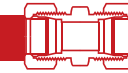




**BITE TYPE FITTINGS**



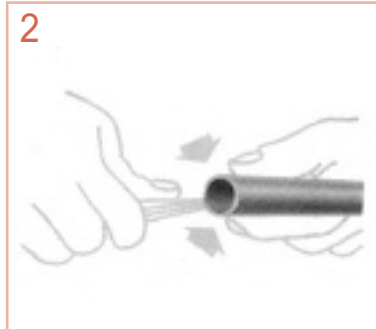
These excellent products assembled with specially heat treated sleeves and bodies made from low carbon steel(S10C to S25C)to prevent leaks. These fittings are available with various end sizes. Working Pressore 25MPa JIS B2351-1 AFHX 1



ASSEMBLY



1 Cut and prepare the tube.  
(Cutting angle has to be 90° degree)



2 Debar the cut edges.  
(do not chamfer)



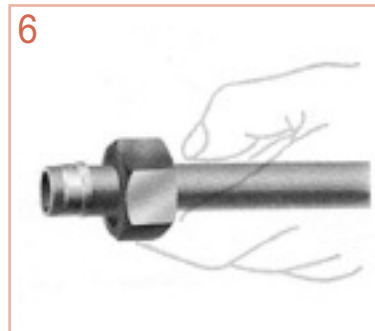
3 apply the oil to the inside  
and outside of Body.



4 apply the oil to the sleeve.



5 apply the oil to the nut thread



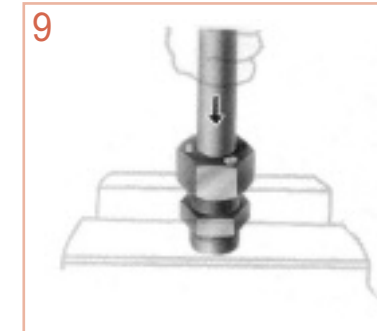
6 inserts sleeve and nut to the tube.



7 check the direction of sleeve.



8 assemble the NUT with hand.



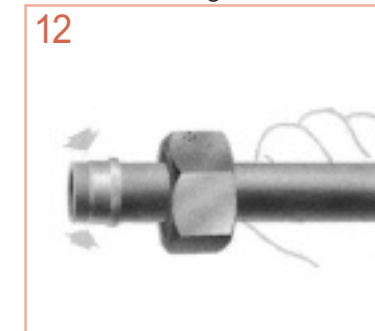
9 make sure tube ends touch  
into inside of body.



10 setting up the point  
before tighten up the nut.



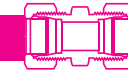
11 tighten up nut with 1 1/2 turn.  
(tube should not turn together)



12 sleeve should turn freely  
on the tube.



13 Tighten the NUT 1/4 turn from the sharp  
torque rize point.



## DESIGNATION PART NUMBER SYSTEM

The symbols in the part number column on each page represent the shape and size of individual fittings.

### Part Number Examples

**Example 1**

**SMC 04 - 04 R**

Name of Fitting (Male Connector) — SMC  
 Tube O.D Designations (4mm O.D) — 04 — 04  
 Thread Symbol(PT) — R  
 Pipe Thread Designations(1/4")

**Example 2**

**ST - 04**

Name of Fitting (Union tee) — ST  
 Tube O.D Designations (4mm O.D) — 04

Tube O.D Designations													
Tube O.D	4	6	8	10	12	15	16	18	20	22	25	28	30
Designation	04	06	08	10	12	15	16	18	20	22	25	28	30

Pipe Thread Designations										
Nom. Size	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Designation	02	04	06	08	12	16	20	24	32	

Thread Symbols	
<b>R</b>	Taper Pipe Threads (BSPT : JIS B0203, ISO 7/1)
<b>G</b>	Parallel Threads (BSPP : JIS B0202, ISO 228/1)
<b>N</b>	American National Standard Taper Pipe Threads (NPT : ANSI B2.1)

### Material Indication System

Specify material by part number suffix letter : Empty - Steel, SS - Stainless Steel, B - Brass

**Example 1**

**SLM 12 - 04 R X**

Carbon Steel

**Example 2**

**SMC 04 N - 02R - SS**

Stainless Steel

**Example 3**

**ST - 04 - B**

Brass

Part numbers listed are for complete fitting (body, nut and washer)

# HOW TO ORDER

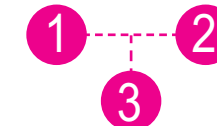


**1** When placing an order with us, be sure to specify the fittings with their part numbers as listed in this catalogue.

