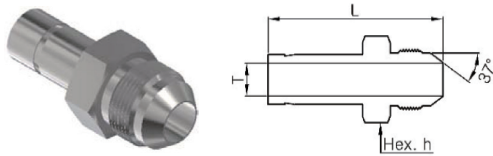


MMAA

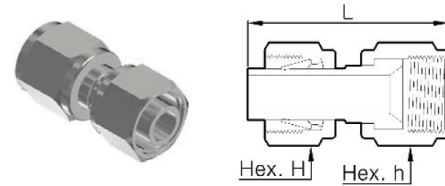
AN Male Adapter



Part Number	Tube OD		AN Tube		Thread T	Dimensions		
	inch	mm	inch	mm		d	L	h
MMAA 4- 4	1/4	6.4	1/4	6.4	7/16-20UNF	4.3	37.1	1/2
MMAA 6- 4	3/8	9.5	1/4	6.4	7/16-20UNF	4.3	38.9	1/2
MMAA 6- 6	3/8	9.5	3/8	9.5	9/16-18UNF	6.9	39.6	5/8
MMAA 8- 8	1/2	12.7	1/2	12.7	3/4-16UNF	9.4	48.5	13/16
MMAA12-12	3/4	19.1	3/4	19.1	1 1/16-12UN	14.7	56.1	1-1/8
MMAA16-16	1	25.4	1	25.4	1 5/16-12UN	20.3	65.5	1-3/8

MAA

1AN Female Adapter

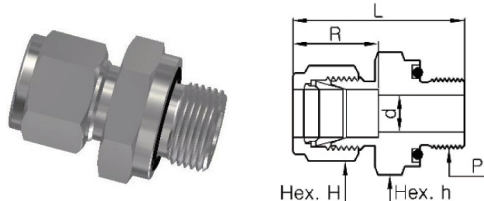


Part Number	Tube OD		AN Tube		Thread T	Dimensions		
	inch	mm	inch	mm		L	h	H
MAA2- 2	1/8	3.2	1/8	3.2	5/16-24UNF	18.5	3/8	7/16
MAA2- 4	1/8	3.2	1/4	6.4	7/16-20UNF	19.1	9/16	7/16
MAA4- 4	1/4	6.4	1/4	6.4	7/16-20UNF	21.3	9/16	9/16
MAA6- 6	3/8	9.5	3/8	9.5	9/16-18UNF	24.9	11/16	11/16
MAA8- 8	1/2	12.7	1/2	12.7	3/4-16UNF	33.0	7/8	7/8

O-Seal and Positionable Thread Connectors

MMC-UO

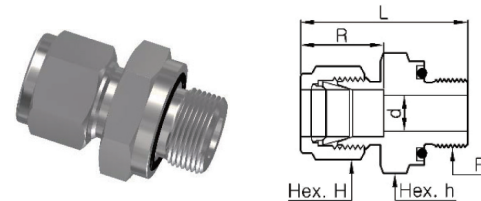
Female Adapter, PT Thread



Part Number	Tube OD	Thread S	Dimensions					O-Ring
			d	R	L	h	H	
MMC 2- 2UO	1/8	5/16-24	2.3	12.7	32.8	9/16	7/16	011
MMC 3- 3UO	3/16	3/8-24	3.0	12.7	34.3	5/8	1/2	012
MMC 4- 4UO	1/4	7/16-20	4.8	15.2	38.4	3/4	9/16	111
MMC 5- 5UO	5/16	1/2-20	6.4	16.3	40.6	7/8	5/8	112
MMC 6- 6UO	3/8	9/16-18	7.1	16.8	42.4	15/16	11/16	113
MMC 8- 8UO	1/2	3/4-16	10.4	22.9	46.0	1 1/8	7/8	116
MMC 12-12UO	3/4	1 1/16-12	15.7	24.4	52.3	1 1/2	1-1/8	215
MMC 16-16UO	1	1 5/16-12	22.4	31.2	58.2	1 3/4	1-1/2	219

