

INSTRUMENT

Tube Fittings



Tube Fittings

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Union



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Reducing Union



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Bulkhead Union



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Union Elbow



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Union Tee



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Reducing Union Branch Tee



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Union Cross

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Male Connector



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UR 54 55
Reducer



UBR 56
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UER 57
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UMA 58
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UPC 57
Port Connector

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Pipe Butt Weld Connector



UWBE 61
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UWSC 62
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UWSE 63
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UWBA 64
Pipe Butt Weld Adapter



UWSA 65
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Tube to AN Tube



UUA 61
AN Union



UBUA 61
AN Bulkhead Union



UAA 61
AN Adapter

Tube to SAE/MS O-Ring Seal



UMCS 62
SAE/MS Male Connector



UMES 62
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UMVES 63
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UMBTS 64
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UMRTS 65
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UMOP 66
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Plug/Cap/Others



UC 68
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UP 69
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UVP 69
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UI 70
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UFL 72
Flange Connector



ULFC 73
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Spare Parts



UFF 74
Front Ferrule



UBF 75
Back Ferrule



UN 76
Nut

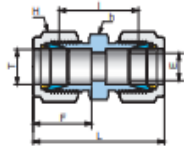


UFS 75
Ferrule Set



UFNS 76
Ferrule & Nut Set

UU
Union



Connects Fractional(Inch) Tube

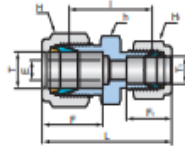
Part No.	Tube OD T		Dimensions (mm)							
			E Min.	h		H		F	I	L
	inch	mm		inch	mm	inch	mm			
UU-01	1/16	1.58	1.3	5/16	7.93	5/16	7.93	8.6	17.5	25.1
UU-02	1/8	3.17	2.3	7/16	11.11	7/16	11.11	12.7	22.4	35.6
UU-03	3/16	4.76	3.0	7/16	11.11	1/2	12.70	12.7	24.1	37.3
UU-04	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	26.2	40.9
UU-05	5/16	7.93	6.4	9/16	14.28	5/8	15.87	16.3	28.2	42.9
UU-06	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	30.2	45.0
UU-08	1/2	12.70	10.4	13/16	20.63	7/8	22.22	22.9	31.0	51.3
UU-10	5/8	15.87	12.7	15/16	23.81	1	25.40	24.4	31.8	52.1
UU-12	3/4	19.05	15.7	1-1/16	26.98	1-1/8	28.57	24.4	33.3	53.6
UU-14	7/8	22.22	18.3	1-3/16	30.16	1-1/4	31.75	25.9	35.1	55.4
UU-16	1	25.40	22.4	1-3/8	34.92	1-1/2	38.10	31.2	40.4	64.8
UU-20	1-1/4	31.75	27.7	1-3/4	44.45	1-7/8	47.63	41.1	48.0	92.2
UU-24	1-1/2	38.10	34.0	2-1/8	53.97	2-1/4	57.15	50.0	53.6	108.0
UU-32	2	50.80	46.0	2-3/4	69.85	3	76.20	67.6	74.7	149.4

Connects Metric Tube

Part No.	Tube OD T	Dimensions (mm)					
		E Min.	h	H	F	I	L
	mm						
UU-M02	2	1.7	11.11	11.11	12.9	22.4	35.6
UU-M03	3	2.4	11.11	11.11	12.9	22.1	35.3
UU-M04	4	2.4	11.11	12.70	13.7	24.1	37.3
UU-M06	6	4.8	12.70	14.28	15.3	26.2	41.0
UU-M08	8	6.4	14.28	15.87	16.2	28.2	43.2
UU-M10	10	7.9	17.46	19.05	17.2	31.0	46.2
UU-M12	12	9.5	20.63	22.22	22.8	31.0	51.2
UU-M14	14	11.1	23.81	25.40	24.4	31.8	52.0
UU-M15	15	11.9	23.81	25.40	24.4	31.8	52.0
UU-M16	16	12.7	23.81	25.40	24.4	31.8	52.0
UU-M18	18	15.1	26.98	30.16	24.4	33.3	53.5
UU-M22	22	18.3	30.16	31.75	26.0	34.8	55.0
UU-M25	25	21.8	34.92	38.10	31.3	40.4	65.0
UU-M28	28	21.8	44.45	47.63	36.6	43.4	85.0
UU-M30	30	26.2	44.45	50.80	39.6	49.5	92.7
UU-M32	32	28.6	44.45	50.80	42.0	51.3	97.3
UU-M38	38	33.7	55.56	57.15	49.4	58.4	114.0

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

URU
Reducing Union



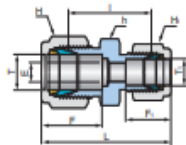
Connects Fractional(Inch) Tube

Part No.	Tube OD T		Tube OD T ₁		Dimensions (mm)										
	inch	mm	inch	mm	E	h		H		H ₁		F	F ₁	I	L
					Min.	inch	mm	inch	mm	inch	mm				
URU-0201	1/8	3.17	1/16	1.58	1.3	7/16	11.11	7/16	11.11	5/16	7.93	12.7	8.6	20.6	31.0
URU-0301	3/16	4.76	1/16	1.58	1.3	7/16	11.11	1/2	12.70	5/16	7.93	13.7	8.6	21.9	32.3
URU-0302	3/16	4.76	1/8	3.17	2.3	7/16	11.11	1/2	12.70	7/16	11.11	13.7	12.7	23.4	36.6
URU-0401	1/4	6.35	1/16	1.58	1.3	1/2	12.70	9/16	14.28	5/16	7.93	15.2	8.6	23.1	34.3
URU-0402	1/4	6.35	1/8	3.17	2.3	1/2	12.70	9/16	14.28	7/16	11.11	15.2	12.7	24.6	38.6
URU-0403	1/4	6.35	3/16	4.76	3.0	1/2	12.70	9/16	14.28	1/2	12.70	15.2	13.7	25.4	39.4
URU-0502	5/16	7.93	1/8	3.17	2.3	9/16	14.28	5/8	15.87	7/16	11.11	16.3	12.7	25.9	39.6
URU-0504	5/16	7.93	1/4	6.35	4.8	9/16	14.28	5/8	15.87	9/16	14.28	16.3	15.2	27.4	42.2
URU-0601	3/8	9.52	1/16	1.58	1.3	5/8	15.87	11/16	17.46	5/16	7.93	16.8	8.6	25.4	36.6
URU-0602	3/8	9.52	1/8	3.17	2.3	5/8	15.87	11/16	17.46	7/16	11.11	16.8	12.7	26.9	40.9
URU-0604	3/8	9.52	1/4	6.35	4.8	5/8	15.87	11/16	17.46	9/16	14.28	16.8	15.2	28.4	43.2
URU-0605	3/8	9.52	5/16	7.93	6.4	5/8	15.87	11/16	17.46	5/8	15.87	16.8	16.3	29.5	44.2
URU-0802	1/2	12.70	1/8	3.17	2.3	13/16	20.63	7/8	22.22	7/16	11.11	22.9	12.7	28.4	45.2
URU-0804	1/2	12.70	1/4	6.35	4.8	13/16	20.63	7/8	22.22	9/16	14.28	22.9	15.2	29.5	47.0
URU-0806	1/2	12.70	3/8	9.52	7.1	13/16	20.63	7/8	22.22	11/16	17.46	22.9	16.8	31.0	48.5
URU-1006	5/8	15.87	3/8	9.52	7.1	15/16	23.81	1	25.40	11/16	17.46	24.4	16.8	31.8	49.3
URU-1008	5/8	15.87	1/2	12.70	10.4	15/16	23.81	1	25.40	7/8	22.22	24.4	22.9	31.8	52.1
URU-1204	3/4	19.05	1/4	6.35	4.8	1-1/16	26.98	1-1/8	28.57	9/16	14.28	24.4	15.2	31.8	49.3
URU-1206	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.4	16.8	33.3	50.8
URU-1208	3/4	19.05	1/2	12.70	10.4	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.4	22.9	33.3	53.6
URU-1210	3/4	19.05	5/8	15.87	12.7	1-1/16	26.98	1-1/8	28.57	1	25.40	24.4	24.4	33.3	53.6
URU-1608	1	25.40	1/2	12.70	10.4	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.2	22.9	40.9	63.2
URU-1612	1	25.40	3/4	19.05	15.7	1-3/8	34.92	1-1/2	38.10	1-1/8	28.57	31.2	24.4	40.9	63.2

Dimensions are for reference only and are subject to change without prior notice.
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URU

Reducing Union



Connects Metric Tube

Part No.	Tube OD T	Tube OD T ₁	Dimensions (mm)							
			E Min.	L	H	h ₁	F	F _i	I	L
URU-M06M03	6	3	2.4	12.70	14.28	11.11	15.3	12.9	24.6	38.6
URU-M06M04	6	4	2.4	12.70	14.28	12.70	15.3	13.7	25.4	39.4
URU-M08M06	8	6	4.8	14.28	15.87	14.28	16.2	15.3	27.4	42.3
URU-M10M06	10	6	4.8	17.46	19.05	14.28	17.2	15.3	29.5	44.5
URU-M12M06	12	6	4.8	20.63	22.22	14.28	22.8	15.3	29.5	47.0
URU-M12M08	12	8	6.4	20.63	22.22	15.87	22.8	16.2	30.2	47.8
URU-M12M10	12	10	7.9	20.63	22.22	19.05	22.8	17.2	31.0	48.7
URU-M16M10	16	10	7.9	23.81	25.40	19.05	24.4	17.2	31.8	49.5
URU-M16M12	16	12	9.5	23.81	25.40	22.22	24.4	22.8	31.8	52.0
URU-M18M12	18	12	9.5	26.98	30.16	22.22	24.4	22.8	33.3	53.5
URU-M25M18	25	18	15.1	34.92	38.10	30.16	31.3	24.4	38.6	61.0
URU-M25M20	25	20	15.9	34.92	38.10	31.75	31.3	26.0	39.9	62.3

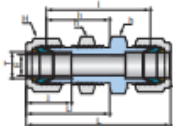
Connects Metric Tube to Fractional(Inch) Tube

Part No.	Tube OD	Tube OD		Dimensions (mm)									
	T	T _i		E Min.	L	H	h _i		F	F _i	I	L	
	mm	inch	mm		mm	mm	inch	mm					
URU-M0402	4	1/8	3.17	2.4	11.11	12.70	7/16	11.11	13.7	12.7	23.4	36.5	
URU-M0404	4	1/4	6.35	2.4	12.70	12.70	9/16	14.28	13.7	15.2	25.4	39.4	
URU-M0602	6	1/8	3.17	2.4	12.70	14.28	7/16	11.11	15.3	12.7	24.6	38.5	
URU-M0604	6	1/4	6.35	4.8	12.70	14.28	9/16	14.28	15.3	15.2	26.2	41.0	
URU-M0605	6	5/16	7.93	4.8	14.28	14.28	5/8	15.87	15.3	16.3	27.4	42.3	
URU-M0804	8	1/4	6.35	4.8	14.28	15.87	9/16	14.28	16.2	15.2	27.4	42.3	
URU-M1004	10	1/4	6.35	4.8	17.46	19.05	9/16	14.28	17.2	15.2	29.5	44.5	
URU-M1006	10	3/8	9.52	7.1	17.46	19.05	11/16	17.46	17.2	16.8	31.0	45.9	
URU-M1206	12	3/8	9.52	7.1	20.63	22.22	11/16	17.46	22.8	16.8	31.0	48.4	
URU-M1208	12	1/2	12.70	9.5	20.63	22.22	7/8	22.22	22.8	22.9	31.0	51.2	
URU-M1508	15	1/2	12.70	10.4	23.81	25.40	7/8	22.22	24.4	22.9	31.8	52.0	

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UBU

Bulkhead Union



Connects Fractional(Inch) Tube

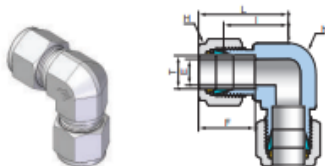
Part No.	Tube OD T		Dimensions (mm)											
			E Min.	h		H		F	I	I ₁	L	L ₁	Panel Hole Size	Max Panel thickness
	inch	mm		inch	mm									
UBU-01	1/16	1.68	1.3	5/16	7.93	5/16	7.93	8.6	23.9	13.5	31.5	17.3	5.2	3.1
UBU-02	1/8	3.17	2.3	1/2	12.70	7/16	11.11	12.7	38.1	24.6	51.3	31.2	8.3	12.7
UBU-03	3/16	4.76	3.0	9/16	14.28	1/2	12.70	13.7	40.4	25.4	53.6	32.0	9.9	12.7
UBU-04	1/4	6.35	4.8	5/8	15.87	9/16	14.28	15.2	42.9	26.2	57.7	33.5	11.5	10.2
UBU-05	5/16	7.93	6.4	11/16	17.46	5/8	15.87	16.3	46.0	28.4	60.7	35.8	13.1	11.2
UBU-06	3/8	9.52	7.1	3/4	19.05	11/16	17.46	16.8	47.5	29.5	62.2	36.8	14.7	11.2
UBU-08	1/2	12.70	10.4	15/16	23.81	7/8	22.22	22.9	50.8	31.8	71.1	41.9	19.4	12.7
UBU-10	5/8	15.87	12.7	1-1/16	26.98	1	25.40	24.4	52.3	32.5	72.6	42.7	22.6	12.7
UBU-12	3/4	19.05	15.7	1-3/16	30.16	1-1/8	28.57	24.4	58.7	37.3	79.0	47.5	25.8	16.8
UBU-14	7/8	22.22	18.3	1-3/8	34.92	1-1/4	31.75	25.9	64.3	42.9	84.6	53.1	29.0	19.1
UBU-16	1	25.40	22.4	1-5/8	41.27	1-1/2	38.10	31.2	71.4	45.2	95.8	57.4	33.7	19.1
UBU-20	1-1/4	31.75	27.7	1-7/8	47.63	1-7/8	47.63	41.1	78.9	47.8	123.2	69.9	41.7	19.1
UBU-24	1-1/2	38.10	34.0	2-1/4	57.15	2-1/4	57.15	50.0	84.8	49.3	139.2	76.5	49.6	19.1
UBU-32	2	50.80	46.0	2-3/4	69.85	3	76.20	67.6	105.7	56.4	180.3	93.7	67.1	19.1

Connects Metric Tube

Part No.	Tube OD T	Dimensions [mm]									
		E Min.	h mm	H mm	F	I	I ₁	L	L ₁	Panel Hole Size	Max Panel thickness
	mm										
UBU-M03	3	2.4	14.28	11.11	12.9	38.1	24.6	51.3	31.2	8.3	12.7
UBU-M04	4	2.4	14.28	12.70	13.7	40.4	25.4	53.6	32.0	9.9	12.7
UBU-M06	6	4.8	15.87	14.28	15.3	42.9	26.2	57.7	33.6	11.5	10.2
UBU-M08	8	6.4	17.46	15.87	16.2	46.0	28.6	61.0	36.1	13.1	11.2
UBU-M10	10	7.9	22.22	19.05	17.2	48.5	29.4	63.7	37.0	16.2	11.2
UBU-M12	12	9.5	23.81	22.22	22.8	50.8	31.8	71.0	41.9	19.5	12.7
UBU-M14	14	11.1	26.98	25.40	24.4	52.3	32.5	72.5	42.6	22.8	12.7
UBU-M15	15	11.9	26.98	25.40	24.4	52.3	32.5	72.5	42.6	22.8	12.7
UBU-M16	16	12.7	26.98	25.40	24.4	52.3	32.5	72.5	42.6	22.8	12.7
UBU-M18	18	15.1	30.16	30.16	24.4	58.7	37.3	78.9	47.4	26.0	16.8
UBU-M20	20	15.9	34.92	31.75	26.0	64.3	42.9	84.5	53.0	29.0	17.0
UBU-M22	22	18.3	34.92	31.75	26.0	64.3	42.9	84.5	53.0	29.0	19.1
UBU-M25	25	21.8	41.27	38.10	31.3	71.4	45.2	96.0	57.5	33.7	19.1
UBU-M32	32	28.6	50.80	50.80	42.0	82.3	49.5	128.3	72.5	42.5	19.0
UBU-M38	38	33.7	60.30	57.15	49.4	89.8	51.9	145.0	79.5	50.5	19.0

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E is minimum opening. F and L are typical finger tight.

UEU Union Elbow



Connects Fractional(Inch) Tube

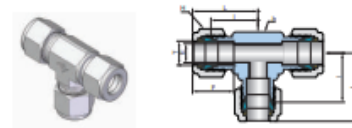
Part No.	Tube OD T		Dimensions [mm]							
			E Min.	h		H		F	I	L
	inch	mm		inch	mm	inch	mm			
UEU-01	1/16	1.68	1.3	3/8	9.52	5/16	7.92	8.6	14.0	17.8
UEU-02	1/8	3.17	2.3	3/8	9.52	7/16	11.11	12.7	15.7	22.4
UEU-03	3/16	4.76	3.0	1/2	12.70	1/2	12.70	13.7	17.8	24.4
UEU-04	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9
UEU-05	5/16	7.93	6.4	9/16	14.28	5/8	15.87	16.3	21.3	28.7
UEU-06	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5
UEU-08	1/2	12.70	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1
UEU-10	5/8	15.87	12.7	15/16	23.81	1	25.40	24.4	28.7	38.8
UEU-12	3/4	19.05	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9
UEU-14	7/8	22.22	18.3	1-3/16	30.16	1-1/4	31.75	25.9	34.5	44.7
UEU-16	1	25.40	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0
UEU-20	1-1/4	31.75	27.7	1-11/16	42.86	1-7/8	47.63	41.1	44.5	66.5
UEU-24	1-1/2	38.10	34.0	2	50.80	2-1/4	57.15	50.0	50.8	78.0
UEU-32	2	50.80	46.0	2-3/4	69.85	3	76.20	67.6	69.8	107.2

Connects Metric Tube

Part No.	Tube OD T	Dimensions (mm)					
		E Min.	h inch	H mm	F	I	L
	mm						
UEU-M03	3	2.4	9.52	11.11	12.9	15.7	22.3
UEU-M04	4	2.4	12.70	12.70	13.7	18.8	25.4
UEU-M06	6	4.8	12.70	14.28	15.3	19.6	27.0
UEU-M08	8	6.4	14.28	15.87	16.2	21.3	28.8
UEU-M10	10	7.9	17.46	19.05	17.2	23.9	31.5
UEU-M12	12	9.5	20.63	22.22	22.8	25.9	36.0
UEU-M14	14	11.1	23.81	25.40	24.4	28.7	38.8
UEU-M15	15	11.9	23.81	25.40	24.4	28.7	38.8
UEU-M16	16	12.7	23.81	25.40	24.4	28.7	38.8
UEU-M18	18	15.1	26.98	30.16	24.4	29.7	39.8
UEU-M20	20	15.9	34.92	31.75	26.0	34.5	44.6
UEU-M22	22	18.3	34.92	31.75	26.0	34.5	44.6
UEU-M25	25	21.8	34.92	38.10	31.3	36.8	49.1
UEU-M28	28	21.8	42.86	47.63	36.6	43.2	64.0
UEU-M30	30	26.2	47.63	50.80	39.6	48.3	69.9
UEU-M32	32	28.6	47.63	50.80	42.0	49.3	72.3
UEU-M38	38	33.7	55.56	57.15	49.4	56.4	84.0

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UUT Union Tee



Connects Fractional(Inch) Tube

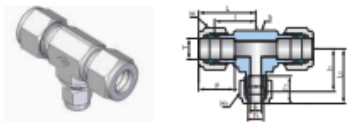
Part No.	Tube OD T		Dimensions (mm)							
			E Min.	h		H		F	I	L
	inch	mm		inch	mm	inch	mm			
UUT-01	1/16	1.68	1.3	3/8	9.52	5/16	7.93	8.6	14.0	17.8
UUT-02	1/8	3.17	2.3	3/8	9.52	7/16	11.11	12.7	15.7	22.4
UUT-03	3/16	4.76	3.0	1/2	12.70	1/2	12.70	13.7	17.8	24.4
UUT-04	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9
UUT-05	5/16	7.93	6.4	5/8	15.87	5/8	15.87	16.3	21.3	28.7
UUT-06	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5
UUT-08	1/2	12.7	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1
UUT-10	5/8	15.87	12.7	15/16	23.81	1	25.40	24.4	28.7	38.8
UUT-12	3/4	19.05	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9
UUT-14	7/8	22.22	18.3	1-3/16	30.16	1-1/4	31.75	25.9	34.5	44.7
UUT-16	1	25.4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0
UUT-20	1-1/4	31.75	27.7	1-11/16	42.86	1-7/8	47.63	41.1	44.5	66.5
UUT-24	1-1/2	38.1	34.0	2	50.80	2-1/4	57.15	50.0	50.8	78.0
UUT-32	2	50.8	46.0	2-3/4	69.85	3	76.20	67.6	69.8	107.2

Connects Metric Tube

Part No.	Tube OD T	Dimensions (mm)					
		E Min.	h mm	H mm	F	I	L _i
	mm						
UUT-M02	2	1.7	9.52	12.70	12.9	15.7	22.3
UUT-M03	3	2.4	9.52	11.11	12.9	15.7	22.3
UUT-M04	4	2.4	12.70	12.70	13.7	18.8	25.4
UUT-M06	6	4.8	12.70	14.28	15.3	19.6	27.0
UUT-M08	8	6.4	14.28	15.87	16.2	21.3	28.8
UUT-M10	10	7.9	17.46	19.05	17.2	23.9	31.5
UUT-M12	12	9.5	20.63	22.22	22.8	25.9	36.0
UUT-M14	14	11.1	23.81	25.40	24.4	28.7	38.8
UUT-M15	15	11.9	23.81	25.40	24.4	28.7	38.8
UUT-M16	16	12.7	23.81	25.40	24.4	28.7	38.8
UUT-M18	18	15.1	26.98	30.16	24.4	29.7	39.8
UUT-M20	20	15.9	34.92	31.75	26.0	34.5	44.6
UUT-M22	22	18.3	34.92	31.75	26.0	34.5	44.6
UUT-M25	25	21.8	34.92	38.10	31.3	36.8	49.1
UUT-M28	28	21.8	42.86	47.63	36.6	43.2	64.0
UUT-M30	30	26.2	47.63	50.80	39.6	48.3	69.9
UUT-M32	32	28.6	47.63	50.80	42.0	49.3	72.3
UUT-M38	38	33.7	55.56	57.15	49.4	56.4	84.0