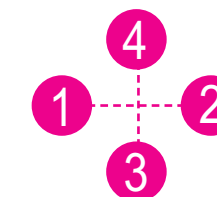
**2** For the fitting has two different size  
 a If the fitting has two different size end, call out the largest end size first **1**, followed by the smaller one **2** and indicate the order of **1** and **2** as shown this picture



b If the fitting has three different size ends, call out the largest end size first **1**, followed by the smaller one **2** of the same direction and the third one **3**, and indicate the order of **1**, **2** and **3** as shown this picture

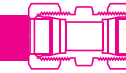


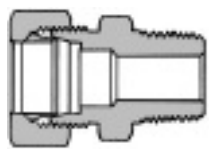
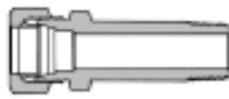
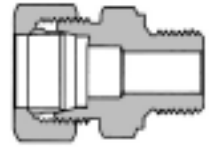
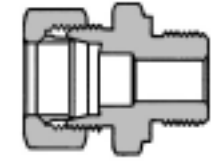
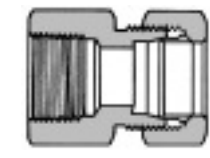
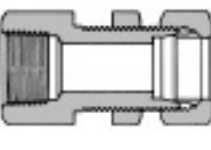
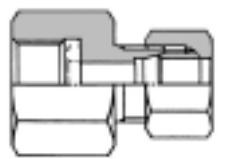
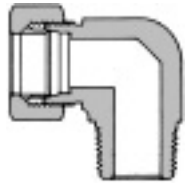
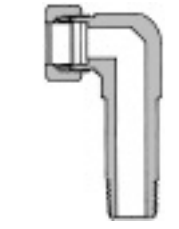
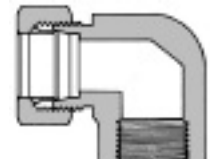
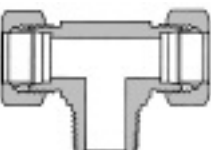
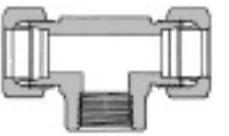
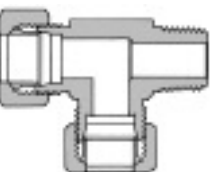
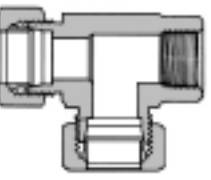
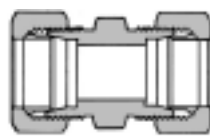
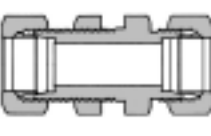

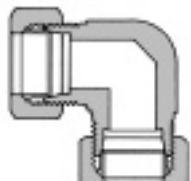
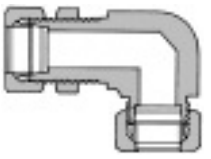
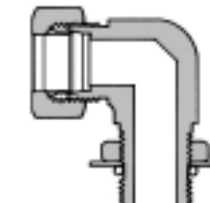
c If the fitting has four different size ends, call out the largest end size first **1**, followed by the smaller one **2** of the same direction, and largest end size **3**, followed by smaller one **4** of the rest, and indicate **1**, **2**, **3** and **4** as shown this picture