MMC-NO

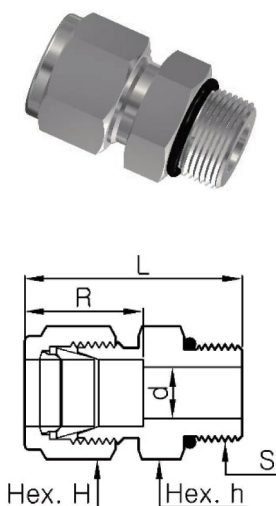
O-Seal Pipe Thread Connector



Part Number	Tube OD	NPT P	Dimensions					O-Ring
			d	R	L	h	H	
MMC 2-2NO	1/8	1/8	3.2	12.7	32.8	3/4	7/16	111
MMC 4-2NO	1/4	1/8	6.4	15.2	35.1	3/4	9/16	111
MMC 4-4NO	1/4	1/4	6.4	15.2	38.4	15/16	9/16	113
MMC 6-4NO	3/8	1/4	9.5	16.8	39.9	15/16	11/16	113
MMC 6-6NO	3/8	3/8	9.5	16.8	41.4	1 1/8	11/16	116
MMC 6-8NO	3/8	1/2	9.5	16.8	47.0	1 5/16	11/16	212
MMC 8-8NO	1/2	1/2	12.7	22.9	49.8	1 5/16	7/8	212

MMCS-U

SAE Male Connector

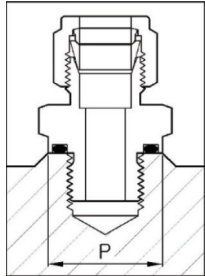


Part Number	Tube OD	Thread S	Dimensions					O-Ring No.
			d	R	L	h	H	
MMCS 2- 2U	1/8	5/16-24UNF	2.3	12.7	30.0	7/16	7/16	902
MMCS 2- 4U	1/8	7/16-20UNF	2.3	12.7	31.5	9/16	7/16	904
MMCS 4- 4U	1/4	7/16-20UNF	4.8	15.2	34.0	9/16	9/16	904
MMCS 4- 6U	1/4	9/16-18UNF	4.8	15.2	35.6	11/16	9/16	906
MMCS 4- 8U	1/4	3/4-16UNF	4.8	15.2	37.6	7/8	9/16	908
MMCS 4-10U	1/4	7/8-14UNF	4.8	15.2	40.6	1	9/16	910
MMCS 5- 5U	5/16	1/2-20UNF	6.4	16.3	34.8	5/8	5/8	905
MMCS 6- 4U	3/8	7/16-20UNF	4.6	16.8	35.6	5/8	11/16	904
MMCS 6- 6U	3/8	9/16-18UNF	7.1	16.8	37.1	11/16	11/16	906
MMCS 6- 8U	3/8	3/4-16UNF	7.1	16.8	39.1	7/8	11/16	908
MMCS 6-10U	3/8	7/8-14UNF	7.1	16.8	42.2	1	11/16	910
MMCS 8- 6U	1/2	9/16-18UNF	7.1	22.9	39.1	13/16	7/8	906
MMCS 8- 8U	1/2	3/4-16UNF	10.4	22.9	41.9	7/8	7/8	908
MMCS 8-10U	1/2	7/8-14UNF	10.4	22.9	45.0	1	7/8	910
MMCS 8-12U	1/2	1 1/16-12UN	10.4	22.9	49.0	1-1/4	7/8	912
MMCS 10- 8U	5/8	3/4-16UNF	10.7	24.4	41.9	15/16	1	908
MMCS 10-10U	5/8	7/8-14UNF	12.7	24.4	45.2	1	1	910
MMCS 12- 8U	3/4	3/4-16UNF	10.7	24.4	46.0	1-1/16	1-1/8	908
MMCS 12-12U	3/4	1 1/16-12UN	15.7	24.4	49.0	1-1/4	1-1/8	912
MMCS 14-14U	7/8	1 3/16-12UN	18.3	25.9	49.0	1-3/8	1-1/4	914
MMCS 16-12U	1	1 1/16-12UN	16.8	31.2	53.3	1-3/8	1-1/2	912
MMCS 16-16U	1	1 5/16-12UN	22.4	31.2	54.4	1-1/2	1-1/2	916
MMCS 20-20U	1-1/4	1 5/8-12UN	27.7	41.1	68.3	1-7/8	1-7/8	920
MMCS 24-24U	1-1/2	1 7/8-12UN	34.0	50.0	77.7	2-1/8	2-1/4	924
MMCS 32-32U	2	2 1/2-12UN	46.0	67.6	101.6	2-3/4	3	932

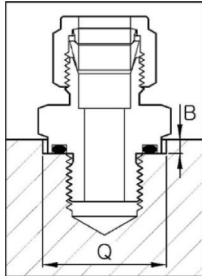
Installation instruction for non-positionable O-Seal fittings

The o-seal fitting is connected to a straight or tapered female threaded port and sealed by an o-ring. Please refer to the tightening method according to the shape of the female threaded port below.