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

URBT
Reducing Union Branch Tee



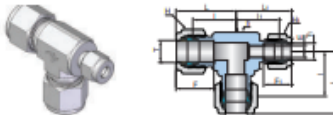
Connects Fractional(Inch) Tube

Part No.	Tube OD		Tube OD		Dimensions (mm)												
	T		T ₁		E Min.	h		H		H ₁		F	F ₁	I	I ₁	L	L ₁
	inch	mm	inch	mm		inch	mm	inch	mm	inch	mm						
URBT-0604	3/8	9.52	1/4	6.35	4.8	5/8	15.87	11/16	17.46	9/16	14.28	16.8	15.2	23.1	21.6	30.5	29.0
URBT-0804	1/2	12.7	1/4	6.35	4.8	13/16	20.63	7/8	22.22	9/16	14.28	22.9	15.2	25.9	24.4	36.1	31.8
URBT-0806	1/2	12.7	3/8	9.52	7.1	13/16	20.63	7/8	22.22	11/16	17.46	22.9	16.8	25.9	25.9	36.1	33.3
URBT-1006	5/8	15.87	3/8	9.52	7.1	15/16	23.81	1	25.40	11/16	17.46	24.4	16.8	28.7	28.7	38.9	36.1
URBT-1204	3/4	19.05	1/4	6.35	4.8	1-1/16	26.98	1-1/8	28.57	9/16	14.28	24.4	15.2	29.7	29.7	39.9	37.1
URBT-1206	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.4	16.8	29.7	29.7	39.9	37.1
URBT-1208	3/4	19.05	1/2	12.7	10.4	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.4	22.9	29.7	29.7	39.9	39.9
URBT-1604	1	25.4	1/4	6.35	4.8	1-3/8	34.92	1-1/2	38.10	9/16	14.28	31.2	15.2	36.8	33.0	49.0	40.4
URBT-1606	1	25.4	3/8	9.52	7.1	1-3/8	34.92	1-1/2	38.10	11/16	17.46	31.2	16.8	36.8	34.5	49.0	41.9
URBT-1608	1	25.4	1/2	12.7	10.4	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.2	22.9	36.8	34.5	49.0	44.7
URBT-1612	1	25.4	3/4	19.05	15.7	1-3/8	34.92	1-1/2	38.10	1-1/8	28.57	31.2	24.4	36.8	34.5	49.0	44.7
URBT-2416	1-1/2	38.1	1	25.4	22.4	2	50.8	2-1/4	57.15	1-1/2	38.10	50.0	31.2	50.8	47.8	78.7	59.9

Connects Metric Tube

Part No.	Tube OD	Tube OD	Dimensions (mm)									
	T	T ₁	E Min.	h	H	H ₁	F	F ₁	I	I ₁	L	L ₁
	mm	mm		inch	mm	mm						
URBT-M08M06	8	6	4.8	14.28	15.87	14.28	16.2	15.3	21.3	21.3	28.8	28.7
URBT-M10M06	10	6	4.8	17.46	19.05	14.28	17.2	15.3	23.9	22.3	31.5	29.7
URBT-M12M06	12	6	4.8	20.63	22.22	14.28	22.8	15.3	25.9	24.4	36.0	31.8
URBT-M16M12	16	12	9.5	26.98	25.40	22.22	24.4	22.8	28.7	28.7	38.8	38.8
URBT-M18M12	18	12	9.5	26.98	30.16	22.22	24.4	22.8	29.7	29.7	39.8	39.8
URBT-M22M12	22	12	9.5	34.92	31.75	22.22	26.0	22.8	34.5	34.5	44.6	44.6
URBT-M25M12	25	12	9.5	34.92	38.10	22.22	31.3	22.8	36.8	34.5	49.1	44.6

URRT
Reducing Union Run Tee

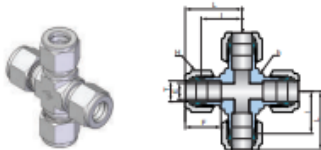


Connects Fractional(Inch) Tube

Part No.	Tube OD T		Tube OD T ₁		Dimensions (mm)												
	inch	mm	inch	mm	E Min.	h		H		H ₁		F	F ₁	I	I ₁	L	L ₁
						inch	mm	inch	mm	inch	mm						
URRT-0604	3/8	9.52	1/4	6.35	4.8	5/8	15.87	11/16	17.46	9/16	14.28	16.8	15.2	23.1	21.6	30.5	29.0
URRT-0804	1/2	12.7	1/4	6.35	4.8	13/16	20.63	7/8	22.22	9/16	14.28	22.9	15.2	25.9	24.4	36.1	31.8
URRT-0806	1/2	12.7	3/8	9.52	7.1	13/16	20.63	7/8	22.22	11/16	17.46	22.9	16.8	25.9	25.9	36.1	33.3
URRT-1006	5/8	15.87	3/8	9.52	7.1	1	25.40	1	25.40	11/16	17.46	24.4	16.8	28.7	28.7	38.9	36.1
URRT-1206	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.4	16.8	29.7	29.7	39.9	37.1
URRT-1208	3/4	19.05	1/2	12.7	10.4	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.4	22.9	29.7	29.7	39.9	39.9
URRT-1608	1	25.4	1/2	12.7	10.4	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.2	22.9	36.8	34.5	49.0	44.7
URRT-1612	1	25.4	3/4	19.05	15.7	1-3/8	34.92	1-1/2	38.10	1-1/8	28.57	31.2	24.4	36.8	34.5	49.0	44.7

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UUC
Union Cross



Connects Fractional(Inch) Tube

Part No.	Tube OD T		Dimensions (mm)									
			E	h		H		F	I	L		
	inch	mm	Min.	inch	mm	inch	mm					
UUC-02	1/8	3.17	2.3	3/8	9.52	7/16	11.11	12.7	15.7	22.4		
UUC-03	3/16	4.76	3.0	1/2	12.70	1/2	12.70	13.7	17.8	24.4		
UUC-04	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9		
UUC-05	5/16	7.93	6.4	5/8	15.87	5/8	15.87	16.3	21.3	28.7		
UUC-06	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5		
UUC-08	1/2	12.7	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1		
UUC-10	5/8	15.87	15.9	1-1/16	26.98	1	25.40	24.4	28.7	38.8		
UUC-12	3/4	19.05	12.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9		
UUC-14	7/8	22.22	18.3	1-3/8	34.92	1-1/4	31.75	25.9	34.5	44.7		
UUC-16	1	25.4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0		

Connects Metric Tube

Part No.	Tube OD T		Dimensions (mm)					
			E	h		H		F
	mm	mm	Min.	mm	mm	mm	mm	mm
UUC-M03	3		2.4	9.52	11.11			12.9
UUC-M06	6		4.8	12.70	14.28			15.3
UUC-M08	8		6.4	15.87	15.87			16.2
UUC-M10	10		7.9	17.46	19.05			17.2
UUC-M12	12		9.5	20.63	22.22			22.8
UUC-M16	16		12.7	26.98	25.40			24.4
UUC-M18	18		15.1	26.98	30.16			24.4
UUC-M20	20		15.9	34.92	31.75			26.0
UUC-M22	22		18.3	34.92	31.75			26.0
UUC-M25	25		21.8	34.92	38.10			31.3

Part Numbers of Tee & Cross

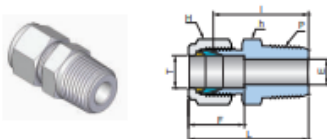
Firstly, indicate the size of 1 to 2 as run.
Secondly, indicate the size of 3 to 4 as branch.
[3 for Tee and Cross, 4 for Cross only.]



Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UMC

Male Connector



Connects Fractional(Inch) Tube to Female NPT Thread

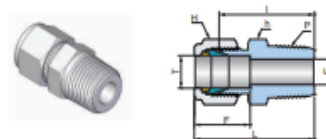
Part No.	Tube OD T		P NPT	Dimensions (mm)							
	inch	mm		E	h		H		F	I	L
				Min.	inch	mm	inch	mm			
UMC-0101N	1/16	1.58	1/16	1.3	5/16	7.93	5/16	7.93	8.6	20.0	23.8
UMC-0102N	1/16	1.58	1/8	1.3	7/16	11.10	5/16	7.93	8.6	22.4	26.2
UMC-0104N	1/16	1.58	1/4	1.3	9/16	14.28	5/16	7.93	8.6	27.2	31.0
UMC-0201N	1/8	3.17	1/16	2.3	7/16	11.10	7/16	11.10	12.7	23.1	29.7
UMC-0202N	1/8	3.17	1/8	2.3	7/16	11.10	7/16	11.10	12.7	23.9	30.5
UMC-0204N	1/8	3.17	1/4	2.3	9/16	14.28	7/16	11.10	12.7	29.0	35.6
UMC-0206N	1/8	3.17	3/8	2.3	11/16	17.46	7/16	11.10	12.7	29.2	35.8
UMC-0208N	1/8	3.17	1/2	2.3	7/8	22.22	7/16	11.10	12.7	35.6	42.2
UMC-0302N	3/16	4.76	1/8	3.0	7/16	11.10	1/2	12.70	13.7	24.6	31.2
UMC-0304N	3/16	4.76	1/4	3.0	9/16	14.28	1/2	12.70	13.7	29.7	36.3
UMC-0401N	1/4	6.35	1/16	3.0	1/2	12.70	9/16	14.28	15.2	25.4	32.8
UMC-0402N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	25.4	32.8
UMC-0404N	1/4	6.35	1/4	4.8	9/16	14.28	9/16	14.28	15.2	30.5	37.8
UMC-0406N	1/4	6.35	3/8	4.8	11/16	17.46	9/16	14.28	15.2	31.0	38.4
UMC-0408N	1/4	6.35	1/2	4.8	7/8	22.22	9/16	14.28	15.2	37.3	44.7
UMC-0412N	1/4	6.35	3/4	4.8	1-1/16	26.98	9/16	14.28	15.2	38.9	46.2
UMC-0502N	5/16	7.93	1/8	4.8	9/16	14.28	5/8	15.87	16.3	26.7	34.0
UMC-0504N	5/16	7.93	1/4	6.4	9/16	14.28	5/8	15.87	16.3	31.2	38.6
UMC-0506N	5/16	7.93	3/8	6.4	11/16	17.46	5/8	15.87	16.3	31.8	39.1
UMC-0602N	3/8	9.52	1/8	4.8	5/8	15.87	11/16	17.46	16.8	27.9	35.3
UMC-0604N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	32.5	39.9
UMC-0606N	3/8	9.52	3/8	7.1	11/16	17.46	11/16	17.46	16.8	32.5	39.9
UMC-0608N	3/8	9.52	1/2	7.1	7/8	22.22	11/16	17.46	16.8	38.9	46.2
UMC-0612N	3/8	9.52	3/4	7.1	1-1/16	26.98	11/16	17.46	16.8	40.4	47.8
UMC-0616N	3/8	9.52	1	7.1	1-3/8	34.92	11/16	17.46	16.8	47.0	54.4
UMC-0802N	1/2	12.70	1/8	4.8	13/16	20.63	7/8	22.22	22.9	28.7	38.9
UMC-0804N	1/2	12.70	1/4	7.1	13/16	20.63	7/8	22.22	22.9	33.3	43.4
UMC-0806N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	33.3	43.4
UMC-0808N	1/2	12.70	1/2	10.4	7/8	22.22	7/8	22.22	22.9	38.9	49.0
UMC-0812N	1/2	12.70	3/4	10.4	1-1/16	26.98	7/8	22.22	22.9	40.4	50.5
UMC-0816N	1/2	12.70	1	10.4	1-3/8	34.92	7/8	22.22	22.9	47.0	57.2
UMC-1006N	5/8	15.87	3/8	9.7	15/16	23.81	1	25.40	24.4	34.0	44.2
UMC-1008N	5/8	15.87	1/2	11.9	15/16	23.81	1	25.40	24.4	38.9	49.0
UMC-1012N	5/8	15.87	3/4	12.7	1-1/16	26.98	1	25.40	24.4	40.4	50.5
UMC-1206N	3/4	19.05	3/8	10.4	1-1/16	26.98	1-1/8	28.57	24.4	35.4	45.6
UMC-1208N	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.57	24.4	40.4	50.5
UMC-1212N	3/4	19.05	3/4	15.7	1-1/16	26.98	1-1/8	28.57	24.4	40.4	50.5
UMC-1216N	3/4	19.05	1	15.7	1-3/8	34.92	1-1/8	28.57	24.4	47.0	57.2
UMC-1412N	7/8	22.22	3/4	15.7	1-3/16	30.16	1-1/4	31.75	25.9	40.4	50.5
UMC-1416N	7/8	22.22	1	18.3	1-3/8	34.92	1-1/4	31.75	25.9	47.0	57.2
UMC-1608N	1	25.40	1/2	11.9	1-3/8	34.92	1-1/2	38.10	31.2	45.2	57.4
UMC-1612N	1	25.40	3/4	15.7	1-3/8	34.92	1-1/2	38.10	31.2	45.2	57.4
UMC-1616N	1	25.40	1	22.4	1-3/8	34.92	1-1/2	38.10	31.2	50.0	62.2
UMC-2016N	1-1/4	31.75	1	22.4	1-3/4	44.45	1-7/8	47.63	41.1	55.1	77.2
UMC-2020N	1-1/4	31.75	1-1/4	27.7	1-3/4	44.45	1-7/8	47.63	41.1	55.1	77.2
UMC-2424N	1-1/2	38.10	1-1/2	34.0	2-1/8	53.97	2-1/4	57.15	50.0	61.7	88.9
UMC-3232N	2	50.80	2	44.0	2-3/4	69.85	3	76.20	67.6	76.2	113.5

ISO Tapered threads are available for all fractional UMC. To order, add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UMC

Male Connector



Connects Metric Tube to Female ISO Tapered Thread

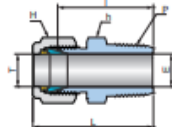
Part No.	Tube OD	P ISO7/1	Dimensions (mm)						
	T		E Min.	h mm	H mm	F	I	L	
	mm								
UMC-M0202R	2	1/8	1.7	11.11	11.11	12.9	23.9	30.5	
UMC-M0302R	3	1/8	2.4	11.11	11.11	12.9	23.9	30.5	
UMC-M0304R	3	1/4	2.4	14.28	11.11	12.9	29.0	35.6	
UMC-M0402R	4	1/8	2.4	11.11	12.70	13.7	24.6	31.2	
UMC-M0404R	4	1/4	2.4	14.28	12.70	13.7	29.7	36.3	
UMC-M0602R	6	1/8	4.8	12.70	14.28	15.3	25.4	32.8	
UMC-M0604R	6	1/4	4.8	14.28	14.28	15.3	30.5	37.9	
UMC-M0606R	6	3/8	4.8	17.46	14.28	15.3	31.0	38.4	
UMC-M0608R	6	1/2	4.8	22.22	14.28	15.3	37.3	44.7	
UMC-M0802R	8	1/8	4.8	14.28	15.87	16.2	26.7	34.2	
UMC-M0804R	8	1/4	6.4	14.28	15.87	16.2	31.2	38.7	
UMC-M0806R	8	3/8	6.4	17.46	15.87	16.2	31.8	39.3	
UMC-M0808R	8	1/2	6.4	22.22	15.87	16.2	38.1	45.6	
UMC-M1002R	10	1/8	4.8	17.46	19.05	17.2	28.7	36.3	
UMC-M1004R	10	1/4	7.1	17.46	19.05	17.2	33.3	40.9	
UMC-M1006R	10	3/8	7.9	17.46	19.05	17.2	33.3	40.9	
UMC-M1008R	10	1/2	7.9	22.22	19.05	17.2	38.9	46.5	
UMC-M1202R	12	1/8	4.8	20.63	22.22	22.8	28.7	38.8	
UMC-M1204R	12	1/4	7.1	20.63	22.22	22.8	33.3	43.4	
UMC-M1206R	12	3/8	9.5	20.63	22.22	22.8	33.3	43.4	
UMC-M1208R	12	1/2	9.5	22.22	22.22	22.8	38.9	49.0	
UMC-M1212R	12	3/4	9.5	26.98	22.22	22.8	40.4	50.5	
UMC-M1404R	14	1/4	7.1	22.22	25.40	24.4	34.0	44.1	
UMC-M1406R	14	3/8	9.5	22.22	25.40	24.4	34.0	44.1	
UMC-M1408R	14	1/2	11.1	23.81	25.40	24.4	38.9	49.0	
UMC-M1508R	15	1/2	11.9	23.81	25.40	24.4	38.9	49.0	
UMC-M1606R	16	3/8	9.5	23.81	25.40	24.4	34.0	44.1	
UMC-M1608R	16	1/2	11.9	23.81	25.40	24.4	38.9	49.0	
UMC-M1612R	16	3/4	12.7	26.98	25.40	24.4	40.4	50.5	
UMC-M1808R	18	1/2	11.9	26.98	30.16	24.4	40.4	50.5	
UMC-M1812R	18	3/4	15.1	26.98	30.16	24.4	40.4	50.5	
UMC-M2008R	20	1/2	11.9	30.16	31.75	26.0	42.2	52.3	
UMC-M2012R	20	3/4	15.9	30.16	31.75	26.0	42.2	52.3	
UMC-M2208R	22	1/2	11.9	30.16	31.75	26.0	42.2	52.3	
UMC-M2212R	22	3/4	15.9	30.16	31.75	26.0	42.2	52.3	
UMC-M2508R	25	1/2	11.9	34.92	38.10	31.3	45.2	57.5	
UMC-M2512R	25	3/4	15.9	34.92	38.10	31.3	45.2	57.5	
UMC-M2516R	25	1	21.8	34.92	38.10	31.3	50.0	62.3	
UMC-M2816R	28	1	21.8	44.45	47.63	36.6	51.6	72.4	
UMC-M2820R	28	1-1/4	21.8	47.63	47.63	36.6	52.3	73.1	
UMC-M3020R	30	1-1/4	26.2	47.63	50.80	39.6	55.6	77.2	
UMC-M3220R	32	1-1/4	28.6	47.63	50.80	42.0	56.6	79.6	
UMC-M3824R	38	1-1/2	33.7	55.56	57.15	49.4	64.0	92.6	

NPT threads are available for all metric UMC. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UTMC

Thermocouple Male Connector



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)						
	inch	mm		E Min.	h		H		I	L
					inch	mm	inch	mm		
UTMC-0204N	1/8	3.17	1/4	3.4	9/16	14.28	7/16	11.11	29.0	35.6
UTMC-0206N	1/8	3.17	3/8	3.4	11/16	17.46	7/16	11.11	29.2	35.8
UTMC-0406N	1/4	6.35	3/8	6.5	11/16	17.46	9/16	14.28	31.0	38.4
UTMC-0408N	1/4	6.35	1/2	6.5	7/8	22.22	9/16	14.28	37.3	44.7
UTMC-0608N	3/8	9.52	1/2	9.7	7/8	22.22	11/16	17.46	38.9	46.2
UTMC-0812N	1/2	12.70	3/4	12.9	1-1/16	26.98	7/8	22.22	40.4	50.5
UTMC-0816N	1/2	12.70	1	12.9	1-3/8	34.92	7/8	22.22	47.0	57.2

ISO Tapered threads are available for all fractional UTMC. To order, add "R" as a suffix instead of "N".

Connects Metric Tube to Female ISO Tapered Thread

Part No.	Tube OD	P ISO7/1	Dimensions (mm)					
	T		E Min.	h	H	I	L	
	mm			inch	mm			
UTMC-M0404R	4	1/4	4.2	14.28	12.70	29.7	36.3	
UTMC-M0406R	6	3/8	6.2	17.46	14.28	31.0	38.4	
UTMC-M0608R	6	1/2	6.2	22.22	14.28	37.3	44.7	
UTMC-M0804R	8	3/8	8.2	17.46	15.87	31.8	39.3	
UTMC-M0808R	8	1/2	8.2	22.22	15.87	38.1	45.6	
UTMC-M1008R	10	1/2	10.2	22.22	19.05	38.9	46.5	
UTMC-M1212R	12	3/4	12.2	26.98	22.22	40.4	50.5	

NPT threads are available for all metric fractional UTMC. To order, add "N" as a suffix instead of "R".

Bored - Through Fittings

Bored-through male connectors handle thermocouples or tip tubes easily.

Most UNILOK male connectors can be bored-through fittings.

The following fittings are impractical to make boredthrough fittings.

- Male connector with small pipe thread end as 1/8"
- Male connectors which tube fitting end is larger than pipe thread end such as UMC-0602R- or UME-M1204N-.



Heat Exchanger Tee

UNILOK union tees and reducers can make heat exchange tees.



Union Tee



Reducer

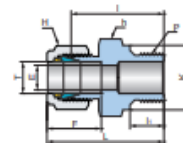


Heat Exchanger Tee

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. L is typical finger tight.

