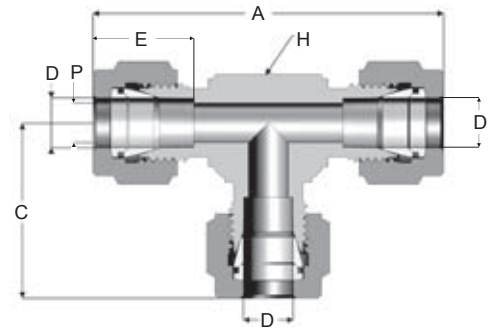


UNION TEE | TS

APPLICATION

Connects tubes of the same dimension in a T configuration.

Special requirements on request



TUBE SIZE - METRIC (mm)

D	Reference	A	C	E	H	P
3	TS* 3	46,5	23,25	12,9	12	2,4
4	TS* 4	48,1	24,05	13,7	12	3,2
6	TS* 6	54,4	27,2	15,3	14	4,8
8	TS* 8	56,2	28,1	16,2	14	6,4
10	TS* 10	65,2	32,6	17,2	19	7,9
12	TS* 12	72,6	36,3	22,8	22	9,5
14	TS* 14	74,2	37,1	24,4	24	11,1
16	TS* 16	74,2	37,1	24,4	24	12,7
18	TS* 18	79,0	39,5	24,4	27	15,1
20	TS* 20	83,7	41,85	26,0	30	15,9
22	TS* 22	82,1	41,05	26,0	30	19,1
25	TS* 25	91,1	45,55	31,3	36	22,2

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	Reference	A	C	E	H (mm)	P
1/16"	TS* 1/16	1.4	0.70	0.34	12	3/64"
1/8"	TS* 1/8	1.84	0.92	0.51	12	3/32"
3/16"	TS* 3/16	1.9	0.95	0.54	12	1/8"
1/4"	TS* 1/4	2.04	1.02	0.60	14	3/16"
5/16"	TS* 5/16	2.22	1.11	0.64	14	1/4"
3/8"	TS* 3/8	2.26	1.13	0.68	19	9/32"
1/2"	TS* 1/2	2.74	1.37	0.90	22	3/8"
5/8"	TS* 5/8	2.88	1.44	0.96	24	1/2"
3/4"	TS* 3/4	3.12	1.56	0.96	27	5/8"
7/8"	TS* 7/8	3.24	1.62	1.02	30	3/4"
1"	TS* 1"	3.6	1.80	1.23	36	7/8"

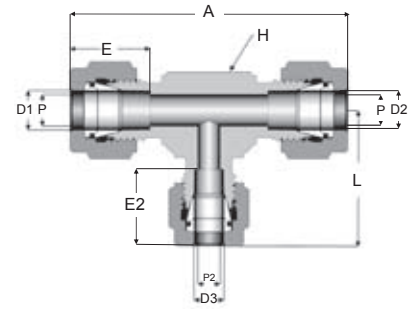
Hex flats (H) are metric. Fractional upon request
 *Specify material when ordering. See page 8 for materials and codes.

REDUCING TEE | TRS

APPLICATION

Connects tubes of different dimensions in a T configuration.

Special requirements on request



TUBE SIZE - METRIC (mm)

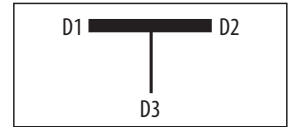
D1	D2	D3	Reference	A	E	P	L	E2	P2	H
8	8	12	TRS* 8 8 12	64	16,2	6,4	36,2	22,8	9,5	22
10	10	6	TRS* 10 10 6	65,2	17,2	7,9	30,6	15,3	4,8	19
10	10	8	TRS* 10 10 8	65,2	17,2	7,9	31,2	16,2	6,4	19
12	12	6	TRS* 12 12 6	72,6	22,8	9,5	32,1	15,3	4,8	22
12	12	8	TRS* 12 12 8	72,6	22,8	9,5	32,8	16,2	6,4	22
12	12	10	TRS* 12 12 10	72,6	22,8	9,5	33,6	17,2	7,9	22
14	14	6	TRS* 14 14 6	74,2	24,4	11,1	32,1	15,3	4,8	24
14	14	10	TRS* 14 14 10	74,2	24,4	11,1	33,6	17,2	7,9	24
16	16	6	TRS* 16 16 6	74,2	24,4	12,7	32,9	15,3	4,8	24
16	16	8	TRS* 16 16 8	74,2	24,4	12,7	33,6	16,2	6,4	24
16	16	10	TRS* 16 16 10	74,2	24,4	12,7	34,4	17,2	7,9	24
16	16	12	TRS* 16 16 12	74,2	24,4	12,7	37	22,8	9,5	24
22	22	10	TRS* 22 22 10	82,1	26	19,1	38,4	17,2	7,9	30