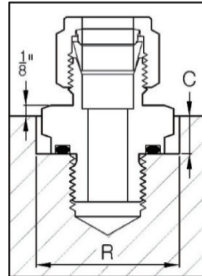
Type A



Type B



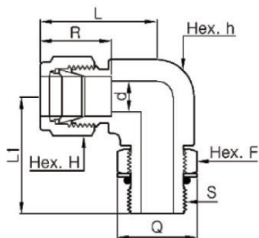
Type C



Straight Thread	Tapered Thread	Dimensions				
		P	Q	B	R	C
5/16 - 24UNF		12.7	15.0	2.3	16.8	4.1
5/16 - 24UNF		12.7	15.0	2.3	16.8	5.6
	NPT 1/8	17.5	19.8	4.1	22.4	7.1
3/8 - 24UNF		14.2	16.8	2.3	19.1	5.6
7/16 - 20UNF		17.5	19.8	4.1	22.4	7.1
	NPT 1/8	17.5	19.8	4.1	22.4	7.1
	NPT 1/4	22.1	24.6	4.1	27.7	7.9
1/2 - 20UNF		19.1	23.1	4.1	26.2	7.9
9/16 - 18UNF		20.6	24.6	4.1	27.7	7.9
	NPT 1/4	22.1	24.6	4.1	27.7	7.9
	NPT 3/8	25.4	29.5	4.1	33.3	8.6
	NPT 1/2	31.0	34.0	5.6	38.9	11.2
3/4 - 16UNF	NPT 1/2	25.4	29.5	4.1	33.3	8.6
		31.0	34.0	5.6	38.9	11.2
1 1/16 - 12UN		35.8	38.9	5.6	44.5	12.7
1 5/16 - 12UN		42.9	45.2	5.6	51.6	14.2

MLS-UP

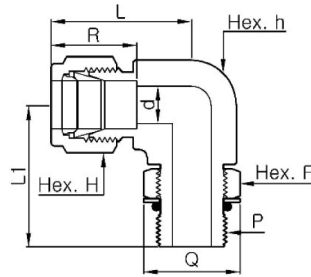
Positionable Male Elbow



Part Number	Tube OD	Thread S	Dimensions								O-Ring No.
			d	R	L	L1	Q	h	H	F	
MLS 4- 4UP	1/4	7/16 - 20UNF	4.8	15.2	28.4	28.4	16.5	1/2	9/16	9/16	904
MLS 4- 6UP	1/4	9/16 - 18UNF	4.8	15.2	30.5	32.3	20.1	5/8	9/16	11/16	906
MLS 5- 5UP	5/16	1/2 - 20UNF	5.8	16.3	30.2	29.5	18.3	9/16	5/8	5/8	905
MLS 6- 6UP	3/8	9/16 - 18UNF	7.1	16.8	32.0	32.3	20.1	5/8	11/16	11/16	906
MLS 6- 8UP	3/8	3/4 - 16UNF	7.1	16.8	34.8	37.8	25.7	13/16	11/16	7/8	908
MLS 8- 8UP	1/2	3/4 - 16UNF	10.4	22.9	37.6	37.8	25.7	13/16	7/8	7/8	908
MLS 10- 10UP	5/8	7/8 - 14UNF	12.7	24.4	39.6	43.4	29.5	15/16	1	1	910
MLS 12- 12UP	3/4	1 1/16 - 12UNF	15.7	24.4	41.4	48.8	36.6	1-1/16	1-1/8	1-1/4	912
MLS 14- 14UP	7/8	1 3/16 - 12UNF	18.3	25.9	43.2	50.5	40.4	1-3/16	1-1/4	1-3/8	914
MLS 16- 16UP	1	1 5/16 - 12UNF	22.4	31.2	50.5	53.6	43.9	1-3/8	1-1/2	1-1/2	916
MLS 20- 20UP	1-1/4	1 5/8 - 12UNF	27.7	41.1	67.8	58.2	54.9	1-11/16	1-7/8	1-7/8	920
MLS 24- 24UP	1-1/2	1 7/8 - 12UNF	34.0	50.0	78.0	60.5	62.2	2	2-1/4	2-1/8	924
MLS 32- 32UP	2	2 1/2 - 12UNF	46.0	67.6	107.2	71.6	80.3	2-3/4	3	2-3/4	932