UMC-G

Male Connector for Bonded Seal



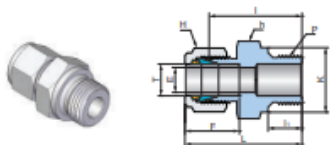
Connects Fractional(Inch) Tube to Female ISO Parallel Thread

Part No.	Tube OD T		P ISO 228/1	Dimensions (mm)										
	inch	mm		mm	E Min.	h		H		F	I	I _i	L	K
						inch	mm	inch	mm					
UMC-0202G	1/8	3.17	1/8	2.3	9/16	14.28	7/16	11.11	12.7	23.4	7.1	30.0	13.8	
UMC-0204G	1/8	3.17	1/4	2.3	3/4	19.05	7/16	11.11	12.7	28.7	11.2	35.3	18.0	
UMC-0206G	1/8	3.17	3/8	2.3	7/8	22.22	7/16	11.11	12.7	29.7	11.2	36.3	21.8	
UMC-0402G	1/4	6.35	1/8	4.1	9/16	14.28	9/16	14.28	15.2	24.9	7.1	32.3	13.8	
UMC-0404G	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.2	30.2	11.2	37.6	18.0	
UMC-0406G	1/4	6.35	3/8	4.8	7/8	22.22	9/16	14.28	15.2	31.5	11.2	38.9	21.8	
UMC-0408G	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.2	37.3	14.2	44.7	26.0	
UMC-0604G	3/8	9.52	1/4	5.8	3/4	19.05	11/16	17.46	16.8	31.8	11.2	39.1	18.0	
UMC-0606G	3/8	9.52	3/8	7.1	7/8	22.22	11/16	17.46	16.8	33.0	11.2	40.4	21.8	
UMC-0608G	3/8	9.52	1/2	7.1	1-1/16	26.98	11/16	17.46	16.8	38.9	14.2	46.2	26.0	
UMC-0802G	1/2	12.70	1/8	4.8	7/8	22.22	7/8	22.22	22.9	28.5	7.1	38.7	13.8	
UMC-0804G	1/2	12.70	1/4	5.8	13/16	20.63	7/8	22.22	22.9	32.5	11.2	42.7	18.0	
UMC-0806G	1/2	12.70	3/8	7.9	7/8	22.22	7/8	22.22	22.9	33.0	11.2	43.2	21.8	
UMC-0808G	1/2	12.70	1/2	10.4	1-1/16	26.98	7/8	22.22	22.9	38.9	14.2	49.0	26.0	
UMC-1208G	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.57	24.4	38.9	14.2	49.0	26.0	
UMC-1212G	3/4	19.05	3/4	15.7	1-3/8	34.92	1-1/8	28.57	24.4	42.7	15.7	52.8	32.0	
UMC-1612G	1	25.40	3/4	16.0	1-3/8	34.92	1-1/2	38.10	31.2	45.2	15.7	57.4	32.0	
UMC-1616G	1	25.40	1	19.8	1-5/8	41.27	1-1/2	38.10	31.2	47.8	18.3	59.9	39.0	

Dimensions are for reference only and are subject to change without prior notice.
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UMC-G

Male Connector for Bonded Seal



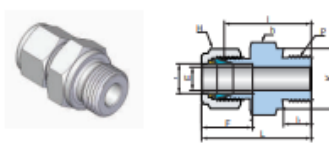
Connects Metric Tube to Female ISO Parallel Thread

Part No.	Tube OD T	P ISO 228/1	Dimensions (mm)							
			E Min.	h		F	I	I ₁	L	K
				mm	mm					
UMC-M0202G	2	1/8	1.7	14.28	12.70	12.9	23.4	7.1	30.0	13.8
UMC-M0302G	3	1/8	2.4	14.28	11.11	12.9	23.4	7.1	30.0	13.8
UMC-M0304G	3	1/4	2.4	19.05	11.11	12.9	28.7	11.2	35.3	18.0
UMC-M0402G	4	1/8	2.4	14.28	12.70	13.7	24.1	7.1	30.7	13.8
UMC-M0404G	4	1/4	2.4	19.05	12.70	13.7	29.4	11.2	36.0	18.0
UMC-M0602G	6	1/8	4.0	14.28	14.28	15.3	24.9	7.1	32.3	13.8
UMC-M0604G	6	1/4	4.8	19.05	14.28	15.3	30.2	11.2	37.6	18.0
UMC-M0606G	6	3/8	4.8	22.22	14.28	15.3	31.5	11.2	38.9	21.8
UMC-M0608G	6	1/2	4.8	26.98	14.28	15.3	37.3	14.2	44.7	26.0
UMC-M0802G	8	1/8	4.0	15.87	15.87	16.2	25.7	7.1	33.2	13.8
UMC-M0804G	8	1/4	6.4	19.05	15.87	16.2	31.0	11.2	38.5	18.0
UMC-M0806G	8	3/8	6.4	22.22	15.87	16.2	32.3	11.2	39.8	21.8
UMC-M0808G	8	1/2	6.4	26.98	15.87	16.2	38.1	14.2	45.6	26.0
UMC-M1004G	10	1/4	5.9	19.05	19.05	17.2	31.8	11.2	39.4	18.0
UMC-M1006G	10	3/8	7.9	22.22	19.05	17.2	33.0	11.2	40.6	21.8
UMC-M1008G	10	1/2	7.9	26.98	19.05	17.2	38.9	14.2	46.5	26.0
UMC-M1204G	12	1/4	5.9	22.22	22.22	22.8	32.5	11.2	42.6	18.0
UMC-M1206G	12	3/8	7.9	22.22	22.22	22.8	33.0	11.2	43.1	21.8
UMC-M1208G	12	1/2	9.5	26.98	22.22	22.8	38.9	14.2	49.0	26.0
UMC-M1212G	12	3/4	9.5	34.92	22.22	22.8	42.7	15.7	52.8	32.0
UMC-M1508G	15	1/2	11.9	26.98	25.40	24.4	38.9	14.2	49.0	26.0
UMC-M1606G	16	3/8	7.9	23.81	25.40	24.4	33.8	11.2	43.9	21.8
UMC-M1608G	16	1/2	11.9	26.98	25.40	24.4	38.9	14.2	49.0	26.0
UMC-M1808G	18	1/2	11.9	26.98	30.16	24.4	38.9	14.2	49.0	26.0
UMC-M1812G	18	3/4	15.1	34.92	30.16	24.4	42.7	15.7	52.8	32.0
UMC-M2008G	20	1/2	11.9	30.16	31.75	26.0	40.4	14.2	50.5	26.0
UMC-M2012G	20	3/4	15.9	34.92	31.75	26.0	42.7	15.7	52.8	32.0
UMC-M2208G	22	1/2	11.9	30.16	31.75	26.0	40.4	14.2	50.5	26.0
UMC-M2212G	22	3/4	15.1	34.92	31.75	26.0	42.7	15.7	52.8	32.0
UMC-M2512G	25	3/4	15.9	34.92	38.10	31.3	45.2	15.7	57.5	32.0
UMC-M2516G	25	1	19.8	41.27	38.10	31.3	47.8	18.3	60.1	39.0
UMC-M2816G	28	1	19.8	44.45	47.63	36.6	49.3	18.3	70.1	39.0
UMC-M2820G	28	1-1/4	21.8	50.80	47.63	36.6	53.1	19.8	73.9	49.0
UMC-M3220G	32	1-1/4	28.6	50.80	50.80	42.0	55.9	19.8	78.9	49.0
UMC-M3824G	38	1-1/2	31.8	55.56	57.15	49.4	63.2	22.1	90.8	54.7

Dimensions are for reference only and are subject to change without prior notice.
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UMC-GM

Male Connector for Metal Gasket



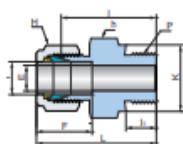
Connects Fractional(Inch) Tube to Female ISO Parallel Thread

Part No.	Tube OD T		P ISO 228/1	Dimensions (mm)									
				E Min.	h		H		F	I	I ₁	L	K
	inch	mm			inch	mm							
UMC-0202GM	1/8	3.17	1/8	2.3	9/16	14.28	7/16	11.11	12.7	23.4	7.1	30.0	13.8
UMC-0204GM	1/8	3.17	1/4	2.3	3/4	19.05	7/16	11.11	12.7	28.7	11.2	35.3	18.0
UMC-0206GM	1/8	3.17	3/8	2.3	7/8	22.22	7/16	11.11	12.7	29.7	11.2	36.2	21.8
UMC-0402GM	1/4	6.35	1/8	4.1	9/16	14.28	9/16	14.28	15.2	24.9	7.1	32.3	13.8
UMC-0404GM	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.2	30.2	11.2	37.6	18.0
UMC-0406GM	1/4	6.35	3/8	4.8	7/8	22.22	9/16	14.28	15.2	31.5	11.2	38.9	21.8
UMC-0408GM	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.2	37.3	14.2	44.7	26.0
UMC-0604GM	3/8	9.52	1/4	5.8	3/4	19.05	11/16	17.46	16.8	31.8	11.2	39.1	18.0
UMC-0606GM	3/8	9.52	3/8	7.1	7/8	22.22	11/16	17.46	16.8	33.0	11.2	40.4	21.8
UMC-0608GM	3/8	9.52	1/2	7.1	1-1/16	26.98	11/16	17.46	16.8	38.9	14.2	46.2	26.0
UMC-0804GM	1/2	12.70	1/4	5.8	13/16	20.63	7/8	22.22	22.9	32.5	11.2	42.7	18.0
UMC-0806GM	1/2	12.70	3/8	7.9	7/8	22.22	7/8	22.22	22.9	33.0	11.2	43.2	21.8
UMC-0808GM	1/2	12.70	1/2	10.4	1-1/16	26.98	7/8	22.22	22.9	38.9	14.2	49.0	26.0
UMC-1208GM	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.57	24.4	38.9	14.2	49.0	26.0
UMC-1212GM	3/4	19.05	3/4	15.7	1-5/16	33.33	1-1/8	28.57	24.4	42.7	15.7	52.8	32.0
UMC-1612GM	1	25.40	3/4	16.0	1-3/8	34.92	1-1/2	38.10	31.2	45.2	15.7	57.4	32.0
UMC-1616GM	1	25.40	1	19.8	1-5/8	41.27	1-1/2	38.10	31.2	47.8	18.3	59.9	39.0

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UMC-GM

Male Connector for Metal Gasket



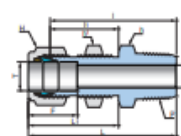
Connects Metric Tube to Female ISO Parallel Thread

Part No.	Tube OD T mm	P ISO 228/1	Dimensions (mm)							
			E Min.	h mm	H mm	F	I	I ₁	L	K
UMC-M0302GM	3	1/8	2.4	14.28	11.11	12.7	23.4	7.1	30.0	13.8
UMC-M0304GM	3	1/4	2.4	19.05	11.11	12.7	28.7	11.2	35.3	18.0
UMC-M0402GM	4	1/8	2.4	14.28	12.70	13.7	24.1	7.1	30.7	13.8
UMC-M0404GM	4	1/4	2.4	19.05	12.70	13.7	29.4	11.2	36.0	18.0
UMC-M0602GM	6	1/8	4.0	14.28	14.28	15.3	24.9	7.1	32.3	13.8
UMC-M0604GM	6	1/4	4.8	19.05	14.28	15.3	30.2	11.2	37.6	18.0
UMC-M0606GM	6	3/8	4.8	22.22	14.28	15.3	31.5	11.2	38.9	21.8
UMC-M0608GM	6	1/2	4.8	26.98	14.28	15.3	37.3	14.2	44.7	26.0
UMC-M0802GM	8	1/8	4.0	15.87	15.87	16.3	25.7	7.1	33.2	13.8
UMC-M0804GM	8	1/4	6.4	19.05	15.87	16.3	31.0	11.2	38.5	18.0
UMC-M0806GM	8	3/8	6.4	22.22	15.87	16.3	32.3	11.2	39.8	21.8
UMC-M0808GM	8	1/2	6.4	26.98	15.87	16.3	38.1	14.2	45.6	26.0
UMC-M1004GM	10	1/4	5.9	19.05	19.05	17.3	31.8	11.2	39.4	18.0
UMC-M1006GM	10	3/8	7.9	22.22	19.05	17.3	33.0	11.2	40.6	21.8
UMC-M1008GM	10	1/2	7.9	26.98	19.05	17.3	38.9	14.2	46.5	26.0
UMC-M1204GM	12	1/4	5.9	22.22	22.22	22.8	32.5	11.2	42.6	18.0
UMC-M1206GM	12	3/8	7.9	22.22	22.22	22.8	33.0	11.2	43.1	21.8
UMC-M1208GM	12	1/2	9.5	26.98	22.22	22.8	38.9	14.2	49.0	26.0
UMC-M1212GM	12	3/4	9.5	34.92	22.22	22.8	42.7	15.7	52.8	32.0
UMC-M1508GM	15	1/2	11.9	26.98	25.40	24.4	38.9	14.2	49.0	26.0
UMC-M1606GM	16	3/8	7.9	23.81	25.40	24.5	33.8	11.2	43.9	21.8
UMC-M1608GM	16	1/2	11.9	26.98	25.40	24.5	38.9	14.2	49.0	26.0
UMC-M1808GM	18	1/2	11.9	26.98	30.16	24.5	38.9	14.2	49.0	26.0
UMC-M1812GM	18	3/4	15.1	34.92	30.16	24.5	42.7	15.7	52.8	32.0
UMC-M2008GM	20	1/2	11.9	30.16	31.75	26.2	40.4	14.2	50.5	26.0
UMC-M2012GM	20	3/4	15.9	34.92	31.75	26.2	42.7	15.7	52.8	32.0
UMC-M2212GM	22	3/4	15.9	34.92	31.75	26.2	42.7	15.7	52.8	32.0
UMC-M2512GM	25	3/4	15.9	34.92	38.10	31.1	45.2	15.7	57.5	32.0
UMC-M2516GM	25	1	19.8	41.27	38.10	31.1	47.8	18.3	60.1	39.0
UMC-M2816GM	28	1	19.8	41.27	47.63	41.1	49.3	18.3	70.1	39.0
UMC-M2820GM	28	1-1/4	21.8	50.80	47.63	41.1	53.1	19.8	73.9	49.0
UMC-M3220GM	32	1-1/4	28.6	50.80	50.80	40.9	55.9	19.8	78.9	49.0
UMC-M3824GM	38	1-1/2	31.8	55.56	57.15	49.9	61.7	20.6	89.3	54.7

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UBMC

Bulkhead Male Connector



Connects Fractional(inch) Tube to Female NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)													
	inch	mm		E Min.	h		h ₁		H		F	I	I ₁	L	L ₁	Panel Hole Size	Max Panel Thickness
					inch	mm	inch	mm	inch	mm							
UBMC-0202N	1/8	3.17	1/8	2.3	1/2	12.70	1/2	12.70	7/16	11.11	12.7	39.9	24.6	46.5	31.2	8.3	12.7
UBMC-0402N	1/4	6.35	1/8	4.8	5/8	15.87	5/8	15.87	9/16	14.28	15.2	42.2	26.2	49.5	33.5	11.5	10.2
UBMC-0404N	1/4	6.35	1/4	4.8	5/8	15.87	5/8	15.87	9/16	14.28	15.2	46.0	26.2	53.3	33.5	11.5	10.2
UBMC-0604N	3/8	9.52	1/4	7.1	3/4	19.05	3/4	19.05	11/16	17.46	16.8	50.0	29.5	57.4	36.8	14.7	11.2
UBMC-0606N	3/8	9.52	3/8	7.1	3/4	19.05	3/4	19.05	11/16	17.46	16.8	50.0	29.5	57.4	36.8	14.7	11.2
UBMC-0608N	3/8	9.52	1/2	7.1	15/16	23.81	15/16	23.81	11/16	17.46	16.8	56.4	29.5	63.8	36.8	14.7	11.2
UBMC-0806N	1/2	12.70	3/8	9.7	15/16	23.81	15/16	23.81	7/8	22.22	22.9	53.1	31.8	63.2	41.9	19.5	12.7
UBMC-0808N	1/2	12.70	1/2	10.4	15/16	23.81	15/16	23.81	7/8	22.22	22.9	58.7	31.8	68.8	41.9	19.5	12.7
UBMC-1212N	3/4	19.05	3/4	15.7	1-3/16	30.16	1-3/16	30.16	1-1/8	28.57	24.4	66.0	37.3	76.2	47.5	25.8	16.8
UBMC-1616N	1	25.40	1	22.4	1-5/8	41.27	1-5/8	41.27	1-1/2	38.10	31.2	81.0	45.2	93.2	57.4	33.7	19.1

ISO Tapered threads are available for all fractional UBMC. To order, add "R" as a suffix instead of "N".

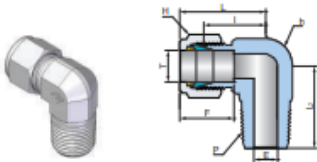
Connects Metric Tube to Female ISO Tapered Thread

Part No.	Tube OD T	P ISO7/1	Dimensions (mm)										
			E Min.	h mm	h ₁ mm	H mm	F	I	I ₁	L	L ₁	Panel Hole Size	Max Panel Thickness
	mm												
UBMC-M0302R	3	1/8	2.4	14.28	14.28	11.11	12.9	39.8	24.6	46.5	31.2	8.3	12.7
UBMC-M0602R	6	1/8	4.8	15.87	15.87	14.28	15.3	42.2	26.2	49.6	33.6	11.5	10.2
UBMC-M0604R	6	1/4	4.8	15.87	15.87	14.28	15.3	46.2	26.2	53.6	33.6	11.5	10.2
UBMC-M0804R	8	1/4	6.4	17.46	17.46	15.87	16.2	49.0	28.6	56.5	36.1	13.1	11.2
UBMC-M1004R	10	1/4	7.1	22.22	22.22	19.05	17.2	52.0	29.5	59.7	37.0	16.2	11.2
UBMC-M1206R	12	3/8	9.5	23.81	23.81	22.22	22.8	53.1	31.8	63.2	41.9	19.5	12.7
UBMC-M1208R	12	1/2	9.5	23.81	23.81	22.22	22.8	58.7	31.8	68.8	41.9	19.5	12.7

NPT threads are available for all metric UBMC. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UME
Male Elbow



Connects Fractional(Inch) Tube to Female NPT Thread

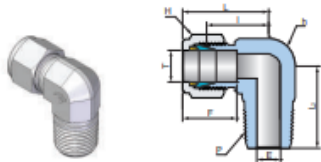
Part No.	Tube OD		P NPT	Dimensions (mm)								
	T			E	h		H		F	I	L	L ₁
	inch	mm			Min.	inch	mm	inch				
UME-0101N	1/16	1.68	1/16	1.3	1/2	12.70	5/16	7.93	8.6	15.2	19.1	17.8
UME-0102N	1/16	1.68	1/8	1.3	1/2	12.70	5/16	7.93	8.6	15.2	19.1	17.8
UME-0202N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	17.0	23.6	17.8
UME-0204N	1/8	3.17	1/4	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	23.4
UME-0206N	1/8	3.17	3/8	2.3	11/16	17.46	7/16	11.11	12.7	22.2	28.8	26.1
UME-0208N	1/8	3.17	1/2	2.3	13/16	20.63	7/16	11.11	12.7	22.9	29.5	33.0
UME-0302N	3/16	4.76	1/8	3.0	1/2	12.70	1/2	12.70	13.7	18.8	25.4	18.8
UME-0304N	3/16	4.76	1/4	3.0	1/2	12.70	1/2	12.70	13.7	18.8	25.4	23.4
UME-0401N	1/4	6.35	1/16	3.0	1/2	12.70	9/16	14.28	15.2	19.6	26.9	18.8
UME-0402N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	18.8
UME-0404N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	23.4
UME-0406N	1/4	6.35	3/8	4.8	11/16	17.46	9/16	14.28	15.2	22.4	29.7	26.2
UME-0408N	1/4	6.35	1/2	4.8	13/16	20.63	9/16	14.28	15.2	24.4	31.7	33.0
UME-0412N	1/4	6.35	3/4	4.8	1-1/16	26.98	9/16	14.28	15.2	28.3	35.6	36.8
UME-0502N	5/16	7.93	1/8	4.8	9/16	14.28	5/8	15.87	16.3	21.3	28.7	19.8
UME-0504N	5/16	7.93	1/4	6.4	9/16	14.28	5/8	15.87	16.3	21.3	28.7	24.4
UME-0506N	5/16	7.93	1/2	6.4	11/16	17.46	5/8	15.87	16.3	23.1	30.5	26.2
UME-0602N	3/8	9.52	1/8	4.8	5/8	15.87	11/16	17.46	16.8	23.1	30.5	20.8
UME-0604N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5	25.4
UME-0606N	3/8	9.52	3/8	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	26.2
UME-0608N	3/8	9.52	1/2	7.1	13/16	20.63	11/16	17.46	16.8	25.9	33.3	33.0
UME-0612N	3/8	9.52	3/4	7.1	1-1/16	26.98	11/16	17.46	16.8	29.7	37.1	36.8
UME-0802N	1/2	12.70	1/8	4.8	13/16	20.63	7/8	22.22	22.9	25.9	36.1	23.3
UME-0804N	1/2	12.70	1/4	7.1	13/16	20.63	7/8	22.22	22.9	25.9	36.1	28.3
UME-0806N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	25.9	36.1	28.3
UME-0808N	1/2	12.70	1/2	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	33.0
UME-0812N	1/2	12.70	3/4	10.4	1-1/16	26.98	7/8	22.22	22.9	29.7	39.9	36.8
UME-0816N	1/2	12.70	1	10.4	1-3/8	34.92	7/8	22.22	22.9	34.6	44.8	46.5
UME-1006N	5/8	15.87	3/8	9.7	15/16	23.81	1	25.40	24.4	27.9	38.1	30.2
UME-1008N	5/8	15.87	1/2	11.9	15/16	23.81	1	25.40	24.4	27.9	38.1	35.1
UME-1012N	5/8	15.87	3/4	12.7	1-1/16	26.98	1	25.40	24.4	29.7	39.9	36.8
UME-1206N	3/4	19.05	3/8	9.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	31.9
UME-1208N	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	36.8
UME-1212N	3/4	19.05	3/4	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	36.8
UME-1216N	3/4	19.05	1	15.7	1-3/8	34.92	1-1/8	28.57	24.4	34.5	44.7	46.5
UME-1412N	7/8	22.22	3/4	15.7	1-3/8	30.16	1-1/4	31.75	25.9	34.5	44.7	41.7
UME-1608N	1	25.40	1/2	11.9	1-3/8	34.92	1-1/2	38.10	31.2	36.5	48.7	41.9
UME-1612N	1	25.40	3/4	15.7	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	41.7
UME-1616N	1	25.40	1	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	46.5
UME-2016N	1-1/4	31.75	1	27.7	1-11/16	42.86	1-7/8	47.63	41.1	44.0	66.0	51.3
UME-2020N	1-1/4	31.75	1-1/4	27.7	1-11/16	42.86	1-7/8	47.63	41.1	44.0	66.0	51.1
UME-2424N	1-1/2	38.10	1-1/2	34.0	2	50.80	2-1/4	57.15	50.0	50.8	78.0	60.5
UME-3232N	2	50.80	2	46.0	2-3/4	69.85	3	76.20	67.6	69.8	107.2	70.6

ISO Tapered threads are available for all fractional UME. To order, add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.

E is minimum opening. F and L are typical finger tight.