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D1	D2	D3	Reference	A	E	P	L	E2	P2	H (mm)
1/8"	1/8"	1/16"	TRS* 1/8 1/8 1/16	1.84	0.51	3/32"	0.75	0.34	3/64"	12
1/4"	1/4"	1/16"	TRS* 1/4 1/4 1/16	2.04	0.6	3/16"	0.82	0.34	3/64"	14
1/4"	1/4"	1/8"	TRS* 1/4 1/4 1/8	2.04	0.6	3/16"	0.99	0.51	3/32"	14
1/4"	1/4"	5/16"	TRS* 1/4 1/4 5/16	2.04	0.6	3/16"	1.1	0.64	1/4"	14
1/4"	1/4"	1/2"	TRS* 1/4 1/4 1/2	2.5	0.6	3/16"	1.44	0.9	3/8"	22
3/8"	3/8"	1/4"	TRS* 3/8 3/8 1/4	2.26	0.68	9/32"	1.22	0.6	3/16"	19
1/2"	1/2"	1/4"	TRS* 1/2 1/2 1/4	2.74	0.9	3/8"	1.28	0.9	3/16"	22
1/2"	1/2"	3/8"	TRS* 1/2 1/2 3/8	2.74	0.9	3/8"	1.33	0.68	9/32"	22
3/4"	3/4"	3/8"	TRS* 3/4 3/4 3/8	3.12	0.96	5/8"	1.46	0.68	9/32"	27
3/4"	3/4"	1/2"	TRS* 3/4 3/4 1/2	3.12	0.96	5/8"	1.57	0.9	3/8"	27

Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

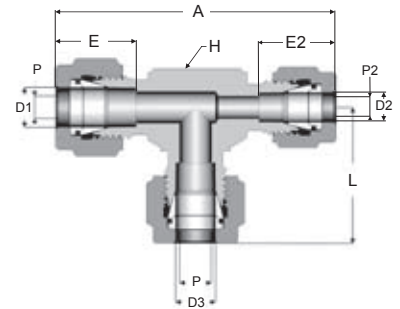


REDUCING RUN TEE | TRS

APPLICATION

Connects tubes of different dimensions in a T configuration.

Special requirements on request



TUBE SIZE - METRIC (mm)

D1	D2	D3	Reference	A	E	P	L	E2	P2	H
6	10	6	TRS* 6 10 6	62,6	15,3	4,8	30,6	17,2	7,9	19
6	12	6	TRS* 6 12 6	68,3	15,3	4,8	32,1	22,8	9,5	22
8	12	8	TRS* 8 12 8	69,0	16,2	6,4	32,8	22,8	9,5	22
10	6	10	TRS* 10 6 10	62,6	17,2	7,9	32	15,3	4,8	19
10	8	10	TRS* 10 8 10	63,2	17,2	7,9	32	16,2	6,4	19
10	14	10	TRS* 10 14 10	69,6	17,2	7,9	33,4	24,4	11,1	24
12	6	12	TRS* 12 6 12	68,3	22,8	9,5	36,2	15,3	4,8	22
12	8	12	TRS* 12 8 12	69,0	22,8	9,5	36,2	16,2	6,4	22
12	10	12	TRS* 12 10 12	69,8	22,8	9,5	36,2	17,2	7,9	22
22	10	22	TRS* 22 10 22	79,3	26	19,1	40,9	17,2	7,9	30
22	16	22	TRS* 22 16 22	81,9	26	19,1	40,9	24,4	12,7	30

