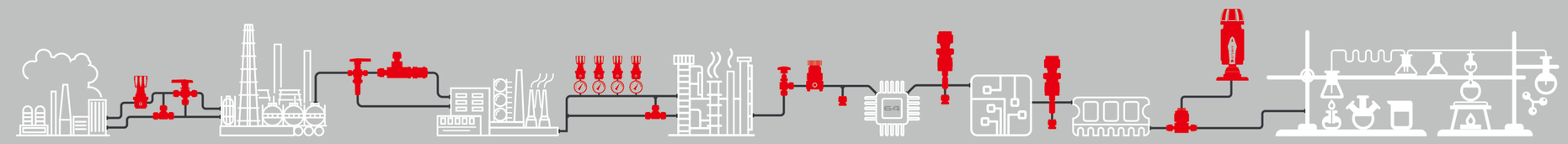
Content



Pipe Fittings 01-14

Tube Fittings 15-60

GENERAL

Our pipeline connectors range is manufactured to ft typical applications in the chemical and petrochemical, oil, gas and power generation industries.

FEATURES

1.Sizes range from 1/16” to 2”
2.The exposed threads of the fittings are properly covered during packaging to prevent damage during delivery.
3.All pipe threads meet the requirements of ASME/ANSI B1.20.1 (1983) for tapered pipe threads (NPT).
4.Working pressures are calculated in accordance with Power Piping Code ANSI B 31.1, Refiner Piping Code ASME/ANSI B 31.3 and section VIII of ASME Boiler & Pressure

Pressure Ratings (psi)

NPT or BSPT/ISO Size	STAINLESS STEEL 316	
inch.	Male	Female
1/16	11000	6700
1/8	10000	6500
1/4	8000	6600
3/8	7800	5300
1/2	7700	4900
3/4	7300	4600
1	5300	4400

MATERIALS

MATERIAL	Specifications	
	Barstock	Forgings
STAINLESS STEEL 316	ASTM A-276	ASTM A-182
	ASTM A-479	

INSTALLATION INSTRUCTIONS

To ensure a leak-tight seal, we recommend the use of a pipe thread sealant on all NPT threads. The most effective sealing method is PTFE tape. Tape should be used only on male tapered pipe threads. Do not use tape on fared, coned or tube fitting ends! Clean both male and female tapered threads and wrap tape in the direction of the male tapered thread spiral.

NOTE

Two wraps are suggested for stainless steel tapered pipe threads. Make sure tape does not overhang the first thread as the tape might shred and enter the fluid system. Cut off excess tape. The connection is now ready for proper makeup.

Ordering Information

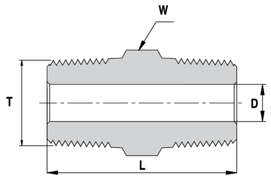
Example

Material Description
SS - STAINLESS STEEL 316

All orders should contain ordering information and material description.

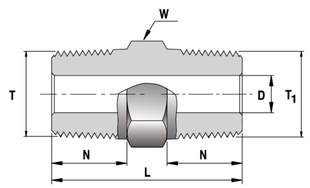
PSE x FNT4 x NT4

PHN
Hex Nipple



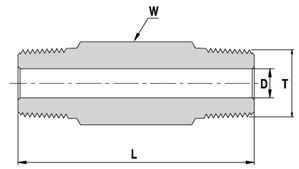
Order Information	T Male NPT Size	L		D Min.opening		W Hex.Flat
		Inch.	mm	Inch.	mm	Inch.
PHN-NT1	1/16	1.01	25.7	0.12	3.0	5/16
PHN-NT2	1/8	1.10	28.0	0.19	4.8	7/16
PHN-NT4	1/4	1.40	35.6	0.28	7.1	9/16
PHN-NT6	3/8	1.43	36.3	0.38	9.6	11/16
PHN-NT8	1/2	1.84	46.7	0.47	11.9	7/8
PHN-NT12	3/4	1.84	46.7	0.62	15.8	1 1/16
PHN-NT16	1	2.32	58.9	0.87	22.1	1 3/8

PHN
Hex Nipple
Male NPT To Male BSPT



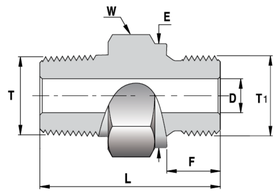
Order Information	T Male NPT Size	T1 Male BSPT ISO 7/1, BS21 Size	L		N		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PHN-NT2-RT2	1/8	1/8-28	1.10	28.0	0.38	9.7	0.19	4.8	7/16
PHN-NT4-RT4	1/4	1/4-19	1.40	35.6	0.56	14.2	0.28	7.1	9/16
PHN-NT6-RT6	3/8	3/8-19	1.43	36.3	0.56	14.2	0.38	9.6	11/16
PHN-NT8-RT8	1/2	1/2-14	1.84	46.7	0.75	19.0	0.47	11.9	7/8
PHN-NT12-RT12	3/4	3/4-14	1.84	46.7	0.75	19.0	0.62	15.8	1 1/16
PHN-NT16-RT16	1	1-11	2.32	58.9	0.94	23.9	0.87	22.1	1 3/8

PHLN
Hex Long Nipple



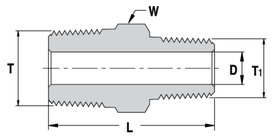
Order Information	T Male NPT Size	L Available Lengths (Inch.)						D Min.opening		W Hex.Flat
		1.50	2.00	2.50	3.00	4.00	6.00	Inch.	mm	Inch.
PHLN-NT2-1.5/2/2.5/3	1/8	√	√	√	√	-	-	0.19	4.8	7/16
PHLN-NT4-1.5/2/2.5/3/4	1/4	√	√	√	√	√	-	0.28	7.1	9/16
PHLN-NT6-1.5/2/2.5/3/4	3/8	√	√	√	√	√	-	0.38	9.6	11/16
PHLN-NT8-2/3/4/6	1/2	-	√	-	√	√	√	0.47	11.9	7/8
PHLN-NT12-2/3/4	3/4	-	√	-	√	√	-	0.62	15.8	1 1/16
PHLN-NT16-3/4	1	-	-	-	√	√	-	0.88	22.4	1 3/8

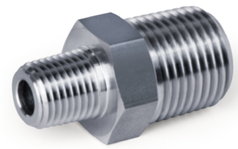
PHN
Hex Nipple
Male NPT To Male BSPP



Order Information	T Male NPT Size	T1 Male BSPT ISO 228/1, BS 2779	L		F		E		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PHN-NT2-GS2	1/8	1/8-28	1.07	27.2	0.28	7.1	0.54	13.8	0.16	4.1	9/16
PHN-NT4-GS4	1/4	1/4-19	1.44	36.6	0.44	11.2	0.71	18.0	0.23	5.8	3/4
PHN-NT6-GS6	3/8	3/8-19	1.47	37.3	0.44	11.2	0.85	21.8	0.31	7.9	7/8
PHN-NT8-GS8	1/2	1/2-14	1.78	45.2	0.56	14.2	1.02	26.0	0.47	11.9	1 1/16
PHN-NT12-GS12	3/4	3/4-14	1.95	49.5	0.62	15.7	1.26	32.0	0.62	15.8	1 5/16
PHN-NT16-GS16	1	1-11	2.26	57.4	0.72	18.3	1.53	39.0	0.78	19.8	1 5/8

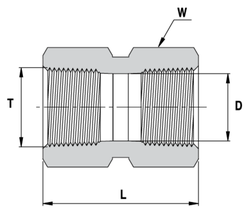
PHRN
Hex Reducing Nipple





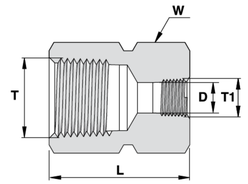
Order Information	T Male NPT Size	T1 Male NPT Size	L		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.
PHRN-NT2-NT1	1/8	1/16	1.01	25.7	0.12	3.0	7/16
PHRN-NT4-NT2	1/4	1/8	1.22	31.0	0.19	4.8	9/16
PHRN-NT6-NT2	3/8	1/8	1.25	31.8	0.19	4.8	11/16
PHRN-NT6-NT4	3/8	1/4	1.43	36.3	0.28	7.1	11/16
PHRN-NT8-NT2	1/2	1/8	1.47	37.3	0.19	4.8	7/8
PHRN-NT8-NT4	1/2	1/4	1.65	41.9	0.28	7.1	7/8
PHRN-NT8-NT6	1/2	3/8	1.65	41.9	0.38	9.6	7/8
PHRN-NT12-NT4	3/4	1/4	1.65	41.9	0.28	7.1	1 1/16
PHRN-NT12-NT8	3/4	1/2	1.84	46.7	0.47	11.9	1 1/16
PHRN-NT16-NT8	1	1/2	2.13	54.1	0.47	11.9	1 3/8
PHRN-NT16-NT12	1	3/4	2.13	54.1	0.62	15.8	1 3/8

PFC
Female Connector



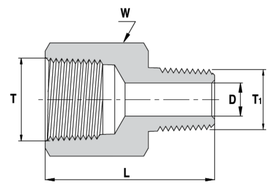
Order Information	T Female NPT Size	N		D Min.opening		W Wrench Flat
		Inch.	mm	Inch.	mm	Inch.
PFC-FNT2	1/8	0.81	20.6	0.31	7.8	9/16
PFC-FNT4	1/4	1.19	30.2	0.41	10.5	3/4
PFC-FNT6	3/8	1.31	33.3	0.56	14.2	7/8
PFC-FNT8	1/2	1.56	39.6	0.69	17.4	1 1/16
PFC-FNT12	3/4	1.62	41.1	0.90	22.9	1 5/16
PFC-FNT16	1	2.00	50.8	1.13	28.7	1 5/8

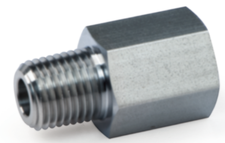
PFRC
Female Reducing Connector



Order Information	T Female NPT Size	T1 Female NPT Size	L		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.
PFRC-FNT4-FNT2	1/4	1/8	1.22	31.0	0.31	7.8	3/4
PFRC-FNT6-FNT4	3/8	1/4	1.38	35.1	0.41	10.5	7/8
PFRC-FNT8-FNT2	1/2	1/8	1.56	39.6	0.31	7.8	1 1/16
PFRC-FNT8-FNT4	1/2	1/4	1.75	44.5	0.41	10.5	1 1/16
PFRC-FNT8-FNT6	1/2	3/8	1.78	45.2	0.56	14.2	1 1/16
PFRC-FNT12-FNT4	3/4	1/4	1.81	46.0	0.41	10.5	1 5/16
PFRC-FNT12-FNT8	3/4	1/2	2.06	52.3	0.69	17.4	1 5/16
PFRC-FNT16-FNT8	1	1/2	2.19	55.6	0.69	17.4	1 5/8
PFRC-FNT16-FNT12	1	3/4	2.25	57.2	0.90	22.9	1 5/8

PA
Adapter



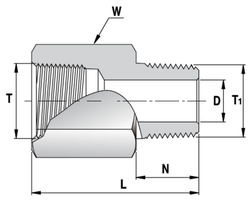


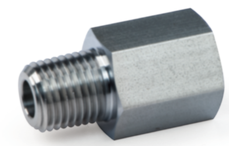
Order Information	T Female NPT Size	T1 Male NPT Size	L		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.
PA-FNT2-NT1	1/8	1/16	1.09	27.7	0.12	3.0	9/16
PA-FNT2-NT2	1/8	1/8	1.10	27.9	0.19	4.8	9/16
PA-FNT4-NT2	1/4	1/8	1.26	32.0	0.19	4.8	3/4
PA-FNT4-NT4	1/4	1/4	1.40	35.6	0.28	7.1	3/4
PA-FNT6-NT2	3/8	1/8	1.33	33.8	0.19	4.8	7/8
PA-FNT6-NT4	3/8	1/4	1.50	38.1	0.28	7.1	7/8
PA-FNT6-NT6	3/8	3/8	1.51	38.4	0.38	9.6	7/8
PA-FNT8-NT2	1/2	1/8	1.58	40.1	0.19	4.8	1 1/16
PA-FNT8-NT4	1/2	1/4	1.76	44.7	0.28	7.1	1 1/16
PA-FNT8-NT6	1/2	3/8	1.75	44.5	0.37	9.5	1 1/16
PA-FNT8-NT8	1/2	1/2	1.94	49.3	0.47	11.9	1 1/16
PA-FNT12-NT4	3/4	1/4	1.85	47.0	0.28	7.1	1 5/16
PA-FNT12-NT6	3/4	3/8	1.82	46.2	0.37	9.5	1 5/16
PA-FNT12-NT8	3/4	1/2	2.02	51.3	0.47	11.9	1 5/16
PA-FNT12-NT12	3/4	3/4	2.02	51.3	0.62	15.8	1 5/16
PA-FNT16-NT4	1	1/4	1.96	49.8	0.28	7.1	1 5/8
PA-FNT16-NT8	1	1/2	2.16	54.9	0.47	11.9	1 5/8
PA-FNT16-NT12	1	3/4	2.17	55.1	0.62	15.7	1 5/8
PA-FNT16-NT16	1	1	2.28	57.9	0.86	21.8	1 5/8

PA

Adapter

Female NPT To Male BSPT



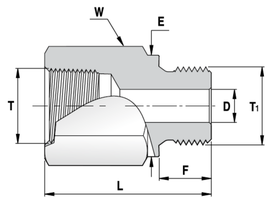


Order Information	T Female NPT Size	T1 Male BSPT ISO 7/1, BS21 Size	L		N		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PA-FNT2-RT2	1/8	1/8-28	1.09	27.7	0.38	9.7	0.19	4.8	9/16
PA-FNT4-RT4	1/4	1/4-19	1.42	36.1	0.56	14.2	0.28	7.1	3/4
PA-FNT6-RT6	3/8	3/8-19	1.50	38.1	0.56	14.2	0.38	9.6	7/8
PA-FNT8-RT8	1/2	1/2-14	1.94	49.3	0.75	19.0	0.47	11.9	1 1/16
PA-FNT12-RT12	3/4	3/4-14	2.02	51.3	0.75	19.0	0.62	15.8	1 5/16
PA-FNT16-RT16	1	1-11	2.30	58.4	0.94	23.9	0.88	22.4	1 5/8

PA

Adapter

Female NPT To Male BSPP

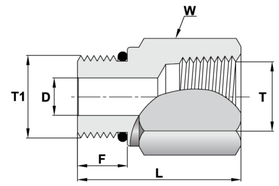


Order Information	T Female NPT Size	T1 Male BSPT ISO 228/1, BS2779 Size	L		F		E Dia.		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PA-FNT2-GS2	1/8	1/8-28	0.99	25.1	0.28	7.1	0.54	13.8	0.16	4.1	9/16
PA-FNT4-GS4	1/4	1/4-19	1.32	33.5	0.44	11.2	0.70	18.0	0.23	5.8	3/4
PA-FNT6-GS6	3/8	3/8-19	1.41	35.8	0.44	11.2	0.85	21.8	0.31	7.9	7/8
PA-FNT8-GS8	1/2	1/2-14	1.74	44.2	0.56	14.2	1.02	26.0	0.47	11.9	1 1/16
PA-FNT12-GS12	3/4	3/4-14	1.89	48.0	0.62	15.7	1.26	32.0	0.62	15.7	1 5/16
PA-FNT16-GS16	1	1-11	2.10	53.3	0.72	18.3	1.53	39.0	0.78	19.8	1 5/8

PA

Adapter

Female NPT To SAE/MS
Straight Thread Boss*

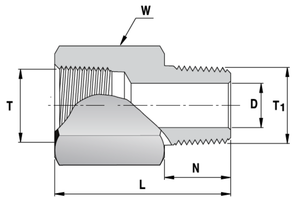


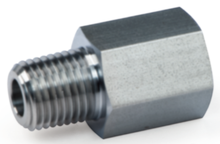
Order Information	T Female NPT Size	T1 Straight Thread UN	D		L		F		W Hex.Flat	O-Ring**
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.	
PA-FNT4-SAE4	1/4	7/16-20	0.20	5.1	1.32	33.5	0.36	9.1	3/4	-904
PA-FNT6-SAE6	3/8	9/16-18	0.28	7.1	1.39	35.3	0.39	9.9	15/16	-906
PA-FNT8-SAE8	1/2	3/4-16	0.42	10.7	1.76	44.7	0.44	11.2	1 1/16	-908
PA-FNT12-SAE12	3/4	1 1/16-12	0.66	16.7	1.99	50.5	0.59	15.0	1 3/8	-912
PA-FNT16-SAE16	1	1 5/16-12	0.88	22.3	2.12	53.8	0.59	15.0	1 5/8	-916

PA

Adapter

Female BSPT To Male NPT

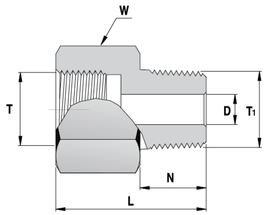


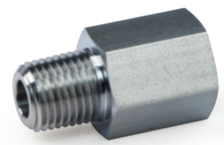


Order Information	T Female BSPT ISO 7/1, BS21 Size	T1 Male NPT Size	L		N		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PA-FRT4-NT4	1/4-19	1/4	1.43	36.3	0.56	14.2	0.28	7.1	3/4
PA-FRT6-NT6	3/8-19	3/8	1.51	38.4	0.56	14.2	0.38	9.6	7/8
PA-FRT8-NT8	1/2-14	1/2	1.96	49.8	0.75	19.1	0.47	11.9	1 1/16

PA

Gauge Adapter
Female BSPP To Male NPT

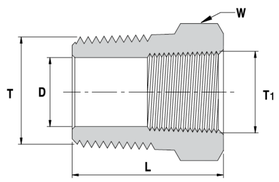




Order Information	T Female BSPP ISO 228/1, BS2779 Size	T1 Male NPT Size	L		N		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PA-FGS4-NT4	1/4-19	1/4	1.19	30.2	0.56	14.2	0.22	5.6	3/4
PA-FGS6-NT6	3/8-19	3/8	1.27	32.3	0.56	14.2	0.26	6.6	15/16
PA-FGS8-NT8	1/2-14	1/2	1.65	41.9	0.75	19.0	0.28	7.1	1 1/16

PRB

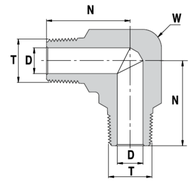
Reducing Bushing



Order Information	T Male NPT Size	T1 Female NPT Size	L		D Min.opening		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.
PRB-NT2-FNT1	1/8	1/16	1.03	26.2	0.19	4.8	7/16
PRB-NT4-FNT2	1/4	1/8	1.06	26.9	0.28	7.1	9/16
PRB-NT6-FNT2	3/8	1/8	0.86	21.8	0.34	8.6	11/16
PRB-NT6-FNT4	3/8	1/4	1.19	30.2	0.38	9.6	3/4
PRB-NT8-FNT2	1/2	1/8	1.08	27.4	0.34	8.6	7/8
PRB-NT8-FNT4	1/2	1/4	1.08	27.4	0.41	10.5	7/8
PRB-NT8-FNT6	1/2	3/8	1.41	35.8	0.47	11.9	7/8
PRB-NT12-FNT4	3/4	1/4	1.08	27.4	0.45	11.4	1 1/16
PRB-NT12-FNT6	3/4	3/8	1.08	27.4	0.56	14.2	1 1/16
PRB-NT12-FNT8	3/4	1/2	1.63	41.4	0.62	15.7	1 1/16
PRB-NT16-FNT4	1	1/4	1.37	34.8	0.41	10.5	1 3/8
PRB-NT16-FNT6	1	3/8	1.37	34.8	0.56	14.2	1 3/8
PRB-NT16-FNT8	1	1/2	1.37	34.8	0.69	17.4	1 3/8
PRB-NT16-FNT12	1	3/4	1.85	47.0	0.87	22.1	1 3/8

PME

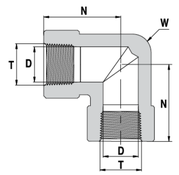
Male Elbow



Order Information	T Female NPT Size	N		D Min.opening		W Wrench Flat
		Inch.	mm	Inch.	mm	Inch.
PME-NT2	1/8	0.67	17.0	0.19	4.8	7/16
PME-NT4	1/4	0.90	23.0	0.28	7.1	1/2
PME-NT6	3/8	1.02	26.0	0.38	9.6	13/16
PME-NT8	1/2	1.42	36.0	0.47	11.9	15/16

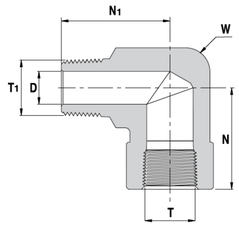
PFE

Female Elbow



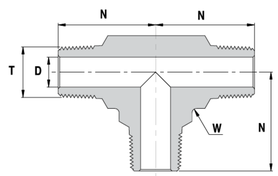
Order Information	T Female NPT Size	N		D Min.opening		W Wrench Flat
		Inch.	mm	Inch.	mm	Inch.
PFE-FNT2	1/8	0.87	22.0	0.34	8.6	5/8
PFE-FNT4	1/4	1.02	26.0	0.45	11.4	13/16
PFE-FNT6	3/8	1.10	28.0	0.59	15.0	15/16
PFE-FNT8	1/2	1.18	30.0	0.73	18.5	1 1/16
PFE-FNT12	3/4	1.45	37.0	0.94	23.9	1 3/8
PFE-FNT16	1	1.49	38.0	1.17	29.7	1 11/16

PSE
Street Elbow



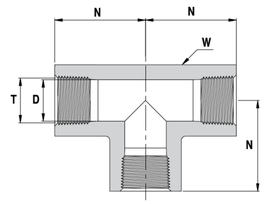
Order Information	T Female NPT Size	T1 Male NPT Size	N		N1		D Min.opening		W Wrench Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PSE-FNT1-NT1	1/16	1/16	0.86	21.8	0.88	22.4	0.12	3.10	7/16
PSE-FNT2-NT1	1/8	1/16	1.04	26.4	0.87	22.1	0.12	3.10	5/8
PSE-FNT2-NT2	1/8	1/8	1.04	26.4	0.87	22.1	0.19	4.80	5/8
PSE-FNT4-NT2	1/4	1/8	1.17	25.0	1.10	28.0	0.19	4.80	11/16
PSE-FNT4-NT4	1/4	1/4	1.02	26.0	1.10	28.0	0.28	7.10	11/16
PSE-FNT6-NT4	3/8	1/4	1.10	28.0	1.30	33.0	0.28	7.10	15/16
PSE-FNT6-NT6	3/8	3/8	1.10	28.0	1.26	32.0	0.38	9.60	15/16
PSE-FNT8-NT4	1/2	1/4	1.18	30.0	1.38	35.1	0.28	7.10	1 1/16
PSE-FNT8-NT6	1/2	3/8	1.18	30.0	1.45	37.0	0.38	9.60	1 1/16
PSE-FNT8-NT8	1/2	1/2	1.18	30.0	1.42	36.0	0.47	11.9	1 1/16
PSE-FNT12-NT12	3/4	3/4	1.45	37.0	1.81	46.0	0.62	15.8	1 3/8
PSE-FNT16-NT16	1	1	1.91	48.5	1.94	49.3	0.86	21.8	1 11/16

PMT
Male Tee



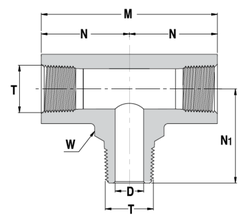
Order Information	T Female NPT Size	N		D Min.opening		W Wrench Flat
		Inch.	mm	Inch.	mm	Inch.
PMT-NT2	1/8	0.71	18.0	0.19	4.8	1/2
PMT-NT4	1/4	0.91	23.0	0.28	7.1	5/8
PMT-NT6	3/8	1.02	26.0	0.38	9.6	13/16
PMT-NT8	1/2	1.42	36.0	0.47	11.9	15/16

PFT
Female Tee



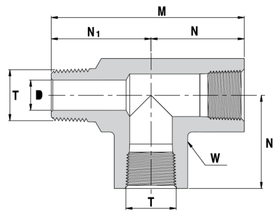
Order Information	T Female NPT Size	N		D Min.opening		W Wrench Flat
		Inch.	mm	Inch.	mm	Inch.
PFT-FNT2	1/8	0.91	23.0	0.34	8.6	5/8
PFT-FNT4	1/4	1.02	26.0	0.45	11.4	13/16
PFT-FNT6	3/8	1.14	29.0	0.59	15.0	15/16
PFT-FNT8	1/2	1.18	30.0	0.73	18.0	1 1/16
PFT-FNT12	3/4	1.45	37.0	0.94	23.9	1 3/8
PFT-FNT16	1	1.61	41.0	1.17	29.7	1 11/16

