Tube Fittings

High Technology Valve & Fitting Series

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Best Machining Technology

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Bulkhead Reducing Union

SBHU
Bulkhead Union

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Male Connector For Metal Gasket Seal

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Positionable Male Elbow

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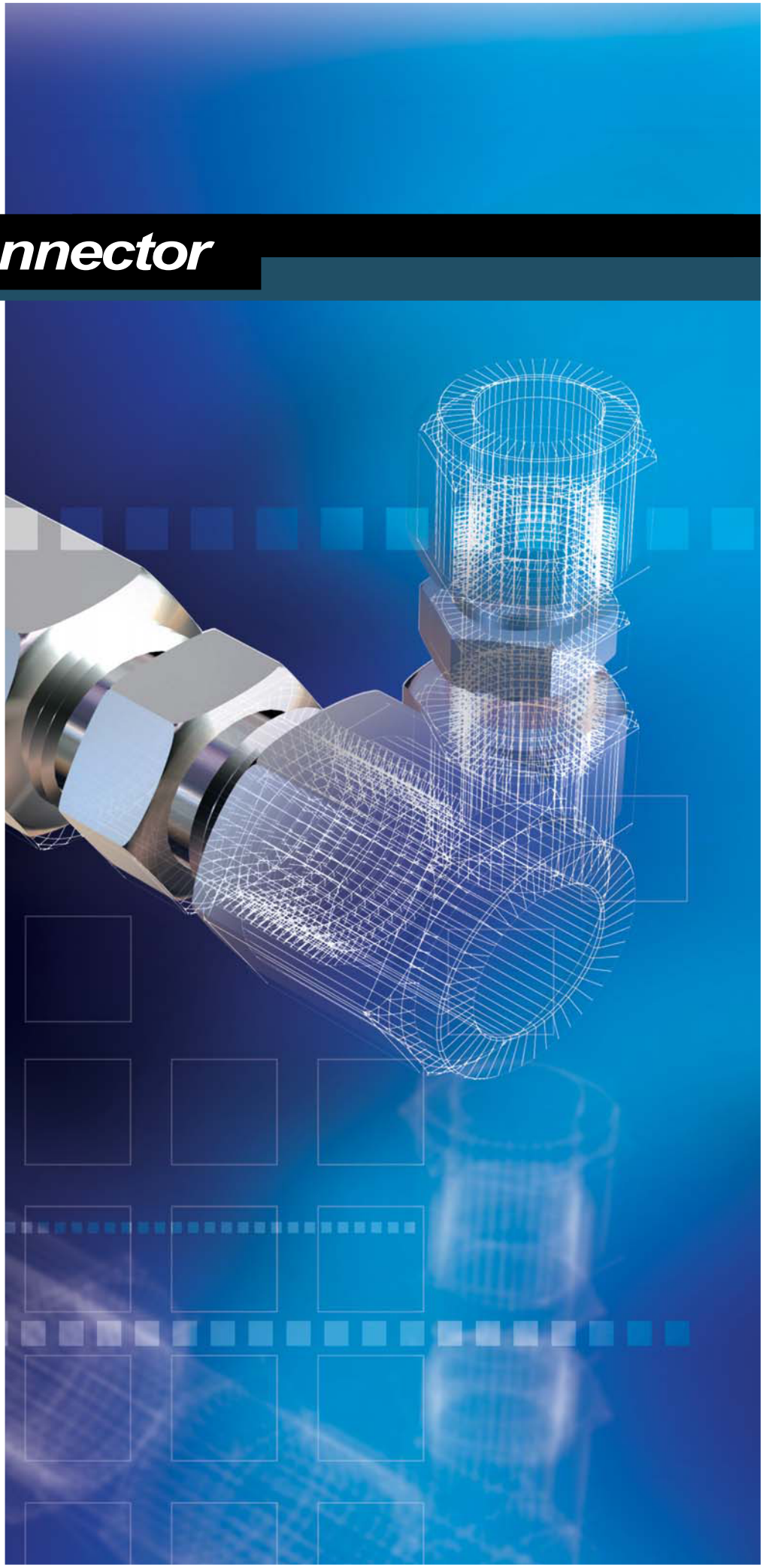
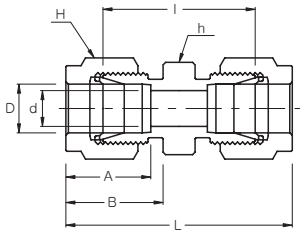


SU
Union



Connects Fractional Tubes

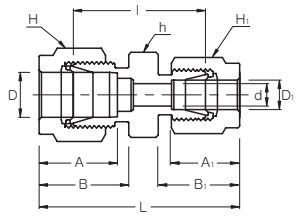
Part No.	Tube O.D. D (inch)	d Min	Width Across Flat		A	B	I	L
			h (inch)	H (inch)				
SU - 1	1/16	1.27	5/16	5/16	8.63	10.92	17.52	25.15
SU - 2	1/8	2.28	7/16	7/16	12.70	15.24	22.35	35.56
SU - 3	3/16	3.04	7/16	1/2	13.71	16.00	24.13	37.33
SU - 4	1/4	4.82	1/2	9/16	15.24	17.78	26.16	40.89
SU - 5	5/16	6.35	9/16	5/8	16.25	18.54	28.19	42.92
SU - 6	3/8	7.11	5/8	11/16	16.76	19.30	30.22	44.95
SU - 8	1/2	10.41	13/16	7/8	22.86	21.84	30.98	51.30
SU - 10	5/8	12.70	15/16	1	24.38	21.84	31.75	52.07
SU - 12	3/4	15.74	1-1/16	1-1/8	24.38	21.84	33.27	53.59
SU - 14	7/8	18.28	1-3/16	1-1/4	25.90	21.84	34.79	55.11
SU - 16	1	22.35	1-3/8	1-1/2	31.24	26.41	40.38	64.77
SU - 20	1-1/4	27.69	1-3/4	1-7/8	41.15	38.86	48.00	92.20
SU - 24	1-1/2	34.04	2-1/8	2-1/4	50.04	45.21	53.59	107.95
SU - 32	2	45.97	2-3/4	3	67.56	62.74	74.68	149.35

Connects Metric Tubes

Part No.	Tube O.D. D	d Min	Width Across Flat		A	B	I	L
			h	H				
SU - 2M	2	1.7	12	12	12.9	15.3	22.4	35.6
SU - 3M	3	2.4	12	12	12.9	15.3	22.1	35.3
SU - 4M	4	2.4	12	12	13.7	16.1	24.1	37.3
SU - 6M	6	4.8	14	14	15.3	17.7	26.2	41.0
SU - 8M	8	6.4	15	16	16.2	18.6	28.2	43.2
SU - 10M	10	7.9	18	19	17.2	19.5	31.0	46.2
SU - 12M	12	9.5	22	22	22.8	22.0	31.0	51.2
SU - 15M	15	11.9	24	25	24.4	22.0	31.8	52.0
SU - 16M	16	12.7	24	25	24.4	22.0	31.8	52.0
SU - 18M	18	15.1	27	30	24.4	22.0	33.3	53.5
SU - 20M	20	15.9	30	32	26.0	22.0	34.8	55.0
SU - 22M	22	18.3	30	32	26.0	22.0	34.8	55.0
SU - 25M	25	21.8	35	38	31.3	26.5	40.4	65.0

• All dimensions in millimeters unless specified as "inch"

SRU
Reducing Union



Connects Fractional Tubes

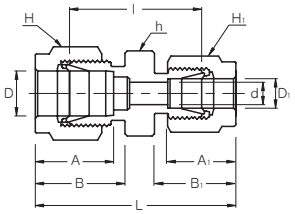
Part No.	Tube O.D.		d Min	Width Across Flat			A	A1	B	B1	I	L
	D (inch)	D1 (inch)		h (inch)	H (inch)	H1 (inch)						
SRU 2 - 1	1/8	1/16	1.27	7/16	7/16	5/16	12.7	8.63	15.24	10.92	20.60	31.00
SRU 3 - 2	3/16	1/8	2.28	7/16	1/2	7/16	13.71	12.70	16.00	15.24	23.36	36.57
SRU 4 - 2	1/4	1/8	2.28	1/2	9/16	7/16	15.24	12.70	17.78	15.24	24.63	38.60
SRU 4 - 3	1/4	3/16	3.04	1/2	9/16	1/2	15.24	13.71	17.78	16.00	25.40	39.37
SRU 5 - 2	5/16	1/8	2.28	9/16	5/8	7/16	16.25	12.70	18.54	15.24	25.90	39.87
SRU 5 - 4	5/16	1/4	4.82	9/16	5/8	9/16	16.25	15.24	18.54	17.78	27.43	42.16
SRU 6 - 2	3/8	1/8	2.28	5/8	11/16	7/16	16.76	12.70	19.30	15.24	26.92	40.89
SRU 6 - 4	3/8	1/4	4.82	5/8	11/16	9/16	16.76	15.24	19.30	17.78	28.44	43.18
SRU 6 - 5	3/8	5/16	6.35	5/8	11/16	5/8	16.76	16.25	19.30	18.54	29.46	44.19
SRU 8 - 2	1/2	1/8	2.28	13/16	7/8	7/16	22.86	12.70	21.84	15.24	28.44	45.21
SRU 8 - 4	1/2	1/4	4.82	13/16	7/8	9/16	22.86	15.24	21.84	17.78	29.46	46.99
SRU 8 - 6	1/2	3/8	7.11	13/16	7/8	11/16	22.86	16.76	21.84	19.30	30.98	48.51
SRU 10 - 6	5/8	3/8	7.11	15/16	1	11/16	24.38	16.76	21.84	19.30	31.75	49.27
SRU 10 - 8	5/8	1/2	10.41	15/16	1	7/8	24.38	22.86	21.84	21.84	31.75	52.07
SRU 12 - 4	3/4	1/4	4.82	1-1/16	1-1/8	9/16	24.38	15.24	21.84	17.78	31.75	49.27
SRU 12 - 6	3/4	3/8	7.11	1-1/16	1-1/8	11/16	24.38	16.76	21.84	19.30	33.27	50.80
SRU 12 - 8	3/4	1/2	10.41	1-1/16	1-1/8	7/8	24.38	22.86	21.84	21.84	33.27	53.59
SRU 12 - 10	3/4	5/8	12.70	1-1/16	1-1/8	1	24.38	24.38	21.84	21.84	33.27	53.59
SRU 16 - 8	1	1/2	10.41	1-3/8	1-1/2	7/8	31.24	22.86	26.41	21.84	39.50	63.24
SRU 16 - 12	1	3/4	15.74	1-3/8	1-1/2	1-1/8	31.24	24.38	26.41	21.84	39.00	62.73

Connects Metric Tubes

Part No.	Tube O.D.		d Min	Width Across Flat			A	A1	B	B1	I	L
	D	D1		h	H	H1						
SRU 6M- 3M	6	3	2.4	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
SRU 6M- 4M	6	4	2.4	14	14	12	15.3	13.7	17.7	16.1	25.4	39.4
SRU 8M- 6M	8	6	4.8	15	16	14	16.2	15.3	18.6	17.7	27.4	42.3
SRU 10M- 6M	10	6	4.8	18	19	14	17.2	15.3	19.5	17.7	29.5	44.5
SRU 10M- 8M	10	8	6.4	18	19	16	17.2	16.2	19.5	18.6	30.0	45.1
SRU 12M- 6M	12	6	4.8	22	22	14	22.8	15.3	22.0	17.7	29.5	47.0
SRU 12M- 8M	12	8	6.4	22	22	16	22.8	16.2	22.0	18.6	30.2	47.8
SRU 12M- 10M	12	10	7.9	22	22	19	22.8	17.2	22.0	19.5	31.0	48.7
SRU 16M- 12M	16	12	9.5	24	25	22	24.4	22.8	22.0	22.0	31.8	52.0
SRU 25M- 18M	25	18	15.1	35	38	30	31.3	24.4	26.5	22.0	38.6	61.0
SRU 25M- 20M	25	20	15.9	35	38	32	31.3	26.0	26.5	22.0	39.9	62.3

• All dimensions in millimeters unless specified as "inch"

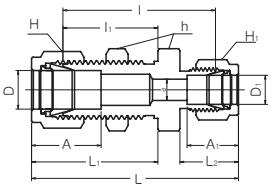
SRU
Reducing Union



Connects Metric Tubes To Fractional Tubes

Part No.	Tube O.D.		d Min	Width Across Flat			A	A1	B	B1	l	L
	D	D1 (inch)		h	H	H1						
SRU 3M - 2	3	1/8	2.4	12	12	11.1	12.9	12.8	15.3	15.2	22.1	35.2
SRU 4M - 2	4	1/8	2.4	12	12	11.1	13.7	12.8	16.1	15.2	23.4	36.5
SRU 4M - 4	4	1/4	2.4	14	12	14.3	13.7	15.3	16.1	17.7	25.4	39.4
SRU 6M - 2	6	1/8	2.4	14	14	11.1	15.3	12.8	17.7	15.2	24.6	38.5
SRU 6M - 4	6	1/4	4.8	14	14	14.3	15.3	15.3	17.7	17.7	26.2	41.0
SRU 6M - 5	6	5/16	4.8	14	14	15.9	15.3	16.2	17.7	18.6	27.4	42.3
SRU 8M - 4	8	1/4	4.8	15	16	14.3	16.2	15.3	18.6	17.7	27.4	42.3
SRU 10M - 2	10	1/8	2.4	18	19	11.1	17.2	12.8	19.5	15.2	27.7	41.8
SRU 10M - 4	10	1/4	4.8	18	19	14.3	17.2	15.3	19.5	17.7	29.5	44.5
SRU 10M - 5	10	5/16	6.4	18	19	15.9	17.2	16.2	19.5	18.6	30.0	45.1
SRU 10M - 6	10	3/8	7.1	18	19	17.5	17.2	16.9	19.5	19.2	31.0	45.9
SRU 12M - 5	12	5/16	6.4	22	22	15.9	22.8	16.2	22.0	18.6	30.2	47.8
SRU 12M - 6	12	3/8	7.1	22	22	17.5	22.8	16.9	22.0	19.2	31.0	48.4
SRU 12M - 8	12	1/2	9.5	22	22	22.2	22.8	22.8	22.0	22.0	31.0	51.2
SRU 15M - 8	15	1/2	10.3	24	25	22.2	24.4	22.8	22.0	22.0	31.8	52.0
SRU 16M - 10	16	5/8	12.7	24	25	25.4	24.4	24.4	22.0	22.0	31.8	52.0
SRU 18M - 12	18	3/4	15.1	27	30	28.6	24.4	24.4	22.0	22.0	33.3	53.5
SRU 20M - 12	20	3/4	15.9	30	32	28.6	26.0	24.4	22.0	22.0	34.8	54.9
SRU 20M - 16	20	1	15.9	35	32	38.1	26.0	31.2	22.0	26.4	40.4	62.8
SRU 25M - 16	25	1	21.8	35	38	38.1	31.3	31.3	26.5	26.5	40.4	65.0

SBHRU
Bulkhead Reducing Union

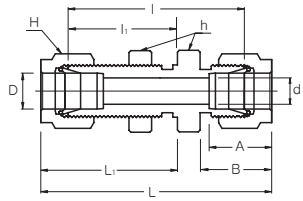


Connects Fractional Tubes

Part No.	Tube O.D.		d Min	Width Across Flat			A	A1	l	l1	L	L1	L2	Panel Hole Drill Size	Panel Max. Thickness
	D (inch)	D1 (inch)		h (inch)	H (inch)	H1 (inch)									
SBHRU 4 - 2	1/4	1/8	2.28	5/8	9/16	7/16	15.24	12.70	41.14	26.16	55.11	33.52	15.24	11.50	10.16
SBHRU 6 - 4	3/8	1/4	4.82	3/4	11/16	9/16	16.76	15.24	45.97	29.46	60.70	36.57	17.78	14.68	11.17
SBHRU 8 - 4	1/2	1/4	4.82	15/16	7/8	9/16	22.86	15.24	49.27	31.75	66.80	41.91	17.78	19.44	12.70

• All dimensions in millimeters unless specified as "inch"

SBHU
Bulkhead Union



Connects Fractional Tubes

Part No.	Tube O.D. D (inch)	d Min	Width Across Flat		A	B	l	l_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
			h (inch)	H (inch)								
SBHU - 1	1/16	1.27	5/16	5/16	8.63	10.92	23.87	13.46	31.50	17.27	5.16	3.05
SBHU - 2	1/8	2.28	1/2	7/16	12.70	15.24	38.10	24.63	51.30	31.24	8.33	12.70
SBHU - 3	3/16	3.04	9/16	1/2	13.71	16.00	40.38	25.40	53.59	32.00	9.92	12.70
SBHU - 4	1/4	4.82	5/8	9/16	15.24	17.78	42.92	26.16	57.65	33.52	11.50	10.16
SBHU - 5	5/16	6.35	11/16	5/8	16.25	18.54	45.97	28.44	60.70	35.81	13.09	11.17
SBHU - 6	3/8	7.11	3/4	11/16	16.76	19.30	47.49	29.46	62.23	36.83	14.68	11.17
SBHU - 8	1/2	10.41	15/16	7/8	22.86	21.84	50.80	31.75	71.12	41.91	19.44	12.70
SBHU - 10	5/8	12.70	1-1/16	1	24.38	21.84	52.32	32.51	72.64	42.67	22.62	12.70
SBHU - 12	3/4	15.74	1-3/16	1-1/8	24.38	21.84	58.67	37.33	78.99	47.49	25.79	16.76
SBHU - 14	7/8	18.28	1-3/8	1-1/4	25.90	21.84	64.26	42.92	84.58	53.08	28.97	19.05
SBHU - 16	1	22.35	1-5/8	1-1/2	31.24	26.41	71.37	45.21	95.75	57.40	33.73	19.05

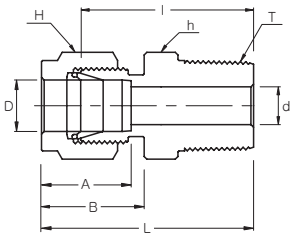
Connects Metric Tubes

Part No.	Tube O.D. D	d Min	Width Across Flat			A	B	l	l_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
			h	h_1*	H								
SBHU - 3M	3	2.4	14	12.7	12	12.9	15.3	38.1	24.6	51.3	31.2	8.3	12.7
SBHU - 4M	4	2.4	14	14.3	12	13.7	16.1	40.4	25.4	53.6	32.0	9.9	12.7
SBHU - 6M	6	4.8	16	15.9	14	15.3	17.7	42.9	26.2	57.7	33.6	11.5	10.2
SBHU - 8M	8	6.4	18	17.5	16	16.2	18.6	46.0	28.6	61.0	36.1	13.1	11.2
SBHU - 10M	10	7.9	22	22.0	19	17.2	19.5	48.5	29.4	63.7	37.0	16.2	11.2
SBHU - 12M	12	9.5	24	23.8	22	22.8	22.0	50.8	31.8	71.0	41.9	19.5	12.7
SBHU - 15M	15	11.9	27	27.0	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
SBHU - 16M	16	12.7	27	27.0	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
SBHU - 18M	18	15.1	30	30.0	30	24.4	22.0	58.7	37.3	78.9	47.4	26.0	16.8
SBHU - 20M	20	15.9	35	35.0	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	17.0
SBHU - 22M	22	18.3	35	35.0	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	19.1
SBHU - 25M	25	21.8	41.3	41.3	38	31.3	26.5	71.4	45.2	95.9	57.5	33.7	19.1

$h1*$: Metric Tubes Bulkhead Hexagon application only

• All dimensions in millimeters unless specified as "inch"

SMC
Male Connector

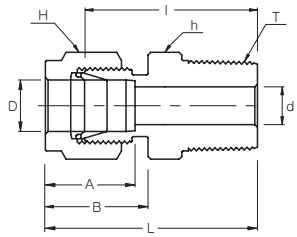


Connects Fractional Tubes To Female NPT Thread

Part No.	Tube O.D. D (inch)	T (NPT)	d Min	Width Across Flat		A	B	I	L
				h (inch)	H (inch)				
SMC 1 - 1N	1/16	1/16	1.27	5/16	5/16	8.63	10.92	20.00	23.83
SMC 1 - 2N	1/16	1/8	1.27	7/16	7/16	8.63	10.92	22.35	26.23
SMC 2 - 2N	1/8	1/8	2.28	7/16	7/16	12.70	15.24	23.87	30.48
SMC 2 - 4N	1/8	1/4	2.28	9/16	7/16	12.70	15.24	28.95	35.56
SMC 2 - 6N	1/8	3/8	2.28	11/16	7/16	12.70	15.24	29.21	35.81
SMC 2 - 8N	1/8	1/2	2.28	7/8	7/16	12.70	15.24	35.56	42.16
SMC 3 - 2N	3/16	1/8	3.04	7/16	1/2	13.71	16.00	24.63	31.24
SMC 3 - 4N	3/16	1/4	3.04	9/16	1/2	13.71	16.00	29.71	36.32
SMC 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	25.40	32.76
SMC 4 - 4N	1/4	1/4	4.82	9/16	9/16	15.24	17.78	30.48	37.84
SMC 4 - 6N	1/4	3/8	4.82	11/16	9/16	15.24	17.78	30.98	38.35
SMC 4 - 8N	1/4	1/2	4.82	7/8	9/16	15.24	17.78	37.33	44.70
SMC 4 - 12N	1/4	3/4	4.82	1-1/16	9/16	15.24	17.78	38.86	46.22
SMC 5 - 2N	5/16	1/8	4.82	9/16	5/8	16.25	18.54	26.67	34.03
SMC 5 - 4N	5/16	1/4	6.35	9/16	5/8	16.25	18.54	31.24	38.60
SMC 5 - 6N	5/16	3/8	6.35	11/16	5/8	16.25	18.54	31.75	39.11
SMC 6 - 2N	3/8	1/8	4.82	5/8	11/16	16.76	19.30	27.94	35.30
SMC 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	32.51	39.87
SMC 6 - 6N	3/8	3/8	7.11	11/16	11/16	16.76	19.30	32.51	39.87
SMC 6 - 8N	3/8	1/2	7.11	7/8	11/16	16.76	19.30	38.86	46.22
SMC 6 - 12N	3/8	3/4	7.11	1-1/16	11/16	16.76	19.30	40.38	47.75
SMC 8 - 2N	1/2	1/8	4.82	13/16	7/8	22.86	21.84	28.70	38.86
SMC 8 - 4N	1/2	1/4	7.11	13/16	7/8	22.86	21.84	33.27	43.43
SMC 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	33.27	43.43
SMC 8 - 8N	1/2	1/2	10.41	7/8	7/8	22.86	21.84	38.86	49.02
SMC 8 - 12N	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	40.38	50.54
SMC 8 - 16N	1/2	1	10.41	1-3/8	7/8	22.86	21.84	46.99	57.15
SMC 10 - 6N	5/8	3/8	9.65	15/16	1	24.38	21.84	34.03	44.19
SMC 10 - 8N	5/8	1/2	11.93	15/16	1	24.38	21.84	38.86	49.02
SMC 10 - 12N	5/8	3/4	12.70	1-1/16	1	24.38	21.84	40.38	50.54
SMC 12 - 8N	3/4	1/2	11.93	1-1/16	1-1/8	24.38	21.84	40.38	50.54
SMC 12 - 12N	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	40.38	50.54
SMC 12 - 16N	3/4	1	15.74	1-3/8	1-1/8	24.38	21.84	46.99	57.15
SMC 14 - 12N	7/8	3/4	15.74	1-3/16	1-1/4	25.90	21.84	40.38	50.54
SMC 14 - 16N	7/8	1	18.28	1-3/8	1-1/4	25.90	21.84	46.99	57.15
SMC 16 - 8N	1	1/2	11.93	1-3/8	1-1/2	31.24	26.41	45.21	57.40
SMC 16 - 12N	1	3/4	15.74	1-3/8	1-1/2	31.24	26.41	45.21	57.40
SMC 16 - 16N	1	1	22.35	1-3/8	1-1/2	31.24	26.41	50.03	62.23
SMC 20 - 16N	1-1/4	1	22.35	1-3/4	1-7/8	41.15	38.86	55.12	77.22
SMC 20 - 20N	1-1/4	1-1/4	27.69	1-3/4	1-7/8	41.15	38.86	55.12	77.22
SMC 24 - 24N	1-1/2	1-1/2	34.04	2-1/8	2-1/4	50.04	45.21	61.72	88.90
SMC 32 - 32N	2	2	45.97	2-3/4	3	67.56	62.74	76.20	113.54