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D1	D2	D3	Reference	A	E	P	L	E2	P2	H (mm)
1/8"	1/4"	1/8"	TRS* 1/8 1/4 1/8	2.08	0.51	3/32"	0.99	0.6	3/16"	14
3/8"	1/8"	3/8"	TRS* 3/8 1/8 3/8	2.38	0.68	9/32"	1.27	0.51	3/32"	19
3/8"	1/4"	3/8"	TRS* 3/8 1/4 3/8	2.49	0.68	9/32"	1.27	0.6	3/16"	19
1"	1/2"	1"	TRS* 1 1/2 1	3.4	1.24	7/8"	1.79	0.9	3/8"	36

Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

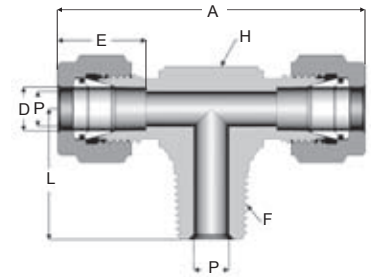


MALE BRANCH TEE | TMS

APPLICATION

Connects a female taper-threaded apparatus or a pipe to a gas line of two tubes with the same dimension in a T configuration.

Special requirements on request



NPT (N)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
3	1/8"	TMS* 3 1/8 N	46,6	12,9	12	17,5	2,4
3	1/4"	TMS* 3 1/4 N	49,8	12,9	14	23,8	2,4
4	1/8"	TMS* 4 1/8 N	48,2	13,7	12	17,5	3,2
6	1/8"	TMS* 6 1/8 N	54,4	15,3	14	19,1	4,8
6	1/4"	TMS* 6 1/4 N	54,4	15,3	14	23,8	4,8
8	1/8"	TMS* 8 1/8 N	56,2	16,2	14	19,1	4,8
8	1/4"	TMS* 8 1/4 N	56,2	16,2	14	23,8	6,4
10	1/4"	TMS* 10 1/4 N	64,4	17,2	19	27,0	7,1
12	1/4"	TMS* 12 1/4 N	72,6	22,8	22	28,6	7,1
12	3/8"	TMS* 12 3/8 N	72,6	22,8	22	28,6	9,5
12	1/2"	TMS* 12 1/2 N	72,6	22,8	22	33,3	9,5
14	1/2"	TMS* 14 1/2 N	73,2	24,4	24	34,1	9,5
16	1/2"	TMS* 16 1/2 N	74,2	24,4	24	34,1	11,9
18	3/4"	TMS* 18 3/4 N	79	26,0	27	36,5	15,1
22	3/4"	TMS* 22 3/4 N	82,2	26,0	30	38,1	15,9

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H (mm)	L	P
1/16"	1/16"	TMS* 1/16 1/16 N	1.88	0.34	8	2 1/32"	3/16"
1/8"	1/8"	TMS* 1/8 1/8 N	1.84	0.51	12	1 1/16"	3/32"
1/8"	1/4"	TMS* 1/8 1/4 N	1.96	0.51	14	1 5/16"	3/32"
3/16"	1/8"	TMS* 3/16 1/8 N	1.9	0.54	12	1 1/16"	3/32"
1/4"	1/8"	TMS* 1/4 1/8 N	2.14	0.60	14	3/4"	3/16"
1/4"	1/4"	TMS* 1/4 1/4 N	2.14	0.60	14	1 5/16"	3/16"
5/16"	1/8"	TMS* 5/16 1/8 N	2.22	0.64	14	3/4"	3/16"
5/16"	1/4"	TMS* 5/16 1/4 N	2.22	0.64	14	1 5/16"	1/4"
3/8"	1/4"	TMS* 3/8 1/4 N	2.54	0.68	19	1 1/16"	9/32"
1/2"	1/4"	TMS* 1/2 1/4 N	2.86	0.90	22	1 1/8"	9/32"
1/2"	3/8"	TMS* 1/2 3/8 N	2.86	0.90	22	1 1/8"	3/8"
1/2"	1/2"	TMS* 1/2 1/2 N	2.86	0.90	22	1 5/16"	3/8"
5/8"	1/2"	TMS* 5/8 1/2 N	2.92	0.96	24	1 11/32"	1/2"
3/4"	3/8"	TMS* 3/4 3/8 N	3.12	1.02	27	1 1/4"	5/8"
3/4"	3/4"	TMS* 3/4 3/4 N	3.12	1.02	27	1 1/2"	5/8"
1"	1"	TMS* 1" 1" N	3.6	1.23	36	1 11/16"	7/8"

Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

BSPT - ISO BSP Tapered Thread (T)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
3	1/8"	TMS* 3 1/8 T	46,6	12,9	12	17,5	2,4
3	1/4"	TMS* 3 1/4 T	49,8	12,9	14	23,8	2,4
6	1/8"	TMS* 6 1/8 T	54,4	15,3	14	19,1	4,8
6	1/4"	TMS* 6 1/4 T	54,4	15,3	14	23,8	4,8
8	1/8"	TMS* 8 1/8 T	56,2	16,2	14	19,1	4,8
8	1/4"	TMS* 8 1/4 T	56,2	16,2	14	23,8	6,4
10	1/4"	TMS* 10 1/4 T	64,4	17,2	19	27,0	7,1
12	1/4"	TMS* 12 1/4 T	72,6	22,8	22	28,6	7,1
12	3/8"	TMS* 12 3/8 T	72,6	22,8	22	28,6	9,5
12	1/2"	TMS* 12 1/2 T	72,6	22,8	22	33,3	9,5
14	1/2"	TMS* 14 1/2 T	73,2	24,4	24	34,1	9,5
16	1/2"	TMS* 16 1/2 T	74,2	24,4	24	34,1	11,9

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H (mm)	L	P
1/8"	1/4"	TMS* 1/8 1/4 T	1.96	0.51	14	1 5/16"	3/32"
3/16"	1/8"	TMS* 3/16 1/8 T	1.90	0.54	12	1 1/16"	3/32"
1/4"	1/8"	TMS* 1/4 1/8 T	2.14	0.60	14	3/4"	3/16"
1/4"	1/4"	TMS* 1/4 1/4 T	2.14	0.60	14	1 5/16"	3/16"
5/16"	1/8"	TMS* 5/16 1/8 T	2.22	0.64	14	3/4"	3/16"
5/16"	1/4"	TMS* 5/16 1/4 T	2.22	0.64	14	1 5/16"	1/4"
3/8"	1/4"	TMS* 3/8 1/4 T	2.54	0.68	19	1 1/16"	9/32"
1/2"	3/8"	TMS* 1/2 3/8 T	2.86	0.90	22	1 1/8"	3/8"
1/2"	1/2"	TMS* 1/2 1/2 T	2.86	0.90	22	1 5/16"	3/8"
5/8"	1/2"	TMS* 5/8 1/2 T	2.92	0.96	24	1 11/32"	1/2"
3/4"	3/4"	TMS* 3/4 3/4 T	3.12	1.02	27	1 1/2"	5/8"
7/8"	3/4"	TMS* 7/8 3/4 T	3.24	1.02	30	1 1/2"	3/4"
1"	1"	TMS* 1" 1" T	3.60	1.23	36	1 11/16"	7/8"

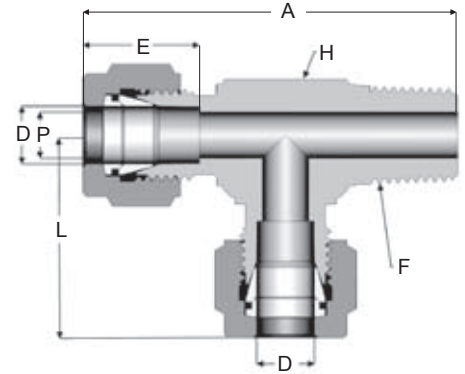
*Specify material when ordering. See page 8 for materials and codes.

MALE RUN TEE | TMRS

APPLICATION

Connects a female taper-threaded apparatus or pipe to a gas line at a 90° elbow.

