



RFS HYDRAULICS
CREATING OPPORTUNITIES



DOUBLE FERRULE FITTINGS

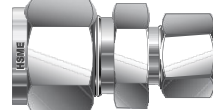
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AU
Straight Union



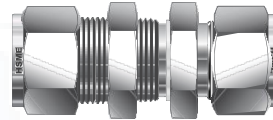
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AUR
Reducing Union



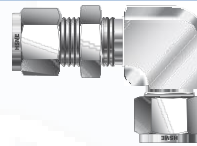
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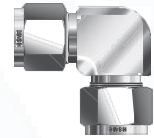
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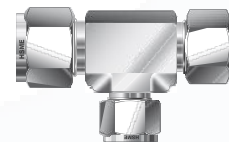
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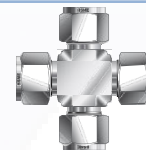
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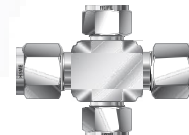
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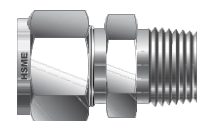
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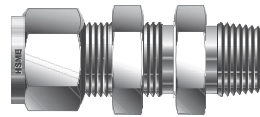
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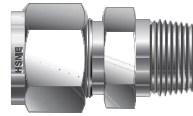
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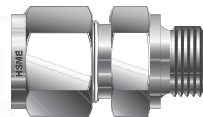
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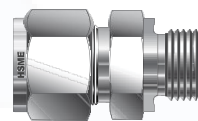
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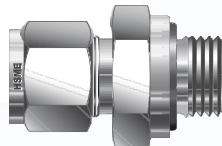
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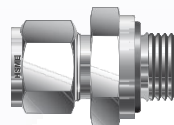
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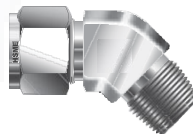
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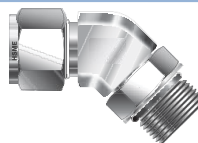
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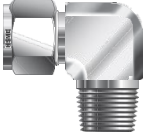

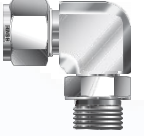
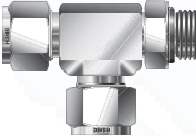

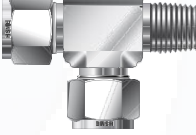
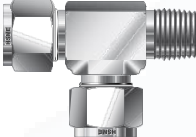

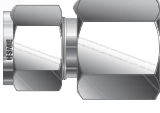
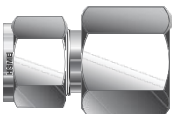

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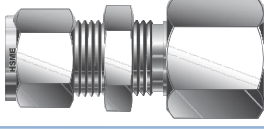
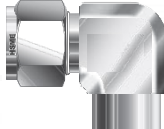
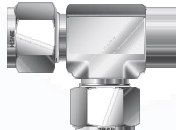
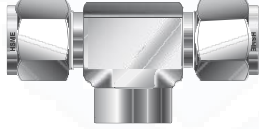
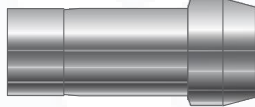
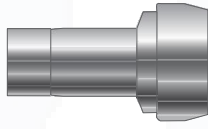
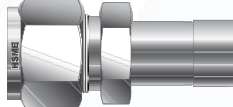
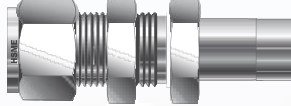
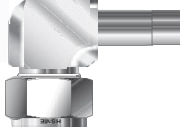


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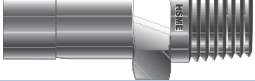
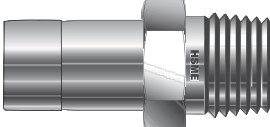
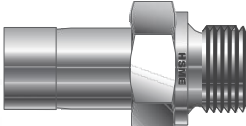
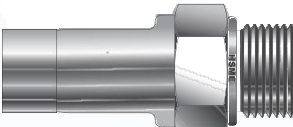
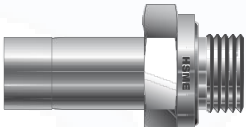
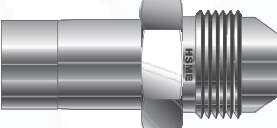
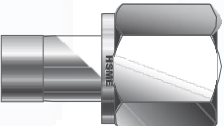
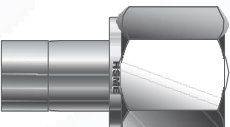
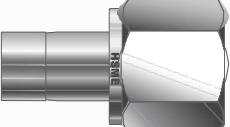
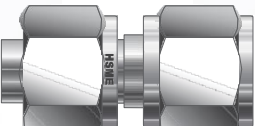
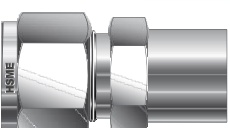
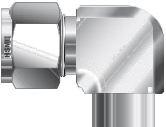
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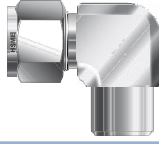



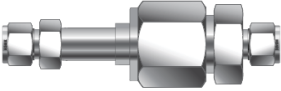
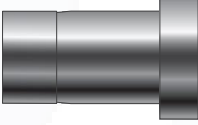
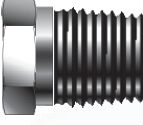
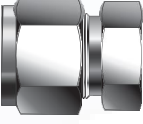








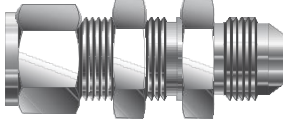

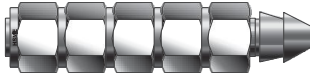




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ATM

Tube Depth Marker

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APS

Preswaging Tool

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AHP

Pre-Swaging Unit

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Specifications

ASME A269/ A213
ASTM A179

Material Specifications:

Stainless Steel
Carbon Steel
Brass

Features:

Size Range: 6 MM to 42 MM, 1/8 inch to 2 inch
Working Pressure: Up to 670 Bar

Application:

The double ferrule fittings are supplied in a wide range of materials for extensive applications.

O-ring Temperature Ratings

O-ring	Temperature Ratings
NBR	-13°C to +230°C
FKM	-20°C to +400°C
FFKM	-22°C to +600°C

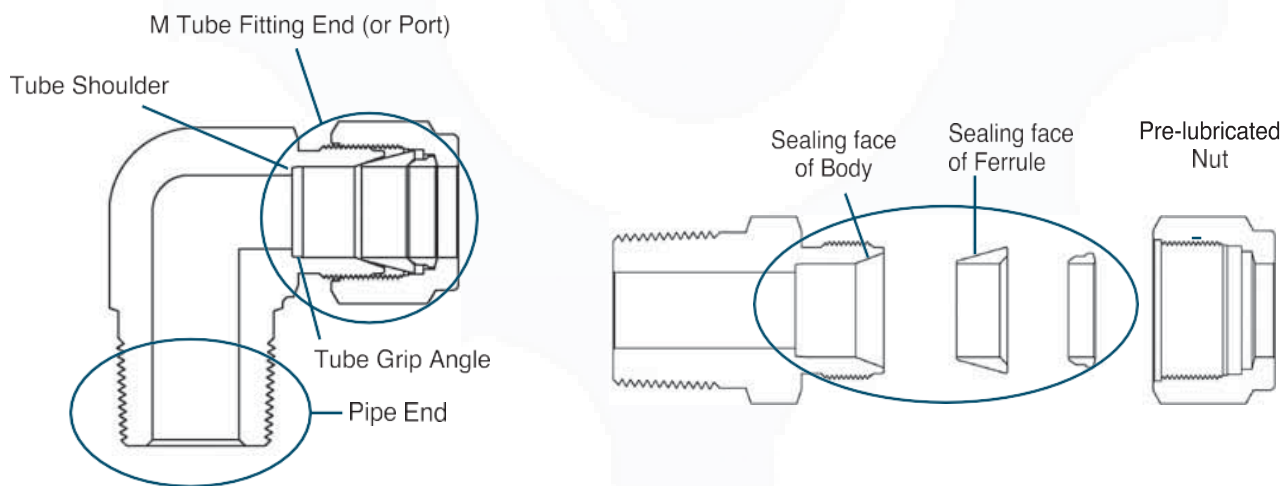


Table 1. Fractional Seamless Stainless Steel Tubing

Fully annealed seamless stainless steel tubing ASTM A269 or A213 TP 316/316L, 304/304L or equivalent. Tubing free from scratches, and suitable for bending and flaring. Hardness 90 HRB or less.

Tube OD in	Wall Thickness (in)														
	0.012	0.014	0.016	0.02	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.12	0.134	0.156	0.188
	Working Pressure (psi)														
1/16	6800	8100	9400	12000											
1/8					8500	10900									
3/16					5400	7000	10200								
1/4					4000	5100	7500	10200							
5/16						4000	5800	8000							
3/8						3300	4800	6500	8600						
1/2						2600	3700	5100	6700						
5/8							2900	4000	5200	6000					
3/4							2400	3300	4200	4900	5800	6400			
7/8							2000	2800	3600	4200	4800	5400	6100		
1								2400	3100	3600	4200	4700	5300	6200	
1 1/4									2400	2800	3300	3600	4100	4900	
1 1/2										2300	2700	3000	3400	4000	4900
2											2000	2200	2500	2900	3600

Table 2. Metric Seamless Stainless Steel Tubing

Tube OD in	Wall Thickness (mm)														
	0.6	0.8	1	1.2	1.5	1.8	2	2.2	2.5	2.8	3	3.5	4	4.5	5.0
	Working Pressure (bar)														
2	780	1050													
3	516	710													
4	520	660													
6		330	420	520	670										
8			310	380	490										
10			240	300	380										
12			200	240	310	380	430								
14			180	220	280	340	390	430							
15			170	200	260	320	360	400							
16				190	240	300	330	370							
18				170	210	260	290	320	370						
20				150	190	230	260	290	330	380					
22				130	170	210	230	260	300	340					
25						180	200	230	260	300	320				
28							180	200	230	260	280	330			
30							170	190	210	240	260	310			
32							160	170	200	230	240	290	330		
38								140	170	190	200	240	280	310	
42										170	180	210	250	280	
50											150	180	200	230	260

Table 3. Fractional Seamless Carbon Steel Tubing

Soft annealed seamless cold drawn carbon steel tubing, ASTM A179 or equivalent. Tubing free from scratches, and suitable for bending and flaring. Hardness 72 HRB of less.

Tube OD in	Wall Thickness (in)												
	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.12	0.134	0.148	0.165	0.18	0.22
	Working Pressure (psi)												
1/8	8000	10200											
3/16	5100	6600	9600										
1/4	3700	4800	7000	9600									
5/16		3800	5500	7600									
3/8		3100	4500	6200									
1/2		2300	3300	4500	5900								
5/8		1800	2600	3500	4600	5300							
3/4			2100	2900	3700	4300	5100						
7/8			1800	2400	3200	3700	4300						
1			1500	2100	2700	3200	3700	4100					
1 1/4				1600	2100	2500	2900	3200	3600	4000	4600	5000	
1 1/2					1800	2000	2400	2600	3000	3300	3700	4100	5100
2						1500	1700	1900	2200	2400	2700	3000	3700

Table 4. Metric Seamless Carbon steel Tubing

Tube OD mm	Wall Thickness (mm)												
	0.8	1	1.2	1.5	1.8	2	2.2	2.5	2.8	3	3.5	4	4.5
	Working Pressure (bar)												
3	670	830											
6	310	400	490	630									
8		290	360	460									
10		230	280	360									
12		190	230	290	360	410	450						
14		160	190	250	300	340	380						
15		150	180	230	280	320	350						
16			170	210	260	290	330	380					
18			150	190	230	260	290	330					
20			130	170	200	230	250	290	330				
22			120	150	180	210	230	260	300				
25					160	180	200	230	260	280			
28						160	180	200	230	250	290		
30						150	160	190	210	230	270		
32						140	150	170	200	210	250	290	
38							130	140	160	180	210	240	280

Table 5. Fractional Seamless Copper Tubing

Soft annealed seamless copper tubing ASTM B75 or equivalent. Also soft annealed seamless copper water tube ASTM B88 Type K or L. Tubing free from scratches, and suitable for bending and flaring. Hardness 60 HRB or less.

Tube OD in	Wall Thickness (in)										
	0.01	0.012	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.12	0.134
	Working Pressure (psi)										
1/8			2700	3600							
3/16			1800	2300	3400						
1/4			1300	1600	2500	3500					
5/16				1300	1900	2700					
3/8				1000	1600	2200					
1/2				800	1100	1600	2100				
5/8					900	1200	1600	1900			
3/4					700	1000	1300	1500	1800		
7/8					600	800	1100	1300	1500		
1					500	700	900	1100	1300	1500	
1 1/8						600	800	1000	1100	1300	1400

Table 6. Metric Seamless Copper Tubing

Tube OD mm	Wall Thickness (mm)											
	0.7	0.8	1.0	1.2	1.5	1.6	1.8	2.0	2.2	2.5	2.8	3.0
	Working Pressure (bar)											
3	220	250										
4	160	190	240	290								
6		120	150	190	240	260						
8		80	110	130	170	190						
10		70	80	100	130	150	170	190				
12		50	70	80	110	120	130	150				
14			60	70	90	100	110	130	140	170	190	200
16			50	60	80	80	100	110	120	140	160	180
18			40	50	70	70	80	100	110	120	140	150
22			30	40	50	60	70	80	80	100	110	120
25			30	40	50	50	60	70	70	80	100	100
28							50	60	60	70	80	90

Table 7. Elevated Temperature De-rating Factors

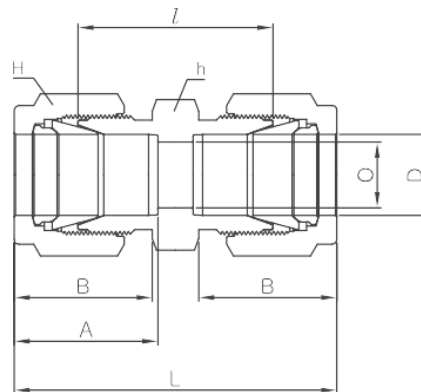
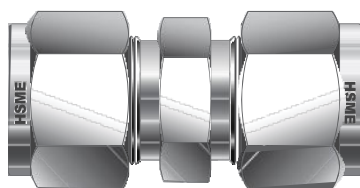
ASTM Standard		A269	B75	A179
Temperature		SS316	Copper	Carbon Steel
F°	C°			
100	38	1	1	1
200	93	1	0.80	0.96
300	149	1	0.78	0.90
400	204	0.97	0.50	0.86
500	260	0.9	0.13	0.82
600	316	0.85		0.77
650	343	0.84		0.75
700	371	0.82		0.73
750	399	0.81		0.68
800	427	0.80		0.59
850	454	0.79		0.50
900	482	0.78		0.41
950	510	0.77		0.29
1000	538	0.77		0.16
1050	566	0.73		0.10
1100	593	0.62		0.06
1150	621	0.49		
1200	649	0.37		
1250	677	0.28		

M Tube Fitting End is rated to the working pressure of tubing as listed in the tubing tables. The working pressure is de-rated as the temperature is elevated.

To determine working pressure at an elevated temperature, multiply the working pressure listed in table 1 through 6 by the applicable factor shown in table 7.

Example

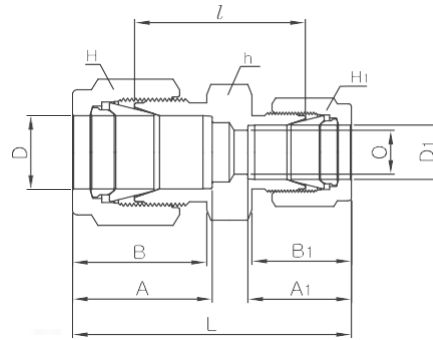
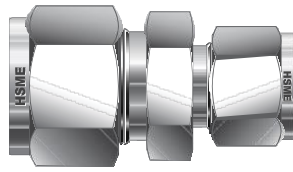
1. SS316 seamless tubing 1/2 in. OD x 0.065 in. wall.
2. The working pressure at – 20 to 100 °F (-28 to 37 °C) is 5100 psig as listed in table 1.
3. To determine working pressure at 1200 °F (649 °C), multiply the 5100 psig by the factor 0.37 from the table 7.
 $5100 \text{ psig} \times 0.37 = 1887 \text{ psig}$

Straight Union
AU

Connects fractional tube

Part No.	Tube O.D.		O Min.	Width across flat				A	B	I	L
	D			h		H					
	in	mm		in	mm	in	mm				
AU-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	17.50	25.15
AU-2	1/8	3.17	2.28	7/16	11.11	7/16	11.11	12.70	15.24	22.35	35.56
AU-3	3/16	4.76	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.13	37.33
AU-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	26.16	40.89
AU-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	28.19	42.92
AU-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	30.22	44.95
AU-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	30.98	51.30
AU-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	52.07
AU-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	33.27	53.59
AU-14	7/8	22.22	18.28	1-3/16	30.16	1-1/4	31.75	25.90	21.84	35.05	55.37
AU-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	40.38	64.77
AU-20	1-1/4	31.75	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	48.00	92.20
AU-24	1-1/2	38.10	34.03	2-1/8	53.97	2-1/4	57.15	50.03	45.21	53.60	107.95
AU-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	74.70	149.35

Connects metric tube

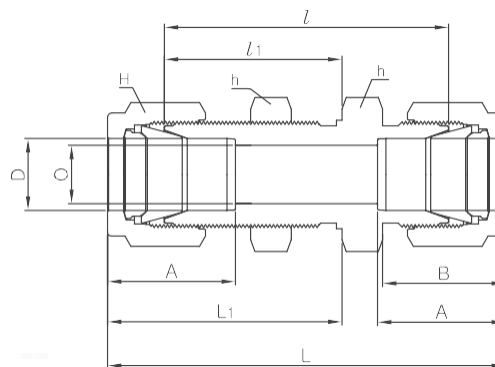
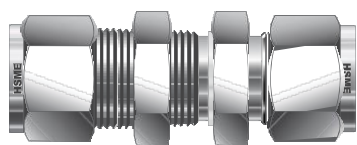
Part No.	Tube O.D. D	O Min.	Width across flat		A	B	I	L
			h	H				
AU-2M	2	1.7	12	12	12.9	15.3	22.4	35.6
AU-3M	3	2.4	12	12	12.9	15.3	22.1	35.3
AU-4M	4	2.4	12	12	13.7	16.1	24.1	37.3
AU-6M	6	4.8	14	14	15.3	17.7	26.2	41.0
AU-8M	8	6.4	15	16	16.2	18.6	28.2	43.2
AU-10M	10	7.9	18	19	17.2	19.5	31.0	46.2
AU-12M	12	9.5	22	22	22.8	22.0	31.0	51.2
AU-15M	15	11.9	24	25	24.4	22.0	31.8	52.0
AU-16M	16	12.7	24	25	24.4	22.0	31.8	52.0
AU-18M	18	15.1	27	30	24.4	22.0	33.3	53.5
AU-20M	20	15.9	30	32	26.0	22.0	34.8	55.0
AU-22M	22	18.3	30	32	26.0	22.0	34.8	55.0
AU-25M	25	21.8	35	38	31.3	26.5	40.4	65.0
AU-28M	28	21.8	41	46	36.6	36.6	43.4	85.0
AU-32M	32	28.6	46	50	42.0	41.6	51.3	97.3
AU-38M	38	33.7	55	60	49.4	47.9	58.4	113.6
AU-42M	42	36.8	60	65	49.3	47.8	58.4	113.4
AU-50M	50	45.2	70	76	65.0	60.2	74.7	146.0

Reducing Union
AUR

Connects fractional tube

Part No.	D				O Min.	Width Across Flat						A	A ₁	B	B ₁	l	L
	D		D1			h		H		H1							
	in	mm	in	mm		in	mm	in	mm	in	mm						
AUR2-1	1/8	3.18	1/16	1.59	1.27	7/16	11.11	7/16	11.11	5/16	7.93	12.70	8.63	15.24	10.92	20.60	30.91
AUR3-1	3/16	4.76	1/16	1.59	1.27	7/16	11.11	1/2	12.70	5/16	7.93	13.71	8.63	16.00	10.92	21.84	32.25
AUR3-2	3/16	4.76	1/8	3.17	2.28	7/16	11.11	1/2	12.70	7/16	11.11	13.71	12.70	16.00	15.24	23.36	36.57
AUR4-1	1/4	6.35	1/16	1.59	1.27	1/2	12.70	9/16	14.28	5/16	7.93	15.24	8.63	17.78	10.92	23.11	34.29
AUR4-2	1/4	6.35	1/8	3.17	2.28	1/2	12.70	9/16	14.28	7/16	11.11	15.24	12.70	17.78	15.24	24.63	38.60
AUR4-3	1/4	6.35	3/16	4.76	3.04	1/2	12.70	9/16	14.28	1/2	12.70	15.24	13.71	17.78	16.00	25.40	39.37
AUR5-2	5/16	7.93	1/8	3.17	2.28	9/16	14.28	5/8	15.87	7/16	11.11	16.25	12.70	18.54	15.24	25.90	39.87
AUR5-4	5/16	7.93	1/4	6.35	4.82	9/16	14.28	5/8	15.87	9/16	14.28	16.25	15.24	18.54	17.78	27.43	42.16
AUR6-1	3/8	9.52	1/16	1.59	1.27	5/8	15.87	11/16	17.46	5/16	7.93	16.76	8.63	19.30	10.92	25.40	36.57
AUR6-2	3/8	9.52	1/8	3.17	2.28	5/8	15.87	11/16	17.46	7/16	11.11	16.76	12.70	19.30	15.24	26.92	40.89
AUR6-4	3/8	9.52	1/4	6.35	4.82	5/8	15.87	11/16	17.46	9/16	14.28	16.76	15.24	19.30	17.78	28.44	43.18
AUR6-5	3/8	9.52	5/16	7.93	6.35	5/8	15.87	11/16	17.46	5/8	15.87	16.76	16.25	19.30	18.54	29.46	44.19
AUR8-2	1/2	12.70	1/8	3.17	2.28	13/16	20.64	7/8	22.22	7/16	11.11	22.86	12.70	21.84	15.24	28.44	45.21
AUR8-4	1/2	12.70	1/4	6.35	4.82	13/16	20.64	7/8	22.22	9/16	14.28	22.86	15.24	21.84	17.78	29.46	46.99
AUR8-6	1/2	12.70	3/8	9.52	7.11	13/16	20.64	7/8	22.22	11/16	17.46	22.86	16.76	21.84	19.30	30.98	48.51
AUR10-6	5/8	15.87	3/8	9.52	7.11	15/16	23.81	1	25.40	11/16	17.46	24.38	16.76	21.84	19.30	31.75	49.27
AUR10-8	5/8	15.87	1/2	12.70	10.41	15/16	23.81	1	25.40	7/8	22.22	24.38	22.86	21.84	21.84	31.75	52.07
AUR12-4	3/4	19.05	1/4	6.35	4.82	1-1/16	26.98	1-1/8	28.57	9/16	14.48	24.38	15.24	21.84	17.78	31.75	49.27
AUR12-6	3/4	19.05	3/8	9.52	7.11	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.38	16.76	21.84	19.30	33.27	50.80
AUR12-8	3/4	19.05	1/2	12.70	10.41	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.38	22.86	21.84	21.84	33.27	53.59
AUR12-10	3/4	19.05	5/8	15.87	12.70	1-1/16	26.98	1-1/8	28.57	1	25.40	24.38	24.38	21.84	21.84	33.27	53.59
AUR16-8	1	25.40	1/2	12.70	10.41	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.24	22.86	26.41	21.84	40.89	63.24
AUR16-12	1	25.40	3/4	19.05	15.74	1-3/8	34.92	1-1/2	38.10	1-1/8	28.58	31.24	24.38	26.41	21.84	40.38	62.73

Connects metric tube

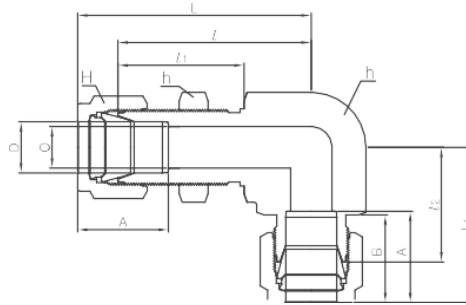
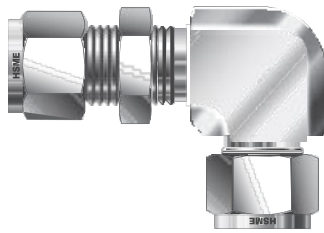
Part No.	Tube O.D.		O Min.	Width Across Flat			A	A ₁	B	B ₁	I	L
	D	D1		h	H	H1						
AUR3M-2M	3	2	1.7	12	12	12	12.9	12.9	15.3	15.3	22.1	35.3
AUR6M-2M	6	2	1.7	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
AUR6M-3M	6	3	2.4	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
AUR6M-4M	6	4	2.4	14	14	12	15.3	13.7	17.7	16.1	25.4	39.4
AUR8M-6M	8	6	4.8	15	16	14	16.2	15.3	18.6	17.7	27.4	42.3
AUR10M-3M	10	3	2.4	18	19	12	17.2	12.9	19.5	15.3	27.7	41.9
AUR10M-4M	10	4	2.4	18	19	12	17.2	13.7	19.5	16.1	28.7	42.9
AUR10M-6M	10	6	4.8	18	19	14	17.2	15.3	19.5	17.7	29.5	44.5
AUR10M-8M	10	8	6.4	18	19	16	17.2	16.2	19.5	18.6	30.0	45.1
AUR12M-6M	12	6	4.8	22	22	14	22.8	15.3	22.0	17.7	29.5	47.0
AUR12M-8M	12	8	6.4	22	22	16	22.8	16.2	22.0	18.6	30.2	47.8
AUR12M-10M	12	10	7.9	22	22	19	22.8	17.2	22.0	19.5	31.0	48.7
AUR16M-10M	16	10	7.9	24	25	19	24.4	17.2	22.0	19.5	31.8	49.5
AUR16M-12M	16	12	9.5	24	25	22	24.4	22.8	22.0	22.0	31.8	52.0
AUR18M-10M	18	10	7.9	27	30	19	24.4	17.2	22.0	19.5	33.0	51.0
AUR18M-12M	18	12	9.5	27	30	22	24.4	22.8	22.0	22.0	33.3	53.5
AUR25M-18M	25	18	15.1	35	38	30	31.3	24.4	26.5	22.0	38.6	61.0
AUR25M-20M	25	20	15.9	35	38	32	31.3	26.0	26.5	22.0	39.9	62.3
AUR30M-18M	30	18	15.1	46	50	30	39.7	24.4	39.3	22.0	43.7	75.4
AUR30M-20M	30	20	15.9	46	50	32	39.7	26.0	39.3	22.0	43.7	75.4
AUR30M-25M	30	25	21.8	46	50	38	39.7	31.3	39.3	26.5	46.2	80.1
AUR32M-18M	32	18	15.1	46	50	30	42.0	24.4	41.6	22.0	44.7	77.8
AUR32M-20M	32	20	15.9	46	50	32	42.0	26.0	41.6	22.0	44.7	77.8
AUR32M-25M	32	25	21.8	46	50	38	42.0	31.3	41.6	26.5	47.0	82.3
AUR38M-20M	38	20	15.9	55	60	32	49.4	26.0	47.9	22.0	49.8	87.5
AUR38M-25M	38	25	21.8	55	60	38	49.4	31.3	47.9	26.5	52.1	92.0
AUR38M-30M	38	30	26.2	55	60	50	49.4	39.7	47.9	39.3	55.4	104.6

Bulkhead Union
AUB

Connects fractional tube

Part No.	Tube O.D. D		O Min.	Width Across Flat				A	B	I	I1	L	L1	Panel Hole Drill Size	Panel Max Thickness
	in	mm		h		H									
				In	mm	in	mm								
AUB-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	23.87	13.46	31.50	17.27	5.16	3.05
AUB-2	1/8	3.17	2.28	1/2	12.70	7/16	11.11	12.70	15.24	38.10	24.63	51.30	31.24	8.33	12.70
AUB-3	3/16	4.76	3.04	9/16	14.28	1/2	12.70	13.71	16.00	40.38	25.40	53.59	32.00	9.92	12.70
AUB-4	1/4	6.35	4.82	5/8	15.87	9/16	14.28	15.24	17.78	42.92	26.16	57.65	33.52	11.50	10.16
AUB-5	5/16	7.93	6.35	11/16	17.46	5/8	15.87	16.25	18.54	45.97	28.44	60.70	35.81	13.09	11.17
AUB-6	3/8	9.52	7.11	3/4	19.05	11/16	17.46	16.76	19.30	47.49	29.46	62.23	36.83	14.68	11.17
AUB-8	1/2	12.70	10.41	15/16	23.81	7/8	22.22	22.86	21.84	50.80	31.75	71.12	41.91	19.44	12.70
AUB-10	5/8	15.87	12.70	1-1/16	26.98	1	25.40	24.38	21.84	52.32	32.51	72.64	42.67	22.62	12.70
AUB-12	3/4	19.05	15.74	1-3/16	30.16	1-1/8	28.58	24.38	21.84	58.67	37.33	78.99	47.49	25.79	16.76
AUB-14	7/8	22.22	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	64.26	42.92	84.58	53.08	28.97	19.05
AUB-16	1	25.40	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	71.37	45.21	95.75	57.40	33.73	19.05
AUB-20	1-1/4	31.75	27.68	1-7/8	47.63	1-7/8	47.63	41.14	38.86	78.99	47.75	123.19	69.85	41.67	19.05
AUB-24	1-1/2	38.10	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	84.83	49.27	139.19	76.45	49.61	19.05
AUB-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	105.66	56.38	180.34	93.72	57.94	19.05

