10.4	2.4	14	11	18	19	D-FBT3-N2
6	1/8	27	10.4	4.8	14	14	19.6	19	D-FBT6-N2
6	1/4	29.8	15	4.8	19	14	22.4	22.4	D-FBT6-N4
8	1/8	29.9	10.4	6.3	16	16	22.4	19	D-FBT8-N2
8	1/4	30.6	15	6.3	19	16	23.1	22.4	D-FBT8-N4
10	1/4	33.5	15	7.9	19	19	25.9	22.4	D-FBT10-N4
12	3/8	36	15	9.5	22	22	25.9	22.4	D-FBT12-N6
12	1/2	38.8	19.8	9.5	27	22	28.7	28.2	D-FBT12-N8
16	1/2	39.5	19.8	12.7	27	25	29.7	28.5	D-FBT16-N8





## UNION CROSS



### INCH OD Tubes

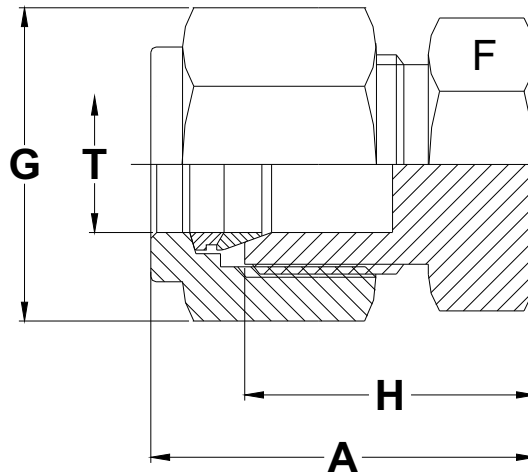
TUBE OD - T	A	E	F	G	H	PART NO.
inch	mm	mm	mm	mm	mm	
1/8	22.4	2.4	11	11	15.8	2D-K
1/4	26.9	4.8	14	14	19.6	4D-K
3/8	30.5	7.1	17	17	23.2	6D-K
1/2	36	10.4	22	22	25.9	8D-K
3/4	39.9	15.8	27	28.5	29.7	12D-K
1	49	22.3	35	38	36.8	16D-K

### METRIC OD Tubes

TUBE OD - T	A	E	F	G	H	PART NO.
mm	mm	mm	mm	mm	mm	
3	22.3	2.4	11	11	15.7	D-K3
6	27	4.8	14	14	19.6	D-K6
8	28.8	6.3	16	16	21.3	D-K8
10	31.5	7.9	17	19	23.9	D-K10
12	36	9.5	22	22	25.9	D-K12
16	39.8	12.7	24	25	27.9	D-K16
22	44.6	18.3	32	32	34.5	D-K22
25	49.1	21.8	35	38	36.8	D-K25



**PIPE END CLOSURE**



**INCH OD Tubes**

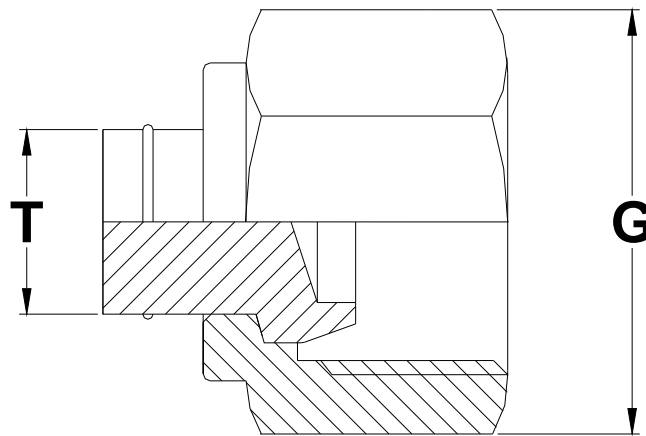
TUBE OD - T	A	F	G	H	PART NO.
inch	mm	mm	mm	mm	
1/8	20	11	11	13.5	2D-PLUG
1/4	23.4	14	14	16	4D-PLUG
5/16	24.4	16	16	17	5D-PLUG
3/8	25.7	17	17	18.3	6D-PLUG
1/2	29.2	22	22	19	8D-PLUG
5/8	30	24	25	19.8	10D-PLUG
3/4	31.5	27	28.5	21.4	12D-PLUG
7/8	34	35	32	23.9	14D-PLUG
1	38.4	35	38	26.2	16D-PLUG