UME
Male Elbow



Connects Metric Tube to Female ISO Tapered Thread

Part No.	Tube OD	P ISO7/1	Dimensions (mm)							
	T		E Min.	h	H	F	I	L	L ₁	
	mm			mm	mm					
UME-M0302R	3	1/8	2.4	12.70	11.11	12.9	17.0	23.6	17.8	
UME-M0304R	3	1/4	2.4	12.70	11.11	12.9	18.0	24.6	23.4	
UME-M0402R	4	1/8	2.4	12.70	12.70	13.7	18.8	25.4	18.8	
UME-M0404R	4	1/4	2.4	12.70	12.70	13.7	18.8	25.4	23.4	
UME-M0602R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	18.8	
UME-M0604R	6	1/4	4.8	12.70	14.28	15.3	19.6	27.0	23.4	
UME-M0606R	6	3/8	4.8	17.46	14.28	15.3	22.4	29.8	26.2	
UME-M0608R	6	1/2	4.8	20.63	14.28	15.3	24.4	31.8	33.0	
UME-M0802R	8	1/8	4.8	14.28	15.87	16.2	21.3	28.8	19.8	
UME-M0804R	8	1/4	6.4	14.28	15.87	16.2	21.3	28.8	24.4	
UME-M0806R	8	3/8	6.4	17.46	15.87	16.2	23.1	30.6	26.2	
UME-M0808R	8	1/2	6.4	20.63	15.87	16.2	25.1	32.6	33.0	
UME-M1002R	10	1/8	4.8	17.46	19.05	17.2	23.9	31.5	21.6	
UME-M1004R	10	1/4	7.1	17.46	19.05	17.2	23.9	31.5	26.2	
UME-M1006R	10	3/8	7.9	17.46	19.05	17.2	23.9	31.5	26.2	
UME-M1008R	10	1/2	7.9	20.63	19.05	17.2	25.9	33.5	33.0	
UME-M1202R	12	1/8	4.8	20.63	22.22	22.8	25.9	36.0	23.6	
UME-M1204R	12	1/4	7.1	20.63	22.22	22.8	25.9	36.0	28.2	
UME-M1206R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	28.2	
UME-M1208R	12	1/2	9.5	20.63	22.22	22.8	25.9	36.0	33.0	
UME-M1212R	12	3/4	9.5	26.98	22.22	22.8	29.7	39.8	36.8	
UME-M1408R	14	1/2	11.9	23.81	25.40	24.4	27.9	38.0	35.1	
UME-M1508R	15	1/2	11.9	23.81	25.40	24.4	27.9	38.0	35.1	
UME-M1606R	16	3/8	9.5	23.81	25.40	24.4	27.9	38.0	30.2	
UME-M1608R	16	1/2	11.9	23.81	25.40	24.4	27.9	38.0	35.1	
UME-M1612R	16	3/4	12.7	26.98	25.40	24.4	29.7	39.8	36.8	
UME-M1808R	18	1/2	11.9	26.98	30.16	24.4	29.7	39.8	36.8	
UME-M1812R	18	3/4	15.1	26.98	30.16	24.4	29.7	39.8	36.8	
UME-M2008R	20	1/2	11.9	34.92	31.75	26.0	34.5	44.6	41.7	
UME-M2012R	20	3/4	15.9	34.92	31.75	26.0	34.5	44.6	41.7	
UME-M2212R	22	3/4	15.9	34.92	31.75	26.0	34.5	44.6	41.7	
UME-M2512R	25	3/4	15.9	34.92	38.10	31.3	36.8	49.1	41.7	
UME-M2516R	25	1	21.8	34.92	38.10	31.3	36.8	49.1	46.5	
UME-M3020R	30	1-1/4	26.2	46.04	50.80	39.6	48.3	69.9	53.1	
UME-M3220R	32	1-1/4	27.8	46.04	50.80	42.0	49.3	72.3	53.1	
UME-M3832R	38	1-1/2	33.7	55.56	57.15	49.4	56.4	84.0	60.4	

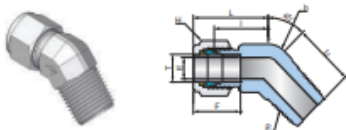
NPT threads are available for all metric UME. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.

E is minimum opening. F and L are typical finger tight.

UMVE

45° Male Elbow



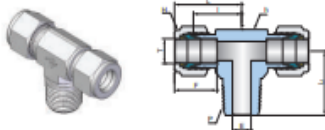
Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)								
				E Min.	h		H		F	I	L	L ₁
	inch	mm			inch	mm						
UMVE-0402N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	17.3	24.6	16.5
UMVE-0404N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.2	17.3	24.6	21.1
UMVE-0602N	3/8	9.52	1/8	4.8	5/8	15.87	11/16	17.46	16.8	20.6	27.9	18.3
UMVE-0604N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	20.6	27.9	22.9
UMVE-0606N	3/8	9.52	3/8	7.1	13/16	20.63	11/16	17.46	16.8	21.8	29.2	24.1
UMVE-0806N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	21.8	32.0	24.1
UMVE-0808N	1/2	12.70	1/2	10.4	13/16	20.63	7/8	22.22	22.9	21.8	32.0	29.0
UMVE-1212N	3/4	19.05	3/4	15.7	1-1/8	28.57	1-1/8	28.57	24.4	23.9	34.0	31.0
UMVE-1616N	1	25.40	1	22.4	1-3/8	34.92	1-1/2	38.10	31.2	28.2	40.3	37.8

ISO Tapered threads are available for all fractional UMVE. To order, add "R" as a suffix instead of "N".

UMBT

Male Branch Tee



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)								
				E Min.	h		H		F	I	L	L ₁
	inch	mm			inch	mm	inch	mm				
UMBT-0202N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	17.0	23.6	17.8
UMBT-0204N	1/8	3.17	1/4	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	23.4
UMBT-0302N	3/16	4.76	1/8	3.0	1/2	12.70	1/2	12.70	13.7	17.8	24.4	17.8
UMBT-0402N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	18.8
UMBT-0404N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	23.4
UMBT-0502N	5/16	7.93	1/8	4.8	9/16	14.28	5/8	15.87	16.3	22.4	29.7	20.8
UMBT-0604N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5	25.4
UMBT-0606N	3/8	9.52	3/8	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	28.2
UMBT-0806N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	25.9	36.1	28.2
UMBT-0808N	1/2	12.70	1/2	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	33.0
UMBT-1008N	5/8	15.87	1/2	11.9	1	25.40	1	25.40	24.4	28.7	38.9	35.8
UMBT-1212N	3/4	19.05	3/4	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	36.8

ISO Tapered threads are available for all fractional UMBT. To order, add "R" as a suffix instead of "N".

Connects Metric Tube to Female ISO Tapered Thread

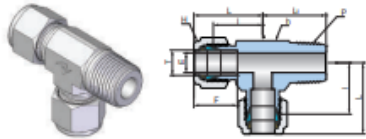
Part No.	Tube OD T	P ISO7/1	Dimensions (mm)						
			E Min.	h mm	H mm	F	I	L	L ₁
	mm								
UMBT-M0302R	3	1/8	2.4	12.70	11.11	12.9	17.0	23.6	17.8
UMBT-M0304R	3	1/4	2.4	12.70	11.11	12.9	18.0	24.6	23.4
UMBT-M0402R	4	1/8	2.4	12.70	12.70	13.7	18.8	25.4	18.8
UMBT-M0602R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	18.8
UMBT-M0604R	6	1/4	4.8	12.70	14.28	15.3	19.6	27.0	23.4
UMBT-M0802R	8	1/8	4.8	14.28	15.87	16.2	21.3	28.8	19.8
UMBT-M0804R	8	1/4	6.4	14.28	15.87	16.2	21.3	28.8	24.4
UMBT-M1004R	10	1/4	7.1	17.46	19.05	17.2	23.9	31.5	28.2
UMBT-M1006R	10	3/8	7.9	17.46	19.05	17.2	23.9	31.5	28.2
UMBT-M1204R	12	1/4	7.1	20.63	22.22	22.8	25.9	36.0	28.2
UMBT-M1206R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	28.2
UMBT-M1208R	12	1/2	9.5	20.63	22.22	22.8	25.9	36.0	33.0
UMBT-M1606R	16	3/8	9.5	25.40	25.40	24.4	28.7	38.8	30.9
UMBT-M1608R	16	1/2	11.9	25.40	25.40	24.4	28.7	38.8	35.8
UMBT-M2012R	20	3/4	15.9	34.92	31.75	26.0	36.8	47.1	43.5

NPT threads are available for all metric UMBT. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

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UMRT
Male Run Tee



Connects Fractional Tube to Female NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)								
	inch	mm		E Min.	h		H		F	I	L	L ₁
					inch	mm	inch	mm				
UMRT-0202N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	17.0	23.6	17.8
UMRT-0204N	1/8	3.17	1/4	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	23.4
UMRT-0302N	3/16	4.76	1/8	3.0	7/16	11.11	1/2	12.70	13.7	17.8	24.4	17.8
UMRT-0402N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	18.8
UMRT-0404N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	23.4
UMRT-0502N	5/16	7.94	1/8	4.8	9/16	14.28	5/8	15.87	16.3	22.4	29.7	20.8
UMRT-0604N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5	25.4
UMRT-0606N	3/8	9.52	3/8	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	28.2
UMRT-0806N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	25.9	36.1	28.2
UMRT-0808N	1/2	12.70	1/2	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	33.0
UMRT-1008N	5/8	15.87	1/2	11.9	1	25.40	1	25.40	24.4	27.9	38.1	35.1
UMRT-1212N	3/4	19.05	3/4	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	36.8

ISO Tapered threads are available for all fractional UMVE. To order, add "R" as a suffix instead of "N".

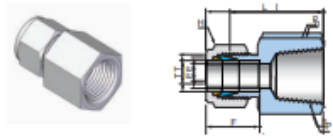
Connects Metric Tube to Female ISO Tapered Thread

Part No.	Tube OD	P ISO7/1	Dimensions (mm)						
	T		E Min.	h	H	F	I	L	L ₁
	mm			inch	mm				
UMRT-M0302R	3	1/8	2.4	12.70	11.11	12.9	17.0	23.6	17.8
UMRT-M0304R	3	1/4	2.4	12.70	11.11	12.9	18.0	24.6	23.4
UMRT-M0402R	4	1/8	2.4	12.70	12.70	13.7	18.8	25.4	18.8
UMRT-M0602R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	18.8
UMRT-M0604R	6	1/4	4.8	12.70	14.28	15.3	19.6	27.0	23.4
UMRT-M0802R	8	1/8	4.8	14.28	15.87	16.2	21.3	28.8	19.8
UMRT-M0804R	8	1/4	6.4	14.28	15.87	16.2	21.3	28.8	24.4
UMRT-M1004R	10	1/4	7.1	17.46	19.05	17.2	23.9	31.5	28.2
UMRT-M1006R	10	3/8	7.9	17.46	19.05	17.2	23.9	31.5	28.2
UMRT-M1204R	12	1/4	7.1	20.63	22.22	22.8	25.9	36.0	28.2
UMRT-M1206R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	28.2
UMRT-M1208R	12	1/2	9.5	20.63	22.22	22.8	25.9	36.0	33.0
UMRT-M1606R	16	3/8	9.5	25.40	25.40	24.4	27.9	38.0	30.2
UMRT-M1608R	16	1/2	11.9	25.40	25.40	24.4	27.9	38.0	35.1
UMRT-M2012R	20	3/4	15.9	34.92	31.75	26.0	34.5	44.6	41.7

NPT threads are available for all metric UMRT. To order, add "N" as a suffix instead of "R".

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UFC
Female Connector



Connects Fractional Tube to Male NPT Thread

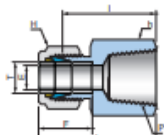
Part No.	Tube OD T		P NPT	Dimensions (mm)							
	inch	mm		E Min.	h		H		F	I	L
					inch	mm	inch	mm			
UFC-0202N	1/8	3.17	1/8	2.3	9/16	14.28	7/16	11.11	12.7	22.1	28.7
UFC-0204N	1/8	3.17	1/4	2.3	3/4	19.05	7/16	11.11	12.7	26.9	33.5
UFC-0302N	3/16	4.76	1/8	3.0	9/16	14.28	1/2	12.70	13.7	23.1	29.7
UFC-0402N	1/4	6.35	1/8	4.8	9/16	14.28	9/16	14.28	15.2	23.9	31.2
UFC-0404N	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.2	28.4	35.8
UFC-0406N	1/4	6.35	3/8	4.8	7/8	22.22	9/16	14.28	15.2	30.2	37.6
UFC-0408N	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.2	35.1	42.4
UFC-0502N	5/16	7.93	1/8	6.4	9/16	14.28	5/8	15.87	16.3	24.6	32.0
UFC-0504N	5/16	7.93	1/4	6.4	3/4	19.05	5/8	15.87	16.3	29.5	36.8
UFC-0602N	3/8	9.52	1/8	7.1	5/8	15.87	11/16	17.46	16.8	25.4	32.8
UFC-0604N	3/8	9.52	1/4	7.1	3/4	19.05	11/16	17.46	16.8	30.2	37.6
UFC-0606N	3/8	9.52	3/8	7.1	7/8	22.22	11/16	17.46	16.8	31.8	39.1
UFC-0608N	3/8	9.52	1/2	7.1	1-1/16	26.98	11/16	17.46	16.8	36.6	43.9
UFC-0612N	3/8	9.52	3/4	7.1	1-5/16	33.33	11/16	17.46	16.8	40.4	47.8
UFC-0804N	1/2	12.70	1/4	10.4	13/16	20.63	7/8	22.22	22.9	30.2	40.4
UFC-0806N	1/2	12.70	3/8	10.4	7/8	22.22	7/8	22.22	22.9	31.8	41.9
UFC-0808N	1/2	12.70	1/2	10.4	1-1/16	26.98	7/8	22.22	22.9	36.6	46.7
UFC-0812N	1/2	12.70	3/4	10.4	1-5/16	33.33	7/8	22.22	22.9	38.1	48.3
UFC-1006N	5/8	15.87	3/8	12.7	15/16	23.81	1	25.40	24.4	31.8	41.9
UFC-1008N	5/8	15.87	1/2	12.7	1-1/16	26.98	1	25.40	24.4	36.6	46.7
UFC-1208N	3/4	19.05	1/2	15.7	1-1/16	26.98	1-1/8	28.57	24.4	36.6	46.7
UFC-1212N	3/4	19.05	3/4	15.7	1-5/16	33.33	1-1/8	28.57	24.4	38.1	48.3
UFC-1412N	7/8	22.22	3/4	18.3	1-5/16	33.33	1-1/4	31.75	25.9	39.6	49.8
UFC-1612N	1	25.40	3/4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	41.1	53.3
UFC-1616N	1	25.40	1	22.4	1-5/8	41.27	1-1/2	38.10	31.2	50.0	62.2
UFC-2020N	1-1/4	31.75	1-1/4	27.7	2-1/8	53.98	1-7/8	47.63	41.1	52.6	74.7
UFC-2424N	1-1/2	38.10	1-1/2	34.0	2-3/8	60.33	2-1/4	57.15	50.0	56.1	83.3
UFC-3232N	2	50.80	2	46.0	2-7/8	73.03	3	76.20	67.6	64.3	101.6

ISO Tapered threads are available for all fractional UFC. To order, add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UFC

Female Connector



Connects Metric Tube to Male ISO Tapered Thread

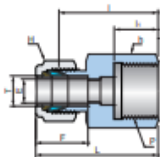
Part No.	Tube OD T	P ISO 7/1	Dimensions (mm)					
			E Min.	h mm	H mm	F	I	L
UFC-M0302R	3	1/8	2.4	14.28	11.11	12.7	22.1	28.7
UFC-M0304R	3	1/4	2.4	19.05	11.11	12.9	26.9	33.5
UFC-M0402R	4	1/8	2.4	14.28	11.11	12.9	23.1	29.7
UFC-M0602R	6	1/8	4.8	14.28	12.70	13.7	23.9	31.3
UFC-M0604R	6	1/4	4.8	19.05	14.28	15.3	28.4	35.8
UFC-M0606R	6	3/8	4.8	22.22	14.28	15.3	29.5	36.9
UFC-M0608R	6	1/2	4.8	26.98	14.28	15.3	35.1	42.5
UFC-M0802R	8	1/8	6.4	14.28	14.28	15.3	24.6	32.1
UFC-M0804R	8	1/4	6.4	19.05	15.87	16.2	29.5	37.0
UFC-M0806R	8	3/8	6.4	22.22	15.87	16.2	30.2	37.7
UFC-M0808R	8	1/2	6.4	26.98	15.87	16.2	35.8	43.3
UFC-M1002R	10	1/8	7.9	17.46	15.87	16.2	25.4	33.0
UFC-M1004R	10	1/4	7.9	19.05	19.05	17.2	30.2	37.8
UFC-M1006R	10	3/8	7.9	22.22	19.05	17.2	31.0	38.6
UFC-M1008R	10	1/2	7.9	26.98	19.05	17.2	36.6	44.2
UFC-M1202R	12	1/8	8.3	22.22	19.05	17.2	28.4	38.5
UFC-M1204R	12	1/4	9.5	22.22	22.22	22.8	30.2	40.3
UFC-M1206R	12	3/8	9.5	22.22	22.22	22.8	31.0	41.1
UFC-M1208R	12	1/2	9.5	26.98	22.22	22.8	36.6	46.7
UFC-M1212R	12	3/4	9.5	33.33	22.22	22.8	38.9	49.0
UFC-M1508R	15	1/2	11.9	26.98	22.22	22.8	36.6	46.7
UFC-M1608R	16	1/2	12.7	26.98	25.40	24.4	36.8	46.9
UFC-M2008R	20	1/2	15.9	30.16	25.40	24.4	37.8	47.9
UFC-M2012R	20	3/4	15.9	33.33	31.75	26.0	39.6	49.7
UFC-M2212R	22	3/4	18.3	34.92	31.75	26.0	39.6	49.7
UFC-M2216R	22	1	18.3	41.27	31.75	26.0	47.8	57.9
UFC-M2512R	25	3/4	21.8	34.92	31.75	26.0	41.1	53.4
UFC-M2516R	25	1	21.8	41.27	38.10	31.3	50.0	62.3

NPT threads are available for all metric UFC. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UFC

Gauge Connector



Connects Fractional Tube to ISO Parallel Thread (Gauge)

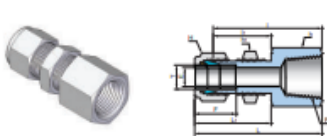
Part No.	Tube OD T		P ISO 228/1	Dimensions (mm)								
				E Min.	h		H		F	I	I ₁	L ₁
	inch	mm			inch	mm	inch	mm				
UFC-0402GG	1/4	6.35	1/8	4.8	9/16	14.28	9/16	14.28	15.2	26.3	12.0	33.6
UFC-0404GG	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.2	30.2	13.0	37.6
UFC-0406GG	1/4	6.35	3/8	4.8	15/16	23.81	9/16	14.28	15.2	30.2	14.2	37.6
UFC-0408GG	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.2	36.1	18.8	43.4
UFC-0504GG	5/16	7.93	1/4	5.6	3/4	19.05	5/8	15.87	16.3	31.0	13.0	38.4
UFC-0508GG	5/16	7.93	1/2	7.1	1-1/16	26.98	5/8	15.87	16.3	33.5	18.8	40.9
UFC-0604GG	3/8	9.52	1/4	5.6	3/4	19.05	11/16	17.46	16.8	31.8	13.0	39.1
UFC-0606GG	3/8	9.52	3/8	6.6	15/16	23.81	11/16	17.46	16.8	31.2	14.2	38.6
UFC-0608GG	3/8	9.52	1/2	7.1	1-1/16	26.98	11/16	17.46	16.8	34.5	19.0	41.9
UFC-0804GG	1/2	12.70	1/4	5.6	7/8	22.22	7/8	22.22	22.9	31.8	13.0	42.0
UFC-0806GG	1/2	12.70	3/8	6.6	15/16	23.81	7/8	22.22	22.9	34.3	14.2	44.5
UFC-0808GG	1/2	12.70	1/2	7.1	1-1/16	26.98	7/8	22.22	22.9	38.1	19.0	48.3

Connects Metric Tube to ISO Parallel Thread (Gauge)

Part No.	Tube OD T	p ISO 228/1	Dimensions (mm)						
			E Min.	h mm	H mm	F	I	I ₁	L
UFC-M0304GG	3	1/4	2.4	19.05	11.11	12.9	28.7	13.0	35.3
UFC-M0604GG	6	1/4	4.8	19.05	14.28	15.3	30.2	13.0	37.6
UFC-M0606GG	6	3/8	4.8	23.81	14.28	15.3	30.2	14.2	37.6
UFC-M0608GG	6	1/2	4.8	26.98	14.28	15.3	36.3	19.0	43.7
UFC-M0804GG	8	1/4	5.5	19.05	15.87	16.2	31.0	13.0	38.5
UFC-M0806GG	8	3/8	6.5	23.81	15.87	16.2	28.7	14.0	36.2
UFC-M0808GG	8	1/2	7.0	26.98	15.87	16.2	33.0	19.0	40.5
UFC-M1004GG	10	1/4	5.5	19.05	19.05	17.2	31.8	13.0	39.4
UFC-M1006GG	10	3/8	6.5	23.81	19.05	17.2	31.2	14.2	38.8
UFC-M1008GG	10	1/2	7.0	26.98	19.05	17.2	34.5	19.0	42.1
UFC-M1204GG	12	1/4	5.5	22.22	22.22	22.8	31.8	13.0	41.9
UFC-M1206GG	12	3/8	6.5	23.81	22.22	22.8	34.3	14.0	44.4
UFC-M1208GG	12	1/2	7.0	26.98	22.22	22.8	38.1	19.0	48.2
UFC-M2008GG	20	1/2	7.0	30.16	31.75	26.0	44.2	19.0	54.3
UFC-M2208GG	22	1/2	7.0	30.16	31.75	26.0	44.2	19.0	54.3

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UBFC
Bulkhead Female Connector



Connects Fractional(Inch) Tube to Male NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)													
				E Min.	h		h ₁		H		F	I	I ₁	L	L ₁	Panel Hole Size	Max. Panel Thickness
	inch	mm			inch	mm	inch	mm	inch	mm							
UBFC-0202N	1/8	3.17	1/8	2.3	9/16	14.28	1/2	12.70	7/16	11.11	12.7	38.1	24.6	44.7	31.2	8.3	12.7
UBFC-0402N	1/4	6.35	1/8	4.8	5/8	15.87	5/8	15.87	9/16	14.28	15.2	39.6	26.2	47.0	33.5	11.5	10.2
UBFC-0404N	1/4	6.35	1/4	4.8	3/4	19.05	5/8	15.87	9/16	14.28	15.2	44.5	26.2	51.8	33.5	11.5	10.2
UBFC-0604N	3/8	9.52	1/4	7.1	3/4	19.05	3/4	19.05	11/16	17.46	16.8	47.8	29.5	55.1	36.8	14.7	11.2
UBFC-0806N	1/2	12.70	3/8	10.4	15/16	23.81	15/16	23.81	7/8	22.22	22.9	51.6	31.8	61.7	41.9	19.4	12.7
UBFC-0808N	1/2	12.70	1/2	10.4	1-1/16	26.98	15/16	23.81	7/8	22.22	22.9	56.4	31.8	66.5	41.9	19.4	12.7
UBFC-1212N	3/4	19.05	3/4	15.7	1-5/16	33.33	1-3/16	30.16	1-1/8	28.57	24.4	63.6	37.3	73.7	47.4	25.8	16.8

ISO Tapered threads are available for all fractional UBFC. To order, add "R" as a suffix instead of "N".