PBT
Branch Tee



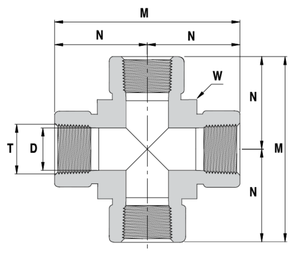
Order Information	T Male & Female NPT	M		N		N 1		D Min.opening		W Wrench Flat
		Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PBT-FNT2-NT2	1/8	1.85	47.0	0.87	22.0	0.98	25.0	0.19	4.8	5/8
PBT-FNT4-NT4	1/4	2.13	54.0	1.02	26.0	1.10	28.0	0.28	7.1	13/16
PBT-FNT6-NT6	3/8	2.40	61.0	1.14	29.0	1.26	32.0	0.38	9.6	15/16
PBT-FNT8-NT8	1/2	2.64	67.0	1.18	30.0	1.46	37.0	0.47	11.9	1 1/16

PST
Street Tee



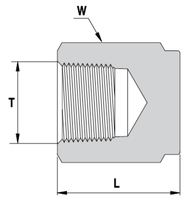
Order Information	T Male & Female NPT	M		N		N1		D Min.opening		W Wrench Flat
		Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PST-FNT2-NT2	1/8	1.81	46.0	0.91	23.0	0.98	25.0	0.19	4.8	5/8
PST-FNT4-NT4	1/4	2.05	52.0	1.02	26.0	1.10	28.0	0.28	7.1	13/16
PST-FNT6-NT6	3/8	2.20	56.0	1.10	28.0	1.38	35.0	0.38	9.6	15/16
PST-FNT8-NT8	1/2	2.38	60.0	1.18	30.0	1.46	37.0	0.47	11.9	1 1/16

PFX
Female Cross



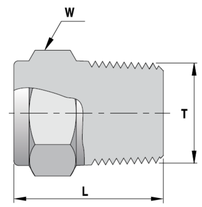
Order Information	T Female NPT Size	N		M		D Min.opening		W Wrench Flat
		Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PFX-FNT2	1/8	1.04	26.4	2.08	52.8	0.31	7.8	5/8
PFX-FNT4	1/4	1.17	29.7	2.34	59.4	0.41	10.5	11/16
PFX-FNT6	3/8	1.42	36.1	2.84	72.2	0.56	14.2	13/16
PFX-FNT8	1/2	1.56	39.6	3.12	79.2	0.69	17.4	1
PFX-FNT12	3/4	1.92	48.8	3.84	97.6	0.90	22.9	1 1/4
PFX-FNT16	1	1.91	48.5	3.82	97.0	1.13	28.7	1 11/16

PCP
Pipe Cap



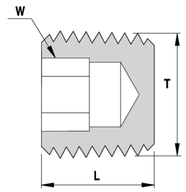
Order Information	T Female NPT Size	L		W Hex.Flat
		Inch.	mm	Inch.
PCP-FNT2	1/8	0.75	19.1	9/16
PCP-FNT4	1/4	0.91	23.1	3/4
PCP-FNT6	3/8	1.03	26.2	7/8
PCP-FNT8	1/2	1.34	34.0	1 1/16
PCP-FNT12	3/4	1.44	36.6	1 5/16
PCP-FNT16	1	1.62	41.1	1 5/8

PHP
Female Cross



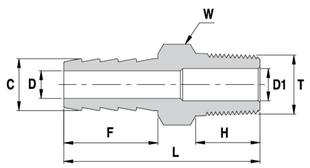
Order Information	T Female NPT Size	L		W Hex.Flat
		Inch.	mm	Inch.
PHP-NT1	1/16	0.75	19.0	5/16
PHP-NT2	1/8	0.75	19.0	7/16
PHP-NT4	1/4	0.96	24.4	9/16
PHP-NT6	3/8	0.99	25.2	11/16
PHP-NT8	1/2	1.21	30.7	7/8
PHP-NT12	3/4	1.21	30.7	1/16
PHP-NT16	1	1.50	38.1	3/8

PHHP
Hex Head Plug



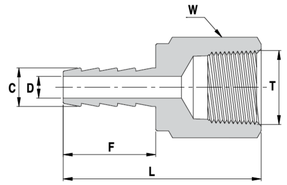
Order Information	T Male NPT Size	L		W Hex.Flat
		Inch.	mm	Inch.
PHHP-NT2	1/8	0.29	7.4	3/16
PHHP-NT4	1/4	0.44	11.3	1/4
PHHP-NT6	3/8	0.44	11.3	5/16
PHHP-NT8	1/2	0.61	15.5	3/8

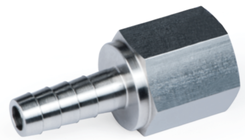
PMHC
Male Hose Connector



Order Information	Pipe Size	T Female NPT Size	C		D		D1		F		H		L		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PMHC-HD2-NT2	1/8	1/8	0.15	3.80	0.08	2.0	0.19	4.80	0.40	10.2	0.38	9.70	1.08	27.4	7/16
PMHC-HD2-NT4	1/8	1/4	0.15	3.80	0.08	2.0	0.28	7.10	0.40	10.2	0.56	14.2	1.26	32.0	9/16
PMHC-HD3-NT2	3/16	1/8	0.23	5.84	0.12	3.0	0.12	3.00	0.59	15.0	0.38	9.70	1.27	32.3	7/16
PMHC-HD3-NT4	3/16	1/4	0.23	5.84	0.12	3.0	0.28	7.10	0.59	15.0	0.56	14.2	1.45	36.8	9/16
PMHC-HD4-NT2	1/4	1/8	0.30	7.62	0.19	4.8	0.19	4.80	0.79	20.1	0.38	9.70	1.47	37.3	7/16
PMHC-HD4-NT4	1/4	1/4	0.30	7.62	0.19	4.8	0.19	4.80	0.79	20.1	0.56	14.2	1.65	41.9	9/16
PMHC-HD4-NT6	1/4	3/8	0.30	7.62	0.19	4.8	0.19	4.80	0.79	20.1	0.56	14.2	1.66	42.2	11/16
PMHC-HD4-NT8	1/4	1/2	0.30	7.62	0.19	4.8	0.47	11.9	0.79	20.1	0.75	19.0	1.85	47.0	7/8
PMHC-HD5-NT2	5/16	1/8	0.38	9.65	0.19	4.8	0.19	4.80	0.87	22.1	0.38	9.70	1.55	39.4	7/16
PMHC-HD5-NT4	5/16	1/4	0.38	9.65	0.19	4.8	0.19	4.80	0.87	22.1	0.56	14.2	1.73	43.9	9/16
PMHC-HD5-NT6	5/16	3/8	0.38	9.65	0.19	4.8	0.37	9.50	0.87	22.1	0.56	14.2	1.74	44.2	11/16
PMHC-HD5-NT8	5/16	1/2	0.38	9.65	0.19	4.8	0.47	11.9	0.87	22.1	0.75	19.0	1.96	49.8	7/8
PMHC-HD6-NT4	3/8	1/4	0.45	11.43	0.30	7.6	0.30	7.60	0.87	22.1	0.56	14.2	1.73	43.9	9/16
PMHC-HD6-NT6	3/8	3/8	0.45	11.43	0.30	7.6	0.30	7.60	0.87	22.1	0.56	14.2	1.74	44.2	11/16
PMHC-HD6-NT8	3/8	1/2	0.45	11.43	0.30	7.6	0.30	7.60	0.87	22.1	0.75	19.0	1.96	49.8	7/8
PMHC-HD8-NT4	1/2	1/4	0.60	15.24	0.37	9.5	0.28	7.10	0.94	23.8	0.56	14.2	1.80	45.7	11/16
PMHC-HD8-NT6	1/2	3/8	0.60	15.24	0.37	9.5	0.37	9.50	0.94	23.8	0.56	14.2	1.81	46.0	11/16
PMHC-HD8-NT8	1/2	1/2	0.60	15.24	0.37	9.5	0.37	9.50	0.94	23.8	0.75	19.0	2.03	51.6	7/8
PMHC-HD10-NT8	5/8	1/2	0.75	19.10	0.47	11.9	0.47	11.9	0.98	24.9	0.75	19.0	2.07	52.6	1 1/16
PMHC-HD10-NT12	5/8	3/4	0.75	19.10	0.50	12.7	0.63	16.0	0.98	24.9	0.75	19.0	2.07	52.6	1 1/16
PMHC-HD12-NT8	3/4	1/2	0.90	22.86	0.63	16.0	0.47	11.9	1.05	26.7	0.75	19.0	2.14	54.4	1 1/16
PMHC-HD12-NT12	3/4	3/4	0.90	22.86	0.63	16.0	0.63	16.0	1.05	26.7	0.75	19.0	2.14	54.4	1 1/16
PMHC-HD12-NT16	3/4	1	0.90	22.86	0.63	16.0	0.88	22.4	1.05	26.7	0.94	23.9	2.43	61.7	1 3/8
PMHC-HD16-NT12	1	3/4	1.2	30.48	0.88	22.4	0.63	16.0	1.19	30.2	0.75	19.0	2.38	60.5	1 3/8
PMHC-HD16-NT16	1	1	1.2	30.48	0.88	22.4	0.88	22.4	1.19	30.2	0.94	23.9	2.57	65.3	1 3/8

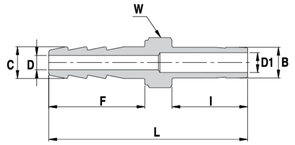
PFHC
Female Hose Connector





Order Information	Pipe Size	T NPT Size	C		D		F		L		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PFHC-HD2-FNT2	1/8	1/8	0.15	3.80	0.08	2.00	0.40	10.2	1.11	28.2	9/16
PFHC-HD2-FNT4	1/8	1/4	0.15	3.80	0.08	2.00	0.40	10.2	1.26	32.0	3/4
PFHC-HD3-FNT2	3/16	1/8	0.23	5.84	0.12	3.00	0.59	15.0	1.29	32.8	9/16
PFHC-HD3-FNT4	3/16	1/4	0.23	5.84	0.12	3.00	0.59	15.0	1.44	36.6	3/4
PFHC-HD4-FNT2	1/4	1/8	0.30	7.62	0.19	4.80	0.79	20.1	1.47	37.3	9/16
PFHC-HD4-FNT4	1/4	1/4	0.30	7.62	0.19	4.80	0.79	20.1	1.64	41.7	3/4
PFHC-HD4-FNT6	1/4	3/8	0.30	7.62	0.19	4.80	0.79	20.1	1.71	43.4	7/8
PFHC-HD5-FNT4	5/16	1/4	0.38	9.65	0.19	4.80	0.87	22.1	1.73	43.9	3/4
PFHC-HD5-FNT6	5/16	3/8	0.38	9.65	0.19	4.80	0.87	22.1	1.82	46.2	7/8
PFHC-HD6-FNT4	3/8	1/4	0.45	11.43	0.30	7.60	0.87	22.1	1.69	42.9	3/4
PFHC-HD6-FNT6	3/8	3/8	0.45	11.43	0.30	7.60	0.87	22.1	1.78	45.2	7/8
PFHC-HD6-FNT8	3/8	1/2	0.45	11.43	0.30	7.60	0.87	22.1	2.03	51.6	1 1/16
PFHC-HD8-FNT8	1/2	1/2	0.60	15.24	0.38	9.70	0.94	23.9	2.13	54.1	1 1/16

PTHC
Tube To Hose Connector



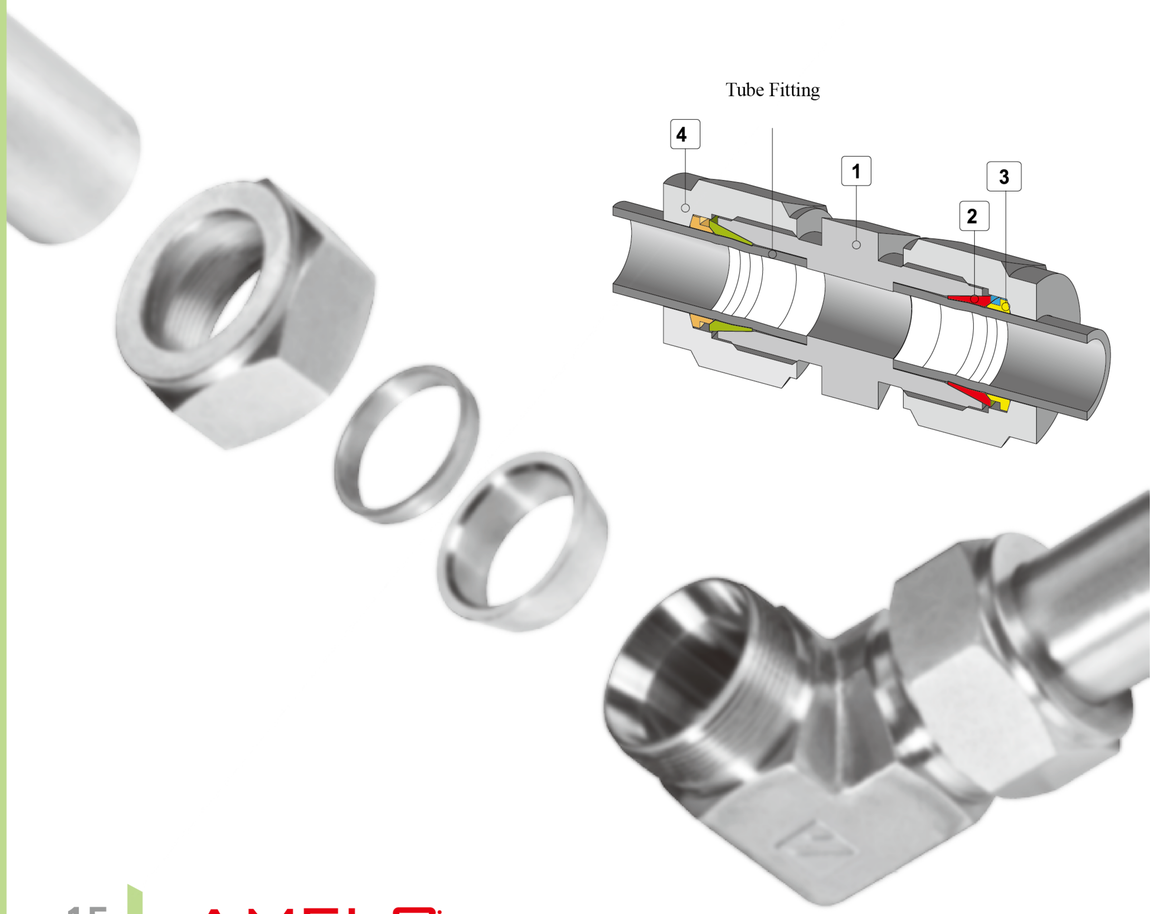
Order Information	Pipe Size	B Tube O.D.	C		D		D1		F		I		L		W Hex.Flat
			Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.	mm	Inch.
PTHC-HD2-OD2	1/8	1/8	0.15	3.80	0.08	2.00	0.08	2.00	0.40	10.2	0.53	13.5	1.35	34.3	5/16
PTHC-HD2-OD4	1/8	1/4	0.15	3.80	0.08	2.00	0.17	4.20	0.40	10.2	0.62	15.7	1.44	36.6	3/8
PTHC-HD4-OD4	1/4	1/4	0.30	7.62	0.19	4.80	0.17	4.20	0.79	20.1	0.62	15.7	1.83	46.5	7/16
PTHC-HD4-OD6	1/4	3/8	0.30	7.62	0.19	4.80	0.27	6.85	0.79	20.1	0.69	17.5	1.90	48.3	7/16
PTHC-HD4-OD6M	1/4	6 mm	0.30	7.62	0.19	4.80	0.16	4.00	0.79	20.1	0.62	15.7	1.86	47.2	7/16
PTHC-HD5-OD4	5/16	1/4	0.37	9.40	0.19	4.80	0.17	4.20	0.87	22.1	0.62	15.7	1.91	48.5	7/16
PTHC-HD6-OD6	3/8	3/8	0.45	11.43	0.30	7.60	0.27	6.85	0.87	22.1	0.69	17.5	1.98	50.3	9/16
PTHC-HD6-OD8	3/8	1/2	0.45	11.43	0.30	7.60	0.37	9.40	0.87	22.1	0.91	23.1	2.20	55.9	5/8
PTHC-HD8-OD6	1/2	3/8	0.60	15.24	0.38	9.70	0.27	6.85	0.94	23.9	0.69	17.5	2.05	52.1	11/16
PTHC-HD8-OD8	1/2	1/2	0.60	15.24	0.38	9.70	0.37	9.40	0.94	23.9	0.91	23.1	2.27	57.7	11/16
PTHC-HD12-OD12	3/4	3/4	0.90	22.86	0.63	16.0	0.59	15.0	1.05	26.7	0.97	24.6	2.44	62.0	1 1/16

AM-LOK-HOW IT WORKS

The AM-LOK tube fitting is a mechanism used both to seal and to grip tubing. The mechanical advantage and geometry of this kind of fitting produces a leak-tight assembly.
To assemble, simply insert the tube into the complete assembly until the tube bottoms against the ferrule nut,the mechanical force generated pushes the rear ferrule (3) between the ferrule nut (4) and the fitting body.At the same time,The front ferrule (2) is driven by force into the tapered mouth of the body.The front ferrule gradually shrinks, squeezing the ferrule tube to form a sealing surface.
At the same time, the rear ferrule is squeezed onto the ferrule tube by the radial force inward, forming a sealing surface between the rear ferrule and the ferrule tube.
When you feel it is tightened by hand,The one and one quarter turn (For other specifications, see page 61) of the nut from the hand tight position ensures consistent push of the sealing members. This ensures an effective seal against high-pressure as well as ultra-high-vacuum conditions.

AM-LOK TUBE FITTINGS DESCRIPTION

The AM-LOK range of connectors developed to fill the rapidly increasing demand for tube fittings suitable for high-pressure use in environments such as petrochemical, fluid, power, nuclear, electronic and other major industrial settings.
AM-LOK tube fittings were carefully manufactured to withstand the persistent demands for high-performance tube fittings.These precision-machined fittings are manufactured to accurate standards, employing the most state-of-the-art computerized automation.
At the same time, all specifications of the rear ferrules are hardened on the surface to ensure the reliability of the components.



Allowable Working Pressure of Tubing

TABLE 1: STAINLESS STEEL INCH TUBING

Tube O.D.	Tube Wall Thickness (mm)															
inch.	0.010	0.012	0.014	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
1/16	5600	6860	8150	9480	11890											
1/8						8550	10730									
3/16						5500	7100	10150								
1/4						4100	5200	7600	10150							
5/16							4100	5900	7975							
3/8							3350	4850	6525							
1/2							2650	3750	5150	6525						
5/8								2950	4050	5250	5945					
3/4								2450	3350	4250	4950	5655				
7/8								2050	2850	3650	4250	4843				
1									2100	2700	3200	3700	3987			

Annealed 304 or 316 stainless steel tubing complying with ASTM A213, A269 or equivalent specifications. For metal temp. from -20°F - 100°F (-29°C - 37°C). Suggested ordering information: Fully annealed high quality (Type 304 or 316) stainless steel hydraulic tubing ASTM A269 or A213 or equivalent, seamless or welded and drawn with a hardness of 90HRB (200HV) or less. Tubing should be without scratches and suitable for flaring and bending.

TABLE 2: STAINLESS STEEL METRIC TUBING

Tube O.D.	Tube Wall Thickness (inch)													
mm	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0	3.5	4.0	4.5	5.0
3	670													
6	310	420	540	710										
8		310	390	520										
10		240	300	400	510									
12		200	250	330	410	470								
14		160	200	270	340	380	430							
15		150	190	250	310	360	400							
16			170	230	290	330	370	400						
18			150	200	260	290	320	370						
20			140	180	230	260	290	330	380					
22			120	160	200	230	260	300	340					
25					180	200	230	260	290	320				

NOTE!
The system designer and user have the sole responsibility to select products suitable for their special application requirements and to ensure the proper installation, operation and maintenance of the product. Please consider application details, material compatibility and product ratings when making your selection. Improper selection or use of products can cause property damage or personal injury.

Allowable Working Pressure of Tubing

TABLE 3: COPPER TUBING WALL THICKNESS OF TUBE IN INCHES

Tube O.D.		Tube Wall Thickness (inch)							
mm	inch.	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
2	1/8	2700	3600						
3	3/16	1800	2300	3400					
6	1/4	1300	1600	2500	3500				
8	5/16		1300	1900	2700				
10	3/8		1000	1600	2200				
12	1/2		800	1100	1600	2100			
16	5/8			900	1200	1600	1900		
20	3/4			700	1000	1300	1500	1800	
22	7/8			600	800	1100	1300	1500	
25	1			500	700	900	1100	1300	1500

Annealed copper seamless tubing complying with ASTM B68 and ASTM B75 specified in temper designation 060. Based on ultimate tensile strength of 30,000 psi (2067 bar). For metal temperatures from -20°F to 100°F(-29°C to 37°C). Suggested ordering information: High quality soft annealed seamless copper tubing ASTM B75 or equivalent.

TABLE 4: FACTORS USED TO DETERMINE ALLOWABLE PRESSURE AT HIGHER TEMPERATURES

°F	°C	A.I.S.I. 316	Copper
200	93	1	0.80
400	204	0.96	0.50
600	316	0.85	-
800	427	0.79	-
1000	538	0.76	-

To determine allowable pressure at higher temperatures, multiply allowable working pressure from Tables 1 & 2 & 3 by factor shown in Table 4. For example, the allowable pressure for Type 316 stainless steel, size 1/2" OD x .049" wall at 800°F (427°C) would be equivalent to 3750 psi x 0.79 = 2962.5 psi.

TABLE 5: GAS APPLICATION TUBING

INCH		METRIC	
Tubing O.D.	Min. Nominal Wall Thickness	Tubing O.D.	Min. Nominal Wall Thickness
1/8"	0.028"	3 mm	0.8 mm
3/16"	0.028"	6 mm	0.8 mm
1/4"	0.028"	8 mm	1.0 mm
5/16"	0.035"	10 mm	1.0 mm
3/8"	0.035"	12 mm	1.0 mm
1/2"	0.049"	14 mm	1.2 mm
5/8"	0.065"	16 mm	1.5 mm
3/4"	0.065"	18 mm	1.5 mm
7/8"	0.083"	20 mm	1.8 mm
1"	0.083"	22 mm	2.0 mm

Gases are characterized by small molecules which can escape through the smallest leak path. For gas applications, we recommend tubing with greater wall thickness. Table 5 shows the recommended minimum wall thickness to ensure performance.

NOTE!
The system designer and user have the sole responsibility to select products suitable for their special application requirements and to ensure the proper installation, operation and maintenance of the product. Please consider application details, material compatibility and product ratings when making your selection. Improper selection or use of products can cause property damage or personal injury.

Pressure Ratings

Pressure Ratings for AM-LOK

To ensure leak-tight systems, it is important to carefully select high-quality tubing (Reference- allowable working pressure).

Pipe End Thread (NPT and ISO 7) Pressure Ratings

Allowable pressure for male and female tapered pipe thread ends: stainless steel 316 and brass.

Pressure Ratings

NPT / ISO Thread SIZE	316L		Brass	
	Male	Female	Male	Female
inch.	psi			
1/16	11000	6700	5500	3300
1/8	10000	6500	5000	3200
1/4	8000	6600	4000	3300
3/8	7800	5300	3900	2600
1/2	7700	4900	3800	2400
3/4	7300	4600	3600	2300
1	5300	4400	2600	2200

Note: If the pressure on the AM-LOK end is higher than the pipe side, then the pipe side needs a heavier wall thickness of the tapered pipe thread side.

PRESSURE RATINGS FOR END FITTINGS PER SAE J1926 (LOB) AMBIENT TEMPERATURE

Pressure ratings are based on SAE J1926 at ambient temperature.

Pressure Ratings

(LOB) SAE J1926 Thread Size	316L	
	Nonpositionable	Positionable
inch.	psi	
5/16 - 24	4568	4568
7/16 - 20	4568	4568
1/2 - 20	4568	4568
9/16 - 18	4568	3626
3/4 - 16	4568	3626
7/8 - 14	3626	2900

Note: 37° FLARE (AN) and LO ends can have lower pressure.

O-seal pressure ratings

Stainless steel 316 O-seal fittings up to 1" and 25 mm are rated to 3000 psi.

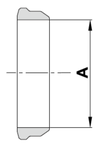
Positionable, ISO/BSP parallel thread (G) pressure ratings

Pressure ratings are at surrounding temperature.