Connects metric tube

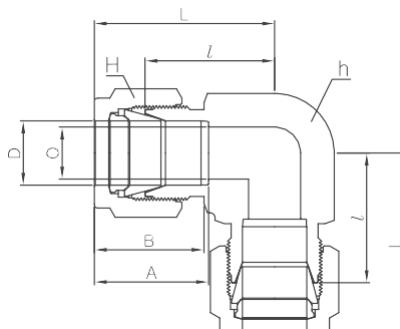
Part No.	Tube O.D. D	O Min	Width Across Flat		A	B	I	I1	L	L1	Panel Hole Drill Size	Panel Max Thickness
			h	H								
AUB-3M	3	2.4	14.0	12	12.9	15.3	38.1	24.6	51.3	31.2	8.3	12.7
AUB-4M	4	2.4	14.0	12	13.7	16.1	40.4	25.4	53.6	32.0	9.9	12.7
AUB-6M	6	4.8	16.0	14	15.3	17.7	42.9	26.2	57.7	33.6	11.5	10.2
AUB-8M	8	6.4	18.0	16	16.2	18.6	46.0	28.6	61.0	36.1	13.1	11.2
AUB-10M	10	7.9	22.0	19	17.2	19.5	48.5	29.4	63.7	37.0	16.2	11.2
AUB-12M	12	9.5	24.0	22	22.8	22.0	50.8	31.8	71.0	41.9	19.5	12.7
AUB-15M	15	11.9	27.0	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
AUB-16M	16	12.7	27.0	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
AUB-18M	18	15.1	30.0	30	24.4	22.0	58.7	37.3	78.9	47.4	26.0	16.8
AUB-20M	20	15.9	35.0	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	17.0
AUB-22M	22	18.3	35.0	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	19.1
AUB-25M	25	21.8	41.3	38	31.3	26.5	71.4	45.2	95.9	57.5	33.7	19.1
AUB-32M	32	28.6	50.0	50	42.0	41.6	82.3	49.5	128.3	72.5	42.5	19.0
AUB-38M	38	33.7	60.0	60	49.4	47.9	89.4	51.5	144.6	79.1	50.5	19.0

Bulkhead Elbow Union
ABL

Connects fractional tube

Part No.	Tube O.D. D		O Min.	Width across flat				A	B	I	I ₁	L	L ₁	Panel Hole Drill size	Panel Max Thickness
	in	mm		h		H									
				in	mm	in	mm								
ABL-4	1/4	6.35	4.82	5/8	15.87	9/16	14.28	15.24	17.78	36.5	20.6	48.01	32.11	11.50	10.16
ABL-6	3/8	9.52	7.11	3/4	19.05	11/16	17.46	16.76	19.30	43.5	25.9	50.82	33.22	14.68	11.17
ABL-8	1/2	12.70	10.41	15/16	23.81	7/8	22.22	22.86	21.84	48.7	28.7	58.84	38.84	19.44	12.70
ABL-12	3/4	19.05	15.74	1-3/16	30.16	1-1/8	28.58	24.38	21.84	60.0	34.5	69.88	44.38	25.79	16.76

Connects metric tube

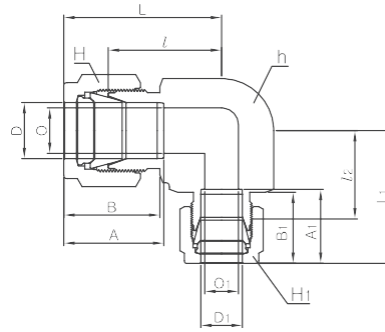
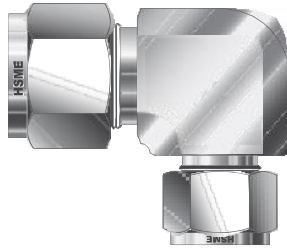
Part No.	Tube O.D.	O Min.	Width across flat			A	B	I	I ₁	L	L ₁	Panel Hole Drill size	Panel Max Thickness
			h	h ₁	H								
ABL-6M	6	4.8	15.8	14.2	14.0	15.3	17.7	36.5	20.6	43.9	30.0	11.5	10.2
ABL-8M	8	6.4	17.4	17.4	16.0	18.6	46.0	40.9	23.2	48.4	30.7	13.1	11.2
ABL-10M	10	7.9	22.0	22.0	19.0	19.5	48.5	44.5	26.9	52.1	34.5	16.2	11.2
ABL-12M	12	9.5	23.8	23.8	22.0	22.0	50.8	46.9	26.9	57.0	37.0	19.5	12.7
ABL-16M	16	13.5	27.0	27.0	25.0	22.0	52.3	53.5	34.1	63.7	44.5	22.8	12.7
ABL-20M	20	15.9	35.0	35.0	32.0	26.0	22.0	68.4	39.0	78.2	48.7	29.0	17.0
ABL-25M	25	21.8	41.0	41.0	38.0	31.3	26.5	74.2	46.1	86.5	58.4	33.7	19.1

Union Elbow
AL

Connects fractional tube

Part No.	Tube O.D.		O Min	Width across flat				A	B	I	L
	D			h		H					
	in	mm		in	mm	in	mm				
AL-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
AL-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
AL-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
AL-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
AL-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
AL-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
AL-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
AL-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
AL-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87
AL-14	7/8	22.22	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70
AL-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02
AL-20	1-1/4	31.75	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54
AL-24	1-1/2	38.10	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97
AL-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18

Connects metric tube

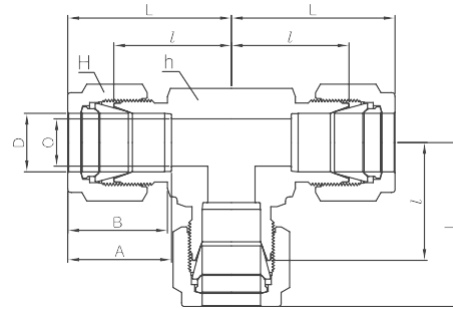
Part No.	Tube O.D. D	O Min	Width across flat		A	B	I	L
			h	H				
AL-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
AL-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
AL-4M	4	2.4	12.7	12	13.7	16.4	18.8	25.4
AL-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
AL-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
AL-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
AL-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
AL-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
AL-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
AL-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
AL-20M	20	15.9	34.92	32	26.0	22.0	32.5	42.6
AL-22M	22	18.3	34.92	32	26.0	22.0	32.5	42.6
AL-25M	25	21.8	34.92	38	31.3	26.5	36.8	49.1
AL-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
AL-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
AL-38M	38	33.7	55.0	60	49.4	47.9	56.4	84.0

Reducing Union Elbow
ALR

Connects fractional tube

Part No.	Tube O.D.				Width across flat						O	O1	A	A ₁	B	B ₁	/	/1	L	L1
	D		D1		h		H		H1											
	in	mm	in	mm	in	mm	in	mm	in	mm										
ALR2-1	1/8	3.17	1/16	1.59	3/8	9.52	7/16	11.11	5/16	7.93	2.4	1.3	12.7	8.63	15.24	10.93	15.74	14.2	22.35	18.0
ALR4-2	1/4	6.35	1/8	3.17	1/2	12.7	9/16	14.28	7/16	11.11	4.8	2.4	15.24	12.7	17.78	15.24	19.55	17.9	26.92	24.5
ALR6-4	3/8	9.32	1/4	6.35	5/8	15.87	11/16	17.46	9/16	14.28	7.1	4.8	16.76	15.24	19.3	17.78	23.1	21.92	30.47	29.29
ALR8-4	1/2	12.7	1/4	6.35	13/16	20.64	7/8	22.22	9/16	14.28	10.41	4.8	22.86	15.24	21.84	17.78	25.9	24.4	36.06	31.77
ALR8-6	1/2	12.7	3/8	9.52	13/16	20.64	7/8	22.22	11/16	17.46	10.41	7.1	22.86	16.76	21.84	19.30	25.9	25.9	36.06	33.27

Connects metric tube

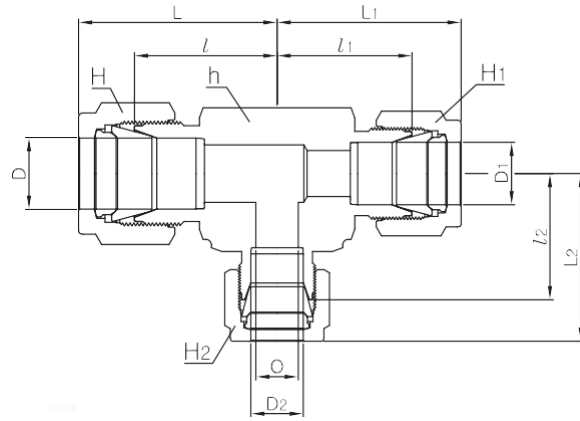
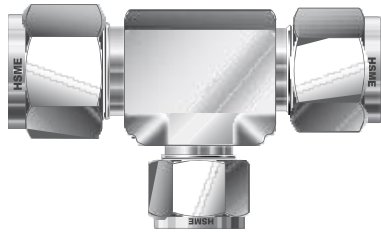
Part No.	Tube O.D.				Width across flat					O	O1	A	A ₁	B	B ₁	/	/1	L	L1
	D	D1		h		H		H1											
		in	mm	in	mm	mm	in	mm											
ALR8M-4	8	1/4	6.35	9/16	14.28	16	9/16	14.28	6.4	4.8	16.2	15.24	18.6	17.78	21.3	20.6	28.7	28.0	

Union Tee
AT

Connects fractional tube

Part No.	Tube O.D		O Min.	Width across flat				A	B	l	L
	in	mm		h		H					
				in	mm	in	mm				
AT-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
AT-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
AT-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
AT-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
AT-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
AT-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
AT-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
AT-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
AT-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87
AT-14	7/8	22.22	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70
AT-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02
AT-20	1-1/4	31.75	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54
AT-24	1-1/2	38.10	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97
AT-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18

Connects metric tube

Part No.	Tube O.D D	O Min	Width across flat		A	B	l	L
			h	H				
AT-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
AT-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
AT-4M	4	2.4	12.7	12	13.7	16.4	18.8	25.4
AT-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
AT-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
AT-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
AT-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
AT-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
AT-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
AT-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
AT-20M	20	15.9	34.92	32	26.0	22.0	32.5	42.6
AT-22M	22	18.3	34.92	32	26.0	22.0	32.5	42.6
AT-25M	25	21.8	34.92	38	31.3	26.5	36.8	49.1
AT-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
AT-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
AT-38M	38	33.7	55.0	60	49.4	47.9	56.4	84.0

Reducing Union Tee
ATR

Connects fractional tube

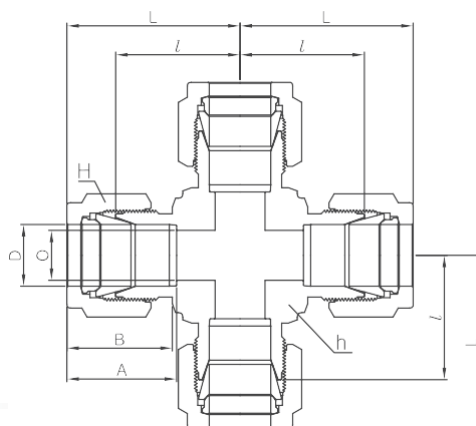
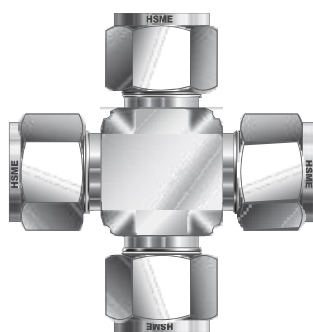
Part No.	Port 1 D		Port 2 D1		Port 3 D2		O Min.	Width across flat								l	/1	l2	L	L1	L2
	in	Mm	in	mm	in	Mm		h		H		H1		H2							
								in	mm	in	mm	in	mm	in	mm						
ATR4-4-2	1/4	6.35	1/4	6.35	1/8	3.17	2.4	1/2	12.7	9/16	14.28	9/16	14.28	7/16	11.11	19.55	19.55	17.9	26.91	26.91	24.5
ATR4-4-6	1/4	6.35	1/4	6.35	3/8	9.52	4.8	5/8	15.87	9/16	14.28	9/16	14.28	11/16	17.46	21.92	21.92	17.9	29.28	29.28	30.46
ATR4-8-8	1/4	6.35	1/2	12.7	1/2	12.7	4.8	13/16	20.64	9/16	14.28	7/8	22.22	7/8	22.22	24.4	25.9	23.1	31.76	36.06	36.06
ATR6-4-6	3/8	9.52	1/4	6.35	3/8	9.52	4.8	5/8	15.87	11/16	17.46	9/16	14.28	11/16	17.46	23.1	21.92	25.9	30.46	29.28	30.46
ATR6-6-4	3/8	9.52	3/8	9.52	1/4	6.35	4.8	5/8	15.87	11/16	17.46	11/16	17.46	9/16	14.28	23.1	23.1	23.1	30.46	30.46	29.28
ATR6-6-8	3/8	9.52	3/8	9.52	1/2	12.7	7.1	13/16	20.64	11/16	17.46	11/16	17.46	7/8	22.22	25.9	25.9	21.92	33.26	33.26	36.06
ATR8-4-6	1/2	12.7	1/4	6.35	3/8	9.52	4.8	13/16	20.64	7/8	22.22	9/16	14.28	11/16	17.46	25.9	25.9	25.9	36.06	33.26	33.26
ATR8-4-8	1/2	12.7	1/4	6.35	1/2	12.7	7.1	13/16	20.64	7/8	22.22	9/16	14.28	7/8	22.22	25.9	24.4	25.9	36.06	31.76	36.06
ATR8-6-6	1/2	12.7	3/8	9.52	3/8	9.52	7.1	13/16	20.64	7/8	22.22	11/16	17.46	11/16	17.46	25.9	25.9	25.9	36.06	33.26	33.26
ATR8-8-4	1/2	12.7	1/2	12.7	1/4	6.35	4.8	13/16	20.64	7/8	22.22	7/8	22.22	9/16	14.28	25.9	25.9	25.9	36.06	36.06	31.76
ATR8-8-6	1/2	12.7	1/2	12.7	3/8	9.52	7.1	13/16	20.64	7/8	22.22	7/8	22.22	11/16	17.46	25.9	25.9	24.4	36.06	36.06	33.26
ATR10-10-6	5/8	15.87	5/8	15.87	3/8	9.52	7.1	15/16	23.81	1	25.4	1	25.4	11/16	17.46	28.7	28.7	25.9	38.86	38.86	36.06
ATR12-8-12	3/4	19.05	1/2	12.7	3/4	19.05	10.41	1-1/16	26.98	1-1/8	28.57	7/8	22.22	1-1/8	28.57	29.71	29.71	28.7	39.87	39.87	39.87
ATR12-12-4	3/4	19.05	3/4	19.05	1/4	6.35	4.8	1-1/16	26.98	1-1/8	28.57	1-1/8	28.57	9/16	14.28	29.71	29.71	29.71	39.87	39.87	35.57
ATR12-12-6	3/4	19.05	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	1-1/8	28.57	11/16	17.46	29.71	29.71	28.21	39.87	39.87	35.57
ATR12-12-8	3/4	19.05	3/4	19.05	1/2	12.7	10.41	1-1/16	26.98	1-1/8	28.57	1-1/8	28.57	7/8	22.22	29.71	29.71	29.71	39.87	39.87	38.37
ATR12-12-16	3/4	19.05	3/4	19.05	3/4	25.4	16.0	1-3/8	34.92	1-1/8	28.57	1-1/8	28.57	1-1/2	38.10	34.43	34.43	29.71	49.02	49.02	45.7
ATR12-12-20	3/4	19.05	3/4	19.05	1 1/4	31.75	16.0	1-11/16	42.86	1-1/8	28.57	1-1/8	28.57	1-7/8	47.63	39.41	39.41	36.83	49.57	49.57	66.55
ATR14-14-8	7/8	22.22	7/8	22.22	1/2	12.7	10.41	1-1/4	31.75	1-1/4	31.75	1-1/4	31.75	7/8	22.22	34.54	34.54	44.45	44.7	44.7	44.7
ATR16-12-12	1	25.4	3/4	19.05	3/4	19.05	16.0	1-3/8	34.92	1-1/2	38.10	1-1/8	28.57	1-1/8	28.57	36.83	35.54	34.54	49.02	45.7	45.7
ATR16-16-4	1	25.4	1	25.4	1/4	6.35	4.8	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	9/16	14.28	36.83	36.83	35.54	49.02	49.02	40.4
ATR16-16-6	1	25.4	1	25.4	3/8	9.52	7.1	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	11/16	17.46	36.83	36.83	33.04	49.02	49.02	41.9
ATR16-16-8	1	25.4	1	25.4	1/2	12.7	10.41	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	7/8	22	36.83	36.83	34.54	49.02	49.02	44.7
ATR16-16-12	1	25.4	1	25.4	3/4	19.05	16.0	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	1-1/8	22	36.83	36.83	34.54	49.02	49.02	45.7
ATR20-12-12	1 1/4	31.75	3/4	19.05	3/4	19.05	16.0	1-11/16	42.86	1-7/8	47.63	1-1/8	28.57	1-1/8	28.57	44.45	39.41	35.54	66.55	49.57	49.57
ATR20-20-12	1 1/4	31.75	1 1/4	31.75	3/4	19.05	16.0	1-11/16	42.86	1-7/8	47.63	1-7/8	47.63	1-1/8	28.57	44.45	44.45	39.41	66.55	66.55	49.57
ATR24-20-20	1 1/2	38.10	1 1/4	31.75	1 1/4	31.75	27.69	2	50.8	2-1/4	57.15	1-7/8	47.63	1-7/8	47.63	50.8	49.62	39.41	77.97	71.72	71.72
ATR24-24-8	1 1/2	38.10	1 1/2	38.10	1/2	12.7	10.41	2	50.8	2-1/4	57.15	2-1/4	57.15	7/8	22.22	50.8	50.8	49.62	77.97	77.97	54.74
ATR24-24-12	1 1/2	38.10	1 1/2	38.10	3/4	19.05	16.0	2	50.8	2-1/4	57.15	2-1/4	57.15	1-1/8	28.57	50.8	50.8	44.58	77.97	77.97	54.74
ATR24-24-16	1 1/2	38.10	1 1/2	38.10	1	25.4	22.3	2	50.8	2-1/4	57.15	2-1/4	57.15	1-1/2	38.10	50.8	50.8	44.58	77.97	77.97	59.94

Connects metric tube

Part No.	Port 1	Port 2	Port 3	O	Width across flat				I	I1	I2	L	L1	L2
	D	D1	D2	Min.	h	H	H1	H2						
ATR3M-3M-6M	3	3	6	2.4	12.7	12	12	14	18.0	18.0	19.6	24.6	24.6	27.0
ATR8M-8M-6M	8	8	6	4.8	15.	16	16	14	21.3	21.3	20.5	28.8	28.8	28.0
ATR10M-10M-6M	10	10	6	4.8	17.4	19	19	14	23.9	23.9	22.4	31.5	31.5	29.8
ATR10M-10M-12M	10	10	12	7.9	20.6	19	19	22	25.9	25.9	25.9	33.5	33.5	36.0
ATR12M-6M-10M	12	6	10	4.8	20.6	22	14	19	25.9	24.4	25.9	36.0	31.8	33.5
ATR12M-6M-12M	12	6	12	4.8	20.6	22	14	22	25.9	24.4	25.9	36.0	31.8	36.0
ATR12M-10M-10M	12	10	10	7.9	20.6	22	19	19	25.9	25.9	25.9	36.0	33.5	33.5
ATR12M-12M-10M	12	12	10	7.9	20.6	22	22	19	25.9	25.9	25.9	36.0	36.0	33.5
ATR12M-12M-6M	12	12	6	4.8	20.6	22	22	14	25.9	25.9	24.4	36.0	36.0	31.8
ATR15M-15M-12M	15	15	12	9.8	25.4	25	25	22	28.7	28.7	28.7	38.8	38.8	38.8
ATR16M-16M-12M	16	16	12	9.8	25.4	25	25	22	28.7	28.7	28.7	38.8	38.8	38.8
ATR18M-18M-12M	18	18	12	9.8	27	30	30	22	29.7	29.7	28.2	39.8	39.8	38.3
ATR20M-12M-20M	20	12	20	9.8	34.9	32	22	32	32.5	32.5	32.5	42.6	42.6	42.6
ATR20M-20M-6M	20	20	6	4.8	34.9	32	32	14	32.5	32.5	31.0	42.6	42.6	38.4
ATR20M-20M-10M	20	20	10	7.9	34.9	32	32	19	32.5	32.5	32.5	42.6	42.6	40.1
ATR20M-20M-12M	20	20	12	9.8	34.9	32	32	22	32.5	32.5	32.5	42.6	42.6	42.6
ATR20M-20M-25M	20	20	25	15.9	34.9	32	32	38	34.3	34.3	36.8	44.4	44.4	49.1
ATR20M-20M-32M	20	20	32	15.9	46	32	32	50	42.5	42.5	49.3	52.6	52.6	72.3
ATR22M-22M-12M	22	20	12	9.8	34.9	32	32	22	32.5	32.5	32.5	42.6	42.6	42.6
ATR25M-20M-20M	25	20	20	15.9	34.9	38	32	32	36.8	34.3	34.3	49.1	44.4	44.4
ATR25M-25M-10M	25	25	10	7.9	34.9	38	38	19	36.8	36.8	34.3	49.1	49.1	38.9
ATR25M-25M-12M	25	25	12	9.8	34.9	38	38	22	36.8	36.8	34.3	49.1	49.1	44.4
ATR25M-25M-20M	25	25	20	15.9	34.9	38	38	32	36.8	36.8	34.3	49.1	49.1	44.4
ATR32M-32M-20M	32	32	20	15.9	46	38	38	32	49.3	49.3	42.5	72.3	72.3	52.6
ATR38M-32M-32M	38	32	32	28.6	50.8	60	38	38	56.4	54.7	54.7	84.0	77.7	77.7
ATR38M-38M-20M	38	38	20	15.9	50.8	60	60	32	56.4	56.4	47.9	84.0	84.0	58.0
ATR38M-38M-25M	38	38	25	21.8	50.8	60	60	38	56.4	56.4	50.4	84.0	84.0	62.7

Union Cross

AX

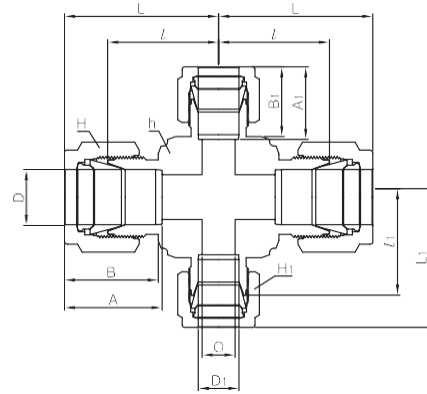
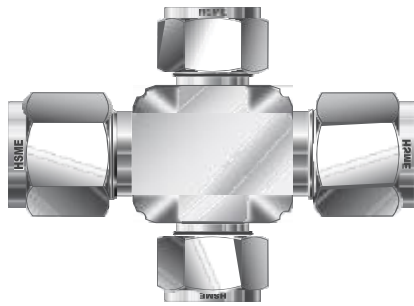


Connects fractional tube

Part No.	Tube O.D.		O Min.	Width across flat				A	B	I	L
	D			h		H					
	in	mm		in	mm	in	mm				
AX-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
AX-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
AX-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
AX-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
AX-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
AX-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
AX-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
AX-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
AX-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87
AX-14	7/8	22.22	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70
AX-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02
AX-20	1-1/4	31.75	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54
AX-24	1-1/2	38.10	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97
AX-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18

Connects metric tube

Part No.	Tube O.D. D	O Min.	Width across flat		A	B	I	L
			h	H				
AX-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
AX-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
AX-4M	4	2.4	12.7	12	13.7	16.4	18.8	25.4
AX-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
AX-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
AX-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
AX-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
AX-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
AX-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
AX-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
AX-20M	20	15.9	34.92	32	26.0	22.0	32.5	42.6
AX-22M	22	18.3	34.92	32	26.0	22.0	32.5	42.6
AX-25M	25	21.8	34.92	38	31.3	26.5	36.8	49.1
AX-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
AX-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
AX-38M	38	33.7	55.0	60	49.4	47.9	56.4	84.0

Reducing Union Cross
AXR

Connects fractional tube

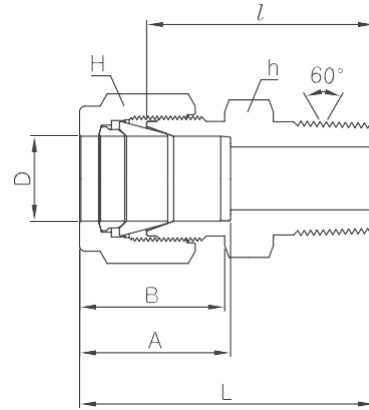
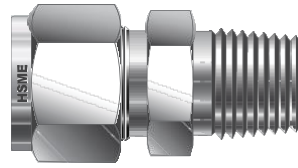
Part No.	Port 1	Port 2	Port 3	Port 4	O Min.	Width across flat						A	A1	B	B1	/	/1	L	L1
	D		D1			h		H		H1									
	in	mm	in	Mm		in	mm	in	mm	in	mm								
AXR 12-12-6-6	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.38	16.76	21.84	19.3	29.71	29.71	39.87	37.07

Connects metric tube

Part No.	Port 1	Port 2	Port 3	Port 4	O Min.	Width across flat			A	A1	B	B1	/	/1	L	L1
	D	D1				h	H	H1								
AXR16M-6M-6M-6M	16	6			4.8	25.4	25	14	24.4	15.3	22.0	17.7	28.7	27.2	38.8	34.6

Male NPT Connector

AMC-N

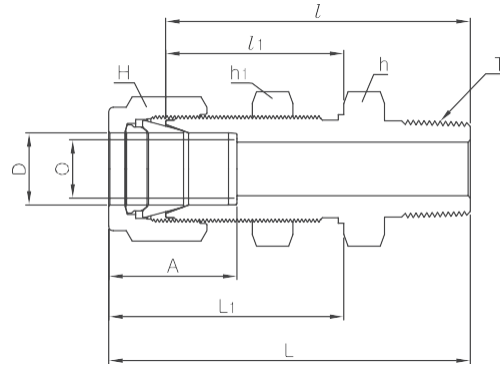
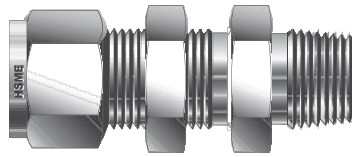


Connects metric tube to female NPT thread

Part No.	Tube O.D. D	T NPT	E Min.	Width Across Flat		A	B	I	L
				h	H				
AMC2M-2N	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
AMC3M-2N	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
AMC3M-4N	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
AMC4M-2N	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
AMC4M-4N	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
AMC6M-2N	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
AMC6M-4N	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
AMC6M-6N	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
AMC6M-8N	6	1/2	4.8	22	14	15.3	17.7	37.3	44.0
AMC8M-2N	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
AMC8M-4N	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
AMC8M-6N	8	3/8	6.4	18	16	16.2	18.6	31.8	39.2
AMC8M-8N	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
AMC10M-2N	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
AMC10M-4N	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
AMC10M-6N	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
AMC10M-8N	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
AMC10M-12N	10	3/4	7.9	27	19	17.2	19.5	38.9	46.5
AMC12M-2N	12	1/8	4.8	22	22	22.8	22.0	28.7	38.8
AMC12M-4N	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
AMC12M-6N	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
AMC12M-8N	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
AMC12M-12N	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
AMC14M-4N	14	1/4	6.4	24	25	24.4	22.0	34.0	44.1
AMC14M-6N	14	3/8	9.5	24	25	24.4	22.0	34.0	44.1
AMC14M-8N	14	1/2	11.1	24	25	24.4	22.0	34.0	44.1
AMC15M-8N	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
AMC16M-4N	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
AMC16M-6N	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
AMC16M-8N	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
AMC16M-12N	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
AMC18M-8N	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
AMC18M-12N	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
AMC20M-8N	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
AMC20M-12N	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
AMC22M-12N	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
AMC22M-16N	22	1	18.3	35	32	26.0	22.0	47.8	57.9
AMC25M-8N	25	1/2	11.9	35	38	31.3	26.5	45.2	57.5
AMC25M-12N	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
AMC25M-16N	25	1	21.8	35	38	31.3	26.5	50.0	62.3
AMC28M-16N	28	1	21.8	41	46	36.6	36.6	51.6	72.4
AMC28M-20N	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
AMC32M-20N	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
AMC38M-24N	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