MLM-GP

Positionable Male Elbow

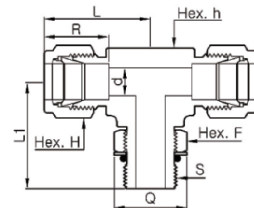


Part Number	Tube OD	Thread P	Dimensions								O-Ring No.
			d	R	L	L1	Q	h	H	F	
MLM 4 - 2GP	1/4	1/8	4.1	15.2	26.9	26.4	15.2	1/2	9/16	9/16	P8
MLM 4 - 4GP	1/4	1/4	4.8	15.2	29.0	32.3	20.3	5/8	3/4	3/4	111
MLM 6 - 4GP	3/8	1/4	5.8	16.8	30.5	32.3	20.3	5/8	3/4	3/4	111
MLM 6 - 6GP	3/8	3/8	7.1	16.8	33.3	37.1	24.4	13/16	3/4	3/4	113
MLM 8 - 4GP	1/2	1/4	5.8	22.9	36.1	35.1	20.3	13/16	7/8	7/8	111
MLM 8 - 6GP	1/2	3/8	7.9	22.9	36.1	37.1	24.4	13/16	7/8	7/8	113
MLM 8 - 8GP	1/2	1/2	10.4	22.9	38.1	43.4	29.5	15/16	7/8	1-1/16	P18
MLM 12 - 8GP	3/4	1/2	11.9	24.4	39.9	45.2	29.5	1-1/16	1-1/8	1-1/16	P18
MLM 12 - 12GP	3/4	3/4	15.7	24.4	39.9	48.8	36.3	1-1/16	1-1/8	1-3/8	119
MLM 16 - 16GP	1	1	19.8	31.2	49.0	53.6	46.2	1-3/8	1-1/2	1-5/8	217

Part Number	Tube OD	Thread P	Dimensions								O-Ring No.
			d	R	L	L1	Q	h	H	F	
MLM 6M - 2GP	1/4	1/8	4.0	15.3	27.0	26.4	15.2	1/2	14	9/16	P8
MLM 6M - 4GP	1/4	1/4	4.8	15.3	29.0	32.3	20.3	5/8	14	3/4	111
MLM 8M - 2GP	3/8	1/8	4.0	16.2	28.8	27.4	15.2	9/16	16	9/16	113
MLM 8M - 4GP	3/8	1/4	5.9	16.2	29.9	32.2	20.3	5/8	16	3/4	P8
MLM 10M - 4GP	1/2	1/4	5.9	17.2	33.5	35.0	20.3	13/16	19	3/4	111
MLM 10M - 6GP	1/2	3/8	7.9	17.2	33.5	37.1	24.4	13/16	19	7/8	113
MLM 12M - 4GP	1/2	1/4	5.9	22.8	36.0	35.0	20.3	13/16	22	3/4	111
MLM 12M - 6GP	3/4	3/8	7.9	22.8	36.0	37.1	24.4	13/16	22	7/8	113
MLM 12M - 8GP	3/4	1/2	9.5	22.8	38.0	43.4	29.5	15/16	22	1-1/16	113
MLM 12M - 12GP	1	3/4	9.5	22.8	39.8	48.8	36.3	1-1/16	22	1-3/8	P18

MTBS-UP

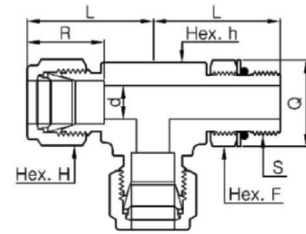
Positionable Male Branch Tee



Part Number	Tube OD	Thread S	Dimensions								O-Ring No.
			d	R	L	L1	Q	h	H	F	
MTBS 4 - 4UP	1/4	7/16 - 20UNF	4.8	15.2	28.4	28.4	16.5	1/2	9/16	9/16	904
MTBS 6 - 6UP	3/8	9/16 - 18UNF	7.1	16.8	32.0	32.3	20.1	5/8	11/16	11/16	906
MTBS 8 - 8UP	1/2	3/4 - 16UNF	10.4	22.9	37.6	37.8	25.7	13/16	7/8	7/8	908
MTBS12 - 12UP	3/4	11/16 - 12UNF	15.7	24.4	41.4	48.8	36.6	1-1/16	1-1/8	1-1/4	912
MTBS16 - 16UP	1	15/16 - 12UNF	22.4	31.2	50.5	53.6	43.9	1-3/8	1-1/2	1-1/2	916
MTBS20 - 20UP	1-1/4	15/8 - 12UNF	27.7	41.1	67.8	58.2	54.9	1-11/16	1-7/8	1-7/8	920
MTBS24 - 24UP	1-1/2	17/8 - 12UNF	34.0	50.0	78.0	60.5	62.2	2	2-1/4	2-1/8	924
MTBS32 - 32UP	2	21/2 - 12UNF	46.0	67.6	107.2	71.6	80.3	2-3/4	3	2-3/4	932