Pressure Ratings

(G) ISO / BSPP Thread Size	316L
inch.	psi
1/8	4568
1/4	4568
3/8	4568
1/2	2320
3/4	2320
1	2320

BF
Back Ferrule



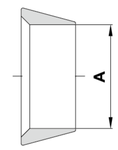
METRIC

Ordering Information	A Tube O.D. mm
BF-TF2M	2
BF-TF3M	3
BF-TF4M	4
BF-TF6M	6
BF-TF8M	8
BF-TF10M	10
BF-TF12M	12
BF-TF14M	14
BF-TF15M	15
BF-TF16M	16
BF-TF18M	18
BF-TF20M	20
BF-TF22M	22
BF-TF25M	25

INCH

Ordering Information	A Tube O.D. inch.	A Tube O.D. mm
BF-TF1	1/16	1.58
BF-TF2	1/8	3.17
BF-TF3	3/16	4.76
BF-TF4	1/4	6.35
BF-TF5	5/16	7.93
BF-TF6	3/8	9.52
BF-TF8	1/2	12.70
BF-TF10	5/8	15.87
BF-TF12	3/4	19.05
BF-TF14	7/8	22.22
BF-TF16	1	25.40

FF
Front Ferrule



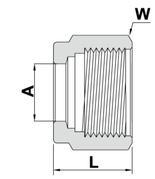
METRIC

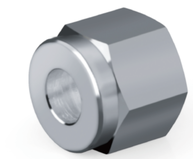
Ordering Information	A Tube O.D. mm
FF-TF2M	2
FF-TF3M	3
FF-TF4M	4
FF-TF6M	6
FF-TF8M	8
FF-TF10M	10
FF-TF12M	12
FF-TF14M	14
FF-TF15M	15
FF-TF16M	16
FF-TF18M	18
FF-TF20M	20
FF-TF22M	22
FF-TF25M	25

INCH

Ordering Information	A Tube O.D. inch.	A Tube O.D. mm
FF-TF1	1/16	1.58
FF-TF2	1/8	3.17
FF-TF3	3/16	4.76
FF-TF4	1/4	6.35
FF-TF5	5/16	7.93
FF-TF6	3/8	9.52
FF-TF8	1/2	12.70
FF-TF10	5/8	15.87
FF-TF12	3/4	19.05
FF-TF14	7/8	22.22
FF-TF16	1	25.40

N
Nut





METRIC

Ordering Information	A Tube O.D. mm	W Hex. Flat mm	L mm
N-TF2M	2	12	11.9
N-TF3M	3	12	11.9
N-TF4M	4	12	11.9
N-TF6M	6	14	12.7
N-TF8M	8	16	13.5
N-TF10M	10	19	15.1
N-TF12M	12	22	17.4
N-TF14M	14	25	17.4
N-TF15M	15	25	17.4
N-TF16M	16	25	17.4
N-TF18M	18	30	17.4
N-TF20M	20	32	17.4
N-TF22M	22	32	17.4
N-TF25M	25	38	20.6

"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

INCH

Ordering Information	A Tube O.D. inch.	A Tube O.D. mm	W Hex. Flat inch.	L inch.	L mm
N-TF1	1/16	1.58	5/16	.31	7.87
N-TF2	1/8	3.17	7/16	.47	11.93
N-TF3	3/16	4.76	1/2	.47	11.93
N-TF4	1/4	6.35	9/16	.50	12.70
N-TF5	5/16	7.93	5/8	.53	13.46
N-TF6	3/8	9.52	11/16	.56	14.22
N-TF8	1/2	12.70	7/8	.69	17.52
N-TF10	5/8	15.87	1	.69	17.52
N-TF12	3/4	19.05	1 1/8	.69	17.52
N-TF14	7/8	22.22	1 1/4	.69	17.52
N-TF16	1	25.40	1 1/2	.81	20.57

FERRULE SETS

All AM-LOK Ferrules are available as sets.
Ferrule sets simplify stocking and assembly.
Ferrule sets prevent damage of single ferrules during shipping.
The back and front ferrules are arranged as pairs in the set; ready for easy assembly.

U
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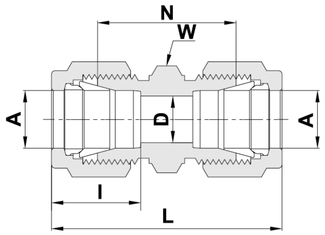

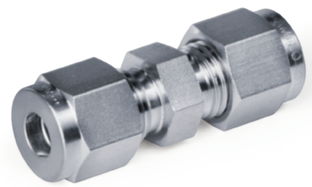

TUBE (METRIC) TO TUBE (METRIC)

Ordering Information	A Tube O.D.	D	W Hex. Flat	N	L	I
	mm	mm	mm	mm	mm	mm
U-TF2M	2	1.7	12	22.4	35.6	12.9
U-TF3M	3	2.4	12	22.1	35.3	15.3
U-TF4M	4	2.4	12	24.1	37.3	16.3
U-TF6M	6	4.8	14	26.2	41.0	17.7
U-TF8M	8	6.4	15	28.2	43.2	18.6
U-TF10M	10	7.9	18	31.0	46.2	19.5
U-TF12M	12	9.5	22	31.0	51.2	22.0
U-TF14M	14	11.1	24	31.8	52.0	22.0
U-TF15M	15	11.9	24	31.8	52.0	22.0
U-TF16M	16	12.7	24	31.8	52.0	22.0
U-TF18M	18	15.1	27	33.3	53.5	22.0
U-TF20M	20	15.9	30	34.8	55.0	22.0
U-TF22M	22	18.3	30	34.8	55.0	22.0
U-TF25M	25	21.8	35	40.4	65.0	26.5

TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		D		W Hex. Flat	N		L		I	
	inch.	mm	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm
U-TF1	1/16	1.58	.05	1.27	5/16	.69	17.52	.99	25.14	.34	8.6
U-TF2	1/8	3.17	.09	2.28	7/16	.88	22.35	1.40	35.56	.60	12.7
U-TF3	3/16	4.76	.12	3.04	7/16	.95	24.13	1.47	37.33	.63	13.7
U-TF4	1/4	6.35	.19	4.82	1/2	1.03	26.16	1.61	40.89	.70	15.2
U-TF5	5/16	7.93	.25	6.35	9/16	1.11	28.19	1.69	42.92	.73	16.2
U-TF6	3/8	9.52	.28	7.11	5/8	1.19	30.22	1.77	44.95	.76	16.8
U-TF8	1/2	12.70	.41	10.41	13/16	1.22	30.98	2.02	51.30	.86	22.9
U-TF10	5/8	15.87	.50	12.70	15/16	1.25	31.75	2.05	52.07	.86	24.4
U-TF12	3/4	19.05	.62	15.75	1 1/16	1.31	33.27	2.11	53.59	.86	24.4
U-TF14	7/8	22.22	.72	18.28	1 3/16	1.37	34.80	2.17	55.11	1.02	25.9
U-TF16	1	25.40	.88	22.35	1 3/8	1.59	40.38	2.55	64.77	1.04	31.2

UT
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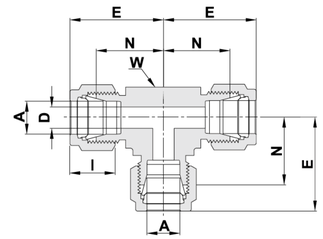

ALL TUBE (METRIC)

Ordering Information	A Tube O.D.	D	W Wrench Flat		N	E	I
	mm	mm	inch.	mm	mm	mm	mm
UT-TF2M	2	1.7	3/8	9.5	15.7	22.3	12.9
UT-TF3M	3	2.4	3/8	9.5	15.7	22.3	12.9
UT-TF4M	4	2.4	1/2	12.7	18.8	25.4	13.7
UT-TF6M	6	4.8	1/2	12.7	19.6	27.0	15.3
UT-TF8M	8	6.4	5/8	16.0	22.4	29.9	16.2
UT-TF10M	10	7.9	13/16	20.5	23.9	31.5	17.2
UT-TF12M	12	9.5	13/16	20.5	25.9	36.0	22.8
UT-TF14M	14	11.1	1	25.4	28.7	38.8	24.4
UT-TF15M	15	11.9	1	25.4	28.7	38.8	24.4
UT-TF16M	16	12.7	1	25.4	28.7	38.8	24.4
UT-TF18M	18	15.1	1 1/16	27.0	29.7	38.8	24.4
UT-TF20M	20	15.9	1 3/8	35.0	34.5	44.6	26.0
UT-TF22M	22	18.3	1 3/8	35.0	34.5	44.6	26.0
UT-TF25M	25	21.8	1 3/8	35.0	36.8	49.1	31.3

ALL TUBE (INCH)

Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		I	
	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
UT-TF1	1/16	1.58	.05	1.27	3/8	9.5	.55	14.00	.70	17.80	.34	8.6
UT-TF2	1/8	3.17	.09	2.28	3/8	9.5	.62	15.74	.88	22.35	.50	12.7
UT-TF3	3/16	4.76	.12	3.04	7/16	11.1	.70	17.80	.96	24.40	.54	13.7
UT-TF4	1/4	6.35	.19	4.82	1/2	12.7	.77	19.55	1.06	26.90	.60	15.2
UT-TF5	5/16	7.93	.25	6.35	5/8	15.9	.88	22.35	1.17	29.71	.64	16.2
UT-TF6	3/8	9.52	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	.66	16.8
UT-TF8	1/2	12.70	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.06	.90	22.9
UT-TF10	5/8	15.87	.50	12.70	1	25.4	1.13	28.70	1.53	38.90	.96	24.4
UT-TF12	3/4	19.05	.62	15.74	1 1/16	27.0	1.17	29.70	1.57	39.90	.96	24.4
UT-TF14	7/8	22.22	.72	18.29	1 3/8	34.9	1.36	34.54	1.76	44.70	1.02	25.9
UT-TF16	1	25.40	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.00	1.23	31.2

RU
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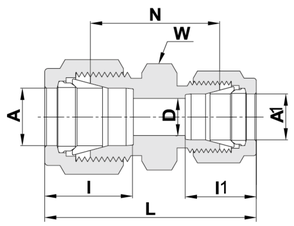

TUBE (METRIC) TO TUBE (METRIC)

Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	L	I	I1
	mm	mm	mm	mm	mm	mm	mm	mm
RU-TF3M-TF2M	3	2	1.7	12	22.1	35.3	12.9	12.9
RU-TF6M-TF2M	6	2	1.7	14	24.6	38.6	15.3	12.9
RU-TF6M-TF3M	6	3	2.4	14	24.6	38.6	15.3	12.9
RU-TF6M-TF4M	6	4	2.4	14	25.4	39.4	15.3	13.7
RU-TF8M-TF6M	8	6	4.8	15	27.4	42.3	16.2	15.3
RU-TF10M-TF6M	10	6	4.8	18	29.5	44.5	17.2	15.3
RU-TF10M-TF8M	10	8	6.4	18	30.0	45.1	17.2	16.2
RU-TF12M-TF6M	12	6	4.8	22	29.5	47.0	22.8	15.3
RU-TF12M-TF8M	12	8	6.4	22	30.2	47.8	22.8	16.2
RU-TF12M-TF10M	12	10	7.9	22	31.0	48.7	22.8	17.2
RU-TF16M-TF10M	16	10	7.9	24	31.8	49.5	24.4	17.2
RU-TF16M-TF12M	16	12	9.5	24	31.8	52.0	24.4	22.8
RU-TF18M-TF12M	18	12	9.5	27	33.3	53.5	24.4	22.8
RU-TF25M-TF18M	25	18	15.1	35	38.6	61.0	31.3	24.4
RU-TF25M-TF20M	25	20	15.9	35	39.9	62.3	31.3	26.0

TUBE (METRIC) TO TUBE (INCH)

Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	L	I	I1
	mm	inch.	mm	mm	mm	mm	mm	mm
RU-TF2M-TF4	2	1/4	1.7	14	24.6	38.6	12.9	15.2
RU-TF3M-TF2	3	1/8	2.4	12	22.1	35.2	12.9	12.7
RU-TF4M-TF2	4	1/8	2.4	12	23.4	36.5	13.7	12.7
RU-TF4M-TF4	4	1/4	2.4	14	25.4	39.4	13.7	15.2
RU-TF6M-TF2	6	1/8	2.4	14	24.6	38.5	15.3	12.7
RU-TF6M-TF4	6	1/4	4.8	14	26.2	41.0	15.3	15.2
RU-TF6M-TF5	6	5/16	4.8	14	27.4	42.3	15.3	16.2
RU-TF8M-TF2	8	1/8	2.4	15	25.7	39.8	16.2	12.7
RU-TF8M-TF4	8	1/4	4.8	15	27.4	42.3	16.2	15.2
RU-TF8M-TF6	8	3/8	6.4	16	29.5	44.3	16.2	16.8
RU-TF10M-TF2	10	1/8	2.4	18	27.7	41.8	17.2	12.7
RU-TF10M-TF4	10	1/4	4.8	18	29.5	44.5	17.2	15.2
RU-TF10M-TF5	10	5/16	6.4	18	30.0	45.1	17.2	16.2
RU-TF10M-TF6	10	3/8	7.1	18	31.0	45.9	17.2	16.8
RU-TF12M-TF5	12	5/16	6.4	22	30.2	47.8	22.8	16.2
RU-TF12M-TF6	12	3/8	7.1	22	31.0	48.4	22.8	16.8
RU-TF12M-TF8	12	1/2	9.5	22	31.0	51.2	22.8	22.9
RU-TF15M-TF8	15	1/2	10.3	24	31.8	52.0	24.4	22.9
RU-TF16M-TF10	16	5/8	12.7	24	31.8	52.0	24.4	24.4
RU-TF18M-TF12	18	3/4	15.1	27	33.3	53.5	24.4	24.4

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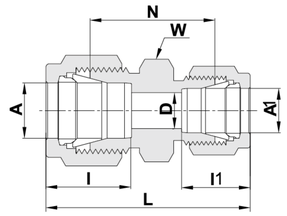
RU
Reducing Union(Cont'd)



TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		D		W Hex. Flat	N		L		I		I1	
	inch.	mm	inch.	mm	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm
RU-TF2-TF1	1/8	3.17	1/16	1.58	.05	1.27	7/16	.81	20.57	1.22	30.98	.50	12.7	.34	8.6
RU-TF3-TF1	3/16	4.76	1/16	1.58	.05	1.27	7/16	.86	21.84	1.27	32.26	.54	13.7	.34	8.6
RU-TF3-TF2	3/16	4.76	1/8	3.17	.09	2.28	7/16	.92	23.36	1.44	36.57	.54	13.7	.50	12.7
RU-TF4-TF1	1/4	6.35	1/16	1.58	.05	1.27	1/2	.91	23.11	1.35	34.29	.60	15.2	.34	8.6
RU-TF4-TF2	1/4	6.35	1/8	3.17	.09	2.28	1/2	.97	24.63	1.52	38.60	.60	15.2	.50	12.7
RU-TF4-TF3	1/4	6.35	3/16	4.76	.12	3.04	1/2	1.00	25.40	1.55	37.37	.60	15.2	.54	13.7
RU-TF5-TF2	5/16	7.93	1/8	3.17	.09	2.28	9/16	1.02	25.65	1.56	39.62	.64	16.2	.50	12.7
RU-TF5-TF4	5/16	7.93	1/4	6.35	.19	4.82	9/16	1.08	27.43	1.66	42.16	.64	16.2	.60	15.2
RU-TF6-TF1	3/8	9.52	1/16	1.58	.05	1.27	5/8	1.00	25.40	1.44	36.58	.66	16.8	.34	8.6
RU-TF6-TF2	3/8	9.52	1/8	3.17	.09	2.28	5/8	1.06	26.92	1.61	40.89	.66	16.8	.50	12.7
RU-TF6-TF4	3/8	9.52	1/4	6.35	.19	4.82	5/8	1.12	28.44	1.70	43.18	.66	16.8	.60	15.2
RU-TF6-TF5	3/8	9.52	5/16	7.93	.25	6.35	5/8	1.16	29.46	1.74	44.19	.66	16.8	.64	16.2
RU-TF8-TF2	1/2	12.70	1/8	3.17	.09	2.28	13/16	1.12	28.44	1.78	45.21	.90	22.9	.50	12.7
RU-TF8-TF4	1/2	12.70	1/4	6.35	.19	4.82	13/16	1.16	29.46	1.85	46.99	.90	22.9	.60	15.2
RU-TF8-TF6	1/2	12.70	3/8	9.52	.28	7.11	13/16	1.22	30.98	1.91	48.51	.90	22.9	.66	16.8
RU-TF10-TF6	5/8	15.87	3/8	9.52	.28	7.11	15/16	1.25	31.75	1.94	49.27	.96	24.4	.66	16.8
RU-TF10-TF8	5/8	15.87	1/2	12.70	.41	10.41	15/16	1.25	31.75	2.05	52.07	.96	24.4	.90	22.9
RU-TF12-TF4	3/4	19.05	1/4	6.35	.19	4.82	1 1/16	1.25	31.75	1.94	49.28	.96	24.4	.60	15.2
RU-TF12-TF6	3/4	19.05	3/8	9.52	.28	7.11	1 1/16	1.31	33.27	2.00	50.80	.96	24.4	.66	16.8
RU-TF12-TF8	3/4	19.05	1/2	12.70	.41	10.41	1 1/16	1.31	33.27	2.11	53.59	.96	24.4	.90	22.9
RU-TF12-TF10	3/4	19.05	5/8	15.87	.50	12.70	1 1/16	1.31	33.27	2.11	53.59	.96	24.4	.96	24.4
RU-TF16-TF8	1	25.4	1/2	12.70	.41	10.41	1 3/8	1.61	38.10	2.38	60.45	1.23	31.2	.90	22.9
RU-TF16-TF12	1	25.4	3/4	19.05	.62	15.75	1 3/8	1.59	38.10	2.38	60.45	1.23	31.2	.96	24.4

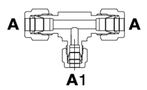
RUT

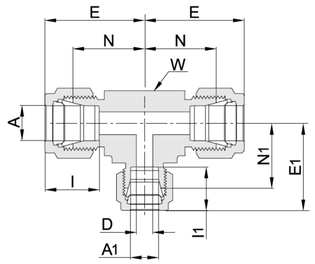
Reducing Union Tee

HOW TO ORDER

A | A1

RUT 3/8 — 1/4





ALL TUBE (METRIC)

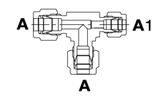
Ordering Information	A Tube O.D.	A1 Tube O.D.	E	E1	I	I1	D	W Wrench Flat		N	N1
	mm	mm	mm	mm	mm	mm	mm	inch.	mm	mm	mm
RUT-TF8M-TF6M	8	6	29.9	29.8	16.2	15.3	4.8	5/8	15.9	22.4	22.4
RUT-TF10M-TF6M	10	6	31.5	31.3	17.2	15.3	4.8	11/16	17.5	23.9	23.9
RUT-TF12M-TF6M	12	6	36.0	31.8	22.8	15.3	4.8	13/16	20.6	25.9	24.4
RUT-TF12M-TF10M	12	10	36.0	33.5	22.8	17.2	7.9	13/16	20.6	25.9	25.9
RUT-TF14M-TF10M	14	10	38.8	36.3	24.4	17.2	7.9	15/16	23.8	28.7	28.7
RUT-TF18M-TF12M	18	12	39.8	39.8	24.4	22.8	9.5	1 1/16	27.0	29.7	29.7

ALL TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		E		E1		I		I1		D		W Wrench Flat		N		N1	
	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
RUT-TF4-TF2	1/4	6.35	1/8	3.17	1.06	26.9	1.03	26.2	.60	15.2	.50	12.7	.09	2.28	1/2	12.7	.77	19.6	.77	19.6
RUT-TF6-TF4	3/8	9.52	1/4	6.35	1.20	30.5	1.14	29.0	.66	16.8	.60	15.2	.19	4.82	5/8	15.9	.91	23.1	.85	21.6
RUT-TF8-TF4	1/2	12.70	1/4	6.35	1.42	36.1	1.25	31.8	.90	22.9	.60	15.2	.19	4.82	13/16	20.6	1.02	25.9	.96	24.4
RUT-TF8-TF6	1/2	12.70	3/8	9.52	1.42	36.1	1.31	33.3	.90	22.9	.66	16.8	.28	7.11	13/16	20.6	1.02	25.9	1.02	25.9
RUT-TF10-TF6	5/8	15.88	3/8	9.52	1.53	38.9	1.42	36.1	.96	24.4	.66	16.8	.28	7.11	15/16	23.8	1.13	28.7	1.13	28.7
RUT-TF12-TF4	3/4	19.05	1/4	6.35	1.57	39.9	1.46	37.1	.96	24.4	.60	15.2	.19	4.82	1 1/16	27.0	1.17	29.7	1.17	29.7
RUT-TF12-TF6	3/4	19.05	3/8	9.52	1.57	39.9	1.46	37.1	.96	24.4	.66	16.8	.28	7.11	1 1/8	28.6	1.17	29.7	1.17	29.7
RUT-TF12-TF8	3/4	19.05	1/2	12.70	1.57	39.9	1.57	39.9	.96	24.4	.90	22.9	.41	10.41	1 1/8	28.6	1.17	29.7	1.17	29.7
RUT-TF16-TF6	1	25.4	3/8	9.52	1.93	49.0	1.65	41.9	1.23	31.2	.66	16.8	.28	7.11	1 3/8	34.9	1.45	36.8	1.36	34.5
RUT-TF16-TF8	1	25.4	1/2	12.70	1.93	49.0	1.76	44.7	1.23	31.2	.90	22.9	.41	10.41	1 3/8	34.9	1.45	36.8	1.36	34.5
RUT-TF16-TF12	1	25.4	3/4	19.05	1.93	49.0	1.76	44.7	1.23	31.2	0.96	24.4	.62	15.75	1 3/8	34.9	1.45	36.8	1.36	34.5

TRT

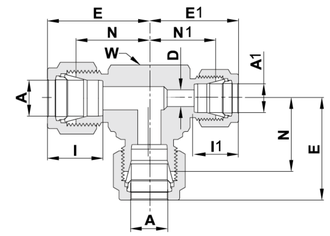
Reducing Tee

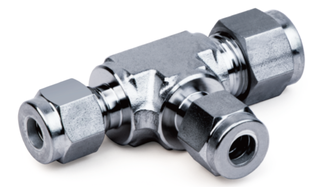


HOW TO ORDER

A | A1

TRT 3/8 — 1/4



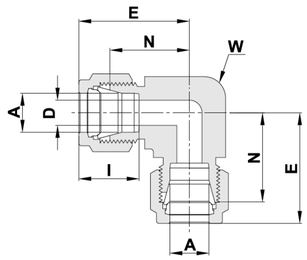


ALL TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		E		E1		I		I1		D		W Wrench Flat		N		N1	
	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
TRT-TF4-TF2	1/4	6.35	1/8	3.17	1.06	26.9	1.03	26.2	.60	15.2	.50	12.7	.09	2.28	1/2	12.7	.77	19.6	.77	19.6
TRT-TF6-TF4	3/8	9.25	1/4	6.35	1.20	30.5	1.14	29.0	.66	16.8	.60	15.2	.19	4.82	5/8	15.9	.91	23.1	.85	21.6
TRT-TF6-TF8	3/8	9.52	1/2	12.7	1.31	33.3	1.42	36.1	.66	16.8	.90	22.9	.41	10.41	13/16	20.6	1.02	25.9	1.02	25.9
TRT-TF6-TF10	3/8	9.52	5/8	15.87	1.42	36.1	1.53	38.9	.66	16.8	.96	24.4	.50	12.70	15/16	23.8	1.13	28.7	1.13	28.7
TRT-TF6-TF12	3/8	9.52	3/4	19.05	1.46	37.1	1.57	39.9	.66	16.8	.96	24.4	.62	15.75	1 1/16	27.0	1.17	29.7	1.17	29.7
TRT-TF8-TF4	1/2	12.7	1/4	6.35	1.42	36.1	1.31	33.3	.90	22.9	.60	15.2	.19	4.82	13/16	20.6	1.02	25.9	1.02	25.9
TRT-TF8-TF6	1/2	12.7	3/8	9.52	1.42	36.1	1.31	33.3	.90	22.9	.66	16.8	.28	7.11	13/16	20.6	1.02	25.9	1.02	25.9
TRT-TF12-TF6	3/4	19.05	3/8	9.52	1.57	39.9	1.46	37.1	.96	24.4	.66	16.8	.28	7.11	1 1/16	27.0	1.17	29.7	1.17	29.7

UE

Union Elbow



TUBE (METRIC) TO TUBE (METRIC)