Connects metric tube to female NPT thread

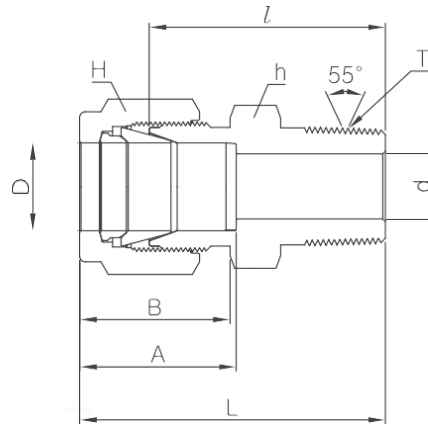
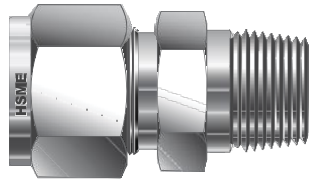
Part No.	Tube O.D. D	T NPT	E Min.	Width across flat		A	B	I	L
				h	H				
AMC2M-2N	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
AMC3M-2N	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
AMC3M-4N	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
AMC4M-2N	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
AMC4M-4N	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
AMC6M-2N	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
AMC6M-4N	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
AMC6M-6N	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
AMC6M-8N	6	1/2	4.8	22	14	15.3	17.7	37.3	44.0
AMC8M-2N	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
AMC8M-4N	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
AMC8M-6N	8	3/8	6.4	18	16	16.2	18.6	31.8	39.2
AMC8M-8N	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
AMC10M-2N	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
AMC10M-4N	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
AMC10M-6N	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
AMC10M-8N	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
AMC10M-12N	10	3/4	7.9	27	19	17.2	19.5	38.9	46.5
AMC12M-2N	12	1/8	4.8	22	22	22.8	22.0	28.7	38.8
AMC12M-4N	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
AMC12M-6N	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
AMC12M-8N	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
AMC12M-12N	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
AMC14M-4N	14	1/4	6.4	24	25	24.4	22.0	34.0	44.1
AMC14M-6N	14	3/8	9.5	24	25	24.4	22.0	34.0	44.1
AMC14M-8N	14	1/2	11.1	24	25	24.4	22.0	34.0	44.1
AMC15M-8N	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
AMC16M-4N	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
AMC16M-6N	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
AMC16M-8N	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
AMC16M-12N	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
AMC18M-8N	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
AMC18M-12N	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
AMC20M-8N	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
AMC20M-12N	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
AMC22M-12N	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
AMC22M-16N	22	1	18.3	35	32	26.0	22.0	47.8	57.9
AMC25M-8N	25	1/2	11.9	35	38	31.3	26.5	45.2	57.5
AMC25M-12N	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
AMC25M-16N	25	1	21.8	35	38	31.3	26.5	50.0	62.3
AMC28M-16N	28	1	21.8	41	46	36.6	36.6	51.6	72.4
AMC28M-20N	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
AMC32M-20N	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
AMC38M-24N	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

Bulkhead Male NPT Connector
AMCB-N

Connects fractional tube to female NPT thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat						A	I	I1	L	L1	Panel Hole Drill Size	Panel Max Thickness
	in	mm			h		h1		H								
					in	mm	in	mm	in	mm							
AMCB2-2N	1/8	3.17	1/8	2.28	1/2	12.70	1/2	12.70	7/16	11.11	12.70	39.87	24.63	46.48	31.24	8.33	12.70
AMCB4-2N	1/4	6.35	1/8	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	42.16	26.16	49.53	33.52	11.50	10.16
AMCB4-4N	1/4	6.35	1/4	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	45.97	26.16	53.34	33.52	11.50	10.16
AMCB6-4N	3/8	9.52	1/4	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	50.03	29.46	57.40	36.83	14.68	11.17
AMCB6-6N	3/8	9.52	3/8	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	50.03	29.46	57.40	36.83	14.68	11.17
AMCB6-8N	3/8	9.52	1/2	7.11	7/8	22.22	3/4	19.05	11/16	17.46	16.76	56.38	29.46	63.75	36.83	14.68	11.17
AMCB8-6N	1/2	12.70	3/8	9.39	15/16	23.81	15/16	23.81	7/8	22.22	22.86	53.08	31.75	63.24	41.91	19.44	12.70
AMCB8-8N	1/2	12.70	1/2	10.41	15/16	23.81	15/16	23.81	7/8	22.22	22.86	58.67	31.75	68.83	41.91	19.44	12.70
AMCB12-12N	3/4	19.05	3/4	15.74	1-3/16	30.16	1-3/16	30.16	1-1/8	28.58	24.38	66.04	37.33	76.20	47.49	25.76	16.76
AMCB16-16N	1	25.40	1	22.35	1-5/8	41.28	1-5/8	41.28	1-1/2	38.10	31.24	81.02	45.21	93.21	57.40	33.73	19.05
AMCB20-20N	1-1/4	31.75	1-1/4	27.68	1-7/8	47.63	1-7/8	47.63	1-7/8	47.63	41.14	85.97	47.75	108.07	69.85	41.67	19.05
AMCB24-24N	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	2-1/4	57.15	50.03	93.03	49.27	120.21	76.45	49.61	19.05
AMCB32-32N	2	50.80	2	45.97	2-3/4	69.85	2-3/4	69.85	3	76.20	67.56	107.29	56.38	144.62	93.71	16.27	19.05

Connects metric tube to female NPT thread

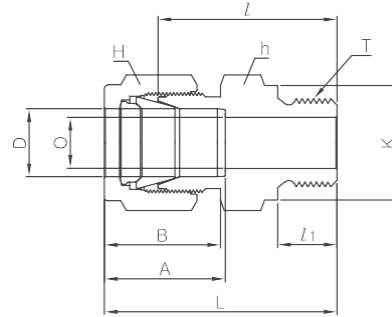
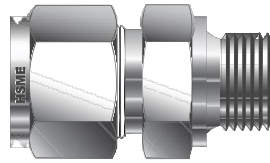
Part No.	Tube O.D. D	T NPT	O Min.	Width Across Flat			A	I	I1	L	L1	Panel Hole Drill size	Panel Max Thickness
				h	h1	H							
AMCB6M-2N	6	1/8	2.28	16	16	14	15.3	42.2	26.2	49.6	33.6	11.5	10.2
AMCB6M-4N	6	1/8	4.82	16	16	14	15.3	46.2	26.2	53.6	33.6	11.5	10.2
AMCB6M-6N	6	1/4	4.82	16	16	14	15.3	46.2	26.2	53.6	33.6	11.5	10.2
AMCB6M-8N	6	1/4	7.11	16	16	14	15.3	52.6	26.2	60.0	33.6	11.5	10.2
AMCB8M-6N	8	3/8	7.11	18	18	16	16.2	50.0	28.6	57.5	36.1	13.1	11.2
AMCB10M-4N	10	1/2	7.11	22	22	19	17.2	50.0	29.4	57.5	37.0	16.2	11.2
AMCB10M-6N	10	3/8	9.39	22	22	19	17.2	50.0	29.4	57.5	37.0	16.2	11.2
AMCB10M-8N	10	1/2	10.41	22	22	19	17.2	55.9	29.4	63.5	37.0	16.2	11.2
AMCB12M-6N	12	3/4	15.74	24	24	22	22.8	53.3	31.8	63.4	41.9	19.5	12.7
AMCB12M-8N	12	1	22.35	24	24	22	22.8	58.7	31.8	68.8	41.9	19.5	12.7
AMCB20-20N	1-1/4	1-1/4	27.68	1-7/8	1-7/8	1-7/8	41.14	85.97	47.75	108.07	69.85	41.67	19.05
AMCB24-24N	1-1/2	1-1/2	34.03	2-1/4	2-1/4	2-1/4	50.03	93.03	49.27	120.21	76.45	49.61	19.05
AMCB32-32N	2	2	45.97	2-3/4	2-3/4	3	67.56	107.29	56.38	144.62	93.71	16.27	19.05

Male BSPT Connector
AMC-R

Connects fractional tube to female ISO tapered thread

Part No.	Tube O.D. D		T PT	O Min.	Width Across Flat				A	B	I	L
	in	mm			h		H					
					in	mm	in	mm				
AMC2-2R	1/8	3.17	1/8	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	30.48
AMC2-4R	1/8	3.17	1/4	2.28	9/16	14.28	7/16	11.11	12.70	15.24	28.95	35.56
AMC4-2R	1/14	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
AMC4-4R	1/14	6.35	1/4	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	37.84
AMC4-6R	1/14	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	30.98	38.35
AMC4-8R	1/14	6.35	1/2	4.82	7/8	22.22	9/16	14.28	15.24	17.78	37.33	44.70
AMC5-2R	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	26.67	34.03
AMC5-4R	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	38.60
AMC5-16R	5/16	7.93	1	6.35	1-3/8	34.92	5/8	15.87	16.25	18.54	46.2	50.0
AMC6-2R	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	27.94	35.30
AMC6-4R	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	39.87
AMC6-6R	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	39.87
AMC6-8R	3/8	9.52	1/2	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	46.22
AMC6-12R	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	40.38	47.75
AMC8-2R	1/2	12.70	1/8	4.82	13/16	20.64	7/8	22.22	22.86	21.84	28.70	38.86
AMC8-4R	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
AMC8-6R	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
AMC8-8R	1/2	12.70	1/2	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	49.02
AMC8-12R	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	40.38	50.54
AMC8-16R	1/2	12.70	1	10.41	1-3/8	34.92	7/8	22.22	22.86	21.84	46.99	57.15
AMC10-6R	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	34.03	44.19
AMC10-8R	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	38.86	49.02
AMC10-12R	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	40.38	50.54
AMC12-8R	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	50.54
AMC12-12R	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	50.54
AMC12-16R	3/4	19.05	1	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	46.99	57.15
AMC16-12R	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	45.21	57.40
AMC16-16R	1	25.40	1	22.35	1-3/8	34.62	1-1/2	38.10	31.24	26.41	50.03	62.23
AMC20-12R	1-1/4	31.75	3/4	15.74	1-3/4	44.45	1-7/8	47.63	41.14	38.86	50.0	72.10
AMC20-16R	1-1/4	31.75	1	22.35	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	77.21
AMC20-20R	1-1/4	31.75	1-1/4	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	77.21
AMC32-32R	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	76.20	113.53

Connects metric tube to female ISO tapered thread

Part No.	Tube O.D. D	T R(PT)	O Min.	Width across flat		A	B	I	L
				h	H				
AMC2M-2R	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
AMC3M-2R	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
AMC3M-4R	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
AMC4M-2R	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
AMC4M-4R	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
AMC6M-2R	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
AMC6M-4R	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
AMC6M-6R	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
AMC6M-8R	6	1/2	4.8	22	14	15.3	17.7	37.3	44.0
AMC8M-2R	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
AMC8M-4R	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
AMC8M-6R	8	3/8	6.4	18	16	16.2	18.6	31.8	39.2
AMC8M-8R	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
AMC10M-2R	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
AMC10M-4R	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
AMC10M-6R	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
AMC10M-8R	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
AMC12M-4R	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
AMC12M-6R	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
AMC12M-8R	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
AMC12M-12R	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
AMC15M-8R	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
AMC16M-4R	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
AMC16M-6R	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
AMC16M-8R	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
AMC16M-12R	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
AMC18M-8R	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
AMC18M-12R	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
AMC20M-8R	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
AMC20M-12R	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
AMC22M-12R	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
AMC22M-16R	22	1	18.3	35	32	26.0	22.0	47.8	57.9
AMC25M-12R	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
AMC25M-16R	25	1	21.8	35	38	31.3	26.5	50.0	62.3
AMC28M-16R	28	1	21.8	41	46	36.6	36.6	51.6	72.4
AMC28M-20R	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
AMC32M-20R	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
AMC38M-24R	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

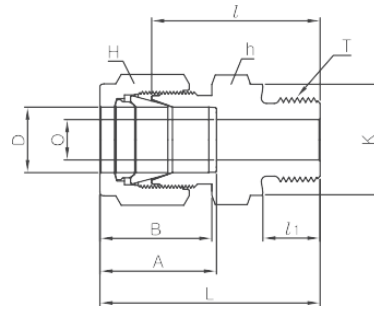
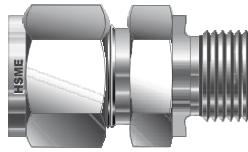
Male ISO Parallel Connector DIN3852 Form A
AMC-G


Connects fractional tube to female ISO parallel thread

Part No.	Tube O.D. D		T (PF)	O Min.	Width across flat				A	B	l	l1	L	K
	in	mm			h		H							
					in	mm	in	mm						
AMC2-2G	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	23.37	7.11	29.97	13.72
AMC2-4G	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	28.70	11.18	35.31	18.03
AMC2-6G	1/8	3.17	3/8	2.28	7/8	22.22	7/16	11.11	12.70	15.24	29.72	11.18	36.21	21.84
AMC4-2G	1/4	6.35	1/8	2.28	9/16	14.28	9/16	14.28	15.24	17.78	24.89	7.11	32.26	13.72
AMC4-4G	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.23	11.18	37.59	18.03
AMC4-6G	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	31.50	11.18	38.86	21.84
AMC4-8G	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	37.34	14.22	44.70	25.91
AMC6-4G	3/8	9.53	1/4	4.82	3/4	19.05	11/16	17.46	16.76	19.30	31.75	11.18	39.12	18.03
AMC6-6G	3/8	9.53	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	33.02	11.18	40.39	21.84
AMC6-8G	3/8	9.53	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	38.86	14.22	46.23	25.91
AMC8-4G	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	32.51	11.18	42.67	18.03
AMC8-6G	1/2	12.70	3/8	9.65	7/8	22.22	7/8	22.22	22.86	21.84	33.02	11.18	43.18	21.84
AMC8-8G	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.86	14.22	49.02	25.91
AMC12-8G	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	38.86	14.22	49.02	25.91
AMC12-12G	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	42.67	15.75	52.83	32.00
AMC16-8G	1	25.40	1/2	11.93	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	14.22	55.88	25.91
AMC16-16G	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	47.75	18.29	59.94	39.12
AMC20-20G	1-1/4	31.75	1-1/4	27.68	2	50.80	1-7/8	47.63	41.14	38.86	51.16	20.00	73.26	49.00
AMC24-24G	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	57.57	22.00	84.75	54.70

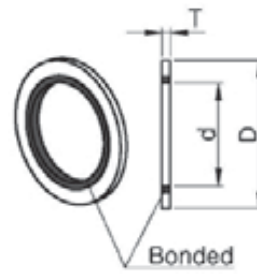
Male ISO Parallel Connector DIN3852 Form B

AMC-GB

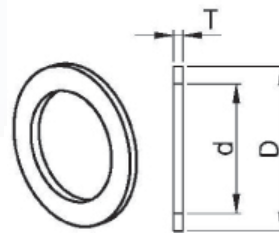


Connects fractional tube to female ISO parallel thread

Part No.	Tube O.D. D		T (PF)	O Min.	Width across flat				A	B	l	l1	L	K
	in	mm			h		H							
					in	mm	in	mm						
AMC2-2GB	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	23.37	7.11	29.97	13.72
AMC2-4GB	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	28.70	11.18	35.31	18.03
AMC2-6GB	1/8	3.17	3/8	2.28	7/8	22.22	7/16	11.11	12.70	15.24	29.72	11.18	36.21	21.84
AMC4-2GB	1/4	6.35	1/8	2.28	9/16	14.28	9/16	14.28	15.24	17.78	24.89	7.11	32.26	13.72
AMC4-4GB	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.23	11.18	37.59	18.03
AMC4-6GB	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	31.50	11.18	38.86	21.84
AMC4-8GB	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	37.34	14.22	44.70	25.91
AMC6-4GB	3/8	9.53	1/4	4.82	3/4	19.05	11/16	17.46	16.76	19.30	31.75	11.18	39.12	18.03
AMC6-6GB	3/8	9.53	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	33.02	11.18	40.39	21.84
AMC6-8GB	3/8	9.53	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	38.86	14.22	46.23	25.91
AMC8-4GB	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	32.51	11.18	42.67	18.03
AMC8-6GB	1/2	12.70	3/8	9.65	7/8	22.22	7/8	22.22	22.86	21.84	33.02	11.18	43.18	21.84
AMC8-8GB	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.86	14.22	49.02	25.91
AMC12-8GB	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	38.86	14.22	49.02	25.91
AMC12-12GB	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	42.67	15.75	52.83	32.00
AMC16-8GB	1	25.40	1/2	11.93	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	14.22	55.88	25.91
AMC16-16GB	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	47.75	18.29	59.94	39.12
AMC20-20GB	1-1/4	31.75	1-1/4	27.68	2	50.80	1-7/8	47.63	41.14	38.86	51.16	20.00	73.26	49.00
AMC24-24GB	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	57.57	22.00	84.75	54.70

Bonded Gasket
9PBN-G/ 9PBV-G

Ordering Information and Dimensions

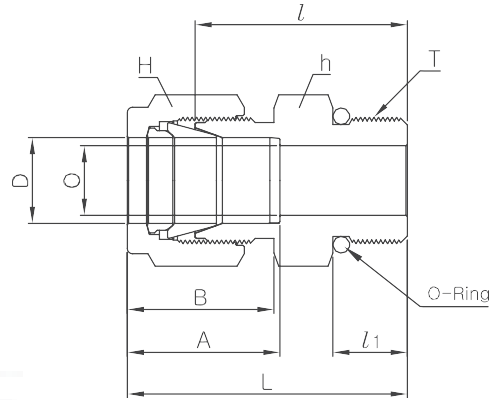
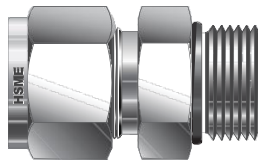
G Thread, in.	Dimensions, m m (in.)			Bonded Gasket Part Number	
	D	d	T	A*	B*
1/8	16.0 (0.63)	10.4 (0.41)	2.0 (0.08)	9PBN-2G-C	9PBV-2G-SS
1/4	20.6 (0.81)	13.7 (0.54)		9PBN-4G-C	9PBV-4G-SS
3/8	23.9 (0.94)	17.3 (0.68)		9PBN-6G-C	9PBV-6G-SS
1/2	28.7 (1.13)	21.6 (0.85)	2.5 (0.1)	9PBN-8G-C	9PBV-8G-SS
3/4	35.1 (1.38)	27.2 (1.06)		9PBN-12G-C	9PBV-12G-SS
1	42.9 (1.69)	33.8 (1.33)		9PBN-16G-C	9PBV-16G-SS
1 1/4	51.05 (2.01)	42.4 (1.67)		9PBN-20G-C	9PBV-20G-SS
1 1/2	59.18 (2.33)	48.8 (1.92)		9PBN-24G-C	9PBV-24G-SS

Copper Gasket
9PP-G

Ordering Information and Dimensions

Thread in.	Dimensions, mm (in.)			Part Number
	D	d	T	
1/8	18.0 (0.71)	10.0 (0.39)	2.3 (0.09)	9PP-2G-CU
1/4	22.1 (0.87)	14.0 (0.55)		9PP-4G-CU
3/8	24.0 (0.94)	17.0 (0.67)		9PP-6G-CU
1/2	30.0 (1.18)	22.0 (0.87)		9PP-8G-CU
3/4	35.0 (1.38)	27.0 (1.06)		9PP12G-CU
1	42.0 (1.65)	34.0 (1.34)		9PP-16G-CU
1 1/4	49.8 (1.96)	42.2 (1.66)		9PP-20G-CU
1 1/2	58.4 (2.30)	48.0 (1.89)		9PP-24G-CU

Non-Positionable SAE Male Connector

AMC-UF

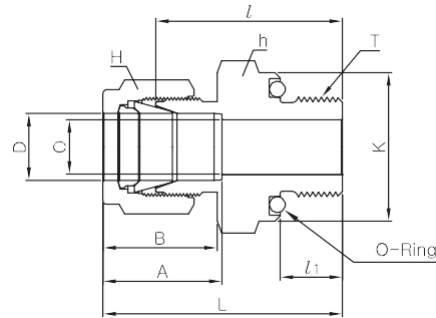
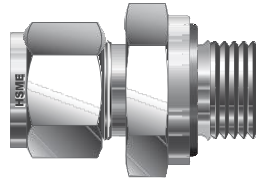


Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D. D		Straight Thread T(U)	O Min.	Width across flat				A	B	l	l1	L	O-Ring Uniform Size Number
	in	mm			h		H							
					in	mm	in	mm						
AMC2-2UF	1/8	3.17	5/16-24	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.26	7.62	29.97	-902
AMC4-4UF	1/4	6.35	7/16-20	4.82	9/16	14.28	9/16	14.28	15.24	17.78	26.67	9.14	34.03	-904
AMC4-6UF	1/4	6.35	9/16-18	4.82	11/16	17.46	9/16	14.28	15.24	17.78	28.19	9.90	35.56	-906
AMC4-8UF	1/4	6.35	3/4-16	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	11.17	37.59	-908
AMC4-10UF	1/4	6.35	7/8-14	4.82	1	25.40	9/16	14.28	15.24	17.78	33.27	12.70	40.64	-910
AMC5-5UF	5/16	7.93	1/2-20	5.84	5/8	15.87	5/8	15.87	16.25	18.54	27.43	9.14	34.79	-905
AMC6-4UF	3/8	9.52	7/16-20	5.08	5/8	15.87	11/16	17.46	16.76	19.30	28.19	9.14	35.56	-904
AMC6-6UF	3/8	9.52	9/16-18	7.11	11/16	17.46	11/16	17.46	16.76	19.30	29.71	9.90	37.08	-906
AMC6-8UF	3/8	9.52	3/4-16	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.75	11.17	39.11	-908
AMC6-10UF	3/8	9.52	7/8-14	7.11	1	25.40	11/16	17.46	16.76	19.30	34.79	12.70	42.16	-910
AMC8-6UF	1/2	12.70	9/16-18	7.11	13/16	20.64	7/8	22.22	22.86	21.84	28.95	9.90	39.11	-906
AMC8-8UF	1/2	12.70	3/4-16	10.41	7/8	22.22	7/8	22.22	22.86	21.84	31.75	11.17	41.91	-908
AMC8-10UF	1/2	12.70	7/8-14	10.41	1	25.40	7/8	22.22	22.86	21.84	34.79	12.70	44.95	-910
AMC8-12UF	1/2	12.70	1-1/16-12	10.41	1-1/4	31.75	7/8	22.22	22.86	21.84	38.86	14.98	49.02	-912
AMC10-8UF	5/8	15.87	3/4-16	10.66	15/16	23.81	1	25.40	24.38	21.84	31.75	11.17	41.91	-908
AMC10-10UF	5/8	15.87	7/8-14	12.70	1	25.40	1	25.40	24.38	21.84	35.05	12.70	45.21	-910
AMC12-8UF	3/4	19.05	3/4-16	10.66	1-1/16	26.98	1-1/8	28.57	24.38	21.84	35.81	11.17	45.97	-908
AMC12-12UF	3/4	19.05	1-1/16-12	15.74	1-1/4	31.75	1-1/8	28.57	24.38	21.84	38.86	14.98	49.02	-912
AMC14-14UF	7/8	22.22	1-3/16-12	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	38.86	14.98	49.02	-914
AMC16-12UF	1	25.40	1-1/16-12	16.76	1-3/8	34.92	1-1/2	38.10	31.24	26.41	41.14	14.98	53.54	-912
AMC16-16UF	1	25.40	1-5/16-12	22.35	1-1/2	38.10	1-1/2	38.10	31.24	26.41	42.16	14.98	54.35	-916
AMC20-20UF	1-1/4	31.75	1-5/8-12	27.68	1-7/8	47.63	1-7/8	47.63	41.14	38.86	46.22	14.98	68.32	-920
AMC24-24UF	1-1/4	38.10	1-7/8-12	34.03	2-1/8	53.98	2-1/4	57.15	50.03	45.21	50.54	14.98	77.72	-924
AMC32-32UF	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	67.56	62.73	64.26	14.98	101.60	-932

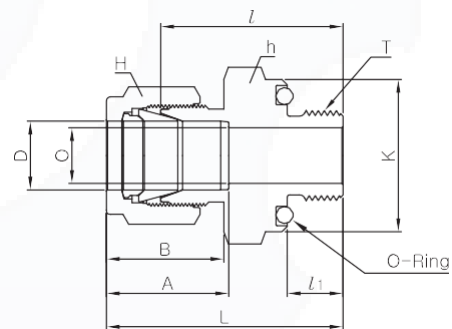
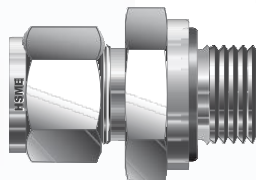
Connects metric tube to SAE straight thread boss

Part No.	Tube O.D. D	Straight Thread T(U)	O Min.	Width across flat		A	B	l	l1	L	O-Ring Uniform Size Number
				h	H						
AMC6M-6UF	6	9/16-18	4.8	18	14	15.3	17.7	28.2	9.90	36.5	-906
AMC10M-6UF	10	9/16-18	7.9	18	19	17.2	19.5	29.7	9.90	37.3	-906
AMC10M-8UF	10	3/4-16	7.9	22	19	17.2	19.5	31.8	11.17	39.4	-908
AMC12M-4UF	12	7/16-20	5.2	22	22	22.8	22.0	28.2	9.14	38.3	-904
AMC12M-6UF	12	9/16-18	7.5	22	22	22.8	22.0	29.0	9.90	39.1	-906

O-Seal SAE Male Connector
AMC-UO


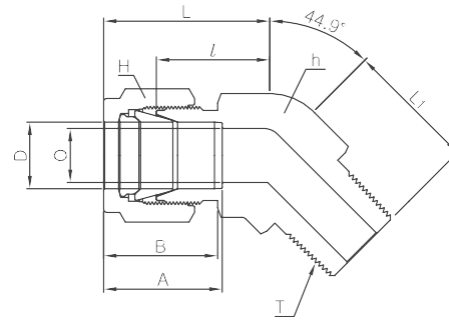
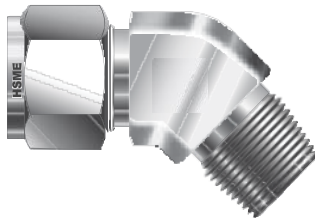
Connects fractional tube to female SAE straight thread

Part No.	Tube O.D. D		Straight Thread T(U)	O Min.	Width across flat				A	B	I	I1	L	O-Ring Uniform Size Number
	in	mm			h		H							
					in	mm	in	mm						
AMC 2-2UO	1/8	3.17	5/16-24	2.28	9/16	14.28	7/16	11.11	12.70	15.24	26.16	8.63	32.76	-011
AMC 3-3UO	3/16	4.76	3/8-24	3.04	5/8	15.87	1/2	12.70	13.71	16.00	27.68	9.65	34.29	-012
AMC 4-4UO	1/4	6.35	7/16-20	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.98	10.41	38.35	-013
AMC 5-5UO	5/16	7.93	1/2-20	6.35	7/8	22.22	5/8	15.87	16.25	18.54	33.27	11.17	40.64	-112
AMC 6-6UO	3/8	9.52	9/16-18	7.11	15/16	23.81	11/16	17.46	16.76	19.30	35.05	11.93	42.41	-113
AMC 8-8UO	1/2	12.70	3/4-16	10.41	1-1/8	28.57	7/8	22.22	22.86	21.84	35.81	11.93	45.97	-116
AMC 12-12UO	3/4	19.05	1-1/16-12	15.74	1-1/2	38.10	1-1/8	28.58	24.38	21.84	42.16	14.22	52.32	-121
AMC 16-16UO	1	25.40	1-5/16-12	22.35	1-3/4	44.45	1-1/2	38.10	31.24	26.41	45.97	14.22	58.16	-125

O-Seal NPT Male Connector
AMC-NO


Connects fractional tube to female NPT thread

Part No.	Tube O.D. D		T *(NPT)	O Min.	Width across flat				A	B	I	I1	L	O-Ring Uniform Size Number
	in	mm			h		H							
					in	mm	in	mm						
AMC 2-2NO	1/8	3.17	1/8	2.28	3/4	19.05	7/16	11.11	12.70	15.24	26.16	7.11	32.76	-013
AMC 4-2NO	1/4	6.35	1/8	4.82	3/4	19.05	9/16	14.28	15.24	17.78	27.68	7.11	35.05	-013
AMC 4-4NO	1/4	6.35	1/4	4.82	15/16	23.81	9/16	14.28	15.24	17.78	30.98	9.65	38.35	-113
AMC 6-4NO	3/8	9.52	1/4	7.11	15/16	23.81	11/16	17.46	16.76	19.30	32.51	9.65	39.87	-113
AMC 6-6NO	3/8	9.52	3/8	7.11	1-1/8	28.58	11/16	17.46	16.76	19.30	34.03	10.41	41.40	-116
AMC 6-8NO	3/8	9.52	1/2	7.11	1-5/16	33.33	11/16	17.46	16.76	19.30	39.62	13.46	46.99	-118
AMC 8-8NO	1/2	12.70	1/2	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	39.62	13.46	49.78	-118

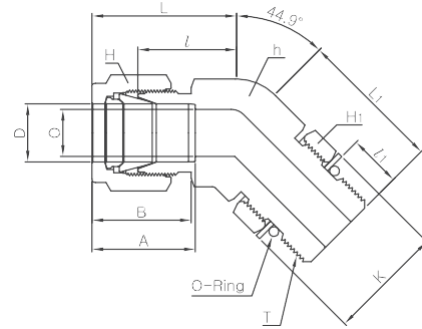
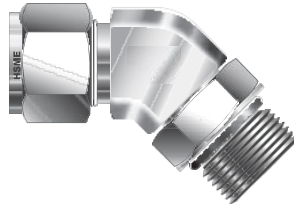
45° Male NPT Elbow
ALBM-N


Connects fractional tube to female NPT thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat				A	B	I	L	L1
	in	mm			h		H						
					in	mm	in	mm					
ALBM 2-2N	1/8	3.17	1/8	2.4	1/2	12.70	7/16	11.11	12.70	15.24	15.77	22.38	16.51
ALBM 4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	17.27	24.63	16.51
ALBM 4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	17.27	24.63	21.08
ALBM 6-2N	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	20.57	27.94	18.28
ALBM 6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	20.57	27.94	22.86
ALBM 6-6N	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	16.76	19.30	21.84	29.21	24.13
ALBM 8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	21.84	32.00	24.13
ALBM 8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	21.84	32.00	28.95
ALBM 12-12N	3/4	19.05	3/4	15.74	1-1/8	28.58	1-1/8	28.58	24.38	21.84	23.87	34.03	30.98
ALBM 16-16N	1	25.40	1	22.35	1-3/8	34.93	1-1/2	38.10	31.24	26.41	28.19	40.38	37.84

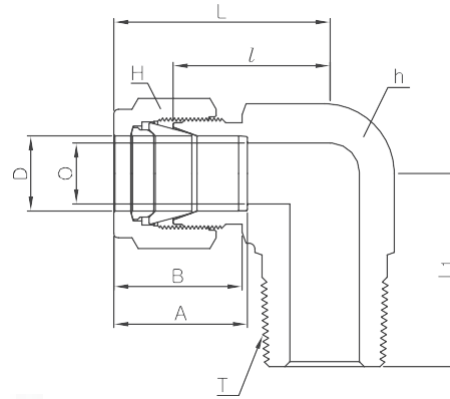
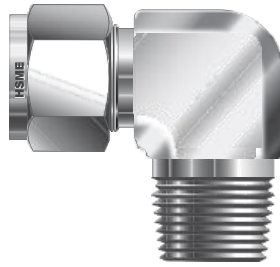
Connects metric tube to female NPT thread