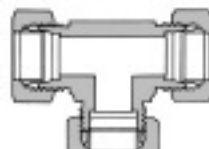
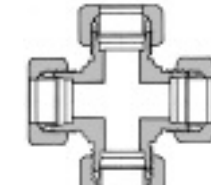
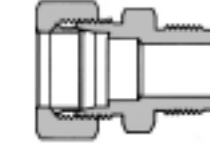
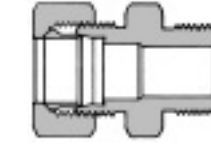
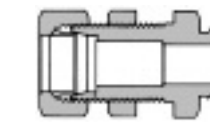
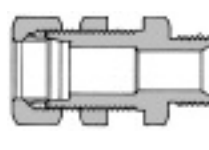
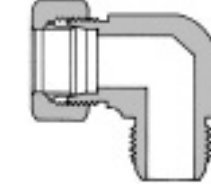
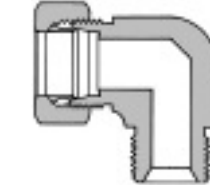
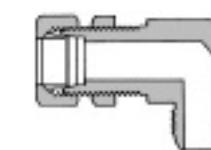
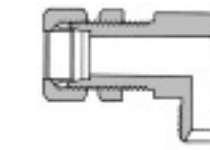
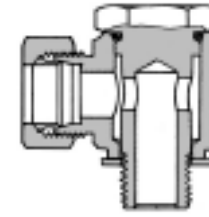
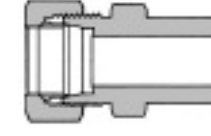
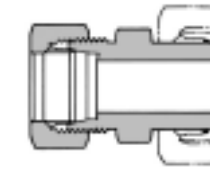
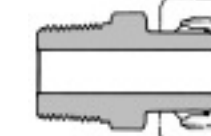
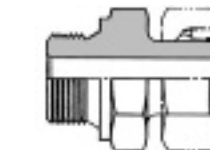
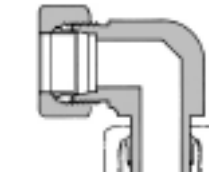
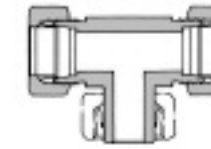
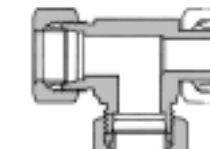




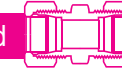
**3** If there is any possibility of question as to the fitting desired, particularly for special fitting configurations, it is suggested that a sketch be submitted with the fitting order.

**4** The fitting specifications are sometimes subject to change due to continuous improvements of quality and performance.

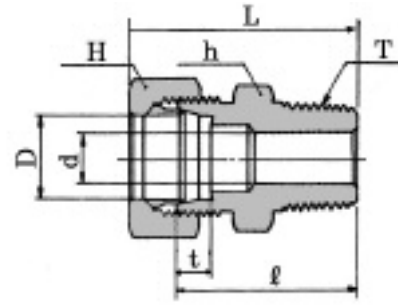


<b>SMC</b>	<b>SLMC</b>	<b>SMC-G</b>	<b>SOM</b>	<b>SFC</b>
				
P.22	P.21	P.24	P.25	P.26
<b>SBFC</b>	<b>SGC</b>	<b>SLM</b>	<b>SLLM</b>	<b>SLF</b>
				
P.27	P.28	P.29	P.30	P.31
<b>SBTM</b>	<b>SBTF</b>	<b>SRTM</b>	<b>SRTF</b>	<b>SU</b>
				
P.32	P.33	P.34	P.35	P.36
<b>SBU</b>	<b>SBUW</b>	<b>SL</b>	<b>SBL</b>	<b>SOLM</b>
				
P.37	P.38	P.39	P.40	P.41

<b>ST</b>	<b>SC</b>	<b>SHUM</b>	<b>SHUF</b>	<b>SHBUM</b>
				
P.42	P.43	P.44	P.45	P.46
<b>SHBUF</b>	<b>SHLM</b>	<b>SHLF</b>	<b>SHBLM</b>	<b>SHBLF</b>
				