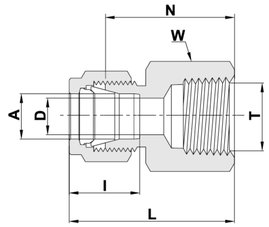
Ordering Information	A Tube O.D.	D	W Wrench Flat		N	E	I
	mm	mm	inch.	mm	mm	mm	mm
UE-TF3M	3	2.4	3/8	9.5	15.7	22.3	12.9
UE-TF4M	4	2.4	1/2	12.7	18.8	25.4	13.7
UE-TF6M	6	4.8	1/2	12.7	19.6	27.0	15.3
UE-TF8M	8	6.4	9/16	16.0	21.3	28.8	16.2
UE-TF10M	10	7.9	11/16	20.5	23.9	31.5	17.2
UE-TF12M	12	9.5	13/16	20.5	25.9	36.0	22.8
UE-TF14M	14	11.1	15/16	23.8	27.9	38.0	24.4
UE-TF15M	15	11.9	15/16	23.8	27.9	38.0	24.4
UE-TF16M	16	12.7	15/16	23.8	27.9	38.0	24.4
UE-TF18M	18	15.1	1 1/16	27.0	29.7	39.8	24.4
UE-TF20M	20	15.9	1 3/8	35.0	34.5	44.6	26.0
UE-TF22M	22	18.3	1 3/8	35.0	34.5	44.6	26.0
UE-TF25M	25	21.8	1 3/8	35.0	36.8	49.1	31.3

TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		I	
	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
UE-TF1	1/16	1.58	.05	1.27	3/8	9.5	.55	14.00	.70	17.80	.34	.86
UE-TF2	1/8	3.17	.09	2.28	3/8	9.5	.62	15.74	.88	22.35	.50	12.7
UE-TF3	3/16	4.76	.12	3.04	1/2	12.7	.74	18.80	1.00	25.40	.54	13.7
UE-TF4	1/4	6.35	.19	4.82	1/2	12.7	.77	19.55	1.06	26.92	.60	15.2
UE-TF5	5/16	7.93	.25	6.35	9/16	14.3	.84	21.33	1.13	28.70	.64	16.2
UE-TF6	3/8	9.52	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	.66	16.8
UE-TF8	1/2	12.70	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.06	.90	22.9
UE-TF10	5/8	15.87	.50	12.70	15/16	23.8	1.10	27.94	1.50	38.10	.96	24.4
UE-TF12	3/4	19.05	.62	15.74	1 1/16	27.0	1.17	29.70	1.57	39.90	.96	24.4
UE-TF14	7/8	22.22	.72	18.29	1 3/8	34.9	1.36	34.54	1.76	44.70	1.02	25.9
UE-TF16	1	25.40	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.00	1.23	31.2

FC

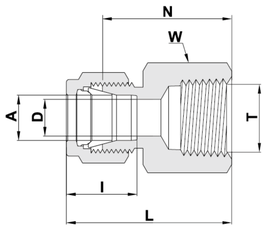
Female Connector



TUBE (METRIC) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.	T (NPT)	D	W Hex. Flat	N	L	I
	mm	inch.	mm	mm	mm	mm	mm
FC-TF3M-FNT2	3	1/8	2.4	14	22.1	28.7	15.3
FC-TF3M-FNT4	3	1/4	2.4	17.5	26.9	33.5	15.3
FC-TF4M-FNT2	4	1/8	2.4	14	23.1	29.7	15.3
FC-TF6M-FNT2	6	1/8	4.8	14	23.9	31.3	17.7
FC-TF6M-FNT4	6	1/4	4.8	17.5	28.4	35.8	17.7
FC-TF6M-FNT6	6	3/8	4.8	22	30.2	37.6	17.7
FC-TF6M-FNT8	6	1/2	4.8	27	35.1	42.5	17.7
FC-TF8M-FNT2	8	1/8	6.4	15	24.6	32.1	18.6
FC-TF8M-FNT4	8	1/4	6.4	17.5	29.5	37.0	18.6
FC-TF8M-FNT6	8	3/8	6.4	22	31.0	38.5	18.6
FC-TF8M-FNT8	8	1/2	6.4	27	35.8	43.3	18.6
FC-TF10M-FNT4	10	1/4	7.9	19	30.2	37.8	19.5
FC-TF10M-FNT6	10	3/8	7.9	22	31.8	39.4	19.5
FC-TF10M-FNT8	10	1/2	7.9	27	36.6	44.2	19.5
FC-TF12M-FNT4	12	1/4	9.5	22	30.2	40.3	22.0
FC-TF12M-FNT6	12	3/8	9.5	22	31.8	41.9	22.0
FC-TF12M-FNT8	12	1/2	9.5	27	36.6	46.7	22.0
FC-TF15M-FNT8	15	1/2	11.9	27	36.6	46.7	24.4
FC-TF16M-FNT8	16	1/2	12.7	27	36.8	46.9	24.4
FC-TF20M-FNT8	20	1/2	15.9	30	37.8	47.9	26.0
FC-TF20M-FNT12	20	3/4	15.9	35	39.6	49.7	26.0
FC-TF22M-FNT12	22	3/4	18.3	35	39.6	49.7	26.0
FC-TF22M-FNT16	22	1	18.3	41	47.8	57.9	26.0
FC-TF25M-FNT12	25	3/4	21.8	35	41.1	53.4	31.3
FC-TF25M-FNT16	25	1	21.8	41	50.0	62.3	31.3

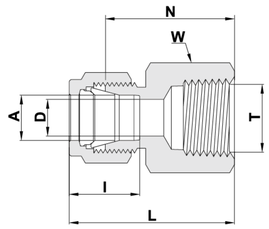
FC
Female Connector(Cont'd)



TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L		I	
	inch.	mm	inch.	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm
FC-TF1-FNT1	1/16	1.58	1/16	.05	1.27	7/16	.78	19.81	.93	23.62	.34	8.6
FC-TF1-FNT2	1/16	1.58	1/8	.05	1.27	9/16	.81	20.57	.96	24.38	.34	8.6
FC-TF2-FNT2	1/8	3.17	1/8	.09	2.28	9/16	.87	22.10	1.13	28.70	.50	12.7
FC-TF2-FNT4	1/8	3.17	1/4	.09	2.28	3/4	1.06	26.92	1.32	33.52	.50	12.7
FC-TF3-TF2	3/16	4.76	1/8	.12	3.04	9/16	.91	23.11	1.17	29.71	.54	13.7
FC-TF4-FNT2	1/4	6.35	1/8	.19	4.82	9/16	.94	23.87	1.23	31.24	.60	15.2
FC-TF4-FNT4	1/4	6.35	1/4	.19	4.82	3/4	1.12	28.44	1.41	35.81	.60	15.2
FC-TF4-FNT6	1/4	6.35	3/8	.19	4.82	7/8	1.19	30.22	1.48	37.59	.60	15.2
FC-TF4-FNT8	1/4	6.35	1/2	.19	4.82	1 1/16	1.38	35.00	1.67	42.42	.60	15.2
FC-TF5-FNT2	5/16	7.93	1/8	.25	6.35	9/16	.97	24.63	1.26	32.00	.64	16.2
FC-TF5-FNT4	5/16	7.93	1/4	.25	6.35	3/4	1.16	29.46	1.45	36.83	.64	16.2
FC-TF6-FNT2	3/8	9.52	1/8	.28	7.11	5/8	1.00	25.40	1.29	32.76	.66	16.8
FC-TF6-FNT4	3/8	9.52	1/4	.28	7.11	3/4	1.19	30.22	1.48	37.59	.66	16.8
FC-TF6-FNT6	3/8	9.52	3/8	.28	7.11	7/8	1.25	31.75	1.54	39.11	.66	16.8
FC-TF6-FNT8	3/8	9.52	1/2	.28	7.11	1 1/16	1.44	36.57	1.73	43.94	.66	16.8
FC-TF6-FNT12	3/8	9.52	3/4	.28	7.11	1 5/16	1.59	40.40	1.88	47.75	.66	16.8
FC-TF8-FNT4	1/2	12.70	1/4	.41	10.41	13/16	1.19	30.22	1.59	40.38	.90	22.9
FC-TF8-FNT6	1/2	12.70	3/8	.41	10.41	7/8	1.25	31.75	1.65	41.91	.90	22.9
FC-TF8-FNT8	1/2	12.70	1/2	.41	10.41	1 1/16	1.44	36.57	1.84	46.73	.90	22.9
FC-TF8-FNT12	1/2	12.70	3/4	.41	10.41	1 5/16	1.50	38.10	1.90	48.26	.90	22.9
FC-TF10-FNT6	5/8	15.87	3/8	.50	12.70	15/16	1.25	31.75	1.65	41.91	.96	24.4
FC-TF10-FNT8	5/8	15.87	1/2	.50	12.70	1 1/16	1.44	36.57	1.84	46.73	.96	24.4
FC-TF10-FNT12	5/8	15.87	3/4	.50	12.70	1 5/16	1.50	38.10	1.90	48.26	.96	24.4
FC-TF12-FNT8	3/4	19.05	1/2	.62	15.75	1 1/16	1.44	36.57	1.84	46.73	.96	24.4
FC-TF12-FNT12	3/4	19.05	3/4	.62	15.75	1 5/16	1.50	38.10	1.90	48.26	.96	24.4
FC-TF14-FNT12	7/8	22.22	3/4	.72	18.28	1 5/16	1.56	39.62	1.96	49.78	1.02	25.9
FC-TF16-FNT12	1	25.40	3/4	.88	22.35	1 3/8	1.62	41.14	2.10	53.34	1.23	31.2
FC-TF16-FNT16	1	25.40	1	.88	22.35	1 5/8	1.97	50.03	2.45	62.23	1.23	31.2

FC
Female Connector(Cont'd)



TUBE (METRIC) TO FEMALE ISO TAPERED THREAD

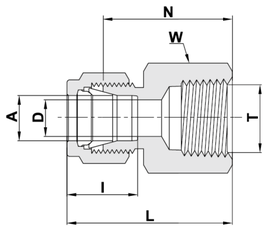
Ordering Information	A Tube O.D.	T (ISO)	D	W Hex. Flat	N	L	I
	mm	inch.	mm	mm	mm	mm	mm
FC-TF3M-FRT2	3	R-1/8	2.4	14	22.1	28.7	12.9
FC-TF6M-FRT2	6	R-1/8	4.8	14	23.9	31.3	15.3
FC-TF6M-FRT4	6	R-1/4	4.8	19	28.4	35.8	15.3
FC-TF6M-FRT6	6	R-3/8	4.8	22	30.2	37.6	15.3
FC-TF6M-FRT8	6	R-1/2	4.8	27	35.1	42.5	15.3
FC-TF8M-FRT2	8	R-1/8	6.4	15	24.6	32.1	16.2
FC-TF8M-FRT4	8	R-1/4	6.4	19	29.5	37.0	16.2
FC-TF8M-FRT6	8	R-3/8	6.4	22	31.0	38.5	16.2
FC-TF8M-FRT8	8	R-1/2	6.4	27	35.8	43.3	16.2
FC-TF10M-FRT2	10	R-1/8	7.9	18	25.4	33.0	17.2
FC-TF10M-FRT4	10	R-1/4	7.9	19	30.2	37.8	17.2
FC-TF10M-FRT6	10	R-3/8	7.9	22	31.8	39.4	17.2
FC-TF10M-FRT8	10	R-1/2	7.9	27	36.6	44.2	17.2
FC-TF12M-FRT2	12	R-1/8	8.3	22	25.4	35.5	22.8
FC-TF12M-FRT4	12	R-1/4	9.5	22	30.2	40.3	22.8
FC-TF12M-FRT6	12	R-3/8	9.5	22	31.8	41.9	22.8
FC-TF12M-FRT8	12	R-1/2	9.5	27	36.6	46.7	22.8
FC-TF12M-FRT12	12	R-3/4	9.5	35	38.9	49.0	22.8
FC-TF15M-FRT6	15	R-3/8	11.9	24	31.8	41.9	24.4
FC-TF15M-FRT8	15	R-1/2	11.9	27	36.6	46.7	24.4
FC-TF20M-FRT8	20	R-1/2	15.9	30	37.8	47.9	26.0
FC-TF20M-FRT12	20	R-3/4	15.9	35	39.6	49.7	26.0
FC-TF22M-FRT12	22	R-3/4	18.3	35	39.6	49.7	26.0
FC-TF22M-FRT16	22	R-1	18.3	41	47.8	57.9	26.0
FC-TF25M-FRT12	25	R-3/4	21.8	35	41.1	53.4	31.3
FC-TF25M-FRT16	25	R-1	21.8	41	50.0	62.3	31.3

Reference
Specifications:

DIN –2999
BS –21
JIS –B0203
ISO –7/1–BSP–T

FC

Female Connector(Cont'd)



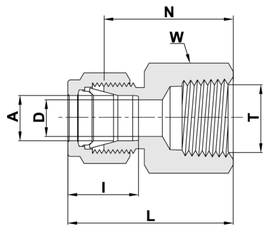
TUBE (INCH) TO FEMALE ISO TAPERED THREAD

Ordering Information	A Tube O.D.		T (ISO)	D		W Hex. Flat	N		L		I	
	inch.	mm	inch.	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm
FC-TF1-FRT1	1/16	1.58	R-1/16	.05	1.27	7/16	.78	19.81	.93	23.62	.34	8.6
FC-TF1-FRT2	1/16	1.58	R-1/8	.05	1.27	9/16	.81	20.57	.96	24.38	.34	8.6
FC-TF2-FRT2	1/8	3.17	R-1/8	.09	2.28	9/16	.87	22.10	1.13	28.70	.50	12.7
FC-TF2-FRT4	1/8	3.17	R-1/4	.09	2.28	3/4	1.06	26.92	1.32	33.52	.50	12.7
FC-TF3-FRT2	3/16	4.76	R-1/8	.12	3.04	9/16	.91	23.11	1.17	29.71	.54	13.7
FC-TF4-FRT2	1/4	6.35	R-1/8	.19	4.82	9/16	.94	23.87	1.23	31.24	.60	15.2
FC-TF4-FRT4	1/4	6.35	R-1/4	.19	4.82	3/4	1.12	28.44	1.41	35.81	.60	15.2
FC-TF4-FRT6	1/4	6.35	R-3/8	.19	4.82	7/8	1.19	30.22	1.48	37.59	.60	15.2
FC-TF4-FRT8	1/4	6.35	R-1/2	.19	4.82	1 1/16	1.38	35.00	1.67	42.42	.60	15.2
FC-TF5-FRT4	5/16	7.93	R-1/4	.25	6.35	3/4	1.16	29.46	1.45	36.83	.64	16.2
FC-TF6-FRT2	3/8	9.52	R-1/8	.28	7.11	5/8	1.00	25.40	1.29	32.76	.66	16.8
FC-TF6-FRT4	3/8	9.52	R-1/4	.28	7.11	3/4	1.19	30.22	1.48	37.59	.66	16.8
FC-TF6-FRT6	3/8	9.52	R-3/8	.28	7.11	7/8	1.25	31.75	1.54	39.11	.66	16.8
FC-TF6-FRT8	3/8	9.52	R-1/2	.28	7.11	1 1/16	1.44	36.57	1.73	43.94	.66	16.8
FC-TF8-FRT4	1/2	12.70	R-1/4	.41	10.41	13/16	1.19	30.20	1.59	40.38	.90	22.9
FC-TF8-FRT6	1/2	12.70	R-3/8	.41	10.41	7/8	1.25	31.75	1.65	41.91	.90	22.9
FC-TF8-FRT8	1/2	12.70	R-1/2	.41	10.41	1 1/16	1.44	36.57	1.84	46.73	.90	22.9
FC-TF10- FRT8	5/8	15.87	R-1/2	.50	12.70	1 1/16	1.44	36.57	1.84	46.73	.96	24.4
FC-TF12- FRT8	3/4	19.05	R-1/2	.62	15.75	1 1/16	1.44	36.57	1.84	46.73	.96	24.4
FC-TF12- FRT12	3/4	19.05	R-3/4	.62	15.75	1 5/16	1.50	38.10	1.90	48.26	.96	24.4
FC-TF16- FRT12	1	25.40	R-3/4	.88	22.35	1 3/8	1.62	41.14	2.10	53.34	1.23	31.2
FC-TF16- FRT16	1	25.40	R-1	.88	22.35	1 5/8	1.97	50.03	2.45	62.23	1.23	31.2

"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

FC

Female Connector(Cont'd)



TUBE (METRIC) TO FEMALE ISO PARALLEL THREAD

Ordering Information	A Tube O.D.	T (ISO)	D	D1	W Hex. Flat	B	b Min	a Min	N	L	I
	mm	inch.	mm	mm	mm	mm	mm	mm	mm	mm	mm
FC-TF3M-FGS4	3	G-1/4	2.4	5.5	19	13.0	9.5	1.6	28.7	35.3	12.9
FC-TF6M-FGS2	6	G-1/8	4.0	4.0	14	10.0	7.0	1.6	25.0	32.4	15.3
FC-TF6M-FGS4	6	G-1/4	4.8	5.5	19	13.0	9.5	1.6	30.2	37.6	15.3
FC-TF6M-FGS6	6	G-3/8	4.8	6.5	24	14.1	10.0	1.6	30.2	37.6	15.3
FC-TF6M-FGS8	6	G-1/2	4.8	7.0	27	19.0	15.0	1.6	36.1	43.5	15.3
FC-TF8M-FGS4	8	G-1/4	5.5	5.5	19	13.0	9.5	1.6	31.0	38.5	16.2
FC-TF8M-FGS6	8	G-3/8	6.4	6.4	24	14.1	10.0	1.6	28.7	36.2	16.2
FC-TF8M-FGS8	8	G-1/2	7.0	7.0	27	19.0	15.0	1.6	33.5	41.0	16.2
FC-TF10M-FGS4	10	G-1/4	5.5	5.5	19	13.0	9.5	1.6	31.8	39.4	17.2
FC-TF10M-FGS6	10	G-3/8	6.5	6.5	24	14.1	10.0	1.6	31.2	38.8	17.2
FC-TF10M-FGS8	10	G-1/2	7.0	7.0	27	19.0	15.0	1.6	34.5	42.1	17.2
FC-TF12M-FGS4	12	G-1/4	5.5	5.5	22	13.0	9.5	1.6	31.8	41.9	22.8
FC-TF12M-FGS6	12	G-3/8	6.5	6.5	24	14.1	10.0	1.6	34.3	44.4	22.8
FC-TF12M-FGS8	12	G-1/2	7.0	7.0	27	19.0	15.0	1.6	38.1	48.2	22.8
FC-TF20M-FGS8	20	G-1/2	7.0	7.0	30	19.0	15.0	1.6	44.2	54.3	26.0
FC-TF22M-FGS8	22	G-1/2	7.0	7.0	30	19.0	15.0	1.6	44.2	54.3	26.0

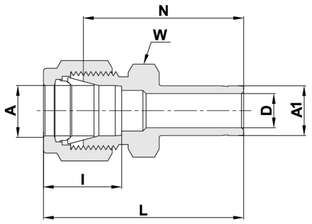
TUBE (INCH) TO FEMALE ISO PARALLEL THREAD

Ordering Information	A Tube O.D.		T (ISO)	D		D1		W Hex. Flat	B		b Min		a Min		N		L		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
FC-TF2- FGS4	1/8	3.17	G-1/4	.09	2.3	.22	5.5	3/4	.51	13.0	.37	9.5	.06	1.6	1.13	28.7	1.39	35.3	.50	12.7
FC-TF4- FGS2	1/4	6.35	G-1/8	.16	4.0	.16	4.0	9/16	.40	10.0	.28	7.0	.06	1.6	.98	25.0	1.27	32.4	.60	15.2
FC-TF4- FGS4	1/4	6.35	G-1/4	.19	4.8	.22	5.5	3/4	.51	13.0	.37	9.5	.06	1.6	1.19	30.2	1.48	37.6	.60	15.2
FC-TF4- FGS6	1/4	6.35	G-3/8	.19	4.8	.26	6.5	15/16	.56	14.1	.39	10.0	.06	1.6	1.19	30.2	1.48	37.6	.60	15.2
FC-TF4- FGS8	1/4	6.35	G-1/2	.19	4.8	.28	7.0	1 1/16	.74	19.0	.59	15.0	.06	1.6	1.42	36.1	1.71	43.4	.60	15.2
FC-TF5- FGS4	5/16	7.93	G-1/4	.22	5.5	.22	5.5	3/4	.51	13.0	.37	9.5	.06	1.6	1.22	31.0	1.51	38.4	.64	16.2
FC-TF5- FGS8	5/16	7.93	G-1/2	.28	7.0	.28	7.0	1 1/16	.74	19.0	.59	15.0	.06	1.6	1.32	33.5	1.61	40.9	.64	16.2
FC-TF6- FGS4	3/8	9.52	G-1/4	.22	5.5	.22	5.5	3/4	.51	13.0	.37	9.5	.06	1.6	1.25	31.8	1.54	39.1	.66	16.8
FC-TF6- FGS6	3/8	9.52	G-3/8	.26	6.6	.26	6.6	15/16	.56	14.1	.39	10.0	.06	1.6	1.23	31.2	1.52	38.6	.66	16.8
FC-TF6- FGS8	3/8	9.52	G-1/2	.28	7.0	.28	7.0	1 1/16	.74	19.0	.59	15.0	.06	1.6	1.36	34.5	1.65	41.9	.66	16.8
FC-TF8- FGS6	1/2	12.7	G-3/8	.26	6.5	.26	6.5	15/16	.56	14.1	.39	10.0	.06	1.6	1.35	34.3	1.75	44.5	.90	22.9
FC-TF8- FGS8	1/2	12.7	G-1/2	.28	7.0	.28	7.0	1 1/16	.74	19.0	.59	15.0	.06	1.6	1.50	38.1	1.90	48.2	.90	22.9

"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

R

Reducer



TUBE (METRIC) TO STUB (METRIC)

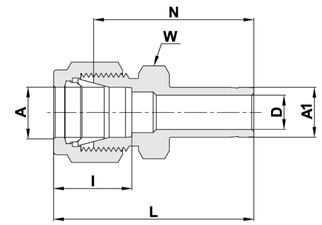
Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	L	I
	mm	mm	mm	mm	mm	mm	mm
R-TF2M-OD3M	2	3	1.7	12	26.9	33.5	12.9
R-TF3M-OD4M	3	4	2.2	12	28.4	35.0	12.9
R-TF3M-OD6M	3	6	2.4	12	29.5	36.1	12.9
R-TF3M-OD10M	3	10	2.4	14	31.8	38.4	12.9
R-TF4M-OD6M	4	6	2.4	12	30.5	37.1	13.7
R-TF6M-OD3M	6	3	1.8	14	29.5	36.9	15.3
R-TF6M-OD8M	6	8	4.8	14	32.5	39.9	15.3
R-TF6M-OD10M	6	10	4.8	14	33.3	40.7	15.3
R-TF6M-OD12M	6	12	4.8	14	38.9	46.3	15.3
R-TF6M-OD18M	6	18	4.8	22	42.2	49.6	15.3
R-TF8M-OD6M	8	6	4.6	15	32.8	40.3	16.2
R-TF8M-OD10M	8	10	6.4	15	34.5	42.0	16.2
R-TF8M-OD12M	8	12	6.4	15	40.1	47.6	16.2
R-TF10M-OD6M	10	6	4.6	18	34.8	42.4	17.2
R-TF10M-OD8M	10	8	6.4	18	35.8	43.4	17.2
R-TF10M-OD12M	10	12	7.9	18	42.2	49.8	17.2
R-TF10M-OD15M	10	15	7.9	18	43.7	51.3	17.2
R-TF10M-OD18M	10	18	7.9	22	43.7	51.3	17.2
R-TF12M-OD6M	12	6	4.6	22	34.8	44.9	22.8
R-TF12M-OD8M	12	8	6.4	22	35.8	45.9	22.8
R-TF12M-OD10M	12	10	7.7	22	36.6	46.7	22.8
R-TF12M-OD16M	12	16	9.5	22	43.7	53.8	22.8
R-TF12M-OD18M	12	18	9.5	22	43.7	53.8	22.8
R-TF12M-OD20M	12	20	9.5	22	46.0	56.1	22.8
R-TF12M-OD22M	12	22	9.5	24	46.0	56.1	22.8
R-TF12M-OD25M	12	25	9.5	27	52.3	62.4	22.8
R-TF16M-OD12M	16	12	8.8	24	42.9	53.0	24.4
R-TF18M-OD12M	18	12	8.8	27	44.5	54.6	24.4
R-TF18M-OD16M	18	16	12.7	27	46.0	56.1	24.4
R-TF18M-OD20M	18	20	15.1	27	47.5	57.6	24.4
R-TF18M-OD22M	18	22	15.1	27	47.5	57.6	24.4
R-TF18M-OD25M	18	25	15.1	27	52.3	62.4	24.4
R-TF20M-OD16M	20	16	12.7	30	47.8	57.9	26.0
R-TF20M-OD18M	20	18	13.9	30	47.8	57.9	26.0
R-TF20M-OD22M	20	22	15.9	30	49.3	59.4	26.0
R-TF20M-OD25M	20	25	15.9	30	54.1	64.2	26.0
R-TF22M-OD18M	22	18	13.9	30	47.8	57.9	26.0
R-TF22M-OD20M	22	20	15.1	30	49.3	59.4	26.0
R-TF22M-OD25M	22	25	18.3	30	54.1	64.2	26.0
R-TF25M-OD18M	25	18	13.9	35	50.8	63.1	31.3
R-TF25M-OD20M	25	20	15.1	35	52.3	64.6	31.3

"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

Cont'd next page

R

Reducer(Cont'd)



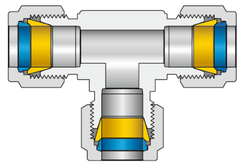
TUBE (METRIC) TO STUB (INCH)

Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	L	I
	mm	inch.	mm	mm	mm	mm	mm
R-TF2M-OD2	2	1/8	2.0	12	26.9	33.5	12.9
R-TF3M-OD2	3	1/8	2.0	12	26.9	33.5	12.9
R-TF3M-OD4	3	1/4	2.4	12	29.5	36.1	12.9
R-TF4M-OD4	4	1/4	2.4	12	30.5	37.1	13.7
R-TF6M-OD2	6	1/8	2.2	14	29.5	36.9	15.3
R-TF6M-OD5	6	5/16	4.8	14	32.5	39.9	15.3
R-TF6M-OD6	6	3/8	4.8	14	33.3	40.7	15.3
R-TF6M-OD8	6	1/2	4.8	14	38.9	46.3	15.3
R-TF8M-OD6	8	3/8	6.4	15	34.5	42.0	16.2
R-TF8M-OD8	8	1/2	6.4	15	40.1	47.6	16.2
R-TF10M-OD6	10	3/8	6.8	18	36.6	44.2	17.2
R-TF10M-OD8	10	1/2	7.9	18	42.2	49.8	17.2
R-TF12M-OD8	12	1/2	9.4	22	42.2	52.3	22.8
R-TF12M-OD12	12	3/4	9.4	22	43.7	53.8	22.8
R-TF18M-OD12	18	3/4	15.0	27	46.0	56.1	24.4
R-TF18M-OD16	18	1	15.1	27	52.3	62.4	24.4
R-TF25M-OD16	25	1	20.3	35	57.2	69.5	31.3

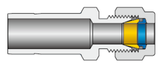
"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.