Special requirements on request



NPT (N)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
3	1/8"	TMRS* 3 1/8 N	40,8	12,9	14	23,3	2,4
6	1/8"	TMRS* 6 1/8 N	46,3	15,3	14	27,2	4,8
6	1/4"	TMRS* 6 1/4 N	51,0	15,3	14	27,2	4,8
8	1/8"	TMRS* 8 1/8 N	47,2	16,2	14	28,1	4,8
8	1/4"	TMRS* 8 1/4 N	51,9	16,2	14	28,1	6,4
10	1/4"	TMRS* 10 1/4 N	59,2	17,2	19	32,2	7,1
12	1/4"	TMRS* 12 1/4 N	64,9	22,8	22	36,3	7,1
12	3/8"	TMRS* 12 3/8 N	64,9	22,8	22	36,3	9,5
12	1/2"	TMRS* 12 1/2 N	69,6	22,8	22	36,3	9,5
16	1/2"	TMRS* 16 1/2 N	71,2	24,4	24	37,1	11,9

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H	L	P
1/16"	1/16"	TMRS* 1/16 1/16 N	1.60	0.34	14	0.94	3/16"
1/8"	1/8"	TMRS* 1/8 1/8 N	1.61	0.51	14	0.92	3/32"
1/8"	1/4"	TMRS* 1/8 1/4 N	1.92	0.51	14	0.98	3/32"
3/16"	1/8"	TMRS* 3/16 1/8 N	1.64	0.54	14	0.95	3/32"
1/4"	1/8"	TMRS* 1/4 1/8 N	1.82	0.60	14	1.07	3/16"
1/4"	1/4"	TMRS* 1/4 1/4 N	2.01	0.60	14	1.07	3/16"
5/16"	1/8"	TMRS* 5/16 1/8 N	1.86	0.64	14	1.11	3/16"
3/8"	1/4"	TMRS* 3/8 1/4 N	2.33	0.68	19	1.27	9/32"
1/2"	1/4"	TMRS* 1/2 1/4 N	2.56	0.90	22	1.43	9/32"
1/2"	3/8"	TMRS* 1/2 3/8 N	2.56	0.90	22	1.43	3/8"
1/2"	1/2"	TMRS* 1/2 1/2 N	2.74	0.90	22	1.43	3/8"
5/8"	1/2"	TMRS* 5/8 1/2 N	2.80	0.96	24	1.46	1/2"
3/4"	3/4"	TMRS* 3/4 3/4 N	3.06	1.02	27	1.56	5/8"

Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

BSPT - ISO BSP Tapered Thread (T)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
3	1/4"	TMRS* 3 1/4 T	42,4	12,9	14	24,9	2,4
6	1/8"	TMRS* 6 1/8 T	46,3	15,3	14	27,2	4,8
6	1/4"	TMRS* 6 1/4 T	51,0	15,3	14	27,2	4,8
8	1/8"	TMRS* 8 1/8 T	47,2	16,2	14	28,1	4,8
8	1/4"	TMRS* 8 1/4 T	51,9	16,2	14	28,1	6,4
10	1/4"	TMRS* 10 1/4 T	59,2	17,2	19	32,2	7,1
12	3/8"	TMRS* 12 3/8 T	64,9	22,8	22	36,3	9,5
12	1/2"	TMRS* 12 1/2 T	64,9	22,8	22	36,3	9,5
16	1/2"	TMRS* 16 1/2 T	70,4	24,4	24	37,1	11,9

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H (mm)	L	P
1/4"	1/8"	TMRS* 1/4 1/8 T	1.82	0.60	14	1.07	3/16"
1/4"	1/4"	TMRS* 1/4 1/4 T	2.01	0.60	14	1.07	3/16"
3/8"	1/4"	TMRS* 3/8 1/4 T	2.33	0.68	19	1.27	9/32"
1/2"	3/8"	TMRS* 1/2 3/8 T	2.56	0.90	22	1.43	3/8"
1/2"	1/2"	TMRS* 1/2 1/2 T	2.74	0.90	22	1.43	3/8"
5/8"	1/2"	TMRS* 5/8 1/2 T	2.80	0.96	24	1.46	1/2"
3/4"	3/4"	TMRS* 3/4 3/4 T	3.06	1.02	27	1.56	5/8"
1"	1"	TMRS* 1" 1" T	3.49	1.23	36	1.80	7/8"

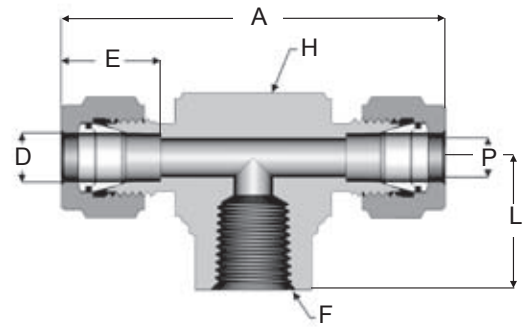
Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

FEMALE BRANCH TEE | TFS

APPLICATION

Connects a male taper-threaded apparatus or pipe to a gas line in a T configuration.