Part No.	Tube O.D. D	T NPT	O Min.	Width across flat		A	B	I	L	L1
				h	H					
ALBM 6M-4N	6	1/4	4.8	12.7	14.0	15.3	17.7	21.8	29.4	22.9
ALBM 12M-8N	12	1/2	9.5	20.64	22.0	22.8	22.0	21.8	31.9	29.0

Positionable 45° SAE Male Elbow
ALBS-UP


Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D. D		Straight Thread T(U)	O Min.	Width across flat						A	B	l	l1	L	L1	K	O-Ring Uniform Size Number
	in	mm			h		H		H1									
					in	mm	in	mm	in	mm								
ALBS 4-4UP	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	18.28	9.90	25.65	25.65	16.51	-904
ALBS 6-6UP	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	20.57	11.17	27.94	28.19	20.06	-906
ALBS 8-8UP	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	21.84	12.70	32.00	32.25	25.65	-908
ALBS12-12UP	3/4	19.05	1-1/16-12	15.74	1-1/8	28.58	1-1/8	28.58	1-1/4	31.75	24.38	21.84	29.71	16.76	39.87	47.24	36.57	-912
ALBS16-16UP	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	35.30	16.76	47.49	50.54	43.94	-916

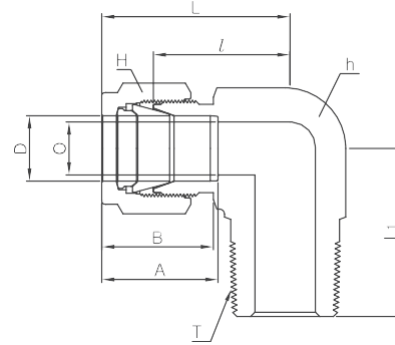
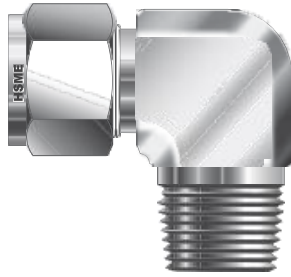
Male NPT Elbow
ALM-N


Connects fractional tube to female NPT thread

Part No.	Tube O.D.		T NPT	O Min.	Width across flat				A	B	/	L	L1
	D				h		H						
	in	mm			in	mm	in	mm					
ALM1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
ALM1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
ALM2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
ALM2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.26
ALM3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	18.79
ALM3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
ALM4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
ALM4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.47	18.79
ALM4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.81	27.18	23.87
ALM4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	26.20
ALM4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	33.02
ALM5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.81
ALM5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	29.77	24.50
ALM5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	26.20
ALM6-2N	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	20.60
ALM6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
ALM6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	26.20
ALM6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	31.42	33.02
ALM6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
ALM8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ALM8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ALM8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
ALM8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
ALM10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	30.22
ALM10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	35.10
ALM10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
ALM12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	37.00
ALM12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	36.83
ALM14-12N	7/8	22.22	3/4	15.74	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
ALM16-12N	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
ALM16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
ALM20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
ALM24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
ALM32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	62.73	63.73	69.80	107.18	70.61

Connects metric tube to female NPT thread

Part No.	Tube O.D. D	T R(PT)	O Min.	Width across flat		A	B	I	L	L1
				h	H					
ALM3M-1N	3	1/16	2.4	11.1	12	12.9	15.3	17.0	23.6	17.8
ALM3M-2N	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
ALM3M-4N	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
ALM4M-2N	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
ALM4M-4N	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
ALM6M-2N	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
ALM6M-4N	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
ALM6M-6N	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
ALM6M-8N	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
ALM8M-2N	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
ALM8M-4N	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
ALM8M-6N	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
ALM8M-8N	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
ALM10M-2N	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
ALM10M-4N	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
ALM10M-6N	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
ALM10M-8N	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
ALM12M-2N	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
ALM12M-4N	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
ALM12M-6N	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
ALM12M-8N	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
ALM12M-12N	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
ALM16M-6N	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
ALM16M-8N	16	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
ALM16M-12N	16	3/4	12.7	23.81	25	24.4	22.0	29.7	39.8	36.8
ALM18M-8N	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
ALM18M-12N	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
ALM20M-8N	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ALM20M-12N	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ALM22M-12N	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ALM22M-16N	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
ALM25M-12N	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
ALM25M-16N	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5
ALM28M-16N	28	1	21.8	41.0	46	36.6	36.6	43.2	64.0	53.7
ALM30M-20N	30	1-1/4	26.2	46.0	50	39.6	39.2	48.3	69.9	53.1
ALM32M-20N	32	1-1/4	27.8	46.0	50	42.0	41.6	49.3	72.3	53.1
ALM38M-24N	38	1-1/4	33.7	50.8	60	49.4	47.9	56.4	84.0	60.4

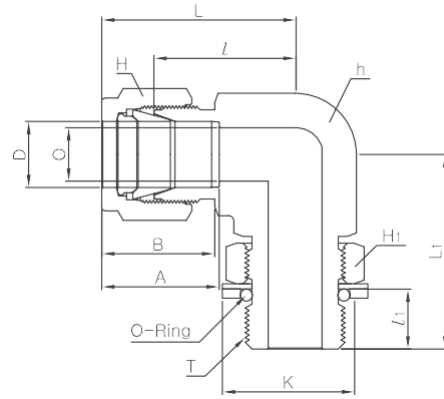
Male BSPT Elbow
ALM-R


Connects fractional tube to female ISO tapered thread

Part No.	Tube O.D.		T PT	O Min.	Width across flat				A	B	I	L	L1
	D				h		H						
	in	mm			in	mm	in	mm					
ALM 2-2R	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
ALM2-4R	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.26
ALM3-4R	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
ALM4-2R	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.47	18.79
ALM4-4R	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.81	27.18	23.87
ALM4-6R	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	26.20
ALM4-8R	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	33.02
ALM5-4R	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	29.77	24.50
ALM5-6R	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	26.20
ALM6-2R	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	20.60
ALM6-4R	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
ALM6-6R	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	26.20
ALM6-8R	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	31.42	33.02
ALM6-12R	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
ALM8-4R	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ALM8-6R	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ALM8-8R	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
ALM8-12R	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
ALM10-6R	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	30.22
ALM10-8R	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	35.10
ALM10-12R	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
ALM12-8R	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	37.00
ALM12-12R	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	36.83
ALM12-16R	3/4	19.05	1	16.0	1-3/8	34.92	1-1/8	28.57	24.38	21.84	34.54	44.59	46.48
ALM16-12R	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
ALM16-16R	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
ALM20-12R	1-1/4	31.75	3/4	15.74	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	42.95
ALM20-20R	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75

Connects metric tube to female ISO tapered thread

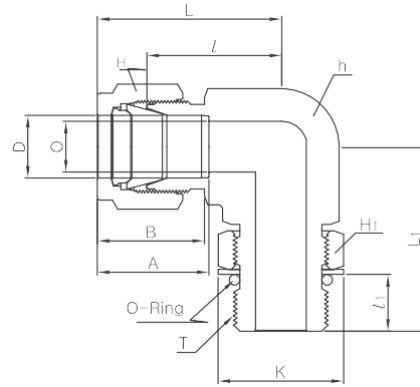
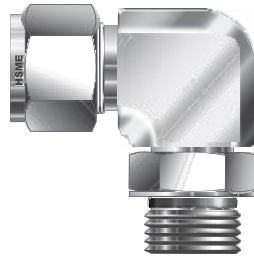
Part No.	Tube O.D. D	T R(PT)	O Min.	Width across flat		A	B	I	L	L1
				h	H					
ALM3M-1R	3	1/16	2.4	11.1	12	12.9	15.3	17.0	23.6	17.8
ALM3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
ALM3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
ALM4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
ALM4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
ALM6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
ALM6M-4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
ALM6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
ALM6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
ALM8M-2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
ALM8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
ALM8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
ALM8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
ALM10M-2R	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
ALM10M-4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
ALM10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
ALM10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
ALM12M-2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
ALM12M-4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
ALM12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
ALM12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
ALM12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
ALM14M-8R	14	1/2	11.1	23.81	25	24.4	22.0	27.9	38.0	30.2
ALM15M-6R	15	3/8	9.5	23.81	25	24.4	22.0	27.9	38.0	30.2
ALM15M-8R	15	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
ALM16M-6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
ALM16M-8R	16	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
ALM18M-8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
ALM18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
ALM20M-8R	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ALM20M-12R	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ALM22M-8R	22	1/2	11.9	34.92	32	26.0	22.0	32.5	42.6	39.6
ALM22M-12R	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ALM22M-16R	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
ALM25M-8R	25	1/2	11.9	34.92	38	31.3	26.5	36.8	49.1	41.7
ALM25M-12R	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
ALM25M-16R	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5
ALM28M-16R	28	1	21.8	41.0	46	36.6	36.6	43.2	64.0	53.7

Positionable Male ISO Parallel Thread Elbow
ALM-GR

Connects fractional tube to ISO parallel thread

Part No.	Tube O.D. D		T G(PF)	O Min.	Width across flat						A	B	I	I1	L	L1	K	O-Ring Uniform Size Number
	in	mm			h		H		H1									
					in	mm	in	mm	in	mm								
ALM4-2GR	1/4	6.35	1/8	4.06	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	19.6	8.12	26.92	26.42	15.20	P8
ALM4-4GR	1/4	6.35	1/4	4.82	5/8	15.87	11/16	17.46	3/4	19.05	15.24	17.78	21.6	9.14	28.95	32.30	20.30	-111
ALM6-4GR	3/8	9.52	1/4	5.84	5/8	15.87	11/16	17.46	3/4	19.05	16.76	19.30	23.1	9.14	30.48	32.30	20.30	-111
ALM6-6GR	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	3/4	19.05	16.76	19.30	25.9	9.39	33.27	37.10	24.40	-113
ALM8-8GR	1/2	12.70	1/4	5.84	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	25.9	9.14	36.06	35.10	20.30	-111
ALM8-8GR	1/2	12.70	3/8	7.87	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	25.9	9.39	36.06	37.10	24.40	-113
ALM8-8GR	1/2	12.70	1/2	10.41	15/16	23.81	7/8	22.22	1-1/16	26.98	22.86	21.84	27.9	12.95	38.10	43.40	29.50	P18
ALM12-8GR	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.57	1-1/16	26.98	24.38	21.84	29.7	12.95	39.87	45.21	29.50	P18
ALM12-12GR	3/4	19.05	3/4	15.74	1-1/16	26.93	1-1/8	28.57	1-3/8	34.92	24.38	21.84	29.7	12.95	39.87	48.77	36.30	-119
ALM16-16GR	1	25.40	1	19.81	1-3/8	34.92	1-1/2	38.10	1-3/8	41.28	31.24	26.41	36.8	13.97	49.02	53.60	46.20	-217

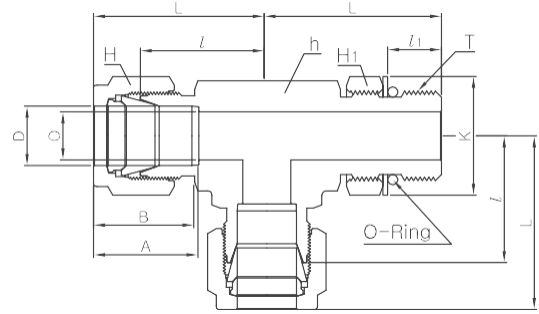
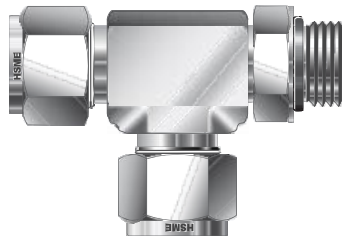
Connects metric tube to ISO parallel thread

Part No.	Tube O.D. D	T G(PF)	O Min.	Width across flat			A	B	I	I1	L	L1	K	O-Ring Uniform Size Number
				h	H	H1								
ALM6M-2GR	6	1/8	4.0	12.7	14	14.28	15.3	17.7	19.6	8.1	27.0	26.4	15.20	P8
ALM6M-4GR	6	1/4	4.8	15.8	14	19.05	15.3	17.7	21.6	9.1	29.0	32.3	20.30	-111
ALM6M-6GR	6	3/8	4.8	20.6	14	22.22	15.3	17.7	24.4	9.4	31.8	37.1	24.40	-113
ALM8M-2GR	8	1/8	4.0	14.2	16	14.28	16.2	18.6	21.3	8.1	28.8	27.4	15.20	P8
ALM8M-4GR	8	1/4	5.9	15.8	16	19.05	16.2	18.6	22.4	9.1	29.9	32.2	20.30	-111
ALM10M-4GR	10	1/4	5.9	20.6	19	19.05	17.2	19.5	25.9	9.1	33.5	35.0	20.30	-113
ALM10M-6GR	10	3/8	7.9	20.6	19	22.22	17.2	19.5	25.9	9.4	33.5	37.1	24.40	-111
ALM12M-4GR	12	1/4	5.9	20.6	22	19.05	22.8	22.0	25.9	9.1	36.0	35.0	20.30	-113
ALM12M-6GR	12	3/8	7.9	20.6	22	22.22	22.8	22.0	25.9	9.4	36.0	37.1	24.40	-113
ALM12M-8GR	12	1/2	9.5	23.8	22	26.98	22.8	22.0	27.9	13.0	38.0	43.4	29.50	P18

Positionable SAE Male Elbow
ALS-UP


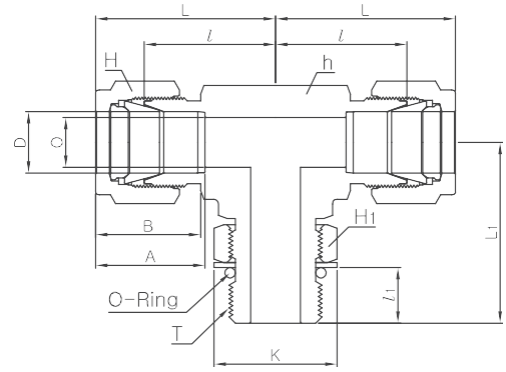
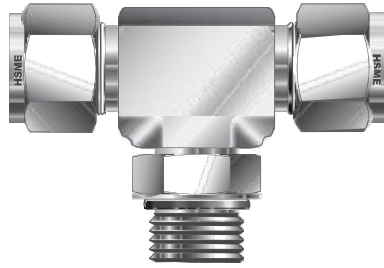
Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D.D		Straight Thread T(U)	O Min.	Width across flat						A	B	l	l1	L	L1	K	O-Ring Uniform Size Number
	in	mm			h		H		H1									
					in	mm	in	mm	in	mm								
ALS 4-4UP	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
ALS 5-5UP	5/16	7.93	1/2-20	5.84	9/16	14.28	5/8	15.87	5/8	15.87	16.25	18.54	22.86	9.90	30.22	29.46	18.28	-905
ALS 6-6UP	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
ALS 6-8UP	3/8	9.52	3/4-16	7.11	13/16	20.64	11/16	17.46	7/8	22.22	16.76	19.30	27.43	12.70	34.79	37.84	25.65	-908
ALS 8-8UP	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
ALS 10-10UP	5/8	15.87	7/8-14	12.70	1	25.40	1	25.40	1	25.40	24.38	21.84	29.46	14.22	39.62	43.43	29.46	-910
ALS 12-12UP	3/4	19.05	1-1/16-12	15.74	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	-912
ALS 14-14UP	7/8	22.22	1-3/16-12	18.28	1-1/4	31.75	1-1/4	31.75	1-3/8	34.92	25.90	21.84	33.02	16.76	43.18	50.54	40.38	-914
ALS 16-16UP	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	53.59	43.94	-916
ALS 20-20UP	1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.76	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	-920
ALS 24-24UP	1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
ALS 32-32UP	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	-932

Positionable SAE Male Run Tee
ATRS-UP


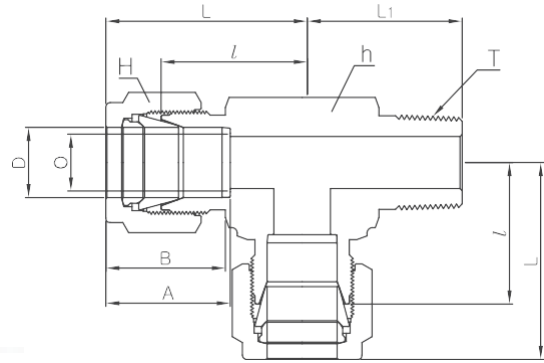
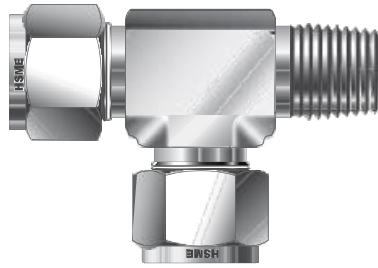
Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D. D		Straight Thread T(U)	O Min.	Width across flat						A	B	I	I1	L	L1	K	O-Ring Uniform Size Number
	In	mm			h		H		H ₁									
					in	mm	in	mm	in	mm								
ATRS4-4UP	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
ATRS6-6UP	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
ATRS8-8UP	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
ATRS12-12UP	3/4	19.05	1-1/16-12	15.74	1-1/8	26.98	1-1/8	28.58	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	-912
ATRS16-16UP	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	50.54	43.94	-916
ATRS20-20UP	1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.86	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	-920
ATRS24-24UP	1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
ATRS32-32UP	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	-932

Positionable SAE Male Branch Tee
ATBS-UP


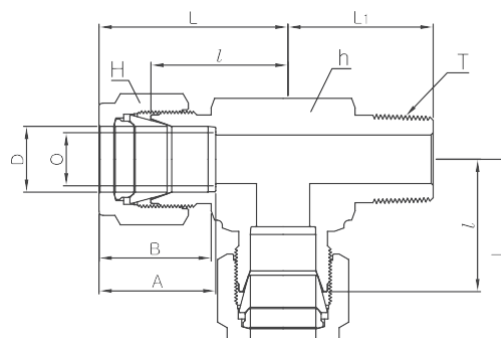
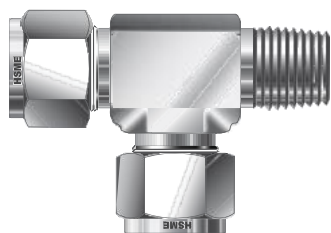
Connects fractional tube to SAE straight thread boss

Part No.	Tube O.D. D		Straight Thread T(U)	O Min.	Width across flat						A	B	I	I1	L	L1	K	O-Ring Uniform Size Number
	In	mm			h		H		H ₁									
					in	mm	in	mm	in	mm								
ATBS4-4UP	1/4	6.35	7/16-20	4.82	1/2	12.70	9/16	14.28	9/16	14.28	15.24	17.78	21.08	9.90	28.44	28.44	16.51	-904
ATBS6-6UP	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	11/16	17.46	16.76	19.30	24.63	11.17	32.00	32.25	20.06	-906
ATBS8-8UP	1/2	12.70	3/4-16	10.41	13/16	20.64	7/8	22.22	7/8	22.22	22.86	21.84	27.43	12.70	37.59	37.84	25.65	-908
ATBS12-12UP	3/4	19.05	1-1/16-12	15.74	1-1/16	26.98	1-1/8	28.58	1-1/4	31.75	24.38	21.84	31.24	16.76	41.40	48.76	36.57	-912
ATBS16-16UP	1	25.40	1-5/16-12	22.35	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.24	26.41	38.35	16.76	50.54	53.59	43.94	-916
ATBS20-20UP	1-1/4	31.75	1-5/8-12	27.68	1-11/16	42.86	1-7/8	47.63	1-7/8	47.63	41.14	38.86	45.72	16.76	67.81	58.16	54.86	-920
ATBS24-24UP	1-1/2	38.10	1-7/8-12	34.03	2	50.80	2-1/4	57.15	2-1/8	53.98	50.03	45.21	50.80	16.76	77.97	60.45	62.23	-924
ATBS32-32UP	2	50.80	2-12-12	45.97	2-3/4	69.85	3	76.20	2-3/4	69.85	67.56	62.73	69.85	16.76	107.18	71.62	80.26	-932

Male NPT Run Tee
ATRM-N

Connects fractional tube to female NPT thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat				A	B	I	L	L1
	in	mm			h		H						
					in	mm	in	mm					
ATRM1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
ATRM1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
ATRM 2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
ATRM2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.26
ATRM3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	24.38	18.79
ATRM3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
ATRM4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
ATRM4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	18.79
ATRM4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	27.08	23.87
ATRM4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	28.40
ATRM4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	35.10
ATRM5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.71	19.81
ATRM5-4N	5/16	7.94	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.77	24.50
ATRM5-6N	5/16	7.94	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	28.40
ATRM6-4N	3/8	9.52	1/4	7.11	5/8	15.87	1/16	17.46	16.76	19.30	23.11	30.48	25.40
ATRM6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	28.44
ATRM6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	33.02
ATRM6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
ATRM8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ATRM8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ATRM8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
ATRM8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.84	36.83
ATRM10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	29.40
ATRM10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00
ATRM10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
ATRM12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
ATRM12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.81	36.83
ATRM14-12N	7/8	22.23	3/4	15.74	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
ATRM16-12N	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
ATRM16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
ATRM20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
ATRM24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
ATRM32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18	70.61

Male BSPT Run Tee ATRM-R

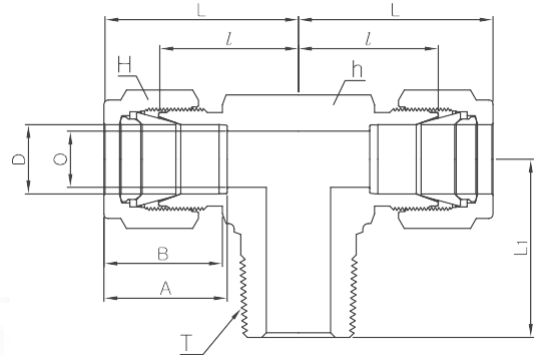
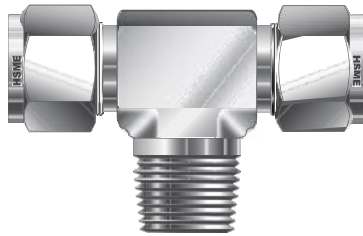


Connects fractional tube to female ISO tapered thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat				A	B	l	L	L1
	in	mm			h		H						
					in	mm	in	mm					
ATRM6-4R	3/8	9.52	1/4	7.11	5/8	15.87	1/16	17.46	16.76	19.30	23.11	30.48	25.40
ATRM8-6R	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ATRM 8-8R	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
ATRM10-8R	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00

Connects metric tube to female ISO tapered thread

Part No.	Tube O.D. D	T R(PT)	O Min.	Width across flat		A	B	l	L	L1
				h	H					
ATRM3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
ATRM3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
ATRM4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
ATRM4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
ATRM6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
ATRM6M-4R	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
ATRM6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
ATRM6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
ATRM8M-2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
ATRM8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
ATRM8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
ATRM8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
ATRM10M-2R	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
ATRM10M-4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
ATRM10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
ATRM10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
ATRM12M-2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
ATRM12M-4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
ATRM12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
ATRM12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
ATRM12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
ATRM16M-6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
ATRM16M-8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
ATRM16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
ATRM18M-8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
ATRM18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
ATRM20M-8R	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ATRM20M-12R	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ATRM22M-12R	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
ATRM22M-16R	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
ATRM25M-12R	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
ATRM25M-16R	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5

Male NPT Branch Tee
ATBM-N
Male BSPT Branch Tee
ATBM-R


Connects fractional tube to female NPT thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat				A	B	I	L	L1
	in	mm			h		H						
					in	mm	in	mm					
ATBM1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
ATBM1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
ATBM2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
ATBM2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.26
ATBM3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	24.38	18.79
ATBM3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
ATBM4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
ATBM4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	18.79
ATBM4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	27.08	23.87
ATBM4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	28.40
ATBM4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	35.10
ATBM5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.71	19.81
ATBM5-4N	5/16	7.94	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.77	24.50
ATBM5-6N	5/16	7.94	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	28.40
ATBM6-4N	3/8	9.52	1/4	7.11	5/8	15.87	1/16	17.46	16.76	19.30	23.11	30.48	25.40
ATBM6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	28.44
ATBM6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	33.02
ATBM6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
ATBM8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ATBM8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ATBM8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
ATBM8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.84	36.83
ATBM10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	29.40
ATBM10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00
ATBM10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
ATBM12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
ATBM12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.81	36.83
ATBM14-12N	7/8	22.23	3/4	15.74	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
ATBM16-12N	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
ATBM16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
ATBM20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
ATBM24-24N	1-1/2	38.10	1-1/2	34.03	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
ATBM32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18	70.61

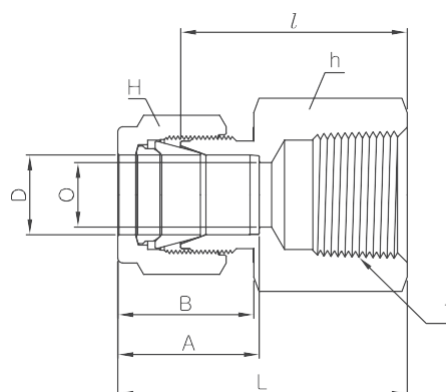
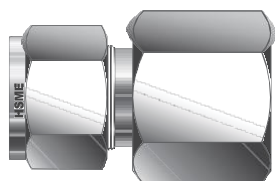
Connects fractional tube to female ISO tapered thread

Part No.	Tube O.D. D		T PT	O Min.	Width across flat				A	B	I	L	L1
					h		H						
	in	mm			in	mm	in	mm					
ATBM6-4R	3/8	9.52	1/4	7.11	5/8	15.87	1/16	17.46	16.76	19.30	23.11	30.48	25.40
ATBM8-6R	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
ATBM8-8R	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
ATBM10-8R	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00



Female NPT Connector

ACF-N



Connects fractional tube to male NPT thread

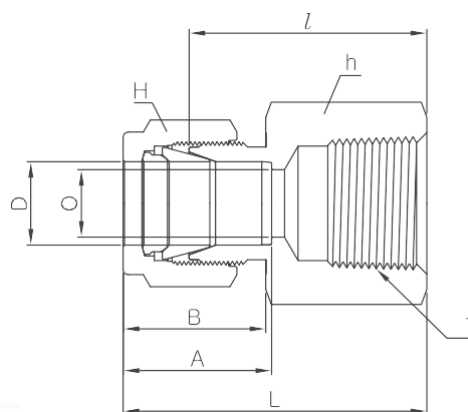
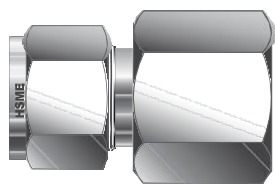
Part No.	Tube O.D.		T NPT	O Min.	Width across flat				A	B	l	L
	D				h		H					
	in	mm			in	mm	in	mm				
ACF1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	19.81	23.62
ACF1-2N	1/16	1.59	1/8	1.27	9/16	14.28	5/16	7.93	8.63	10.92	20.57	24.38
ACF2-2N	1/8	3.17	1.8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	22.09	28.70
ACF2-4N	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	26.92	33.52
ACF3-2N	3/16	4.76	1/8	3.04	9/16	14.28	1/2	12.70	13.71	16.00	23.11	29.71
ACF4-2N	1/4	6.35	1/8	4.82	9/16	14.28	9/16	14.28	15.24	17.78	23.87	31.24
ACF4-4N	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	28.44	35.81
ACF4-6N	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	37.59
ACF4-8N	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	35.05	42.41
ACF5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	24.63	32.00
ACF5-4N	5/16	7.93	1/4	6.35	3/4	19.05	5/8	15.87	16.25	18.54	29.46	36.83
ACF6-2N	3/8	9.52	1/8	7.11	5/8	15.87	15.87	11/16	17.46	16.76	19.30	25.40
ACF6-4N	3/8	9.52	1/4	7.11	3/4	19.05	11/16	17.46	16.76	19.30	30.22	37.59
ACF6-6N	3/8	9.52	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.75	39.11
ACF6-8N	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	36.57	43.94
ACF6-12N	3/8	9.52	3/4	7.11	1-5/16	33.33	11/16	17.46	16.76	19.30	40.38	47.45
ACF8-4N	1/2	12.70	1/4	10.41	1-3/16	20.64	7/8	22.22	22.86	21.84	30.22	40.38
ACF8-6N	1/2	12.70	3/8	10.41	7/8	22.22	7/8	22.22	22.86	21.84	31.75	41.91
ACF8-8N	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	36.57	46.73
ACF8-12N	1/2	12.70	3/4	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	38.10	48.26
ACF10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	41.91
ACF10-8N	5/8	15.87	1/2	12.70	1-1/16	26.98	1	25.40	24.38	21.84	36.57	46.73
ACF10-12N	5/8	15.87	3/4	12.70	1-5/16	33.33	1	25.40	24.38	21.84	38.10	48.26
ACF12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	36.57	46.73
ACF12-12N	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	38.10	48.26
ACF14-12N	7/8	22.22	3/4	18.28	1-5/16	33.33	1-1/4	31.75	25.90	21.84	39.62	49.78
ACF16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	41.14	53.34
ACF16-16N	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	50.03	62.23
ACF20-20N	1-1/4	31.75	1-1/4	27.68	2-1/8	53.98	1-7/8	47.63	41.14	38.86	52.57	74.67
ACF24-24N	1-1/2	38.10	1-1/2	34.03	2-3/8	60.33	2-1/4	57.15	50.03	45.21	56.13	83.81
ACF32-32N	2	50.80	2	45.97	2-1/8	73.03	3	76.20	67.56	62.73	64.26	101.60