P.47	P.48	P.49	P.50	P.51
<b>SSLM</b>	<b>SCW</b>	<b>SR</b>	<b>SAR</b>	<b>SAG</b>
				
P.52	P.53	P.54	P.55	P.56
<b>SLA</b>	<b>SBTA</b>	<b>SRTA</b>	<b>SN</b>	<b>SS</b>
				
P.57	P.58	P.58	P.59	P.60

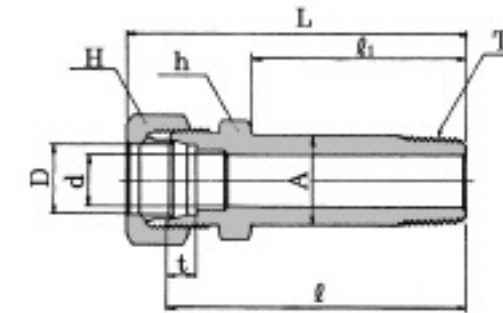


MALE CONNECTOR  
**SMC**



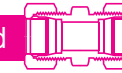
Part No.	Tube O.D		T (BSPT)	d	Width across flat		t	ℓ	Approx L
	D				h	H			
SMC04-02R	4		1/8	2.5	12	12	6	25	29.5
SMC06-02R	6		1/8	4	14	14	7	28	38.5
SMC06-04R	6		1/4	4	14	14	7	33	43.5
SMC08-02R	8		1/8	4	17	17	7	29	39.5
SMC08-04R	8		1/4	5.5	17	17	7	33	43.5
SMC10-04R	10		1/4	5.5	17	19	7	33	44.5
SMC10-06R	10		3/8	8	19	19	7	36	45.5
SMC10-08R	10		1/2	8	22	19	7	39	51
SMC12-04R	12		1/4	7	19	22	7	33	44.5
SMC12-06R	12		3/8	10	19	22	7	36	45.5
SMC12-08R	12		1/2	11.5	22	22	7	39	51
SMC15-06R	15		3/8	9	24	27	7.5	37	49.5
SMC15-08R	15		1/2	12	24	27	7.5	41	54
SMC16-06R	16		3/8	9	27	30	7.5	40	49.5
SMC16-08R	16		1/2	12	27	30	7.5	41	54
SMC18-06R	18		3/8	9	27	32	8	40	49.5
SMC18-08R	18		1/2	12	27	32	8	41	54
SMC20-08R	20		1/2	12	30	36	8	43	56
SMC20-12R	20		3/4	16	30	36	8	45	57.5
SMC22-08R	22		1/2	12	32	36	9	43	56
SMC22-12R	22		3/4	16	32	36	9	45	53.5
SMC25-12R	25		3/4	16	36	41	10	46	59.5
SMC25-16R	25		1	20	36	41	10	49	62.5
SMC28-12R	28		3/4	16	41	46	10	48	63
SMC28-16R	28		1	22	41	46	10	51	65
SMC30-16R	30		1	22	41	46	10	51	65.5
SMC30-20R	30		1 1/4	25	46	46	10	55	70
SMC32-20R	32		1 1/4	26	46	50	11	55	70
SMC35-20R	35		1 1/4	28	46	55	11	55	73
SMC38-24R	38		1 1/2	32	50	60	12	57	77
SMC40-24R	40		1 1/2	32	55	60	12	62	82
SMC42-24R	42		1 1/2	34	55	60	12	62	82
SMC50-32R	50		2	40	65	75	12	71	92.5
SMC81-02R	1/8	10.5	1/8	4	17	19	7	29	40.5
SMC81-04R	1/8	10.5	1/4	7	17	19	7	33	44.5
SMC82-04R	1/4	13.8	1/4	7	22	24	7.5	36	48
SMC82-06R	1/4	13.8	3/8	9	22	24	7.5	37	49
SMC83-06R	3/8	17.3	3/8	9	27	32	8	37	49.5
SMC83-08R	3/8	17.3	1/2	12	27	32	8	41	54
SMC84-08R	1/2	21.7	1/2	12	32	36	9	43	56
SMC84-12R	1/2	21.7	3/4	16	32	36	9	45	57.5
SMC85-12R	3/4	27.2	3/4	16	41	46	10	48	63
SMC85-16R	3/4	27.2	1	22	41	46	10	51	65
SMC86-16R	1	34.0	1	22	46	55	11	52	69.5
SMC86-20R	1	34.0	1 1/4	28	46	55	11	55	73
SMC87-20R	1 1/4	42.7	1 1/4	28	60	65	12	64	85
SMC87-24R	1 1/4	42.7	1 1/2	34	60	65	12	64	85
SMC88-24R	1 1/2	48.6	1 1/2	34	65	75	12	67	89
SMC88-32R	1 1/2	48.6	2	43	65	75	12	71	92.5