• All dimensions in millimeters unless specified as "inch"

SMC
Male Connector



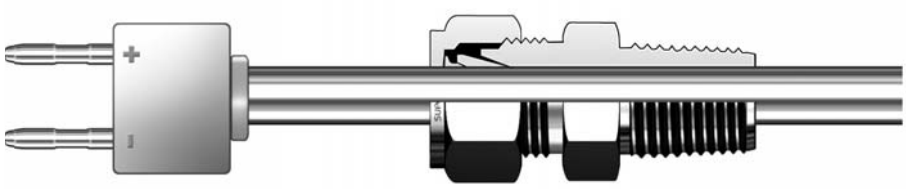
Connects Fractional Tube To Female ISO Tapered Thread

Part No.	Tube O.D. D (inch)	T R (PT)	d Min	Width Across Flat		A	B	I	L
				h (inch)	H (inch)				
SMC 2 - 2R	1/8	1/8	2.28	7/16	7/16	12.70	15.24	23.87	30.48
SMC 2 - 4R	1/8	1/4	2.28	9/16	7/16	12.70	15.24	28.95	35.56
SMC 4 - 2R	1/4	1/8	4.82	1/2	9/16	15.24	17.78	25.40	32.76
SMC 4 - 4R	1/4	1/4	4.82	9/16	9/16	15.24	17.78	30.48	37.84
SMC 4 - 6R	1/4	3/8	4.82	11/16	9/16	15.24	17.78	30.98	38.35
SMC 4 - 8R	1/4	1/2	4.82	7/8	9/16	15.24	17.78	37.33	44.70
SMC 5 - 2R	5/16	1/8	4.82	9/16	5/8	16.25	18.54	26.67	34.03
SMC 5 - 4R	5/16	1/4	6.35	9/16	5/8	16.25	18.54	31.24	38.60
SMC 6 - 2R	3/8	1/8	4.82	5/8	11/16	16.76	19.30	27.94	35.30
SMC 6 - 4R	3/8	1/4	7.11	5/8	11/16	16.76	19.30	32.51	39.87
SMC 6 - 6R	3/8	3/8	7.11	11/16	11/16	16.76	19.30	32.51	39.87
SMC 6 - 8R	3/8	1/2	7.11	7/8	11/16	16.76	19.30	38.86	46.22
SMC 8 - 4R	1/2	1/4	7.11	13/16	7/8	22.86	21.84	33.27	43.43
SMC 8 - 6R	1/2	3/8	9.65	13/16	7/8	22.86	21.84	33.27	43.43
SMC 8 - 8R	1/2	1/2	10.41	7/8	7/8	22.86	21.84	38.86	49.02
SMC 8 - 12R	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	40.38	50.54
SMC 12 - 12R	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	40.38	50.54
SMC 16 - 16R	1	1	22.35	1-3/8	1-1/2	31.24	26.41	50.03	62.23

Bored - Through Fittings for Thermocouples

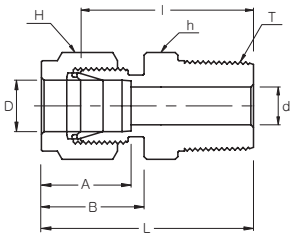
SUPERLOK Bored-Through MALE CONNECTORS accommodate thermocouples or dip tubes
To order, use TM as a suffix to the desired Male Connector ordering number.

Note - The root diameter of the pipe thread end of male connectors makes it impractical to bore through all male connectors.



• All dimensions in millimeters unless specified as "inch"

SMC
Male Connector

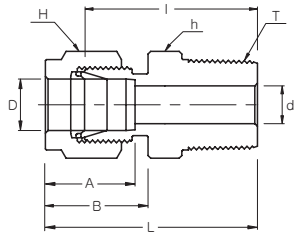


Connects Metric Tube To Female NPT Thread

Part No.	Tube O.D. D	T (NPT)	d Min	Width Across Flat h	Width Across Flat H	A	B	I	L
SMC 2M - 2N	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
SMC 3M - 2N	3	1/8	2.4	12	12	12.9	15.3	23.9	30.5
SMC 3M - 4N	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
SMC 4M - 2N	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
SMC 4M - 4N	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
SMC 6M - 2N	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
SMC 6M - 4N	6	1/4	4.8	14	14	15.3	17.7	30.5	37.9
SMC 6M - 6N	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
SMC 6M - 8N	6	1/2	4.8	22	14	15.3	17.7	37.3	44.7
SMC 8M - 2N	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
SMC 8M - 4N	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
SMC 8M - 6N	8	3/8	6.4	18	16	16.2	18.6	31.8	39.3
SMC 8M - 8N	8	1/2	6.4	22	16	16.2	18.6	38.1	45.6
SMC 10M - 2N	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
SMC 10M - 4N	10	1/4	7.9	18	19	17.2	19.5	33.3	40.9
SMC 10M - 6N	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
SMC 10M - 8N	10	1/2	7.9	22	19	17.2	19.5	38.9	46.5
SMC 12M - 2N	12	1/8	4.8	22	22	22.8	22.0	28.7	38.8
SMC 12M - 4N	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
SMC 12M - 6N	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
SMC 12M - 8N	12	1/2	9.5	22	22	22.8	22.0	38.9	49.0
SMC 12M - 12N	12	3/4	9.5	27	22	22.8	22.0	40.4	50.5
SMC 14M - 4N	14	1/4	7.1	24	25	24.4	22.0	34.0	44.1
SMC 14M - 6N	14	3/8	9.5	24	25	24.4	22.0	34.0	44.1
SMC 14M - 8N	14	1/2	11.1	24	25	24.4	22.0	38.9	49.0
SMC 16M - 6N	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
SMC 16M - 8N	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
SMC 16M - 12N	16	3/4	12.7	27	25	24.4	22.0	40.4	50.5
SMC 18M - 8N	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
SMC 18M - 12N	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
SMC 20M - 8N	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
SMC 20M - 12N	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC 22M - 12N	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC 22M - 16N	22	1	18.3	35	32	26.0	22.0	47.0	57.1
SMC 25M - 12N	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
SMC 25M - 16N	25	1	21.8	35	38	31.3	26.5	50.0	62.3
SMC 28M - 16N	28	1	21.8	41	46	36.6	36.6	51.6	72.4
SMC 28M - 20N	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
SMC 30M - 20N	30	1-1/4	26.2	46	50	39.6	39.2	55.6	77.2
SMC 32M - 20N	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
SMC 38M - 24N	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

• All dimensions in millimeters unless specified as "inch"

SMC
Male Connector

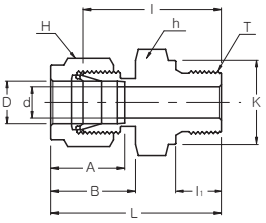


Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube O.D. D	T R (PT)	d Min	Width Across Flat h	Width Across Flat H	A	B	I	L
SMC 2M - 2R	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
SMC 3M - 2R	3	1/8	2.4	12	12	12.9	15.3	23.9	30.5
SMC 3M - 4R	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
SMC 4M - 2R	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
SMC 4M - 4R	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
SMC 6M - 2R	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
SMC 6M - 4R	6	1/4	4.8	14	14	15.3	17.7	30.5	37.9
SMC 6M - 6R	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
SMC 6M - 8R	6	1/2	4.8	22	14	15.3	17.7	37.3	44.7
SMC 8M - 2R	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
SMC 8M - 4R	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
SMC 8M - 6R	8	3/8	6.4	18	16	16.2	18.6	31.8	39.3
SMC 8M - 8R	8	1/2	6.4	22	16	16.2	18.6	38.1	45.6
SMC 10M - 2R	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
SMC 10M - 4R	10	1/4	7.9	18	19	17.2	19.5	33.3	40.9
SMC 10M - 6R	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
SMC 10M - 8R	10	1/2	7.9	22	19	17.2	19.5	38.9	46.5
SMC 12M - 4R	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
SMC 12M - 6R	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
SMC 12M - 8R	12	1/2	9.5	22	22	22.8	22.0	38.9	49.0
SMC 12M - 12R	12	3/4	9.5	27	22	22.8	22.0	40.4	50.5
SMC 15M - 8R	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
SMC 16M - 4R	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
SMC 16M - 6R	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
SMC 16M - 8R	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
SMC 16M - 12R	16	3/4	12.7	27	25	24.4	22.0	40.4	50.5
SMC 18M - 8R	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
SMC 18M - 12R	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
SMC 20M - 8R	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
SMC 20M - 12R	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC 22M - 12R	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
SMC 22M - 16R	22	1	18.3	35	32	26.0	22.0	47.0	57.1
SMC 25M - 12R	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
SMC 25M - 16R	25	1	21.8	35	38	31.3	26.5	50.0	62.3
SMC 28M - 16R	28	1	21.8	41	46	36.6	36.6	51.6	72.4
SMC 28M - 20R	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
SMC 30M - 20R	30	1-1/4	26.2	46	50	39.6	39.2	55.6	77.2
SMC 32M - 20R	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
SMC 38M - 24R	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

• All dimensions in millimeters unless specified as "inch"

SGMC
Male Connector For Bonded Washer Seal



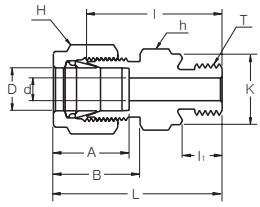
Connects Metric Tubes To Female ISO Parallel Thread

Part No.	Tube O.D. D	T G (PF)	d Min	Width Across Flat h	Width Across Flat H	A	B	I	I_1	L	K
SGMC 3M - 2G	3	1/8	2.4	14	12	12.9	15.3	23.4	7.1	30.0	13.8
SGMC 3M - 4G	3	1/4	2.4	19	12	12.9	15.3	28.7	11.2	35.3	18.0
SGMC 4M - 2G	4	1/8	2.4	14	12	13.7	16.1	24.1	7.1	30.7	13.8
SGMC 6M - 2G	6	1/8	4.0	14	14	15.3	17.7	24.9	7.1	32.3	13.8
SGMC 6M - 4G	6	1/4	4.8	19	14	15.3	17.7	30.2	11.2	37.6	18.0
SGMC 6M - 6G	6	3/8	4.8	22	14	15.3	17.7	31.5	11.2	38.9	21.8
SGMC 6M - 8G	6	1/2	4.8	27	14	15.3	17.7	37.3	14.2	44.7	26.0
SGMC 8M - 2G	8	1/8	4.0	15	16	16.2	18.6	25.7	7.1	33.2	13.8
SGMC 8M - 4G	8	1/4	6.4	19	16	16.2	18.6	31.0	11.2	38.5	18.0
SGMC 8M - 6G	8	3/8	6.4	22	16	16.2	18.6	32.3	11.2	39.8	21.8
SGMC 8M - 8G	8	1/2	6.4	27	16	16.2	18.6	38.1	14.2	45.6	26.0
SGMC 10M - 4G	10	1/4	5.9	19	19	17.2	19.5	31.8	11.2	39.4	18.0
SGMC 10M - 6G	10	3/8	7.9	22	19	17.2	19.5	33.0	11.2	40.6	21.8
SGMC 10M - 8G	10	1/2	7.9	27	19	17.2	19.5	38.9	14.2	46.5	26.0
SGMC 12M - 4G	12	1/4	5.9	22	22	22.8	22.0	32.5	11.2	42.6	18.0
SGMC 12M - 6G	12	3/8	7.9	22	22	22.8	22.0	33.0	11.2	43.1	21.8
SGMC 12M - 8G	12	1/2	9.5	27	22	22.8	22.0	38.9	14.2	49.0	26.0
SGMC 12M - 12G	12	3/4	9.5	35	22	22.8	22.0	42.7	15.7	52.8	32.0
SGMC 16M - 6G	16	3/8	7.9	24	25	24.4	22.0	33.8	11.2	43.9	21.8
SGMC 16M - 8G	16	1/2	11.9	27	25	24.4	22.0	38.9	14.2	49.0	26.0
SGMC 18M - 8G	18	1/2	11.9	27	30	24.4	22.0	38.9	14.2	49.0	26.0
SGMC 18M - 12G	18	3/4	15.1	35	30	24.4	22.0	42.7	15.7	52.8	32.0
SGMC 20M - 8G	20	1/2	11.9	30	32	26.0	22.0	40.4	14.2	50.5	26.0
SGMC 20M - 12G	20	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SGMC 22M - 12G	22	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SGMC 22M - 16G	22	1	18.3	41	32	26.0	22.0	45.2	18.3	55.3	39.0
SGMC 25M - 12G	25	3/4	15.9	35	38	31.3	26.5	45.2	15.7	57.5	32.0
SGMC 25M - 16G	25	1	19.8	41	38	31.3	26.5	47.8	18.3	60.1	39.0

* See page 10 for Explanation of ISO Pipe Thread.

• All dimensions in millimeters unless specified as "inch"

SOMC
Male Connector For Metal Gasket Seal



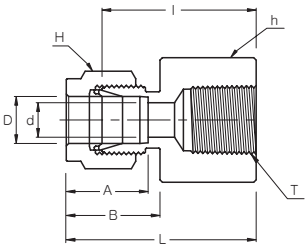
Connects Metric Tube To Female ISO Parallel Thread

Part No.	Tube O.D. D	T G (PF)	d Min	Width Across Flat		A	B	I	I_1	L	K
				h	H						
SOMC 3M - 2G	3	1/8	2.4	14	12	12.9	15.3	23.4	7.1	30.0	13.8
SOMC 3M - 4G	3	1/4	2.4	19	12	12.9	15.3	28.7	11.2	35.3	18.0
SOMC 4M - 2G	4	1/8	2.4	14	12	13.7	16.1	24.1	7.1	30.7	13.8
SOMC 6M - 2G	6	1/8	4.0	14	14	15.3	17.7	24.9	7.1	32.3	13.8
SOMC 6M - 4G	6	1/4	4.8	19	14	15.3	17.7	30.2	11.2	37.6	18.0
SOMC 6M - 6G	6	3/8	4.8	22	14	15.3	17.7	31.5	11.2	38.9	21.8
SOMC 6M - 8G	6	1/2	4.8	27	14	15.3	17.7	37.3	14.2	44.7	26.0
SOMC 8M - 2G	8	1/8	4.0	15	16	16.2	18.6	25.7	7.1	33.2	13.8
SOMC 8M - 4G	8	1/4	6.4	19	16	16.2	18.6	31.0	11.2	38.5	18.0
SOMC 8M - 6G	8	3/8	6.4	22	16	16.2	18.6	32.3	11.2	39.8	21.8
SOMC 8M - 8G	8	1/2	6.4	27	16	16.2	18.6	38.1	14.2	45.6	26.0
SOMC 10M - 4G	10	1/4	5.9	19	19	17.2	19.5	31.8	11.2	39.4	18.0
SOMC 10M - 6G	10	3/8	7.9	22	19	17.2	19.5	33.0	11.2	40.6	21.8
SOMC 10M - 8G	10	1/2	7.9	27	19	17.2	19.5	38.9	14.2	46.5	26.0
SOMC 12M - 4G	12	1/4	5.9	22	22	22.8	22.0	32.5	11.2	42.6	18.0
SOMC 12M - 6G	12	3/8	7.9	22	22	22.8	22.0	33.0	11.2	43.1	21.8
SOMC 12M - 8G	12	1/2	9.5	27	22	22.8	22.0	38.9	14.2	49.0	26.0
SOMC 12M - 12G	12	3/4	9.5	35	22	22.8	22.0	42.7	15.7	52.8	32.0
SOMC 15M - 8G	15	1/2	11.9	27	25	24.4	22.0	38.9	14.2	49.0	26.0
SOMC 16M - 6G	16	3/8	7.9	24	25	24.4	22.0	33.8	11.2	43.9	21.8
SOMC 16M - 8G	16	1/2	11.9	27	25	24.4	22.0	38.9	14.2	49.0	26.0
SOMC 18M - 8G	18	1/2	11.9	27	30	24.4	22.0	38.9	14.2	49.0	26.0
SOMC 18M - 12G	18	3/4	15.1	35	30	24.4	22.0	42.7	15.7	52.8	32.0
SOMC 20M - 8G	20	1/2	11.9	30	32	26.0	22.0	40.4	14.2	50.5	26.0
SOMC 20M - 12G	20	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SOMC 22M - 12G	22	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
SOMC 22M - 16G	22	1	18.3	41	32	26.0	22.0	45.2	18.3	55.3	39.0
SOMC 25M - 12G	25	3/4	15.9	35	38	31.3	26.5	45.2	15.7	57.5	32.0
SOMC 25M - 16G	25	1	19.8	41	38	31.3	26.5	47.8	18.3	60.1	39.0

* See page 10 for Explanation of ISO Pipe Thread.

• All dimensions in millimeters unless specified as "inch"

SFC
Female Connector



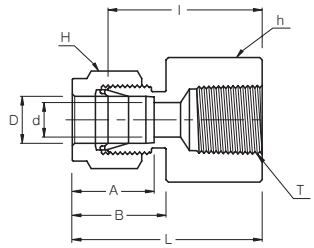
Connects Fractional Tubes To Male NPT Thread

Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat		A	B	I	L
				h (inch)	H (inch)				
SFC 2 - 2N	1/8	1/8	2.28	9/16	7/16	12.70	15.24	22.09	28.70
SFC 2 - 4N	1/8	1/4	2.28	3/4	7/16	12.70	15.24	26.92	33.52
SFC 3 - 2N	3/16	1/8	3.04	9/16	1/2	13.71	16.00	23.11	29.71
SFC 4 - 2N	1/4	1/8	4.82	9/16	9/16	15.24	17.78	23.87	31.24
SFC 4 - 4N	1/4	1/4	4.82	3/4	9/16	15.24	17.78	28.44	35.81
SFC 4 - 6N	1/4	3/8	4.82	7/8	9/16	15.24	17.78	30.22	37.59
SFC 4 - 8N	1/4	1/2	4.82	1-1/16	9/16	15.24	17.78	35.05	42.41
SFC 5 - 2N	5/16	1/8	6.35	9/16	5/8	16.25	18.54	24.63	32.00
SFC 5 - 4N	5/16	1/4	6.35	3/4	5/8	16.25	18.54	29.46	36.83
SFC 6 - 2N	3/8	1/8	7.11	5/8	11/16	16.76	19.30	25.40	32.76
SFC 6 - 4N	3/8	1/4	7.11	3/4	11/16	16.76	19.30	30.22	37.59
SFC 6 - 6N	3/8	3/8	7.11	7/8	11/16	16.76	19.30	31.75	39.11
SFC 6 - 8N	3/8	1/2	7.11	1-1/16	11/16	16.76	19.30	36.57	43.94
SFC 6 - 12N	3/8	3/4	7.11	1-5/16	11/16	16.76	19.30	40.38	47.75
SFC 8 - 4N	1/2	1/4	10.41	13/16	7/8	22.86	21.84	30.22	40.38
SFC 8 - 6N	1/2	3/8	10.41	7/8	7/8	22.86	21.84	31.75	41.91
SFC 8 - 8N	1/2	1/2	10.41	1-1/16	7/8	22.86	21.84	36.57	46.73
SFC 8 - 12N	1/2	3/4	10.41	1-5/16	7/8	22.86	21.84	38.10	48.26
SFC 10 - 6N	5/8	3/8	12.70	15/16	1	24.38	21.84	31.75	41.91
SFC 10 - 8N	5/8	1/2	12.70	1-1/16	1	24.38	21.84	36.57	46.73
SFC 12 - 8N	3/4	1/2	15.74	1-1/16	1-1/8	24.38	21.84	36.57	46.73
SFC 12 - 12N	3/4	3/4	15.74	1-5/16	1-1/8	24.38	21.84	38.10	48.26
SFC 14 - 12N	7/8	3/4	18.28	1-5/16	1-1/4	25.90	21.84	39.62	49.78
SFC 16 - 12N	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	41.14	53.34
SFC 16 - 16N	1	1	22.35	1-5/8	1-1/2	31.24	26.41	50.03	62.23

* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SFC
Female Connector



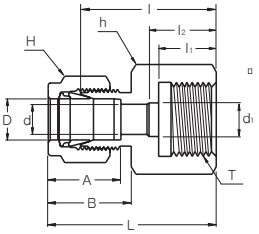
Connects Metric Tubes To Male ISO Tapered Thread