HEAT EXCHANGER TEE INFORMATION

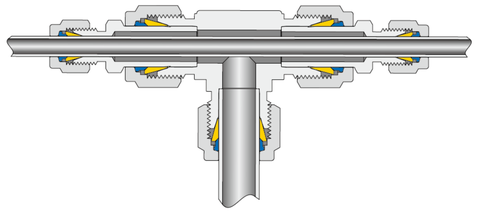
UNION TEE - UT



REDUCER - R

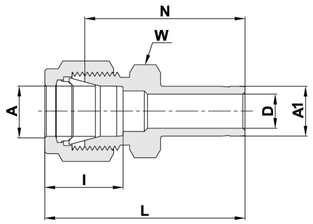


Heat exchanger tee made with AM-LOK tube fittings



R

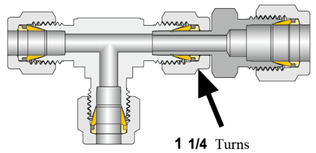
Reducer(Cont'd)



TUBE (INCH) TO STUB (INCH)

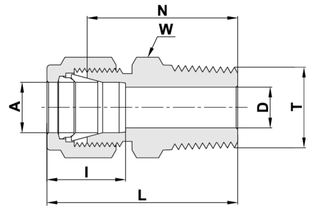
Ordering Information	A Tube O.D.		A1 Tube O.D.		D		W Hex. Flat	N		L		I	
	inch.	mm	inch.	mm	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm
R-TF1-OD2	1/16	1.58	1/8	3.17	.05	1.27	5/16	1.00	25.40	1.15	29.21	.34	8.6
R-TF1-OD4	1/16	1.58	1/4	6.35	.05	1.27	5/16	1.09	27.68	1.24	31.50	.34	8.6
R-TF2-OD1	1/8	3.17	1/16	1.58	.03	.76	7/16	.88	22.35	1.14	28.96	.50	12.7
R-TF2-OD2	1/8	3.17	1/8	3.17	.08	2.03	7/16	1.06	26.92	1.32	33.52	.50	12.7
R-TF2-OD3	1/8	3.17	3/16	4.76	.09	2.28	7/16	1.09	27.68	1.35	34.29	.50	12.7
R-TF2-OD4	1/8	3.17	1/4	6.35	.09	2.28	7/16	1.16	29.46	1.42	36.06	.50	12.7
R-TF2-OD6	1/8	3.17	3/8	9.52	.09	2.28	7/16	1.22	30.98	1.48	37.59	.50	12.7
R-TF2-OD8	1/8	3.17	1/2	12.70	.09	2.28	9/16	1.48	37.59	1.74	44.20	.50	12.7
R-TF3-OD2	3/16	4.76	1/8	3.17	.08	2.03	7/16	1.11	28.19	1.37	34.80	.54	13.7
R-TF3-OD4	3/16	4.76	1/4	6.35	.12	3.04	7/16	1.20	30.48	1.46	37.08	.54	13.7
R-TF4-OD2	1/4	6.35	1/8	3.17	.08	2.03	1/2	1.16	29.46	1.45	36.83	.60	15.2
R-TF4-OD3	1/4	6.35	3/16	4.76	.12	3.04	1/2	1.19	30.22	1.48	37.59	.60	15.2
R-TF4-OD4	1/4	6.35	1/4	6.35	.17	4.20	1/2	1.25	31.75	1.54	39.11	.60	15.2
R-TF4-OD5	1/4	6.35	5/16	7.93	.19	4.82	1/2	1.28	32.51	1.57	39.87	.60	15.2
R-TF4-OD6	1/4	6.35	3/8	9.52	.19	4.82	1/2	1.31	33.27	1.60	40.64	.60	15.2
R-TF4-OD8	1/4	6.35	1/2	12.70	.19	4.82	9/16	1.53	38.86	1.82	46.22	.60	15.2
R-TF4-OD10	1/4	6.35	5/8	15.87	.19	4.82	11/16	1.60	40.64	1.89	48.00	.60	15.2
R-TF4-OD12	1/4	6.35	3/4	19.05	.19	4.82	13/16	1.59	40.39	1.88	47.75	.60	15.2
R-TF5-OD6	5/16	7.93	3/8	9.52	.25	6.35	9/16	1.36	34.54	1.65	41.91	.64	16.2
R-TF5-OD8	5/16	7.93	1/2	12.70	.25	6.35	9/16	1.58	40.13	1.87	47.49	.64	16.2
R-TF6-OD4	3/8	9.52	1/4	6.35	.17	4.20	5/8	1.34	34.03	1.63	41.40	.66	16.8
R-TF6-OD6	3/8	9.52	3/8	9.52	.27	6.85	5/8	1.41	35.81	1.70	43.18	.66	16.8
R-TF6-OD8	3/8	9.52	1/2	12.70	.28	7.11	5/8	1.62	41.14	1.91	48.51	.66	16.8
R-TF6-OD10	3/8	9.52	5/8	15.87	.28	7.11	11/16	1.69	42.92	1.98	50.29	.66	16.8
R-TF6-OD12	3/8	9.52	3/4	19.05	.28	7.11	13/16	1.69	42.92	1.98	50.29	.66	16.8
R-TF8-OD4	1/2	12.70	1/4	6.35	.17	4.20	13/16	1.37	34.80	1.77	44.96	.90	22.9
R-TF8-OD6	1/2	12.70	3/8	9.52	.27	6.85	13/16	1.44	36.58	1.84	46.74	.90	22.9
R-TF8-OD8	1/2	12.70	1/2	12.70	.37	9.40	13/16	1.66	42.16	2.06	52.32	.90	22.9
R-TF8-OD10	1/2	12.70	5/8	15.87	.41	10.41	13/16	1.72	43.68	2.12	53.84	.90	22.9
R-TF8-OD12	1/2	12.70	3/4	19.05	.41	10.41	13/16	1.72	43.68	2.12	53.84	.90	22.9
R-TF8-OD16	1/2	12.70	1	25.40	.41	10.41	1 1/16	1.97	50.03	2.37	60.19	.90	22.9
R-TF10-OD12	5/8	15.87	3/4	19.05	.50	12.70	15/16	1.75	44.45	2.15	54.61	.96	24.4
R-TF10-OD14	5/8	15.87	7/8	22.22	.50	12.70	15/16	1.81	45.97	2.21	56.13	.96	24.4
R-TF10-OD16	5/8	15.87	1	25.40	.50	12.70	1 1/16	2.00	50.80	2.40	60.96	.96	24.4
R-TF12-OD8	3/4	19.05	1/2	12.70	.37	9.40	1 1/16	1.75	44.45	2.15	54.61	.96	24.4
R-TF12-OD16	3/4	19.05	1	25.40	.62	15.75	1 1/16	2.06	52.32	2.46	62.48	.96	24.4

"D" - Dimension is minimum opening. Dimensions are for reference only and subject to change without notice.



MC

Male Connector

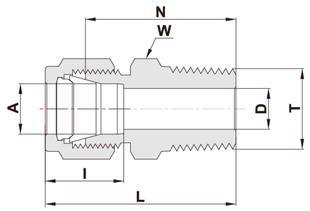


TUBE (METRIC) TO MALE NPT THREAD

Ordering Information	A Tube O.D.	T (NPT)	D	W Hex. Flat	N	L	I
	mm	mm	mm	mm	mm	mm	mm
MC-TF2M-NT2	2	1/8	1.7	12	23.9	30.5	12.9
MC-TF3M-NT2	3	1/8	2.4	12	23.9	30.5	12.9
MC-TF3M-NT4	3	1/4	2.4	14	29.0	35.6	12.9
MC-TF4M-NT2	4	1/8	2.4	12	24.6	31.2	13.7
MC-TF4M-NT4	4	1/4	2.4	14	29.7	36.3	13.7
MC-TF6M-NT2	6	1/8	4.8	14	25.4	32.8	15.3
MC-TF6M-NT4	6	1/4	4.8	14	30.5	37.9	15.3
MC-TF6M-NT6	6	3/8	4.8	18	31.0	38.4	15.3
MC-TF6M-NT8	6	1/2	4.8	22	37.3	44.7	15.3
MC-TF8M-NT2	8	1/8	4.8	16	26.7	34.2	16.2
MC-TF8M-NT4	8	1/4	6.4	16	31.2	38.7	16.2
MC-TF8M-NT6	8	3/8	6.4	18	31.8	39.3	16.2
MC-TF8M-NT8	8	1/2	6.4	22	38.1	45.6	16.2
MC-TF10M-NT2	10	1/8	4.8	18	28.7	36.3	17.2
MC-TF10M-NT4	10	1/4	7.9	18	33.3	40.9	17.2
MC-TF10M-NT6	10	3/8	7.9	18	33.3	40.9	17.2
MC-TF10M-NT8	10	1/2	7.9	22	38.9	46.5	17.2
MC-TF10M-NT12	10	3/4	7.9	27	40.4	48.0	17.2
MC-TF12M-NT2	12	1/8	4.8	22	28.7	38.8	22.8
MC-TF12M-NT4	12	1/4	7.1	22	33.3	43.4	22.8
MC-TF12M-NT6	12	3/8	9.5	22	33.3	43.4	22.8
MC-TF12M-NT8	12	1/2	9.5	22	38.9	49.0	22.8
MC-TF12M-NT12	12	3/4	9.5	27	40.4	50.5	22.8
MC-TF14M-NT4	14	1/4	7.1	24	34.0	44.1	24.4
MC-TF14M-NT6	14	3/8	9.5	24	34.0	44.1	24.4
MC-TF14M-NT8	14	1/2	11.1	24	38.9	49.0	24.4
MC-TF15M-NT8	15	1/2	11.9	24	38.9	49.0	24.4
MC-TF16M-NT6	16	3/8	9.5	24	34.0	44.1	24.4
MC-TF16M-NT8	16	1/2	11.9	24	38.9	49.0	24.4
MC-TF16M-NT12	16	3/4	12.7	27	40.4	50.5	24.4
MC-TF18M-NT8	18	1/2	11.9	27	40.4	50.5	24.4
MC-TF18M-NT12	18	3/4	15.1	27	40.4	50.5	24.4
MC-TF20M-NT8	20	1/2	11.9	30	42.2	52.3	26.0
MC-TF20M-NT12	20	3/4	15.9	30	42.2	52.3	26.0
MC-TF22M-NT12	22	3/4	15.9	30	42.2	52.3	26.0
MC-TF22M-NT16	22	1	18.3	35	47.0	57.1	26.0
MC-TF25M-NT8	25	1/2	11.9	35	45.2	57.5	31.3
MC-TF25M-NT12	25	3/4	15.9	35	45.2	57.5	31.3
MC-TF25M-NT16	25	1	21.8	35	50.0	62.3	31.3

MC

Female Connector(Cont'd)



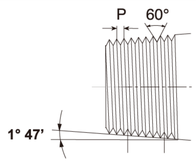
TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L		I	
	inch.	mm	inch.	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm
MC-TF1-NT1	1/16	1.58	1/16	.05	1.27	5/16	.79	20.10	.94	23.88	.34	8.6
MC-TF1-NT2	1/16	1.58	1/8	.05	1.27	7/16	.88	22.35	1.03	26.10	.34	8.6
MC-TF1-NT4	1/16	1.58	1/4	.05	1.27	9/16	1.07	27.17	1.22	30.98	.34	8.6
MC-TF2-NT1	1/8	3.17	1/16	.09	2.28	7/16	.91	23.11	1.17	29.71	.50	12.7
MC-TF2-NT2	1/8	3.17	1/8	.09	2.28	7/16	.94	23.90	1.20	30.48	.50	12.7
MC-TF2-NT4	1/8	3.17	1/4	.09	2.28	9/16	1.14	28.95	1.40	35.56	.50	12.7
MC-TF2-NT6	1/8	3.17	3/8	.09	2.28	11/16	1.15	29.21	1.41	35.81	.50	12.7
MC-TF2-NT8	1/8	3.17	1/2	.09	2.28	7/8	1.40	35.56	1.66	42.16	.50	12.7
MC-TF3-NT2	3/16	4.76	1/8	.12	3.04	7/16	.97	24.63	1.23	31.24	.54	13.7
MC-TF3-NT4	3/16	4.76	1/4	.12	3.04	9/16	1.17	29.72	1.43	36.32	.54	13.7
MC-TF4-NT1	1/4	6.35	1/16	.12	3.04	1/2	1.00	25.40	1.29	32.76	.60	15.2
MC-TF4-TF2	1/4	6.35	1/8	.19	4.82	1/2	1.00	25.40	1.29	32.76	.60	15.2
MC-TF4-NT4	1/4	6.35	1/4	.19	4.82	9/16	1.20	30.50	1.49	37.85	.60	15.2
MC-TF4-NT6	1/4	6.35	3/8	.19	4.82	11/16	1.22	30.98	1.51	38.35	.60	15.2
MC-TF4-NT8	1/4	6.35	1/2	.19	4.82	7/8	1.47	37.34	1.76	44.70	.60	15.2
MC-TF4-TF12	1/4	6.35	3/4	.19	4.82	1 1/16	1.53	38.86	1.82	46.22	.60	15.2
MC-TF5-NT2	5/16	7.93	1/8	.19	4.82	9/16	1.05	26.67	1.34	34.03	.64	16.2
MC-TF5-NT4	5/16	7.93	1/4	.25	6.35	9/16	1.23	31.24	1.52	38.60	.64	16.2
MC-TF5-NT6	5/16	7.93	3/8	.25	6.35	11/16	1.25	31.75	1.54	39.11	.64	16.2
MC-TF6-NT2	3/8	9.52	1/8	.19	4.82	5/8	1.10	27.90	1.39	35.30	.66	16.8
MC-TF6-NT4	3/8	9.52	1/4	.28	7.11	5/8	1.28	32.51	1.57	39.87	.66	16.8
MC-TF6-NT6	3/8	9.52	3/8	.28	7.11	11/16	1.28	32.51	1.57	39.87	.66	16.8
MC-TF6-NT8	3/8	9.52	1/2	.28	7.11	7/8	1.53	38.90	1.82	46.23	.66	16.8
MC-TF6-NT12	3/8	9.52	3/4	.28	7.11	1 1/16	1.59	40.38	1.88	47.75	.66	16.8
NC-TF6-NT16	3/8	9.52	1	.28	7.11	1 3/8	1.85	46.99	2.14	54.35	.66	16.8
MC-TF8-NT2	1/2	12.70	1/8	.19	4.82	13/16	1.13	28.70	1.53	38.86	.90	22.9
MC-TF8-NT4	1/2	12.70	1/4	.28	7.11	13/16	1.31	33.27	1.71	43.43	.90	22.9
MC-TF8-NT6	1/2	12.70	3/8	.38	9.65	13/16	1.31	33.27	1.71	43.43	.90	22.9
MC-TF8-NT8	1/2	12.70	1/2	.41	10.41	7/8	1.53	38.90	1.93	49.02	.90	22.9
MC-TF8-NT12	1/2	12.70	3/4	.41	10.41	1 1/16	1.59	40.38	1.99	50.54	.90	22.9
MC-TF8-NT16	1/2	12.70	1	.41	10.41	1 3/8	1.85	47.00	2.25	57.15	.90	22.9

Reference Specifications:

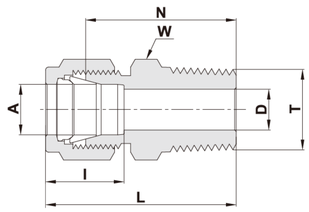
* 60° Thread angle
* Pitch measured in inches
* Truncation of root and crest is flat
* Taper angle 1° 47'

American Standard Pipe Thread (NPT).
NPT (National Pipe Tapered) is made
according to the specifications outlined in ANSI B1.20.1.



MC

Female Connector(Cont'd)



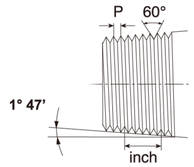
TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L		I	
	inch.	mm	inch.	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm
MC-TF10-NT4	5/8	15.87	1/4	.28	7.11	15/16	1.34	34.03	1.74	44.19	.96	24.4
MC-TF10-NT6	5/8	15.87	3/8	.38	9.65	15/16	1.34	34.03	1.74	44.19	.96	24.4
MC-TF10-NT8	5/8	15.87	1/2	.47	11.90	15/16	1.53	38.86	1.93	49.02	.96	24.4
MC-TF10-NT12	5/8	15.87	3/4	.50	12.70	1 1/16	1.59	40.38	1.99	50.54	.96	24.4
MC-TF12-NT6	3/4	19.05	3/8	.38	9.50	1 1/16	1.38	35.05	1.78	45.21	.96	24.4
MC-TF12-NT8	3/4	19.05	1/2	.47	11.90	1 1/16	1.59	40.38	1.99	50.54	.96	24.4
MC-TF12-NT12	3/4	19.05	3/4	.62	15.75	1 1/16	1.59	40.38	1.99	50.54	.96	24.4
MC-TF12-NT16	3/4	19.05	1	.62	15.75	1 3/8	1.85	47.00	2.25	57.15	.96	24.4
MC-TF14-NT8	7/8	22.22	1/2	.47	11.90	1 3/16	1.59	40.38	1.99	50.54	1.02	25.9
MC-TF14-NT12	7/8	22.22	3/4	.62	15.75	1 3/16	1.59	40.38	1.99	50.54	1.02	25.9
MC-TF14-NT16	7/8	22.22	1	.72	18.28	1 3/8	1.85	46.99	2.25	57.15	1.02	25.9
MC-TF16-NT8	1	25.40	1/2	.47	11.90	1 3/8	1.78	45.21	2.26	57.40	1.23	31.2
MC-TF16-NT12	1	25.40	3/4	.62	15.75	1 3/8	1.78	45.21	2.26	57.40	1.23	31.2
MC-TF16-NT16	1	25.40	1	.88	22.35	1 3/8	1.97	50.03	2.45	62.23	1.23	31.2

Reference Specifications:

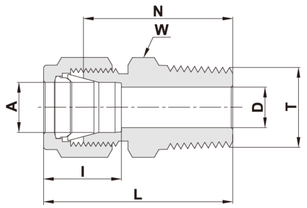
* 60° Thread angle
* Pitch measured in inches
* Truncation of root and crest is flat
* Taper angle 1° 47'

American Standard Pipe Thread (NPT).
NPT (National Pipe Tapered) is made
according to the specifications outlined in ANSI B1.20.1.



MC

Female Connector(Cont'd)

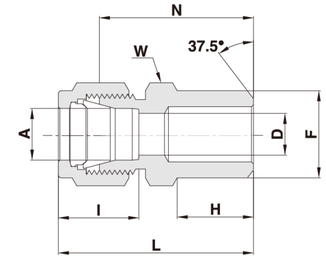


TUBE (METRIC) TO ISO TAPERED THREAD

Ordering Information	A Tube O.D.	T (ISO)	D	W Hex. Flat	N	L	I
	mm	mm	mm	mm	mm	mm	mm
MC-TF2M-RT2	2	R-1/8	1.7	12	23.9	30.5	12.9
MC-TF3M-RT2	3	R-1/8	2.4	12	23.9	30.5	12.9
MC-TF3M-RT4	3	R-1/4	2.4	14	29.0	35.6	12.9
MC-TF4M-RT2	4	R-1/8	2.4	12	24.6	31.2	13.7
MC-TF4M-RT4	4	R-1/4	2.4	14	29.7	36.3	13.7
MC-TF6M-RT2	6	R-1/8	4.8	14	25.4	32.8	15.3
MC-TF6M-RT4	6	R-1/4	4.8	14	30.5	37.9	15.3
MC-TF6M-RT6	6	R-3/8	4.8	18	31.0	38.4	15.3
MC-TF6M-RT8	6	R-1/2	4.8	22	37.3	44.7	15.3
MC-TF8M-RT2	8	R-1/8	4.8	15	26.7	34.2	16.2
MC-TF8M-RT4	8	R-1/4	6.4	15	31.2	38.7	16.2
MC-TF8M-RT6	8	R-3/8	6.4	18	31.8	39.2	16.2
MC-TF8M-RT8	8	R-1/2	6.4	22	38.1	45.6	16.2
MC-TF10M-RT2	10	R-1/8	4.8	18	28.7	36.3	17.2
MC-TF10M-RT4	10	R-1/4	7.9	18	33.3	40.9	17.2
MC-TF10M-RT6	10	R-3/8	7.9	18	33.3	40.9	17.2
MC-TF10M-RT8	10	R-1/2	7.9	22	38.9	46.5	17.2
MC-TF10M-RT12	10	R-3/4	7.9	27	40.4	48.0	17.2
MC-TF12M-RT4	12	R-1/4	7.1	22	33.3	43.4	22.8
MC-TF12M-RT6	12	R-3/8	9.5	22	33.3	43.4	22.8
MC-TF12M-RT8	12	R-1/2	9.5	22	38.9	49.0	22.8
MC-TF12M-RT12	12	R-3/4	9.5	27	40.4	50.5	22.8
MC-TF14M-RT4	14	R-1/4	7.1	24	34.0	44.1	24.4
MC-TF14M-RT6	14	R-3/8	9.5	24	34.0	44.1	24.4
MC-TF15M-RT8	15	R-1/2	11.9	24	38.9	49.0	24.4
MC-TF16M-RT4	16	R-1/4	7.1	24	34.0	44.1	24.4
MC-TF16M-RT6	16	R-3/8	9.5	24	34.0	44.1	24.4
MC-TF16M-RT8	16	R-1/2	11.9	24	38.9	49.0	24.4
MC-TF16M-RT12	16	R-3/4	12.7	27	40.4	50.5	24.4
MC-TF18M-RT8	18	R-1/2	11.9	27	40.4	50.5	24.4
MC-TF18M-RT12	18	R-3/4	15.1	27	40.4	50.5	24.4
MC-TF20M-RT8	20	R-1/2	11.9	30	42.2	52.3	26.0
MC-TF20M-RT12	20	R-3/4	15.9	30	42.2	52.3	26.0
MC-TF22M-RT12	22	R-3/4	15.9	30	42.2	52.3	26.0
MC-TF22M-RT16	22	R-1	18.3	35	47.0	57.1	26.0
MC-TF25M-RT8	25	R-1/2	11.9	35	45.2	57.5	31.3
MC-TF25M-RT12	25	R-3/4	15.9	35	45.2	57.5	31.3
MC-TF25M-RT16	25	R-1	21.8	35	45.2	57.5	31.3