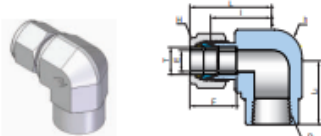
Connects Metric Tube to Male ISO Tapered Thread

Part No.	Tube OD T	P ISO7/1	Dimensions (mm)										
			E Min.	h mm	h ₁ mm	H mm	F	I	I ₁	L	L ₁	Panel Hole Size	Max Panel Thickness
	mm												
UBFC-M0602R	6	1/8	4.8	15.87	15.87	14.28	15.3	39.6	26.2	47.0	33.6	11.5	10.2
UBFC-M0604R	6	1/4	4.8	19.05	15.87	14.28	15.3	44.4	26.2	51.8	33.6	11.5	10.2
UBFC-M0804R	8	1/4	6.4	19.05	17.46	15.87	16.2	46.7	28.6	54.2	36.1	13.1	11.2
UBFC-M1208R	12	1/2	9.5	26.98	23.81	22.22	22.8	56.4	31.8	66.5	41.9	19.5	12.7

NPT threads are available for all metric UBFC. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UFE
Female Elbow



Connects Fractional(Inch) Tube to Male NPT Thread

Part No.	Tube OD		P NPT	Dimensions (mm)									
	T			E Min.	h		H		F	I	I ₁	L ₁	
					inch	mm	inch	mm					
UFE-0202N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	19.1	
UFE-0204N	1/8	3.17	1/4	2.3	11/16	17.46	7/16	11.11	12.7	20.8	27.4	22.4	
UFE-0302N	3/16	4.76	1/8	3.0	1/2	12.70	1/2	12.70	13.7	18.8	25.4	19.1	
UFE-0402N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	19.1	
UFE-0404N	1/4	6.35	1/4	4.8	11/16	17.46	9/16	14.28	15.2	22.4	29.7	22.4	
UFE-0406N	1/4	6.35	3/8	4.8	13/16	20.63	9/16	14.28	15.2	24.4	31.8	22.4	
UFE-0408N	1/4	6.35	1/2	4.8	1	25.40	9/16	14.28	15.2	27.2	34.5	28.4	
UFE-0502N	5/16	7.93	1/8	6.4	9/16	14.28	5/8	15.87	16.3	21.3	28.7	19.1	
UFE-0504N	5/16	7.93	1/4	6.4	11/16	17.46	5/8	15.87	16.3	23.1	30.5	22.4	
UFE-0602N	3/8	9.52	1/8	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5	19.1	
UFE-0604N	3/8	9.52	1/4	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	22.4	
UFE-0606N	3/8	9.52	3/8	7.1	13/16	20.63	11/16	17.46	16.8	25.9	33.3	22.4	
UFE-0608N	3/8	9.52	1/2	7.1	1	25.40	11/16	17.46	16.8	28.7	36.1	28.4	
UFE-0804N	1/2	12.70	1/4	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4	
UFE-0806N	1/2	12.70	3/8	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4	
UFE-0808N	1/2	12.70	1/2	10.4	1	25.40	7/8	22.22	22.9	28.7	38.9	28.4	
UFE-1006N	5/8	15.87	3/8	12.7	15/16	23.81	1	25.40	24.4	27.9	38.1	22.4	
UFE-1008N	5/8	15.87	1/2	12.7	1-1/16	26.98	1	25.40	24.4	29.7	39.9	28.4	
UFE-1208N	3/4	19.05	1/2	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	28.4	
UFE-1212N	3/4	19.05	3/4	15.7	1-3/8	34.92	1-1/8	28.57	24.4	34.5	44.7	31.8	
UFE-1412N	7/8	22.22	3/4	18.3	1-3/8	34.92	1-1/4	31.75	25.9	34.5	44.7	31.8	
UFE-1612N	1	25.40	3/4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	31.8	
UFE-1616N	1	25.40	1	22.4	1-11/16	42.86	1-1/2	38.10	31.2	41.4	53.6	38.1	

ISO Tapered threads are available for all fractional UFE. To order, add "R" as a suffix instead of "N".

Connects Metric Tube to Male ISO Tapered Thread

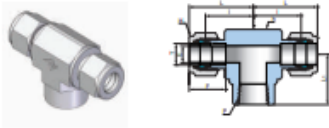
Part No.	Tube OD T	P ISO7/1	Dimensions (mm)						
			E	h	H	F	I	I ₁	L
	mm	Min.	mm	mm					
UFE-M0602R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	19.0
UFE-M0604R	6	1/4	4.8	17.46	14.28	15.3	22.4	29.8	22.4
UFE-M0606R	6	3/8	4.8	20.63	14.28	15.3	24.4	31.8	22.4
UFE-M0608R	6	1/2	4.8	25.40	14.28	15.3	27.2	34.6	28.4
UFE-M0804R	8	1/4	6.4	17.46	15.87	16.2	23.1	30.6	22.4
UFE-M0808R	8	1/2	6.4	25.40	15.87	16.2	28.0	35.5	28.4
UFE-M1002R	10	1/8	7.9	17.46	19.05	17.2	23.9	31.5	19.0
UFE-M1004R	10	1/4	7.9	20.63	19.05	17.2	25.9	33.5	22.4
UFE-M1006R	10	3/8	7.9	20.63	19.05	17.2	25.9	33.5	22.4
UFE-M1008R	10	1/2	7.9	25.40	19.05	17.2	28.7	36.3	28.4
UFE-M1204R	12	1/4	9.5	20.63	22.22	22.8	25.9	36.0	22.4
UFE-M1206R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	22.4
UFE-M1208R	12	1/2	9.5	25.40	22.22	22.8	28.7	38.8	28.4
UFE-M1608R	20	1/2	12.7	26.98	25.40	24.4	29.7	39.8	28.4

NPT threads are available for all metric UFE. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UFBT

Female Branch Tee



Connects Fractional(Inch) Tube to Male NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)								
				E Min.	h		H		F	I	I ₁	L
	inch	mm			inch	mm	inch	mm				
UFBT-0202N	1/8	3.17	1/8	4.8	1/2	12.70	7/16	11.11	12.7	18.0	24.6	19.1
UFBT-0402N	1/4	6.35	1/8	4.8	11/16	17.46	9/16	14.28	15.2	19.6	26.9	19.1
UFBT-0404N	1/4	6.35	1/4	7.1	11/16	17.46	9/16	14.28	15.2	22.4	29.7	22.4
UFBT-0604N	3/8	9.52	1/4	10.4	13/16	20.63	11/16	17.46	16.8	23.9	31.2	22.4
UFBT-0804N	1/2	12.70	1/4	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4
UFBT-0806N	1/2	12.70	3/8	10.4	1-1/16	26.98	7/8	22.22	22.9	25.9	36.1	22.4
UFBT-0808N	1/2	12.70	1/2	12.7	1-1/16	26.98	7/8	22.22	22.9	28.7	38.9	28.4
UFBT-1008N	5/8	15.87	1/2	15.7	1-3/8	34.92	1	25.40	24.4	28.7	38.9	28.4
UFBT-1212N	3/4	19.05	3/4	22.4	1-3/8	34.92	1-1/8	28.57	24.4	34.5	44.7	31.8
UFBT-1612N	1	25.40	3/4	22.4	1-11/16	42.86	1-1/2	38.10	31.2	36.8	49.0	31.8
UFBT-1616N	1	15.40	1	22.4	1-11/16	42.86	1-1/2	38.10	31.2	41.4	53.6	38.1

ISO Tapered threads are available for all fractional UFBT. To order, add "R" as a suffix instead of "N".

Connects Metric Tube to Male ISO Tapered Thread

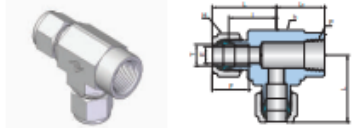
Part No.	Tube OD T	P ISO7/1	Dimensions (mm)						
			E Min.	h	H	F	I	L	I ₁
	mm			mm	mm				
UFRT-M0602R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	19.0
UFRT-M0604R	6	1/4	4.8	17.46	14.28	15.3	22.4	29.8	22.4
UFRT-M0606R	6	3/8	4.8	20.63	14.28	15.3	24.4	31.8	22.4
UFRT-M0608R	6	1/2	4.8	25.40	14.28	15.3	27.2	34.6	28.4
UFRT-M0802R	8	1/8	6.4	15.87	15.87	16.2	22.4	29.9	19.0
UFRT-M0804R	8	1/4	6.4	17.46	15.87	16.2	23.1	30.6	22.4
UFRT-M0806R	8	3/8	6.4	20.63	15.87	16.2	25.2	32.7	22.4
UFRT-M0808R	8	1/2	6.4	26.98	15.87	16.2	28.0	35.5	28.4
UFRT-M1004R	10	1/4	7.9	20.63	19.05	17.2	25.9	33.5	22.4
UFRT-M1006R	10	3/8	7.9	20.63	19.05	17.2	25.9	33.5	22.4
UFRT-M1008R	10	1/2	7.9	26.98	19.05	17.2	28.7	36.3	28.4
UFRT-M1204R	12	1/4	9.5	20.63	22.22	22.8	25.9	36.0	22.4
UFRT-M1206R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	22.4
UFRT-M1208R	12	1/2	9.5	26.98	22.22	22.8	28.7	38.8	28.4
UFRT-M1608R	16	1/2	12.7	26.98	25.40	24.4	28.7	38.8	28.4

NPT threads are available for all metric UFBT. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UFRT

Female Run Tee



Connects Fractional(Inch) Tube to Male NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)								
				E	h		H		F	I	L	L _i
	Min.	inch		mm	inch	mm						
UFRT-0202N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	19.1
UFRT-0402N	1/4	6.35	1/8	4.8	9/16	14.28	9/16	14.28	15.2	19.6	26.9	19.1
UFRT-0404N	1/4	6.35	1/4	4.8	11/16	17.46	9/16	14.28	15.2	22.4	29.7	22.4
UFRT-0604N	3/8	9.52	1/4	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	22.4
UFRT-0806N	1/2	12.70	3/8	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4
UFRT-0808N	1/2	12.70	1/2	10.4	1-1/16	26.98	7/8	22.22	22.9	28.7	38.9	28.4
UFRT-1212N	3/4	19.05	3/4	15.7	1-3/8	34.92	1-1/8	28.57	24.4	34.5	44.7	31.8
UFRT-1612N	1	25.40	3/4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	31.8
UFRT-1616N	1	25.40	1	22.4	1-11/16	42.86	1-1/2	38.10	31.2	41.4	53.6	38.1

ISO Tapered threads are available for all fractional UFRT. To order, add "R" as a suffix instead of "N".

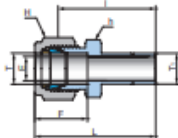
Connects Metric Tube to Male ISO Tapered Thread

Part No.	Tube OD T	P ISO7/1	Dimensions (mm)						
			E Min.	h	H	F	I	I ₁	L
	mm			mm	mm				
UFRT-M0602R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	19.0
UFRT-M0604R	6	1/4	4.8	17.46	14.28	15.3	22.4	29.8	22.4
UFRT-M0608R	6	1/2	4.8	26.98	14.28	15.3	27.2	34.6	28.4
UFRT-M0802R	8	1/8	6.4	15.87	15.87	16.2	22.4	29.9	19.0
UFRT-M0804R	8	1/4	6.4	17.46	15.87	16.2	23.1	30.6	22.4
UFRT-M0806R	8	3/8	6.4	20.63	15.87	16.2	25.2	32.7	22.4
UFRT-M0808R	8	1/2	6.4	26.98	25.40	16.2	28.0	35.5	28.4
UFRT-M1004R	10	1/4	7.9	20.63	19.05	17.2	25.9	33.5	22.4
UFRT-M1204R	12	1/4	9.5	20.63	22.22	22.8	25.9	36.0	22.4
UFRT-M1206R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	22.4
UFRT-M1208R	12	1/2	9.5	26.98	22.22	22.8	29.7	39.8	28.4
UFRT-M1608R	16	1/2	12.7	26.98	25.40	24.4	29.7	39.8	28.4

NPT threads are available for all metric UFRT. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UR
Reducer

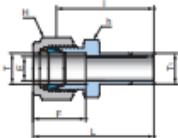


Connects Fractional(Inch) Tube to Fractional UNILOK Port

Part No.	Tube OD T		Tube OD T ₁		Dimensions (mm)							
	inch	mm	inch	mm	E Min.	h		H		F	I	L
						inch	mm	inch	mm			
UR-0202T	1/8	3.17	1/8	3.17	2.0	7/16	11.11	7/16	11.11	12.7	26.9	33.5
UR-0203T	1/8	3.17	3/16	4.76	2.3	7/16	11.11	7/16	11.11	12.7	27.7	34.3
UR-0204T	1/8	3.17	1/4	6.35	2.3	7/16	11.11	7/16	11.11	12.7	29.5	36.1
UR-0206T	1/8	3.17	3/8	9.52	2.3	7/16	11.11	7/16	11.11	12.7	31.0	37.6
UR-0208T	1/8	3.17	1/2	12.70	2.3	9/16	14.28	7/16	11.11	12.7	37.6	44.2
UR-0302T	3/16	4.76	1/8	3.17	2.0	7/16	11.11	1/2	12.70	13.7	28.2	34.8
UR-0304T	3/16	4.76	1/4	6.35	3.0	7/16	11.11	1/2	12.70	13.7	30.5	37.1
UR-0402T	1/4	6.35	1/8	3.17	2.0	1/2	12.70	9/16	14.28	15.2	29.5	36.8
UR-0403T	1/4	6.35	3/16	4.76	3.0	1/2	12.70	9/16	14.28	15.2	30.2	37.6
UR-0404T	1/4	6.35	1/4	6.35	4.3	1/2	12.70	9/16	14.28	15.2	31.8	39.1
UR-0405T	1/4	6.35	5/16	7.93	4.8	1/2	12.70	9/16	14.28	15.2	32.5	39.9
UR-0406T	1/4	6.35	3/8	9.52	4.8	1/2	12.70	9/16	14.28	15.2	33.3	40.6
UR-0408T	1/4	6.35	1/2	12.70	4.8	9/16	14.28	9/16	14.28	15.2	38.9	46.2
UR-0410T	1/4	6.35	5/8	15.87	4.8	11/16	17.46	9/16	14.28	15.2	40.6	48.0
UR-0412T	1/4	6.35	3/4	19.05	4.8	13/16	20.63	9/16	14.28	15.2	40.4	47.8
UR-0506T	5/16	7.93	3/8	9.52	6.4	9/16	14.28	5/8	15.87	16.3	34.5	41.9
UR-0508T	5/16	7.93	1/2	12.70	6.4	9/16	14.28	5/8	15.87	16.3	40.1	47.5
UR-0604T	3/8	9.52	1/4	6.35	4.3	5/8	15.87	11/16	17.46	16.8	34.0	41.4
UR-0606T	3/8	9.52	3/8	9.52	6.9	5/8	15.87	11/16	17.46	16.8	35.8	43.2
UR-0608T	3/8	9.52	1/2	12.70	7.1	5/8	15.87	11/16	17.46	16.8	41.1	48.5
UR-0610T	3/8	9.52	5/8	15.87	7.1	11/16	17.46	11/16	17.46	16.8	42.9	50.3
UR-0612T	3/8	9.52	3/4	19.05	7.1	13/16	20.63	11/16	17.46	16.8	42.9	50.3
UR-0804T	1/2	12.70	1/4	6.35	4.3	13/16	20.63	7/8	22.22	22.9	34.8	45.0
UR-0806T	1/2	12.70	3/8	9.52	6.9	13/16	20.63	7/8	22.22	22.9	36.6	46.7
UR-0808T	1/2	12.70	1/2	12.70	9.4	13/16	20.63	7/8	22.22	22.9	42.2	52.3
UR-0810T	1/2	12.70	5/8	15.87	10.4	13/16	20.63	7/8	22.22	22.9	43.7	53.8
UR-0812T	1/2	12.70	3/4	19.05	10.4	13/16	20.63	7/8	22.22	22.9	43.7	53.8
UR-0816T	1/2	12.70	1	25.40	10.4	1-1/16	26.98	7/8	22.22	22.9	50.0	60.2
UR-1012T	5/8	15.87	3/4	19.05	12.7	15/16	23.81	1	25.40	24.4	44.5	54.6
UR-1014T	5/8	15.87	7/8	22.22	12.7	15/16	23.81	1	25.40	24.4	46.0	56.1
UR-1016T	5/8	15.87	1	25.40	12.7	1-1/16	26.98	1	25.40	24.4	50.8	61.0
UR-1208T	3/4	19.05	1/2	12.70	9.4	1-1/16	26.98	1-1/8	28.57	24.4	44.5	54.6
UR-1216T	3/4	19.05	1	25.40	15.7	1-1/16	26.98	1-1/8	28.57	24.4	52.3	62.5
UR-1620T	1	25.40	1-1/4	31.75	22.4	1-3/8	34.92	1-1/2	38.10	31.2	68.3	80.5
UR-1624T	1	25.40	1-1/2	38.10	22.4	1-5/8	41.27	1-1/2	38.10	31.2	77.0	89.2
UR-2024T	1-1/4	31.75	1-1/2	38.10	27.7	1-7/8	47.63	1-7/8	47.63	41.1	82.0	104.1
UR-2032T	1-1/4	31.75	2	50.80	27.7	1-7/8	47.63	1-7/8	47.63	41.1	103.1	125.2
UR-2432T	1-1/2	38.10	2	50.80	34.0	2-1/4	57.15	2-1/4	57.15	50.0	104.1	131.3

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UR
Reducer



Connects Metric Tube to Metric UNILOK Port

Part No.	Tube OD T	Tube OD T _i	Dimensions (mm)						
	inch	mm	E Min.	h		F	I	L	
				mm	mm				
UR-M03M04T	3	4	2.4	11.11	11.11	12.9	28.4	35.0	
UR-M03M06T	3	6	2.4	11.11	11.11	12.9	29.5	36.1	
UR-M06M08T	6	8	4.8	14.28	14.28	15.3	32.5	39.9	
UR-M06M10T	6	10	4.8	14.28	14.28	15.3	33.3	40.7	
UR-M06M12T	6	12	4.8	14.28	14.28	15.3	38.9	46.3	
UR-M08M06T	8	6	4.1	15.87	15.87	16.2	32.8	40.3	
UR-M08M10T	8	10	6.4	14.28	15.87	16.2	34.5	42.0	
UR-M08M12T	8	12	6.4	15.87	15.87	16.2	40.1	47.6	
UR-M10M06T	10	6	4.1	17.46	19.05	17.2	34.8	42.4	
UR-M10M12T	10	12	7.9	17.46	19.05	17.2	42.2	49.8	
UR-M12M06T	12	6	4.1	22.22	22.22	22.8	34.8	44.9	
UR-M12M10T	12	10	7.1	22.22	22.22	22.8	36.6	46.7	
UR-M12M16T	12	16	9.5	22.22	22.22	22.8	43.7	53.8	
UR-M12M18T	12	18	9.5	22.22	22.22	22.8	43.7	53.8	
UR-M16M12T	16	12	8.8	23.81	25.40	24.4	42.9	53.0	
UR-M18M12T	18	12	8.8	26.98	30.16	24.4	44.5	54.6	
UR-M18M16T	18	16	12.0	26.98	30.16	24.4	46.0	56.1	
UR-M20M16T	20	16	12.0	30.16	31.75	26.0	47.8	57.9	
UR-M20M18T	20	18	13.9	30.16	31.75	26.0	47.8	57.9	
UR-M22M20T	22	20	15.5	30.16	31.75	26.0	49.3	59.4	
UR-M22M25T	22	25	18.3	30.16	31.75	26.0	54.1	64.2	
UR-M25M18T	25	18	13.9	34.92	38.10	31.3	50.8	63.1	
UR-M25M20T	25	20	15.5	34.92	38.10	31.3	52.3	64.6	

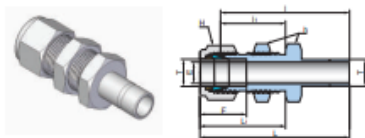
Connects Metric Tube to Fractional(Inch) UNILOK Port

Part No.	Tube OD T	Tube OD T ₁		Dimensions (mm)						
				E	h	H		F	I	I ₁
	Min.	mm	inch	mm						
UR-M0302T	3	1/8	3.17	2.0	12.70	1/2	12.70	12.9	26.9	33.5
UR-M0304T	3	1/4	6.35	2.4	12.70	1/2	12.70	12.9	29.5	36.1
UR-M0604T	6	1/4	6.35	4.3	12.70	9/16	14.28	15.3	31.8	39.2
UR-M0605T	6	5/16	7.93	4.8	14.28	9/16	14.28	15.3	32.5	39.9
UR-M0606T	6	3/8	9.52	4.8	14.28	9/16	14.28	15.3	33.3	40.7
UR-M0608T	6	1/2	12.70	4.8	14.28	9/16	14.28	15.3	38.9	46.3
UR-M0806T	8	3/8	9.52	6.4	14.28	5/8	15.87	16.2	34.5	42.0
UR-M0808T	8	1/2	12.70	6.4	15.87	5/8	15.87	16.2	40.1	47.6
UR-M1006T	10	3/8	9.52	6.9	17.46	3/4	19.05	17.2	36.6	44.2
UR-M1008T	10	1/2	12.70	7.9	17.46	3/4	19.05	17.2	42.2	49.8
UR-M1208T	12	1/2	12.70	9.4	20.63	7/8	22.22	22.8	42.2	52.3
UR-M1212T	12	3/4	19.05	9.5	20.63	7/8	22.22	22.8	43.7	53.8
UR-M1812T	18	3/4	19.05	14.7	26.98	1-3/16	30.16	24.4	46.0	56.1
UR-M1816T	18	1	25.40	15.1	26.98	1-3/16	30.16	24.4	52.3	62.4

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UBR

Bulkhead Reducer



Connects Fractional(Inch) Tube to Fractional UNILOK Port

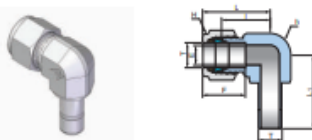
Part No.	Tube OD T		Dimensions (mm)											
			E	h		H		F	I	I ₁	L	L ₁	Panel Hole Size	Max Panel Thickness
	Min.	inch	mm	inch	mm									
UBR-0202T	1/8	3.17	2.0	1/2	12.70	7/16	11.11	12.7	42.9	24.6	49.5	31.2	8.3	12.7
UBR-0404T	1/4	6.35	4.3	5/8	15.87	9/16	14.28	15.2	48.5	26.2	55.9	33.5	11.5	10.2
UBR-0606T	3/8	9.52	6.9	3/4	19.05	11/16	17.46	16.8	53.8	29.5	61.2	36.8	14.7	11.2
UBR-0808T	1/2	12.70	9.4	15/16	23.81	7/8	22.22	22.9	62.7	31.8	72.9	41.9	19.4	12.7

Connects- Metric Tube to Metric UNILOK Port

Part No.	Tube OD T	Dimensions (mm)									
		E	h	H	F	I	I ₁	L	L ₁	Panel Hole Size	Max Panel Thickness
	mm	Min.	mm	mm							
UBR-M03M03T	3	1.9	12.70	11.11	12.9	43.0	24.6	49.6	31.2	8.3	12.7
UBR-M06M06T	6	4.1	15.87	14.28	15.3	48.5	26.2	55.9	33.6	11.5	10.2
UBR-M08M08T	8	5.6	17.46	15.87	16.2	53.1	28.6	60.6	36.1	13.1	11.2
UBR-M12M12T	12	8.8	23.81	22.22	22.8	62.7	31.8	72.8	41.9	19.5	12.7