Connects metric tube to male NPT thread

Part No.	Tube O.D. D	T NPT	O Min.	Width across flat		A	B	I	L
				h	H				
ACF3M-2N	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
ACF3M-4N	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
ACF4M-2N	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
ACF6M-2N	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
ACF6M-4N	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
ACF6M-6N	6	3/8	4.8	22	14	15.3	17.7	29.5	36.9
ACF6M-8N	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
ACF8M-2N	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
ACF8M-4N	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
ACF8M-6N	8	3/8	6.4	22	16	16.2	18.6	30.2	37.7
ACF8M-8N	8	1/2	6.4	27	16	16.2	18.6	35.8	43.3
ACF10M-2N	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
ACF10M-4N	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
ACF10M-6N	10	3/8	7.9	22	19	17.2	19.5	31.0	38.6
ACF10M-8N	10	1/2	7.9	27	19	17.2	19.5	36.6	44.2
ACF12M-2N	12	1/8	8.3	22	22	22.8	22.0	28.4	38.5
ACF12M-4N	12	1/4	9.5	22	22	22.8	22.0	30.2	40.3
ACF12M-6N	12	3/8	9.5	22	22	22.8	22.0	31.0	41.1
ACF12M-8N	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
ACF12M-12N	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
ACF15M-8N	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
ACF16M-8N	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
ACF20M-8N	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
ACF20M-12N	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
ACF22M-12N	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
ACF22M-16N	22	1	18.3	41	32	26.0	22.0	47.8	57.9
ACF25M-12N	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
ACF25M-16N	25	1	21.8	41	38	31.3	26.5	50.0	62.3

Female BSPT Connector

ACF-R

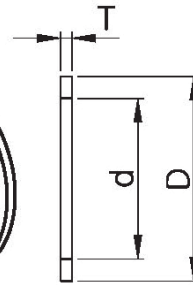
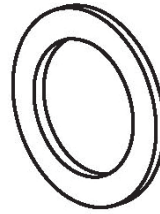


Connects fractional tube to male ISO tapered thread

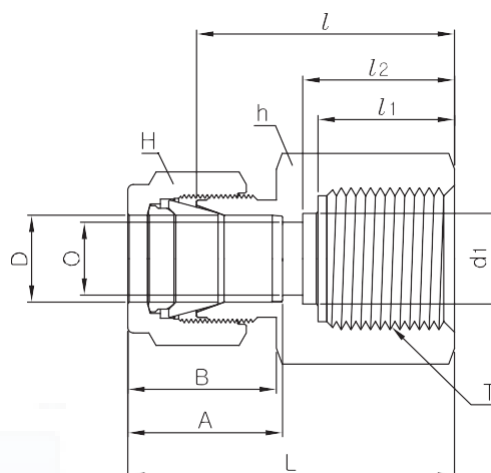
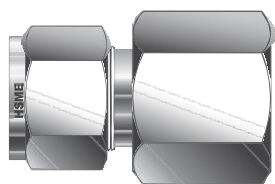
Part No.	Tube O.D.		T PT	O Min.	Width across flat				A	B	I	L
	D				h		H					
	in	mm			in	mm	in	mm				
ACF 2-2R	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	22.09	28.70
ACF4-2R	1/4	6.35	1/8	4.82	9/16	14.28	9/16	14.28	15.24	17.78	23.87	31.24
ACF4-4R	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	28.44	35.81
ACF4-6R	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	37.59
ACF4-8R	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	35.05	42.41
ACF6-4R	3/8	9.52	1/4	7.11	3/4	19.05	11/16	17.46	16.76	19.30	30.22	37.59
ACF6-6R	3/8	9.52	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.75	39.11
ACF6-8R	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	36.57	43.94
ACF8-2R	1/2	12.70	1/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.40	35.56
ACF8-4R	1/2	12.70	1/4	10.41	1-3/16	20.64	7/8	22.22	22.86	21.84	30.22	40.38
ACF8-6R	1/2	12.70	3/8	10.41	7/8	22.22	7/8	22.22	22.86	21.84	31.75	41.91
ACF8-8R	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	36.57	46.73
ACF8-12R	1/2	12.70	3/4	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	38.10	48.26
ACF10-6R	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	41.91
ACF10-8R	5/8	15.87	1/2	12.70	1-1/16	26.98	1	25.40	24.38	21.84	36.57	46.73
ACF10-12R	5/8	15.87	3/4	12.70	1-5/16	33.33	1	25.40	24.38	21.84	38.10	48.26
ACF12-8R	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	36.57	46.73
ACF12-12R	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	38.10	48.26
ACF16-12R	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	41.14	53.34
ACF16-16R	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	50.03	62.23
ACF20-16R	1-1/4	31.75	1	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	52.57	74.67
ACF20-20R	1-1/4	31.75	1-1/4	27.68	2-1/8	53.98	1-7/8	47.63	41.14	38.86	52.57	74.67
ACF24-24R	1-1/2	38.10	1-1/2	34.03	2-3/8	60.33	2-1/4	57.15	50.03	45.21	56.13	83.81

Connects metric tube to male ISO tapered thread

Part No.	Tube O.D. D	T R(PT)	O Min.	Width across flat		A	B	I	L
				h	H				
ACF3M-2R	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
ACF3M-4R	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
ACF4M-2R	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
ACF6M-2R	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
ACF6M-4R	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
ACF6M-6R	6	3/8	4.8	22	14	15.3	17.7	29.5	36.9
ACF6M-8R	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
ACF8M-2R	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
ACF8M-4R	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
ACF8M-6R	8	3/8	6.4	22	16	16.2	18.6	30.2	37.7
ACF8M-8R	8	1/2	6.4	27	16	16.2	18.6	35.8	43.3
ACF10M-2R	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
ACF10M-4R	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
ACF10M-6R	10	3/8	7.9	22	19	17.2	19.5	31.0	38.6
ACF10M-8R	10	1/2	7.9	27	19	17.2	19.5	36.6	44.2
ACF12M-2R	12	1/8	8.3	22	22	22.8	22.0	28.4	38.5
ACF12M-4R	12	1/4	9.5	22	22	22.8	22.0	30.2	40.3
ACF12M-6R	12	3/8	9.5	22	22	22.8	22.0	31.0	41.1
ACF12M-8R	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
ACF12M-12R	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
ACF15M-8R	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
ACF16M-8R	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
ACF20M-8R	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
ACF20M-12R	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
ACF22M-12R	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
ACF22M-16R	22	1	18.3	41	32	26.0	22.0	47.8	57.9
ACF25M-12R	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
ACF25M-16R	25	1	21.8	41	38	31.3	26.5	50.0	62.3

Copper Gasket
9PP-GG

Ordering Information and Dimensions

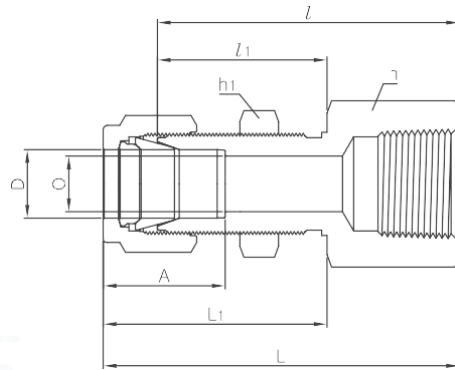
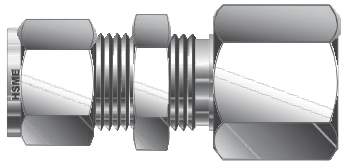
Thread in.	Dimensions, mm (in.)			Part Number
	D	d	T	
1/8	8.2 (0.322)	5.5 (0.218)	1.6 (0.062)	9PP-2GG-CU
1/4	11.1 (0.436)	7.9 (0.312)		9PP-4GG-CU
3/8	14.6 (0.574)	11.1 (0.437)		9PP-6GG-CU
1/2	18.3 (0.719)	14.3 (0.562)		9PP-8GG-CU
3/4	23.7 (0.935)	20.6 (0.812)		9PP-12GG-CU
1	29.9 (1.178)	25.4 (1)	2.4 (0.093)	9PP-16GG-CU

Female Gauge Connector
ACF-GG

Connects fractional tube to Gauge (male ISO parallel thread)

Part No.	Tube O.D.		T PT	O Min.	O1	Width across flat				A	B	/	/1	L
	D					h		H						
	in	mm				in	mm	in	mm					
ACF2-4GG	1/8	3.17	1/4	2.4	5.5	3/4	19.05	7/16	11.11	12.70	15.24	28.70	13.00	35.31
ACF4-2GG	1/4	6.35	1/8	4.82	-	9/16	14.28	9/16	14.28	15.24	17.78	26.30	12.00	33.55
ACF4-4GG	1/4	6.35	1/4	4.82	5.5	3/4	19.05	9/16	14.28	15.24	17.78	30.22	13.00	37.59
ACF4-6GG	1/4	6.35	3/8	4.82	6.5	15/16	23.81	9/16	14.28	15.24	17.78	30.22	14.22	37.59
ACF4-8GG	1/4	6.35	1/2	4.82	7.0	1-1/16	26.98	9/16	14.28	15.24	17.78	30.07	18.80	43.43
ACF5-4GG	5/16	7.93	1/4	5.58	5.5	3/4	19.05	5/8	15.87	16.25	18.54	30.98	13.00	38.35
ACF5-8GG	5/16	7.93	1/2	7.11	7.0	1-1/16	26.98	5/8	15.87	16.25	18.54	33.02	18.80	40.38
ACF6-4GG	3/8	9.52	1/4	5.58	5.5	3/4	19.05	11/16	17.46	16.76	19.30	31.75	12.95	39.12
ACF6-6GG	3/8	9.52	3/8	6.60	6.5	15/16	23.81	11/16	17.46	16.76	19.30	31.24	14.22	38.61
ACF6-8GG	3/8	9.52	1/2	7.11	7.0	1-1/16	26.98	11/16	17.46	16.76	19.30	34.54	18.80	41.91
ACF8-4GG	1/2	12.70	1/4	5.50	5.5	7/8	22.22	7/8	22.22	22.86	21.84	31.80	13.00	41.95
ACF8-6GG	1/2	12.70	3/8	6.60	6.5	15/16	23.81	7/8	22.22	22.86	21.84	34.29	14.24	44.45
ACF8-8GG	1/2	12.70	1/2	7.11	7.0	1-1/16	26.98	7/8	22.22	22.86	21.84	38.10	18.80	48.26

Connects metric tube to Gauge (male ISO parallel thread)

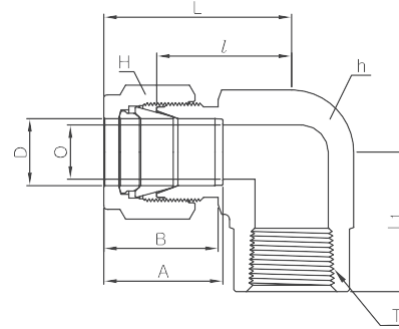
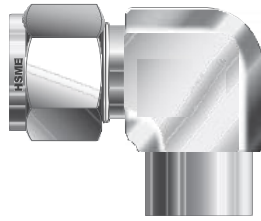
Part No.	Tube O.D. D	T R(PT)	O Min.	Width across flat		A	B	/	L1	L
				h	H					
ACF3M-4GG	3	1/4	2.4	19	12	12.9	15.3	28.7	13	35.3
ACF6M-4GG	6	1/4	4.8	19	14	15.3	17.7	30.2	13	37.6
ACF6M-6GG	6	3/8	4.8	24	14	15.3	17.7	30.2	14	37.6
ACF6M-8GG	6	1/2	4.8	27	14	15.3	17.7	36.3	19	43.0
ACF8M-4GG	8	1/4	5.5	19	16	16.2	18.6	31.0	13	38.5
ACF8M-6GG	8	3/8	6.5	24	16	16.2	18.6	28.7	14	36.2
ACF8M-8GG	8	1/2	7.0	27	16	16.2	18.6	33.0	19	40.5
ACF10M-4GG	10	1/4	5.5	19	19	17.2	19.5	31.8	13	39.4
ACF10M-6GG	10	3/8	6.5	24	19	17.2	19.5	31.2	14	38.8
ACF10M-8GG	10	1/2	7.0	27	19	17.2	19.5	33.8	19	41.4
ACF12M-4GG	12	1/4	5.5	22	22	22.8	22.0	31.8	13	41.9
ACF12M-6GG	12	3/8	6.5	24	22	22.8	22.0	34.3	14	44.4
ACF12M-8GG	12	1/2	7.0	27	22	22.8	22.0	38.1	19	48.2
ACF20M-8GG	20	1/2	7.0	30	32	26.0	22.0	44.2	19	54.3
ACF22M-8GG	22	1/2	7.0	30	32	26.0	22.0	44.2	19	54.3

Bulkhead Female NPT Connector
ACBF-N

Connects fractional tube to male NPT thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat						A	l	l1	L	L1	Panel Hole Drill size	Panel Max Thickness
	in	mm			h		h1		H								
					in	mm	in	mm	in	mm							
ACBF2-2N	1/8	3.17	1/8	2.28	9/16	14.28	1/2	12.70	7/16	11.11	12.70	38.10	24.63	44.70	31.24	8.33	12.70
ACBF4-2N	1/4	6.35	1/8	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	39.62	26.16	46.99	33.52	11.50	10.16
ACBF4-4N	1/4	6.35	1/4	4.82	3/4	19.05	5/8	15.87	9/16	14.28	15.24	44.45	26.16	51.81	33.52	11.50	10.16
ACBF6-4N	3/8	9.52	1/4	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	47.75	29.46	55.11	36.83	14.68	11.17
ACBF6-6N	3/8	9.52	3/8	7.11	7/8	22.22	3/4	19.05	11/16	17.46	16.76	49.41	29.46	56.77	36.83	14.68	11.17
ACBF8-6N	1/2	12.70	3/8	10.41	15/16	23.81	15/16	23.81	7/8	22.22	22.86	51.56	31.75	61.72	41.91	19.44	12.70
ACBF8-8N	1/2	12.70	1/2	10.41	1-1/16	26.98	15/16	23.81	7/8	22.22	22.86	56.38	31.75	66.54	41.91	19.44	12.70
ACBF12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-3/16	30.16	1-1/8	28.57	24.38	63.60	38.30	73.51	47.21	25.79	16.76
ACBF16-16N	1	25.40	1	22.35	1-5/8	41.27	1-5/8	41.27	1-1/2	38.10	31.24	81.04	45.21	93.23	57.40	33.73	19.05
ACBF20-20N	1-1/4	31.75	1-1/4	27.68	1-7/8	47.63	1-7/8	47.63	1-7/8	47.63	41.14	83.49	47.75	105.59	69.85	41.67	19.05
ACBF24-24N	1-1/2	38.10	1-1/2	34.03	1-1/4	57.15	2-1/4	57.15	2-1/4	57.15	50.03	87.39	49.27	114.57	76.45	49.61	19.05
ACBF32-32N	2	50.80	2	45.97	1-3/4	69.85	2-3/4	69.85	3	76.20	67.56	95.30	56.38	132.63	93.71	57.94	19.05

Connects metric tube to male NPT thread

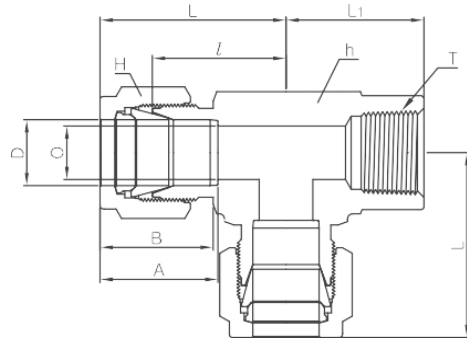
Part No.	Tube O.D. D	T (NPT)	O Min.	Width across flat			A	l	l1	L	L1	Panel Hole Drill size	Panel Max Thickness
				h	h1	H							
ACBF6M-2N	6	1/8	4.8	15.8	15.8	14	15.3	39.6	26.2	46.90	35.00	11.5	10.2
ACBF6M-4N	6	1/4	4.8	19.0	16.0	14	15.3	44.4	26.2	51.80	33.60	11.5	10.2
ACBF8M-4N	8	1/4	6.3	19.0	17.4	16	16.2	46.7	28.6	53.85	35.55	13.1	11.2
ACBF12M-8N	12	1/2	9.5	27.0	24.0	22	22.8	56.4	31.8	66.50	41.90	19.5	12.7

Female NPT Elbow
ALF-N

Connects fractional tube to male NPT thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat				A	B	I	L	L1
	in	mm			h		H						
					in	mm	in	mm					
ALF2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
ALF2-4N	1/8	3.17	1.4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
ALF3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
ALF4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
ALF4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	22.35
ALF4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
ALF4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
ALF5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
ALF5-4N	5/16	7.93	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
ALF6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
ALF6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
ALF6-6N	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
ALF6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
ALF8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
ALF8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
ALF8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	28.70	38.86	28.44
ALF10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
ALF10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	29.71	39.87	28.44
ALF12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
ALF12-12N	3/4	19.05	3/4	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
ALF14-12N	7/8	22.22	3/4	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
ALF16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
ALF16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	50.29	38.10

Connects metric tube to male NPT thread

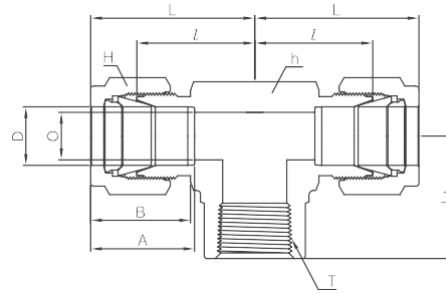
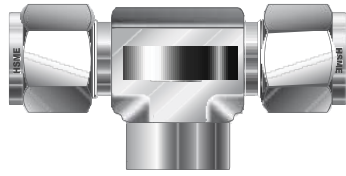
Part No.	Tube O.D. D	T (NPT)	O Min.	Width across flat		A	B	I	L	L1
				h	H					
ALF6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
ALF6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
ALF6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
ALF6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.6	28.40
ALF8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
ALF8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
ALF8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
ALF10M-2N	10	1/8	7.9	17.46	19	17.2	19.5	23.9	31.5	19.00
ALF10M-4N	10	1/4	7.9	17.46	19	17.2	19.5	25.9	33.5	22.35
ALF10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
ALF10M-8N	10	1/2	7.9	25.40	19	17.2	19.5	28.7	36.1	28.40
ALF12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
ALF12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.2	22.35
ALF12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	28.40
ALF16M-8N	16	1/2	12.7	26.98	25	24.4	22.0	29.7	39.5	28.40

Female NPT Run Tee
ATRF-N

Connects fractional tube to male NPT thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat				A	B	I	L	L1
	in	mm			h		H						
					in	mm	in	mm					
ATRF2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
ATRF 2-4N	1/8	3.17	1.4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
ATRF 3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
ATRF4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
ATRF4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.86	29.71	22.35
ATRF4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
ATRF4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
ATRF5-2N	5/16	7.94	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
ATRF5-4N	5/16	7.94	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
ATRF6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
ATRF6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
ATRF6-6N	3/8	9.52	3/8	6.35	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
ATRF6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
ATRF8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
ATRF8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
ATRF8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	29.71	39.87	28.44
ATRF10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
ATRF10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	29.71	38.86	28.44
ATRF12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
ATRF12-12N	3/4	19.05	3/4	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
ATRF14-12N	7/8	22.22	3/4	18.28	1-3/8	34.92	1-1/4	31.75	31.75	21.84	34.54	44.70	31.75
ATRF16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	38.10	26.41	36.83	49.02	31.75
ATRF16-16N	1	25.40	1	22.35	1-1/16	42.86	1-1/2	38.10	38.10	26.41	41.40	50.29	38.10

Connects metric tube to male NPT thread

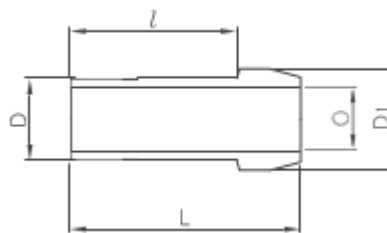
Part No.	Tube O.D. D	T (NPT)	O Min.	Width across flat		A	B	I	L	L1
				h	H					
ATRF6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
ATRF6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
ATRF6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
ATRF6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.40
ATRF8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
ATRF8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
ATRF8M-6N	8	3/8	6.4	20.64	16	16.2	18.6	25.2	32.4	22.40
ATRF8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
ATRF10M-2N	10	1/8	7.9	20.64	19	17.2	19.5	23.9	31.5	19.00
ATRF10M-4N	10	1/4	7.9	20.64	19	17.2	19.5	25.9	33.6	22.40
ATRF10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.6	22.40
ATRF10M-8N	10	1/2	7.9	25.40	19	17.2	19.5	26.2	33.6	28.40
ATRF12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
ATRF12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
ATRF12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.40
ATRF16M-8N	16	1/2	12.7	25.40	25	24.4	22.0	29.7	39.5	28.40

Female NPT Branch Tee
ATBF-N

Connects fractional tube to male NPT thread

Part No.	Tube O.D. D		T NPT	O Min.	Width across flat				A	B	I	L	L1
	in	mm			h		H						
					in	mm	in	mm					
ATBF2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.38	19.05
ATBF2-4N	1/8	3.17	1.4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
ATBF3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
ATBF4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
ATBF4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	22.35
ATBF4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
ATBF4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
ATBF5-2N	5/16	7.94	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
ATBF5-4N	5/16	7.94	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
ATBF6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
ATBF6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
ATBF6-6N	3/8	9.52	3/8	6.35	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
ATBF6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
ATBF8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
ATBF8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
ATBF8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	29.71	39.87	28.44
ATBF10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
ATBF10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	28.70	38.86	28.44
ATBF12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
ATBF12-12N	3/4	19.05	3/4	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
ATBF14-12N	7/8	22.22	3/4	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
ATBF16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
ATBF16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	53.59	38.10

Connects metric tube to male NPT thread

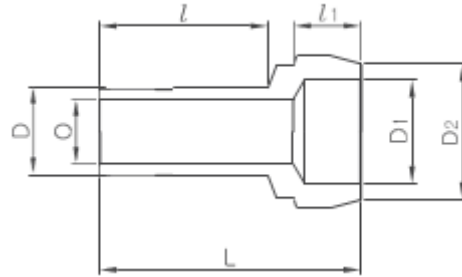
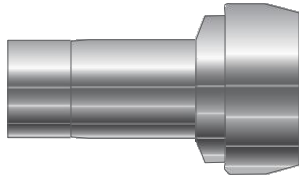
Part No.	Tube O.D. D	T (NPT)	O Min.	Width across flat		A	B	I	L	L1
				h	H					
ATBF6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
ATBF6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
ATBF6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
ATBF6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.40
ATBF8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
ATBF8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
ATBF8M-6N	8	3/8	6.4	20.64	16	16.2	18.6	25.2	32.4	22.40
ATBF8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
ATBF10M-2N	10	1/8	7.9	17.50	19	17.2	19.5	23.9	31.5	19.00
ATBF10M-4N	10	1/4	7.9	20.64	19	17.2	19.5	25.9	33.6	22.40
ATBF10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
ATBF10M-8N	10	1/2	9.5	25.40	19	17.2	19.5	26.2	33.6	22.40
ATBF12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
ATBF12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
ATBF12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.40
ATBF16M-8N	16	1/2	12.7	25.40	25	24.4	22.0	29.7	40.0	28.70

Port Connector
ACP

Connects fractional M Tube fitting ports

Part No.	Tube O.D.D		O Min.	D1	l	L
	in	mm				
ACP-1	1/16	1.59	1.00	3.30	10.66	13.72
ACP-2	1/8	3.17	1.77	6.09	15.75	22.35
ACP-4	1/4	6.35	4.57	9.39	18.79	24.64
ACP-5	5/16	7.93	6.35	10.92	20.06	25.90
ACP-6	3/8	9.52	7.11	12.70	20.32	26.16
ACP-8	1/2	12.70	9.90	15.74	25.90	35.81
ACP-12	3/4	19.05	14.98	22.09	27.68	37.33
ACP-16	1	25.40	20.06	28.44	34.54	48.00

Connects metric M Tube fitting ports

Part No.	Tube O.D.D	O Min.	D1	l	L
ACP-3M	3	2.1	6.0	15.70	22.20
ACP-4M	4	2.2	7.0	16.67	25.81
ACP-6M	6	4.4	9.0	18.70	24.60
ACP-8M	8	6.2	11.0	20.00	25.90
ACP-10M	10	8.2	13.1	20.20	26.10
ACP-12M	12	9.1	15.0	26.00	35.80
ACP-15M	15	12.7	19.0	27.78	37.40
ACP-16M	16	12.7	19.0	27.60	37.40
ACP-18M	18	13.9	21.0	27.91	37.40
ACP-20M	20	15.1	23.0	29.20	38.90
ACP-22M	22	17.9	24.97	29.30	39.20
ACP-25M	25	19.8	28.0	34.50	48.00
ACP-28M	28	23.8	34.3	48.30	63.50
ACP-32M	32	27.4	39.5	52.40	69.70
ACP-38M	38	33.3	47.1	61.40	81.90

Reducing Port Connector
ACPR

Connects fractional M Tube fitting portsy

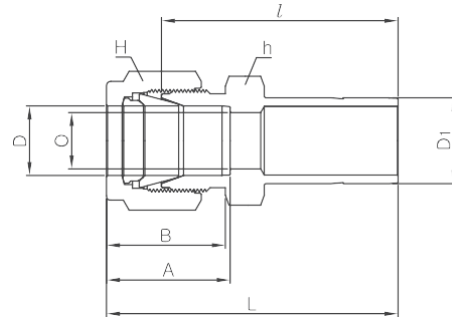
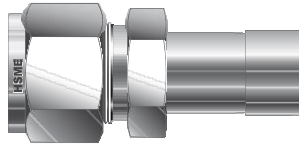
Part No.	Tube O.D.				O Min.	D2	l	l1	L
	D1		D						
	in	mm	in	mm					
ACPR2-1	1/8	3.17	1/16	1.59	1.00	6.10	8.64	2.03	17.27
ACPR4-2	1/4	6.35	1/8	3.17	2.28	9.39	13.45	3.30	22.60
ACPR6-2	3/8	9.52	1/8	3.17	2.28	12.70	13.45	3.81	23.11
ACPR6-4	3/8	9.52	1/4	6.35	4.82	12.70	15.75	3.30	24.89
ACPR8-4	1/2	12.70	1/4	6.35	4.82	15.74	15.75	3.81	29.21
ACPR8-6	1/2	12.70	3/8	9.52	7.11	15.74	17.67	3.30	30.48
ACPR12-8	3/4	19.05	1/2	12.70	9.90	22.09	23.20	3.81	37.85
ACPR16-8	1	25.40	1/2	12.70	9.90	28.40	24.47	4.82	42.67
ACPR16-12	1	25.40	3/4	19.05	14.98	28.40	25.90	4.06	43.43

Connects metric M Tube fitting ports

Part No.	Tube O.D.		O Min.	D2	l	l1	L
	D1	D					
ACPR6M-3M	6	3	2.2	9.0	13.50	3.2	22.60
ACPR8M-6M	8	6	4.6	11.0	15.70	3.1	24.70
ACPR10M-6M	10	6	4.6	13.1	15.70	3.4	25.00
ACPR10M-8M	10	8	6.4	13.1	16.80	3.1	26.00
ACPR12M-6M	12	6	4.6	15.0	15.70	3.6	29.10
ACPR12M-8M	12	8	6.4	15.0	16.80	3.4	29.80
ACPR12M-10M	12	10	7.7	15.0	17.50	3.1	30.40
ACPR16M-6M	16	6	4.6	19.0	15.75	3.6	30.40
ACPR16M-12M	16	12	9.1	19.0	23.10	3.4	36.20
ACPR28M-25M	28	25	19.8	34.3	33.00	8.2	56.50
ACPR32M-25M	32	25	19.8	39.5	33.00	9.9	60.30
ACPR38M-25M	38	25	19.8	47.1	33.00	12.3	65.80