Part No.	Tube O.D. D	T * R (PT)	d Min	Width Across Flat		A	B	I	L
				h	H				
SFC 3M - 2R	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
SFC 3M - 4R	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
SFC 4M - 2R	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
SFC 6M - 2R	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
SFC 6M - 4R	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
SFC 6M - 6R	6	3/8	4.8	22	14	15.3	17.7	30.2	37.6
SFC 6M - 8R	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
SFC 8M - 2R	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
SFC 8M - 4R	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
SFC 8M - 6R	8	3/8	6.4	22	16	16.2	18.6	31.0	38.5
SFC 8M - 8R	8	1/2	6.4	27	16	16.2	18.6	35.8	43.3
SFC 10M - 2R	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
SFC 10M - 4R	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
SFC 10M - 6R	10	3/8	7.9	22	19	17.2	19.5	31.8	39.4
SFC 10M - 8R	10	1/2	7.9	27	19	17.2	19.5	36.6	44.2
SFC 12M - 2R	12	1/8	8.3	22	22	22.8	22.0	25.4	35.5
SFC 12M - 4R	12	1/4	9.5	22	22	22.8	22.0	30.2	40.3
SFC 12M - 6R	12	3/8	9.5	22	22	22.8	22.0	31.8	41.9
SFC 12M - 8R	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
SFC 12M - 12R	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
SFC 15M - 8R	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
SFC 16M - 8R	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
SFC 20M - 8R	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
SFC 20M - 12R	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
SFC 22M - 12R	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
SFC 22M - 16R	22	1	18.3	41	32	26.0	22.0	47.8	57.9
SFC 25M - 12R	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
SFC 25M - 16R	25	1	21.8	41	38	31.3	26.5	50.0	62.3

* NPT Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SGC
Gauge Connector



Connects Fractional Tubes To ISO Parallel Thread

Part No.	Tube O.D. D (inch)	T G (PF)	d Min	d_1	Width Across Flat		A	B	l	l_1	l_2	L
					h (inch)	H (inch)						
SGC 4 - 4G	1/4	1/4	4.82	5.58	3/4	9/16	15.24	17.78	30.22	13.00	17.00	37.59
SGC 4 - 6G	1/4	3/8	4.82	6.60	15/16	9/16	15.24	17.78	30.22	14.20	20.30	37.59
SGC 4 - 8G	1/4	1/2	4.82	6.60	1-1/16	9/16	15.24	17.78	36.07	18.80	24.90	43.43
SGC 5 - 4G	5/16	1/4	5.58	-	3/4	5/8	16.25	18.54	30.98	13.00	-	38.35
SGC 5 - 8G	5/16	1/2	7.11	-	1-1/16	5/8	16.25	18.54	33.53	18.80	-	40.89
SGC 6 - 4G	3/8	1/4	5.58	-	3/4	11/16	16.76	19.30	31.75	13.00	-	39.12
SGC 6 - 6G	3/8	3/8	6.60	-	15/16	11/16	16.76	19.30	31.24	14.20	-	38.61
SGC 6 - 8G	3/8	1/2	7.11	-	1-1/16	11/16	16.76	19.30	34.54	18.80	-	41.91
SGC 8 - 4G	1/2	1/4	5.58	-	7/8	7/8	22.86	21.84	31.80	13.00	-	41.95
SGC 8 - 6G	1/2	3/8	6.60	-	15/16	7/8	22.86	21.84	34.29	14.20	-	44.45
SGC 8 - 8G	1/2	1/2	7.11	7.11	1-1/16	7/8	22.86	21.84	38.10	18.80	-	48.26

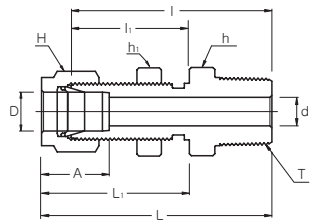
Connects Metric Tubes To ISO Parallel Thread

Part No.	Tube O.D. D	T G (PF)	d Min	d_1	Width Across Flat		A	B	l	l_1	l_2	L
					h	H						
SGC 3M - 4G	3	1/4	2.4	5.5	19	12	12.9	15.3	28.7	13	17	35.3
SGC 6M - 4G	6	1/4	4.8	5.5	19	14	15.3	17.7	30.2	13	17	37.6
SGC 6M - 6G	6	3/8	4.8	6.5	24	14	15.3	17.7	30.2	14	20	37.6
SGC 6M - 8G	6	1/2	4.8	7.0	27	14	15.3	17.7	36.1	19	25	43.5
SGC 8M - 4G	8	1/4	5.5	5.5	19	16	16.2	18.6	31.0	13	-	38.5
SGC 8M - 6G	8	3/8	6.5	6.5	24	16	16.2	18.6	28.7	14	-	36.2
SGC 8M - 8G	8	1/2	7.0	7.0	27	16	16.2	18.6	33.5	19	-	41.0
SGC 10M - 4G	10	1/4	5.5	5.5	19	19	17.2	19.5	31.8	13	-	39.4
SGC 10M - 6G	10	3/8	6.5	6.5	24	19	17.2	19.5	31.2	14	-	38.8
SGC 10M - 8G	10	1/2	7.0	7.0	27	19	17.2	19.5	34.5	19	-	42.1
SGC 12M - 4G	12	1/4	5.5	5.5	22	22	22.8	22.0	31.8	13	-	41.9
SGC 12M - 6G	12	3/8	6.5	6.5	24	22	22.8	22.0	34.3	14	-	44.4
SGC 12M - 8G	12	1/2	7.0	7.0	27	22	22.8	22.0	38.1	19	-	48.2
SGC 20M - 8G	20	1/2	7.0	7.0	30	32	26.0	22.0	44.2	19	-	54.3
SGC 22M - 8G	22	1/2	7.0	7.0	30	32	26.0	22.0	44.2	19	-	54.3

* See page 11 for Explanation of ISO Pipe Thread.

• All dimensions in millimeters unless specified as "inch"

SBMC
Bulkhead Male Connector



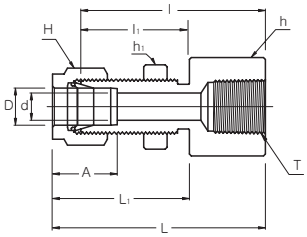
Connects Fractional Tubes To Female NPT Thread

Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat			A	l	l1	L	L1	Panel Hole Drill Size	Panel Max. Thickness
				h (inch)	h1 (inch)	H (inch)							
SBMC 2 - 2N	1/8	1/8	2.28	1/2	1/2	7/16	12.70	39.87	24.63	46.48	31.24	8.33	12.70
SBMC 4 - 2N	1/4	1/8	4.82	5/8	5/8	9/16	15.24	42.16	26.16	49.53	33.52	11.50	10.16
SBMC 4 - 4N	1/4	1/4	4.82	5/8	5/8	9/16	15.24	46.73	26.16	54.10	33.52	11.50	10.16
SBMC 6 - 4N	3/8	1/4	7.11	3/4	3/4	11/16	16.76	50.03	29.46	57.40	36.83	14.68	11.17
SBMC 6 - 6N	3/8	3/8	7.11	3/4	3/4	11/16	16.76	50.03	29.46	57.40	36.83	14.68	11.17
SBMC 6 - 8N	3/8	1/2	7.11	7/8	3/4	11/16	16.76	56.38	29.46	63.75	36.83	14.68	11.17
SBMC 8 - 6N	1/2	3/8	9.65	15/16	15/16	7/8	22.86	53.08	31.75	63.24	41.91	19.44	12.70
SBMC 8 - 8N	1/2	1/2	10.41	15/16	15/16	7/8	22.86	58.67	31.75	68.83	41.91	19.44	12.70
SBMC 12 - 12N	3/4	3/4	15.74	1-3/16	1-3/16	1-1/8	24.38	66.04	37.33	76.20	47.49	25.79	16.76
SBMC 16 - 16N	1	1	22.35	1-5/8	1-5/8	1-1/2	31.24	81.02	45.21	93.21	57.40	33.73	19.05

* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SBFC
Bulkhead Female Connector



Connects Fractional Tubes To Male NPT Thread

Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat			A	l	l_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
				h (inch)	h_1 (inch)	H (inch)							
SBFC 2 - 2N	1/8	1/8	2.28	9/16	1/2	7/16	12.70	38.10	24.63	44.70	31.24	8.33	12.70
SBFC 4 - 2N	1/4	1/8	4.82	5/8	5/8	9/16	15.24	39.62	26.16	46.99	33.52	11.50	10.16
SBFC 4 - 4N	1/4	1/4	4.82	3/4	5/8	9/16	15.24	44.45	26.16	51.81	33.52	11.50	10.16
SBFC 6 - 4N	3/8	1/4	7.11	3/4	3/4	11/16	16.76	47.75	29.46	55.11	36.83	14.68	11.17
SBFC 8 - 6N	1/2	3/8	10.41	15/16	15/16	7/8	22.86	51.56	31.75	61.72	41.91	19.44	12.70
SBFC 8 - 8N	1/2	1/2	10.41	1-1/16	15/16	7/8	22.86	56.38	31.75	66.54	41.91	19.44	12.70
SBFC 12 - 12N	3/4	3/4	15.74	1-1/4	1-3/16	1-1/8	24.38	63.60	37.33	73.51	47.49	25.79	16.76

* ISO Tapered Threads are available upon request

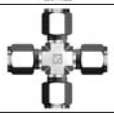
Connects Metric Tubes To Male NPT Thread

Part No.	Tube O.D. D	T * (NPT)	d Min	Width Across Flat			A	l	l_1	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
				h	h_1	H							
SBFC 6M - 2N	6	1/8	4.8	15.8	15.8	14	15.3	39.6	27.7	46.90	35.00	11.5	10.2
SBFC 6M - 4N	6	1/4	4.8	19.0	16.0	14	15.3	44.4	26.2	51.80	33.60	11.5	10.2
SBFC 8M - 4N	8	1/4	6.3	19.0	17.4	16	16.2	46.7	28.4	53.85	35.55	13.1	11.2
SBFC 12M - 8N	12	1/2	9.5	27.0	24.0	22	22.8	56.4	31.8	66.50	41.90	19.5	12.7

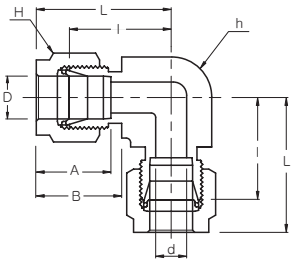
* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

Elbow & Tee

ELBOWS	
SUE Union Elbow	
SME Male Elbow	
SHME 45°Male Elbow	
SPHME 45°Positionable Male Elbow	
SPME Positionable Male Elbow	
SFE Female Elbow	
TEE	
SUT Union Tee	
SRUT Reducing Union Tee	
SMBT Male Branch Tee	
SPMBT Positionable Male Branch Tee	
SMRT Male Run Tee	
SPMRT Positionable Male Run Tee	
SFBT Female Branch Tee	
SFRT Female Run Tee	
SUC Union Cross	

SUE
Union Elbow



Connects Fractional Tubes

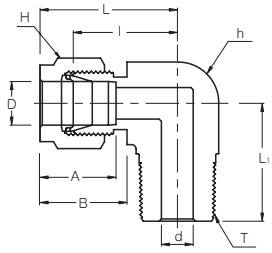
Part No.	Tube O.D. D (inch)	d Min	Width Across Flat		A	B	I	L
			h (inch)	H (inch)				
SUE - 1	1/16	1.27	3/8	5/16	8.63	10.92	14.00	18.03
SUE - 2	1/8	2.28	3/8	7/16	12.70	15.24	15.74	22.35
SUE - 3	3/16	3.04	1/2	1/2	13.71	16.00	18.54	25.14
SUE - 4	1/4	4.82	1/2	9/16	15.24	17.78	20.10	27.40
SUE - 5	5/16	6.35	5/8	5/8	16.25	18.54	22.35	29.71
SUE - 6	3/8	7.11	5/8	11/16	16.76	19.30	23.11	30.48
SUE - 8	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
SUE - 10	5/8	12.70	15/16	1	24.38	21.84	27.94	38.10
SUE - 12	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87
SUE - 14	7/8	18.28	1-3/8	1-1/4	25.90	21.84	34.54	44.70
SUE - 16	1	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02
SUE - 20	1-1/4	27.69	1-11/16	1-7/8	41.15	38.86	44.45	66.55
SUE - 24	1-1/2	34.04	2	2-1/4	50.04	45.21	50.80	77.98
SUE - 32	2	45.97	2-3/4	3	67.56	62.74	69.85	107.19

Connects Metric Tubes

Part No.	Tube O.D. D	d Min	Width Across Flat		A	B	I	L
			h	H				
SUE - 2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
SUE - 3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SUE - 4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
SUE - 6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SUE - 8M	8	6.4	15.9	16	16.2	18.6	22.4	29.9
SUE - 10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
SUE - 12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SUE - 15M	15	11.9	23.8	25	24.4	22.0	27.9	38.8
SUE - 16M	16	12.7	23.8	25	24.4	22.0	27.9	38.0
SUE - 18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
SUE - 20M	20	15.9	34.9	32	26.0	22.0	34.5	44.6
SUE - 22M	22	18.3	34.9	32	26.0	22.0	34.5	44.6
SUE - 25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1
SUE - 28M	28	21.8	41	46	36.6	36.6	43.2	64.0
SUE - 30M	30	26.2	46	50	39.6	39.2	48.3	69.9
SUE - 32M	32	28.6	46	50	42.0	41.6	49.3	72.3
SUE - 38M	38	33.7	55	60	49.4	47.9	56.4	84.0

• All dimensions in millimeters unless specified as "inch"

SME
Male Elbow

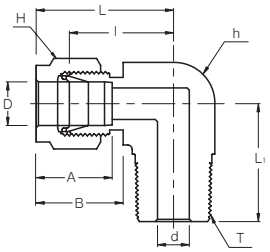


Connects Metric Tubes To Female NPT Thread

Part No.	Tube O.D. D	T (NPT)	d Min	Width Across Flat		A	B	l	L	L_1
				h	H					
SME 3M - 2N	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SME 3M - 4N	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SME 4M - 2N	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SME 4M - 4N	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
SME 6M - 2N	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SME 6M - 4N	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
SME 6M - 6N	6	3/8	4.8	15.9	14	15.3	17.7	22.4	29.8	26.2
SME 6M - 8N	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
SME 8M - 2N	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
SME 8M - 4N	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
SME 8M - 6N	8	3/8	6.4	15.9	16	16.2	18.6	23.1	30.6	26.2
SME 8M - 8N	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
SME 10M - 2N	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	21.6
SME 10M - 4N	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
SME 10M - 6N	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
SME 10M - 8N	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
SME 12M - 4N	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SME 12M - 6N	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SME 12M - 8N	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SME 12M - 12N	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
SME 16M - 6N	16	3/8	9.5	23.8	25	24.4	22.0	27.9	38.0	30.2
SME 16M - 8N	16	1/2	11.9	23.8	25	24.4	22.0	27.9	38.0	35.1
SME 16M - 12N	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
SME 18M - 8N	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
SME 18M - 12N	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
SME 20M - 8N	20	1/2	11.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME 20M - 12N	20	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME 22M - 12N	22	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME 22M - 16N	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
SME 25M - 12N	25	3/4	15.9	34.9	38	31.3	26.5	36.8	49.1	41.7
SME 25M - 16N	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5
SME 30M - 20N	30	1-1/4	26.2	46	50	39.6	39.2	48.3	69.9	53.1
SME 32M - 20N	32	1-1/4	27.8	46	50	42.0	41.6	49.3	72.3	53.1
SME 38M - 24N	38	1-1/2	33.7	55	60	49.4	47.9	56.4	84.0	60.4

• All dimensions in millimeters unless specified as "inch"

SME
Male Elbow

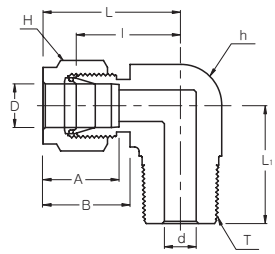


Connects Metric Tubes To Female ISO Tapered Thread

Part No.	Tube O.D. D	T R (PT)	d Min	Width Across Flat h	Width Across Flat H	A	B	l	L	L_1
SME 3M - 2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SME 3M - 4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SME 4M - 2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SME 4M - 4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
SME 6M - 2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SME 6M - 4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
SME 6M - 6R	6	3/8	4.8	15.9	14	15.3	17.7	22.4	29.8	26.2
SME 6M - 8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
SME 8M - 2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
SME 8M - 4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
SME 8M - 6R	8	3/8	6.4	15.9	16	16.2	18.6	23.1	30.6	26.2
SME 8M - 8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
SME 10M - 4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
SME 10M - 6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
SME 10M - 8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
SME 12M - 2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
SME 12M - 4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SME 12M - 6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SME 12M - 8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SME 12M - 12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
SME 16M - 6R	16	3/8	9.5	23.8	25	24.4	22.0	27.9	38.0	30.2
SME 16M - 8R	16	1/2	11.9	23.8	25	24.4	22.0	27.9	38.0	35.1
SME 18M - 8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
SME 18M - 12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
SME 20M - 8R	20	1/2	11.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME 20M - 12R	20	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME 22M - 12R	22	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
SME 22M - 16R	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
SME 25M - 12R	25	3/4	15.9	34.9	38	31.3	26.5	36.8	49.1	41.7
SME 25M - 16R	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5

• All dimensions in millimeters unless specified as "inch"

SME
Male Elbow

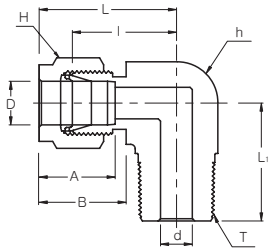


Connects Fractional Tube To Female NPT Thread

Part No.	Tube O.D. D (inch)	T (NPT)	d Min	Width Across Flat		A	B	l	L	L_1
				h (inch)	H (inch)					
SME 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.00	24.30	18.80
SME 2 - 4N	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.00	24.30	23.36
SME 3 - 2N	3/16	1/8	3.04	1/2	1/2	13.71	16.00	18.79	25.40	18.79
SME 3 - 4N	3/16	1/4	3.04	1/2	1/2	13.71	16.00	18.79	25.40	23.36
SME 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	18.79
SME 4 - 4N	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.36
SME 4 - 6N	1/4	3/8	4.82	5/8	9/16	15.24	17.78	22.35	29.71	26.16
SME 4 - 8N	1/4	1/2	4.82	13/16	9/16	15.24	17.78	24.38	31.75	33.02
SME 5 - 2N	5/16	1/8	4.82	9/16	5/8	16.25	18.54	21.33	28.70	19.81
SME 5 - 4N	5/16	1/4	6.35	9/16	5/8	16.25	18.54	21.33	28.70	24.38
SME 5 - 6N	5/16	3/8	6.35	11/16	5/8	16.25	18.54	23.11	30.48	26.16
SME 6 - 2N	3/8	1/8	4.82	5/8	11/16	16.76	19.30	23.11	30.48	20.82
SME 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.11	30.48	25.40
SME 6 - 6N	3/8	3/8	7.11	5/8	11/16	16.76	19.30	23.87	31.24	26.16
SME 6 - 8N	3/8	1/2	7.11	13/16	11/16	16.76	19.30	25.90	33.27	33.02
SME 6 - 12N	3/8	3/4	7.11	1-1/16	11/16	16.76	19.30	29.71	37.08	36.83
SME 8 - 4N	1/2	1/4	7.11	13/16	7/8	22.86	21.84	25.90	36.06	28.19
SME 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.19
SME 8 - 8N	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
SME 8 - 12N	1/2	3/4	10.41	1-1/16	7/8	22.86	21.84	29.71	39.87	36.83
SME 10 - 6N	5/8	3/8	9.65	15/16	1	24.38	21.84	27.94	38.10	30.22
SME 10 - 8N	5/8	1/2	11.93	15/16	1	24.38	21.84	27.94	38.10	35.10
SME 10 - 12N	5/8	3/4	12.70	1-1/16	1	24.38	21.84	29.71	39.87	36.83
SME 12 - 8N	3/4	1/2	11.93	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83
SME 12 - 12N	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83
SME 14 - 12N	7/8	3/4	15.74	1-3/8	1-1/4	25.90	21.84	34.54	44.70	41.65
SME 16 -1 2N	1	3/4	15.74	1-3/8	1-1/2	31.24	26.41	36.83	49.02	41.65
SME 16 - 16N	1	1	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02	46.48
SME 20 - 20N	1-1/4	1-1/4	27.69	1-11/16	1-7/8	41.15	38.86	44.45	66.55	47.75
SME 24 - 24N	1-1/2	1-1/2	34.04	2	2-1/4	50.04	45.21	50.80	77.98	60.45
SME 32 - 32N	2	2	45.97	2-3/4	3	67.56	62.74	69.85	107.19	70.61

• All dimensions in millimeters unless specified as "inch"

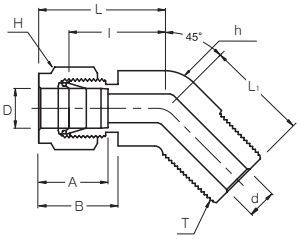
SME
Male Elbow



Connects Fractional Tubes To Female ISO Tapered Thread

Part No.	Tube O.D. D (inch)	T R (PT)	d Min	Width Across Flat		A	B	l	L	L1
				h (inch)	H (inch)					
SME 4 - 2R	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	18.79
SME 4 - 4R	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.36
SME 4 - 6R	1/4	3/8	4.82	5/8	9/16	15.24	17.78	22.35	29.71	26.16
SME 4 - 8R	1/4	1/2	4.82	13/16	9/16	15.24	17.78	24.38	31.75	33.02
SME 5 - 4R	5/16	1/4	6.35	9/16	5/8	16.25	18.54	21.33	28.70	24.38
SME 6 - 4R	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.11	30.48	25.40
SME 6 - 6R	3/8	3/8	7.11	5/8	11/16	16.76	19.30	23.87	31.24	26.16
SME 8 - 6R	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.91	36.07	28.20
SME 8 - 8R	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.91	36.07	33.02

SHME
45°Male Elbow



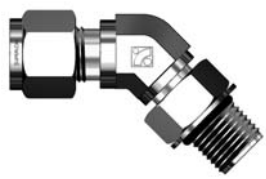
Connects Fractional Tubes To Female NPT Thread