MPW

Male Pipe Weld Connector

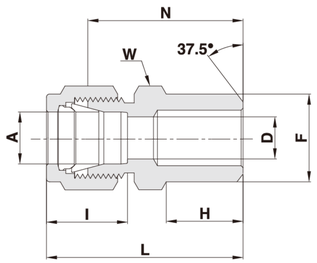


TUBE (METRIC)

Ordering Information	A Tube O.D.	F Pipe Size		D	W Hex. Flat	N	H	L	I
	mm	inch.	mm	mm	mm	mm	mm	mm	mm
MPW-TF3M-TW2	3	1/8	10.30	2.4	12	23.9	9.7	30.5	12.9
MPW-TF4M-TW2	4	1/8	10.30	2.4	12	24.6	9.7	31.2	13.7
MPW-TF6M-TW2	6	1/8	10.30	4.8	14	25.4	9.7	32.8	15.3
MPW-TF6M-TW4	6	1/4	13.70	4.8	14	30.5	14.2	37.9	15.3
MPW-TF8M-TW2	8	1/8	10.30	5.1	15	26.7	9.7	34.2	16.2
MPW-TF8M-TW4	8	1/4	13.70	6.4	15	31.2	14.2	38.7	16.2
MPW-TF8M-TW8	8	1/2	21.34	6.4	22	38.1	19.0	45.6	16.2
MPW-TF10M-TW4	10	1/4	13.70	7.1	18	33.3	14.2	40.9	17.2
MPW-TF10M-TW6	10	3/8	17.10	7.9	18	33.3	14.2	40.9	17.2
MPW-TF10M-TW8	10	1/2	21.34	7.9	22	38.9	19.0	46.5	17.2
MPW-TF12M-TW4	12	1/4	13.70	7.1	22	33.3	14.2	43.4	22.8
MPW-TF12M-TW6	12	3/8	17.10	9.5	22	33.3	14.2	43.4	22.8
MPW-TF12M-TW8	12	1/2	21.34	9.5	22	38.9	19.0	49.0	22.8
MPW-TF12M-TW12	12	3/4	26.67	9.5	27	40.4	19.0	50.5	22.8
MPW-TF14M-TW6	14	3/8	17.10	10.4	24	34.0	14.2	44.1	24.4
MPW-TF15M-TW8	15	1/2	21.34	11.9	24	38.9	19.0	49.0	24.4
MPW-TF16M-TW8	16	1/2	21.34	12.7	24	38.9	19.0	49.0	24.4
MPW-TF18M-TW8	18	1/2	21.34	13.5	27	40.4	19.0	50.5	24.4

MPW

Male Pipe Weld Connector(Cont'd)

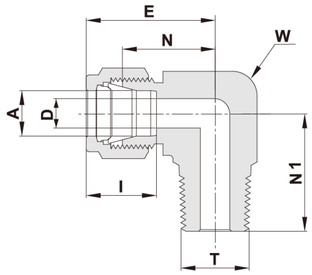


TUBE (INCH)

Ordering Information	A Tube O.D.		F Pipe Size		D		W Hex. Flat	N		H		L		I	
	inch.		inch.	mm	mm		mm	mm		mm		mm		mm	
MPW-TF2-TW2	1/8	3.17	1/8	10.30	.09	2.28	7/16	.94	23.88	.38	9.65	1.20	30.48	.50	12.7
MPW-TF3-TW2	3/16	4.76	1/8	10.30	.12	3.04	7/16	.97	24.60	.38	9.65	1.23	31.25	.54	13.7
MPW-TF4-TW2	1/4	6.35	1/8	10.30	.19	4.82	1/2	1.00	25.40	.38	9.65	1.29	32.77	.60	15.2
MPW-TF4-TW4	1/4	6.35	1/4	13.70	.19	4.82	9/16	1.20	30.48	.56	14.22	1.49	37.85	.60	15.2
MPW-TF5-TW2	5/16	7.93	1/8	10.30	.20	5.08	9/16	1.05	26.67	.38	9.65	1.34	34.04	.64	16.2
MPW-TF5-TW4	5/16	7.93	1/4	13.70	.25	6.35	9/16	1.23	31.24	.56	14.22	1.52	38.61	.64	16.2
MPW-TF6-TW4	3/8	9.52	1/4	13.70	.28	7.11	5/8	1.28	32.51	.56	14.22	1.57	39.87	.66	16.8
MPW-TF6-TW6	3/8	9.52	3/8	17.10	.28	7.11	11/16	1.28	32.51	.56	14.22	1.57	39.87	.66	16.8
MPW-TF6-TW8	3/8	9.52	1/2	21.34	.28	7.11	7/8	1.53	38.86	.75	19.05	1.82	46.22	.66	16.8
MPW-TF6-TW12	3/8	9.52	3/4	26.67	.28	7.11	1 1/16	1.59	40.38	.75	19.05	1.88	47.75	.66	16.8
MPW-TF8-TW6	1/2	12.70	3/8	17.10	.41	10.41	13/16	1.31	33.27	.56	14.22	1.71	44.43	.90	22.9
MPW-TF8-TW8	1/2	12.70	1/2	21.34	.41	10.41	7/8	1.53	38.86	.75	19.05	1.93	49.00	.90	22.9
MPW-TF8-TW12	1/2	12.70	3/4	26.67	.41	10.41	1 1/16	1.59	40.40	.75	19.05	1.99	50.55	.90	22.9
MPW-TF8-TW16	1/2	12.70	1	33.40	.41	10.41	1 3/8	1.87	47.50	.94	23.87	2.27	57.65	.90	22.9
MPW-TF10-TW8	5/8	15.87	1/2	21.34	.50	12.70	15/16	1.53	38.86	.75	19.05	1.93	49.02	.96	24.4
MPW-TF12-TW8	3/4	19.05	1/2	21.34	.53	13.46	1 1/16	1.53	38.86	.75	19.05	1.93	49.00	.96	24.4
MPW-TF12-TW12	3/4	19.05	3/4	26.67	.62	15.74	1 1/16	1.59	40.40	.75	19.05	1.99	50.55	.96	24.4
MPW-TF16-TW16	1	25.40	1	33.40	.88	22.35	1 3/8	1.97	50.03	.94	23.87	2.45	62.23	1.23	31.2

ME

Male Elbow

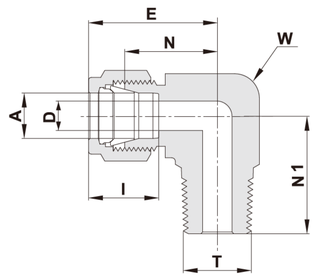


TUBE (METRIC) TO MALE NPT THREAD

Ordering Information	A Tube O.D.	T (ISO)	D	W Wrench Flat		N	E	N1	I
	mm	inch.	mm	inch.	mm	mm	mm	mm	mm
ME-TF3M-NT2	3	1/8	2.4	7/16	11.1	17.0	23.6	17.8	12.9
ME-TF3M-NT4	3	1/4	2.4	1/2	12.7	18.0	24.6	23.4	12.9
ME-TF4M-NT2	4	1/8	2.4	1/2	12.7	18.8	25.4	18.8	13.7
ME-TF4M-NT4	4	1/4	2.4	1/2	12.7	18.8	25.4	23.4	13.7
ME-TF6M-NT2	6	1/8	4.8	1/2	12.7	19.6	27.0	18.8	15.3
ME-TF6M-NT4	6	1/4	4.8	1/2	12.7	19.6	27.0	23.4	15.3
ME-TF6M-NT6	6	3/8	4.8	11/16	17.5	22.4	29.8	26.2	15.3
ME-TF6M-NT8	6	1/2	4.8	13/16	20.6	24.4	31.8	33.0	15.3
ME-TF8M-NT2	8	1/8	4.8	9/16	14.3	21.3	28.8	19.8	16.2
ME-TF8M-NT4	8	1/4	6.4	9/16	14.3	21.3	28.8	24.4	16.2
ME-TF8M-NT6	8	3/8	6.4	11/16	17.5	23.1	30.6	26.2	16.2
ME-TF8M-NT8	8	1/2	6.4	13/16	20.6	25.1	32.6	33.0	16.2
ME-TF10M-NT2	10	1/8	4.8	11/16	17.5	23.9	31.5	21.6	17.2
ME-TF10M-NT4	10	1/4	7.1	11/16	17.5	23.9	31.5	26.2	17.2
ME-TF10M-NT6	10	3/8	7.9	11/16	17.5	23.9	31.5	26.2	17.2
ME-TF10M-NT8	10	1/2	7.9	13/16	20.6	25.9	33.5	33.0	17.2
ME-TF12M-NT2	12	1/8	4.8	13/16	20.6	25.9	36.0	23.6	22.8
ME-TF12M-NT4	12	1/4	7.1	13/16	20.6	25.9	36.0	28.2	22.8
ME-TF12M-NT6	12	3/8	9.5	13/16	20.6	25.9	36.0	28.2	22.8
ME-TF12M-NT8	12	1/2	9.5	13/16	20.6	25.9	36.0	33.0	22.8
ME-TF12M-NT12	12	3/4	9.5	1 1/16	27.0	29.7	39.8	36.8	22.8
ME-TF15M-NT8	15	1/2	11.9	15/16	23.8	27.9	38.0	35.1	24.4
ME-TF16M-NT6	16	3/8	9.5	15/16	23.8	27.9	38.0	30.2	24.4
ME-TF16M-NT8	16	1/2	11.9	15/16	23.8	27.9	38.0	35.1	24.4
ME-TF16M-NT12	16	3/4	12.7	1 1/16	27.0	29.7	39.8	36.8	24.4
ME-TF18M-NT8	18	1/2	11.9	1 1/16	27.0	29.7	39.8	36.8	24.4
ME-TF18M-NT12	18	3/4	15.1	1 1/16	27.0	29.7	39.8	36.8	24.4
ME-TF20M-NT8	20	1/2	11.9	1 3/8	34.9	34.5	44.6	41.7	26.0
ME-TF20M-NT12	20	3/4	15.9	1 3/8	34.9	34.5	44.6	41.7	26.0
ME-TF22M-NT12	22	3/4	15.9	1 3/8	34.9	34.5	44.6	41.7	26.0
ME-TF22M-NT16	22	1	18.3	1 3/8	34.9	34.5	44.6	46.5	26.0
ME-TF25M-NT12	25	3/4	15.9	1 3/8	34.9	36.8	49.1	41.7	31.3
ME-TF25M-NT16	25	1	21.8	1 3/8	34.9	36.8	49.1	46.5	31.3

ME

Male Elbow(Cont'd)

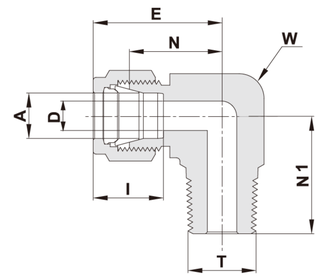


TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
ME-TF1-NT1	1/16	1.58	1/16	.05	1.27	7/16	11.1	.60	15.24	.75	19.05	.70	17.78	.34	8.6
ME-TF1-NT2	1/16	1.58	1/8	.05	1.27	7/16	11.1	.60	15.24	.75	19.05	.70	17.78	.34	8.6
ME-TF2-NT1	1/8	3.17	1/16	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
ME-TF2-NT2	1/8	3.17	1/8	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
ME-TF2-NT4	1/8	3.17	1/4	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.92	23.37	.50	12.7
ME-TF3-NT2	3/16	4.76	1/8	.12	3.04	1/2	12.7	.74	18.80	1.00	25.40	.74	18.80	.54	13.7
ME-TF3-NT4	3/16	4.76	1/4	.12	3.04	1/2	12.7	.74	18.80	1.00	25.40	.92	23.37	.54	13.7
ME-TF4-NT1	1/4	6.35	1/16	.12	3.04	1/2	12.7	.77	19.56	1.06	26.92	.74	18.80	.60	15.2
ME-TF4-NT2	1/4	6.35	1/8	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.74	18.80	.60	15.2
ME-TF4-NT4	1/4	6.35	1/4	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.92	23.37	.60	15.2
ME-TF4-NT6	1/4	6.35	3/8	.19	4.82	11/16	17.5	.88	22.35	1.17	29.71	1.03	26.16	.60	15.2
ME-TF4-NT8	1/4	6.35	1/2	.19	4.82	13/16	20.6	.96	24.38	1.25	31.75	1.30	33.02	.60	15.2
ME-TF5-NT2	5/16	7.93	1/8	.19	4.82	9/16	14.3	.84	21.34	1.13	28.70	.78	19.81	.64	16.2
ME-TF5-NT4	5/16	7.93	1/4	.25	6.35	9/16	14.3	.84	21.34	1.13	28.70	.96	24.38	.64	16.2
ME-TF5-NT6	5/16	7.93	3/8	.25	6.35	11/16	17.5	.91	23.11	1.20	30.48	1.03	26.16	.64	16.2
ME-TF6-NT2	3/8	9.52	1/8	.19	4.82	5/8	15.9	.91	23.11	1.20	30.48	.82	20.83	.66	16.8
ME-TF6-NT4	3/8	9.52	1/4	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.00	25.40	.66	16.8
ME-TF6-NT6	3/8	9.52	3/8	.28	7.11	11/16	17.5	.94	23.87	1.23	31.24	1.03	26.16	.66	16.8
ME-TF6-NT8	3/8	9.52	1/2	.28	7.11	13/16	20.6	1.02	25.90	1.31	33.28	1.30	33.02	.66	16.8
ME-TF6-NT12	3/8	9.52	3/4	.28	7.11	1 1/16	27.0	1.17	29.71	1.46	37.08	1.45	36.83	.66	16.8
ME-TF8-NT4	1/2	12.70	1/4	.28	7.11	13/16	20.6	1.02	25.90	1.42	36.07	1.11	28.19	.90	22.9
ME-TF8-NT6	1/2	12.70	3/8	.38	9.50	13/16	20.6	1.02	25.90	1.42	36.07	1.11	28.19	.90	22.9
ME-TF8-NT8	1/2	12.70	1/2	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.07	1.30	33.02	.90	22.9
ME-TF8-NT12	1/2	12.70	3/4	.41	10.41	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.90	22.9
ME-TF10-NT6	5/8	15.87	3/8	.38	9.61	15/16	23.8	1.10	27.94	1.50	38.10	1.19	30.23	.96	24.4
ME-TF10-NT8	5/8	15.87	1/2	.47	11.94	15/16	23.8	1.10	27.94	1.50	38.10	1.38	35.05	.96	24.4
ME-TF10-NT12	5/8	15.87	3/4	.50	12.70	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.96	24.4
ME-TF12-NT8	3/4	19.05	1/2	.47	11.94	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.96	24.4
ME-TF12-NT12	3/4	19.05	3/4	.62	15.74	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.96	24.4
ME-TF14-NT12	7/8	22.22	3/4	.62	15.74	1 3/8	34.9	1.36	34.54	1.76	44.70	1.64	41.66	1.02	25.9
ME-TF16-NT12	1	25.40	3/4	.62	15.74	1 3/8	34.9	1.45	36.83	1.93	49.02	1.64	41.66	1.23	31.2
ME-TF16-NT16	1	25.40	1	.86	21.84	1 3/8	34.9	1.45	36.83	1.93	49.02	1.83	46.48	1.23	31.2

ME

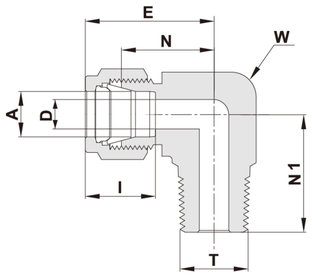
Male Elbow(Cont'd)



TUBE (METRIC) TO ISO TAPERED THREAD

Ordering Information	A Tube O.D.	T (ISO)	D	W Wrench Flat		N	E	N1	I
	mm	inch.	mm	inch.	mm	mm	mm	mm	mm
ME-TF3M-RT2	3	R-1/8	2.4	7/16	11.1	17.0	23.6	17.8	12.9
ME-TF3M-RT4	3	R-1/4	2.4	1/2	12.7	18.0	24.6	23.4	12.9
ME-TF4M-RT2	4	R-1/8	2.4	1/2	12.7	18.8	25.4	18.8	13.7
ME-TF4M-RT4	4	R-1/4	2.4	1/2	12.7	18.8	25.4	23.4	13.7
ME-TF6M-RT2	6	R-1/8	4.8	1/2	12.7	19.6	27.0	18.8	15.3
ME-TF6M-RT4	6	R-1/4	4.8	1/2	12.7	19.6	27.0	23.4	15.3
ME-TF6M-RT6	6	R-3/8	4.8	11/16	17.5	22.4	29.8	26.2	15.3
ME-TF6M-RT8	6	R-1/2	4.8	13/16	20.6	24.4	31.8	33.0	15.3
ME-TF8M-RT2	8	R-1/8	4.8	9/16	14.3	21.3	28.8	19.8	16.2
ME-TF8M-RT4	8	R-1/4	6.4	9/16	14.3	21.3	28.8	24.4	16.2
ME-TF8M-RT6	8	R-3/8	6.4	11/16	17.5	23.1	30.6	26.2	16.2
ME-TF8M-RT8	8	R-1/2	6.4	13/16	20.6	25.1	32.6	33.0	16.2
ME-TF10M-RT2	10	R-1/8	4.8	11/16	17.5	23.9	31.5	21.6	17.2
ME-TF10M-RT4	10	R-1/4	7.1	11/16	17.5	23.9	31.5	26.2	17.2
ME-TF10M-RT6	10	R-3/8	7.9	11/16	17.5	23.9	31.5	26.2	17.2
ME-TF10M-RT8	10	R-1/2	7.9	13/16	20.6	25.9	33.5	33.0	17.2
ME-TF12M-RT2	12	R-1/8	4.8	13/16	20.6	25.9	36.0	23.6	22.8
ME-TF12M-RT4	12	R-1/4	7.1	13/16	20.6	25.9	36.0	28.2	22.8
ME-TF12M-RT6	12	R-3/8	9.5	13/16	20.6	25.9	36.0	28.2	22.8
ME-TF12M-RT8	12	R-1/2	9.5	13/16	20.6	25.9	36.0	33.0	22.8
ME-TF12M-RT12	12	R-3/4	9.5	1 1/16	27.0	29.7	39.8	36.8	22.8
ME-TF14M-RT8	14	R-1/2	11.0	15/16	23.8	27.9	38.0	35.0	24.4
ME-TF15M-RT8	15	R-1/2	11.9	15/16	23.8	27.9	38.0	35.1	24.4
ME-TF16M-RT6	16	R-3/8	9.5	15/16	23.8	27.9	38.0	30.2	24.4
ME-TF16M-RT8	16	R-1/2	11.9	15/16	23.8	27.9	38.0	35.1	24.4
ME-TF18M-RT8	18	R-1/2	11.9	1 1/16	27.0	29.7	39.8	36.8	24.4
ME-TF18M-RT12	18	R-3/4	15.1	1 1/16	27.0	29.7	39.8	36.8	24.4
ME-TF20M-RT8	20	R-1/2	11.9	1 3/8	34.9	34.5	44.6	41.7	26.0
ME-TF20M-RT12	20	R-3/4	15.9	1 3/8	34.9	34.5	44.6	41.7	26.0
ME-TF22M-RT12	22	R-3/4	15.9	1 3/8	34.9	34.5	44.6	41.7	26.0
ME-TF22M-RT16	22	R -1	18.3	1 3/8	34.9	34.5	44.6	46.5	26.0
ME-TF25M-RT12	25	R-3/4	15.9	1 3/8	34.9	36.8	49.1	41.7	31.3
ME-TF25M-RT16	25	R -1	21.8	1 3/8	34.9	36.8	49.1	46.5	31.3

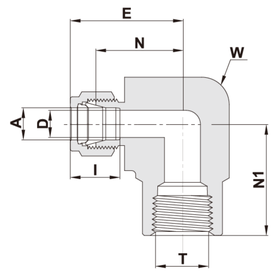
ME
Male Elbow(Cont'd)



TUBE (INCH) TO ISO TAPERED THREAD

Ordering Information	A Tube O.D.		T (ISO)	D		W Wrench Flat		N		E		N1		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
ME-TF2-RT2	1/8	3.17	R-1/8	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
ME-TF2-RT4	1/8	3.17	R-1/4	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.92	23.37	.50	12.7
ME-TF4-RT2	1/4	6.35	R-1/8	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.74	18.80	.60	15.2
ME-TF4-RT4	1/4	6.35	R-1/4	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.92	23.37	.60	15.2
ME-TF4-RT6	1/4	6.35	R-3/8	.19	4.82	11/16	17.5	.88	22.35	1.17	29.71	1.03	26.16	.60	15.2
ME-TF4-RT8	1/4	6.35	R-1/2	.19	4.82	13/16	20.6	.96	24.38	1.25	31.75	1.30	33.02	.60	15.2
ME-TF5-RT4	5/16	7.93	R-1/4	.25	6.35	9/16	14.3	.84	21.34	1.13	28.70	.96	24.38	.64	16.2
ME-TF6-RT2	3/8	9.52	R-1/8	.19	4.82	5/8	15.9	.91	23.11	1.20	30.48	.82	20.83	.66	16.8
ME-TF6-RT4	3/8	9.52	R-1/4	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.00	25.40	.66	16.8
ME-TF6-RT6	3/8	9.52	R-3/8	.28	7.11	11/16	17.5	.94	23.87	1.23	31.24	1.03	26.16	.66	16.8
ME-TF8-RT4	1/2	12.70	R-1/4	.28	7.11	13/16	20.6	1.02	25.90	1.42	36.07	1.11	28.19	.90	22.9
ME-TF8-RT6	1/2	12.70	R-3/8	.38	9.50	13/16	20.6	1.02	25.90	1.42	36.07	1.11	28.19	.90	22.9
ME-TF8-RT8	1/2	12.70	R-1/2	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.07	1.30	33.02	.90	22.9
ME-TF12-RT8	3/4	19.05	R-1/2	.47	11.94	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.96	24.4
ME-TF16-RT16	1	25.40	R-1	.86	21.84	1 3/8	34.9	1.45	36.83	1.93	49.02	1.83	46.48	1.23	31.2

FE
Female Elbow



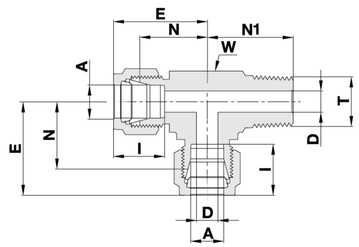
TUBE (METRIC) TO FEMALE NPT THREAD

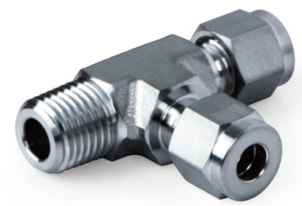
Ordering Information	A Tube O.D.	T (NPT)	D	W Wrench Flat		N	E	N1	I
	mm	inch.	mm	inch.	mm	mm	mm	mm	mm
FE-TF6M-FNT2	6	1/8	4.8	1/2	12.8	19.6	27.0	19.0	15.3
FE-TF6M-FNT4	6	1/4	4.8	11/16	17.5	22.4	29.8	22.4	15.3
FE-TF6M-FNT8	6	1/2	4.8	1 1/8	28.5	27.2	34.6	28.4	15.3
FE-TF8M-FNT4	8	1/4	6.4	11/16	17.5	23.1	30.6	22.4	16.2
FE-TF10M-FNT2	10	1/8	7.9	11/16	17.5	23.9	31.5	19.0	17.2
FE-TF10M-FNT4	10	1/4	7.9	13/16	20.6	25.9	33.5	22.4	17.2
FE-TF12M-FNT4	12	1/4	9.5	13/16	20.6	25.9	36.0	22.4	22.8
FE-TF12M-FNT8	12	1/2	9.5	1 1/8	28.6	28.7	38.8	28.4	22.8
FE-TF16M-FNT8	16	1/2	12.7	1 1/16	27.0	29.7	39.8	28.4	24.4

TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
FE-TF2-FNT2	1/8	3.17	1/8	.09	2.28	1/2	12.8	.71	18.03	.97	24.64	.75	19.05	.50	12.7
FE-TF2-FNT4	1/8	3.17	1/4	.09	2.28	13/16	20.6	.82	20.80	1.08	27.43	.88	22.40	.50	12.7
FE-TF3-FNT2	3/16	4.76	1/8	.12	3.04	1/2	12.8	.74	18.80	1.00	25.40	.75	19.05	.54	13.7
FE-TF4-FNT2	1/4	6.35	1/8	.19	4.82	1/2	12.8	.77	19.55	1.06	26.92	.75	19.05	.60	15.2
FE-TF4-FNT4	1/4	6.35	1/4	.19	4.82	13/16	20.6	.88	22.40	1.17	29.72	.88	22.40	.60	15.2
FE-TF4-FNT6	1/4	6.35	3/8	.19	4.82	13/16	20.6	.96	24.38	1.25	31.75	.88	22.40	.60	15.2
FE-TF4-FNT8	1/4	6.35	1/2	.19	4.82	1 1/16	27.0	1.07	27.18	1.36	34.54	1.12	28.45	.60	15.2
FE-TF5-FNT2	5/16	7.93	1/8	.25	6.35	9/16	14.3	.84	21.30	1.13	28.70	.75	19.05	.64	16.2
FE-TF5-FNT4	5/16	7.93	1/4	.25	6.35	11/16	17.5	.91	23.11	1.20	30.48	.88	22.40	.64	16.2
FE-TF6-FNT2	3/8	9.52	1/8	.28	7.11	5/8	16.0	.91	23.11	1.20	30.48	.75	19.05	.66	16.8
FE-TF6-FNT4	3/8	9.52	1/4	.28	7.11	13/16	20.6	0.94	23.87	1.23	31.24	.88	22.40	.66	16.8
FE-TF6-FNT6	3/8	9.52	3/8	.28	7.11	15/16	23.8	1.02	25.90	1.31	33.27	.88	22.40	.66	16.8
FE-TF6-FNT8	3/8	9.52	1/2	.28	7.11	1 1/16	27.0	1.13	28.70	1.42	36.07	1.12	28.45	.66	16.8
FE-TF8-FNT4	1/2	12.70	1/4	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.07	.88	22.40	.90	22.9
FE-TF8-FNT6	1/2	12.70	3/8	.41	10.41	15/16	23.8	1.02	25.90	1.42	36.07	.88	22.40	.90	22.9
FE-TF8-FNT8	1/2	12.70	1/2	.41	10.41	1 1/16	27.0	1.13	28.70	1.53	36.86	1.12	28.45	.90	22.9
FE-TF10-FNT6	5/8	15.87	3/8	.50	12.70	15/16	23.8	1.10	27.90	1.50	38.10	.88	22.40	.96	24.4
FE-TF10-FNT8	5/8	15.87	1/2	.50	12.70	1 1/16	27.0	1.17	29.70	1.57	39.86	1.12	28.45	.96	24.4
FE-TF12-FNT8	3/4	19.05	1/2	.62	15.74	1 1/16	27.0	1.17	29.70	1.57	39.86	1.12	28.45	.96	24.4
FE-TF12-FNT12	3/4	19.05	3/4	.62	15.74	1 3/8	34.9	1.36	34.54	1.76	44.70	1.25	31.75	.96	24.4
FE-TF14-FNT12	7/8	22.22	3/4	.72	18.28	1 3/8	34.9	1.36	34.54	1.76	44.70	1.25	31.75	1.02	25.9
FE-TF16-FNT12	1	25.40	3/4	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.02	1.25	31.75	1.23	31.2
FE-TF16-FNT16	1	25.40	1	.88	22.35	1 11/16	42.9	1.63	41.40	2.11	53.59	1.50	38.10	1.23	31.2

MRT
Male Run Tee





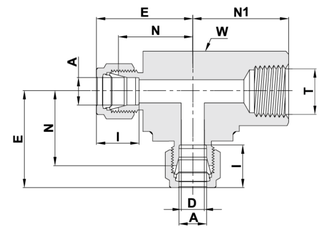
TUBE (METRIC) TO MALE NPT THREAD

Ordering Information	A Tube O.D.	T (ISO)	D	W Wrench Flat		N	E	N1	I
	mm	inch.	mm	inch.	mm	mm	mm	mm	mm
MRT-TF6M-NT2	6	1/8	4.8	1/2	12.7	19.6	27.0	18.8	15.3
MRT-TF6M-NT4	6	1/4	4.8	1/2	12.7	19.6	27.0	23.4	15.3
MRT-TF8M-NT2	8	1/8	4.8	5/8	15.9	22.4	29.9x	20.8	16.2
MRT-TF8M-NT4	8	1/4	6.4	5/8	15.9	22.4	29.9	25.4	16.2
MRT-TF10M-NT4	10	1/4	7.1	13/16	20.6	25.9	33.5	28.2	17.2
MRT-TF12M-NT4	12	1/4	7.1	13/16	20.6	25.9	36.0	28.2	22.8
MRT-TF12M-NT6	12	3/8	9.5	13/16	20.6	25.9	36.0	28.2	22.8
MRT-TF12M-NT8	12	1/2	9.5	13/16	20.6	25.9	36.0	33.0	22.8
MRT-TF16M-NT8	16	1/2	11.9	15/16	23.8	27.9	38.0	35.0	24.4

TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
MRT-TF2-NT2	1/8	3.17	1/8	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
MRT-TF2-NT4	1/8	3.17	1/4	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.92	23.40	.50	12.7
MRT-TF3-NT2	3/16	4.76	1/8	.12	3.05	7/16	11.1	.70	17.78	.96	24.38	.70	17.78	.54	13.7
MRT-TF4-NT2	1/4	6.35	1/8	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.74	18.8	.60	15.2
MRT-TF4-NT4	1/4	6.35	1/4	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.92	23.37	.60	15.2
MRT-TF5-NT2	5/16	7.93	1/8	.19	4.82	5/8	15.9	.88	22.35	1.17	29.71	.82	20.83	.64	16.2
MRT-TF6-NT4	3/8	9.52	1/4	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.00	25.40	.66	16.8
MRT-TF6-NT6	3/8	9.52	3/8	.28	7.11	13/16	20.6	1.02	25.91	1.31	33.27	1.11	28.19	.66	16.8
MRT-TF8-NT6	1/2	12.70	3/8	.38	9.5	13/16	20.6	1.02	25.91	1.42	36.07	1.11	28.19	.90	22.9
MRT-TF8-NT8	1/2	12.70	1/2	.41	10.41	13/16	20.6	1.02	25.91	1.42	36.07	1.30	33.00	.90	22.9
MRT-TF10-NT8	5/8	15.87	1/2	.47	11.94	15/16	23.8	1.10	27.94	1.50	38.1	1.38	35.05	.96	24.4
MRT-TF12-NT12	3/4	19.05	3/4	.62	15.75	1 1/16	27.0	1.17	29.72	1.57	39.88	1.45	36.83	.96	24.4

FRT
Female Run Tee



TUBE (METRIC) TO FEMALE NPT THREAD

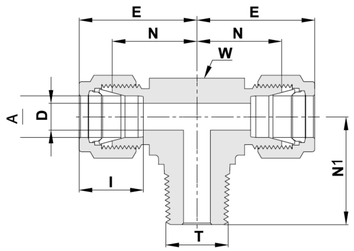
Ordering Information	A Tube O.D.	T (NPT)	D	W Wrench Flat		N	E	N1	I
	mm	inch.	mm	inch.	mm	mm	mm	mm	mm
FRT-TF6M-FNT2	6	1/8	4.8	5/8	15.9	19.6	27.0	19.0	15.3
FRT-TF6M-FNT4	6	1/4	4.8	13/16	20.6	22.4	29.8	22.4	15.3
FRT-TF8M-FNT2	8	1/8	6.4	5/8	15.9	22.4	29.9	22.4	16.2
FRT-TF8M-FNT4	8	1/4	6.4	13/16	20.6	23.1	30.6	22.4	16.2
FRT-TF10M-FNT4	10	1/4	7.9	13/16	20.6	25.9	33.5	22.4	17.2
FRT-TF12M-FNT4	12	1/4	9.5	13/16	20.6	25.9	36.0	22.4	22.8
FRT-TF12M-FNT6	12	3/8	9.5	15/16	23.8	25.9	36.0	22.4	22.8
FRT-TF12M-FNT8	12	1/2	9.5	1 1/16	27.0	29.7	39.8	28.4	22.8
FRT-TF16M-FNT8	16	1/2	12.7	1 1/16	27.0	29.7	39.8	28.4	24.4

TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
FRT-TF2-FNT2	1/8	3.17	1/8	.09	2.28	5/8	15.9	.71	18.00	.97	24.63	.75	19.05	.50	12.7
FRT-TF4-FNT2	1/4	6.35	1/8	.19	4.82	5/8	15.9	.77	19.55	1.06	26.92	.75	19.05	.60	15.2
FRT-TF4-FNT4	1/4	6.35	1/4	.19	4.82	13/16	20.6	.88	22.35	1.17	29.71	.88	22.35	.60	15.2
FRT-TF6-FNT4	3/8	9.52	1/4	.28	7.11	13/16	20.6	.94	23.87	1.23	31.24	.88	22.35	.66	16.8
FRT-TF8-FNT6	1/2	12.70	3/8	.41	10.41	15/16	23.8	1.02	25.9	1.42	36.07	.88	22.35	.90	22.9
FRT-TF8-FNT8	1/2	12.70	1/2	.41	10.41	1 1/16	27.0	1.17	29.72	1.57	39.88	1.12	28.45	.90	22.9
FRT-TF12-FNT12	3/4	19.05	3/4	.62	15.75	1 3/8	34.9	1.36	34.54	1.76	44.70	1.25	31.75	.96	24.4
FRT-TF16-FNT12	1	25.4	3/4	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.02	1.25	31.75	1.23	31.2
FRT-TF16-FNT16	1	25.4	1	.88	22.35	1 11/16	42.9	1.63	41.40	2.11	53.59	1.50	38.10	1.23	31.2

MBT

Male Branch Tee



TUBE (METRIC) TO MALE NPT THREAD

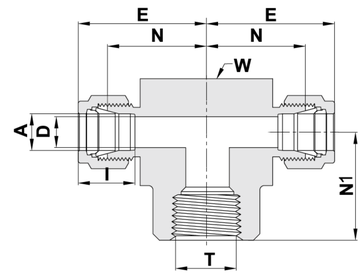
Ordering Information	A Tube O.D.	T (NPT)	D	W Wrench Flat		N	E	N1	I
	mm	inch.	mm	inch.	mm	mm	mm	mm	mm
MBT-TF6M-NT2	6	1/8	4.8	1/2	12.7	19.6	27.0	18.8	15.3
MBT-TF6M-NT4	6	1/4	4.8	1/2	12.7	19.6	27.0	23.4	15.3
MBT-TF8M-NT2	8	1/8	4.8	5/8	15.9	22.4	29.9	20.8	16.2
MBT-TF8M-NT4	8	1/4	6.4	5/8	15.9	22.4	29.9	25.4	16.2
MBT-TF10M-NT4	10	1/4	7.1	13/16	20.6	25.9	33.5	28.2	17.2
MBT-TF12M-NT4	12	1/4	7.1	13/16	20.6	25.9	36.0	28.2	22.8
MBT-TF12M-NT6	12	3/8	9.5	13/16	20.6	25.9	36.0	28.2	22.8
MBT-TF12M-NT8	12	1/2	9.5	13/16	20.6	25.9	36.0	33.0	22.8
MBT-TF16M-NT8	16	1/2	11.9	15/16	23.8	28.7	38.8	35.8	24.4

TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
MBT-TF2-NT2	1/8	3.17	1/8	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
MBT-TF2-NT4	1/8	3.17	1/4	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.92	23.37	.50	12.7
MBT-TF3-NT2	3/16	4.76	1/8	.12	3.04	7/16	11.1	.70	17.78	.96	24.38	.70	17.78	.54	13.7
MBT-TF4-NT2	1/4	6.35	1/8	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.74	18.80	.60	15.2
MBT-TF4-NT4	1/4	6.35	1/4	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.92	23.37	.60	15.2
MBT-TF5-NT2	5/16	7.93	1/8	.19	4.82	5/8	15.9	.88	22.35	1.17	29.71	.82	20.83	.64	16.2
MBT-TF6-NT4	3/8	9.52	1/4	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.00	25.40	.66	16.8
MBT-TF6-NT6	3/8	9.52	3/8	.28	7.11	13/16	20.6	1.02	25.91	1.31	33.27	1.11	28.19	.66	16.8
MBT-TF8-NT6	1/2	12.70	3/8	.38	9.65	13/16	20.6	1.02	25.91	1.42	36.07	1.11	28.19	.90	22.9
MBT-TF8-NT8	1/2	12.70	1/2	.41	10.41	13/16	20.6	1.02	25.91	1.42	36.07	1.30	33.02	.90	22.9
MBT-TF10-NT8	5/8	15.87	1/2	.47	11.94	15/16	23.8	1.13	28.7	1.53	38.86	1.41	35.81	.96	24.4
MBT-TF12-NT12	3/4	19.05	3/4	.62	15.75	1 1/16	27.0	1.17	29.72	1.57	39.88	1.45	36.83	.96	24.4

FBT

Female Branch Tee



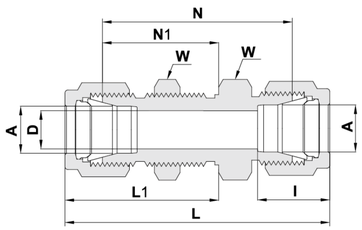
TUBE (METRIC) TO FEMALE NPT THREAD

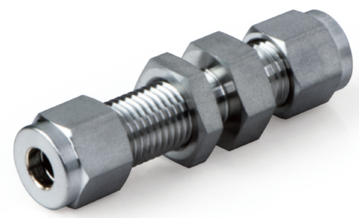
Ordering Information	A Tube O.D.	T (NPT)	D	W Wrench Flat		N	E	N1	I
	mm	inch.	mm	inch.		mm	mm	mm	mm
FBT-TF6M-FNT2	6	1/8	4.8	5/8	15.9	19.6	27.0	19.0	15.3
FBT-TF6M-FNT4	6	1/4	4.8	13/16	20.6	22.4	29.8	22.4	15.3
FBT-TF8M-FNT2	8	1/8	6.4	5/8	15.9	22.4	29.9	19.0	16.2
FBT-TF8M-FNT4	8	1/4	6.4	13/16	20.6	23.1	30.6	22.4	16.2
FBT-TF10M-FNT4	10	1/4	7.9	13/16	20.6	25.9	33.5	22.4	17.2
FBT-TF10M-FNT6	10	3/8	7.9	15/16	23.8	25.9	33.5	22.4	17.2
FBT-TF12M-FNT4	12	1/4	9.5	13/16	20.6	25.9	36.0	22.4	22.8
FBT-TF12M-FNT6	12	3/8	9.5	15/16	23.8	25.9	36.0	22.4	22.8
FBT-TF12M-FNT8	12	1/2	9.5	1 1/16	27.0	28.7	38.8	28.4	22.8
FBT-TF16M-FNT8	16	1/2	12.7	1 1/16	27.0	28.7	38.8	28.4	24.4

TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
FBT-TF2-FNT2	1/8	3.17	1/8	.09	2.28	5/8	15.9	.70	18.00	.97	24.64	.75	19.05	.50	12.7
FBT-TF4-FNT2	1/4	6.35	1/8	.19	4.82	5/8	15.9	.77	19.56	1.06	26.96	.75	19.05	.60	15.2
FBT-TF4-FNT4	1/4	6.35	1/4	.19	4.82	13/16	20.6	.88	22.35	1.17	29.71	.88	22.35	.60	15.2
FBT-TF6-FNT4	3/8	9.52	1/4	.28	7.11	13/16	20.6	.94	23.88	1.23	31.24	.88	22.35	.66	16.8
FBT-TF6-FNT6	3/8	9.52	3/8	.28	7.11	15/16	23.8	1.02	25.90	1.31	33.27	.88	22.35	.66	16.8
FBT-TF6-FNT8	3/8	9.52	1/2	.28	7.11	1 1/16	27.0	1.13	28.70	1.42	36.07	1.12	28.45	.66	16.8
FBT-TF8-FNT4	1/2	12.70	1/4	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.07	.88	22.35	.90	22.9
FBT-TF8-FNT6	1/2	12.70	3/8	.41	10.41	15/16	23.8	1.02	25.90	1.42	36.07	.88	22.35	.90	22.9
FBT-TF8-FNT8	1/2	12.70	1/2	.41	10.41	1 1/16	27.0	1.13	28.70	1.53	38.86	1.12	28.45	.90	22.9
FBT-TF10-FNT8	5/8	15.87	1/2	.50	12.70	1 1/16	27.0	1.13	28.70	1.53	38.86	1.12	28.44	.96	24.4
FBT-TF12-FNT12	3/4	19.05	3/4	.62	15.74	1 3/8	34.9	1.36	34.50	1.76	44.70	1.25	31.75	.96	24.4
FBT-TF16-FNT12	1	25.4	3/4	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.02	1.25	31.75	1.23	31.2
FBT-TF16-FNT16	1	25.4	1	.88	22.35	1 11/16	42.9	1.63	41.40	2.11	53.60	1.50	38.10	1.23	31.2

BU
Bulkhead Union





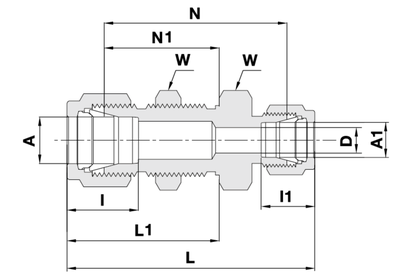
TUBE (METRIC) TO TUBE (METRIC)

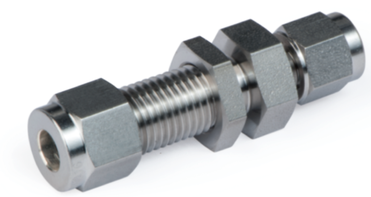
Ordering Information	A Tube O.D.	D	W Hex. Flat	N	N1	L	L1	I	Panel Hole Drill Size	Max. Panel Thickness
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
BU-TF3M	3	2.4	14	38.1	24.6	51.3	31.2	12.9	8.30	12.7
BU-TF4M	4	2.4	14	40.4	25.4	53.6	32.0	13.7	9.90	12.7
BU-TF6M	6	4.8	16	42.9	26.2	57.7	33.6	15.3	11.50	10.2
BU-TF8M	8	6.4	18	46.0	28.6	61.0	36.1	16.2	13.10	11.2
BU-TF10M	10	7.9	22	48.5	29.4	63.7	37.0	17.2	16.25	11.2
BU-TF12M	12	9.5	24	50.8	31.8	71.0	41.9	22.8	19.50	12.7
BU-TF14M	14	11.0	27	52.3	32.5	72.5	42.6	24.4	22.80	12.7
BU-TF15M	15	11.9	27	52.3	32.5	72.5	42.6	24.4	22.80	12.7
BU-TF16M	16	12.7	27	52.3	32.5	72.5	42.6	24.4	22.80	12.7
BU-TF18M	18	15.1	30	58.7	37.3	78.9	47.4	24.4	26.00	16.8
BU-TF20M	20	15.9	35	64.3	42.9	84.5	53.0	26.0	29.00	19.0
BU-TF25M	25	21.8	41	71.4	45.2	96.0	57.5	31.3	33.70	19.0

TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		D		W Hex. Flat	N		N1		L		L1		I		Panel Hole Drill Size		Max. Panel Thickness	
	inch.	mm	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
BU-TF1	1/16	1.58	.05	1.27	5/16	.94	23.88	.53	13.46	1.24	31.5	.68	17.3	.34	8.6	13/64	5.16	.12	3.05
BU-TF2	1/8	3.17	.09	2.28	1/2	1.50	38.10	.97	24.63	2.02	51.30	1.23	31.24	.50	12.7	21/64	8.33	.50	12.70
BU-TF3	3/16	4.76	.12	3.04	9/16	1.59	40.38	1.00	25.40	2.11	53.59	1.26	32.00	.54	13.7	25/64	9.92	.50	12.70
BU-TF4	1/4	6.35	.19	4.82	5/8	1.69	42.92	1.03	26.16	2.27	57.65	1.32	33.52	.60	15.2	29/64	11.50	.40	10.16
BU-TF5	5/16	7.93	.25	6.35	11/16	1.81	45.97	1.12	28.44	2.39	60.70	1.41	35.81	.64	16.2	33/64	13.09	.44	11.17
BU-TF6	3/8	9.52	.28	7.11	3/4	1.87	47.5	1.16	29.46	2.45	62.2	1.45	36.83	.66	16.8	37/64	14.68	.44	11.17
BU-TF8	1/2	12.70	.41	10.41	15/16	2.00	50.80	1.25	31.75	2.80	71.12	1.65	41.91	.90	22.9	49/64	19.44	.50	12.70
BU-TF10	5/8	15.87	.50	12.70	1 1/16	2.06	52.32	1.28	32.51	2.86	72.64	1.68	42.67	.96	24.4	57/64	22.62	.50	12.70
BU-TF12	3/4	19.05	.62	15.75	1 3/16	2.31	58.67	1.47	37.33	3.11	78.99	1.87	47.49	.96	24.4	1 1/64	25.79	.66	16.76
BU-TF16	1	25.40	.88	22.35	1 5/8	2.81	71.37	1.78	45.21	3.77	95.76	2.26	57.40	1.23	31.2	1 21/64	33.73	.75	19.05

BRU
Bulkhead Reducing Union





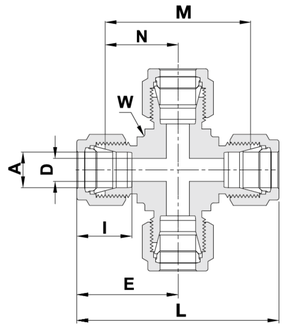
TUBE (METRIC) TO TUBE (INCH)

Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	N1	L	L1	I	I1	Panel Hole Drill Size	Max. Panel Thickness
	mm	inch.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
BRU-TF6M-TF2	6	1/8	2.4	16	41.1	26.2	55.1	33.6	15.3	12.7	11.5	10.2
BRU-TF6M-TF4	6	1/4	4.8	16	42.9	26.2	57.7	33.6	15.3	15.2	11.5	10.2
BRU-TF12M-TF8	12	1/2	9.5	24	50.8	31.8	71.1	41.9	22.8	22.9	19.5	12.7
BRU-TF18M-TF12	18	3/4	15.1	30	58.7	37.3	79.0	47.4	24.4	24.4	26.0	16.8

TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		D		W Hex.Flat	N		N1		L		L1		I		I1		Panel Hole Drill Size		Max. Panel Thickness	
	inch.	mm	inch.	mm	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
BRU-TF2-TF1	1/8	3.17	1/16	1.58	.05	1.27	1/2	1.44	36.57	.97	24.64	1.85	46.99	1.23	31.24	.50	12.7	.34	8.6	21/64	8.33	.50	12.70
BRU-TF3-TF4	3/16	4.76	1/4	6.35	.12	3.04	9/16	1.62	41.15	1.00	25.40	2.17	55.12	1.26	32.00	.54	13.7	.60	15.2	25/64	9.92	.50	12.70
BRU-TF4-TF2	1/4	6.35	1/8	3.17	.09	2.28	5/8	1.62	41.15	1.03	26.16	2.17	55.12	1.32	33.53	.60	15.2	.50	12.7	29/64	11.50	.40	10.16
BRU-TF4-TF6	1/4	6.35	3/8	9.52	.19	4.82	5/8	1.74	44.20	1.03	26.16	2.61	66.29	1.32	33.53	.60	15.2	.66	16.8	29.64	11.50	.40	10.16
BRU-TF6-TF4	3/8	9.52	1/4	6.35	.19	4.82	3/4	1.81	45.97	1.16	29.46	2.39	60.71	1.45	36.83	.66	16.8	.60	15.2	37/64	14.68	.44	11.17
BRU-TF8-TF4	1/2	12.70	1/4	6.35	.19	4.82	15/16	1.94	49.28	1.25	31.75	2.63	66.80	1.65	41.91	.90	22.9	.60	15.2	49/64	19.44	.50	12.70
BRU-TF8-TF10	1/2	12.70	5/8	15.87	.41	10.41	15/16	2.03	51.56	1.25	31.75	2.83	71.88	1.65	41.91	.90	22.9	.96	24.4	49/64	19.44	.50	12.70
BRU-TF10-TF6	5/8	15.87	3/8	9.52	.28	7.11	1 1/16	2.06	52.32	1.28	32.51	2.75	69.85	1.68	42.67	.96	24.4	.66	16.8	57/64	22.62	.50	12.70

UC
Union Cross



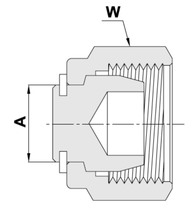
ALL TUBES (METRIC)