Port Reducer

AR



Connects fractional tube to fractional M Tube fitting port

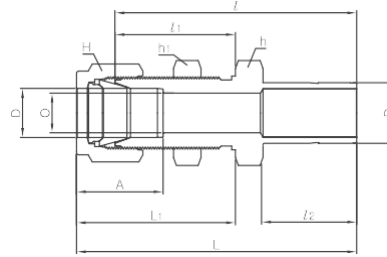
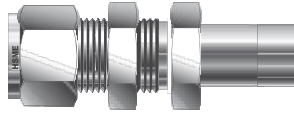
Part No.	Tube O.D.				O Min.	Width across flat				A	B	l	L
	D		D1			h		H					
	in	mm	in	mm		in	mm	in	mm				
AR1-2	1/16	1.59	1/8	3.17	1.27	5/16	7.93	5/16	7.93	8.63	10.92	25.40	29.21
AR1-4	1/16	1.59	1/4	6.35	1.27	5/16	7.93	5/16	7.93	8.63	10.92	27.68	31.49
AR2-1	1/8	3.17	1/16	1.59	1.76	7/16	11.11	7/16	11.11	12.70	15.24	22.35	28.95
AR2-2	1/8	3.17	1/8	3.17	2.03	7/16	11.11	7/16	11.11	12.70	15.24	26.92	33.52
AR2-3	1/8	3.17	3/16	4.76	2.28	7/16	11.11	7/16	11.11	12.70	15.24	27.68	34.29
AR2-4	1/8	3.17	1/4	6.35	2.28	7/16	11.11	7/16	11.11	12.70	15.24	29.46	36.06
AR2-6	1/8	3.17	3/8	9.52	2.28	7/16	11.11	7/16	11.11	12.70	15.24	30.98	37.59
AR2-8	1/8	3.17	1/2	12.70	2.28	9/16	14.28	7/16	11.11	12.70	15.24	37.59	44.19
AR3-2	3/16	4.76	1/8	3.17	2.03	7/16	11.11	1/2	12.70	13.71	16.00	28.19	34.79
AR3-4	3/16	4.76	1/4	6.35	3.04	7/16	11.11	1/2	12.70	13.71	16.00	30.48	37.08
AR4-2	1/4	6.35	1/8	3.17	2.03	1/2	12.70	9/16	14.28	15.24	17.78	29.46	36.83
AR4-3	1/4	6.35	3/16	4.76	3.04	1/2	12.70	9/16	14.28	15.24	17.78	30.22	37.59
AR4-4	1/4	6.35	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	31.75	39.11
AR4-5	1/4	6.35	5/16	7.93	4.82	1/2	12.70	9/16	14.28	15.24	17.78	32.51	39.87
AR4-6	1/4	6.35	3/8	9.52	4.82	1/2	12.70	9/16	14.28	15.24	17.78	33.27	40.64
AR4-8	1/4	6.35	1/2	12.70	4.82	9/16	14.28	9/16	14.28	15.24	17.78	38.86	46.22
AR4-10	1/4	6.35	5/8	15.87	4.82	11/16	17.46	9/16	14.28	15.24	17.78	40.64	48.00
AR4-12	1/4	6.35	3/4	19.05	4.82	13/16	20.64	9/16	14.28	15.24	17.78	40.38	47.75
AR5-6	5/16	7.93	3/8	9.52	6.35	9/16	14.28	5/8	15.87	16.25	18.54	34.54	41.91
AR5-8	5/16	7.93	1/2	12.70	6.35	9/16	14.28	5/8	15.87	16.25	18.54	40.13	47.49
AR6-4	3/8	9.52	1/4	6.35	4.82	5/8	15.87	11/16	17.46	16.76	19.30	34.03	41.40
AR6-6	3/8	9.52	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	35.81	43.18
AR6-8	3/8	9.52	1/2	12.70	7.11	5/8	15.87	11/16	17.46	16.76	19.30	41.14	45.81
AR6-10	3/8	9.52	5/8	15.87	7.11	11/16	17.46	11/16	17.46	16.76	19.30	42.92	50.29
AR6-12	3/8	9.52	3/4	19.05	7.11	13/16	20.64	11/16	17.46	16.76	19.30	42.92	50.29
AR8-4	1/2	12.70	1/4	6.35	4.82	13/16	20.64	7/8	22.22	22.86	21.84	34.79	44.95
AR8-6	1/2	12.70	3/8	9.52	7.11	13/16	20.64	7/8	22.22	22.86	21.84	36.57	46.73
AR8-8	1/2	12.70	1/2	12.70	9.90	13/16	20.64	7/8	22.22	22.86	21.84	42.16	52.32
AR8-10	1/2	12.70	5/8	15.87	10.41	13/16	20.64	7/8	22.22	22.86	21.84	43.68	53.84
AR8-12	1/2	12.70	3/4	19.05	10.41	13/16	20.64	7/8	22.22	22.86	21.84	43.68	53.84
AR8-16	1/2	12.70	1	25.40	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	50.03	60.19
AR10-12	5/8	15.87	3/4	19.05	12.70	15/16	23.81	1	25.40	24.38	21.84	44.45	54.61
AR10-14	5/8	15.87	7/8	22.22	12.70	15/16	23.81	1	25.40	24.38	21.84	45.97	56.13
AR10-16	5/8	15.87	1	25.40	12.70	1-1/16	26.98	1	25.40	24.38	21.84	50.80	60.96
AR12-8	3/4	19.05	1/2	12.70	9.90	1-1/16	26.98	1-1/8	28.57	24.38	21.84	44.45	54.61
AR12-16	3/4	19.05	1	25.40	15.74	1-1/16	26.98	1-1/8	28.57	24.38	21.84	52.32	62.48
AR16-20	1	25.40	1-1/4	31.75	22.35	1-3/8	34.93	1-1/2	38.10	31.24	26.41	68.32	80.51
AR16-24	1	25.40	1-1/2	38.10	22.35	1-5/8	41.28	1-1/2	38.10	31.24	26.41	76.96	89.15
AR16-32	1	25.40	2	50.80	22.35	2-1/8	53.98	1-1/2	38.10	31.24	26.41	100.33	112.52
AR20-24	1-1/4	31.75	1-1/2	38.10	27.68	1-7/8	47.63	1-7/8	57.15	41.14	38.86	82.04	104.14
AR20-32	1-1/4	31.75	2	50.80	27.68	1-7/8	47.63	1-7/8	76.20	41.14	38.86	103.12	125.22
AR24-32	1-1/2	38.10	2	50.80	34.03	2-1/4	57.15	2-1/4	76.20	50.03	45.21	104.14	131.31

Connects metric tube to fractional M Tube fitting port

Part No.	Tube O.D.			O Min.	Width across flat		A	B	I	L
	D	D1			h	H				
		in	mm							
AR2M-2	2	1/8	3.17	1.7	12	12	12.9	15.3	26.9	33.5
AR3M-2										
AR3M-4	3	1/4	6.35	2.4	12	12	12.9	15.3	29.5	36.1
AR4M-4										
AR6M-2	6	1/8	3.18	2.0	14	14	15.3	17.7	29.5	36.9
AR6M-4										
AR6M-5	6	5/16	7.93	4.8	14	14	15.3	17.7	32.5	39.9
AR6M-6										
AR6M-8	6	1/2	12.70	4.8	14	14	15.3	17.7	38.9	46.3
AR8M-6										
AR8M-8	8	1/2	12.70	6.4	15	16	16.2	18.6	40.1	47.6
AR10M-6										
AR10M-8	10	1/2	12.70	7.9	18	19	17.2	19.5	42.2	49.8
AR12M-8										
AR12M-12	12	3/4	19.05	9.5	22	22	22.8	22.0	43.7	53.8
AR18M-12										
AR18M-16	18	1	25.40	15.1	27	30	24.4	22.0	52.3	62.4
AR25M-16	25	1	25.40	20.2	35	38	31.3	26.5	57.2	69.5

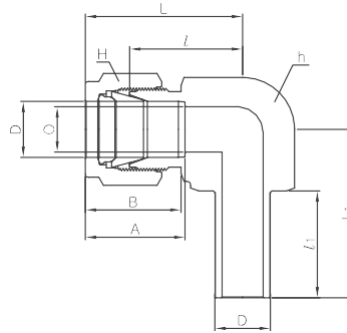
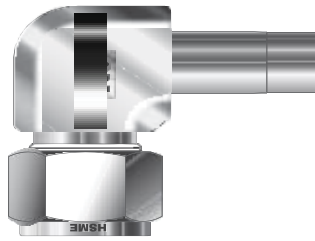
Connects metric tube to metric M Tube fitting port

Part No.	Tube O.D.		O Min.	Width across flat		A	B	I	L
	D1	D		h	H				
AR2M-3M	2	3	1.7	12	12	12.9	15.3	26.9	35.3
AR3M-4M	3	4	2.4	12	12	12.9	15.3	28.4	35.0
AR3M-6M	3	6	2.4	12	12	12.9	15.3	29.5	36.1
AR3M-10M	3	10	2.4	12	12	12.9	15.3	31.8	38.4
AR4M-6M	4	6	2.4	12	12	13.7	16.1	30.5	37.1
AR6M-3M	6	3	1.8	14	14	15.3	17.7	29.5	36.9
AR6M-8M	6	8	4.8	14	14	15.3	17.7	32.5	39.9
AR6M-10M	6	10	4.8	14	14	15.3	17.7	33.3	40.7
AR6M-12M	6	12	4.8	14	14	15.3	17.7	38.9	46.3
AR8M-6M	8	6	4.6	15	16	16.2	18.6	32.8	40.3
AR8M-10M	8	10	6.4	15	16	16.2	18.6	34.5	42.0
AR8M-12M	8	12	6.4	15	16	16.2	18.6	40.1	47.6
AR10M-6M	10	6	4.6	18	19	17.2	19.5	34.8	42.4
AR10M-12M	10	12	7.9	18	19	17.2	19.5	42.2	49.8
AR10M-15M	10	15	7.9	18	19	17.2	19.5	43.7	51.3
AR10M-18M	10	18	7.9	19	19	17.2	19.5	43.7	51.3
AR12M-6M	12	6	4.6	22	22	22.8	22.0	34.8	44.9
AR12M-10M	12	10	7.7	22	22	22.8	22.0	36.6	46.7
AR12M-16M	12	16	9.5	22	22	22.8	22.0	43.7	53.8
AR12M-18M	12	18	9.5	22	22	22.8	22.0	43.7	53.8
AR12M-20M	12	20	9.5	22	22	22.8	22.0	46.0	56.1
AR12M-22M	12	22	9.5	24	22	22.8	22.0	46.0	56.1
AR12M-25M	12	25	9.5	27	22	22.8	22.0	52.3	62.4
AR16M-12M	16	12	9.1	24	25	24.4	22.0	42.9	53.0
AR18M-12M	18	12	9.1	27	30	24.4	22.0	44.5	54.6
AR18M-16M	18	16	12.7	27	30	24.4	22.0	46.0	56.1
AR18M-20M	18	20	15.1	27	30	24.4	22.0	47.5	57.6
AR18M-22M	18	22	15.1	27	30	24.4	22.0	47.5	57.6
AR18M-25M	18	25	15.1	27	30	24.4	22.0	52.3	62.4
AR20M-16M	20	16	12.7	30	32	26.0	22.0	47.8	57.9
AR20M-18M	20	18	13.9	30	32	26.0	22.0	47.8	57.9
AR20M-22M	20	22	15.8	30	32	26.0	22.0	49.3	59.4
AR20M-25M	20	25	15.8	30	32	26.0	22.0	54.1	64.2
AR22M-18M	22	18	13.9	30	32	26.0	22.0	47.8	57.9
AR22M-20M	22	20	15.1	30	32	26.0	22.0	49.3	59.4
AR22M-25M	22	25	18.3	30	32	26.0	22.0	54.1	64.2
AR25M-18M	25	18	13.9	35	38	31.3	26.5	50.8	63.1
AR25M-20M	25	20	15.1	35	38	31.3	26.5	52.3	64.6

Bulkhead Tube Adapter
AAB


Connects fractional tube to fractional M Tube fitting port

Part No.	Tube O.D. D		O Min.	Width across flat				A	I	I1	I2	L	L1	Panel Hole Drill size	Panel Max Thickness
	in	mm		h		H									
				in	mm	in	mm								
AAB2-2	1/8	3.17	2.03	1/2	12.70	7/16	11.11	12.70	42.92	24.63	13.45	49.53	31.24	8.33	12.70
AAB4-4	1/4	6.35	4.82	5/8	15.87	9/16	14.28	15.24	48.51	26.16	15.74	55.88	33.52	11.50	10.16
AAB6-6	3/8	9.52	7.11	3/4	19.05	11/16	17.46	16.76	53.84	29.46	17.50	61.21	36.83	14.68	11.17
AAB8-8	1/2	12.70	10.41	15/16	23.81	7/8	22.22	22.86	62.73	31.75	23.11	72.89	41.91	19.44	12.70
AAB10-10	5/8	15.87	12.70	1-1/16	26.98	1	25.40	24.38	65.02	32.51	24.70	75.18	42.67	22.62	12.70
AAB16-16	1	25.40	20.32	1-5/8	41.28	1-1/2	38.10	31.24	88.13	45.21	31.70	100.33	57.40	33.73	19.05
AAB20-20	1-1/4	31.75	27.68	1-7/8	47.63	1-7/8	47.63	41.14	102.07	47.75	40.00	124.17	69.85	41.67	19.05
AAB24-24	1-1/2	38.10	34.03	2-1/4	57.15	2-1/4	57.15	50.03	118.33	49.27	51.50	145.51	76.45	49.61	19.05
AAB32-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	148.79	56.38	68.40	185.82	93.71	57.94	19.05

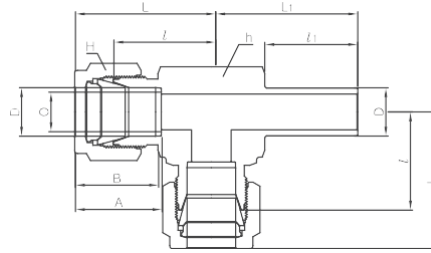
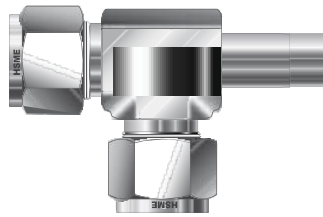
Elbow Tube Adapter
ALA


Connects fractional tube to fractional M Tube Fitting® port.

Part No.	Tube O.D. D		O Min.	Width across flat				A	B	I	I1	L	L1
	in	mm		h		H							
				in	mm	in	mm						
ALA-4	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.24	17.78	19.55	15.75	27.0	25.00
ALA-6	3/8	9.52	7.10	5/8	15.87	11/16	17.46	16.76	19.30	23.11	17.50	31.5	29.10
ALA-8	1/2	12.70	10.41	13/16	20.63	7/8	22.22	22.86	21.84	25.90	23.10	36.0	37.3
ALA-12	3/4	19.05	16.00	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	24.70	38.8	42.6
ALA-16	1	25.40	22.30	1-3/8	34.92	1-1/2	38.10	31.24	26.41	46.83	31.70	42.6	54.40

Connects metric tube to metric M Tube fitting port

Part No.	Tube O.D. D	O Min.	Width across flat		A	B	I	I1	L	L1
			h	H						
ALA-6M	6	4.6	12.7	14	15.3	17.7	19.6	15.7	27.0	25.0
ALA-8M	8	6.4	15.8	16	16.2	18.6	21.3	16.8	28.8	27.05
ALA-10M	10	7.7	17.4	19	17.2	19.5	23.9	17.5	31.5	30.0
ALA-12M	12	9.1	20.6	22	22.8	22.0	25.9	23.1	36.0	37.3
ALA-14M	14	11.1	25.4	25	24.4	22.0	28.7	24.6	38.8	41.5
ALA-15M	15	11.9	25.4	25	24.4	22.0	28.7	24.65	38.8	41.55
ALA-16M	16	12.7	25.4	25	24.4	22.0	28.7	24.6	38.8	41.5
ALA-18M	18	13.9	26.9	30	24.4	22.0	29.7	24.6	39.8	42.5
ALA-20M	20	15.1	31.8	32	26.0	22.0	32.5	26.2	42.6	47.0
ALA-22M	22	18.3	31.8	32	26.0	22.0	32.5	26.6	42.6	47.15
ALA-25M	25	19.8	34.9	38	31.3	26.5	36.8	31.7	49.1	55.2
ALA-28M	28	21.8	41.0	46	36.6	36.6	43.2	37.5	64.0	64.9

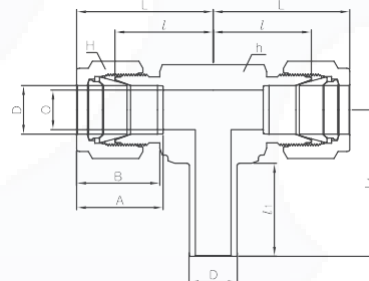
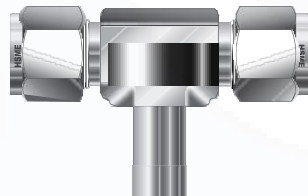
Run Tee Tube Adapter
ATRA


Connects fractional tube to fractional M Tube Fitting® port.

Part No.	Tube O.D. D		O Min.	Width across flat				A	B	I	I1	L	L1
	in	mm		h		H							
				in	mm	in	mm						
ATRA-4	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.24	17.78	19.55	15.75	27.0	25.00
ATRA-6	3/8	9.52	7.10	5/8	15.87	11/16	17.46	16.76	19.30	23.11	17.50	31.5	29.10
ATRA-8	1/2	12.70	10.41	13/16	20.63	7/8	22.22	22.86	21.84	25.90	23.10	36.0	37.3
ATRA-12	3/4	19.05	16.00	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	24.70	38.8	42.6
ATRA-16	1	25.40	22.30	1-3/8	34.92	1-1/2	38.10	31.24	26.41	46.83	31.70	42.6	54.40

Connects metric tube to metric M Tube fitting port.

Part No.	Tube O.D. D	O Min.	Width across flat		A	B	I	I1	L	L1
			h	H						
ATRA-8M	8	6.4	15.8	16	16.2	18.6	21.3	16.8	28.8	27.5
ATRA-10M	10	7.9	17.4	19	17.2	19.5	23.9	17.5	31.5	30.0

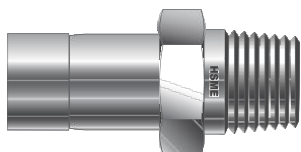
Branch Tee Tube Adapter
ATBA


Connects fractional tube to fractional M Tube Fitting® port.

Part No.	Tube O.D. D		O Min.	Width across flat				A	B	I	I1	L	L1
	in	mm		h		H							
				in	mm	in	mm						
ATBA-4	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.24	17.78	19.55	15.75	27.0	25.00
ATBA-6	3/8	9.52	7.10	5/8	15.87	11/16	17.46	16.76	19.30	23.11	17.50	31.5	29.10
ATBA-8	1/2	12.70	10.41	13/16	20.63	7/8	22.22	22.86	21.84	25.90	23.10	36.0	37.3
ATBA-12	3/4	19.05	16.00	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	24.70	38.8	42.6
ATBA-16	1	25.40	22.30	1-3/8	34.92	1-1/2	38.10	31.24	26.41	46.83	31.70	42.6	54.40

Connects metric tube to metric M Tube fitting port.

Part No.	Tube O.D. D	O Min.	Width across flat		A	B	I	I1	L	L1
			h	H						
ATBA-8M	8	6.4	15.8	16	16.2	18.6	21.3	16.8	28.8	27.5

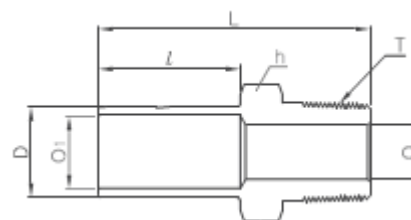
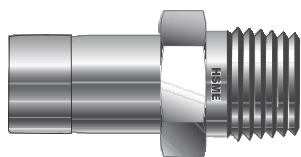
Male NPT Tube Adapter
AAM-N


Connects fractional M Tube fitting port to female NPT thread.

Part No.	Tube O.D.D		T NPT	O Min.	O1	Width across flat		l	L
	in	mm				h			
						in	mm		
AAM2-2N	1/8	3.17	1/8	4.57	1.77	7/16	11.11	13.45	29.50
AAM2-4N	1/8	3.17	1/4	7.11	1.77	9/16	14.28	13.45	34.80
AAM3-2N	3/16	4.76	1/8	4.57	3.04	7/16	11.11	14.20	30.22
AAM3-4N	3/16	4.76	1/4	7.11	3.04	9/16	14.28	14.20	35.56
AAM4-2N	1/4	6.35	1/8	4.57	4.57	7/16	11.11	15.75	31.80
AAM4-4N	1/4	6.35	1/4	7.11	4.57	9/16	14.28	15.75	37.08
AAM4-6N	1/4	6.35	3/8	10.41	4.57	11/16	17.46	15.75	37.84
AAM4-8N	1/4	6.35	1/2	12.70	4.57	7/8	22.22	15.75	43.43
AAM5-2N	5/16	7.93	1/8	4.57	6.35	7/16	11.11	16.80	32.76
AAM5-4N	5/16	7.93	1/4	7.11	6.35	9/16	14.28	16.80	38.10
AAM6-2N	3/8	9.52	1/8	4.57	7.11	7/16	11.11	17.50	33.50
AAM6-4N	3/8	9.52	1/4	7.11	7.11	9/16	14.28	17.50	38.90
AAM6-6N	3/8	9.52	3/8	10.41	7.11	11/16	17.46	17.50	39.60
AAM6-8N	3/8	9.52	1/2	12.70	7.11	7/8	22.22	17.50	45.20
AAM8-4N	1/2	12.70	1/4	7.11	9.90	9/16	14.28	23.20	44.50
AAM8-6N	1/2	12.70	3/8	10.41	9.90	11/16	17.46	23.20	45.20
AAM8-8N	1/2	12.70	1/2	12.70	9.90	7/8	22.22	23.20	50.50
AAM10-6N	5/8	15.87	3/8	10.41	12.70	11/16	17.46	24.70	47.40
AAM10-8N	5/8	15.87	1/2	12.70	12.70	7/8	22.22	24.70	52.30
AAM10-2N	5/8	15.87	3/4	18.28	12.70	1-1/16	26.98	24.70	52.30
AAM12-8N	3/4	19.05	1/2	12.70	14.98	7/8	22.22	24.70	52.30
AAM12-12N	3/4	19.05	3/4	18.28	14.98	1-1/16	26.98	24.70	52.30
AAM12-16N	3/4	19.05	1	22.35	14.98	1-3/8	34.92	24.70	57.91
AAM14-12N	7/8	22.22	3/4	18.28	17.27	1-1/16	26.98	26.70	54.30
AAM16-12N	1	25.40	3/4	18.28	20.06	1-1/16	26.98	31.70	58.70
AAM16-16N	1	25.40	1	22.35	20.06	1-3/8	34.92	31.70	66.00
AAM20-20N	1-1/4	31.75	1-1/4	27.68	-	1-3/4	44.45	40.00	80.26
AAM24-24N	1-1/2	38.10	1-1/2	33.27	-	2-1/8	53.98	51.50	94.48
AAM32-32N	2	50.80	2	44.45	-	2-3/4	69.85	68.40	119.38

Connects metric M Tube fitting port to female NPT thread.

Part No.	Tube O.D. D	T NPT	O Min.	O ₁	Width across flat	l	L1
					h		
AAM3M-2N	3	1/8	4.0	1.8	12	13.15	29.4
AAM6M-2N	6	1/8	4.6	4.6	12	15.75	32.8
AAM6M-4N	6	1/4	4.6	4.6	14	15.75	38.1
AAM8M-4N	8	1/4	6.3	6.3	14	16.50	39.1
AAM10M-4N	10	1/4	7.7	7.7	14	17.50	39.9
AAM10M-6N	10	3/8	7.7	7.7	17	17.50	40.6
AAM10M-8N	10	1/2	11.9	7.7	22	17.50	45.2
AAM12M-4N	12	1/4	7.1	9.1	14	23.50	46.5
AAM12M-6N	12	3/8	9.1	9.1	17	23.50	46.5
AAM12M-8N	12	1/2	11.9	9.1	22	23.50	51.8
AAM18M-8N	18	1/2	11.9	13.9	22	24.90	53.2
AAM18M-12N	18	3/4	15.9	13.9	27	24.90	53.2
AAM28M-16N	28	1	22.2	-	35	31.70	74.7
AAM28M-20N	28	1-1/4	23.8	-	46	31.70	76.2
AAM32M-20N	32	1-1/4	27.4	-	46	40.00	81.0
AAM38M-24N	38	1-1/2	33.3	-	55	51.50	92.2

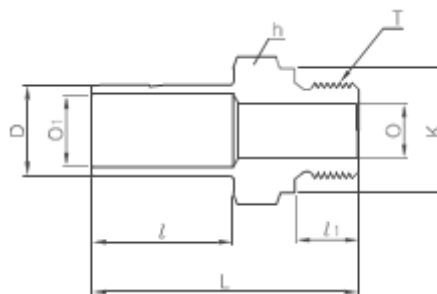
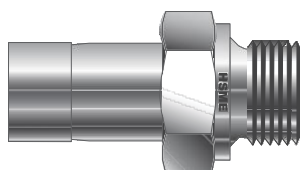
Male BSPT Tube Adapter
AAM-R


Connects fractional M Tube fitting port to female ISO tapered thread.

Part No.	Tube O.D. D		T PT	O Min.	O1	Width across flat		l	L
	in	mm				h			
						in	mm		
AAM2-2N	1/8	3.17	1/8	4.57	1.77	7/16	11.11	13.45	29.50
AAM2-4N	1/8	3.17	1/4	7.11	1.77	9/16	14.28	13.45	34.80
AAM4-2N	1/4	6.35	1/8	4.57	4.57	7/16	11.11	15.75	31.80
AAM4-4N	1/4	6.35	1/4	7.11	4.57	9/16	14.28	15.75	37.08
AAM4-6N	1/4	6.35	3/8	10.41	4.57	11/16	17.46	15.75	37.84
AAM6-4N	3/8	9.52	1/4	7.11	7.11	9/16	14.28	17.50	38.90
AAM6-6N	3/8	9.52	3/8	10.41	7.11	11/16	17.46	17.50	39.60
AAM6-8N	3/8	9.52	1/2	12.70	7.11	7/8	22.22	17.50	45.20
AAM8-4N	1/2	12.70	1/4	7.11	9.90	9/16	14.28	23.20	44.50
AAM8-6N	1/2	12.70	3/8	10.41	9.90	11/16	17.46	23.20	45.20
AAM8-8N	1/2	12.70	1/2	12.70	9.90	7/8	22.22	23.20	50.50
AAM8-12N	1/2	12.70	3/4	15.74	9.90	1-1/16	26.98	23.10	50.70
AAM12-8N	3/4	19.05	1/2	12.70	14.98	7/8	22.22	24.70	52.30
AAM12-12N	3/4	19.05	3/4	14.98	14.98	1-1/16	26.98	24.70	52.30

Connects metric M Tube fitting port to female ISO tapered thread.

Part No.	Tube O.D. D	T NPT	O Min.	O1 Min.	Width across flat h	l	L
AAM3M-2R	3	1/8	4.0	1.8	12	13.15	29.4
AAM6M-2R	6	1/8	4.6	4.6	12	15.75	32.8
AAM6M-4R	6	1/4	4.6	4.6	14	15.75	38.1
AAM8M-4R	8	1/4	6.3	6.3	14	16.50	39.1
AAM10M-4R	10	1/4	7.7	7.7	14	17.50	39.9
AAM10M-6R	10	3/8	7.7	7.7	17	17.50	40.6
AAM10M-8R	10	1/2	11.9	7.7	22	17.50	45.2
AAM12M-4R	12	1/4	7.1	9.1	14	23.50	46.5
AAM12M-6R	12	3/8	9.1	9.1	17	23.50	46.5
AAM12M-8R	12	1/2	11.9	9.1	22	23.50	51.8
AAM18M-8R	18	1/2	11.9	13.9	22	24.90	53.2
AAM18M-12R	18	3/4	15.9	13.9	27	24.90	53.2
AAM25M-16R	25	1	19.8	19.8	35	31.70	66.0
AAM28M-16R	28	1	22.2	-	35	31.70	74.7
AAM28M-20R	28	1-1/4	23.8	-	46	31.70	76.2
AAM30M-20R	30	1-1/4	24.6	-	46	40.60	80.0
AAM32M-20R	32	1-1/4	27.4	-	46	40.00	81.0
AAM38M-24R	38	1-1/2	33.3	-	55	51.50	92.2

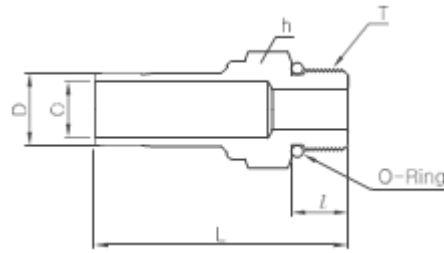
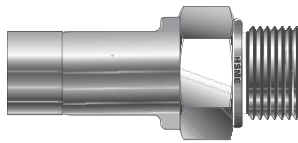
Male ISO Parallel Tube Adapter
AAM-G


Connects fractional M Tube fitting port to female ISO parallel thread.

Part No.	Tube O.D. D		T PT	O Min.	O1	Width across flat		l	l1	L	K
	h										
	in	mm									
AAM2-2G	1/8	3.17	1/8	1.77	1.77	9/16	14.28	13.45	7.10	40.0	13.8
AAM2-4G	1/8	3.17	1/4	6.4	1.77	3/4	19.05	13.45	11.2	35.8	18.0
AAM4-2G	1/4	6.35	1/8	4.57	4.57	9/16	14.28	15.75	7.10	33.27	13.8
AAM4-4G	1/4	6.35	1/4	4.57	4.57	3/4	19.05	15.75	11.2	38.1	18.0
AAM6-4G	3/8	9.52	1/4	5.9	7.11	3/4	19.05	17.50	11.2	39.8	18.0
AAM6-6G	3/8	9.52	3/8	7.11	7.11	7/8	22.22	17.50	11.2	40.64	21.8
AAM8-4G	1/2	12.70	1/4	5.9	9.90	3/4	19.05	23.10	11.2	45.5	18.0
AAM8-6G	1/2	12.70	3/8	7.9	9.90	7/8	22.22	23.10	11.2	46.2	21.8
AAM8-8G	1/2	12.70	1/2	11.9	9.90	1-1/16	26.98	23.10	14.2	49.3	26.0
AAM12-12G	3/4	19.05	3/4	14.98	14.98	1-5/16	33.33	24.70	15.7	54.86	32.0
AAM16-16G	1	25.40	1	20.06	20.06	1-5/8	41.28	31.7	18.3	64.5	39.0

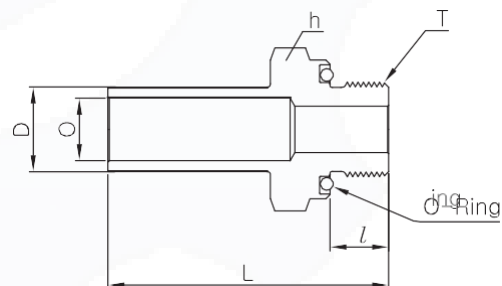
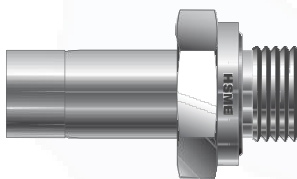
Connects metric M Tube fitting port to female ISO tapered thread.