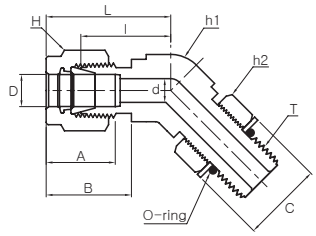
Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat		A	B	l	L	L1
				h (inch)	H (inch)					
SHME 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	17.27	24.63	16.51
SHME 4 - 4N	1/4	1/4	4.82	1/2	9/16	15.24	17.78	17.27	24.63	21.08
SHME 6 - 2N	3/8	1/8	4.82	5/8	11/16	16.76	19.30	20.57	27.94	18.28
SHME 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	20.57	27.94	22.86
SHME 6 - 6N	3/8	3/8	7.11	13/16	11/16	16.76	19.30	21.84	29.21	24.13
SHME 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	21.84	32.00	24.13
SHME 8 - 8N	1/2	1/2	10.41	13/16	7/8	22.86	21.84	21.84	32.00	28.95

* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SPHME
45° Positionable Male Elbow

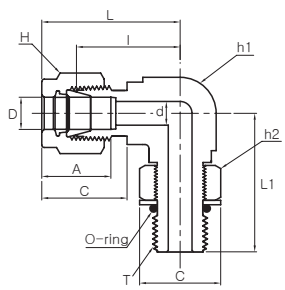




Connects Fractional Tubes To SAE/MS Straight Thread

Part No.	Tube O.D. D (inch)	T (U)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1	h2	H						
SPHME 4 - 4U	1/4	7/16-20	4.83	1/2	9/16	9/16	15.24	17.78	18.29	25.64	25.65	16.51
SPHME 6 - 6U	3/8	9/16-18	7.11	5/8	11/16	11/16	16.76	19.30	20.57	27.94	28.19	20.07
SPHME 8 - 8U	1/2	3/4-16	10.41	13/16	7/8	7/8	22.86	21.84	21.84	32.00	32.26	25.65
SPHME 12 - 12U	3/4	1-1/16-12	15.75	1-1/8	1-1/4	1-1/8	24.38	24.84	29.72	39.88	47.24	36.58
SPHME 16 - 16U	1	1-5/16-12	22.35	1-3/8	1-1/2	1-1/2	31.24	26.42	35.31	47.50	50.55	43.94

SPME
Positonable Male Elbow

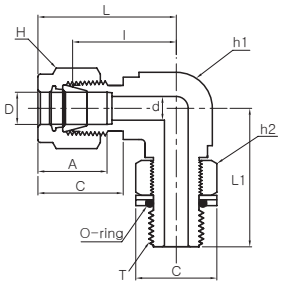


Connects Fractional Tubes To SAE/MS Straight Thread

Part No.	Tube O.D. D (inch)	T (U)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1	h2	H						
SPME 4 - 4U	1/4	7/16-20	4.83	1/2	9/16	9/16	15.24	17.78	21.08	28.45	28.45	16.51
SPME 4 - 6U	1/4	9/16-18	4.83	5/8	11/16	9/16	15.24	17.78	23.11	30.48	32.26	20.07
SPME 5 - 5U	5/16	1/2-20	5.84	9/16	5/8	5/8	16.26	18.54	22.86	30.23	29.46	18.29
SPME 6 - 6U	3/8	9/16-18	7.11	5/8	11/16	11/16	16.76	19.30	24.64	32.00	32.26	20.07
SPME 6 - 8U	3/8	3/4-16	7.11	13/16	7/8	11/16	16.76	19.30	27.43	34.80	37.85	25.65
SPME 8 - 8U	1/2	3/4-16	10.41	13/16	7/8	7/8	22.86	21.84	27.43	37.59	37.85	25.65
SPME 10 - 10U	5/8	7/8-14	12.70	15/16	1	1	24.38	21.84	29.46	39.62	43.43	29.46
SPME 12 - 12U	3/4	1-1/16-12	15.75	1-1/16	1-1/4	1-1/8	24.38	21.84	31.24	41.40	48.77	36.58
SPME 14 - 14U	7/8	3/16-12	18.29	1-3/16	1-3/8	1-1/4	25.91	21.84	33.02	43.18	50.55	40.39
SPME 16 - 16U	1	1-5/16-12	22.35	1-3/8	1-1/2	1-1/2	31.24	26.42	38.35	50.55	53.59	43.94
SPME 20 - 20U	1-1/4	1-5/8-12	27.69	1-11/16	1-7/8	1-7/8	41.15	38.86	45.72	67.82	58.17	54.86
SPME 24 - 24U	1-1/2	1-7/8-12	34.04	2	2-1/8	2-1/4	50.04	45.21	50.80	77.98	60.45	62.23
SPME 32 - 32U	2-1/2	2-1/2-12	45.97	2-3/4	2-3/4	3	67.56	62.74	69.85	107.19	71.63	80.26

• All dimensions in millimeters unless specified as "inch"

SPME
Positionable Male Elbow



Connects Fractional Tubes To Female ISO Parallel Thread

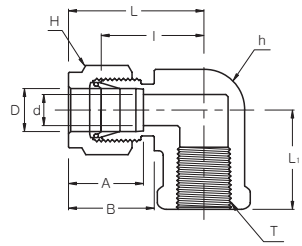
Part No.	Tube O.D. D (inch)	T (PF)	d Min	Width Across Flat			A	B	l	L	L1	C
				h1	h2	H						
SPME 4 - 2G	1/4	1/8	4.06	1/2	9/16	9/16	15.24	17.78	19.56	26.92	26.42	17.27
SPME 4 - 4G	1/4	1/4	4.83	5/8	3/4	9/16	15.24	17.78	21.59	28.96	32.26	22.86
SPME 6 - 4G	3/8	1/4	5.84	5/8	3/4	11/16	16.76	19.30	23.11	30.48	32.26	22.86
SPME 6 - 6G	3/8	3/8	7.11	13/16	7/8	11/16	16.76	19.30	25.91	33.27	37.08	26.42
SPME 8 - 4G	1/2	1/4	5.84	13/16	3/4	7/8	22.86	21.84	25.91	36.07	35.05	26.42
SPME 8 - 6G	1/2	3/8	7.87	13/16	7/8	7/8	22.86	21.84	25.91	36.07	37.08	22.86
SPME 8 - 8G	1/2	1/2	10.41	15/16	1-1/16	7/8	22.86	21.84	27.94	38.10	43.43	26.42
SPME 10 - 8G	5/8	1/2	11.94	15/16	1-1/16	1	24.38	21.84	27.94	38.10	43.43	32.00
SPME 12 - 8G	3/4	1/2	11.94	1-1/16	1-1/16	1-1/8	24.38	21.84	29.72	39.88	45.21	32.00
SPME 12 - 12G	3/4	3/4	15.75	1-1/16	1-3/8	1-1/8	24.38	21.84	29.72	39.88	48.77	41.15
SPME 16 - 12G	1	3/4	15.75	1-3/8	1-3/8	1-1/2	31.24	26.42	36.83	49.02	53.34	41.15
SPME 16 - 16G	1	1	19.81	1-3/8	1-3/8	1-1/2	31.24	26.42	36.83	49.02	53.59	48.51

Connects Metric Tubes To Female ISO Parallel Thread

Part No.	Tube O.D. D (inch)	T (PF)	d Min	Width Across Flat			A	B	l	L	L1	C
				h1	h2	H						
SPME 6M - 2G	6	1/8	4.0	1/2	9/16	14	15.3	17.7	19.6	27.0	26.4	17.3
SPME 6M - 4G	6	1/4	4.8	5/8	3/4	14	15.3	17.7	21.6	29.0	32.3	22.9
SPME 8M - 2G	8	1/8	4.0	9/16	9/16	16	16.2	18.6	21.3	28.8	27.4	17.3
SPME 8M - 4G	8	1/4	5.9	5/8	3/4	16	16.2	18.6	22.4	29.9	32.2	22.9
SPME 10M - 4G	10	1/4	5.9	13/16	3/4	19	17.2	19.5	25.9	33.5	35.0	22.9
SPME 10M - 6G	10	3/8	7.9	13/16	7/8	19	17.2	19.5	25.9	33.5	37.1	26.4
SPME 12M - 4G	12	1/4	5.9	13/16	3/4	22	22.8	22.0	25.9	36.0	35.0	22.9
SPME 12M - 6G	12	3/8	7.9	13/16	7/8	22	22.8	22.0	25.9	36.0	37.1	26.4
SPME 12M - 8G	12	1/2	9.5	15/16	1-1/16	22	22.8	22.0	27.9	38.0	43.4	32.0
SPME 12M - 12G	12	3/4	9.5	1-1/16	1-3/8	22	22.8	22.0	29.7	39.8	48.8	41.1

• All dimensions in millimeters unless specified as "inch"

SFE
Female Elbow



Connects Fractional Tubes To Male NPT Thread

Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat		A	B	l	L	L_1
				h (inch)	H (inch)					
SFE 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.03	24.63	19.05
SFE 2 - 4N	1/8	1/4	2.28	11/16	7/16	12.70	15.24	20.82	27.43	22.35
SFE 3 - 2N	3/16	1/8	3.04	1/2	1/2	13.71	16.00	18.79	25.40	19.05
SFE 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	19.05
SFE 4 - 4N	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	22.35
SFE 4 - 6N	1/4	3/8	4.82	13/16	9/16	15.24	17.78	24.38	31.75	22.35
SFE 4 - 8N	1/4	1/2	4.82	1	9/16	15.24	17.78	27.17	34.54	28.44
SFE 5 - 2N	5/16	1/8	6.35	9/16	5/8	16.25	18.54	21.33	28.70	19.05
SFE 5 - 4N	5/16	1/4	6.35	11/16	5/8	16.25	18.54	23.11	30.48	22.35
SFE 6 - 2N	3/8	1/8	7.11	5/8	11/16	16.76	19.30	23.11	30.48	19.05
SFE 6 - 4N	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.87	31.24	22.35
SFE 6 - 6N	3/8	3/8	7.11	13/16	11/16	16.76	19.30	25.90	33.27	22.35
SFE 6 - 8N	3/8	1/2	7.11	1	11/16	16.76	19.30	28.70	36.06	28.44
SFE 8 - 4N	1/2	1/4	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFE 8 - 6N	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFE 8 - 8N	1/2	1/2	10.41	1	7/8	22.86	21.84	28.70	38.86	37.00
SFE 10 - 6N	5/8	3/8	12.70	15/16	1	24.38	21.84	27.94	38.10	22.35
SFE 10 - 8N	5/8	1/2	12.70	1-1/16	1	24.38	21.84	29.71	39.87	28.44
SFE 12 - 8N	3/4	1/2	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	28.44
SFE 12 - 12N	3/4	3/4	15.74	1-3/8	1-1/8	24.38	21.84	34.54	44.70	31.75
SFE 14 - 12N	7/8	3/4	18.28	1-3/8	1-1/4	25.90	21.84	34.54	44.70	31.75
SFE 16 - 12N	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02	31.75
SFE 16 - 16N	1	1	22.35	1-11/16	1-1/2	31.24	26.41	41.40	53.59	38.10

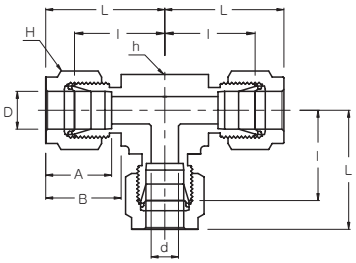
Connects Metric Tubes To Male NPT Thread

Part No.	Tube O.D. D	T * (NPT)	d Min	Width Across Flat		A	B	l	L	L_1
				h	H					
SFE 6M - 4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
SFE 6M - 6N	6	3/8	4.8	20.63	14	15.3	17.7	24.4	31.7	22.40
SFE 6M - 8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.6	28.40
SFE 8M - 4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
SFE 8M - 8N	8	1/2	6.4	20.63	16	16.2	18.6	28.0	35.2	28.40
SFE 10M - 4N	10	1/4	7.9	17.46	19	17.2	19.5	25.9	33.5	22.40
SFE 10M - 6N	10	3/8	7.9	20.63	19	17.2	19.5	25.9	33.5	22.40
SFE 10M - 8N	10	1/2	7.9	25.40	19	17.2	19.5	28.7	36.1	28.40
SFE 12M - 6N	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.2	22.35
SFE 12M - 8N	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	28.40

* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SUT
Union Tee



Connects Fractional Tubes

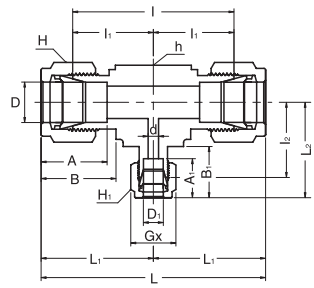
Part No.	Tube O.D. D (inch)	d Min	Width Across Flat		A	B	l	L
			h (inch)	H (inch)				
SUT - 1	1/16	1.27	3/8	5/16	8.63	10.92	14.00	18.03
SUT - 2	1/8	2.28	3/8	7/16	12.70	15.24	15.80	22.35
SUT - 3	3/16	3.04	1/2	1/2	13.71	16.00	18.54	25.14
SUT - 4	1/4	4.82	1/2	9/16	15.24	17.78	20.10	27.40
SUT - 5	5/16	6.35	5/8	5/8	16.25	18.54	22.35	29.71
SUT - 6	3/8	7.11	5/8	11/16	16.76	19.30	23.11	30.48
SUT - 8	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
SUT - 10	5/8	12.70	1	1	24.38	21.84	28.70	38.86
SUT - 12	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87
SUT - 14	7/8	18.28	1-3/8	1-1/4	25.90	21.84	34.54	44.70
SUT - 16	1	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02
SUT - 20	1-1/4	27.69	1-11/16	1-7/8	41.15	38.86	44.45	66.55
SUT - 24	1-1/2	34.04	2	2-1/4	50.04	45.21	50.80	77.98
SUT - 32	2	45.97	2-3/4	3	67.56	62.74	69.85	107.19

Connects Metric Tubes

Part No.	Tube O.D. D	d Min	Width Across Flat		A	B	l	L
			h	H				
SUT - 2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
SUT - 3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SUT - 4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
SUT - 6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SUT - 8M	8	6.4	15.9	16	16.2	18.6	22.4	29.9
SUT - 10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
SUT - 12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SUT - 15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
SUT - 16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
SUT - 18M	18	15.1	27.0	30	24.4	22.0	29.7	38.8
SUT - 20M	20	15.9	34.9	32	26.0	22.0	34.5	44.6
SUT - 22M	22	18.3	34.9	32	26.0	22.0	34.5	44.6
SUT - 25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1
SUT - 28M	28	21.8	41	46	36.6	36.6	43.2	64.0
SUT - 30M	30	26.2	46	50	39.6	39.2	48.3	69.9
SUT - 32M	32	28.6	46	50	42.0	41.6	49.3	72.3
SUT - 38M	38	33.7	55	60	49.4	47.9	56.4	84.0

• All dimensions in millimeters unless specified as "inch"

SRUT
Reducing Union Tee

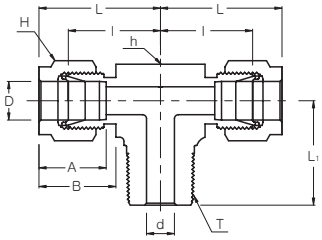


Connects Fractional Tubes

Part No.	Tube O.D.		d Min	Width Across Flat			A	A1	B	B1	l	l1	l2	L	L1	L2
	D (inch)	D1 (inch)		h (inch)	H (inch)	H1 (inch)										
SRUT 6 - 6 -	4 3/8	1/4	4.82	5/8	11/16	9/16	16.76	15.24	19.30	17.78	46.22	23.11	21.59	60.96	30.48	28.95
SRUT 8 - 8 -	4 1/2	1/4	4.82	13/16	7/8	9/16	22.86	15.24	21.84	17.78	51.81	25.90	24.38	72.13	36.06	31.75
SRUT 8 - 8 -	6 1/2	3/8	7.11	13/16	7/8	11/16	22.86	16.76	21.84	19.30	51.81	25.90	25.90	72.13	36.06	33.27
SRUT 10 -10 -	6 5/8	3/8	7.11	1	1	11/16	24.38	16.76	21.84	19.30	57.40	28.70	28.70	77.72	38.86	36.06
SRUT 12 -12 -	6 3/4	3/8	7.11	1 1/16	1 1/8	11/16	24.38	16.76	21.84	19.30	59.43	29.71	29.71	79.75	39.87	37.08
SRUT 12 -12 -	8 3/4	1/2	10.41	1 1/16	1 1/8	7/8	24.38	22.86	21.84	21.84	59.43	29.71	29.71	79.75	39.87	39.87
SRUT 16 -16 -	6 1	3/8	7.11	1 3/8	1 1/2	1 1/16	31.24	16.76	26.41	19.30	73.66	36.83	34.54	98.04	49.02	41.91
SRUT 16 -16-	8 1	1/2	10.41	1 3/8	1 1/2	7/8	31.24	21.84	26.41	22.86	73.66	36.83	34.54	98.04	49.02	44.70
SRUT 16 -16 -12	1	3/4	15.74	1 3/8	1 1/2	1 1/8	31.24	24.38	26.41	21.84	73.66	36.83	34.54	98.04	49.02	44.70

• All dimensions in millimeters unless specified as "inch"

SMBT
Male Branch Tee



Connects Fractional Tubes To Female NPT Thread

Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat		A	B	l	L	L_1
				h (inch)	H (inch)					
SMBT 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.30	24.91	18.90
SMBT 2 - 4N	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.03	24.63	23.36
SMBT 3 - 2N	3/16	1/8	3.04	1/2	1/2	13.71	16.00	17.78	25.40	18.79
SMBT 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	18.79
SMBT 4 - 4N	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.36
SMBT 5 - 2N	5/16	1/8	4.82	5/8	5/8	16.25	18.54	22.35	29.71	20.82
SMBT 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.11	30.48	25.40
SMBT 6 - 6N	3/8	3/8	7.11	5/8	11/16	16.76	19.30	23.10	30.48	28.19
SMBT 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.19
SMBT 8 - 8N	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
SMBT 10 - 8N	5/8	1/2	11.93	1	1	24.38	21.84	28.70	38.86	35.81
SMBT 12 - 12N	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83

* ISO Tapered Threads are available upon request

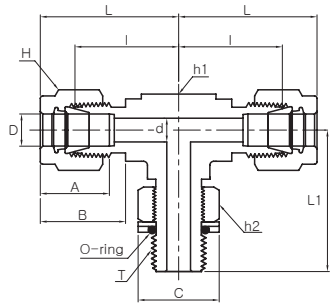
Connects Metric Tubes To Female ISO Tapered Thread

Part No.	Tube O.D. D	T * R (PT)	d Min	Width Across Flat		A	B	l	L	L_1
				h	H					
SMBT 3M - 2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SMBT 3M - 4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SMBT 4M - 2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SMBT 6M - 2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SMBT 6M - 4R	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
SMBT 8M - 2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
SMBT 8M - 4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
SMBT 10M - 4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
SMBT 10M - 6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	28.2
SMBT 12M - 4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SMBT 12M - 6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SMBT 12M - 8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SMBT 16M - 6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
SMBT 16M - 8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
SMBT 20M - 12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7

* NPT Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SPMBT
Positionable Male Branch Tee



Connects Fractional Tubes To Female ISO Parallel Thread

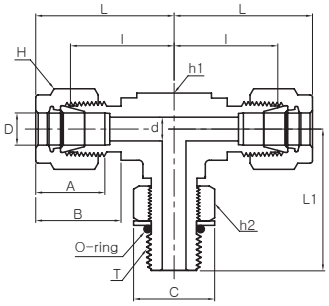
Part No.	Tube O.D. D (inch)	T (PF)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1	h2	H						
SPMBT 4 - 2G	1/4	1/8	4.06	1/2	9/16	9/16	15.24	17.78	19.56	26.92	26.42	17.27
SPMBT 4 - 4G	1/4	1/4	4.83	5/8	3/4	9/16	15.24	17.78	21.59	28.96	32.26	22.86
SPMBT 6 - 4G	3/8	1/4	5.08	5/8	3/4	11/16	15.24	19.30	23.11	30.48	32.26	22.86
SPMBT 8 - 6G	3/8	3/8	7.87	13/16	7/8	7/8	22.86	21.84	25.91	36.07	37.08	26.42
SPMBT 8 - 8G	1/2	1/2	10.41	15/16	1-1/16	7/8	22.86	21.84	27.94	38.10	43.43	32.00
SPMBT 10 - 8G	5/8	1/2	11.94	15/16	1-1/16	1	24.38	21.84	27.94	38.10	43.43	32.00
SPMBT 12 - 8G	3/4	1/2	11.94	1-1/16	1-1/16	1-1/8	24.38	21.84	29.72	39.88	45.21	32.00
SPMBT 12 - 12G	3/4	3/4	15.75	1-1/16	1-3/8	1-1/8	24.38	21.84	29.72	39.88	48.77	41.15
SPMBT 16 - 16G	1	1	19.81	1-3/8	1-5/8	1-1/2	31.24	26.42	36.83	49.02	53.59	48.51

Connects Metric Tubes To Female ISO Parallel Thread

Part No.	Tube O.D. D (inch)	T (PF)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1	h2	H						
SPMBT 6M - 2G	6	1/8	4.0	1/2	9/16	14	15.3	17.7	19.6	27.0	26.4	17.3
SPMBT 6M - 4G	6	1/4	4.8	5/8	3/4	14	15.3	17.7	21.6	29.0	32.3	22.9
SPMBT 8M - 2G	8	1/8	4.0	9/16	9/16	16	16.2	18.6	21.3	28.8	27.4	17.3
SPMBT 8M - 4G	8	1/4	5.9	5/8	3/4	16	16.2	18.6	22.4	29.9	32.2	22.9
SPMBT 10M - 4G	10	1/4	5.9	13/16	3/4	19	17.2	19.5	25.9	33.5	35.0	22.9
SPMBT 12M - 6G	10	3/8	7.9	13/16	7/8	22	22.8	22.0	25.9	36.0	37.1	26.4
SPMBT 12M - 8G	12	1/4	9.5	15/16	1-1/16	22	22.8	22.0	27.9	38.0	35.0	32.0

• All dimensions in millimeters unless specified as "inch"