MTRS-UP

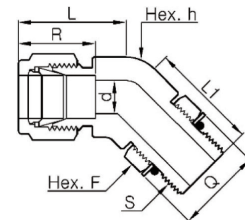
Positionable Male Run Tee



Part Number	Tube OD	Thread S	Dimensions									O-Ring No.
			d	R	L	L1	Q	h	H	F		
MTRS 4 - 4UP	1/4	7/16 -20UNF	4.8	15.2	28.4	28.4	16.5	1/2	9/16	9/16	904	
MTRS 6 - 6UP	3/8	9/16 -18UNF	7.1	16.8	32.0	32.3	20.1	5/8	11/16	11/16	906	
MTRS 8 - 8UP	1/2	3/4 -16UNF	10.4	22.9	37.6	37.8	25.7	13/16	7/8	7/8	908	
MTRS 12 - 12UP	3/4	11/16 -12UNF	15.7	24.4	41.4	48.8	36.6	11/16	11/8	1-1/4	912	
MTRS 16 - 16UP	1	15/16 -12UNF	22.4	31.2	50.5	53.6	43.9	1-3/8	11/2	1-1/2	916	
MTRS 20 - 20UP	1-1/4	15/8 -12UNF	27.7	41.1	67.8	58.2	54.9	1-11/16	1-7/8	1-7/8	920	
MTRS 24 - 24UP	1-1/2	17/8 -12UNF	34.0	50.0	78.0	60.5	62.2	2	2-1/4	2-1/8	924	
MTRS 32 - 32UP	2	2 1/2 -12UNF	46.0	67.6	107.2	71.6	80.3	2-3/4	3	2-3/4	932	

MLBS-UP

Positionable 45° Male Elbow

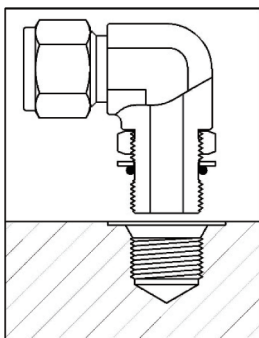


Part Number	Tube OD	Thread S	Dimensions									O-Ring No.
			d	R	L	L1	Q	h	H	F		
MLBS 4 - 4UP	1/4	7/16-20UNF	4.8	15.2	25.7	25.7	16.5	1/2	9/16	9/16	904	
MLBS 6 - 6UP	3/8	9/16-18UNF	7.1	16.8	27.9	28.2	20.1	5/8	11/16	11/16	906	
MLBS 8 - 8UP	1/2	3/4-16UNF	10.4	22.9	32.0	32.3	25.7	13/16	7/8	7/8	908	
MLBS 12 - 12UP	3/4	1 1/16-12UNF	15.7	24.4	33.8	47.2	36.6	1-1/16	1-1/8	1-1/4	912	
MLBS 16 - 16UP	1	1 5/16-12UNF	22.4	31.2	40.4	50.5	43.9	1-3/8	1-1/2	1-1/2	916	

Installation Instructions for Positionable Type Tube Fittings

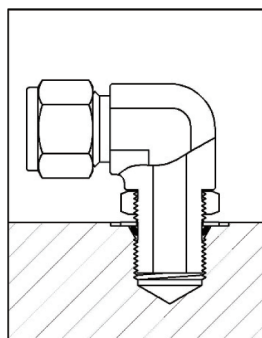
Positionable type tube fittings have the advantage of being easily piping to the desired position with the orientation of the M-Lok tube fittings.

Step 1.



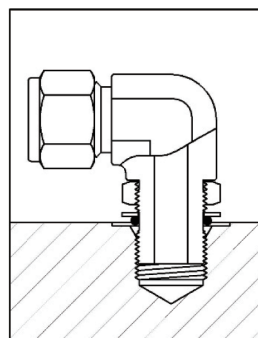
Lubricate the O-ring. The lubricant must be suitable for the system fluid and applied O-rings. Attach the washer and O-ring to the back of the fitting body.

Step 2.



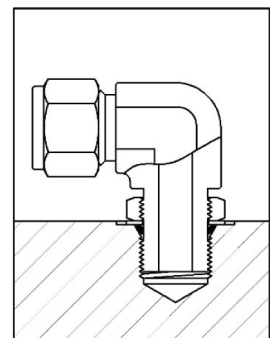
Turn the fitting body by hand until the washer contacts the boss face.

Step 3.



Rotate the fitting body in reverse until the M-Lok is in the desired position. At this time, the fitting body should not be turned more than 1 turn.

Step 4.



When the M-Lok part is in the desired position, while holding the fitting body, rotate the lock nut using a spanner and tighten it until the washer touches the boss surface.