UER

Elbow Reducer



Connects Fractional(Inch) Tube to Fractional UNILOK Port

Part No.	Tube OD T		Dimensions (mm)								
			E	h		H		F	I	L	L ₁
	Min.	inch	mm	inch	mm						
UER-0202T	1/8	3.17	2.0	3/8	9.52	7/16	11.11	12.7	15.7	22.3	20.6
UER-0404T	1/4	6.35	4.3	1/2	12.70	9/16	14.28	15.2	19.6	27.0	25.0
UER-0606T	3/8	9.52	6.9	5/8	15.87	11/16	17.46	16.8	23.1	30.5	29.3
UER-0808T	1/2	12.70	9.4	13/16	20.63	7/8	22.22	22.9	25.9	36.0	37.1

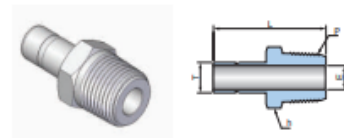
Connects Fractional(Inch) Tube to Fractional UNILOK Port

Part No.	Tube OD T	Dimensions (mm)						
		E	h	H	F	I	L	L ₁
	mm	Min.	mm	mm				
UER-M03M03T	3	1.9	9.52	12.70	12.9	15.7	22.3	20.5
UER-M06M06T	6	4.1	12.70	14.28	15.3	19.6	27.0	25.6
UER-M08M08T	8	5.6	15.87	15.87	16.2	22.4	29.9	28.6
UER-M10M10T	10	7.1	20.63	19.05	17.2	25.9	33.5	32.3
UER-M12M12T	12	8.8	20.63	22.22	22.8	25.9	36.0	37.3

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UMA

Male Adapter



Connects Fractional(Inch) UNILOK Port to Female NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)		
				E	h	L
	inch	mm		Min.	inch	mm
UMA-02T02N	1/8	3.17	1/8	2.0	7/16	11.11
UMA-03T02N	3/16	4.76	1/8	3.0	7/16	11.11
UMA-04T02N	1/4	6.35	1/8	4.3	7/16	11.11
UMA-04T04N	1/4	6.35	1/4	4.3	9/16	14.28
UMA-05T02N	5/16	7.93	1/8	4.8	7/16	11.11
UMA-05T04N	5/16	7.93	1/4	5.6	9/16	14.28
UMA-06T04N	3/8	9.52	1/4	6.9	9/16	14.28
UMA-06T06N	3/8	9.52	3/8	6.9	11/16	17.46
UMA-06T08N	3/8	9.52	1/2	6.9	7/8	22.22
UMA-08T04N	1/2	12.70	1/4	7.1	9/16	14.28
UMA-08T06N	1/2	12.70	3/8	9.4	11/16	17.46
UMA-08T08N	1/2	12.70	1/2	9.4	7/8	22.22
UMA-10T08N	5/8	15.87	1/2	11.9	7/8	22.22
UMA-12T12N	3/4	19.05	3/4	14.7	1-1/16	26.98
UMA-14T12N	7/8	22.22	3/4	15.7	1-1/16	26.98
UMA-16T16N	1	25.40	1	20.3	1-3/8	34.92
UMA-20T20N	1-1/4	31.75	1-1/4	25.9	1-3/4	44.45
UMA-24T24N	1-1/2	38.10	1-1/2	31.8	2-1/8	53.98
UMA-32T32N	2	50.80	2	43.7	2-3/4	69.85

ISO Tapered threads are available for all fractional UMA. To order, add "R" as a suffix instead of "N".

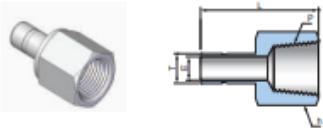
Connects Metric UNILOK Port to Female ISO Tapered Thread

Part No.	Tube OD T		P ISO7/1	Dimensions (mm)		
				E	h	L
	mm			Min.	mm	
UMA-M03T02R	3		1/8	1.9	12.70	29.4
UMA-M06T02R	6		1/8	4.1	11.11	32.8
UMA-M06T04R	6		1/4	4.1	14.28	38.1
UMA-M08T04R	8		1/4	5.6	14.28	39.1
UMA-M10T04R	10		1/4	7.1	14.28	39.9
UMA-M10T06R	10		3/8	7.1	17.46	40.6
UMA-M10T08R	10		1/2	7.1	22.22	45.2
UMA-M12T04R	12		1/4	7.1	14.28	46.5
UMA-M12T06R	12		3/8	8.8	17.46	46.2
UMA-M12T08R	12		1/2	8.8	22.22	52.0
UMA-M18T08R	18		1/2	11.9	22.22	53.2
UMA-M18T12R	18		3/4	13.9	26.98	53.2
UMA-M20T12R	20		3/4	15.5	26.98	58.0
UMA-M25T16R	25		1	19.5	34.92	70.7
UMA-M28T16R	28		1	22.2	34.92	74.7
UMA-M28T20R	28		1-1/4	22.5	46.04	76.2
UMA-M30T20R	30		1-1/4	24.3	46.04	80.0
UMA-M32T20R	32		1-1/4	26.5	46.04	81.0
UMA-M38T24R	38		1-1/2	31.6	55.56	92.2

NPT threads are available for all metric UMA. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening.

UFA
Female Adapter



Connects Fractional UNILOK Port to Male NPT Thread

Part No.	Tube OD T		P NPT	Dimensions (mm)			
	inch	mm		E Min.	h		L
					inch	mm	
UFA-02T02N	1/8	3.17	1/8	2.0	9/16	14.28	31.5
UFA-02T04N	1/8	3.17	1/4	2.0	3/4	19.05	35.3
UFA-03T02N	3/16	4.76	1/8	3.0	9/16	14.28	32.0
UFA-03T04N	3/16	4.76	1/4	3.0	3/4	19.05	35.8
UFA-04T02N	1/4	6.35	1/8	4.3	9/16	14.28	33.0
UFA-04T04N	1/4	6.35	1/4	4.3	3/4	19.05	37.1
UFA-04T06N	1/4	6.35	3/8	4.3	7/8	22.22	39.4
UFA-04T08N	1/4	6.35	1/2	4.3	1-1/16	26.98	45.5
UFA-05T02N	5/16	7.93	1/8	5.6	9/16	14.28	34.3
UFA-05T04N	5/16	7.93	1/4	5.6	3/4	19.05	37.6
UFA-06T02N	3/8	9.52	1/8	6.9	9/16	14.28	34.3
UFA-06T04N	3/8	9.52	1/4	6.9	3/4	19.05	38.1
UFA-06T06N	3/8	9.52	3/8	6.9	7/8	22.22	40.4
UFA-06T08N	3/8	9.52	1/2	6.9	1-1/16	26.98	46.7
UFA-08T04N	1/2	12.70	1/4	9.4	3/4	19.05	43.4
UFA-08T06N	1/2	12.70	3/8	9.4	7/8	22.22	45.5
UFA-08T08N	1/2	12.70	1/2	9.4	1-1/16	26.98	51.8
UFA-10T06N	5/8	15.87	3/8	11.9	7/8	22.22	48.3
UFA-10T08N	5/8	15.87	1/2	11.9	1-1/16	26.98	53.1
UFA-10T12N	5/8	15.87	3/4	11.9	1-1/4	31.75	55.4
UFA-12T08N	3/4	19.05	1/2	14.7	1-1/16	26.98	52.8
UFA-12T12N	3/4	19.05	3/4	14.7	1-1/4	31.75	54.9
UFA-12T16N	3/4	19.05	1	14.7	1-5/8	41.27	58.4
UFA-14T12N	7/8	22.22	3/4	15.7	1-1/4	31.75	57.2
UFA-16T12N	1	25.40	3/4	20.3	1-1/4	31.75	60.7
UFA-16T16N	1	25.40	1	20.3	1-5/8	41.27	64.3
UFA-20T20N	1-1/4	31.75	1-1/4	25.9	2-1/8	53.98	77.7
UFA-24T24N	1-1/2	38.10	1-1/2	31.8	2-3/8	60.33	88.9
UFA-32T32N	2	50.80	2	43.7	2-7/8	73.03	107.4

ISO Tapered threads are available for all fractional UMA. To order, add "R" as a suffix instead of "N".

Connects Metric UNILOK Port to Male ISO Tapered Thread

Part No.	Tube OD T	P ISO7/1	Dimensions (mm)		
	mm		E Min.	h mm	L
UFA-M03T02R	3	1/8	1.9	14.28	31.2
UFA-M06T02R	6	1/8	4.1	14.28	32.5
UFA-M06T04R	6	1/4	4.1	19.05	37.1
UFA-M08T04R	8	1/4	5.6	19.05	37.6
UFA-M10T04R	10	1/4	7.1	19.05	38.1
UFA-M10T06R	10	3/8	7.1	22.22	40.1
UFA-M10T08R	10	1/2	7.1	26.98	46.5
UFA-M12T04R	12	1/4	8.8	19.05	43.7
UFA-M12T06R	12	3/8	8.8	22.22	46.0
UFA-M12T08R	12	1/2	8.8	26.98	52.3
UFA-M18T12R	18	3/4	13.9	34.92	54.8

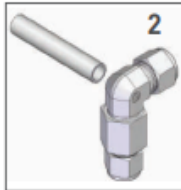
NPT threads are available for all metric UMA. To order, add "N" as a suffix instead of "R".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening.

How To Eliminate Alignment Problem



When the tubing is required to install to the female port in a desired direction as shown.



The male elbow (UME) could not be positioned in a desired direction.

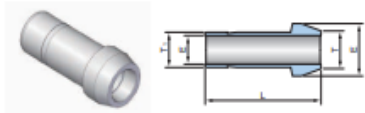


To correct the direction, assemble Male Adaptor (UMA) in the female port firstly.



Insert UNILOK port of Union Elbow (UEU) into the tube stub end of Male Adaptor (UMA). Set the direction and assemble Union Elbow (UEU) according to UNILOK assembly instruction.

UPC
Port Connector



Connects Fractional UNILOK Port

Part No.	Tube OD T		Tube OD T ₁		Dimensions (mm)	
	inch	mm	inch	mm	E Min.	L
UPC-0202T	1/8	3.17	1/8	3.17	2.0	22.4
UPC-0402T	1/4	6.35	1/8	3.17	2.0	22.9
UPC-0404T	1/4	6.35	1/4	6.35	4.3	24.9
UPC-0505T	5/16	7.93	5/16	7.93	5.6	25.9
UPC-0602T	3/8	9.52	1/8	3.17	2.0	23.4
UPC-0604T	3/8	9.52	1/4	6.35	4.3	25.4
UPC-0606T	3/8	9.52	3/8	9.52	6.9	26.7
UPC-0804T	1/2	12.70	1/4	6.35	4.3	29.7
UPC-0806T	1/2	12.70	3/8	9.52	6.9	30.7
UPC-0808T	1/2	12.70	1/2	12.70	9.4	36.3
UPC-1208T	3/4	19.05	1/2	12.70	9.4	37.8
UPC-1212T	3/4	19.05	3/4	19.05	14.7	37.8
UPC-1616T	1	25.40	1	25.40	20.3	49.3

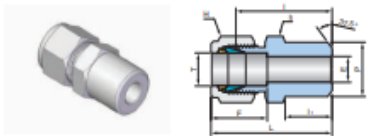
Connects Metric UNILOK Port

Part No.	Tube OD T	Tube OD T ₁	Dimensions (mm)	
	mm	mm	E Min.	L
UPC-M03M03T	3	3	1.9	22.2
UPC-M06M03T	6	3	1.9	22.9
UPC-M06M06T	6	6	4.1	25.0
UPC-M08M06T	8	6	4.1	25.4
UPC-M08M08T	8	8	5.6	26.0
UPC-M10M06T	10	6	4.1	25.8
UPC-M10M10T	10	10	7.1	27.1
UPC-M12M06T	12	6	4.1	29.6
UPC-M12M10T	12	10	7.1	30.6
UPC-M12M12T	12	12	8.8	36.2
UPC-M16M12T	16	12	8.8	37.5
UPC-M16M16T	16	16	12.0	37.8

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening.

UWBC

Pipe Butt Weld Connector



Connects Fractional Tube to Pipe Butt Welded System

Part No.	Tube OD T		P (BW)		Dimensions (mm)								
					E Min.	h		H		F	I	I ₁	L
	inch	mm	Nom	O.D.		inch	mm	inch	mm				
UWBC-0202P	1/8	3.17	1/8	10.30	2.3	7/16	11.11	7/16	11.11	12.7	23.9	9.7	30.5
UWBC-0302P	3/16	4.76	1/8	10.30	3.0	7/16	11.11	1/2	12.70	13.7	24.6	9.7	31.2
UWBC-0402P	1/4	6.35	1/8	10.30	4.8	1/2	12.70	9/16	14.28	15.2	25.4	9.7	32.8
UWBC-0404P	1/4	6.35	1/4	13.70	4.8	9/16	14.28	9/16	14.28	15.2	30.5	14.2	37.8
UWBC-0502P	5/16	7.93	1/8	10.30	5.3	9/16	14.28	5/8	15.87	16.3	26.7	9.7	34.0
UWBC-0504P	5/16	7.93	1/4	13.70	6.4	9/16	14.28	5/8	15.87	16.3	31.2	14.2	38.6
UWBC-0604P	3/8	9.52	1/4	13.70	7.1	5/8	15.87	11/16	17.46	16.8	32.5	14.2	39.9
UWBC-0606P	3/8	9.52	3/8	17.10	7.1	11/16	17.46	11/16	17.46	16.8	32.5	14.2	39.9
UWBC-0608P	3/8	9.52	1/2	21.30	7.1	7/8	22.22	11/16	17.46	16.8	38.9	19.1	46.2
UWBC-0806P	1/2	12.70	3/8	17.10	10.4	13/16	20.63	7/8	22.22	22.9	33.3	14.2	43.4
UWBC-0808P	1/2	12.70	1/2	21.30	10.4	7/8	22.22	7/8	22.22	22.9	38.9	19.1	49.0
UWBC-0812P	1/2	12.70	3/4	26.67	10.4	1-1/16	26.98	7/8	22.22	22.9	40.4	19.1	50.5
UWBC-1008P	5/8	15.87	1/2	21.30	12.7	15/16	23.81	1	25.40	24.4	38.9	19.1	49.0
UWBC-1212P	3/4	19.05	3/4	26.67	15.7	1-1/16	26.98	1-1/8	28.57	24.4	40.4	19.1	50.5
UWBC-1616P	1	25.40	1	33.40	22.4	1-3/8	34.92	1-1/2	38.10	31.2	50.0	23.9	62.2

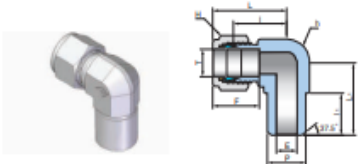
Connects Metric Tube to Pipe Butt Welded System

Part No.	Tube OD T	P (BW)		Dimensions (mm)						
				E Min.	h	H	F	I	I ₁	L
	mm	Nom	O.D.		mm	mm				
UWBC-M0302P	3	1/8	10.3	2.4	11.11	11.11	12.9	23.1	9.7	29.7
UWBC-M0402P	4	1/8	10.3	2.4	11.11	12.70	13.7	24.1	9.7	30.7
UWBC-M0602P	6	1/8	10.3	4.8	12.70	14.28	15.3	25.4	9.7	32.8
UWBC-M0604P	6	1/4	13.7	4.8	14.28	14.28	15.3	30.5	14.2	37.9
UWBC-M0802P	8	1/8	10.3	5.4	14.28	15.87	16.2	26.7	9.7	34.2
UWBC-M0804P	8	1/4	13.7	6.4	14.28	15.87	16.2	31.2	14.2	38.7
UWBC-M0808P	8	1/2	21.3	6.4	22.22	15.87	16.2	37.3	19.0	44.8
UWBC-M1004P	10	1/4	13.7	7.5	17.46	19.05	17.2	33.3	14.2	40.9
UWBC-M1006P	10	3/8	17.1	7.9	17.46	19.05	17.2	33.3	14.2	40.9
UWBC-M1008P	10	1/2	21.3	7.9	22.22	19.05	17.2	38.1	19.0	45.7
UWBC-M1204P	12	1/4	13.7	7.5	20.63	22.22	22.8	33.3	14.2	43.4
UWBC-M1206P	12	3/8	17.1	9.5	20.63	22.22	22.8	33.3	14.2	43.4
UWBC-M1208P	12	1/2	21.3	9.5	22.22	22.22	22.8	38.9	19.0	49.0
UWBC-M1508P	15	1/2	21.3	11.9	23.81	25.40	24.4	38.9	19.0	49.0
UWBC-M1608P	16	1/2	21.3	12.7	23.81	25.40	24.4	38.9	19.0	49.0
UWBC-M1808P	18	1/2	21.3	13.9	26.98	30.16	24.4	40.4	19.0	50.5

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UWBE

Pipe Butt Weld Elbow

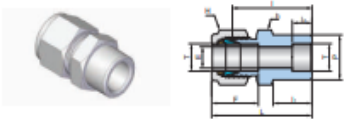


Connects Fractional Tube to Pipe Butt Welded System

Part No.	Tube OD T		P (BW)		Dimensions (mm)									
					E Min.	h		H		F	I	I ₁	L	L ₁
	inch	mm	Nom	O.D.		inch	mm	inch	mm					
UWBE-0202P	1/8	3.17	1/8	10.30	2.3	1/2	12.70	7/16	11.11	12.7	18.3	9.7	24.9	18.8
UWBE-0404P	1/4	6.35	1/4	13.70	4.8	1/2	12.70	9/16	14.28	15.2	19.6	13.8	26.9	23.4
UWBE-0604P	3/8	9.52	1/4	13.70	7.1	5/8	15.87	11/16	17.46	16.8	23.1	14.0	30.5	25.4
UWBE-0808P	1/2	12.70	1/2	21.30	10.4	13/16	20.63	7/8	22.22	22.9	25.9	19.0	36.1	33.0
UWBE-1212P	3/4	19.05	3/4	26.67	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	19.0	39.9	36.8

UWSC

Tube Socket Weld Connector

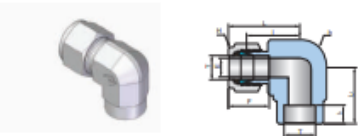


Connects Fractional Tube to Tube Socket Welded System

Part No.	Tube OD T		Dimensions (mm)										
			E Min.	P	h		H		F	I	I ₁	I ₂	L ₁
	inch	mm			inch	mm	inch	mm					
UWSC-0202T	1/8	3.17	2.3	7.9	7/16	11.11	7/16	11.11	12.7	22.4	8.6	6.4	29.0
UWSC-0404T	1/4	6.35	4.8	11.2	1/2	12.70	9/16	14.28	15.2	26.2	10.4	7.9	33.5
UWSC-0606T	3/8	9.52	7.1	15.7	5/8	15.87	11/16	17.46	16.8	30.2	11.9	9.7	37.6
UWSC-0808T	1/2	12.70	10.4	19.1	13/16	20.63	7/8	22.22	22.9	31.0	11.9	12.7	41.1
UWSC-1212T	3/4	19.05	15.7	26.7	1-1/16	26.98	1-1/8	28.57	24.4	33.3	11.9	14.2	43.4
UWSC-1616T	1	25.40	22.4	34.5	1-3/8	34.92	1-1/2	38.10	31.2	40.4	14.2	19.1	52.6

UWSE

Tube Socket Weld Elbow



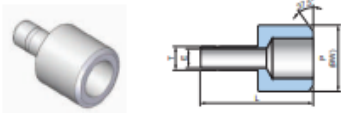
Connects Fractional Tube to Tube Socket Welded System

Part No.	Tube OD T		Dimensions [mm]									
			E Min.	h		H		F	I	I ₁	L	L ₁
	inch	mm		inch	mm	inch	mm					
UWSE-0404T	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	19.6	7.9	26.9	19.6
UWSE-0606T	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	23.1	9.7	30.5	23.1
UWSE-0808T	1/2	12.70	10.4	13/16	20.63	7/8	22.22	22.9	25.9	12.7	36.1	25.9

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UWBA

Pipe Butt Weld Adapter

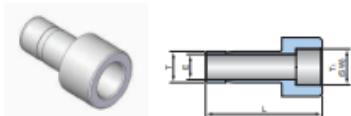


Connects Fractional UMNILOK Port to Pipe Butt Welded System

Part No.	Tube OD T		P (BW)		Dimensions (mm)	
	inch	mm	Nom	O.D.	E Min.	L
UWBA-04T04P	1/4	6.35	1/4	13.70	4.3	29.0
UWBA-06T08P	3/8	9.52	1/2	21.30	6.9	37.1
UWBA-08T08P	1/2	12.70	1/2	21.30	9.4	42.2
UWBA-08T12P	1/2	12.70	3/4	26.67	9.4	42.7
UWBA-12T12P	3/4	19.05	3/4	26.67	14.7	47.5

UWSA

Tube Socket Weld Adapter



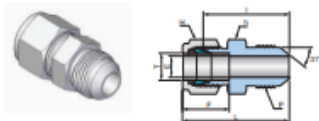
Connects Fractional UMNILOK Port to Tube Socket Welded System

Part No.	Tube OD T		T ₁ (BW)		Dimensions (mm)	
	inch	mm	Nom	O.D.	E Min.	L
UWSA-04T04T	1/4	6.35	1/4	6.35	4.3	29.0
UWSA-06T06T	3/8	9.52	3/8	9.52	6.9	37.1
UWSA-08T08T	1/2	12.70	1/2	12.70	9.4	42.2
UWSA-12T12T	3/4	19.05	3/4	19.05	14.7	47.5

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening.

UUA

AN Union



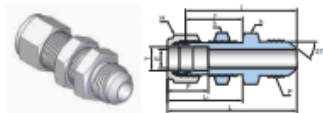
Connects Fractional Tube to An Flared Tube

Part No.	Tube OD T		AN Tube Flare Size		Straight Thread P(U)	Dimensions (mm)							
	inch	mm	inch	mm		E Min.	h		H		F	I	L
							inch	mm	inch	mm			
UUA-0202S	1/8	3.17	1/8	3.17	5/16-24	1.5	7/16	11.11	7/16	11.11	12.7	24.9	31.5
UUA-0204S	1/8	3.17	1/4	6.35	7/16-20	2.3	1/2	12.70	7/16	11.11	12.7	28.4	35.1
UUA-0404S	1/4	6.35	1/4	6.35	7/16-20	4.3	1/2	12.70	9/16	14.28	15.2	30.2	37.6
UUA-0505S	5/16	7.93	5/16	7.93	1/2-20	5.8	9/16	14.28	5/8	15.87	16.3	31.0	38.4
UUA-0604S	3/8	9.52	1/4	6.35	7/16-20	4.3	5/8	15.87	11/16	17.46	16.8	32.3	39.6
UUA-0606S	3/8	9.52	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	16.8	32.3	39.6
UUA-0808S	1/2	12.70	1/2	12.70	3/4-16	9.9	13/16	20.63	7/8	22.22	22.9	35.8	46.0
UUA-1212S	3/4	19.05	3/4	19.05	1-1/16-12	15.5	1-1/8	28.57	1-1/8	28.57	24.4	43.2	53.3
UUA-1616S	1	25.40	1	25.40	1-5/16-12	21.3	1-3/8	34.92	1-1/2	38.10	31.2	49.3	61.5

AN is Navy and Air Force standard for 37 degree flared fittings (SAE J514).