SPMBT
Positionable Male Branch Tee

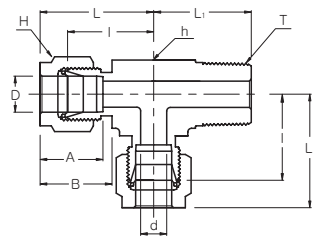


Connects Fractional Tubes To SAE/MS Straight Thread Boss

Part No.	Tube O.D. D (inch)	T (U)	d Min	Width Across Flat			A	B	l	L	L1	C
				h1	h2	H						
SPMBT 4 - 4U	1/4	7/16-20	4.83	1/2	9/16	9/16	15.24	17.78	21.08	28.45	28.45	16.51
SPMBT 6 - 6U	3/8	9/16-18	7.11	5/8	11/16	11/16	16.76	19.30	24.64	32.00	32.26	20.07
SPMBT 8 - 8U	1/2	3/4-16	10.41	13/16	7/8	7/8	22.86	21.84	27.43	37.59	37.85	25.65
SPMBT 12 - 12U	3/4	1-1/16-12	15.75	1-1/16	1-1/4	1-1/8	24.38	21.84	31.24	41.40	48.77	36.58
SPMBT 16 - 16U	1	1-5/16-12	22.35	1-3/8	1-1/2	1-1/2	31.24	26.42	38.35	50.55	53.59	43.94
SPMBT 20 - 20U	1-1/4	1-5/8-12	27.69	1-11/16	1-7/8	1-7/8	41.15	38.86	45.72	67.82	58.17	54.86
SPMBT 24 - 24U	1-1/2	1-7/8-12	34.04	2	2-1/8	2-1/4	50.04	45.21	50.80	77.98	60.45	62.23
SPMBT 32 - 32U	2	2-1/2-12	45.97	2-3/4	2-3/4	3	67.56	62.74	69.85	107.19	71.63	80.26

• All dimensions in millimeters unless specified as "inch"

SMRT
Male Run Tee



Connects Fractional Tubes To Female NPT Thread

Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat		A	B	I	L	L_1
				h (inch)	H (inch)					
SMRT 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.30	24.91	18.90
SMRT 2 - 4N	1/8	1/4	2.28	1/2	7/16	12.70	15.24	18.03	24.63	23.36
SMRT 3 - 2N	3/16	1/8	3.04	1/2	1/2	13.71	16.00	17.78	25.40	18.79
SMRT 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	18.79
SMRT 4 - 4N	1/4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92	23.36
SMRT 5 - 2N	5/16	1/8	4.82	5/8	5/8	16.25	18.54	22.35	29.71	20.82
SMRT 6 - 4N	3/8	1/4	7.11	5/8	11/16	16.76	19.30	23.11	30.48	25.40
SMRT 6 - 6N	3/8	3/8	7.11	5/8	11/16	16.76	19.30	23.10	30.48	28.19
SMRT 8 - 6N	1/2	3/8	9.65	13/16	7/8	22.86	21.84	25.90	36.06	28.19
SMRT 8 - 8N	1/2	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06	33.02
SMRT 10 - 8N	5/8	1/2	11.93	1	1	24.38	21.84	28.70	38.86	35.81
SMRT 12 - 12N	3/4	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87	36.83

* ISO Tapered Threads are available upon request

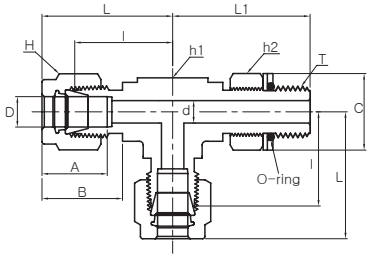
Connects Metric Tubes To Female ISO Tapered Thread

Part No.	Tube O.D. D	T * R (PT)	d Min	Width Across Flat		A	B	I	L	L_1
				h	H					
SMRT 3M - 2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
SMRT 3M - 4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
SMRT 4M - 2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
SMRT 6M - 2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
SMRT 6M - 4R	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
SMRT 8M - 2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
SMRT 8M - 4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
SMRT 10M - 4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
SMRT 10M - 6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	28.2
SMRT 12M - 4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
SMRT 12M - 6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
SMRT 12M - 8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
SMRT 16M - 6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
SMRT 16M - 8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
SMRT 20M - 12R	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7

* NPT Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SPMRT
Positionable Male Run Tee



Connects Fractional Tubes To Female ISO Parallel Thread

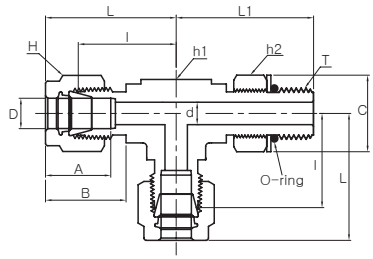
Part No.	Tube O.D. D (inch)	T (PF)	d Min	Width Across Flat			A	B	l	L	L1	C
				h1	h2	H						
SPMRT 4 - 2G	1/4	1/8	4.06	1/2	9/16	9/16	15.24	17.78	19.56	26.92	26.42	17.27
SPMRT 4 - 4G	1/4	1/4	4.83	5/8	3/4	9/16	15.24	17.78	21.59	28.96	32.26	22.86
SPMRT 6 - 4G	3/8	1/4	5.84	5/8	3/4	11/16	16.76	19.30	21.11	30.48	32.26	22.86
SPMRT 8 - 6G	1/4	3/8	7.87	13/16	7/8	7/8	22.86	21.84	25.91	36.07	37.08	26.42
SPMRT 8 - 8G	3/8	1/2	10.41	15/16	1-1/16	7/8	22.86	21.84	27.94	38.10	43.43	32.00
SPMRT 10 - 8G	1/2	1/2	11.94	15/16	1-1/16	1	24.38	21.84	27.94	38.10	43.43	32.00
SPMRT 12 - 8G	3/4	1/2	11.94	1-1/16	1-1/16	1-1/8	24.38	21.84	29.72	39.88	45.21	32.00
SPMRT 12 - 12G	3/4	3/4	15.75	1-1/16	1-3/8	1-1/8	24.38	21.84	29.72	39.88	48.77	41.15
SPMRT 16 - 16G	1	1	19.81	1-3/8	1-5/8	1-1/2	31.24	26.42	36.83	49.02	53.59	48.51

Connects Metric Tubes To Female ISO Parallel Thread

Part No.	Tube O.D. D (inch)	T (PF)	d Min	Width Across Flat			A	B	l	L	L1	C
				h1	h2	H						
SPMRT 6M - 2G	6	1/8	4.0	1/2	9/16	14	15.3	17.7	19.6	27.0	26.4	17.3
SPMRT 6M - 4G	6	1/4	4.8	5/8	3/4	14	15.3	17.7	21.6	29.0	32.2	22.9
SPMRT 8M - 2G	8	1/8	4.0	9/16	9/16	16	16.2	18.6	21.3	28.8	27.4	17.3
SPMRT 8M - 4G	8	1/4	6.4	5/8	3/4	16	16.2	18.6	22.4	29.9	32.2	22.9
SPMRT 10M - 4G	10	1/4	5.9	13/16	3/4	19	17.2	19.5	25.9	33.5	35.0	22.9
SPMRT 12M - 6G	10	3/8	7.9	13/16	7/8	22	22.8	22.0	25.9	36.0	37.1	26.4
SPMRT 12M - 8G	12	1/2	9.5	15/16	1-1/16	22	22.8	22.0	27.9	38.0	43.4	22.9

• All dimensions in millimeters unless specified as "inch"

SPMRT
Positionable Male Run Tee

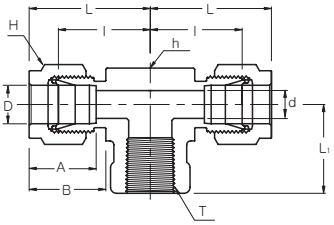


Connects Fractional Tubes To SAE/MS Straight Thread

Part No.	Tube O.D. D (inch)	T (U)	d Min	Width Across Flat			A	B	I	L	L1	C
				h1	h2	H						
SPMRT 4 - 4U	1/4	7/16-20	4.83	1/2	9/16	9/16	15.24	17.78	21.08	28.45	28.45	16.51
SPMRT 6 - 6U	3/8	9/16-18	7.11	5/8	11/16	11/16	16.76	19.30	24.64	32.00	32.26	20.07
SPMRT 8 - 8U	1/2	3/4-16	10.41	13/16	7/8	7/8	22.86	21.84	27.43	37.59	37.85	25.65
SPMRT 12 - 12U	3/4	1-1/16-12	15.75	1-1/16	1-1/4	1-1/8	24.38	21.84	31.24	41.40	48.77	36.58
SPMRT 16 - 16U	1	1-5/16-12	22.35	1-3/8	1-1/2	1-1/2	31.24	26.42	38.35	50.55	53.59	43.94
SPMRT 20 - 20U	1-1/4	1-5/8-12	27.69	1-11/16	1-7/8	1-7/8	41.15	38.86	45.72	67.82	58.17	54.86
SPMRT 24 - 24U	1-1/2	1-7/8-12	34.04	2	2-1/8	2-1/4	50.04	45.21	50.80	77.98	60.45	62.23
SPMRT 32 - 32U	2	2-1/2-12	45.97	2-3/4	2-3/4	3	67.56	62.74	69.85	107.19	71.63	80.26

• All dimensions in millimeters unless specified as "inch"

SFBT
Female Branch Tee



Connects Fractional Tubes To Male NPT Thread

Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat		A	B	l	L	L_1
				h (inch)	H (inch)					
SFBT 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.03	24.63	19.05
SFBT 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	19.05
SFBT 4 - 4N	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	22.35
SFBT 6 - 4N	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.87	31.24	22.35
SFBT 6 - 6N	3/8	3/8	7.11	13/16	11/16	16.76	19.30	25.90	33.27	22.35
SFBT 6 - 8N	3/8	1/2	7.11	1	11/16	16.76	19.30	28.70	36.07	28.45
SFBT 8 - 4N	1/2	1/4	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFBT 8 - 6N	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFBT 8 - 8N	1/2	1/2	10.41	1	7/8	22.86	21.84	28.70	38.86	28.44
SFBT 10 - 8N	5/8	1/2	12.70	1	1	24.38	21.84	28.70	38.86	28.44
SFBT 12 - 12N	3/4	3/4	15.74	1-3/8	1-1/8	24.38	21.84	34.54	44.70	31.75
SFBT 16 - 12N	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02	31.75
SFBT 16 - 16N	1	1	22.35	1-11/16	1-1/2	31.24	26.41	41.40	53.59	38.10

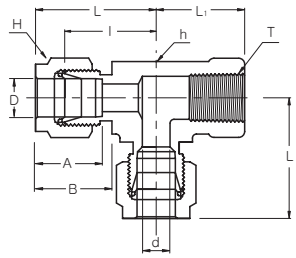
Connects Metric Tubes To Male NPT Thread

Part No.	Tube O.D. D	T * (NPT)	d Min	Width Across Flat		A	B	l	L	L_1
				h	H					
SFBT 6M - 2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.0
SFBT 6M - 4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.4
SFBT 6M - 6N	6	3/8	4.8	20.63	14	15.3	17.7	24.4	31.7	22.4
SFBT 6M - 8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.4
SFBT 8M - 2N	8	1/8	6.4	15.87	16	16.2	18.6	22.4	29.9	19.0
SFBT 8M - 4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.4
SFBT 8M - 6N	8	3/8	6.4	20.63	16	16.2	18.6	25.2	32.4	22.4
SFBT 8M - 8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.4
SFBT 10M - 4N	10	1/4	7.9	20.63	19	17.2	19.5	25.9	33.5	22.4
SFBT 10M - 6N	10	3/8	7.9	20.63	19	17.2	19.5	25.9	33.3	22.4
SFBT 10M - 8N	10	1/2	9.5	25.40	19	17.2	19.5	26.2	33.6	22.4
SFBT 12M - 4N	12	1/4	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
SFBT 12M - 6N	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
SFBT 12M - 8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.4
SFBT 16M - 8N	16	1/2	12.7	25.40	25	24.4	22.0	28.7	38.8	28.4

* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SFRT
Female Run Tee



Connects Fractional Tubes To Male NPT Thread

Part No.	Tube O.D. D (inch)	T * (NPT)	d Min	Width Across Flat		A	B	I	L	L_1
				h (inch)	H (inch)					
SFRT 2 - 2N	1/8	1/8	2.28	1/2	7/16	12.70	15.24	18.03	24.63	19.05
SFRT 4 - 2N	1/4	1/8	4.82	1/2	9/16	15.24	17.78	19.55	26.92	19.05
SFRT 4 - 4N	1/4	1/4	4.82	11/16	9/16	15.24	17.78	22.35	29.71	22.35
SFRT 6 - 4N	3/8	1/4	7.11	11/16	11/16	16.76	19.30	23.87	31.24	22.35
SFRT 8 - 6N	1/2	3/8	10.41	13/16	7/8	22.86	21.84	25.90	36.06	22.35
SFRT 8 - 8N	1/2	1/2	10.41	1	7/8	22.86	21.84	28.70	39.87	28.44
SFRT 12 - 12N	3/4	3/4	15.74	1-3/8	1-1/8	24.38	21.84	34.54	44.70	31.75
SFRT 16 - 12N	1	3/4	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02	31.75
SFRT 16 - 16N	1	1	22.35	1-11/16	1-1/2	31.24	26.41	41.40	53.59	38.10

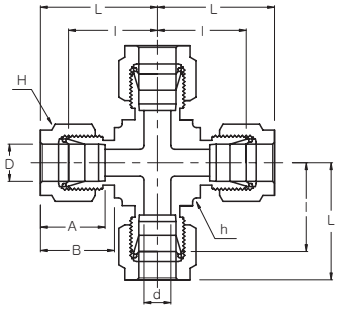
Connects Metric Tubes To Male NPT Thread

Part No.	Tube O.D. D	T * (NPT)	d Min	Width Across Flat		A	B	I	L	L_1
				h	H					
SFRT 6M - 2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.0
SFRT 6M - 4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.4
SFRT 6M - 8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.4
SFRT 8M - 2N	8	1/8	6.4	15.87	16	16.2	18.6	22.4	29.9	19.0
SFRT 8M - 4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.4
SFRT 8M - 6N	8	3/8	6.4	20.63	16	16.2	18.6	25.2	32.4	22.4
SFRT 8M - 8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.4
SFRT 12M - 4N	12	1/4	9.5	20.63	22	22.8	22.0	25.9	33.5	22.4
SFRT 12M - 6N	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.0	22.4
SFRT 12M - 8N	12	1/2	9.5	26.98	22	22.8	22.0	29.7	40.0	28.4
SFRT 16M - 8N	16	1/2	12.7	25.40	25	24.4	22.0	29.7	39.8	28.4

* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SUC
Union Cross



Connects Fractional Tubes

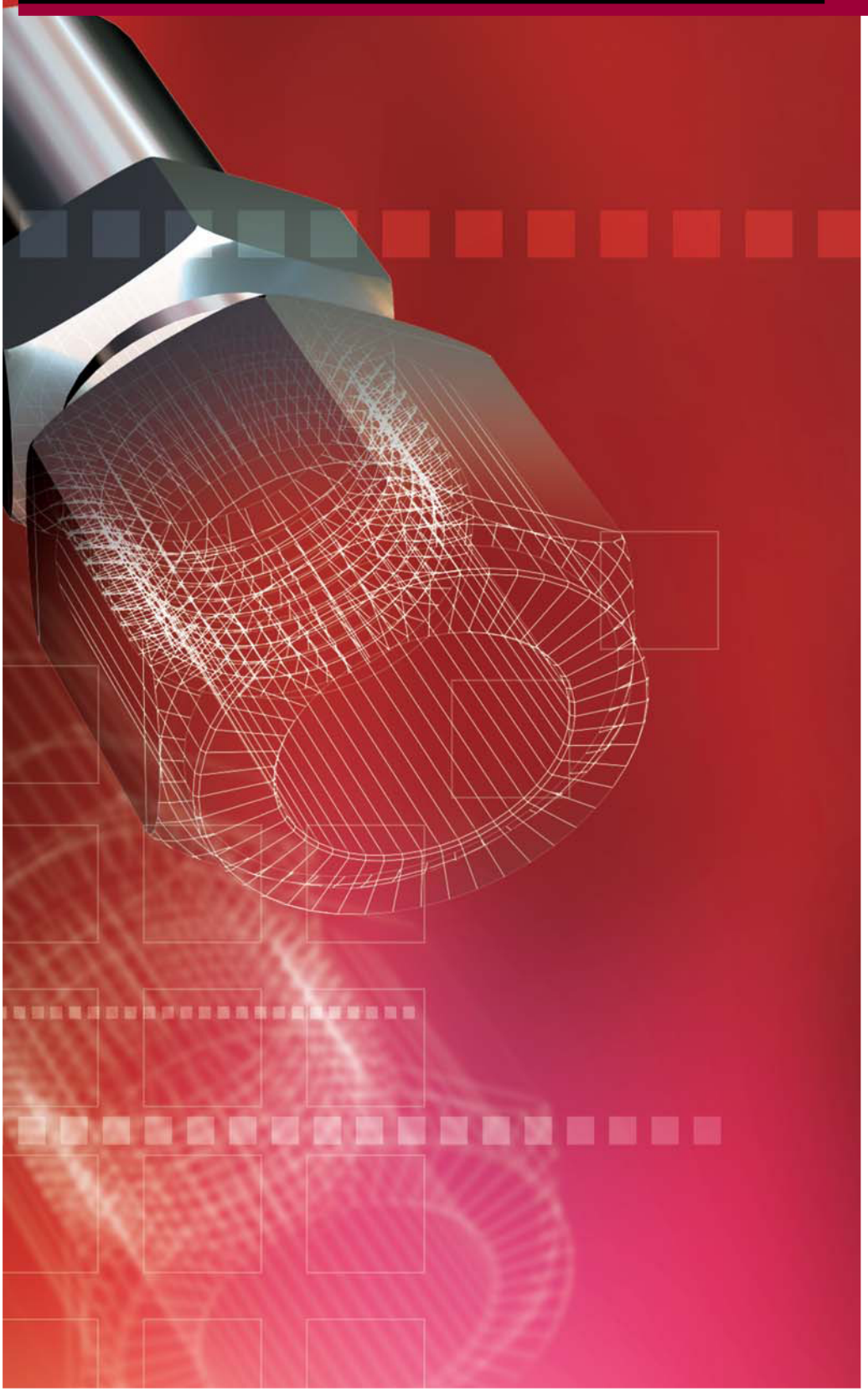
Part No.	Tube O.D. D (inch)	d Min	Width Across Flat		A	B	l	L
			h (inch)	H (inch)				
SUC - 1	1/16	1.27	3/8	5/16	8.63	10.92	14.00	18.03
SUC - 2	1/8	2.28	3/8	7/16	12.70	15.24	15.74	22.35
SUC - 3	3/16	3.04	1/2	1/2	13.71	16.00	18.54	25.14
SUC - 4	1/4	4.82	1/2	9/16	15.24	17.78	19.55	26.92
SUC - 5	5/16	6.35	5/8	5/8	16.25	18.54	22.35	29.71
SUC - 6	3/8	7.11	5/8	11/16	16.76	19.30	23.11	30.48
SUC - 8	1/2	10.41	13/16	7/8	22.86	21.84	25.90	36.06
SUC - 10	5/8	12.70	15/16	1	24.38	21.84	28.70	38.80
SUC - 12	3/4	15.74	1-1/16	1-1/8	24.38	21.84	29.71	39.87
SUC - 14	7/8	18.28	1-3/8	1-1/4	25.90	21.84	34.54	44.70
SUC - 16	1	22.35	1-3/8	1-1/2	31.24	26.41	36.83	49.02

Connects Metric Tubes

Part No.	Tube O.D. D	d Min	Width Across Flat		A	B	l	L
			h	H				
SUC - 3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
SUC - 6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
SUC - 8M	8	6.4	15.9	16	16.2	18.6	22.4	29.9
SUC - 10M	10	7.9	20.6	19	17.2	19.5	25.9	33.5
SUC - 12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
SUC - 16M	16	12.7	23.8	25	24.4	22.0	26.9	37.0
SUC - 18M	18	15.1	27.0	30	24.4	22.0	28.2	38.3
SUC - 20M	20	15.9	34.9	32	26.0	22.0	34.5	44.6
SUC - 25M	25	21.8	34.9	38	31.3	26.5	36.8	49.1

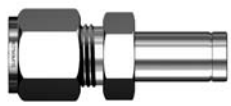
• All dimensions in millimeters unless specified as "inch"

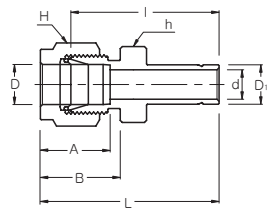
Stub Tube Connector, An Tube & O-Ring Seal



STUB TUBE CONNECTOR	
SR Reducer	
SBR Bulkhead Reducer	
SMA Male Adapter	
SFA Female Adapter	
SPC Port Connector	
SRPC Reducing Port Connector	
SFTC Flange Lapped Tubes Connector	
AN TUBE	
SAF An Flare	
SAU An Union	
SAA An Adapter	
O-RING SEAL	
SOSC O-Seal Straight Thread Connector	
SOPC O-Seal Pipe Thread Connector	
SSMC SAE/MS Male Connector	

SR
Reducer





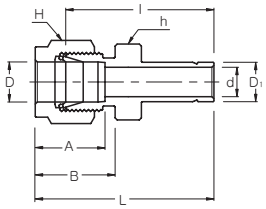
Connects Fractional Tubes To Fractional SUPERLOK Port