Part No.	Tube O.D. D	T NPT	O Min.	O1 Min.	Width across flat h	l	l1	L	K
AAM6M-2G	6	1/8	4.6	4.6	14	15.7	7.1	34.3	13.8
AAM6M-4G	6	1/4	4.6	4.6	19	15.7	11.2	39.1	18.0
AAM8M-4G	8	1/4	5.9	5.9	19	16.8	11.2	40.1	18.0
AAM10M-4G	10	1/4	5.9	7.7	19	17.5	11.2	40.9	18.0
AAM10M-6G	10	3/8	7.7	7.7	22	17.5	11.2	41.7	21.8
AAM10M-8G	10	1/2	7.7	7.7	27	17.5	14.2	44.7	26.0
AAM12M-4G	12	1/4	5.9	9.1	19	23.1	11.2	46.7	18.0
AAM12M-6G	12	3/8	7.9	9.1	22	23.1	11.2	47.2	21.8
AAM12M-8G	12	1/2	9.1	9.1	27	23.1	14.2	50.5	26.0
AAM18M-8G	18	1/2	11.9	13.9	27	24.6	14.2	52.1	26.0
AAM18M-12G	18	3/4	15.9	13.9	35	24.6	15.7	56.1	32.0
AAM22M-12G	22	3/4	15.9	18.3	35	26.6	15.7	57.4	32.0
AAM25M-16G	25	1	19.8	19.8	41	31.7	18.3	67.1	39.0
AAM28M-16G	28	1	19.8	22.2	41	37.5	18.3	72.9	39.0
AAM28M-20G	28	1-1/4	23.8	23.8	50	37.5	19.8	77.0	49.0
AAM30M-20G	30	1-1/4	24.6	24.6	50	40.66	19.8	80.8	49.0
AAM32M-20G	32	1-1/4	25.0	25.0	50	40.0	19.8	81.8	49.0
AAM38M-24G	38	1-1/2	31.8	31.8	55	50.4	22.1	94.5	54.7

Male SAE Tube Adapter
AAM-UF


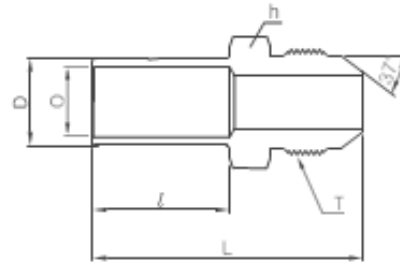
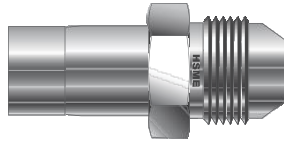
Connects fractional M Tube fitting port to SAE straight thread boss.

Part No.	Tube O.D. D		TU	O Min.	Width across flat		l	L	O-Ring Uniform Size Number
	in	mm			h				
					in	mm			
AAM2-2UF	1/8	3.17	5/16-24	2.03	7/16	11.11	7.62	30.48	-902
AAM4-4UF	1/4	6.35	7/16-20	4.31	9/16	14.28	9.14	35.30	-904
AAM6-4UF	3/8	9.52	7/16-20	5.08	9/16	14.28	9.14	37.08	-904
AAM6-6UF	3/8	9.52	9/16-18	6.85	11/16	17.46	9.90	38.60	-906
AAM6-8UF	3/8	9.52	3/4-16	6.85	7/8	22.22	11.17	40.64	-908
AAM8-6UF	1/2	12.70	9/16-18	7.11	11/16	17.46	9.90	44.20	-906
AAM8-8UF	1/2	12.70	3/4-16	9.90	7/8	22.22	11.17	46.22	-908
AAM12-12UF	3/4	19.05	1-1/16-12	14.98	1-1/4	31.75	14.98	53.34	-912
AAM16-16UF	1	25.40	1-5/16-12	20.31	1-1/2	38.1	14.98	61.21	-916

Male O-Seal Tube Adapter
AAM-UO


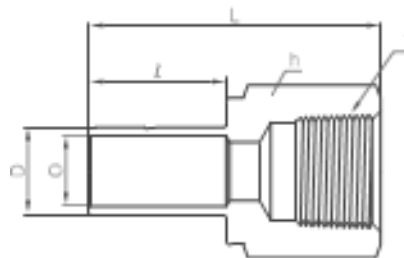
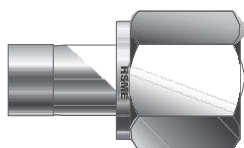
Connects fractional M Tube fitting port to SAE straight thread boss

Part No.	Tube O.D. D		T U	O Min.	Width across flat		l	L	O-Ring Uniform Size Number
	in	mm			h				
					in	mm			
AAM2-2UO	1/8	3.17	5/16-24	2.03	9/16	14.28	8.63	32.51	-011
AAM3-3UO	3/16	4.76	3/8-24	3.05	5/8	15.87	9.65	35.05	-012
AAM4-4UO	1/4	6.35	7/16-20	4.32	3/4	19.05	10.41	39.11	-013
AAM5-5UO	5/16	7.52	1/2-20	5.59	7/8	22.22	11.17	41.65	-112
AAM6-6UO	3/8	9.52	9/16-18	6.85	15/16	23.81	11.93	43.18	-113
AAM8-8UO	1/2	12.70	3/4-16	9.40	1-1/8	28.57	11.93	49.53	-116

Male AN Tube Adapter
AMAA


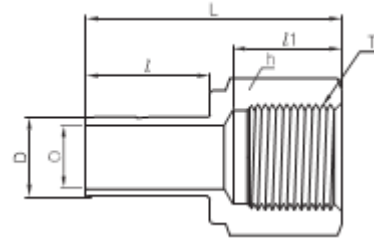
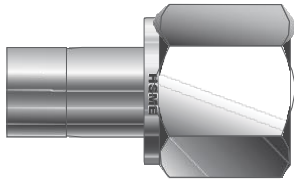
Connects fractional M Tube fitting port to AN flare tube.

Part No.	Tube O.D. D		AN Tube Flare Size		Straight Thread T(U)	O Min.	Width across flat		l	L
	in	mm	in	mm			h			
							in	mm		
AMAA4-4	1/4	6.35	1/4	6.35	7/16-20	4.57	1/2	12.70	15.75	37.1
AMAA6-6	3/8	9.52	3/8	9.52	9/16-18	7.11	5/8	15.87	17.5	39.63
AMAA8-6	1/2	12.70	3/8	9.52	9/16-18	7.11	5/8	15.87	23.1	45.7
AMAA8-8	1/2	12.70	1/2	12.70	3/4-16	9.9	13/16	20.64	23.1	48.52
AMAA8-10	1/2	12.70	5/8	15.87	7/8-14	9.9	15/16	23.81	23.1	52.0
AMAA10-10	5/8	15.87	5/8	15.87	7/8-14	12.3	15/16	23.81	27.68	56.13
AMAA12-12	3/4	19.05	3/4	19.05	1-1/16-12	14.98	1-1/8	28.58	24.7	56.13
AMAA16-16	1	25.40	1	25.40	1-5/16-12	20.06	1-3/8	34.92	31.7	65.33

Female NPT Tube Adapter
AAF-N


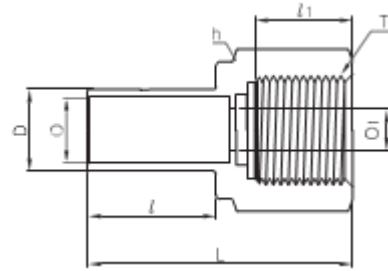
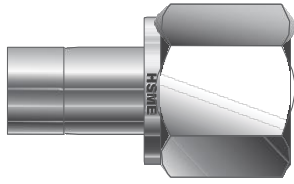
Connects fractional tube to fractional M Tube fitting port.

Part No.	Tube O.D.D		T (NPT)	O Min.	Width across flat		I	L
	in	mm			h			
					in	mm		
AAF2-2N	1/8	3.17	1/8	1.77	9/16	14.28	13.45	31.50
AAF2-4N	1/8	3.17	1/4	1.77	3/4	19.05	13.45	35.30
AAF3-2N	3/16	4.76	1/8	3.04	9/16	14.28	14.20	32.00
AAF3-4N	3/16	4.76	1/4	3.04	3/4	19.05	14.20	35.81
AAF4-2N	1/4	6.35	1/8	4.57	9/16	14.28	15.75	33.02
AAF4-4N	1/4	6.35	1/4	4.57	3/4	19.05	15.75	37.10
AAF4-6N	1/4	6.35	3/8	4.57	7/8	22.22	15.75	39.37
AAF4-8N	1/4	6.35	1/2	4.57	1-1/16	26.98	15.75	45.50
AAF5-2N	5/16	7.93	1/8	6.35	9/16	14.28	16.80	34.29
AAF5-4N	5/16	7.93	1/4	6.35	3/4	19.05	16.80	37.59
AAF6-2N	3/8	9.52	1/8	7.11	9/16	14.28	17.50	34.29
AAF6-4N	3/8	9.52	1/4	7.11	3/4	19.05	17.50	38.10
AAF6-6N	3/8	9.52	3/8	7.11	7/8	22.22	17.50	40.38
AAF6-8N	3/8	9.52	1/2	7.11	1-1/16	26.98	17.50	46.73
AAF8-4N	1/2	12.70	1/4	9.90	3/4	19.05	23.20	43.43
AAF8-6N	1/2	12.70	3/8	9.90	7/8	22.22	23.20	45.46
AAF8-8N	1/2	12.70	1/2	9.90	1-1/16	26.98	23.20	51.80
AAF10-6N	5/8	15.87	3/8	12.70	7/8	22.22	24.70	48.26
AAF10-8N	5/8	15.87	1/2	12.70	1-1/16	26.98	24.70	53.84
AAF10-12N	5/8	15.87	3/4	12.70	1-5/16	33.33	24.70	55.37
AAF12-8N	3/4	19.05	1/2	14.98	1-1/16	26.98	24.70	52.83
AAF12-12N	3/4	19.05	3/4	14.98	1-5/16	33.33	24.70	54.86
AAF12-16N	3/4	19.05	1	14.98	1-5/8	41.27	24.70	58.42
AAF14-12N	7/8	22.22	3/4	17.27	1-5/16	33.33	26.70	57.15
AAF16-12N	1	25.40	3/4	20.06	1-5/16	33.33	31.70	60.70
AAF16-16N	1	25.40	1	20.06	1-5/8	41.27	31.70	64.26
AAF20-20N	1-1/4	31.75	1-1/4	27.68	2-1/8	53.98	40.00	77.72
AAF24-24N	1-1/2	38.10	1-1/2	33.27	2-3/8	60.33	51.50	88.90
AAF32-32N	2	50.80	2	44.45	2-7/8	73.03	68.40	107.44

Female ISO Parallel Tube Adapter
AAF-GZ


Connects fractional M Tube fitting port to male ISO parallel thread.

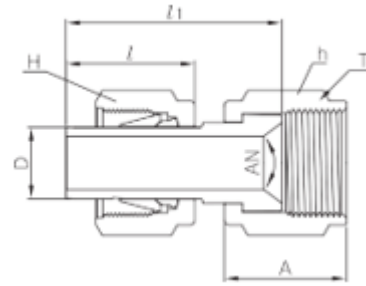
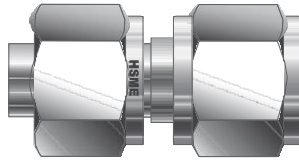
Part No.	Tube O.D.D		T PF	O Min.	Width across flat		l	l1	L
	h								
	in	mm							
AAF4-2GZ	1/4	6.35	1/8	4.57	9/16	14.28	15.75	13.0	31.75
AAF4-4GZ	1/4	6.35	1/4	4.57	3/4	19.05	15.75	18.5	38.10
AAF6-4GZ	3/8	9.52	1/4	7.11	3/4	19.05	17.50	18.5	39.40
AAF6-6GZ	3/8	9.52	3/8	7.11	7/8	22.22	17.50	18.5	39.90
AAF8-8GZ	1/2	12.70	1/2	9.90	1-1/16	26.98	23.20	22.1	49.50

Female Gauge Tube Adapter
AAF-GG

Connects fractional M Tube fitting port to Gauge (Male ISO parallel thread)

Part No.	Tube O.D.D		T G(PF)	O Min.	O1	Width across flat		l	l1	L
	in	mm				h				
						in	mm			
AAF4-2GG	1/4	6.35	1/8	4.57	4.57	9/16	14.28	15.75	12.0	32.00
AAF4-4GG	1/4	6.35	1/4	4.57	5.5	3/4	19.05	15.75	12.9	35.30
AAF6-6GG	3/8	9.52	3/8	7.11	6.5	7/8	22.22	17.50	14.1	39.37
AAF8-8GG	1/2	12.70	1/2	9.90	7.0	1-1/16	26.98	23.20	18.9	45.72

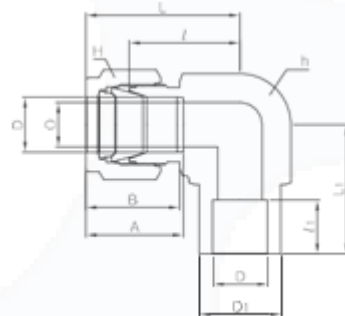
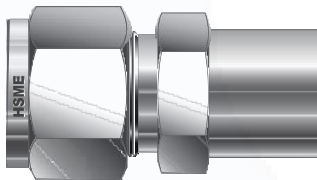
Connects metric M Tube fitting port to Gauge (Male ISO parallel thread).

Part No.	Tube O.D. D	T G(PF)	O Min.	O1	Width across flat h	l	l1	L
AAF6M-2GG	6M	1/8	4.0	4.0	14	15.7	12.0	32.0
AAF6M-4GG	6M	1/4	4.0	5.5	19	15.7	13.0	35.3
AAF6M-6GG	6M	3/8	4.0	6.5	24	15.7	14.22	38.4
AAF6M-8GG	6M	1/2	4.0	7.0	27	15.7	18.9	42.9
AAF8M-4GG	8M	1/4	5.6	5.5	19	16.8	13.0	33.0
AAF8M-6GG	8M	3/8	5.6	6.5	24	16.8	14.22	39.3
AAF8M-8GG	8M	1/2	5.6	7.0	27	16.8	18.9	43.7
AAF10M-4GG	10M	1/4	7.7	5.5	19	17.5	13.0	34.5
AAF10M-6GG	10M	3/8	7.7	6.5	24	17.5	14.22	39.3
AAF10M-8GG	10M	1/2	7.7	7.0	27	17.5	18.9	40.1
AAF12M-4GG	12M	1/4	9.1	5.5	19	23.1	13.0	40.1
AAF12M-6GG	12M	3/8	9.1	6.5	24	23.1	14.22	44.9
AAF12M-8GG	12M	1/2	9.1	7.0	27	23.1	18.9	48.8
AAF15M-8GG	15M	1/2	12.0	7.0	27	24.65	18.9	49.0
AAF16M-8GG	16M	1/2	12.0	7.0	27	24.6	18.9	49.0
AAF18M-8GG	18M	1/2	13.9	7.0	27	24.9	18.9	49.3
AAF22M-8GG	22M	1/2	18.3	7.0	27	26.6	18.9	52.0
AAF25M-8GG	25M	1/2	19.8	7.0	30	31.7	18.9	56.1

AN Adapter
AAA


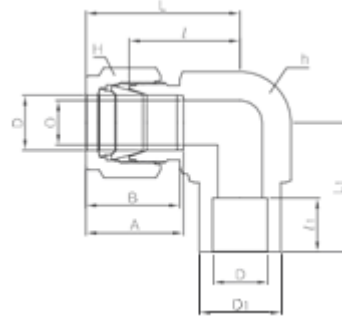
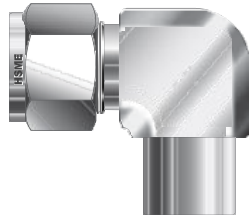
Connects fractional M Tube fitting port to AN male.

Part No.	Tube O.D. D		AN Tube Flare Size		Straight Thread T(U)	Width across flat				A	l	l1
	in	mm	in	mm		h		H				
						in	mm	in	mm			
AAA2-2	1/8	3.17	1/8	3.17	5/16-24	3/8	9.52	7/16	11.11	13.71	13.46	18.54
AAA2-4	1/8	3.17	1/4	6.35	7/16-20	9/16	14.28	7/16	11.11	15.74	13.46	19.05
AAA4-4	1/4	6.35	1/4	6.35	7/16-20	9/16	14.28	9/16	14.28	15.74	15.74	21.33
AAA6-6	3/8	9.52	3/8	9.52	9/16-18	11/16	17.46	11/16	17.46	18.28	17.52	24.89
AAA8-8	1/2	12.70	1/2	12.70	3/4-16	7/8	22.22	7/8	22.22	21.59	23.11	31.75

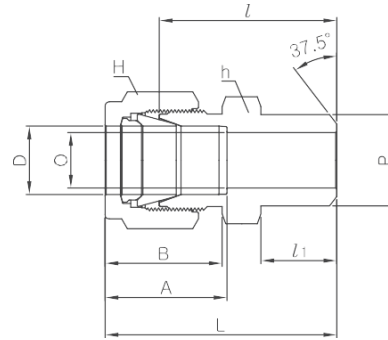
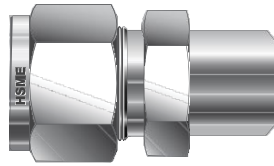
Tube Socket Weld Connector
ACSW


Connects fractional tubes

Part No.	Tube O.D. D		O Min.	D1	Width across flat				A	B	l	l1	L	L1
	in	mm			h		H							
					in	mm	in	mm						
ALSW4-4	1/4	6.35	4.82	12.70	1/2	12.70	9/16	14.28	15.24	17.78	19.55	7.87	26.92	19.55
ALSW6-6	3/8	9.52	7.11	15.74	5/8	15.87	11/16	17.46	16.76	19.30	23.11	9.65	30.48	23.11
ALSW8-8	1/2	12.70	10.41	20.57	13/16	20.64	7/8	22.22	22.86	21.84	25.90	12.70	36.06	25.90
ALSW12-12	3/4	19.05	15.74	26.92	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	14.22	39.87	29.71
ALSW16-16	1	25.40	22.35	35.05	1-3/8	34.93	1-1/2	38.10	31.24	26.41	36.83	19.05	49.02	36.83

Tube Socket Weld Elbow
ALSW

Connects fractional tubes

Part No.	Tube O.D. D		O Min.	D1	Width across flat				A	B	I	I1	L	L1
	in	mm			h		H							
					in	mm	in	mm						
ALSW4-4	1/4	6.35	4.82	12.70	1/2	12.70	9/16	14.28	15.24	17.78	19.55	7.87	26.92	19.55
ALSW6-6	3/8	9.52	7.11	15.74	5/8	15.87	11/16	17.46	16.76	19.30	23.11	9.65	30.48	23.11
ALSW8-8	1/2	12.70	10.41	20.57	13/16	20.64	7/8	22.22	22.86	21.84	25.90	12.70	36.06	25.90
ALSW12-12	3/4	19.05	15.74	26.92	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	14.22	39.87	29.71
ALSW16-16	1	25.40	22.35	35.05	1-3/8	34.93	1-1/2	38.10	31.24	26.41	36.83	19.05	49.02	36.83

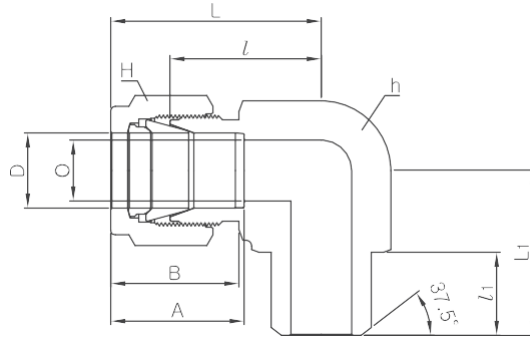
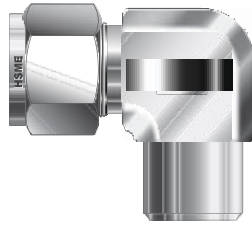
Pipe Butt Weld Connector
ACBW


Connects fractional tube to pipe.

Part No.	Tube O.D. D		Male Pipe Size P		O Min.	Width across flat				A	B	l	l1	L
	in	mm	Nom	O.D		h		H						
						in	mm	in	mm					
ACBW2-2P	1/8	3.17	1/8	10.29	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	9.65	31.24
ACBW3-2P	3/16	4.76	1/8	10.29	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.63	9.65	31.24
ACBW4-2P	1/4	6.35	1/8	10.29	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	9.65	32.76
ACBW4-4P	1/4	6.35	1/4	13.72	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	14.22	37.84
ACBW5-2P	5/16	7.93	1/8	10.29	5.08	9/16	14.28	5/8	15.87	16.25	18.54	26.67	9.65	34.03
ACBW5-4P	5/16	7.93	1/4	13.72	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	14.22	38.60
ACBW6-4P	3/8	9.52	1/4	13.72	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	14.22	39.87
ACBW6-6P	3/8	9.52	3/8	17.15	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	14.22	39.87
ACBW6-8P	3/8	9.52	1/2	21.34	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	11.05	43.23
ACBW8-6P	1/2	12.70	3/8	17.15	10.41	13/16	20.64	7/8	22.22	22.86	21.84	33.27	14.22	43.43
ACBW8-8P	1/2	12.70	1/2	21.34	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	19.05	49.02
ACBW8-12P	1/2	12.70	3/4	26.67	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	40.38	19.05	50.54
ACBW10-8P	5/8	15.87	1/2	21.34	12.70	15/16	23.81	1	25.40	24.38	21.84	38.86	19.05	49.02
ACBW12-12P	3/4	19.05	3/4	26.67	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	19.05	50.54
ACBW16-16P	1	25.40	1	33.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	50.03	23.87	62.23
ACBW20-20P	1-1/4	31.75	1-1/4	42.16	27.68	1-3/4	44.45	2	50.80	41.14	38.86	55.11	23.87	77.21
ACBW24-24P	1-1/2	38.10	1-1/2	48.26	34.03	2-1/8	53.98	2-1/4	57.15	50.03	45.21	61.72	26.16	88.90
ACBW32-32P	2	50.80	2	60.33	47.75	2-3/4	69.85	3	76.20	67.56	62.73	76.20	26.92	113.53

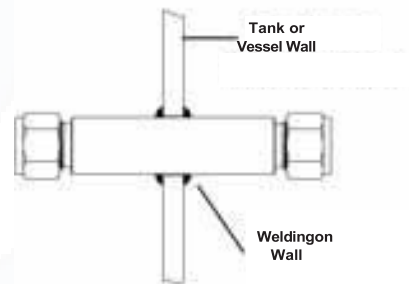
Connects metric tube to pipe

Part No.	Tube O.D. D	Male Pipe Size P		O Min.	Width across flat		A	B	I	I1	L
		Nom	O.D		h	H					
ACBW3M-2P	3	1/8	10.29	2.4	12	12	12.9	15.3	23.1	9.7	29.7
ACBW4M-2P	4	1/8	10.29	2.4	12	12	13.7	16.1	24.1	9.7	30.7
ACBW6M-2P	6	1/8	10.29	4.8	14	14	15.3	17.7	25.4	9.7	32.8
ACBW6M-4P	6	1/4	13.72	4.8	14	14	15.3	17.7	30.2	14.2	37.6
ACBW8M-2P	8	1/8	10.29	5.1	15	16	16.2	18.6	26.7	9.7	34.2
ACBW8M-4P	8	1/4	13.72	6.4	15	16	16.2	18.6	31.2	14.2	38.7
ACBW8M-8P	8	1/2	21.34	6.4	22	16	16.2	18.6	37.3	19.0	44.8
ACBW10M-4P	10	1/4	13.72	7.1	18	19	17.2	19.5	33.3	14.2	40.9
ACBW10M-6P	10	3/8	17.15	7.9	18	19	17.2	19.5	32.5	14.2	40.1
ACBW10M-8P	10	1/2	21.34	7.9	22	19	17.2	19.5	38.1	19.0	45.7
ACBW12M-4P	12	1/4	13.72	7.1	22	22	22.8	22.0	33.3	14.2	43.4
ACBW12M-6P	12	3/8	17.15	9.5	22	22	22.8	22.0	33.3	14.2	43.4
ACBW12M-8P	12	1/2	21.34	9.5	22	22	22.8	22.0	38.1	19.0	48.2
ACBW14M-6P	14	3/8	17.15	10.3	24	25	24.4	22.0	34.0	14.2	44.1
ACBW15M-8P	15	1/2	21.34	11.9	24	25	24.4	22.0	38.9	19.0	49.0
ACBW16M-8P	16	1/2	21.34	12.7	24	25	24.4	22.0	38.9	19.0	49.0
ACBW18M-8P	18	1/2	21.34	13.5	27	30	24.4	22.0	40.4	19.0	50.5
ACBW32M-20P	32	1-1/4	42.16	28.6	46	50	42.0	41.6	56.6	23.9	79.6
ACBW38M-24P	38	1-1/2	48.26	33.7	55	60	49.4	47.9	64.0	26.2	91.6

Pipe Butt Weld Elbow
ALBW


Connects fractional tube to pipe

Part No.	Tube O.D. D		Male Pipe Size P		O Min.	Width across flat				A	B	l	l1	L	L1
	in	mm	Nom	O.D		h		H							
						in	mm	in	mm						
ALBW 2-2P	1/8	3.17	1/8	10.29	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	9.65	26.92	18.79
ALBW 4-4P	1/4	6.35	1/4	13.72	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	14.22	26.92	23.36
ALBW 6-4P	3/8	9.52	1/4	13.72	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	14.22	30.48	25.40
ALBW 8-8P	1/2	12.70	1/2	21.34	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	19.05	36.06	33.02
ALBW 12-12P	3/4	19.05	3/4	26.67	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	19.05	39.87	36.83

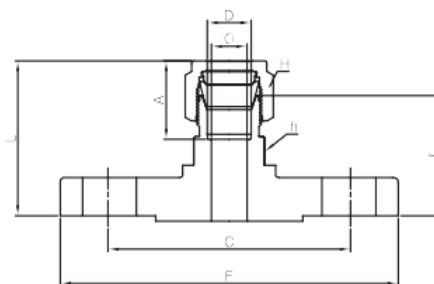
Bulkhead Weld Union
ABUW


Connects fractional tubes

Part No.	Tube O.D.D		O Min.	A Diameter	Width across flat		l	L
	in	mm			H			
					in	mm		
ABUW-4	1/4	6.35	4.8	16.0	9/16	14.28	80.0	115.4
ABUW-6	3/8	9.52	7.1	19.0	11/16	17.46	80.0	118.4
ABUW-8	1/2	12.70	10.41	22.0	7/8	22.22	80.0	124.0

Flange Adapters

AF



ANSI Flange Adapters

Part No. Raised Face Flange	Tube O.D. in	Flange NPS	ANSI Class	O	Wrench Flat h	A	I	L	C	F	H
AF-4TF8-150	1/4	1/2	150	4.82	20.63	15.24	33.52	40.89	60.45	88.9	9/16
AF-6TF8-150	3/8	1/2	150	4.82	20.63	16.76	34.85	42.21	60.45	88.9	11/16
AF-6TF8-300		1/2	300	7.11	20.63	16.76	38.1	45.46	66.54	95.25	
AF-6TF16-150		1	150	7.11	20.63	16.76	37.85	45.21	79.2	108	
AF-8TF8-150	1/2	1/2	150	10.41	20.63	22.86	35.05	45.21	60.45	88.9	7/8
AF-8TF8-300		1/2	300	10.41	20.63	22.86	37.85	48.01	66.54	95.25	
AF-8TF8-1500		1/2	1500	10.41	20.63	22.86	46.05	56.21	82.6	121	
AF-8TF16-150		1	150	10.41	20.63	22.86	38.01	48.26	79.24	107.95	
AF-8TF32-150		2	150	10.41	20.63	22.86	42.92	53.08	120.65	152.4	
AF-12TF16-150	3/4	1	150	15.74	31.75	24.38	40.13	50.29	79.24	107.95	1 1/8
AF-12TF16-900		1	900	15.74	31.75	24.38	46.05	56.21	89.0	124.0	
AF-16TF16-150	1	1	150	22.35	34.92	31.24	48.26	60.45	79.24	107.95	1 1/2
AF-24TF32-150	1 1/2	2	150	34.03	53.97	50.03	59.18	86.36	120.65	152.4	2 1/4
AF-32TF32-150	2	2	150	45.97	69.85	67.56	67.05	104.39	120.65	152.4	3

DIN Flange Adapters, Pressure Class PN 40

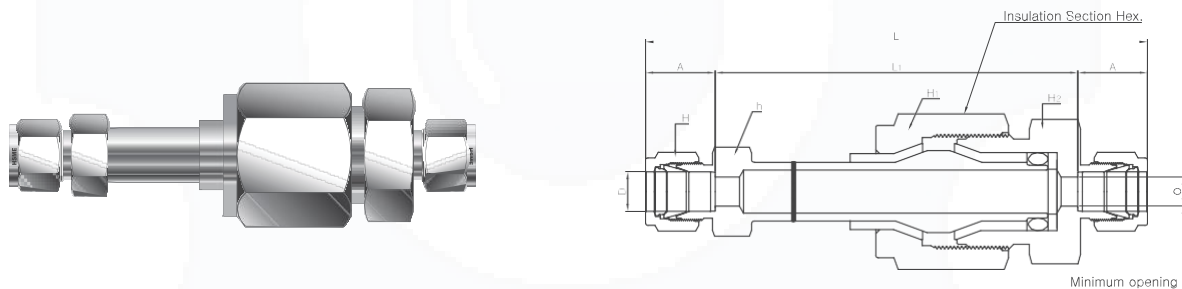
Part No. Raised Face Flange	Tube O.D. D	DIN Flange Size, DN	O	Wrench Flat h	A	I	L	C	F	H
AF-6MF25-40-C	6 mm	25	4.8	20	15.3	40.1	47.5	85.0	115.0	14
AF-12MF15-40-C	12 mm	15	9.5	20	22.8	38.4	48.5	65.0	95.0	22
AF-12MF25-40-C		25	9.5	20	22.8	40.4	50.5	85.0	115.0	
AF-12MF50-40-C		50	9.5	20	22.8	45.2	55.3	125.0	165.0	
AF-18MF15-40-C	18 mm	15	15.1	32	24.4	41.7	51.8	65.0	95.0	30
AF-18MF25-40-C		25	15.1	32	24.4	43.7	53.8	85.0	115.0	
AF-25MF25-40-C	25mm	25	21.8	35	31.3	51.8	64.0	85.0	115.0	38
AF-38MF50-40-C	38 mm	50	33.7	55	49.4	62.7	90.4	125.0	165.0	60
AF-50MF50-40-C	50 mm	50	45.2	70	65.0	66.3	103.0	125.0	165.0	76