Special requirements on request



NPT (N)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
6	1/8"	TFS* 6 1/8 N	52,5	15,3	14	19,1	4,8
6	1/4"	TFS* 6 1/4 N	60,8	15,3	19	21,4	4,8
8	1/8"	TFS* 8 1/8 N	56,2	16,2	14	19,1	6,4
8	1/4"	TFS* 8 1/4 N	62,6	16,2	19	21,4	6,4
10	1/4"	TFS* 10 1/4 N	64,4	17,2	19	21,4	8
12	1/4"	TFS* 12 1/4 N	72,6	22,8	22	21,4	9,5
12	3/8"	TFS* 12 3/8 N	72,6	22,8	22	21,4	9,5
12	1/2"	TFS* 12 1/2 N	79,0	22,8	27	28,6	9,5
16	1/2"	TFS* 16 1/2 N	79,0	24,4	27	28,6	13
20	3/4"	TFS* 20 3/4 N	82,2	26,0	36	31,8	16
22	3/4"	TFS* 22 3/4 N	82,2	26,0	36	31,8	18,5

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H (mm)	L	P
1/8"	1/8"	TFS* 1/8 1/8 N	1.94	0.5	14	0.75	3/32"
1/8"	1/4"	TFS* 1/8 1/4 N	2.08	0.5	19	0.84	3/32"
1/4"	1/8"	TFS* 1/4 1/8 N	2.08	0.60	14	0.75	3/16"
1/4"	1/4"	TFS* 1/4 1/4 N	2.40	0.60	19	0.84	3/16"
3/8"	1/4"	TFS* 3/8 1/4 N	2.52	0.66	19	0.84	9/32"
1/2"	1/4"	TFS* 1/2 1/4 N	2.84	0.90	22	0.84	3/8"
1/2"	3/8"	TFS* 1/2 3/8 N	2.84	0.90	22	0.84	3/8"
1/2"	1/2"	TFS* 1/2 1/2 N	3.10	0.90	27	1.13	3/8"
5/8"	1/2"	TFS* 5/8 1/2 N	3.10	0.96	27	1.13	33/64"
3/4"	3/4"	TFS* 3/4 3/4 N	3.22	0.96	36	1.25	33/64"
1"	3/4"	TFS* 1" 3/4 N	3.60	1.23	36	1.25	55/64"
1"	1"	TFS* 1" 1" N	4.04	1.23	41	1.50	55/64"

Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

BSPT - ISO BSP Tapered Thread (T)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
6	1/4"	TFS* 6 1/4 T	60,8	15,3	19	21,4	4,8
8	1/8"	TFS* 8 1/8 T	62,6	16,2	14	19,1	6,4
8	1/4"	TFS* 8 1/4 T	62,6	16,2	19	21,4	6,4
10	1/4"	TFS* 10 1/4 T	64,4	17,2	19	21,4	8

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H (mm)	L	P
1/4"	1/4"	TFS* 1/4 1/4 T	2.40	0.60	19	0.84	3/16"
3/8"	1/4"	TFS* 3/8 1/4 T	2.52	0.66	19	0.84	9/32"
1/2"	1/4"	TFS* 1/2 1/4 T	2.84	0.90	22	0.84	3/8"

Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

BSPP - ISO BSP Parallel Thread (G)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
6	1/8"	TFS* 6 1/8 G	60,8	15,3	14	19,1	4,8
6	1/4"	TFS* 6 1/4 G	60,8	15,3	19	21,4	4,8
8	1/4"	TFS* 8 1/4 G	62,6	16,2	19	21,4	6,4
10	1/4"	TFS* 10 1/4 G	64,4	17,2	19	21,4	8
12	1/4"	TFS* 12 1/4 G	72,6	22,8	22	21,4	9,5
12	3/8"	TFS* 12 3/8 G	72,6	22,8	22	21,4	9,5
14	1/2"	TFS* 14 1/2 G	79	24,4	27	28,6	11