Part No.	Tube O.D.		d Min	Width Across Flat		A	B	l	L
	D (inch)	D_1 (inch)		h (inch)	H (inch)				
SR 2 - 1	1/8	1/16	0.76	7/16	7/16	12.70	15.24	22.35	28.95
SR 2 - 2	1/8	1/8	2.03	7/16	7/16	12.70	15.24	26.92	33.52
SR 2 - 3	1/8	3/16	2.28	7/16	7/16	12.70	15.24	27.68	34.29
SR 2 - 4	1/8	1/4	2.28	7/16	7/16	12.70	15.24	29.46	36.06
SR 2 - 6	1/8	3/8	2.28	7/16	7/16	12.70	15.24	30.98	37.59
SR 2 - 8	1/8	1/2	2.28	9/16	7/16	12.70	15.24	37.59	44.19
SR 3 - 2	3/16	1/8	2.03	7/16	1/2	13.71	16.00	28.19	34.79
SR 3 - 4	3/16	1/4	3.04	7/16	1/2	13.71	16.00	30.48	37.08
SR 4 - 2	1/4	1/8	2.03	1/2	9/16	15.24	17.78	29.46	36.83
SR 4 - 3	1/4	3/16	3.04	1/2	9/16	15.24	17.78	30.22	37.59
SR 4 - 4	1/4	1/4	4.82	1/2	9/16	15.24	17.78	31.75	39.11
SR 4 - 5	1/4	5/16	4.82	1/2	9/16	15.24	17.78	32.51	39.87
SR 4 - 6	1/4	3/8	4.82	1/2	9/16	15.24	17.78	33.27	40.64
SR 4 - 8	1/4	1/2	4.82	9/16	9/16	15.24	17.78	38.86	46.22
SR 4 - 10	1/4	5/8	4.82	11/16	9/16	15.24	17.78	40.64	48.00
SR 4 - 12	1/4	3/4	4.82	13/16	9/16	15.24	17.78	41.40	47.75
SR 5 - 6	5/16	3/8	6.35	9/16	5/8	16.25	18.54	34.54	41.91
SR 5 - 8	5/16	1/2	6.35	9/16	5/8	16.25	18.54	40.13	47.49
SR 6 - 4	3/8	1/4	4.82	5/8	11/16	16.76	19.30	34.03	41.40
SR 6 - 6	3/8	3/8	7.11	5/8	11/16	16.76	19.30	35.81	43.18
SR 6 - 8	3/8	1/2	7.11	5/8	11/16	16.76	19.30	41.14	48.51
SR 6 - 10	3/8	5/8	7.11	11/16	11/16	16.76	19.30	42.92	50.29
SR 6 - 12	3/8	3/4	7.11	13/16	11/16	16.76	19.30	42.92	50.29
SR 8 - 4	1/2	1/4	4.82	13/16	7/8	22.86	21.84	34.79	44.95
SR 8 - 6	1/2	3/8	7.11	13/16	7/8	22.86	21.84	36.57	46.73
SR 8 - 8	1/2	1/2	9.90	13/16	7/8	22.86	21.84	42.16	52.32
SR 8 - 10	1/2	5/8	10.41	13/16	7/8	22.86	21.84	43.68	53.84
SR 8 - 12	1/2	3/4	10.41	13/16	7/8	22.86	21.84	43.68	53.84
SR 8 - 16	1/2	1	10.41	1-1/16	7/8	22.86	21.84	50.03	60.19
SR 10 - 12	5/8	3/4	12.70	15/16	1	24.38	21.84	44.45	54.61
SR 10 - 14	5/8	7/8	12.70	15/16	1	24.38	21.84	45.97	56.13
SR 10 - 16	5/8	1	12.70	1-1/16	1	24.38	21.84	50.80	60.96
SR 12 - 8	3/4	1/2	9.90	1-1/16	1-1/8	24.38	21.84	44.45	54.61
SR 12 - 16	3/4	1	15.74	1-1/16	1-1/8	24.38	21.84	52.32	62.48

* Fractional Tube to Metric SUPERLOK port are available upon request

• All dimensions in millimeters unless specified as "inch"

SR
Reducer

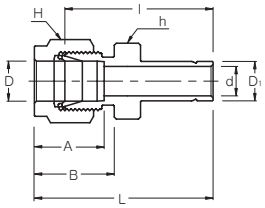


Connects Metric Tubes To Metric SUPERLOK Port

Part No.	Tube O.D.		d Min	Width Across Flat		A	B	I	L
	D	D_1		h	H				
SR 3M - 4M	3	4	2.4	12	12	12.9	15.3	28.4	35.0
SR 3M - 6M	3	6	2.4	12	12	12.9	15.3	29.5	36.1
SR 3M - 10M	3	10	2.4	14	12	12.9	15.3	31.8	38.4
SR 4M - 6M	4	6	2.4	12	12	13.7	16.1	30.5	37.1
SR 6M - 3M	6	3	1.8	14	14	15.3	17.7	29.5	36.9
SR 6M - 8M	6	8	4.8	14	14	15.3	17.7	32.5	39.9
SR 6M - 10M	6	10	4.8	14	14	15.3	17.7	33.3	40.7
SR 6M - 12M	6	12	4.8	14	14	15.3	17.7	38.9	46.3
SR 8M - 6M	8	6	4.6	15	16	16.2	18.6	32.8	40.3
SR 8M - 10M	8	10	6.4	15	16	16.2	18.6	34.5	42.0
SR 8M - 12M	8	12	6.4	15	16	16.2	18.6	40.1	47.6
SR 10M - 6M	10	6	4.6	18	19	17.2	19.5	34.8	42.4
SR 10M - 8M	10	8	6.4	18	19	17.2	19.5	35.8	43.4
SR 10M - 12M	10	12	7.9	18	19	17.2	19.5	42.2	49.8
SR 10M - 15M	10	15	7.9	18	19	17.2	19.5	43.7	51.3
SR 10M - 18M	10	18	7.9	22	19	17.2	19.5	43.7	51.3
SR 12M - 6M	12	6	4.6	22	22	22.8	22.0	34.8	44.9
SR 12M - 8M	12	8	6.4	22	22	22.8	22.0	35.8	45.9
SR 12M - 10M	12	10	7.7	22	22	22.8	22.0	36.6	46.7
SR 12M - 16M	12	16	9.5	22	22	22.8	22.0	43.7	53.8
SR 12M - 18M	12	18	9.5	22	22	22.8	22.0	43.7	53.8
SR 12M - 20M	12	20	9.5	22	22	22.8	22.0	46.0	56.1
SR 12M - 22M	12	22	9.5	24	22	22.8	22.0	46.0	56.1
SR 12M - 25M	12	25	9.5	27	22	22.8	22.0	52.3	62.4
SR 16M - 12M	16	12	9.1	24	25	24.4	22.0	42.9	53.0
SR 18M - 12M	18	12	9.1	27	30	24.4	22.0	44.5	54.6
SR 18M - 16M	18	16	12.7	27	30	24.4	22.0	46.0	56.1
SR 18M - 20M	18	20	15.1	27	30	24.4	22.0	47.5	57.6
SR 18M - 22M	18	22	15.1	27	30	24.4	22.0	47.5	57.6
SR 18M - 25M	18	25	15.1	27	30	24.4	22.0	52.3	62.4
SR 20M - 16M	20	16	12.7	30	32	26.0	22.0	47.8	57.9
SR 20M - 18M	20	18	13.9	30	32	26.0	22.0	47.8	57.9
SR 20M - 22M	20	22	15.8	30	32	26.0	22.0	49.3	59.4
SR 20M - 25M	20	25	15.8	30	32	26.0	22.0	54.1	64.2
SR 22M - 18M	22	18	13.9	30	32	26.0	22.0	47.8	57.9
SR 22M - 20M	22	20	15.1	30	32	26.0	22.0	49.3	59.4
SR 22M - 25M	22	25	18.3	30	32	26.0	22.0	54.1	64.2
SR 25M - 18M	25	18	13.9	35	38	31.3	26.5	50.8	63.1
SR 25M - 20M	25	20	15.1	35	38	31.3	26.5	52.3	64.6

• All dimensions in millimeters unless specified as "inch"

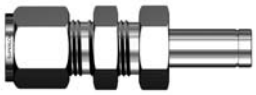
SR
Reducer

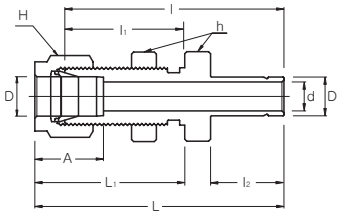


Connects Metric Tubes To Fractional SUPERLOK Port

Part No.	Tube O.D.		d Min	Width Across Flat		A	B	l	L
	D	D_1 (inch)		h	H				
SR 3M - 2	3	1/8	2.0	12	12	12.9	15.3	26.9	33.5
SR 3M - 4	3	1/4	2.4	12	12	12.9	15.3	29.5	36.1
SR 6M - 4	6	1/4	4.8	14	14	15.3	17.7	31.8	39.2
SR 6M - 5	6	5/16	4.8	14	14	15.3	17.7	32.5	39.9
SR 6M - 6	6	3/8	4.8	14	14	15.3	17.7	33.3	40.7
SR 6M - 8	6	1/2	4.8	14	14	15.3	17.7	38.9	46.3
SR 8M - 6	8	3/8	6.4	15	16	16.2	18.6	34.5	42.0
SR 8M - 8	8	1/2	6.4	15	16	16.2	18.6	40.1	47.6
SR 10M - 6	10	3/8	7.1	18	19	17.2	19.5	36.6	44.2
SR 10M - 8	10	1/2	7.9	18	19	17.2	19.5	42.2	49.8
SR 12M - 8	12	1/2	9.5	22	22	22.8	22.0	42.2	52.3
SR 12M - 12	12	3/4	9.5	22	22	22.8	22.0	43.7	53.8
SR 18M - 12	18	3/4	15.1	27	30	24.4	22.0	46.0	56.1
SR 18M - 16	18	1	15.1	27	30	24.4	22.0	52.3	62.4

SBR
Bulkhead Reducer



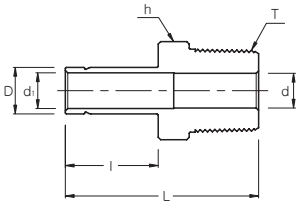


Connects Fractional Tubes To Fractional SUPERLOK Port

Part No.	Tube O.D. D (inch)	d Min	Width Across Flat		A	l	l_1	l_2	L	L_1	Panel Hole Drill Size	Panel Max. Thickness
			h (inch)	H (inch)								
SBR 2 - 2	1/8	2.03	1/2	7/16	12.70	42.92	24.63	13.46	49.53	31.24	8.33	12.70
SBR 4 - 4	1/4	4.82	5/8	9/16	15.24	48.51	26.16	15.74	55.88	33.52	11.50	10.16
SBR 6 - 6	3/8	7.11	3/4	11/16	16.76	53.84	29.46	17.52	61.21	36.83	14.68	11.17
SBR 8 - 8	1/2	10.41	15/16	7/8	22.86	62.73	31.75	23.11	72.89	41.91	19.44	12.70
SBR 10 - 10	5/8	12.70	1-1/16	1	24.38	65.02	32.51	24.70	75.18	42.67	22.62	12.70
SBR 16 - 16	1	20.32	1-5/8	1-1/2	31.24	88.13	45.21	31.70	100.33	57.40	33.73	19.05

• All dimensions in millimeters unless specified as "inch"

SMA
Male Adapter



Connects Fractional SUPERLOK Port To Female NPT Thread

Part No.	Tube O.D. D (inch)	T* (NPT)	d (Min)	d_1	Width Across Flat h (inch)	l	L
SMA 2 - 2N	1/8	1/8	4.82	2.28	7/16	13.45	29.50
SMA 2 - 4N	1/8	1/4	7.11	2.28	9/16	13.45	34.80
SMA 3 - 2N	3/16	1/8	4.82	3.04	7/16	14.20	30.22
SMA 3 - 4N	3/16	1/4	7.11	3.04	9/16	14.20	35.56
SMA 4 - 2N	1/4	1/8	4.82	4.82	7/16	15.75	31.80
SMA 4 - 4N	1/4	1/4	4.82	4.82	9/16	15.75	37.08
SMA 4 - 6N	1/4	3/8	4.82	4.82	11/16	15.75	37.84
SMA 4 - 8N	1/4	1/2	4.82	4.82	7/8	15.75	43.43
SMA 5 - 2N	5/16	1/8	4.82	6.35	7/16	16.80	32.76
SMA 5 - 4N	5/16	1/4	6.35	6.35	9/16	16.80	38.10
SMA 6 - 2N	3/8	1/8	4.82	7.11	7/16	17.50	33.50
SMA 6 - 4N	3/8	1/4	7.11	7.11	9/16	17.50	38.90
SMA 6 - 6N	3/8	3/8	7.11	7.11	11/16	17.50	39.60
SMA 6 - 8N	3/8	1/2	7.11	7.11	7/8	17.50	45.20
SMA 8 - 4N	1/2	1/4	7.11	9.90	9/16	23.20	44.50
SMA 8 - 6N	1/2	3/8	9.90	9.90	11/16	23.20	45.20
SMA 8 - 8N	1/2	1/2	9.90	9.90	7/8	23.20	50.80
SMA 10 - 6N	5/8	3/8	9.90	12.70	11/16	24.70	47.40
SMA 10 - 8N	5/8	1/2	11.94	12.70	7/8	24.70	52.30
SMA 10 - 12N	5/8	3/4	14.98	12.70	1-1/16	24.70	52.30
SMA 12 - 8N	3/4	1/2	11.94	14.98	7/8	24.70	52.30
SMA 12 - 12N	3/4	3/4	14.98	14.98	1-1/16	24.70	52.30
SMA 12 - 16N	3/4	1	20.32	14.98	1-3/8	24.70	57.91
SMA 14 - 12N	7/8	3/4	14.98	17.27	1-1/16	26.70	54.30
SMA 16 - 12N	1	3/4	15.74	20.32	1-1/16	31.70	58.70
SMA 16 - 16N	1	1	20.32	20.32	1-3/8	31.70	66.00

* ISO Tapered Threads are available upon request

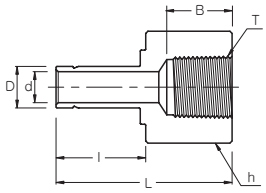
Connects Metric SUPERLOK Port To Female NPT Thread

Part No.	Tube O.D. (D)	T* (NPT)	d (Min)	d	Width Across Flat (h)	l	L
SMA 6M - 2N	6	1/8	4.6	4.6	12	15.75	32.8
SMA 6M - 4N	6	1/4	4.6	4.6	14	15.75	38.1
SMA 8M - 4N	8	1/4	6.3	6.3	14	16.50	39.1
SMA 10M - 4N	10	1/4	7.7	7.7	14	17.50	39.9
SMA 10M - 6N	10	3/8	7.7	7.7	18	17.50	40.6
SMA 10M - 8N	10	1/2	11.9	7.7	22	17.50	46.2
SMA 12M - 4N	12	1/4	7.1	9.1	16	23.50	46.5
SMA 12M - 8N	12	1/2	11.9	9.1	22	23.50	52.0
SMA 18M - 12N	18	3/4	15.9	13.9	27	24.90	54.8

* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

SFA
Female Adapter



Connects Fractional SUPERLOK Port To Male NPT Thread

Part No.	Tube O.D. D (inch)	T* (NPT)	d (Min)	Width Across Flat h (inch)	l	L
SFA 2 - 2N	1/8	1/8	2.28	9/16	13.45	31.50
SFA 2 - 4N	1/8	1/4	2.28	3/4	13.45	35.30
SFA 3 - 2N	3/16	1/8	3.04	9/16	14.20	32.00
SFA 3 - 4N	3/16	1/4	3.04	3/4	14.20	35.81
SFA 4 - 2N	1/4	1/8	4.82	9/16	15.75	33.02
SFA 4 - 4N	1/4	1/4	4.82	3/4	15.75	37.10
SFA 4 - 6N	1/4	3/8	4.82	7/8	15.75	39.37
SFA 4 - 8N	1/4	1/2	4.82	1-1/16	15.75	45.50
SFA 5 - 2N	5/16	1/8	6.35	9/16	16.80	34.29
SFA 5 - 4N	5/16	1/4	6.35	3/4	16.80	37.59
SFA 6 - 2N	3/8	1/8	7.11	9/16	17.50	34.29
SFA 6 - 4N	3/8	1/4	7.11	3/4	17.50	38.10
SFA 6 - 6N	3/8	3/8	7.11	7/8	17.50	40.38
SFA 6 - 8N	3/8	1/2	7.11	1-1/16	17.50	46.73
SFA 8 - 4N	1/2	1/4	9.90	3/4	23.20	43.43
SFA 8 - 6N	1/2	3/8	9.90	7/8	23.20	45.46
SFA 8 - 8N	1/2	1/2	9.90	1-1/16	23.20	51.80
SFA 10 - 6N	5/8	3/8	12.70	7/8	24.70	48.26
SFA 10 - 8N	5/8	1/2	12.70	1-1/16	24.70	53.08
SFA 12 - 8N	3/4	1/2	14.98	1-1/16	24.70	52.83
SFA 12 - 12N	3/4	3/4	14.98	1-5/16	24.70	54.86
SFA 12 - 16N	3/4	1	14.98	1-5/8	24.70	58.42
SFA 14 - 12N	7/8	3/4	17.27	1-5/16	26.70	57.15
SFA 16 - 12N	1	3/4	20.32	1-5/16	31.70	60.70
SFA 16 - 16N	1	1	20.32	1-5/8	31.70	64.26

* ISO Tapered Threads are available upon request

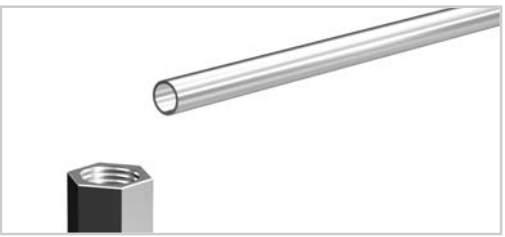
Connects Metric SUPERLOK Port To Male NPT Thread

Part No.	Tube O.D. (D)	T* (NPT)	d (Min)	Width Across Flat (h)	l	L
SFA 3M - 2N	3	1/8	1.8	14	13.15	31.2
SFA 6M - 2N	6	1/8	4.6	14	15.75	32.5
SFA 6M - 4N	6	1/4	4.6	19	15.75	37.1
SFA 8M - 4N	8	1/4	6.3	19	16.50	37.6
SFA 10M - 4N	10	1/4	7.7	19	17.50	38.1
SFA 10M - 6N	10	3/8	7.7	22	17.50	40.1
SFA 10M - 8N	10	1/2	7.7	27	17.50	46.5
SFA 12M - 4N	12	1/4	9.1	19	23.50	43.7
SFA 12M - 6N	12	3/8	9.1	22	23.50	46.0
SFA 12M - 8N	12	1/2	9.1	27	23.50	52.3
SFA 18M - 12N	18	3/4	13.9	32	24.90	54.8

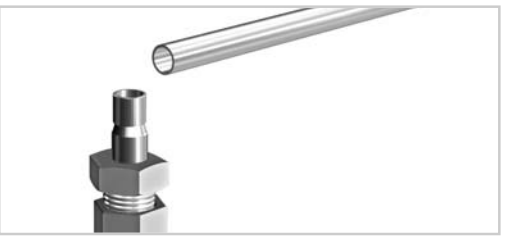
* ISO Tapered Threads are available upon request

• All dimensions in millimeters unless specified as "inch"

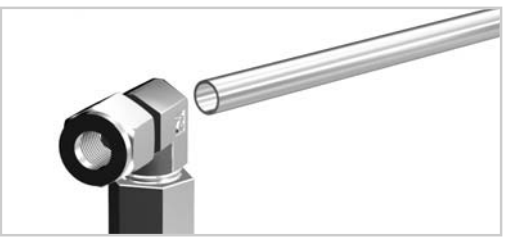
SUPERLOK *Adapter Solve Alignment Problems*



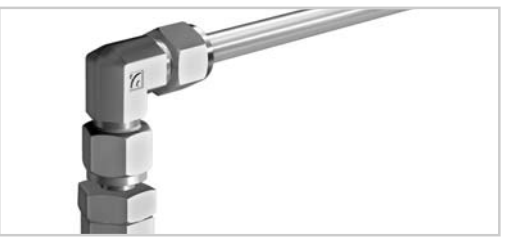
1. Required installation is to connect tubing in direction shown, to a female port.



3. To connect this situation, merely tighten pipe thread of male adapter into female port.

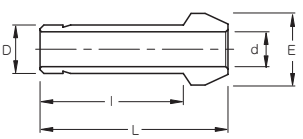


2. With pipe connection tight, the male elbow is pointing in the wrong direction for desired tubing run.



4. Connect union elbow to adapter by tightening SUPERLOK connection with wrench while holding elbow pointing in desired direction Then insert tubing into the other end of the Union Elbow and connect tubing

SPC
Port Connector



Connects Fractional SUPERLOK Ports

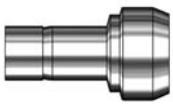
Part No.	Tube O.D.(D) (inch)	d (Min)	E	l	L
SPC - 2	1/8	2.28	6.09	15.75	22.35
SPC - 4	1/4	4.82	9.39	18.79	24.63
SPC - 5	5/16	6.35	10.92	20.06	25.90
SPC - 6	3/8	7.11	12.70	20.32	26.16
SPC - 8	1/2	9.90	15.74	25.90	35.81
SPC - 12	3/4	14.98	22.09	27.68	37.33
SPC - 16	1	20.32	28.44	34.54	48.00

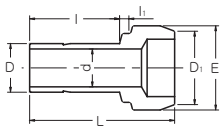
Connects Metric SUPERLOK Ports

Part No.	Tube O.D. (D)	d (Min)	E	l	L
SPC - 3M	3	2.1	6.0	15.7	22.2
SPC - 6M	6	4.4	9.0	18.7	24.6
SPC - 8M	8	6.3	11.0	20.0	25.9
SPC - 10M	10	8.2	13.1	20.2	26.1
SPC - 12M	12	9.1	15.0	26.0	35.8
SPC - 16M	16	12.7	19.0	27.6	37.4

• All dimensions in millimeters unless specified as "inch"

SRPC
Reducing Port Connector



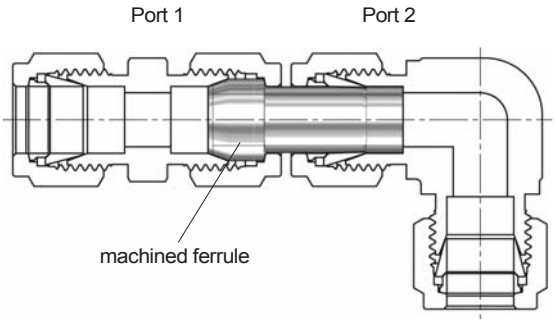


Connects Fractional SUPERLOK Port To Male AN

Part No.	Tube O.D. D_1 (inch)	Reduced Tube O.D. D (inch)	d	E	l	l_1	L
SRPC 2 - 1	1/8	1/16	0.76	6.09	8.63	2.03	17.27
SRPC 4 - 1	1/4	1/16	0.76	9.39	8.63	3.55	18.03
SRPC 4 - 2	1/4	1/8	2.28	9.39	13.46	3.30	22.60
SRPC 6 - 2	3/8	1/8	2.28	12.70	13.46	3.81	23.11
SRPC 6 - 4	3/8	1/4	4.82	12.70	15.74	3.30	24.89
SRPC 8 - 4	1/2	1/4	4.82	15.74	15.74	3.81	29.21
SRPC 8 - 6	1/2	3/8	7.11	15.74	17.52	3.30	30.48
SRPC 12 - 8	3/4	1/2	9.90	22.09	24.38	3.81	37.84
SRPC 16 - 8	1	1/2	9.90	28.44	24.38	4.82	42.67
SRPC 16 - 12	1	3/4	14.98	28.44	25.90	4.06	43.43

* ISO Tapered Threads are available upon request

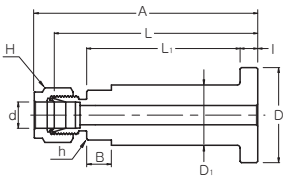
Installation Instructions
Port Connector



- Remove nut and ferrules from the first of two SUPERLOK ports to be connected.
- Slip nut (no ferrules) over machined ferrule end of port connector.
- Insert port connector into SUPERLOK port 1 and snug by hand.
  Tighten with wrench 1/4 turn only. For 1/8, 3/16 in., 2, 3, and 4mm tube fittings, tighten only 1/8 turn.
  Subsequent connections are made by tightening slightly with a wrench after snugging the nut by hand.
- Insert other end of port connector into SUPERLOK port 2 and tighten nut 1 1/4 turns from finger-tight.
  For 1/16, 1/8, 3/16 in., 2, 3, and 4mm tube fittings, only 3/4 turn from finger-tight is necessary.