JIS Flange Adapters, Pressure Class 10K

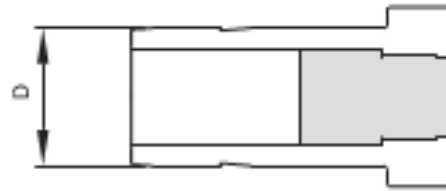
Part No. Raised Face Flange	Tube O.D. D	JIS Flange Size, DN	O	Wrench Flat h	A	I	L	C	F	H
AF-4TF15-10RF	1/4	15	4.82	20.63	15.24	34.79	42.16	70.1	94.99	9/16
AF-6TF15-10RF	3/8	15	7.11	20.63	16.76	36.32	43.68	70.1	94.99	11/16
AF-8TF15-10RF	1/2	15	10.41	20.63	22.86	36.32	46.48	70.1	94.99	7/8
AF-12TF15-10RF	3/4	15	15.74	31.75	24.38	38.35	48.51	70.1	94.99	1 1/8
AF-16TF25-10RF	1	25	22.35	34.92	31.24	48.76	60.96	89.91	124.96	1 1/2
AF-32TF50-10RF	2	50	45.97	69.85	67.56	64.51	101.85	119.88	154.94	3
AF-12MF15-10RF	12 mm	15	9.5	20	22.8	36.3	46.5	70	95	22 mm
AF-18MF15-10RF	18 mm	15	15.1	32	24.4	38.4	48.5	70	95	30 mm
AF-25MF25-10RF	25 mm	25	21.8	35	31.3	48.8	61	90	125	38 mm

Lab Joint Flange Connector
AFC

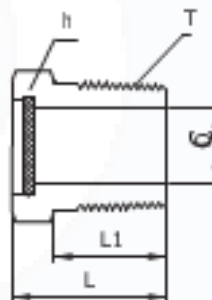
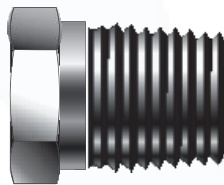

Part No.	Tube O.D.D in	Dimensions, mm				
		L	L1	I	D	D1
Serrated Finish						
AFC-4T8F-SR-SSA	1/4	80.8	56.5	6.5	35	22.2
AFC-6T8F-SR-SSA	3/8	82.3	56.5	6.5	35	22.2
AFC-8T8F-SR-SSA	1/2	84.8	56.5	6.5	35	22.2
Smooth Finish						
AFC-4T8F-SM-SSA	1/4	80.8	56.5	6.5	35	22.2
AFC-6T8F-SM-SSA	3/8	82.3	56.5	6.5	35	22.2
AFC-8T8F-SM-SSA	1/2	84.8	56.5	6.5	35	22.2

Dielectric Fittings
AEU


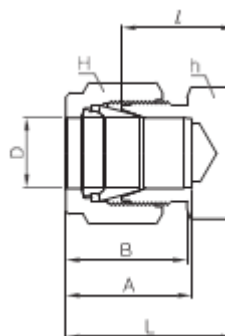
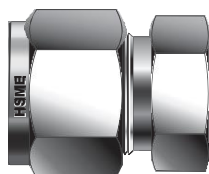
Part No.	Tube O.D. D	Pipe Thread T(NPT)	Dimensions, i n . (mm)							
			O Min.	A	L	L1	h	H	H1	H2
AEU-4	1/4	-	0.19 (4.8)	15.24 mm	95.8 mm	65.3 mm	1/2 (12.7)	9/16 (14.28)	7/8 (22.22)	-
AEU-6	3/8	-	0.28 (7.1)	16.76 mm	99.6 mm	65.8 mm	5/8 (15.87)	11/16 (17.46)		13/16 (20.64)
AEU-8	1/2	-		22.86 mm	106 mm	60.2 mm	13/16 (20.64)	7/8 (22.22)		-
AEU-12M	12 mm	-		22.8 mm	107 mm	61.7 mm	22 mm	22 mm		22 mm
AEU6-4N	3/8	1/4		16.76 mm	94.7 mm	-	5/8 (15.87)	11/16		7/8 (22.22)

Fusible Plug
AFU

Connects to M Tube fitting Port 3/8 in. OD

Part No.	Plug ODD in.	Melting Temperature Designator
AFU6-160-SS	3/8	160
AFU6-201-SS		201
AFU6-255-SS		255
AFU6-281-SS		281

Vent Protector
AVP

Connects to female NPT Port

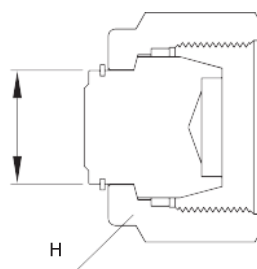
Part No.	T NPT	O Min	h		L	L1
			in	mm		
AVP-4N	1/4	7.11	9/16	15.87	20.57	14.22
AVP-6N	3/8	10.40	11/16	17.46	20.57	14.22
AVP-8N	1/2	12.70	7/8	23.81	26.92	19.05
AVP-12N	3/4	16.00	1-1/16	26.98	28.70	19.05

Tube Cap
AC

Cap Fractional tube end

Part No.	Tube O.D.D		Width across flat				A	B	I	L
	in	mm	h		H					
			in	mm	in	mm				
AC-1	1/16	1.59	5/16	7.93	5/16	7.93	8.63	10.92	11.20	14.18
AC-2	1/8	3.17	7/16	11.11	7/16	11.11	12.70	15.14	13.46	20.06
AC-3	3/16	4.76	7/16	11.11	1/2	12.70	13.71	16.00	14.73	21.33
AC-4	1/4	6.35	1/2	12.70	9/16	14.28	15.24	17.78	16.00	23.26
AC-5	5/16	7.93	9/16	14.28	5/8	15.87	16.25	18.54	17.01	24.38
AC-6	3/8	9.52	5/8	15.87	11/16	17.46	16.76	19.30	18.28	25.65
AC-8	1/2	12.70	13/16	20.63	7/8	22.22	22.86	21.84	19.05	29.21
AC-10	5/8	15.87	15/16	23.81	1	25.40	24.38	21.84	19.81	29.97
AC-12	3/4	19.05	1-1/16	26.98	1-1/8	28.57	24.38	21.84	21.33	31.49
AC-14	7/8	22.22	1-3/16	30.16	1-1/4	31.75	25.90	21.84	23.87	34.03
AC-16	1	25.40	1-3/8	34.92	1-1/2	38.10	31.24	26.41	26.16	38.35
AC-20	1-1/4	31.75	1-3/4	44.45	1-7/8	47.63	41.14	38.86	31.24	53.34
AC-24	1-1/2	38.10	2-1/8	53.98	2-1/4	57.15	50.15	45.21	37.33	64.51
AC-32	2	50.80	2-3/4	69.85	3	76.20	67.56	62.73	49.27	86.61

Cap metric tube end

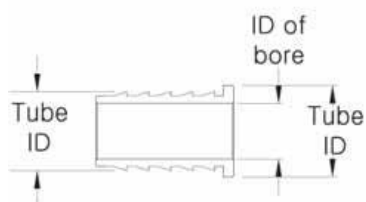
Part No.	Tube O.D. D	Width across at		A	B	I	L
		h	H				
AC-2M	2	12	12	12.9	15.3	13.5	20.1
AC-3M	3	12	12	12.9	15.3	13.5	20.1
AC-4M	4	12	12	13.7	16.1	14.7	21.3
AC-6M	6	14	14	15.3	17.7	15.7	23.1
AC-8M	8	15	16	16.2	18.6	17.0	24.5
AC-10M	10	18	19	17.2	19.5	19.0	26.6
AC-12M	12	22	22	22.8	22.0	19.0	29.1
AC-15M	15	24	25	24.4	22.0	19.8	29.9
AC-16M	16	24	25	24.4	22.0	19.8	29.9
AC-18M	18	27	30	24.4	22.0	21.3	31.4
AC-20M	20	30	32	26.0	22.0	23.9	34.0
AC-22M	22	30	32	26.0	22.0	23.9	34.0
AC-25M	25	35	38	31.3	26.5	26.2	38.5
AC-28M	28	41	46	36.6	36.6	27.7	48.5
AC-32	32	46	50	42.0	41.6	32.8	55.8
AC-38M	38	55	60	49.4	47.9	37.8	65.4

Port Plug
AP

Plugs fractional M Tube fitting Port

Part No.	Tube O.D.D		Width across at	
	in	mm	H	
			in	mm
AP-1	1/16	1.59	5/16	7.93
AP-2	1/8	3.17	7/16	11.11
AP-3	3/16	4.76	1/2	12.70
AP-4	1/4	6.35	9/16	14.28
AP-5	5/16	7.93	5/8	15.87
AP-6	3/8	9.52	11/16	17.46
AP-8	1/2	12.70	7/8	22.22
AP-10	5/8	15.87	1	25.40
AP-12	3/4	19.05	1-1/8	28.58
AP-14	7/8	22.22	1-1/4	31.75
AP-16	1	25.40	1-1/2	38.10
AP-20	1-1/4	31.75	1-7/8	47.63
AP-24	1-1/2	38.10	2-1/4	57.15
AP-32	2	50.80	3	76.20

Plugs metric M Tube fitting Port

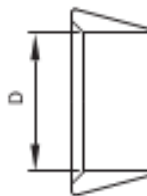
Part No.	Tube O.D.D	Width across at H
AP-2M	2	12
AP-3M	3	12
AP-4M	4	12
AP-6M	6	14
AP-8M	8	16
AP-10M	10	19
AP-12M	12	22
AP-15M	15	25
AP-16M	16	25
AP-18M	18	30
AP-20M	20	32
AP-22M	22	32
AP-25	25	38
AP-28M	28	46
AP-32M	32	50
AP-38M	38	60

Tube Insert
AI

Fractional Nylon or Soft Plastic Tubing

Part No.	Tube OD		Tube ID		BoreID
	in	mm	in	mm	
AI 3-2	3/16	4.76	1/8	3.17	2.28
AI 4-2	1/4	6.35	1/8	3.17	2.28
AI 4-3	1/4	6.35	3/16	4.76	3.55
AI 5-2	5/16	7.93	1/8	3.17	2.28
AI 5-3	5/16	7.93	3/16	4.76	3.04
AI 5-4	5/16	7.93	1/4	6.35	4.82
AI 6-3	3/8	9.52	3/16	4.76	3.04
AI 6-4	3/8	9.52	1/4	6.35	4.82
AI 8-4	1/2	12.7	1/4	6.35	4.82
AI 8-6	1/2	12.7	3/8	9.52	7.87
AI 10-6	5/8	15.87	3/8	9.52	7.87
AI 10-8	5/8	15.87	1/2	12.70	11.17
AI 12-8	3/4	19.05	1/2	12.70	11.17
AI 12-10	3/4	19.05	5/8	15.87	14.22
AI 16-12	1	25.4	3/4	19.05	17.52

Metric Nylon or Soft Plastic Tubing

Part No.	TubeOD	TubeID	BoreID
AI 6M-4M	6	4	2.8
AI 8M-6M	8	6	4.4
AI 10M-8M	10	8	6.4
AI 12M-8M	12	8	6.4
AI 12M-10M	12	10	8.3

Front Ferrule
AFF

Fractional

Part No.	Tube O.D.	
	D	
	in	mm
AFF-1	1/16	1.59
AFF-2	1/8	3.17
AFF-3	3/16	4.76
AFF-4	1/4	6.35
AFF-5	5/16	7.93
AFF-6	3/8	9.52
AFF-8	1/2	12.70
AFF-10	5/8	15.87
AFF-12	3/4	19.05
AFF-14	7/8	22.22
AFF-16	1	25.40
AFF-20	1-1/4	31.75
AFF-24	1-1/2	38.10
AFF-32	2	50.80

Metric

Part No.	Tube O.D.D
AFF-2M	2
AFF-3M	3
AFF-4M	4
AFF-6M	6
AFF-8M	8
AFF-10M	10
AFF-12M	12
AFF-15M	15
AFF-16M	16
AFF-18M	18
AFF-20M	20
AFF-22M	22
AFF-25M	25
AFF-28M	28
AFF-32M	32
AFF-38M	38

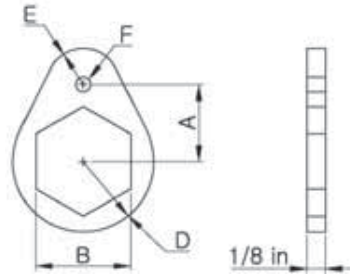
Back Ferrule
AFB

Fractional

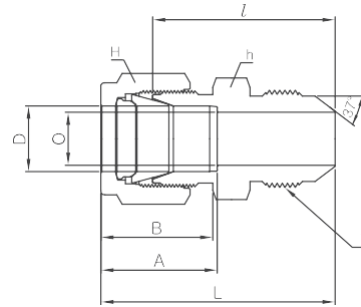
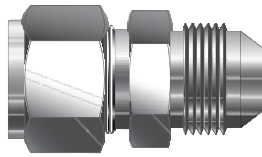
Part No.	Tube O.D.	
	D	
	in	mm
AFB-1	1/16	1.59
AFB-2	1/8	3.17
AFB-3	3/16	4.76
AFB-4	1/4	6.35
AFB-5	5/16	7.93
AFB-6	3/8	9.52
AFB-8	1/2	12.70
AFB-10	5/8	15.87
AFB-12	3/4	19.05
AFB-14	7/8	22.22
AFB-16	1	25.40
AFB-20	1-1/4	31.75
AFB-24	1-1/2	38.10
AFB-32	2	50.80

Metric

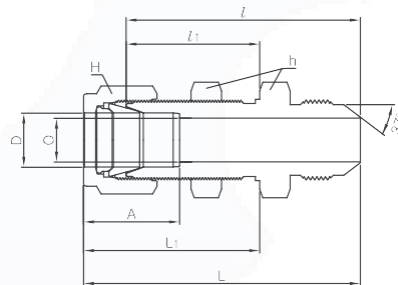
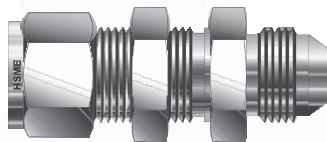
Part No.	Tube O.D.D
AFB-2M	2
AFB-3M	3
AFB-4M	4
AFB-6M	6
AFB-8M	8
AFB-10M	10
AFB-12M	12
AFB-15M	15
AFB-16M	16
AFB-18M	18
AFB-20M	20
AFB-22M	22
AFB-25M	25
AFB-28M	28
AFB-32M	32
AFB-38M	38

Bulkhead Retainer
ABR

Connects fractional tube

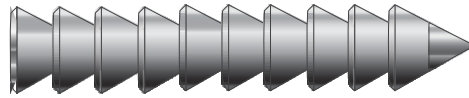
Part No.	Tube O.DD		A	B	D	E	F	"U" Drive Screw	Drill Number	Drill Hole Dia
	in	mm								
ABR-1-SS	1/16	-	9.52	7.94	7.94	3.97	3.97	#6-3/8	31	3.05
ABR-2-SS	1/8	-	12.7	12.7	10.31	5.55	3.97	#6-3/8	31	3.05
ABR-3-SS	3/16	3M,4M	14.28	14.28	11.90	6.35	3.97	#6-3/8	31	3.05
ABR-4-SS	1/4	6M	15.87	15.87	12.7	7.14	3.97	#6-3/8	31	3.05
ABR-5-SS	5/16	-	17.46	17.46	14.28	7.94	3.97	#6-3/8	31	3.05
ABR-8M-SS	-	8M	17.46	18.0	14.28	7.94	3.97	#6-3/8	31	3.05
ABR-6-SS	3/8	-	19.05	19.05	15.87	8.73	3.97	#6-3/8	31	3.05
ABR-10M-SS	-	10M	23.81	22.0	19.05	10.31	5.55	#10-1/2	27	3.66
ABR-8-SS	1/2	12M	23.81	23.81	19.05	10.31	5.55	#10-1/2	27	3.66
ABR-10-SS	5/8	15M,16M	25.4	26.98	20.64	10.31	5.55	#10-1/2	27	3.66
ABR-12-SS	3/4	18M	26.98	30.16	23.02	11.90	5.55	#10-1/2	27	3.66
ABR-14-SS	7/8	-	28.57	33.33	26.19	13.49	5.55	#10-1/2	27	3.66
ABR-16-SS	1	-	32.54	41.27	29.37	14.28	5.55	#10-1/2	27	3.66

AN Union
AUA

Connects fractional tube to AN flare tube

Part No.	Tube O.D.D		AN Tube Flare Size		Straight Thread T(U)	O Min	Width across flat				A	B	l	L
	in	mm	in	mm			h		H					
							in	mm	in	mm				
AUA 1-2	1/16	1.59	1/8	3.17	5/16-24	1.27	7/16	11.11	5/16	7.93	8.63	10.92	23.36	27.17
AUA 2-2	1/8	3.17	1/8	3.17	5/16-24	1.52	7/16	11.11	7/16	11.11	12.70	15.24	24.89	31.49
AUA 2-4	1/8	3.17	1/4	6.35	7/16-20	2.28	1/2	12.70	7/16	11.11	12.70	15.24	28.44	35.05
AUA 4-4	1/4	6.35	1/4	6.35	7/16-20	4.31	1/2	12.70	9/16	14.28	15.24	17.78	30.22	37.59
AUA 5-5	5/16	7.93	5/16	7.93	1/2-20	5.84	9/16	14.28	5/8	15.87	16.25	18.54	30.98	38.35
AUA 6-4	3/8	9.52	1/4	6.35	7/16-20	4.31	5/8	15.87	11/16	17.46	16.76	19.30	32.25	39.62
AUA 6-6	3/8	9.52	3/8	9.52	9/16-18	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.25	39.62
AUA 8-8	1/2	12.70	1/2	12.70	3/4-16	9.90	13/16	20.64	7/8	22.22	22.86	21.84	35.81	45.97
AUA 12-12	3/4	19.05	3/4	19.05	1-1/16-12	15.49	1-1/8	28.58	1-1/8	28.58	24.38	21.84	43.18	53.34
AUA 16-16	1	25.40	1	25.40	1-5/16-12	21.33	1-3/8	34.92	1-1/2	38.10	31.24	26.41	49.27	61.46
AUA 20-20	1-1/4	31.75	1-1/4	31.75	1-5/8-12	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.46	77.56
AUA 24-24	1-1/2	38.10	1-1/2	38.10	1-7/8-12	34.03	2-1/8	53.97	2-1/4	57.15	50.03	45.21	63.07	90.25
AUA 32-32	2	50.80	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	67.56	62.73	83.24	120.57

AN Bulkhead Union
AUBA

Connects fractional tube to AN flare tube

Part No.	Tube O.D. D		AN Tube Flare Size		Straight Thread T(U)	O Min.	Width across flat				A	l	l1	L	L1	Panel Hole Drill Size	Panel Max Thickness
	in	mm	in	mm			h		H								
							in	mm	in	mm							
AUBA 2-2	1/8	3.17	1/8	3.17	5/16-24	1.77	1/2	12.70	7/16	11.11	13.71	40.85	24.63	47.45	31.23	8.33	12.70
AUBA 4-4	1/4	6.35	1/4	6.35	7/16-20	4.31	5/8	15.87	9/16	14.28	15.24	46.48	26.16	53.84	33.52	11.50	10.16
AUBA 6-6	3/8	9.52	3/8	9.52	9/16-18	7.11	3/4	19.05	11/16	17.46	16.76	49.78	29.46	57.15	36.83	14.68	11.17
AUBA 8-8	1/2	12.70	1/2	12.70	3/4-16	9.90	5/16	23.81	7/8	22.22	22.86	55.62	31.75	65.78	41.91	19.44	12.70
AUBA 12-12	3/4	19.05	3/4	19.05	1-1/16-12	15.49	1-3/16	30.16	1-1/8	28.58	24.38	68.83	37.33	78.99	47.49	25.79	16.76
AUBA 16-16	1	25.40	1	25.40	1-5/16-12	21.33	1-5/8	41.27	1-1/2	38.10	31.24	80.26	45.21	92.45	57.40	33.73	19.05
AUBA 20-20	1-1/4	31.75	1-1/4	31.75	1-5/8-12	27.68	1-7/8	47.63	1-7/8	47.63	41.14	86.37	47.75	108.47	69.85	41.67	19.05
AUBA 24-24	1-1/2	38.10	1-1/2	38.10	1-7/8-12	34.03	2-1/4	57.15	2-1/4	57.15	50.03	94.33	49.27	121.51	76.45	49.61	19.05
AUBA 32-32	2	50.80	2	50.80	2-1/2-12	45.97	2-3/4	69.85	3	76.20	67.56	114.29	56.38	151.62	93.71	16.27	19.05

Ferrule Set
AFS

Fractional

Part No.	Tube O.D.	
	in	mm
AFS-1	1/16	1.59
AFS-2	1/8	3.17
AFS-3	3/16	4.76
AFS-4	1/4	6.35
AFS-5	5/16	7.93
AFS-6	3/8	9.52
AFS-8	1/2	12.70
AFS-10	5/8	15.87
AFS-12	3/4	19.05
AFS-14	7/8	22.22
AFS-16	1	25.40
AFS-20	1-1/4	31.75
AFS-24	1-1/2	38.10
AFS-32	2	50.80

Metric

Part No.	Tube O.D.
AFS-2M	2
AFS-3M	3
AFS-4M	4
AFS-6M	6
AFS-8M	8
AFS-10M	10
AFS-12M	12
AFS-15M	15
AFS-16M	16
AFS-18M	18
AFS-20M	20
AFS-25M	22
AFS-25M	25
AFS-28M	28
AFS-30M	30
AFS-32M	32
AFS-38M	38

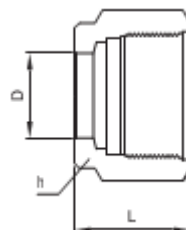
Nut-Ferrule Set
AFSN

Fractional

Part No.	Tube O.D.
	(In.)
AFSN-1	1/16
AFSN-2	1/8
AFSN-3	3/16
AFSN-4	1/4
AFSN-5	5/16
AFSN-6	3/8
AFSN-8	1/2
AFSN-10	5/8
AFSN-12	3/4
AFSN-14	7/8
AFSN-16	1
AFSN-20	1-1/4
AFSN-24	1-1/2
AFSN-32	2

Metric

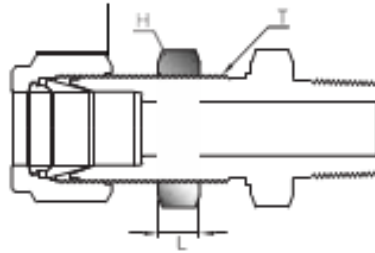
Part No.	Tube O.D.
AFSN-2M	2
AFSN-3M	3
AFSN-4M	4
AFSN-6M	6
AFSN-8M	8
AFSN-10M	10
AFSN-12M	12
AFSN-15M	15
AFSN-16M	16
AFSN-18M	18
AFSN-20M	20
AFSN-25M	22
AFSN-25M	25
AFSN-28M	28
AFSN-30M	30
AFSN-32M	32
AFSN-38M	38

**Nut
AN**

Fractional

Part No.	Tube O.D.		With across at		L
	D		h		
	in	mm	in	mm	
AN-1	1/16	1.59	5/16	7.93	7.90
AN-2	1/8	3.17	7/16	11.11	11.93
AN-3	3/16	4.76	1/2	12.70	11.93
AN-4	1/4	6.35	9/16	14.28	12.70
AN-5	5/16	7.93	5/8	15.87	13.46
AN-6	3/8	9.52	11/16	17.46	14.22
AN-8	1/2	12.70	7/8	22.22	17.52
AN-10	5/8	15.87	1	25.40	17.52
AN-12	3/4	19.05	1-1/8	28.57	17.52
AN-14	7/8	22.22	1-1/4	31.75	17.52
AN-16	1	25.40	1-1/2	38.10	20.57
AN-20	1-1/4	31.75	1-7/8	47.63	31.75
AN-24	1-1/2	38.10	2-1/4	57.15	38.10
AN-32	2	50.80	3	76.20	52.32

Metric

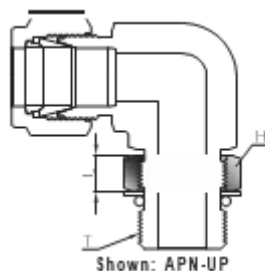
Part No.	Tube O.D.	With across at	L
	D	h	
AN-2M	2	12	11.90
AN-3M	3	12	11.90
AN-4M	4	12	11.90
AN-6M	6	14	12.70
AN-8M	8	16	13.50
AN-10M	10	19	15.10
AN-12M	12	22	17.40
AN-15M	15	25	17.40
AN-16M	16	25	17.40
AN-18M	18	30	17.40
AN-20M	20	32	17.40
AN-22M	22	32	17.40
AN-25M	25	38	20.60
AN-28M	28	46	30.60
AN-32M	32	50	34.40
AN-38M	38	60	40.60

Bulkhead Jam Nut
AJN

Fractional tube OD

Part No.	Straight Thread T(U)	Width across at		L
		H		
		in	mm	
AJN-1	10-32	5/16	7.93	3.30
AJN-2	5/16-20	1/2	12.70	4.83
AJN-3	3/8-20	9/16	14.28	5.59
AJN-4	7/16-20	5/8	15.87	5.59
AJN-5	1/2-20	11/16	17.46	5.84
AJN-6	9/16-20	3/4	19.05	6.35
AJN-8	3/4-20	15/16	23.81	7.11
AJN-10	7/8-20	1-1/16	26.98	7.87
AJN-12	1 in. -20	1-3/16	30.16	8.64
AJN-14	1-1/8-20	1-3/8	34.92	9.65
AJN-16	1-5/16-20	1-5/8	41.27	9.65

Metric tube OD

Part No.	Straight Thread T(U)	Width across at		L
		H		
		mm		
AJN-2M	5/16-20	13		4.8
AJN-3M	5/16-20	13		4.8
AJN-4M	3/8-20	14		5.6
AJN-6M	7/16-20	16		5.6
AJN-8M	1/2-20	17		5.6
AJN-10M	5/8-20	21		6.4
AJN-12M	3/4-20	24		7.1
AJN-14M	7/8-20	27		7.9
AJN-15M	7/8-20	27		7.9
AJN-16M	7/8-20	27		7.9
AJN-18M	1 in. -20	30		8.6
AJN-20M	1-1/8-20	33		9.7
AJN-22M	1-1/8-20	33		9.7
AJN-25M	1-5/16-20	41		9.7

**Positionable Lock Nut
APN-UP/GR**

For SAE Straight Thread

Part No.	StraightThread T(U)	Width across at		L
		H		
		in	mm	
APN-2UP	5/16-24	7/16	11.11	5.59
APN-3UP	3/8-24	1/2	12.7	5.59
APN-4UP	7/16-20	9/16	14.28	7.11
APN-5UP	1/2-20	5/8	15.87	7.11
APN-6UP	9/16-18	11/16	17.46	7.11
APN-8UP	3/4-16	7/8	22.22	7.87
APN-10UP	7/8-14	1	25.40	9.14
APN-12UP	1-1/16-12	1-1/4	31.75	10.41
APN-14UP	1-3/16-12	1-3/8	34.92	10.41
APN-16UP	1-5/16-12	1-5/8	38.10	10.41

For ISO Parallel Thread

Part No.	StraightThread T(PF)	Width across at		L
		H		
		in	mm	
APN-2GR	1/8	9/16	14.28	7.11
APN-4GR	1/4	3/4	19.05	7.11
APN-6GR	3/8	3/4	19.05	7.11
APN-8GR	1/4	7/8	22.22	7.87
APN-12GR	3/4	1-3/8	34.92	10.41
APN-16GR	1	1-3/8	41.28	10.41

Gap Inspection Gauge
AIG


Part No.	Fitting OD	
	in.	mm
AIG-4	1/4, 5/16	6, 8
AIG-6	3/8, 5/8	10, 15, 16
AIG-8	1/2, 3/4	12, 18
AIG-16	1	25

Tube Depth Marker
ATM

Fractional

Part No.	Tube O.D. (In.)
ATM-4-C	1/4
ATM-6-C	3/8
ATM-8-C	1/2
ATM-10-C	5/8
ATM-12-C	3/4
ATM-16-C	1

Metric

Part No.	Tube O.D. (mm)
ATM-6M-C	6
ATM-8M-C	8
ATM-10M-C	10
ATM-12M-C	12
ATM-16M-C	16
ATM-25M-C	25

Preswaging Tool
APS

Fractional M Tube fitting

Part No.	Tube O.D. (In.)
APS-4-C	1/4
APS-5-C	5/16
APS-6-C	3/8
APS-8-C	1/2
APS-12-C	3/4

Metric M Tube fitting

Part No.	Tube O.D. (mm)
APS-3M-C	3
APS-6M-C	6
APS-8M-C	8
APS-10M-C	10
APS-12M-C	12
APS-16M-C	16
APS-18M-C	18
APS-20M-C	20

Hydraulic Pre-Swaging Unit
AHP


Part No.	Swaging Dieset Tube OD, in.
A8	1/2
A10	5/8
A12	3/4
A16	1
A20	1 1/4
A24	1 1/2
A32	2

Part No.	Swaging Dieset Tube OD, mm
A12M	12
A14M	14
A16M	16
A18M	18
A20M	20
A22M	22
A25M	25
A28M	28
A30M	30
A32M	32
A38M	38
A50M	50

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