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H (mm)	L	P
1/4"	1/4"	TFS* 1/4 1/4 G	2.40	0.60	19	0.84	3/16"
5/16"	1/4"	TFS* 5/16 1/4 G	2.07	0.64	19	1.23	1/4"
3/8"	1/4"	TFS* 3/8 1/4 G	2.52	0.66	19	0.84	9/32"
1/2"	3/8"	TFS* 1/2 3/8 G	2.84	0.90	22	0.84	3/8"
3/4"	3/4"	TFS* 3/4 3/4 G	3.22	0.96	36	1.25	33/64"

Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

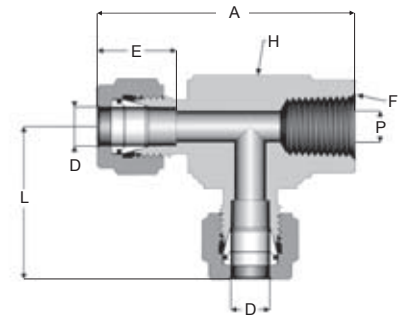
BSPP G end connections should be used with sealing gaskets.
See page 9 for further information. See page 59 for gaskets.

FEMALE RUN TEE | TFRS

APPLICATION

Connects a female taper-threaded apparatus or pipe to a gas line at a 90° elbow.

Special requirements on request



NPT (N)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
6	1/8"	TFRS* 6 1/8 N	54,4	15,3	14	19,1	4,8
6	1/4"	TFRS* 6 1/4 N	60,8	15,3	19	21,4	4,8
8	1/8"	TFRS* 8 1/8 N	56,2	16,2	14	19,1	6,4
8	1/4"	TFRS* 8 1/4 N	62,6	16,2	19	21,4	6,4
10	1/4"	TFRS* 10 1/4 N	67,4	17,2	19	21,4	7,1
12	1/4"	TFRS* 12 1/4 N	72,6	22,8	22	21,4	9,5
12	3/8"	TFRS* 12 3/8 N	72,6	22,8	22	21,4	9,5
12	1/2"	TFRS* 12 1/2 N	79,0	22,8	27	28,6	9,5
16	1/2"	TFRS* 16 1/2 N	79,0	24,4	27	28,6	13

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H(mm)	L	P
1/16"	1/16"	TFRS* 1/16 1/16 N	1.48	0.34	12	0.92	3/16"
1/8"	1/8"	TFRS* 1/8 1/8 N	1.72	0.5	14	0.97	3/32"
3/16"	1/8"	TFRS* 3/16 1/8 N	1.75	0.54	14	1,00	1/8"
1/4"	1/8"	TFRS* 1/4 1/8 N	1.82	0.60	14	1.07	3/16"
1/4"	1/4"	TFRS* 1/4 1/4 N	2.04	0.60	19	1.2	3/16"
3/8"	1/4"	TFRS* 3/8 1/4 N	2.16	0.66	19	1.32	9/32"
1/2"	3/8"	TFRS* 1/2 3/8 N	2.26	0.90	22	1.42	3/8"
1/2"	1/2"	TFRS* 1/2 1/2 N	2.68	0.90	27	1.55	3/8"
3/4"	3/4"	TFRS* 3/4 3/4 N	2.86	0.96	36	1.61	5/8"
1"	3/4"	TFRS* 1" 3/4 N	3.04	1.23	36	1.79	7/8"
1"	1"	TFRS* 1" 1" N	3.54	1.23	41	2.04	7/8"

Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

BSPT

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	L	P
6	1/8"	TFRS* 6 1/8 T	54,4	15,3	14	19,1	4,8
6	1/4"	TFRS* 6 1/4 T	60,8	15,3	19	21,4	4,8
8	1/8"	TFRS* 8 1/8 T	56,2	16,2	14	19,1	6,4
8	1/4"	TFRS* 8 1/4 T	62,6	16,2	19	21,4	6,4
10	1/4"	TFRS* 10 1/4 T	67,4	17,2	19	21,4	7,1
12	3/8"	TFRS* 12 3/8 T	72,6	22,8	22	21,4	9,5
12	1/2"	TFRS* 12 1/2 T	79	22,8	27	21,4	9,5