• All dimensions in millimeters unless specified as "inch"

SFTC
Flange Lapped Tubes Connector



Connects Fractional Tubes

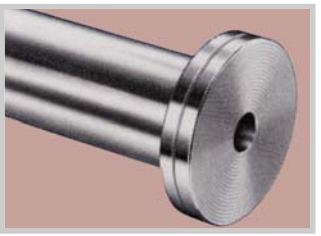
Part No.	Tube Size (inch)	Flange Seat	Dimensions									
			A	B	L1	L	I	h (inch)	H (inch)	D	D1	d (Min)
SFTC 4 - SM	1/4	SM	80.8	8.9	56.5	74.9	6.5	11/16	9/16	34.5	21.1	4.8
SFTC 4 - SR	1/4	SR	80.8	8.9	56.5	74.9	6.5	11/16	9/16	34.5	21.1	4.8
SFTC 6 - SM	3/8	SM	82.3	8.9	56.5	74.9	6.5	11/16	11/16	34.5	21.1	7.1
SFTC 6 - SR	3/8	SR	82.3	8.9	56.5	74.9	6.5	11/16	11/16	34.5	21.1	7.1
SFTC 8 - SM	1/2	SM	85.1	8.9	56.5	74.9	6.5	3/4	7/8	34.5	21.1	10.4
SFTC 8 - SR	1/2	SR	85.1	8.9	56.5	74.9	6.5	3/4	7/8	34.5	21.1	10.4

Flange lapped tube connector provieds easy joint between process lines and instruments designed for use with lap joint flanges to ANSI B 16.5 or BS 1560

Flange Seal Finish

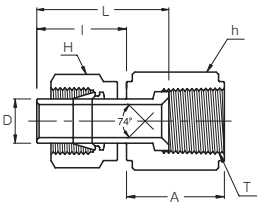
The Gasket contact surface of the stub end is of"Smooth" or "Serrated" seal face

Smooth
Identifier : SM



Serrated
Identifier : SR

SAF
An Flare

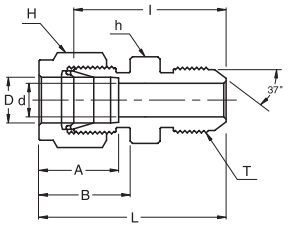


Connects Fractional SUPERLOK Port To Male AN

Part No.	Tube O.D. D (inch)	AN Tube Flare Size	Straight Thread T (U)	Width Across Flat		A	I	L
				h (inch)	H (inch)			
SAF2 - 2U	1/8	1/8	5/16-24	3/8	7/16	13.71	13.46	18.54
SAF2 - 4U	1/8	1/4	7/16-20	9/16	7/16	15.74	13.46	19.05
SAF4 - 4U	1/4	1/4	7/16-20	9/16	9/16	15.74	15.74	21.33
SAF6 - 6U	3/8	3/8	9/16-18	11/16	11/16	18.28	17.52	24.89
SAF8 - 8U	1/2	1/2	3/4-16	7/8	7/8	21.59	23.11	31.75

• All dimensions in millimeters unless specified as "inch"

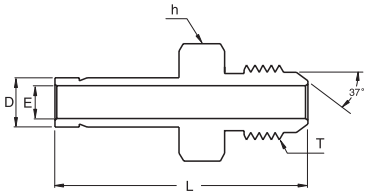
SAU
An Union



Connects Fractional Tubes To An Flared Tubes

Part No.	Tube O.D. D (inch)	AN Tube Flare Size (inch)	Straight Thread T (U)	d Min	Width Across Flat		A	B	I	L
					h (inch)	H (inch)				
SAU 2 - 2U	1/8	1/8	5/16-24	1.52	7/16	7/16	12.70	15.24	25.65	32.25
SAU 2 - 4U	1/8	1/4	7/16-20	2.28	1/2	7/16	12.70	15.24	28.44	35.05
SAU 4 - 4U	1/4	1/4	7/16-20	4.31	1/2	9/16	15.24	17.78	30.22	37.59
SAU 5 - 5U	5/16	5/16	1/2-20	5.84	9/16	5/8	16.25	18.54	30.98	38.35
SAU 6 - 4U	3/8	1/4	7/16-20	4.31	5/8	11/16	16.76	19.30	32.25	39.62
SAU 6 - 6U	3/8	3/8	9/16-18	7.11	5/8	11/16	16.76	19.30	32.25	39.62
SAU 8 - 8U	1/2	1/2	3/4-16	9.90	13/16	7/8	22.86	21.84	35.81	45.97
SAU 12 - 12U	3/4	3/4	1-1/16-12	15.49	1-1/8	1-1/8	24.38	21.84	43.18	53.34
SAU 16 - 16U	1	1	1-5/16-12	21.33	1-3/8	1-1/2	31.24	26.41	49.27	61.46

SAA
An Adapter

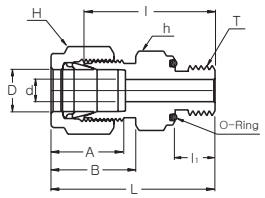


Connects Fractional SUPERLOK Port To AN Flared Tubes

Part No.	Tube O.D. D (inch)	AN Tube Flare Size (inch)	Straight Thread T (U)	Width Across Flat h (inch)	E	L
SAA 4 - 4U	1/4	1/4	7/16-20	1/2	4.82	37.08
SAA 6 - 4U	3/8	1/4	7/16-20	1/2	7.11	38.86
SAA 6 - 6U	3/8	3/8	9/16-18	5/8	7.11	39.62
SAA 8 - 8U	1/2	1/2	3/4-16	13/16	9.90	48.51
SAA 12 - 12U	3/4	3/4	1-1/16-12	1-1/8	14.98	56.13
SAA 16 - 16U	1	1	1-5/16-12	1-3/8	20.32	65.53

• All dimensions in millimeters unless specified as "inch"

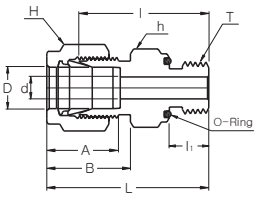
SOSC
O-Seal Straight Thread Connector



Connects Fractional Tube To Female Straight Thread

Part No.	Tube O.D. D (inch)	Straight Thread T (U)	d Min	Width Across Flat		A	B	I	I1	L	O-Ring Uniform Size Number
				h (inch)	H (inch)						
SOSC 2 - 2U	1/8	5/16-24	2.28	9/16	7/16	12.70	15.24	26.16	8.63	32.76	-011
SOSC 3 - 3U	3/16	3/8-24	3.05	5/8	1/2	13.71	16.00	27.68	9.65	34.29	-012
SOSC 4 - 4U	1/4	7/16-20	4.82	3/4	9/16	15.24	17.78	30.98	10.41	38.35	-111
SOSC 5 - 5U	5/16	1/2-20	6.35	7/8	5/8	16.25	18.54	33.27	11.17	40.64	-112
SOSC 6 - 6U	3/8	9/16-18	7.11	15/16	11/16	16.76	19.30	35.05	11.93	42.41	-114
SOSC 8 - 8U	1/2	3/4-16	10.41	1-1/8	7/8	22.86	21.84	35.81	11.93	45.97	-116
SOSC 12 - 12U	3/4	1-1/16-12	15.75	1-1/2	1-1/8	24.38	21.84	42.16	14.22	52.32	-215
SOSC 16 - 16U	1	1-5/16-12	22.35	1-3/4	1-1/2	31.24	26.41	45.97	14.22	58.16	-219

SOPC
O-Seal Pipe Thread Connector

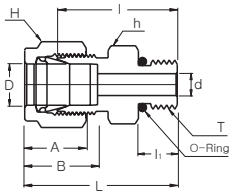


Connects Fractional Tube To Female NPT Thread

Part No.	Tube O.D. D (inch)	T* (NPT)	d Min	Width Across Flat		A	B	I	I1	L	O-Ring Uniform Size Number
				h (inch)	H (inch)						
SOPC 2 - 2N	1/8	1/8	2.28	3/4	7/16	12.70	15.24	26.16	7.11	32.76	-111
SOPC 4 - 2N	1/4	1/8	4.82	3/4	9/16	15.24	17.78	27.68	7.11	35.05	-111
SOPC 4 - 4N	1/4	1/4	4.82	15/16	9/16	15.24	17.78	30.98	9.65	38.35	-113
SOPC 6 - 4N	3/8	1/4	7.11	15/16	11/16	16.76	19.30	32.51	9.65	39.87	-113
SOPC 6 - 6N	3/8	3/8	7.11	1-1/8	11/16	16.76	19.30	34.03	10.41	41.40	-116
SOPC 6 - 8N	3/8	1/2	7.11	1-5/16	11/16	16.76	19.30	39.62	13.46	46.99	-212
SOPC 8 - 8N	1/2	1/2	10.41	1-5/16	7/8	22.86	21.84	39.62	13.46	49.78	-212

• All dimensions in millimeters unless specified as "inch"

SSMC
SAE/MS Male Connector



Connects Fractional Tubes To SAE/MS Straight Thread Boss

Part No.	Tube O.D. D (inch)	Straight Thread T (U)	d Min	Width Across Flat		A	B	l	l_1	L	O-Ring Uniform Size Number
				h (inch)	H (inch)						
SSMC 2 - 2U	1/8	5/16-24	2.28	7/16	7/16	12.70	15.24	23.36	7.62	29.97	3-902
SSMC 4 - 4U	1/4	7/16-20	4.82	9/16	9/16	15.24	17.78	26.67	9.14	34.03	3-904
SSMC 4 - 6U	1/4	9/16-18	4.82	11/16	9/16	15.24	17.78	28.19	9.90	35.56	3-906
SSMC 4 - 8U	1/4	3/4-16	4.82	7/8	9/16	15.24	17.78	30.22	11.17	37.59	3-908
SSMC 4 - 10U	1/4	7/8-14	4.82	1	9/16	15.24	17.78	33.27	12.70	40.64	3-910
SSMC 5 - 5U	5/16	1/2-20	6.35	5/8	5/8	16.25	18.54	27.43	9.14	34.79	3-905
SSMC 6 - 4U	3/8	7/16-20	5.08	5/8	11/16	16.76	19.30	28.19	9.14	35.56	3-904
SSMC 6 - 6U	3/8	9/16-18	7.11	11/16	11/16	16.76	19.30	29.71	9.90	37.08	3-906
SSMC 6 - 8U	3/8	3/4-16	7.11	7/8	11/16	16.76	19.30	31.75	11.17	39.11	3-908
SSMC 6 - 10U	3/8	7/8-14	7.11	1	11/16	16.76	19.30	34.79	12.70	42.16	3-910
SSMC 8 - 6U	1/2	9/16-18	7.11	13/16	7/8	22.86	21.84	28.95	9.90	39.11	3-906
SSMC 8 - 8U	1/2	3/4-16	10.41	7/8	7/8	22.86	21.84	31.75	11.17	41.91	3-908
SSMC 8 - 10U	1/2	7/8-14	10.41	1	7/8	22.86	21.84	34.79	12.70	44.95	3-910
SSMC 8 - 12U	1/2	1-1/16-12	10.41	1-1/4	7/8	22.86	21.84	38.86	14.98	49.02	3-912
SSMC 10 - 8U	5/8	3/4-16	10.66	15/16	1	24.38	21.84	31.75	11.17	41.91	3-908
SSMC 10 - 10U	5/8	7/8-14	12.70	1	1	24.38	21.84	35.05	12.70	45.21	3-910
SSMC 12 - 8U	3/4	3/4-16	10.66	1-1/16	1-1/8	24.38	21.84	35.81	11.17	45.97	3-908
SSMC 12 - 12U	3/4	1-1/16-12	15.74	1-1/4	1-1/8	24.38	21.84	38.86	14.98	49.02	3-912
SSMC 14 - 14U	7/8	1-3/16-12	18.28	1-3/8	1-1/4	25.90	21.84	38.86	14.98	49.02	3-914
SSMC 16 - 12U	1	1-1/16-12	16.76	1-3/8	1-1/2	31.24	26.41	41.14	14.98	53.34	3-912
SSMC 16 - 16U	1	1-5/16-12	22.35	1-1/2	1-1/2	31.24	26.41	42.16	14.98	54.35	3-916

• All dimensions in millimeters unless specified as "inch"

Mounting Dimensions for O-Seal Connectors

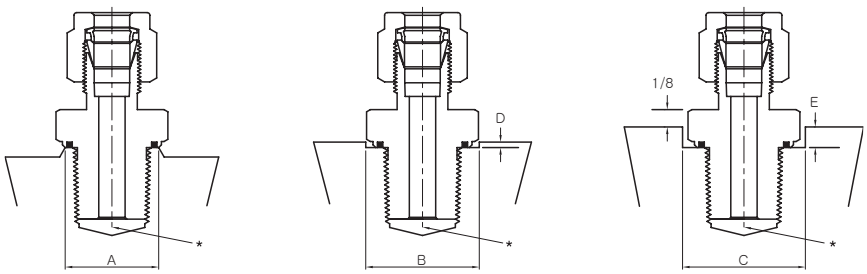


Figure 1 Figure 2 Figure 3

*ALLOW CLEARANCE FOR FULL THREAD

■ Installation Instruction

In order to prevent the leakage with SUPERLOK O-Seal Fittings, the surface perpendicular to the axis of the thread should be flat.
When installing an O-Seal fitting, turn it until finger-tight.(The squeeze on O-Ring can be felt during the last 1/4 turn.) After finger-tight installation, snug lightly with a wrench.
When connecting the tubing to the SUPERLOK connector, always use a back-up wrench on the O-Seal fitting hex so it does not turn while the nut is being tightened. Also use a back-up wrench when disconnectiong a tubing connection.
For a raised surface, such as Figure 1, it is recommended that the flat surface have a diameter at least as large as dimension "A" for the various size O-Seal fittings. This diameter is sufficient to allow metal-to-metal contact outside of the O-Ring seating area and to prevent O-Ring extrusion at high pressure.
Figure 2 is an O-Seal fitting using with a counter bored or recessed hole. In this case, the diameter "B" is sufficient to allow the round shoulder of the O-seal to clear for proper installation. "D" gives the maximum depth that can be used with this diameter.
Figure 3 shows the usage at deeper grooved or concaved area and "E" is the maximum depth that will allow a thin wrench (1/8) to hold the O-Seal fitting while the SUPERLOK connection is made to the tubing. The diameter "C" is sufficient to allow the hex of the fitting to turn in the recessed hole.

Basic Ordering Number	Straight Thread	Pipe Thread	A Min. Dia.	B Min. Dia.	C Min. Dia.	D Min. Dia.	E Min. Dia.
SOSC 1 - 2U	5/16-24	-	12.7	15.0	16.8	2.3	4.1
SOSC 2 - 2U	5/16-24	-	12.7	15.0	16.8	2.3	5.6
SOPC 2 - 2N	-	1/8 NPT	17.5	19.8	22.4	4.1	7.1
SOSC 3 - 3U	3/8-24	-	14.2	16.8	19.1	2.3	5.6
SOSC 4 - 4U	7/16-20	-	17.5	19.8	22.4	4.1	7.1
SOPC 4 - 2N	-	1/8 NPT	17.5	19.8	22.4	4.1	7.1
SOPC 4 - 4N	-	1/4 NPT	22.1	24.6	27.7	4.1	7.9
SOSC 5 - 5U	1/2-20	-	19.1	23.1	26.2	4.1	7.9
SOSC 6 - 6U	9/16-18	-	20.6	24.6	27.7	4.1	7.9
SOPC 6 - 4N	-	1/4 NPT	22.1	24.6	27.7	4.1	7.9
SOPC 6 - 6N	-	3/8 NPT	25.4	29.5	33.3	4.1	8.6
SOPC 6 - 8N	-	1/2 NPT	31.0	34.0	38.9	5.6	11.2
SOSC 8 - 8U	3/4-16	-	25.4	29.5	33.3	4.1	8.6
SOPC 8 - 8N	-	1/2 NPT	31.0	34.0	38.9	5.6	11.2
SOSC 12 - 12U	1-1/16-12	-	35.8	38.9	44.5	5.6	12.7
SOSC 16 - 16U	1-5/16-12	-	42.9	45.2	51.6	5.6	14.2

Dimensions are for reference only and are subject to change.

• All dimensions in millimeters unless specified as "inch"

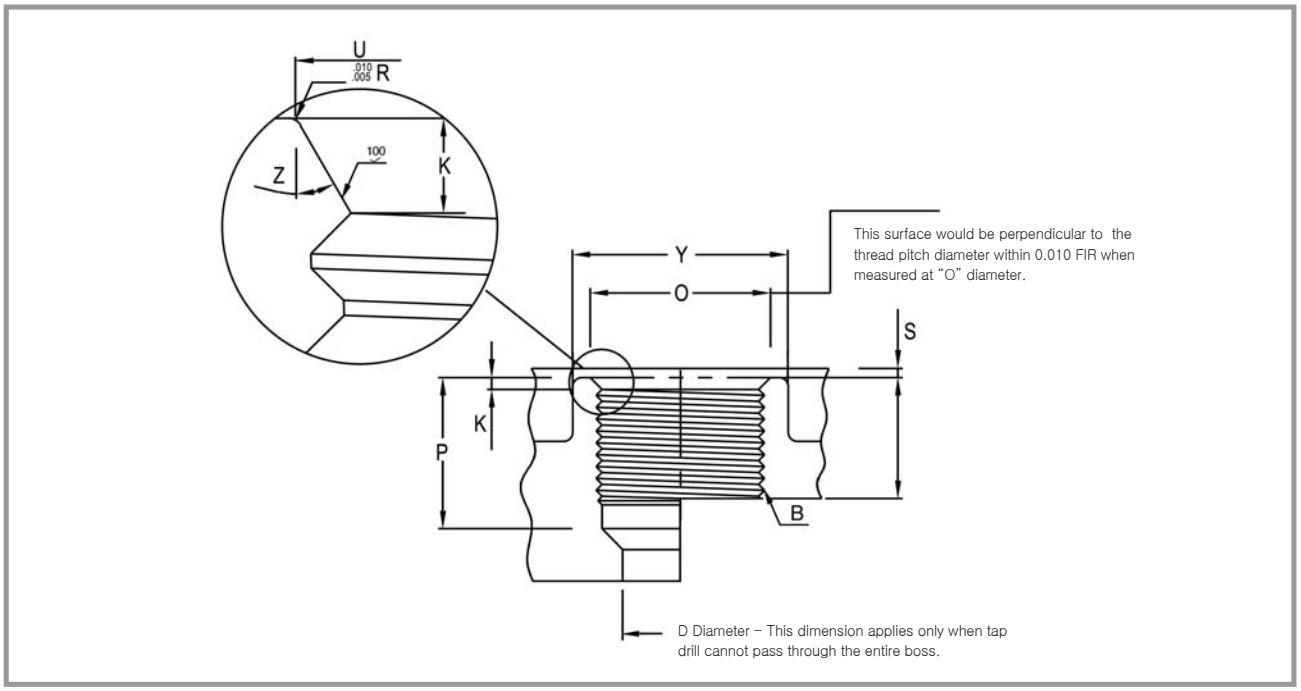
SAE/MS Straight Thread Positionable Elbows and Tees

Installation instructions

1. Lubricate O-Ring with the lubricant which is applicable for the system fluid, environment and O-Ring material. (Standard O-Ring materials is viton. Other O-Ring mat erials are also available).
2. Turn the fittings into the straight thread boss until the metal back- up washer contacts the face of the boss. At this moment, O-Ring gets into inclined groove.
3. Until SUPERLOK's end is oriented in the proper direction, position the fittings by turning to counter clockwise. (no more than 1 turning)
4. Until the washer contacts to the face of the bosses, tighten the fittings with wrench and back-up wrench .

※ Note: SAE/MS's POSITIONABLE TEE and ELBOWS shall be compatible with SAE J1926, MS16142, or O-Ring female straight thread bosses.

SAE/MS Internal Straight Thread Boss



• O : This surface would be perpendicular to the thread pitch diameter within 0.010 FIR when measured at "O" diameter.
• D : This dimension applies only when tap drill cannot pass through the entire boss.

• All dimensions in millimeters unless specified as "inch"

Data for SAE/MS Straight Thread Boss

Nom. Tube.O.D	Thread Size	B / Straight Thread				D Dia	Full Thread Depth	K	O Dia	P④	S②③	U① Dia	Y③ Dia	Z
		Pitch Dia		Minor Dia										
		Min	Max	Min	Max	Min	Min	+0.015 −0.000	Min	Min	Min	Max		±1 Deg
1/8	5/16 -24	0.2854	0.2902	0.267	0.277	0.062	0.390	0.074	0.438	0.468	0.062	0.358	0.672	12
3/16	3/8 -24	0.3479	0.3528	0.330	0.340	0.125	0.390	0.074	0.500	0.468	0.062	0.421	0.750	12
1/4	7/16 -20	0.4050	0.4104	0.383	0.395	0.172	0.454	0.093	0.563	0.547	0.062	0.487	0.828	12
5/16	1/2 -20	0.4675	0.4731	0.446	0.457	0.234	0.454	0.093	0.625	0.547	0.062	0.550	0.906	12
3/8	9/16 -18	0.5624	0.5323	0.502	0.515	0.297	0.500	0.097	0.688	0.609	0.062	0.616	0.969	12
1/2	3/4 -16	0.7094	0.7159	0.682	0.696	0.391	0.562	0.100	0.875	0.688	0.094	0.811	1.188	15
5/8	7/8 -14	0.8286	0.8356	0.798	0.614	0.484	0.656	0.100	1.000	0.781	0.094	0.942	1.344	15
3/4	1 1/16 -12	1.0084	1.0158	0.972	0.990	0.609	0.750	1.130	1.250	0.906	0.094	1.148	1.625	15
7/8	1 3/16 -12	1.1334	1.1409	1.097	1.115	0.719	0.750	1.130	1.375	0.906	0.094	1.273	1.765	15
1	1 5/16 -12	1.2584	1.2659	1.222	1.240	0.844	0.750	0.130	1.500	0.906	0.125	1.398	1.910	15
1 1/4	1 5/8 -12	1.5709	1.5785	1.535	1.553	1.078	0.750	0.132	1.875	0.906	0.125	1.713	2.270	15
1 1/2	1 7/8 -12	1.8209	1.8287	1.785	1.803	1.312	0.750	0.132	2.125	0.906	0.125	1.962	2.560	15
2	2 1/2−12	2.4459	2.4540	2.410	2.428	1.781	0.750	0.132	2.750	0.906	0.125	2.587	3.480	15

① Diameter U shall be concentric with thread pitch diameter within 0.005 full indicator reading (FIR) and shall be free from chatter and spiral tool marks. Annular tool marks shall be less than 100micro inches.