**METRIC OD Tubes**

TUBE OD - T	A	F	G	H	PART NO.
mm	mm	mm	mm	mm	
3	20.1	11	11	13.5	D-PLUG3
6	23.4	14	14	15.7	D-PLUG6
8	24.5	16	16	17	D-PLUG8
10	26.6	17	19	19	D-PLUG10
12	29.1	22	22	19	D-PLUG12
14	29.9	24	25	19.8	D-PLUG14
15	29.9	24	25	19.8	D-PLUG15
16	29.9	24	25	19.8	D-PLUG16
18	31.4	27	30	21.3	D-PLUG18
20	34	32	32	23.9	D-PLUG20
22	34	32	32	23.9	D-PLUG22
25	38.5	35	38	26.2	D-PLUG25



## FITTING END CLOSURE



### INCH OD Tubes

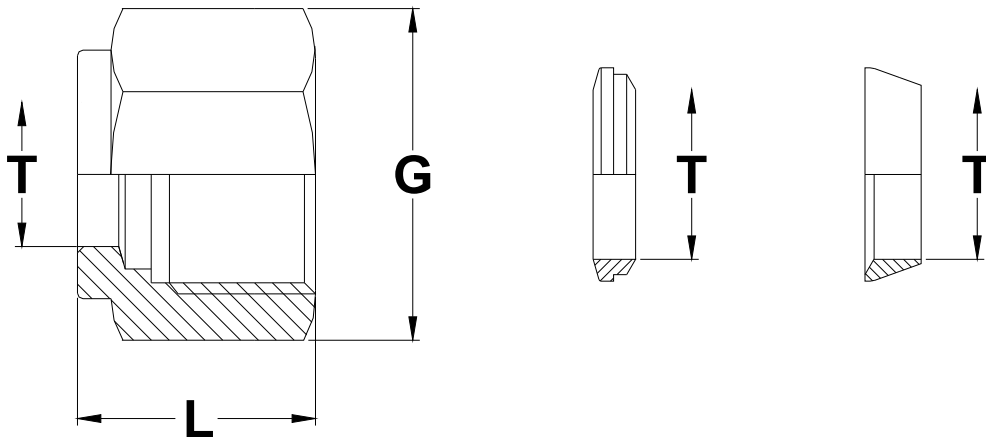
TUBE OD - T	G	PATR NO.
inch	mm	
1/8	11	2D-CAP
1/4	14	4D-CAP
5/16	16	5D-CAP
3/8	17	6D-CAP
1/2	22	8D-CAP
5/8	25	10D-CAP
3/4	30	12D-CAP
7/8	32	14D-CAP
1	38	16D-CAP

### METRIC OD Tubes

TUBE OD - T	G	PART NO.
mm	mm	
3	11	D-CAP3
6	14	D-CAP6
8	16	D-CAP8
10	19	D-CAP10
12	22	D-CAP12
14	25	D-CAP14
15	25	D-CAP15
16	25	D-CAP16
18	30	D-CAP18
20	32	D-CAP20
22	32	D-CAP22
25	38	D-CAP25



**NUTS AND FERRULES**



**INCH OD Tubes**

TUBE OD - T	L	G	PART NO.		
inch	mm	mm	NUT	FRONT FERRULE	BACK FERRULE
1/8	12	11	2D-N	2D-FF	2D-FB
1/4	12.7	14	4D-N	4D-FF	4D-FB
5/16	13.5	16	5D-N	5D-FF	5D-FB
3/8	14.5	17	6D-N	6D-FF	6D-FB
1/2	17.5	22	8D-N	8D-FF	8D-FB
5/8	17.5	25	10D-N	10D-FF	10D-FB
3/4	17.5	30	12D-N	12D-FF	12D-FB
7/8	17.5	32	14D-N	14D-FF	14D-FB
1	20.6	38	16D-N	16D-FF	16D-FB

**METRIC OD Tubes**

TUBE OD - T	L	G	PART NO.		
mm	mm	mm	NUT	FRONT FERRULE	BACK FERRULE
3	12	11	D-N3	D-FF3	D-FB3
6	12.7	14	D-N6	D-FF6	D-FB6
8	13.5	16	D-N8	D-FF8	D-FB8
10	15.1	19	D-N10	D-FF10	D-FB10
12	17.5	22	D-N12	D-FF12	D-FB12
14	17.5	25	D-N14	D-FF14	D-FB14
15	17.5	25	D-N15	D-FF15	D-FB15
16	17.5	25	D-N16	D-FF16	D-FB16
18	17.5	30	D-N18	D-FF18	D-FB18
20	17.5	32	D-N20	D-FF20	D-FB20
22	17.5	32	D-N22	D-FF22	D-FB22
25	20.6	38	D-N25	D-FF25	D-FB25



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