UBUA

AN Bulkhead Union



Connects Fractional Tube to An Flared Tube

Part No.	Tube OD T		AN Tube Flare Size		Straight Thread P(U)	Dimensions (mm)											
	inch	mm	inch	mm		E Min.	h		H		F	I	I ₁	L	L ₁	Panel Hole D11Size	Max Panel Thickness
							inch	mm	inch	mm							
UBUA-0404S	1/4	6.35	1/4	6.35	7/16-20	4.3	5/8	15.87	9/16	14.28	15.2	46.5	26.2	53.8	33.5	11.5	10.2
UBUA-0606S	3/8	9.52	3/8	9.52	9/16-18	7.1	3/4	19.05	11/16	17.46	16.8	49.8	29.5	57.2	36.8	14.7	11.2
UBUA-0808S	1/2	12.70	1/2	12.70	3/4-16	9.9	15/16	23.81	7/8	22.22	22.9	55.6	31.8	65.8	41.9	19.4	12.7
UBUA-1212S	3/4	19.05	3/4	19.05	1-1/16-12	15.5	1-3/16	30.16	1-1/8	28.57	24.4	68.8	37.3	79.0	47.5	25.8	16.8
UBUA-1616S	1	25.40	1	25.40	1-5/16-12	21.3	1-5/8	41.27	1-1/2	38.10	31.2	80.3	45.2	92.5	57.4	33.7	19.1

UAA

AN Adapter



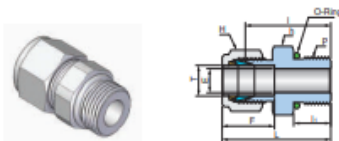
Connects Fractional Tube to An Flared Tube

Part No.	Tube OD T		AN Tube Flare Size		Straight Thread P(U)	Dimensions (mm)						
	inch	mm	inch	mm		h		H		F	I	L
						inch	mm	inch	mm			
UAA-0201S	1/8	3.17	1/8	3.17	5/16-24	3/8	9.52	7/16	11.11	13.7	13.5	18.5
UAA-0204S	1/8	3.17	1/4	6.35	7/16-20	9/16	14.28	7/16	11.11	15.7	13.5	19.1
UAA-0404S	1/4	6.35	1/4	6.35	7/16-20	9/16	14.28	9/16	14.28	15.7	15.7	21.3
UAA-0606S	3/8	9.52	3/8	9.52	9/16-18	11/16	17.46	11/16	17.46	18.3	17.5	24.9
UAA-0808S	1/2	12.70	1/2	12.70	3/4-16	7/8	22.22	7/8	22.22	21.6	23.1	31.8

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UMCS

SAE/MS Male Connector

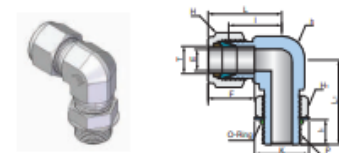


Connects Fractional Tube to SAE/MS Straight Thread Boss

Part No.	Tube OD T		Straight Thread P(U)	Dimensions (mm)								
	inch	mm		E Min.	h		H		F	I	I ₁	L
					inch	mm	inch	mm				
UMCS-0202U	1/8	3.17	5/16-24	2.3	7/16	11.11	7/16	11.11	12.7	23.3	7.6	30.0
UMCS-0404U	1/4	6.35	7/16-20	4.8	9/16	14.28	9/16	14.28	15.2	26.7	9.1	34.0
UMCS-0406U	1/4	6.35	9/16-18	4.8	11/16	17.46	9/16	14.28	15.2	28.2	9.9	35.6
UMCS-0408U	1/4	6.35	3/4-16	4.8	7/8	22.22	9/16	14.28	15.2	30.2	11.2	37.6
UMCS-0410U	1/4	6.35	7/8-14	4.8	1	25.40	9/16	14.28	15.2	33.3	12.7	40.6
UMCS-0505U	5/16	7.93	1/2-20	6.4	5/8	15.87	5/8	15.87	16.3	27.4	9.1	34.8
UMCS-0604U	3/8	9.52	7/16-20	4.6	5/8	15.87	11/16	17.46	16.8	28.2	9.1	35.6
UMCS-0606U	3/8	9.52	9/16-18	7.1	11/16	17.46	11/16	17.46	16.8	29.7	9.9	37.1
UMCS-0608U	3/8	9.52	3/4-16	7.1	7/8	22.22	11/16	17.46	16.8	31.8	11.2	39.1
UMCS-0610U	3/8	9.52	7/8-14	7.1	1	25.40	11/16	17.46	16.8	34.8	12.7	42.2
UMCS-0806U	1/2	12.70	9/16-18	7.1	13/16	20.63	7/8	22.22	22.9	29.0	9.9	39.1
UMCS-0808U	1/2	12.70	3/4-16	10.4	7/8	22.22	7/8	22.22	22.9	31.8	11.2	41.9
UMCS-0810U	1/2	12.70	7/8-14	10.4	1	25.40	7/8	22.22	22.9	34.8	12.7	45.0
UMCS-0812U	1/2	12.70	1-1/16-12	10.4	1-1/4	31.75	7/8	22.22	22.9	38.9	15.0	49.0
UMCS-1008U	5/8	15.87	3/4-16	10.7	15/16	23.81	1	25.40	24.4	31.8	11.2	41.9
UMCS-1010U	5/8	15.87	7/8-14	12.7	1	25.40	1	25.40	24.4	35.1	12.7	45.2
UMCS-1208U	3/4	19.05	3/4-16	10.7	1-1/16	26.98	1-1/8	28.57	24.4	35.8	11.2	46.0
UMCS-1212U	3/4	19.05	1-1/16-12	15.7	1-1/4	31.75	1-1/8	28.57	24.4	38.9	15.0	49.0
UMCS-1612U	1	25.40	1-1/16-12	16.8	1-3/8	34.92	1-1/2	38.10	31.2	41.1	15.0	53.3
UMCS-1616U	1	25.40	1-5/16-12	22.4	1-1/2	38.10	1-1/2	38.10	31.2	42.2	15.0	54.4

UMES

SAE/MS Male Elbow Positionable



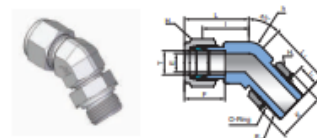
Connects Fractional Tube to SAE Straight Thread Boss

Part No.	Tube OD T		Straight Thread P(U)	Dimensions (mm)												
				E Min.	h		H		H ₁		F	I	I ₁	L	L ₁	K
	inch	mm			inch	mm	inch	mm	inch	mm						
UMES-0404U	1/4	6.35	7/16-20	4.8	1/2	12.70	9/16	14.28	9/16	14.28	15.2	21.1	9.9	28.4	28.4	16.5
UMES-0505U	5/16	7.93	1/2-20	5.8	9/16	14.28	5/8	15.87	5/8	15.87	16.3	22.9	9.9	30.2	39.5	18.3
UMES-0606U	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	11/16	17.46	16.8	24.6	11.2	32.0	32.3	20.1
UMES-0608U	3/8	9.52	3/4-16	7.1	13/16	20.63	11/16	17.46	7/8	22.22	16.8	27.4	12.7	34.8	37.8	25.7
UMES-0808U	1/2	12.70	3/4-16	10.4	13/16	20.63	7/8	22.22	7/8	22.22	22.9	27.4	12.7	37.6	37.8	25.7
UMES-1010U	5/8	15.87	7/8-14	12.7	1	25.40	1	25.40	1	25.40	24.4	29.5	14.2	39.6	43.4	29.5
UMES-1212U	3/4	19.05	1-1/16-12	15.7	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.4	31.2	16.8	41.4	48.8	36.6
UMES-1616U	1	25.40	1-5/16-12	22.4	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.2	38.4	16.8	50.5	53.6	43.9

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

UMVES

SAE/MS 45° Male Elbow Positionable

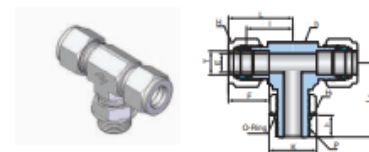


Connects Fractional Tube to SAE/MS Straight Thread Boss

Part No.	Tube OD T		Straight Thread P(U)	Dimensions (mm)												
				E Min.	h		H		H ₁		F	I	I ₁	L	L ₁	K
	inch	mm			inch	mm	inch	mm	inch	mm						
UMVES-0404U	1/4	6.35	7/16-20	4.8	1/2	12.70	9/16	14.28	9/16	14.28	15.2	18.3	9.9	25.7	25.7	16.5
UMVES-0606U	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	11/16	17.46	16.8	20.6	11.2	27.9	28.2	20.1
UMVES-0808U	1/2	12.70	3/4-16	10.4	13/16	20.63	7/8	22.22	7/8	22.22	22.9	21.8	12.7	32.0	32.3	25.7
UMVES-1212U	3/4	19.05	1-1/16-12	15.7	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.4	29.7	16.8	39.9	47.2	36.6
UMVES-1616U	1	25.40	1-5/16-12	22.4	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.2	35.3	16.8	47.5	50.5	43.9

UMBTS

SAE/MS Male Branch Tee Positionable

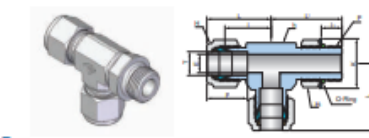


Connects Fractional Tube to SAE/MS Straight Thread Boss

Part No.	Tube OD T		Straight Thread P(U)	Dimensions (mm)												
				E Min.	h		H		H ₁		F	I	I ₁	L	L ₁	K
	inch	mm			inch	mm	inch	mm	inch	mm						
UMBTS-0404U	1/4	6.35	7/16-20	4.8	1/2	12.70	9/16	14.28	9/16	14.28	15.2	21.1	9.9	28.4	28.4	16.5
UMBTS-0606U	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	11/16	17.46	16.8	24.6	11.2	32.0	32.3	20.1
UMBTS-0808U	1/2	12.70	3/4-16	10.4	13/16	20.63	7/8	22.22	7/8	22.22	22.9	27.4	12.7	37.6	37.8	25.7
UMBTS-1212U	3/4	19.05	1-1/16-12	15.7	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.4	31.2	16.8	41.4	48.8	36.6
UMBTS-1616U	1	25.40	1-5/16-12	22.4	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.2	38.4	16.8	50.5	53.6	43.9

UMRTS

SAE/MS Male Run Tee Positionable



Connects Fractional Tube to SAE/MS Straight Thread Boss

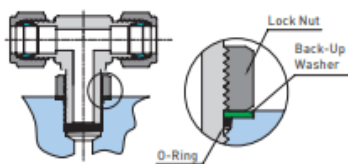
Part No.	Tube OD T		Straight Thread P(U)	Dimensions (mm)												
				E Min.	h		H		H ₁		F	I	I ₁	L	L ₁	K
	inch	mm			inch	mm	inch	mm	inch	mm						
UMRTS-0404U	1/4	6.35	7/16-20	4.8	1/2	12.70	9/16	14.28	9/16	14.28	15.2	21.1	9.9	28.4	28.4	16.5
UMRTS-0606U	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	11/16	17.46	16.8	24.6	11.2	32.0	32.3	20.1
UMRTS-0808U	1/2	12.70	3/4-16	10.4	13/16	20.63	7/8	22.22	7/8	22.22	22.9	27.4	12.7	37.6	37.8	25.7
UMRTS-1212U	3/4	19.05	1-1/16-12	15.7	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.4	31.2	16.8	41.4	48.8	36.6
UMRTS-1616U	1	25.40	1-5/16-12	22.4	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.2	38.4	16.8	50.5	53.6	43.9

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

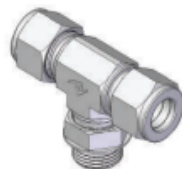
Positionable SAE/MS Straight Thread Fittings Information

Application

To orient UNILOK port of tube fittings in the certain direction to be desired, the positionable fittings are useful for the installation at tanks or vessels without welding or brazing.



Final assembly of adjustable fitting



Installation Instructions

1. Lubricate O-ring with a lubricant which is compatible with the O-ring material and the system fluid.
2. Back the locknut out.
3. Finger-tighten the fitting into the straight thread boss until the metal backup washer contacts the face of the boss.
4. Position the fitting by backing it out until the fitting end is positioned in the desired direction. But, no more than one turn backing out.
5. Hold the fitting in the direction and wrench-tighten the locknut until the washer contacts the face of the boss.

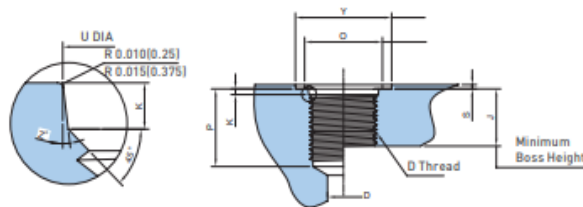
O-ring Ordering Information for SAE/MS Straight Thread Boss

O-Ring can be ordered with the part numbers as shown below. The standard material is Fluorocarbon FKM. Other Materials are available upon request.

Part No.	Tube O.D.	Uniform Size Number	Dimension (inch)	
			I.D.	Cross Section
OU-02-F	1/8	902	0.239	0.064
OU-03-F	3/16	903	0.301	0.064
OU-04-F	1/4	904	0.351	0.072
OU-05-F	5/16	905	0.414	0.072
OU-06-F	3/8	906	0.468	0.078
OU-08-F	1/2	908	0.644	0.087
OU-10-F	5/8	910	0.755	0.097

Part No.	Tube O.D.	Uniform Size Number	Dimension (inch)	
			I.D.	Cross Section
OU-12-F	3/4	912	0.924	0.116
OU-14-F	7/8	914	1.048	0.116
OU-16-F	1	916	1.171	0.116
OU-20-F	1-1/4	920	1.475	0.118
OU-24-F	1-1/2	924	1.720	0.118
OU-32-F	2	932	2.337w	0.118

SAE/MS Internal Straight Thread Boss Information



This dimension applies only when tap drill can not pass through entire boss.

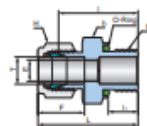
Recommended Spot Face Diameter This surface shall be square with the thread pitch diameter within 0.010(0.25) FIR when measured at outside diameter.

Tube O.D.	Thread Size	D (Min)	J (Min)	K	O (Min)	P (Min)	U	Y	S (Max)	Z
1/8	5/16-24	1.6	10.0	1.9	11	12.0	9.1	17	1.6	12°
3/16	3/8-24	3.2	10.0	1.9	13	12.0	10.7	19	1.6	12°
1/4	7/16-20	4.4	11.5	2.4	15	14.0	12.4	21	1.6	12°
5/16	1/2-20	6.0	11.5	2.4	16	14.0	14.0	23	1.6	12°
3/8	9/16-18	7.5	12.7	2.5	18	15.5	15.6	25	1.6	12°
1/2	3/4-16	10.0	14.3	2.5	22	17.5	20.6	30	2.4	15°
5/8	7/8-14	12.5	16.7	2.5	26	20.0	23.9	34	2.4	15°
3/4	1-1/16-12	16.0	19.0	3.3	32	23.0	29.2	41	2.4	15°
7/8	1-3/16-12	18.0	19.0	3.3	35	23.0	32.3	45	2.4	15°
1	1-5/16-12	21.0	19.0	3.3	38	23.0	35.5	49	3.2	15°
1-1/4	1-5/8-12	27.0	19.0	3.3	48	23.0	43.5	58	3.2	15°
1-1/2	1-7/8-12	33.0	19.0	3.3	54	23.0	49.8	65	3.0	15°
2	2-1/2-12	70.0	19.0	3.3	70	23.0	65.7	88	3.2	15°

1. Diameter U shall be concentric with thread pitch diameter within 0.13 full indicator reading (FIR) and shall be free from longitudinal and spiral tool marks. Angular tool marks up to 2.5 Micro meter max shall be permissible.
2. Maximum recommended spot face depth to permit sufficient wrench grip for proper tightening of fitting or locknut.
3. If face of boss is on a machined surface, dimensions Y and S need not apply as long as R 0.25/0.375 is maintained to avoid damage to the O-ring during installation.
4. Tap drill depths given require use of a bottoming taps to produce the specified full thread lengths. Where standard taps are used, the tap drill depths must be increased accordingly.
5. Figures are for reference only, as any boss can be used for a tubing size depending upon other design criteria.

UMOS

O-Seal Straight Thread Connector

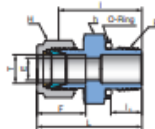


Connects Fractional Tube to Female Straight Thread

Part No.	Tube OD T		Straight Thread P (U)	Dimensions (mm)								
	inch	mm		E Min.	h		H		F	I	I ₁	L
					inch	mm	inch	mm				
UMOS-0202U	1/8	3.17	5/16-24	2.3	9/16	14.28	7/16	11.11	12.7	26.2	8.6	32.8
UMOS-0303U	3/16	4.76	3/8-24	3.0	5/8	15.87	1/2	12.70	13.7	27.7	9.7	34.3
UMOS-0404U	1/4	6.35	7/16-20	4.8	3/4	19.05	9/16	14.28	15.2	31.0	10.4	38.4
UMOS-0505U	5/16	7.93	1/2-20	6.4	7/8	22.22	5/8	15.87	16.3	33.3	11.2	40.6
UMOS-0606U	3/8	9.52	9/16-18	7.1	15/16	23.81	11/16	17.46	16.8	35.1	11.9	42.4
UMOS-0808U	1/2	12.70	3/4-16	10.4	1-1/8	28.57	7/8	22.22	22.9	35.8	11.9	46.0
UMOS-1212U	3/4	19.05	1-1/16-12	15.7	1-1/2	38.10	1-1/8	28.57	24.4	42.2	14.2	52.3
UMOS-1616U	1	25.40	1-5/16-12	22.4	1-3/4	44.45	1-1/2	38.10	31.2	46.0	14.2	58.2

UMOP

O-Seal Pipe Thread Connector



Connects Fractional Tube to Female NPT Thread

Part No.	Tube OD T		P (NPT)	Dimensions (mm)								
				E Min.	h		H		F	I	I ₁	L
	inch	mm			inch	mm						
UMOS-0202N	1/8	3.17	1/8	2.3	3/4	19.05	7/16	11.11	12.7	26.2	7.1	32.8
UMOS-0402N	1/4	6.35	1/8	4.8	3/4	19.05	9/16	14.28	15.2	27.7	7.1	35.1
UMOS-0404N	1/4	6.35	1/4	4.8	15/16	23.81	9/16	14.28	15.2	31.0	9.7	38.4
UMOS-0604N	3/8	9.52	1/4	7.1	15/16	23.81	11/16	17.46	16.8	32.5	9.7	39.9
UMOS-0606N	3/8	9.52	3/8	7.1	1-1/8	28.57	11/16	17.46	16.8	34.0	10.4	41.4
UMOS-0608N	3/8	9.52	1/2	7.1	1-5/16	33.33	11/16	17.46	16.8	39.6	13.5	47.0
UMOS-0808N	1/2	12.70	1/2	10.4	1-5/16	33.33	7/8	22.22	22.9	39.6	13.5	49.8

ISO Tapered threads are available for all fractional UMOP. To order, add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

O-Seal Fittings Information

Application

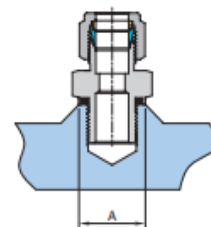
UNILOK O-Seal fittings can be directly installed into the existing pipe threads or straight thread ports. As they have short thread length, thread interference does not occur whereas it is common on tapered thread and the leak tightness is obtained by O-ring additionally. The standard Buna-N O-ring has a precision groove, the groove provides anti-extrusion of O-ring at high pressure and controlled squeeze for vacuum tight sealing. To attain a leak tight installation, smooth flat surface perpendicular to the axis of the threads is required.

Installation Instructions

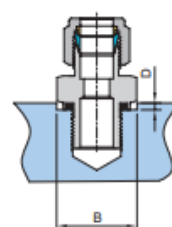
1. Hand tighten UNILOK O-Seal fittings into the port until the O-ring compresses on the port.
2. Wrench-tighten the fittings lightly until the fittings contacts the face of port.

Note : The fitting body is always held by back-up wrench when installing or disassembling tubing to or from UNILOK port end to get a proper sealing.