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	F	Reference	A	E	H(mm)	L	P
1/4"	1/8"	TFRS* 1/4 1/8 T	1.82	0.60	14	1.07	3/16"
1/4"	1/4"	TFRS* 1/4 1/4 T	2.04	0.60	19	1.2	3/16"
3/8"	1/4"	TFRS* 3/8 1/4 T	2.16	0.66	19	1.32	9/32"
1/2"	3/8"	TFRS* 1/2 3/8 T	2.26	0.90	22	1.42	3/8"
1/2"	1/2"	TFRS* 1/2 1/2 T	2.68	0.90	27	1.55	3/8"
5/8"	1/2"	TFRS* 5/8 1/2 T	2.68	0.96	27	1.55	33/64"
3/4"	3/4"	TFRS* 3/4 3/4 T	2.86	0.96	36	1.61	5/8"
1"	1"	TFRS* 1" 1" T	3.54	1.23	41	2.04	7/8"

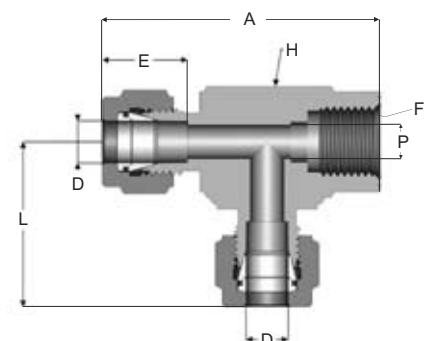
Hex flats (H) are metric. Fractional upon request
*Specify material when ordering. See page 8 for materials and codes.

BSPP - ISO BSP Parallel Thread (G)

TUBE SIZE - METRIC (mm)

D	F	Reference	A	E	H	P
6	1/8"	TFRS* 6 1/8 G	54,4	15,3	14	4,8
10	1/4"	TFRS* 10 1/4 G	67,4	17,2	19	7,1
22	3/4"	TFRS* 22 3/4 G	82,2	26,0	36	18,5

BSPP G end connections should be used with sealing gaskets.
See page 9 for further information. See page 59 for gaskets.
*Specify material when ordering. See page 8 for materials and codes.

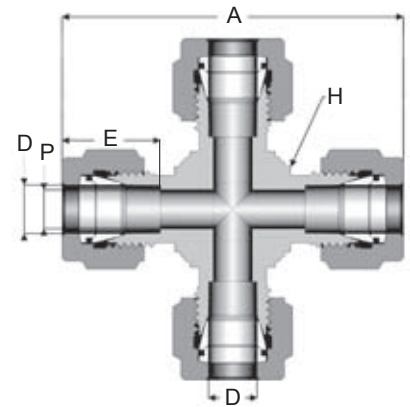


CROSS | CS

APPLICATION

Connects tubes of the same dimension in a cross configuration.

Special requirements on request



TUBE SIZE - METRIC (mm)

D	Reference	A	E	H	P
3	CS* 3	46,5	12,9	12	2,4
4	CS* 4	48,1	13,7	12	3,2
6	CS* 6	54,4	15,3	14	4,8
8	CS* 8	56,2	16,2	14	6,4
10	CS* 10	65,2	17,2	19	7,9
12	CS* 12	72,6	22,8	22	9,5
14	CS* 14	74,2	24,4	24	11,1
16	CS* 16	74,2	24,4	24	12,7
18	CS* 18	79,0	24,4	27	15,1
20	CS* 20	83,7	26,0	30	15,9
22	CS* 22	82,1	26,0	30	19,1
25	CS* 25	91,1	31,3	36	22,2

*Specify material when ordering. See page 8 for materials and codes.

TUBE SIZE - FRACTIONAL (inch)

D	Reference	A	E	H (mm)	P
1/16"	CS* 1/16	1.4	0.34	12	3/64"
1/8"	CS* 1/8	1.84	0.51	12	3/32"
1/4"	CS* 1/4	2.04	0.60	14	3/16"
5/16"	CS* 5/16	2.22	0.64	14	1/4"
3/8"	CS* 3/8	2.26	0.68	19	9/32"
1/2"	CS* 1/2	2.74	0.90	22	3/8"
3/4"	CS* 3/4	3.12	0.96	27	5/8"
1"	CS* 1"	3.6	1.23	36	7/8"

Hex flats (H) are metric. Fractional upon request
 *Specify material when ordering. See page 8 for materials and codes.