Ordering Information	A Tube O.D.	D	W Wrench Flat		N	E	M	L	I
	mm	mm	inch.	mm	mm	mm	mm	mm	mm
UC-TF3M	3	2.4	3/8	9.5	15.7	22.3	31.5	44.7	12.9
UC-TF6M	6	4.8	1/2	12.7	19.6	27.0	39.1	53.9	15.3
UC-TF8M	8	6.4	5/8	15.9	22.4	29.9	44.7	59.7	16.2
UC-TF10M	10	7.9	13/16	20.6	25.9	33.5	51.8	67.0	17.2
UC-TF12M	12	9.5	13/16	20.6	25.9	36.0	51.8	72.0	22.8
UC-TF16M	16	12.7	15/16	23.8	26.9	37.0	53.8	74.0	24.4
UC-TF18M	18	15.1	1 1/16	27.0	28.2	38.3	56.4	76.6	24.4
UC-TF20M	20	15.9	1 3/8	34.9	34.5	44.6	69.0	89.3	26.0
UC-TF22M	22	18.3	1 3/8	34.9	34.6	44.7	69.1	89.4	26.0
UC-TF25M	25	21.8	1 3/8	34.9	36.8	49.1	73.7	98.3	31.3

ALL TUBES (INCH)

Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		M		L		I	
	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm	inch.	mm
UC-TF2	1/8	3.17	.09	2.28	3/8	9.5	.62	15.74	.88	22.35	1.24	31.48	1.76	44.70	.50	12.7
UC-TF4	1/4	6.35	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	1.54	39.12	2.12	53.84	.60	15.2
UC-TF5	5/16	7.93	.25	6.35	5/8	15.9	.88	22.35	1.17	29.71	1.76	44.70	2.34	59.42	.64	16.2
UC-TF6	3/8	9.52	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.82	46.22	2.40	60.96	.66	16.8
UC-TF8	1/2	12.70	.41	10.41	13/16	20.6	1.02	25.9	1.42	36.07	2.04	51.80	2.84	72.14	.90	22.9
UC-TF12	3/4	19.05	.62	15.74	1 1/16	27.0	1.17	29.72	1.57	39.88	2.34	59.44	3.14	79.76	.96	24.4
UC-TF16	1	25.40	.88	22.35	1 3/8	34.9	1.45	36.8	1.93	49.02	2.90	73.60	3.86	98.04	1.23	31.2

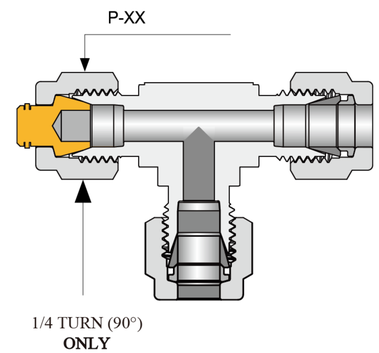
P
Plug



METRIC

Ordering Information	A	W Hex. Flat
	mm	mm
P-TF2M	2	14
P-TF3M	3	12
P-TF4M	4	12
P-TF6M	6	14
P-TF8M	8	16
P-TF10M	10	19
P-TF12M	12	22
P-TF14M	14	25
P-TF15M	15	25
P-TF16M	16	25
P-TF18M	18	30
P-TF20M	20	32
P-TF22M	22	32
P-TF25M	25	38

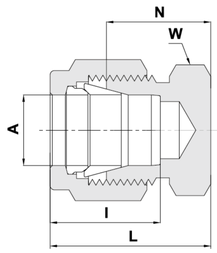
PLUG ASSEMBLY INSTRUCTIONS



INCH

Ordering Information	A		W Hex. Flat
	inch.	mm	inch.
P-TF1	1/16	1.58	5/16
P-TF2	1/8	3.17	7/16
P-TF3	3/16	4.76	1/2
P-TF4	1/4	6.35	9/16
P-TF5	5/16	7.93	5/8
P-TF6	3/8	9.52	11/16
P-TF8	1/2	12.70	7/8
P-TF10	5/8	15.87	1
P-TF12	3/4	19.05	1 1/8
P-TF14	7/8	22.22	1 1/4
P-TF16	1	25.40	1 1/2

C
Cap



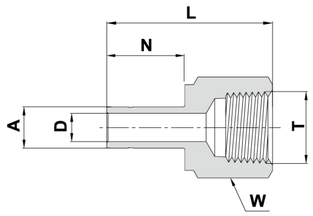
CAPPING END OF TUBE (METRIC)

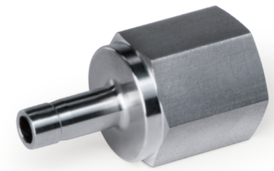
Ordering Information	A Tube O.D.	W Hex. Flat	N	L	I
	mm	mm	mm	mm	mm
C-TF2M	2	12	13.5	20.1	12.9
C-TF3M	3	12	13.5	20.1	12.9
C-TF4M	4	12	14.7	21.3	13.7
C-TF6M	6	14	15.7	23.1	15.3
C-TF8M	8	15	17.0	24.5	16.2
C-TF10M	10	18	19.0	26.6	17.2
C-TF12M	12	22	19.0	29.1	22.8
C-TF14M	14	24	19.8	29.9	24.4
C-TF15M	15	24	19.8	29.9	24.4
C-TF16M	16	24	19.8	29.9	24.4
C-TF18M	18	27	21.3	31.4	24.4
C-TF20M	20	30	23.9	34.0	26.0
C-TF22M	22	30	23.9	34.0	26.0
C-TF25M	25	35	26.2	38.5	31.3

CAPPING END OF TUBE (INCH)

Ordering Information	A Tube O.D.		W Hex. Flat	N		L		I	
	inch.	mm	inch.	inch.	mm	inch.	mm	inch.	mm
C-TF1	1/16	1.58	5/16	.44	11.17	.59	14.98	.34	8.6
C-TF2	1/8	3.17	7/16	.53	13.46	.79	20.06	.50	12.7
C-TF3	3/16	4.76	7/16	.58	14.73	.84	21.84	.54	13.7
C-TF4	1/4	6.35	1/2	.63	16.00	.92	23.37	.60	15.2
C-TF5	5/16	7.93	9/16	.67	17.01	.96	24.38	.64	16.2
C-TF6	3/8	9.52	5/8	.72	18.28	1.01	26.65	.66	16.8
C-TF8	1/2	12.70	13/16	.75	19.05	1.15	29.21	.90	22.9
C-TF10	5/8	15.87	15/16	.78	19.81	1.18	29.97	.96	24.4
C-TF12	3/4	19.05	1 1/16	.84	21.33	1.24	31.49	.96	24.4
C-TF14	7/8	22.22	1 3/16	.94	23.88	1.34	34.04	1.02	25.9
C-TF16	1	25.40	1 3/8	1.03	26.16	1.51	38.35	1.23	31.2

FA
Female Adapter Tube To Pipe

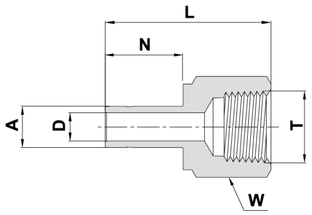


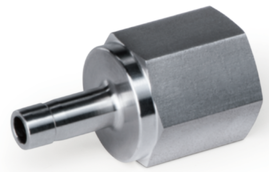


TUBE (METRIC) FEMALE PIPE

Ordering Information	A Tube O.D.	T (NPT)	D	W Hex. Flat	N	L
	mm	inch.	mm	mm	mm	mm
FA-OD3M-FNT2	3	1/8	2.1	14	13.5	31.5
FA-OD3M-FNT4	3	1/4	2.1	19	13.5	35.3
FA-OD4M-FNT4	4	1/4	2.2	19	14.2	35.0
FA-OD6M-FNT2	6	1/8	4.0	14	15.7	32.5
FA-OD6M-FNT4	6	1/4	4.0	19	15.7	37.1
FA-OD6M-FNT6	6	3/8	4.0	22	15.7	39.6
FA-OD6M-FNT8	6	1/2	4.0	27	15.7	45.5
FA-OD8M-FNT2	8	1/8	5.6	14	16.8	34.3
FA-OD8M-FNT4	8	1/4	5.6	19	16.8	37.6
FA-OD8M-FNT8	8	1/2	5.6	27	16.8	46.0
FA-OD10M-FNT4	10	1/4	7.1	19	17.5	38.1
FA-OD10M-FNT6	10	3/8	7.1	22	17.5	40.1
FA-OD10M-FNT8	10	1/2	7.1	27	17.5	46.5
FA-OD12M-FNT4	12	1/4	8.8	19	23.1	43.4
FA-OD12M-FNT6	12	3/8	8.8	22	23.1	45.5
FA-OD12M-FNT8	12	1/2	8.8	27	23.1	52.3
FA-OD16M-FNT6	16	3/8	12.7	24	24.7	48.0
FA-OD16M-FNT8	16	1/2	12.7	27	24.7	53.1
FA-OD20M-FNT8	20	1/2	15.1	27	26.6	56.0
FA-OD20M-FNT12	20	3/4	15.1	35	26.6	56.0

FA
Female Adapter Tube To Pipe (Cont'd)

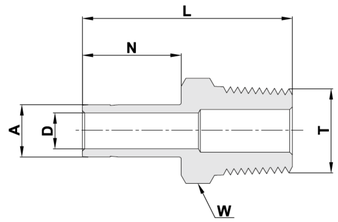




TUBE (INCH) FEMALE PIPE

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L	
	inch.	mm	inch.	inch.	mm	inch.	inch.	mm	inch.	mm
FA-OD2-FNT2	1/8	3.17	1/8	.08	2.0	9/16	.53	13.45	1.24	31.5
FA-OD2-FNT4	1/8	3.17	1/4	.08	2.0	3/4	.53	13.45	1.39	35.3
FA-OD3-FNT4	3/16	4.76	1/4	.12	3.0	3/4	.56	14.20	1.41	35.8
FA-OD4-FNT2	1/4	6.35	1/8	.17	4.2	9/16	.62	15.75	1.30	33.0
FA-OD4-FNT4	1/4	6.35	1/4	.17	4.2	3/4	.62	15.75	1.46	37.1
FA-OD4-FNT6	1/4	6.35	3/8	.17	4.2	7/8	.62	15.75	1.55	39.4
FA-OD4-FNT8	1/4	6.35	1/2	.17	4.2	1 1/16	.62	15.75	1.79	45.5
FA-OD5-FNT4	5/16	7.93	1/4	.22	5.6	3/4	.66	16.75	1.48	37.6
FA-OD6-FNT2	3/8	9.52	1/8	.27	6.9	9/16	.69	17.50	1.35	34.3
FA-OD6-FNT4	3/8	9.52	1/4	.27	6.9	3/4	.69	17.50	1.50	38.1
FA-OD6-FNT6	3/8	9.52	3/8	.27	6.9	7/8	.69	17.50	1.59	40.4
FA-OD6-FNT8	3/8	9.52	1/2	.27	6.9	1 1/16	.69	17.50	1.84	46.7
FA-OD8-FNT4	1/2	12.70	1/4	.37	9.4	3/4	.91	23.10	1.71	43.4
FA-OD8-FNT6	1/2	12.70	3/8	.37	9.4	7/8	.91	23.10	1.79	45.5
FA-OD8-FNT8	1/2	12.70	1/2	.37	9.4	1 1/16	.91	23.10	2.05	52.1
FA-OD10-FNT8	5/8	15.87	1/2	.50	12.7	1 1/16	.97	24.65	2.09	53.1
FA-OD12-FNT8	3/4	19.05	1/2	.59	15.0	1 1/16	.97	24.65	2.08	52.8
FA-OD12-FNT12	3/4	19.05	3/4	.59	15.0	1 5/16	.97	24.65	2.16	54.9
FA-OD12-FNT16	3/4	19.05	1	.59	15.0	1 5/8	.97	24.65	2.30	58.4
FA-OD16-FNT12	1	25.40	3/4	.80	20.3	1 5/16	1.23	31.20	2.39	60.7
FA-OD16-FNT16	1	25.40	1	.80	20.3	1 5/8	1.23	31.20	2.53	64.3

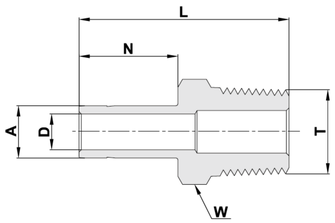
MA
Male Adapter Tube To Pipe



TUBE (INCH) MALE PIPE

Ordering Information	A Tube O.D.	T (NPT)	D	W Hex. Flat	N	L
	mm	inch.	mm	mm	mm	mm
MA-OD3M-NT2	3	1/8	2.1	12	13.5	30.0
MA-OD3M-NT4	3	1/4	2.1	14	13.5	35.3
MA-OD6M-NT2	6	1/8	4.0	12	15.7	32.8
MA-OD6M-NT4	6	1/4	4.0	14	15.7	38.1
MA-OD6M-NT6	6	3/8	4.0	18	15.7	37.0
MA-OD6M-NT8	6	1/2	4.0	22	15.7	43.4
MA-OD8M-NT2	8	1/8	4.8	12	16.8	33.5
MA-OD8M-NT4	8	1/4	5.6	14	16.8	39.1
MA-OD8M-NT6	8	3/8	5.6	11/16 inch	16.8	37.8
MA-OD8M-NT8	8	1/2	5.6	22	16.8	43.0
MA-OD10M-NT4	10	1/4	7.1	9/16 inch	17.5	39.9
MA-OD10M-NT6	10	3/8	7.1	18	17.5	40.6
MA-OD10M-NT8	10	1/2	7.1	22	17.5	46.2
MA-OD12M-NT4	12	1/4	7.1	16	23.1	46.5
MA-OD12M-NT6	12	3/8	8.8	18	23.1	46.5
MA-OD12M-NT8	12	1/2	8.8	22	23.1	52.0
MA-OD16M-NT8	16	1/2	11.9	22	24.7	50.5
MA-OD20M-NT12	20	3/4	15.1	27	26.6	54.3

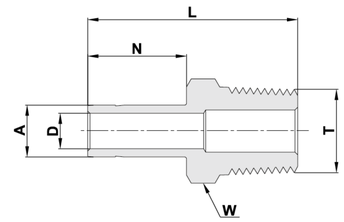
MA
Male Adapter Tube To Pipe(Cont'd)



TUBE (INCH) MALE PIPE

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L	
	mm		inch.	mm		mm	mm		mm	
MA-OD2-NT2	1/8	3.17	1/8	.08	2.0	7/16	.53	13.45	1.16	29.5
MA-OD2-NT4	1/8	3.17	1/4	.08	2.0	9/16	.53	13.45	1.37	34.8
MA-OD3-NT2	3/16	4.76	1/8	.12	3.0	7/16	.56	14.20	1.19	30.2
MA-OD3-NT4	3/16	4.76	1/4	.12	3.0	9/16	.56	14.20	1.40	35.6
MA-OD4-NT2	1/4	6.35	1/8	.17	4.2	7/16	.62	15.75	1.25	31.8
MA-OD4-NT4	1/4	6.35	1/4	.17	4.2	9/16	.62	15.75	1.46	37.1
MA-OD4-NT6	1/4	6.35	3/8	.17	4.2	11/16	.62	15.75	1.49	37.9
MA-OD4-NT8	1/4	6.35	1/2	.17	4.2	7/8	.62	15.75	1.71	43.4
MA-OD5-NT2	5/16	7.93	1/8	.22	5.6	7/16	.66	16.75	1.29	32.7
MA-OD5-NT4	5/16	7.93	1/4	.22	5.6	9/16	.66	16.75	1.50	38.1
MA-OD6-NT2	3/8	9.52	1/8	.27	6.9	7/16	.69	17.50	1.32	33.5
MA-OD6-NT4	3/8	9.52	1/4	.27	6.9	9/16	.69	17.50	1.53	38.9
MA-OD6-NT6	3/8	9.52	3/8	.27	6.9	11/16	.69	17.50	1.56	39.6
MA-OD6-NT8	3/8	9.52	1/2	.27	6.9	7/8	.69	17.50	1.78	45.2
MA-OD8-NT4	1/2	12.70	1/4	.28	7.1	9/16	.91	23.10	1.75	44.5
MA-OD8-NT6	1/2	12.70	3/8	.37	9.4	11/16	.91	23.10	1.78	45.2
MA-OD8-NT8	1/2	12.70	1/2	.37	9.4	7/8	.91	23.10	2.0	50.8
MA-OD10-NT6	5/8	15.87	3/8	.37	9.5	11/16	.97	24.65	1.81	47.6
MA-OD10-NT8	5/8	15.87	1/2	.47	11.9	7/8	.97	24.65	2.06	52.3
MA-OD10-NT12	5/8	15.87	3/4	.50	12.7	1 1/16	.97	24.65	2.06	52.3
MA-OD12-NT8	3/4	19.05	1/2	.47	11.9	7/8	.97	24.65	2.06	52.3
MA-OD12-NT12	3/4	19.05	3/4	.59	15.0	1 1/16	.97	24.65	2.06	52.3
MA-OD12-NT16	3/4	19.05	1	.59	15.0	1 3/8	.97	24.65	2.28	57.3
MA-OD14-NT12	7/8	22.22	3/4	.60	15.9	1 1/16	1.05	26.60	2.09	54.3
MA-OD16-NT12	1	25.40	3/4	.60	15.8	1 1/16	1.30	33.00	2.31	58.7
MA-OD16-NT16	1	25.40	1	.80	20.3	1 3/8	1.30	33.00	2.60	66.0

MA
Male Adapter Tube To Pipe(Cont'd)



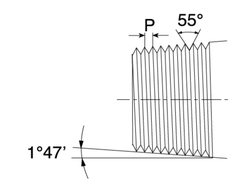
TUBE (METRIC) MALE PIPE

Ordering Information	A Tube O.D.	T (ISO)	D	W Hex. Flat	N	L
	mm	inch.	mm	mm	mm	mm
MA-OD6M-RT2	6	R-1/8	4.0	12	15.7	32.8
MA-OD6M-RT4	6	R-1/4	4.0	14	15.7	38.1
MA-OD6M-RT8	6	R-1/2	4.0	22	15.7	43.4
MA-OD8M-RT2	8	R-1/8	4.8	12	16.8	33.5
MA-OD8M-RT4	8	R-1/4	5.6	14	16.8	39.1
MA-OD8M-RT6	8	R-3/8	5.6	11/16 inch	16.8	37.8
MA-OD10M-RT4	10	R-1/4	7.1	14	17.5	39.9
MA-OD10M-RT6	10	R-3/8	7.1	18	17.5	40.6
MA-OD10M-RT8	10	R-1/2	7.1	22	17.5	46.2
MA-OD12M-RT4	12	R-1/4	7.1	16	23.1	46.5
MA-OD12M-RT6	12	R-3/8	8.8	18	23.1	46.2
MA-OD12M-RT8	12	R-1/2	8.8	22	23.1	52.0
MA-OD20M-RT12	20	R-3/4	15.1	27	26.6	54.3

TUBE (INCH) MALE PIPE

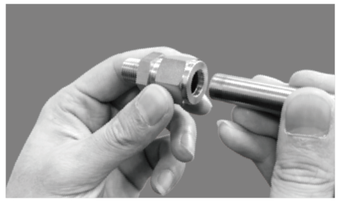
Ordering Information	A Tube O.D.		T (ISO)	D		W Hex. Flat	N		L	
	inch.	mm	inch.	inch.	mm	inch.	inch.	mm	inch.	mm
MA-OD2-RT2	1/8	3.17	R-1/8	.08	2.0	7/16	.53	13.45	1.16	29.5
MA-OD2-RT4	1/8	3.17	R-1/4	.08	2.0	9/16	.53	13.45	1.37	34.8
MA-OD4-RT2	1/4	6.35	R-1/8	.17	4.2	7/16	.62	15.75	1.25	31.8
MA-OD4-RT4	1/4	6.35	R-1/4	.17	4.2	9/16	.62	15.75	1.46	37.1
MA-OD4-RT6	1/4	6.35	R-3/8	.17	4.2	11/16	.62	15.75	1.49	37.9
MA-OD4-RT8	1/4	6.35	R-1/2	.17	4.2	7/8	.62	15.75	1.71	43.4
MA-OD6-RT4	3/8	9.52	R-1/4	.27	6.9	9/16	.69	17.50	1.53	38.9
MA-OD6-RT6	3/8	9.52	R-3/8	.27	6.9	11/16	.69	17.50	1.56	39.6
MA-OD6-RT8	3/8	9.52	R-1/2	.27	6.9	7/8	.69	17.50	1.78	45.2
MA-OD8-RT4	1/2	12.70	R-1/4	.28	7.1	9/16	.91	23.10	1.75	44.5
MA-OD8-RT6	1/2	12.70	R-3/8	.37	9.4	11/16	.91	23.10	1.78	45.2
MA-OD8-RT8	1/2	12.70	R-1/2	.37	9.4	7/8	.91	23.10	20.0	50.8
MA-OD10-RT8	5/8	15.87	R-1/2	.47	11.9	7/8	.97	24.65	2.06	52.3
MA-OD12-RT8	3/4	19.05	R-1/2	.47	11.9	7/8	.97	24.65	2.06	52.3
MA-OD12-RT12	3/4	19.05	R-3/4	.59	15.0	1 1/16	.97	24.65	2.06	52.3
MA-OD16-RT16	1	25.40	R-1	.80	20.3	1 3/8	1.30	33.00	2.60	66.0

55° Thread angle
Truncation of root and crest is round
Taper angle 1°47'



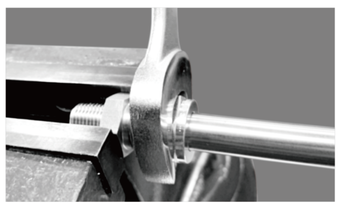
AM-LOK FITTINGS INSTALLATION INSTRUCTIONS

AM-LOK fittings are supplied as an assembled finished products that has been rotated to the point of finger tightening. Disassembly before use can allow dirt or other particles to enter the interior of the fittings.



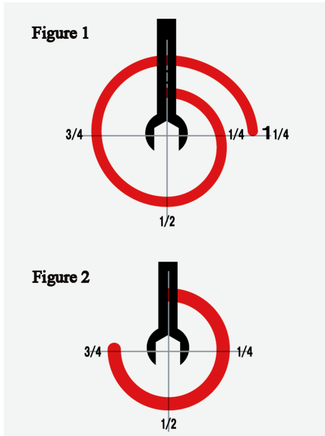
Insert the tubing into the AM-LOK fitting

Check that the tube rests firmly on the fitting shoulder and that the nut is finger tight. At this point it is recommended that a scribe mark be drawn on the hex of the nut extending onto the fitting body. This mark will serve as an indicator for the starting point and proper pull-up.



Tighten the nut

1-1/4 turns of the nut are required for 3/16" (4 mm) and higher (see Fig. 1). 3/4 turn of the nut is required for 3/16" (4 mm) and lower (see Fig. 2)



REASSEMBLY INSTRUCTIONS

AM-LOK connections may be disconnected and remade repeatedly without the loss of the leak tight seal.
1. Before disconnecting, mark the position of the nut in relation to the fitting body.
2. To reassemble, use a wrench to tighten the nut to the original position.
3. Tighten slightly with a wrench until a slight rise in torque is felt.

TUBE CUTTING

Two different methods can be used to cut tubes
1. Tube Cutter
2. Hacksaw

TUBE CUTTER

To attain a leak free connection, the tubing must be cut squarely. A good quality tube cutter with an appropriate blade for tubing material is recommended. Do not try to reduce the time of cutting by taking deep cuts with each turn of the cutter. This will work harden the tube.
The end of the tube must be deburred to avoid damage to the fitting and to ensure that the tube reaches the bottom of the fitting.

Warning

Do not hold the tube in a vise in the place where it will be inserted into the fitting (the vise will leave a mark on the tube that may cause leaks and

TUBE HANDLING

Scratches on the tube might cause leaks. It is, therefore, important to handle the tube carefully to reduce the risk of leaks.

PRECAUTIONS

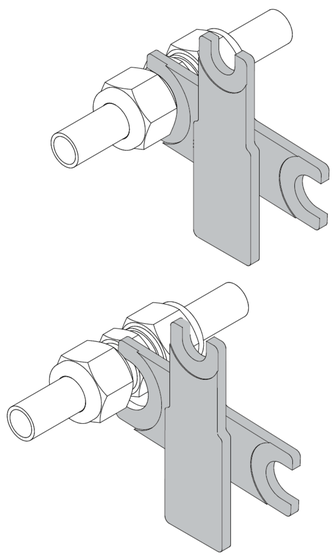
1. Tubes must not be dragged on the floor.
2. Do not drag tubes out of the tubing, especially for tubes with larger outer diameters.

COPPER TUBING

If using copper tubing from a roll, hold the end of the tube and roll the roll outwards allowing the tubing to lie on a flat surface.

INSPECTION GAUGE

Use: This is a "No-Go" gauge and should be used as follows:
1. Make up the fitting according to the following instructions: 1/4 inch (6mm), 3/8 inch, 1/2 inch (12mm) make up 1-1/4 turns from the finger tight position.
2. Check gap between nut and body using the appropriate sized gauge.
If the gauge slides easily into the gap, tighten the nut further until gauge cannot enter the gap.



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