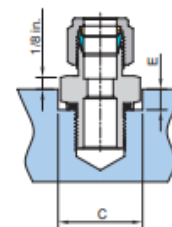
Mounting Dimensions of O-Seal Fittings



Raised Surface



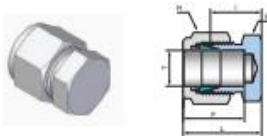
Recessed Hole to the round shoulder



Recessed Hole to the hex

Part No.	Straight Thread (U)	Pipe Thread (NPT)	Dimensions (mm)				
			A (Min)	B (Min)	C (Min)	D (Max)	E (Max)
UMOS-0202U	5/16-24	-	12.7	15.0	16.8	2.3	5.6
UMOP-0202N	-	1/8	17.5	19.8	22.4	4.1	7.1
UMOS-0303U	3/8-24	-	14.2	16.8	19.1	2.3	5.6
UMOS-0404U	7/16-20	-	17.5	19.8	22.4	4.1	7.1
UMOP-0402N	-	1/8	17.5	19.8	22.4		7.9
UMOP-0404N	-	1/4	22.1	24.6	27.7		
UMOS-0505U	1/2-20	-	19.1	23.1	26.2		
UMOS-0606U	9/16-18	-	20.6	24.6	27.7	5.6	11.2
UMOP-0606N	-	3/8	25.4	29.5	33.3		8.6
UMOP-0608N	-	1/2	31.0	34.0	38.9	5.6	11.2
UMOS-0808U	3/4-16	-	25.4	29.5	33.3		8.6
UMOP-0808N	-	1/2	31.0	34.0	38.9		11.2
UMOS-1212U	1-1/16-12	-	35.8	38.9	44.5	5.6	12.7
UMOS-1616U	1-5/16-12	-	42.9	45.2	51.6		14.2

UC
Tube Cap



Connects Fractional Tube

Part No.	Tube OD T		Dimensions (mm)						
			h		H		F	I	L
	inch	mm	inch	mm	inch	mm			
UC-02	1/8	3.17	7/16	11.11	7/16	11.11	12.7	13.5	20.1
UC-03	3/16	4.76	7/16	11.11	1/2	12.70	13.7	14.7	21.3
UC-04	1/4	6.35	1/2	12.70	9/16	14.28	15.2	16.0	23.3
UC-05	5/16	7.93	9/16	14.28	5/8	15.87	16.3	17.0	24.4
UC-06	3/8	9.52	5/8	15.87	11/16	17.46	16.8	18.3	25.7
UC-08	1/2	12.70	13/16	20.63	7/8	22.22	22.9	19.1	29.2
UC-10	5/8	15.87	15/16	23.81	1	25.40	24.4	19.8	30.0
UC-12	3/4	19.05	1-1/16	26.98	1-1/8	28.57	24.4	21.3	31.5
UC-14	7/8	22.22	1-3/16	30.16	1-1/4	31.75	25.9	23.9	34.0
UC-16	1	25.40	1-3/8	34.92	1-1/2	38.10	31.2	26.2	38.4
UC-20	1-1/4	31.75	1-3/4	44.45	1-7/8	47.62	41.1	31.2	53.3
UC-24	1-1/2	38.10	2-1/8	53.97	2-1/4	57.15	50.0	37.3	64.5
UC-32	2	50.80	2-3/4	69.85	3	76.20	67.6	49.3	86.6

Connects Metric Tube

Part No.	Tube OD T	Dimensions (mm)				
		h		F	I	L
	mm	inch	mm			
UC-M03	3	11.11	11.11	12.9	13.5	20.1
UC-M04	4	11.11	12.70	13.7	14.7	21.3
UC-M06	6	14.28	14.28	15.3	15.7	23.1
UC-M08	8	15.87	15.87	16.2	17.0	24.5
UC-M10	10	17.46	19.05	17.2	19.0	26.6
UC-M12	12	22.22	22.22	22.8	19.0	29.1
UC-M15	15	23.81	25.40	24.4	19.8	29.9
UC-M16	16	23.81	25.40	24.4	19.8	29.9
UC-M18	18	26.98	30.16	24.4	21.3	31.4
UC-M20	20	30.16	31.75	26.0	23.9	34.0
UC-M22	22	30.16	31.75	26.0	23.9	34.0
UC-M25	25	34.92	38.10	31.3	26.2	38.5
UC-M28	28	41.27	47.63	36.6	27.7	48.5
UC-M30	30	47.63	50.80	39.6	31.8	53.4
UC-M32	32	47.63	50.80	42.0	32.8	55.8
UC-M38	38	55.56	57.15	49.4	37.8	65.4

Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening. F and L are typical finger tight.

Installation Instruction



1. Insert tube end into the cap to bottom on the shoulder of the cap.
2. Finger-tighten the nut
3. Wrench-tighten the nut 1-1/4 turns, holding the body with a backup wrench, or vice.

Note
Tighten 3/4 turn for 1/16, 1/8, and 3/16 inch and 2, 3, and 4 mm size cap.

UP
Tube Plug



Connects Fractional Tube

Part No.	Tube OD T		H	
			inch	mm
	inch	mm	inch	mm
UP-02	1/8	3.17	7/16	11.11
UP-03	3/16	4.76	1/2	12.70
UP-04	1/4	6.35	9/16	14.28
UP-05	5/16	7.93	5/8	15.87
UP-06	3/8	9.52	11/16	17.46
UP-08	1/2	12.70	7/8	22.22
UP-10	5/8	15.87	1	25.40
UP-12	3/4	19.05	1-1/8	28.57
UP-14	7/8	22.22	1-1/4	31.75
UP-16	1	25.40	1-1/2	38.10
UP-20	1-1/4	31.75	1-7/8	47.62
UP-24	1-1/2	38.10	2-1/4	57.15
UP-32	2	50.80	3	76.20

Connects Metric Tube

Part No.	Tube OD T	H
	mm	mm
UP-M03	3	11.11
UP-M04	4	12.70
UP-M06	6	14.28
UP-M08	8	15.87
UP-M10	10	19.05
UP-M12	12	22.22
UP-M15	15	25.40
UP-M16	16	25.40
UP-M18	18	30.16
UP-M20	20	31.75
UP-M22	22	31.75
UP-M25	25	38.10
UP-M28	28	47.63
UP-M30	30	50.80
UP-M32	32	50.80
UP-M38	38	57.15

Installation Instruction



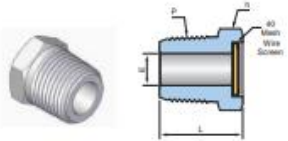
1. Remove the nut and ferrules from the UNILOK tube fitting body.
2. Finger-tighten the plug.
3. Tighten the plug 1/4 turn beyond the finger-tight position, holding the body with a backup wrench or vice.

Note
Do not tighten 1-1/4 turns as this has machined ferrule not the standard ferrules.
Tighten 1/8 turn for 1/16, 1/8 and 3/16 inch and 2, 3 and 4 mm size plug, 1/2 turn turn over 1" and 25mm size plug.

UVP
Vent Protector

Connects Fractional NPT Thread

Part No.	Dimensions (mm)			
	E Min.	H		L
		mm	inch	
UVP-04N	7.0	9/16	14.28	19.8
UVP-06N	10.0	11/16	17.46	20.5
UVP-08N	12.0	7/8	22.22	26.2
UVP-12N	16.0	1-1/16	26.98	27.0

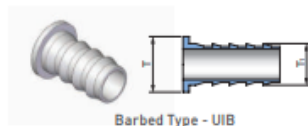


ISO Tapered threads are available for all fractional UVP. To order, add "R" as a suffix instead of "N".

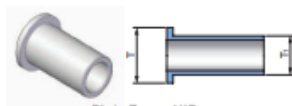
Dimensions are for reference only and are subject to change without prior notice.
E is minimum opening.

UI

Tube Inset



Barbed Type - UIB



Plain Type - UIIP

Connects Fractional Tube

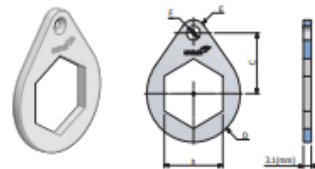
Part No.	Tube OD T		Tube ID T _i	
	inch	mm	inch	mm
UI-0302	3/16	4.76	1/8	3.17
UI-0402	1/4	6.35	1/8	3.17
UI-0403	1/4	6.35	3/16	4.76
UI-0502	5/16	7.93	1/8	3.17
UI-0503	5/16	7.93	3/16	4.76
UI-0504	5/16	7.93	1/4	6.35
UI-0603	3/8	9.52	3/16	4.76
UI-0604	3/8	9.52	1/4	6.35
UI-0804	1/2	12.70	1/4	6.35
UI-0806	1/2	12.70	3/8	9.52
UI-1006	5/8	15.87	3/8	9.52
UI-1008	5/8	15.87	1/2	12.70
UI-1208	3/4	19.05	1/2	12.70
UI-1210	3/4	19.05	5/8	15.87
UI-1612	1	25.40	3/4	19.05

Connects Fractional Tube

Part No.	Tube OD T	Tube ID T _i
	mm	mm
UI-M06M04	6	4
UI-M08M06	8	6
UI-M10M08	10	8
UI-M12M08	12	8
UI-M12M10	12	10

UBHR

Bulkhead Retainers

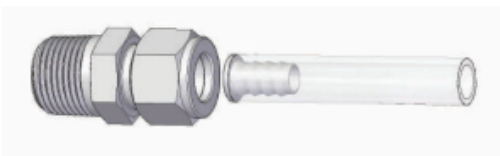


Connects Fractional Tube

Part No.	Fitting Size		Dimensions (mm)							Drill Number	U" Drive Screw
			h		C	D	E	F	Drill Hole Dia		
	inch	mm	inch	mm							
UBHR -01	1/16	-	5/16	7.93	9.5	7.9	4.0	4.0	3.04	31	6-3/8
UBHR -02	1/8	-	1/2	12.70	12.7	10.3	5.6	4.0	3.04	31	6-3/8
UBHR -03	3/16	3.4	9/16	14.28	14.3	11.9	6.4	4.0	3.04	31	6-3/8
UBHR -04	1/4	6	5/8	15.87	15.9	12.7	7.1	4.0	3.04	31	6-3/8
UBHR -05	5/16	-	11/16	17.46	17.5	14.3	7.9	4.0	3.04	31	6-3/8
UBHR-M08	-	8	11/16	17.46	17.5	14.3	7.9	4.0	3.04	31	6-3/8
UBHR-06	3/8	-	3/4	19.05	19.0	15.9	8.7	4.0	3.04	31	6-3/8
UBHR-M10	-	10	7/8	22.22	22.2	19.0	10.3	5.6	3.65	27	10-1/2
UBHR-08	1/2	12	15/16	23.81	23.8	19.0	10.3	5.6	3.65	27	10-1/2
UBHR-10	5/8	15/16	1-1/16	26.98	25.4	20.6	10.3	5.6	3.65	27	10-1/2
UBHR-12	3/4	18	1-3/16	30.16	27.0	23.0	11.9	5.6	3.65	27	10-1/2
UBHR-14	7/8	-	1-3/8	34.92	28.6	26.2	13.5	5.6	3.65	27	10-1/2
UBHR-16	1	-	1-5/8	41.27	32.5	29.4	14.3	5.6	3.65	27	10-1/2

Installation Instruction

UNILOK Inserts are used for Nylon, soft plastic tubing as instructed below. The Insert supports the soft tubing internally and make them to be assembled to UNILOK port without any collapse.



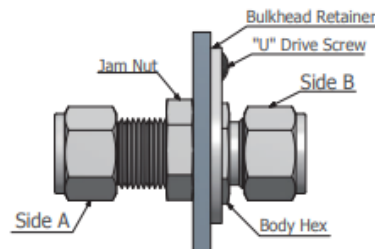
1. Fully insert the soft tubing into UNILOK Insert.
2. Insert them into UNILOK port.
3. Finger-tighten the nut.
4. Tight the nut 1-1/4 turns with a wrench, holding the body with a backup wrench, or vice.

Note

In 3/16 UNILOK tube fittings, tighten 3/4 turn.

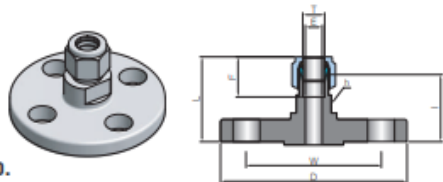
Installation Instruction

Bulkhead retainer is acted as a backup wrench, tubing can be installed on side A and side B by one person with one wrench.



UFL

Flange Connector



ANSI B 16.5: Pressure Ratings class 150 to 1500.
Connects ANSI flange to Fractional(inch) tube.

Part No.	Tube OD T		ANSI Flange NPS	ANSI Class	Wrench Flat h		Dimensions(mm)					
	inch	mm			inch	mm	E Min.	F	I	L	W	D
UFL-0408-C150	1/4	6.35	1/2	150	13/16	20.64	4.8	15.2	33.5	40.9	60.5	88.9
UFL-0416-C150	1/4	6.35	1	150	13/16	20.64	4.8	15.2	36.4	43.7	79.2	108.0
UFL-0608-C150	3/8	9.52	1/2	150	13/16	20.64	4.8	16.8	34.9	42.2	60.5	88.9
UFL-0608-C300	3/8	9.52	1/2	300	13/16	20.64	7.1	16.8	38.1	45.5	66.5	95.3
UFL-0616-C150	3/8	9.52	1	150	13/16	20.64	7.1	22.9	37.9	45.2	79.2	108.0
UFL-0808-C150	1/2	12.70	1/2	150	13/16	20.64	10.4	22.9	30.1	45.2	60.5	88.9
UFL-0808-C300	1/2	12.70	1/2	300	13/16	20.64	10.4	22.9	37.9	48.0	66.5	95.3
UFL-0808-C1500	1/2	12.70	1/2	1500	13/16	20.64	10.4	22.9	46.1	56.2	82.6	121.0
UFL-0816-C150	1/2	12.70	1	150	13/16	20.64	10.4	22.9	38.1	48.3	79.2	108.0
UFL-0832-C150	1/2	12.70	2	150	13/16	20.64	10.4	22.9	42.9	53.9	82.9	152.4
UFL-1216-C150	3/4	19.05	1	150	1-1/4	31.75	15.7	24.4	40.1	50.3	79.2	108.0
UFL-1216-C900	3/4	19.05	1	900	1-1/4	31.75	15.7	24.4	46.1	56.2	101.6	149.0
UFL-1616-C150	1	25.40	1	150	1-3/4	34.93	22.4	31.2	48.3	60.5	79.2	108.0
UFL-2432-C150	1-1/2	38.10	2	150	2-1/8	53.98	34.0	50.0	59.2	86.4	120.7	152.4
UFL-3232-C150	2	50.80	2	150	2-3/4	69.85	46.0	67.6	67.1	104.4	120.7	152.4

DIN 2526 / DIN 2501: Pressure Ratings PN 40 to 150.
Connects DIN flange to metric tube.

Part No.	Tube O.D. T	DIN Flange Size, DN	DIN PN	Wrench Flat h(mm)	Dimensions(mm)					
	mm				E Min.	F	I	L	W	D
UFL-M0425-P40	6	25	40	20	4.8	15.3	40.1	47.5	85.0	115.0
UFL-M1215-P40	12	15	40	20	9.5	22.8	38.4	48.5	65.0	95.0
UFL-M1225-P40	12	25	40	20	9.5	22.8	40.4	50.5	85.0	115.0
UFL-M1250-P40	12	50	40	20	9.5	22.8	45.2	55.3	125.0	165.0
UFL-M1815-P40	18	15	40	32	15.1	26.4	41.7	51.8	65.0	95.0
UFL-M1825-P40	18	25	40	32	15.1	26.4	43.7	53.8	85.0	115.0
UFL-M2525-P40	25	25	40	35	21.8	31.3	51.8	64.0	85.0	115.0
UFL-M3850-P40	38	50	40	55	33.7	49.4	62.7	90.4	125.0	165.0
UFL-M5050-P40	50	50	40	70	45.2	65.0	66.3	103.0	125.0	165.0

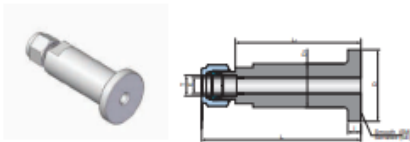
JIS B 2220: Pressure Ratings class 10 to 63K.
Connects JIS flange to fractional(inch) or metric tube.

Part No.	Tube OD T		JIS Flange Size, DN	JIS Class	Wrench Flat h		Dimensions(mm)					
	inch	mm			inch	mm	E Min.	F	I	L	W	D
UFL-0415-C10K	1/4	6.35	15	10K	15/16	23.81	4.8	15.2	34.8	42.2	70.1	95.0
UFL-0615-C10K	3/8	9.52	15	10K	15/16	23.81	7.1	16.8	36.3	43.7	70.1	95.0
UFL-0815-C10K	1/2	12.7	15	10K	15/16	23.81	10.4	22.9	36.3	46.5	70.1	95.0
UFL-1215-C10K	3/4	19.05	15	10K	1-1/4	31.75	15.7	24.4	38.4	48.5	70.1	95.0
UFL-1625-C10K	1	25.4	25	10K	1-3/4	34.93	22.4	31.2	48.8	61.0	89.9	125.0
UFL-3250-C10K	2	50.8	50	10K	2-3/4	69.85	46.0	67.6	64.5	101.9	119.9	155.0
UFL-M1215-C10K	-	12	15	10K	-	20.0	9.5	22.8	36.3	46.5	70.0	95.0
UFL-M1815-C10K	-	18	15	10K	-	32.0	15.1	24.4	38.4	48.5	70.0	95.0
UFL-M2525-C10K	-	25	25	10K	-	35.0	21.8	31.3	48.8	61.0	90.0	125.0

Dimensions are for reference only and are subject to change without prior notice.

ULFC

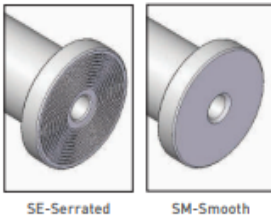
Lapped Flange Connector



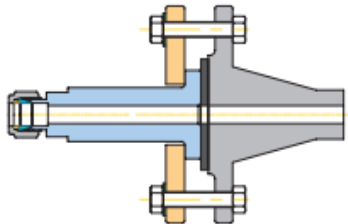
Connects Fractional Tube to Flange

Part No.	Tube OD T	Flange Seal	Dimensions (mm)						Flange Surface Finish (Ra,µm)
			L	L ₁	I	D	D ₁	E (Min)	
ULFC-04-SM	1/4	SM	80.8	56.5	6.5	34.5	21.1	4.8	3.2 - 6.3
ULFC-04-SE	1/4	SE	80.8	56.5	6.5	34.5	21.1	4.8	6.3 - 12.5
ULFC-06-SM	3/8	SM	82.3	56.5	6.5	34.5	21.1	7.1	3.2 - 6.3
ULFC-06-SE	3/8	SE	82.3	56.5	6.5	34.5	21.1	7.1	6.3 - 12.5
ULFC-08-SM	1/2	SM	85.1	56.5	6.5	34.5	21.1	7.9	3.2 - 6.3
ULFC-08-SE	1/2	SE	85.1	56.5	6.5	34.5	21.1	7.9	6.3 - 12.5

UNILOK Lapped Flange Connector connects process flange to instrument. UNILOK port is constructed integrally out of ANSI B16.5 Class 2500 flange. The flange seal surface has Smooth (SM) and Concentric Serrated (SE).



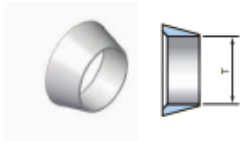
UNILOK Lapped Flange Connector is installed into slip-on and welding neck flanges, using sealing gasket on the flange seal face.



Dimensions are for reference only and are subject to change without prior notice.

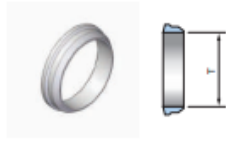
UFF

Front Ferrule



UBF

Back Ferrule



Fractional Tube

Part No.	Tube OD T	
	inch	mm
UFF-02	1/8	3.17
UFF-03	3/16	4.76
UFF-04	1/4	6.35
UFF-05	5/16	7.93
UFF-06	3/8	9.52
UFF-08	1/2	12.70
UFF-10	5/8	15.87
UFF-12	3/4	19.05
UFF-14	7/8	22.22
UFF-16	1	25.40
UFF-20	1-1/4	31.75
UFF-24	1-1/2	38.10
UFF-32	2	50.80

Metric Tube

Part No.	Tube OD T
	mm
UFF-M03	3
UFF-M04	4
UFF-M06	6
UFF-M08	8
UFF-M10	10
UFF-M12	12
UFF-M15	15
UFF-M16	16
UFF-M18	18
UFF-M20	20
UFF-M22	22
UFF-M25	25
UFF-M28	28
UFF-M30	30
UFF-M32	32
UFF-M38	38

Fractional Tube

Part No.	Tube OD T	
	inch	mm
UBF-02	1/8	3.17
UBF-03	3/16	4.76
UBF-04	1/4	6.35
UBF-05	5/16	7.93
UBF-06	3/8	9.52
UBF-08	1/2	12.70
UBF-10	5/8	15.87
UBF-12	3/4	19.05
UBF-14	7/8	22.22
UBF-16	1	25.40
UBF-20	1-1/4	31.75
UBF-24	1-1/2	38.10
UBF-32	2	50.80

Metric Tube

Part No.	Tube OD T
	mm
UBF-M03	3
UBF-M04	4
UBF-M06	6
UBF-M08	8
UBF-M10	10
UBF-M12	12
UBF-M15	15
UBF-M16	16
UBF-M18	18
UBF-M20	20
UBF-M22	22
UBF-M25	25
UBF-M28	28
UBF-M30	30
UBF-M32	32
UBF-M38	38

UFS

Ferrule Set



Fractional Tube

Part No.	Tube OD T	
	inch	mm
UFS-02	1/8	3.17
UFS-04	1/4	6.35
UFS-06	3/8	9.52
UFS-08	1/2	12.70

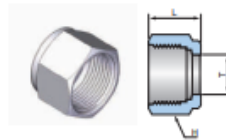
Metric Tube

Part No.	Tube OD T
	mm
UFS-M04	4
UFS-M06	6
UFS-M08	8
UFS-M10	10
UFS-M12	12

Ferrules can be ordered as a set with an arbor.
Each arbor holds 10 ferrule sets.

UN

Nut



Fractional Tube

Part No.	Tube OD T		H		L
	inch	mm	inch	mm	mm
UN-02	1/8	3.17	7/16	11.11	11.9
UN-03	3/16	4.76	1/2	12.70	11.9
UN-04	1/4	6.35	9/16	14.28	12.7
UN-05	5/16	7.93	5/8	15.87	13.5
UN-06	3/8	9.52	11/16	17.46	14.2
UN-08	1/2	12.70	7/8	22.22	17.5
UN-10	5/8	15.87	1	25.40	17.5
UN-12	3/4	19.05	1-1/8	28.57	17.5
UN-14	7/8	22.22	1-1/4	31.75	17.5
UN-16	1	25.40	1-1/2	38.10	20.6
UN-20	1-1/4	31.75	1-7/8	47.63	31.7
UN-24	1-1/2	38.10	2-1/4	57.15	38.1
UN-32	2	50.80	3	76.20	52.3

Metric Tube

Part No.	Tube OD T	H	L
	mm	mm	mm
UN-M03	3	11.11	11.9
UN-M04	4	12.70	11.9
UN-M06	6	14.28	12.7
UN-M08	8	15.87	13.5
UN-M10	10	19.05	15.1
UN-M12	12	22.22	17.5
UN-M15	15	25.40	17.5
UN-M16	16	25.40	17.5
UN-M18	18	30.16	17.5
UN-M20	20	31.75	17.5
UN-M22	22	31.75	17.5
UN-M25	25	38.10	20.6
UN-M28	28	47.63	30.6
UN-M30	30	50.80	32.7
UN-M32	32	50.80	34.4
UN-M38	38	57.15	40.6

UFNS

Ferrule & Nut Set



Fractional Tube

Part No.	Tube OD T	
	inch	mm
UFNS-02	1/8	3.17
UFNS-04	1/4	6.35
UFNS-06	3/8	9.52
UFNS-08	1/2	12.70

Metric Tube

Part No.	Tube OD T
	mm
UFNS-M04	4
UFNS-M06	6
UFNS-M08	8
UFNS-M10	10
UFNS-M12	12

Ferrules and nut can be ordered as a set with an arbor.
Each arbor holds 5 ferrule and nut sets.