② This is the maximum recommended spotface depth to permit sufficient wrench grip for proper tightening of the fitting or locknut

③ If the surface of boss surface is machined, dimensions Y and S does not need to be applied.

④ Bottoming tap shall be used to satisfy the tap drill depth. Where standard taps are used, the drill depths must be increased accordingly

O-Ring for SAE/MS Fittings Bosses

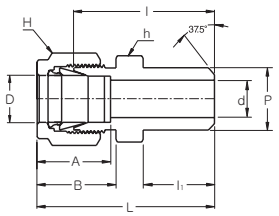
Thread size	Inside Dimension (mm)	Cross Section (mm)	O-Ring Size No.	Thread size	Inside Dimension (mm)	Cross Section (mm)	O-Ring Size No.
5/16-24	6.07	1.63	3-902	33/4-16	16.36	2.21	3-908
3/8-24	7.65	1.63	3-903	7/8-14	19.18	2.46	3-910
7/16-20	8.92	1.83	3-904	1-1/16-12	23.47	2.95	3-912
1/2-20	10.52	1.83	3-905	1-3/16-12	26.59	2.95	3-914
9/16-18	11.89	1.98	3-906	1-5/16-12	29.74	2.95	3-916

• All dimensions in millimeters unless specified as "inch"

Weld End, Plug & Cap, Spare Part

WELD END	
SPWC Male Pipe Weld Connector	
SMPWE Male Pipe Weld Elbow	
SSWC Socket Weld Connector	
SSWE Socket Weld Elbow	
PLUG & CAP	
SP Plug	
SC Cap	
SPARE PART	
SN Nut	
SFF Front Ferrule	
SBF Back Ferrule	
SFS Ferrule Set	
SI Insert	
SBR Bulkhead Retainer	
SVP Vent Protector	

SPWC
Male Pipe
Weld Connector



Connects Fractional Tubes To Pipe

Part No.	Tube O.D. D (inch)	Male Pipe Size p		d Min	Width Across Flat		A	B	I	I_1	L
		Nom.	O.D.		h (inch)	H (inch)					
SPWC 2 - 2P	1/8	1/8	10.30	2.28	7/16	7/16	12.70	15.24	23.87	9.65	30.48
SPWC 3 - 2P	3/16	1/8	10.30	3.04	7/16	1/2	13.71	16.00	24.63	9.65	31.24
SPWC 4 - 2P	1/4	1/8	10.30	4.82	1/2	9/16	15.24	17.78	25.40	9.65	32.76
SPWC 4 - 4P	1/4	1/4	13.70	4.82	9/16	9/16	15.24	17.78	30.48	14.22	37.84
SPWC 5 - 2P	5/16	1/8	10.30	5.08	9/16	5/8	16.25	18.54	26.67	9.65	34.03
SPWC 5 - 4P	5/16	1/4	13.70	6.35	9/16	5/8	16.25	18.54	31.24	14.22	38.60
SPWC 6 - 4P	3/8	1/4	13.70	7.11	5/8	11/16	16.76	19.30	32.51	14.22	39.87
SPWC 6 - 6P	3/8	3/8	17.10	7.11	11/16	11/16	16.76	19.30	32.51	14.22	39.87
SPWC 6 - 8P	3/8	1/2	21.30	7.11	7/8	11/16	16.76	19.30	38.86	19.05	46.22
SPWC 8 - 6P	1/2	3/8	17.10	10.41	13/16	7/8	22.86	21.84	33.27	14.22	43.43
SPWC 8 - 8P	1/2	1/2	21.30	10.41	7/8	7/8	22.86	21.84	38.86	19.05	49.02
SPWC 8 - 12P	1/2	3/4	26.67	10.41	1-1/16	7/8	22.86	21.84	40.38	19.05	50.54
SPWC 10 - 8P	5/8	1/2	21.30	12.70	15/16	1	24.38	21.84	38.86	19.05	49.02
SPWC 12 - 12P	3/4	3/4	26.67	15.74	1-1/16	1-1/8	24.38	21.84	40.38	19.05	50.54
SPWC 16 - 16P	1	1	33.40	22.35	1-3/8	1-1/2	31.24	26.41	50.03	23.87	62.23

Connects Metric Tubes To Pipe

Part No.	Tube O.D. D	Male Pipe Size p		d Min	Width Across Flat		A	B	I	I_1	L
		Nom.	O.D.		h	H					
SPWC 3M - 2P	3	1/8	10.3	2.4	12	12	12.9	15.3	23.9	9.7	30.5
SPWC 4M - 2P	4	1/8	10.3	2.4	12	12	13.7	16.1	24.6	9.7	31.2
SPWC 6M - 2P	6	1/8	10.3	4.8	14	14	15.3	17.7	25.4	9.7	32.8
SPWC 6M - 4P	6	1/4	13.7	4.8	14	14	15.3	17.7	30.5	14.2	37.9
SPWC 8M - 2P	8	1/8	10.3	5.1	15	16	16.2	18.6	26.7	9.7	34.2
SPWC 8M - 4P	8	1/4	13.7	6.4	15	16	16.2	18.6	31.2	14.2	38.7
SPWC 8M - 8P	8	1/2	21.3	6.4	22	16	16.2	18.6	38.1	19.0	45.6
SPWC 10M - 4P	10	1/4	13.7	7.1	18	19	17.2	19.5	33.3	14.2	40.9
SPWC 10M - 6P	10	3/8	17.1	7.9	18	19	17.2	19.5	33.3	14.2	40.9
SPWC 10M - 8P	10	1/2	21.3	7.9	22	19	17.2	19.5	38.9	19.0	46.5
SPWC 12M - 4P	12	1/4	13.7	7.1	22	22	22.8	22.0	33.3	14.2	43.4
SPWC 12M - 6P	12	3/8	17.1	9.5	22	22	22.8	22.0	33.3	14.2	43.4
SPWC 12M - 8P	12	1/2	21.3	9.5	22	22	22.8	22.0	38.9	19.0	49.0
SPWC 15M - 8P	15	1/2	21.3	11.9	24	25	24.4	22.0	38.9	19.0	49.0
SPWC 16M - 8P	16	1/2	21.3	12.7	24	25	24.4	22.0	38.9	19.0	49.0
SPWC 18M - 8P	18	1/2	21.3	13.5	27	30	24.4	22.0	40.4	19.0	50.5

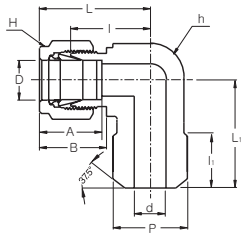
Note : SUPERLOK weld ends are constructed per schedule 80 wall thickness or greater. Weld End : ANSI B31.1 and B31.3

Weld end SUPERLOK Usage Informations :

- Do weld after removing nut and ferrules from body to protect them from weld heat.
- Do protect thread end or pot and seat area of SUPERLOK body with another nut and plug.(for easy disassembly just finger tighten it)
- Correct weld procedure is required during welding and after weld complition. suitable heat treatlment must be carried out in accordance with industry or your own standard.

• All dimensions in millimeters unless specified as "inch"

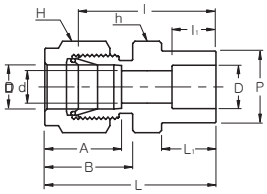
SMPWE
Male Pipe Weld Elbow



Connects Fractional Tubes To Pipe

Part No.	Tube O.D. D (inch)	Pipe Size (P)		d Min	Width Across Flat		A	B	l	l_1	L	L_1
		Nom.	O.D		h (inch)	H (inch)						
SMPWE 4 - 4P	1/4	1/4	13.70	4.82	1/2	9/16	15.24	17.78	19.55	14.22	26.90	23.37
SMPWE 6 - 4P	3/8	1/4	13.70	7.11	5/8	11/16	16.76	19.30	23.11	14.22	30.48	25.40
SMPWE 8 - 8P	1/2	1/2	21.30	10.41	13/16	7/8	22.86	21.84	25.90	19.05	36.06	33.02

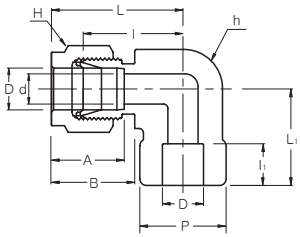
SSWC
Socket Weld Connector



Connects Fractional Tubes To Pipe

Part No.	Tube O.D. D (inch)	d Min	P	Width Across Flat		A	B	l	l_1	L	L_1
				h (inch)	H (inch)						
SSWC - 2	1/8	2.28	7.87	7/16	7/16	12.70	15.24	22.35	6.35	28.95	8.63
SSWC - 4	1/4	4.82	11.17	1/2	9/16	15.24	17.78	26.16	7.87	33.52	10.41
SSWC - 6	3/8	7.11	15.74	5/8	11/16	16.76	19.30	30.22	9.65	37.59	11.93
SSWC - 8	1/2	10.41	19.05	13/16	7/8	22.86	21.84	30.98	12.70	41.14	11.93
SSWC - 12	3/4	15.74	26.67	1-1/16	1-1/8	24.38	21.84	33.27	14.22	43.43	11.93
SSWC - 16	1	22.35	33.27	1-3/8	1-1/2	31.24	26.41	40.38	19.05	52.57	14.22

SSWE
Socket Weld Elbow

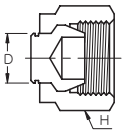


Connects Fractional Tubes To Pipe

Part No.	Tube O.D. D (inch)	d Min	P	Width Across Flat		A	B	l	l_1	L	L_1
				h (inch)	H (inch)						
SSWE - 4	1/4	4.82	12.70	1/2	9/16	15.24	17.78	19.55	7.87	26.92	19.55
SSWE - 6	3/8	7.11	15.75	5/8	11/16	16.76	19.30	23.11	9.65	30.48	23.11
SSWE - 8	1/2	10.41	20.57	13/16	7/8	22.86	21.84	25.90	12.70	36.06	25.90
SSWE - 12	3/4	15.74	26.92	1-1/16	1-1/8	24.38	21.84	29.71	14.22	39.87	29.71
SSWE - 16	1	22.35	35.05	1-3/8	1-1/2	31.24	26.41	36.83	19.05	49.02	36.83

• All dimensions in millimeters unless specified as "inch"

SP
Plug



Plug provides plugging fitting port

Installation instruction
1. With wrench, 1/4 turn from finger-tight position. (1/8 turn for 1/8, 3/16", 2, 3, 4 size plug)
2. Remove nut and ferrules from body

Fractional

Part No.	Tube O.D. D (inch)	Width Across Flat H (inch)	Part No.	Tube O.D. D (inch)	Width Across Flat H (inch)
SP - 2	1/8	7/16	SP - 8	1/2	7/8
SP - 3	3/16	1/2	SP - 10	5/8	1
SP - 4	1/4	9/16	SP - 12	3/4	1-1/8
SP - 5	5/16	5/8	SP - 14	7/8	1-1/4
SP - 6	3/8	11/16	SP - 16	1	1-1/2

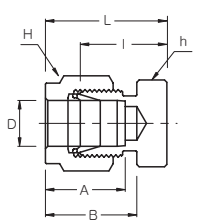
Plugs Unused port of MetricSUPERLOK fittings

Metric

Part No.	Tube O.D. D	Width Across Flat H	Part No.	Tube O.D. D	Width Across Flat H
SP - 2M	2	12	SP - 15M	15	25
SP - 3M	3	12	SP - 16M	16	25
SP - 4M	4	12	SP - 18M	18	30
SP - 6M	6	14	SP - 20M	20	32
SP - 8M	8	16	SP - 22M	22	32
SP - 10M	10	19	SP - 25M	25	38
SP - 12M	12	22			

Plugs Unused port of FractionalSUPERLOK fittings

SC
Cap



Installation instruction
1. With wrench, 1-1/4 turn from finger-tight position. (3/4 turn for 1/8, 3/16", 3mm, 4mm)
2. Insert tube end into cap

Connects Caps End of Fractional Tubes

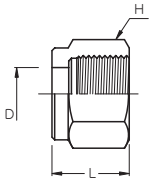
Part No.	Tube O.D. D (inch)	Width Across Flat		A	B	l	L
		h (inch)	H (inch)				
SC - 1	1/16	5/16	5/16	8.63	10.92	11.20	14.98
SC - 2	1/8	7/16	7/16	12.70	15.24	13.46	20.06
SC - 3	3/16	7/16	1/2	13.71	16.00	14.73	21.33
SC - 4	1/4	1/2	9/16	15.24	17.78	16.00	23.36
SC - 5	5/16	9/16	5/8	16.25	18.54	17.01	24.38
SC - 6	3/8	5/8	11/16	16.76	19.30	18.28	25.65
SC - 8	1/2	13/16	7/8	22.86	21.84	19.05	29.21
SC - 10	5/8	15/16	1	24.38	21.84	19.81	29.97
SC - 12	3/4	1-1/16	1-1/8	24.38	21.84	21.33	31.49
SC - 14	7/8	1-3/16	1-1/4	25.90	21.84	23.87	34.03
SC - 16	1	1-3/8	1/1/2	31.24	26.41	26.16	38.35

Connects Metric Tubes

Part No.	Tube O.D. D	Width Across Flat		A	B	l	L	Part No.	Tube O.D. D	Width Across Flat		A	B	l	L
		h	H							h	H				
SC - 2M	2	12	12	12.9	15.3	13.5	20.1	SC - 15M	15	24	25	24.4	22.0	19.8	29.9
SC - 3M	3	12	12	12.9	15.3	13.5	20.1	SC - 16M	16	24	25	24.4	22.0	19.8	29.9
SC - 4M	4	12	12	13.7	16.1	14.7	21.3	SC - 18M	18	27	30	24.4	22.0	21.3	31.4
SC - 6M	6	14	14	15.3	17.7	15.7	23.1	SC - 20M	20	30	32	26.0	22.0	23.9	34.0
SC - 8M	8	15	16	16.2	18.6	17.0	24.5	SC - 22M	22	30	32	26.0	22.0	23.9	34.0
SC - 10M	10	18	19	17.2	19.5	19.0	26.6	SC - 25M	25	35	38	31.3	26.5	26.2	38.5
SC - 12M	12	22	22	22.8	22.0	19.0	29.1								

• All dimensions in millimeters unless specified as "inch"

SN
Nut



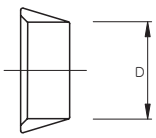
Fractional

Part No.	Tube O.D. D (inch)	Width Across Flat H (inch)	L	Part No.	Tube O.D. D (inch)	Width Across Flat H (inch)	L
SN - 1	1/16	5/16	7.90	SN - 8	1/2	7/8	17.52
SN - 2	1/8	7/16	11.93	SN - 10	5/8	1	17.52
SN - 3	3/16	1/2	11.93	SN - 12	3/4	1-1/8	17.52
SN - 4	1/4	9/16	12.70	SN - 14	7/8	1-1/4	17.52
SN - 5	5/16	5/8	13.46	SN - 16	1	1-1/2	20.6
SN - 6	3/8	11/16	14.22				

Metric

Part No.	Tube O.D. D	Width Across Flat H	L	Part No.	Tube O.D. D	Width Across Flat H	L
SN - 2M	2	12	11.9	SN - 14M	14	25	17.4
SN - 3M	3	12	11.9	SN - 15M	15	25	17.4
SN - 4M	4	12	11.9	SN - 16M	16	25	17.4
SN - 6M	6	14	12.7	SN - 18M	18	30	17.4
SN - 8M	8	16	13.5	SN - 20M	20	32	17.4
SN - 10M	10	19	15.1	SN - 22M	22	32	17.4
SN - 12M	12	22	17.4	SN - 25M	25	38	20.6

SFF
Front Ferrule



Fractional

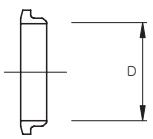
Part No.	Tube O.D. D (inch)	Part No.	Tube O.D. D (inch)
SFF - 1	1/16	SFF - 8	1/2
SFF - 2	1/8	SFF - 10	5/8
SFF - 3	3/16	SFF - 12	3/4
SFF - 4	1/4	SFF - 14	7/8
SFF - 5	5/16	SFF - 16	1
SFF - 6	3/8		

Metric

Part No.	Tube O.D. D	Part No.	Tube O.D. D
SFF - 2M	2	SFF - 14M	14
SFF - 3M	3	SFF - 15M	15
SFF - 4M	4	SFF - 16M	16
SFF - 6M	6	SFF - 18M	18
SFF - 8M	8	SFF - 20M	20
SFF - 10M	10	SFF - 22M	22
SFF - 12M	12	SFF - 25M	25

• All dimensions in millimeters unless specified as "inch"

SBF
Back Ferrule



Fractional

Part No.	Tube O.D. D (inch)	Part No.	Tube O.D. D (inch)	Part No.	Tube O.D. D (inch)
SBF - 1	1/16	SBF - 5	5/16	SBF - 12	3/4
SBF - 2	1/8	SBF - 6	3/8	SBF - 14	7/8
SBF - 3	3/16	SBF - 8	1/2	SBF - 16	1
SBF - 4	1/4	SBF - 10	5/8		

Metric

Part No.	Tube O.D. D	Part No.	Tube O.D. D	Part No.	Tube O.D. D
SBF - 2M	2	SBF - 10M	10	SBF - 18M	18
SBF - 3M	3	SBF - 12M	12	SBF - 20M	20
SBF - 4M	4	SBF - 14M	14	SBF - 22M	22
SBF - 6M	6	SBF - 15M	15	SBF - 25M	25
SBF - 8M	8	SBF - 16M	16		

SFS
Ferrule Set

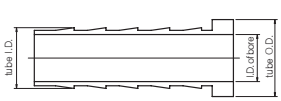
Fractional

Part No.	Tube O.D. D (inch)	Part No.	Tube O.D. D (inch)	Part No.	Tube O.D. D (inch)
SFS - 1	1/16	SFS - 5	5/16	SFS - 12	3/4
SFS - 2	1/8	SFS - 6	3/8	SFS - 14	7/8
SFS - 3	3/16	SFS - 8	1/2	SFS - 16	1
SFS - 4	1/4	SFS - 10	5/8		

Metric

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

SI
Insert

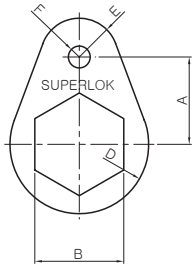


Fractional

Part No.	Tube O.D. (inch)	Tube I.D. (inch)	I.D. of Bore (mm)	Part No.	Tube O.D. (inch)	Tube I.D. (inch)	I.D. of Bore (mm)
SI 3 - 2	3/16	1/8	2.28	SI 8 - 4	1/2	1/4	4.82
SI 4 - 2	1/4	1/8	2.28	SI 8 - 6	1/2	3/8	7.87
SI 4 - 3	1/4	3/16	3.55	SI 10 - 6	5/8	3/8	7.87
SI 5 - 2	5/16	1/8	2.28	SI 10 - 8	5/8	1/2	11.17
SI 5 - 3	5/16	3/16	3.04	SI 12 - 8	3/4	1/2	11.17
SI 5 - 4	5/16	1/4	4.82	SI 12 - 10	3/4	5/8	14.22
SI 6 - 3	3/8	3/16	3.04	SI 16 - 12	1	3/4	17.52
SI 6 - 4	3/8	1/4	4.82				

• All dimensions in millimeters unless specified as "inch"

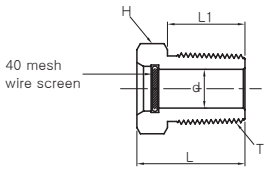
SBR
Bulkhead Retainer



Part No.	A	B	C	D	E	F	Drill Holde Dia.
SBHU 1-RE	3/8	5/16	1/8	5/16	5/32	5/32	3.05
SBHU 2-RE	1/2	1/2	1/8	13/32	7/32	5/32	3.05
SBHU 3-RE ①	9/16	9/16	1/8	15/32	1/4	5/32	3.05
SBHU 4-RE ②	5/8	5/8	1/8	1/2	9/32	5/32	3.05
SBHU 5-RE	1/16	11/16	1/8	9/16	5/16	5/32	3.05
SBHU 6-RE	3/4	3/4	1/8	5/8	11/32	5/32	3.05
SBHU 8-RE ③	15/16	15/16	1/8	3/4	13/32	7/32	3.66
SBHU 10-RE ④	1	1-1/16	1/8	13/16	13/32	7/32	3.66
SBHU 12-RE ⑤	1-1/16	1-3/16	1/8	29/32	15/32	7/32	3.66
SBHU 14-RE	1-1/8	1-5/16	1/8	1-1/32	17/32	7/32	3.66
SBHU 16-RE	1-9/32	1-5/8	1/8	1-5/32	9/16	7/32	3.66
SBHU 8-RE	11/16	18 mm	1/8	9/16	5/16	5/32	3.05
SBHU 10-RE	15/16	22 mm	1/8	3/4	13/32	7/32	3.66

① Can be used with 3mm and 4mm bulkheads
② Can be used with 6mm bulkheads
③ Can be used with 12mm bulkheads
④ Can be used with 15mm and 16mm bulkheads
⑤ Can be used with 18mm bulkheads

SVP
Vent Protector



Part No.	T	L	L1	d	H
SVP - 4N	1/4	19.81	14.22	7.11	9/16
SVP - 6N	3/8	20.57	14.22	10.41	11/16
SVP - 8N	1/2	26.16	19.05	12.70	7/8
SVP - 12N	3/4	26.92	19.05	18.29	1-1/16

• All dimensions in millimeters unless specified as "inch"