LONG MALE CONNECTOR  
**SLMC**



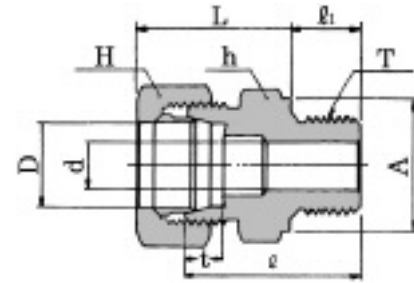
Part No.	Tube O.D		T (BSPT)	d	Width across flat		t	A	ℓ	ℓ <sub>1</sub>	Approx L
	D				h	H					
SLMC04-02R	4		1/8	2.5	12	12	6	10.5	46	30	53.5
SLMC06-02R	6		1/8	4	14	14	7	10.5	63	41	73.5
SLMC08-04R	8		1/4	6	17	17	7	14	70	45	80.5
SLMC10-04R	10		1/4	7	17	19	7	14	71	46	82.5
SLMC10-06R	10		3/8	8	19	19	7	17.5	72	46.5	83.5
SLMC12-04R	12		1/4	7	19	22	7	14	71	46	82.5
SLMC12-06R	12		3/8	9	19	22	7	17.5	72	46.5	83.5
SLMC15-06R	15		3/8	9	24	27	7.5	17.5	81	52.5	93.5
SLMC15-08R	15		1/2	12	24	27	7.5	22	86	56	98.5
SLMC16-08R	16		1/2	12	27	30	7.5	22	86	56	98.5
SLMC18-08R	18		1/2	12	27	32	8	22	86	56	98.5
SLMC20-12R	20		3/4	16	30	36	8	27.5	92	58.5	104.5
SLMC22-12R	22		3/4	16	32	36	9	27.5	93	59.5	105.5
SLMC25-16R	25		1	20	36	41	10	34	99	63.5	112.5
SLMC28-16R	28		1	22	41	46	10	34	104	66.5	118
SLMC30-20R	30		1 1/4	25	46	46	10	42.5	109	68.5	124
SLMC32-20R	32		1 1/4	26	46	50	11	42.5	110	69.5	125
SLMC81-04R	1/8 (8A)	10.5	1/4	7	17	19	7	14	71	46	82.5
SLMC82-06R	1/4 (8A)	13.8	3/8	9	22	24	7.5	17.5	81	52.5	93
SLMC83-06R	3/8 (10A)	17.3	3/8	9	27	32	8	17.5	81	52.5	93.5
SLMC83-08R	3/8 (10A)	17.3	1/2	12	27	32	8	22	86	56	98.5
SLMC84-12R	1/2 (15A)	21.7	3/4	16	32	36	9	27.5	93	59.5	105.5
SLMC85-16R	3/4 (20A)	27.2	1	22	41	46	10	34	104	66.5	118





MALE CONNECTOR (FOR COPPER GASKET)

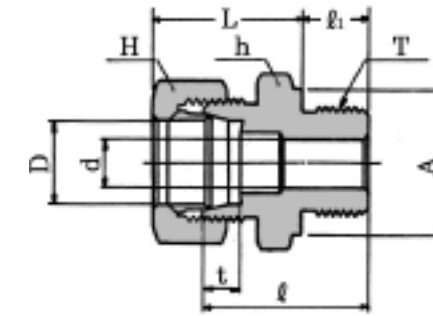
**SMC-G**



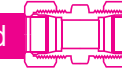
Part No.	Tube O.D		T (BSPP)	d	Width across flat		t	A	l	l <sub>1</sub>	Approx L
	D				h	H					
SMC-G04-02G	4		1/8	2.5	14	12	6	14	23	8	22.5
SMC-G06-02G	6		1/8	4	14	14	7	14	28	8	30.5
SMC-G06-04G	6		1/4	4	19	14	7	18	33	12	31.5
SMC-G08-02G	8		1/8	4	17	17	7	14	28	8	30.5
SMC-G08-04G	8		1/4	6	19	17	7	18	33	12	31.5
SMC-G10-04G	10		1/4	6	19	19	7	18	33	12	32.5
SMC-G10-06G	10		3/8	8	22	19	7	21.5	34	12	33.5
SMC-G12-04G	12		1/4	6	19	22	7	18	33	12	32.5
SMC-G12-06G	12		3/8	8	22	22	7	21.5	34	12	33.5
SMC-G12-08G	12		1/2	10	27	22	7	25.5	39	14	36.5
SMC-G15-06G	15		3/8	8	24	27	7.5	21.5	37	12	37.5
SMC-G15-08G	15		1/2	12	27	27	7.5	25.5	41	14	39.5
SMC-G16-08G	16		1/2	12	27	30	7.5	25.5	41	14	39.5
SMC-G18-08G	18		1/2	12	27	32	8	25.5	41	14	39.5
SMC-G20-12G	20		3/4	16	32	36	8	31.5	46	16	42.5
SMC-G22-08G	22		1/2	12	32	36	9	25.5	43	14	41.5
SMC-G22-12G	22		3/4	16	32	36	9	31.5	46	16	42.5
SMC-G25-12G	25		3/4	16	36	41	10	31.5	46	16	43.5
SMC-G25-16G	25		1	20	41	41	10	38	50	18	45.5
SMC-G28-16G	28		1	22	41	46	10	38	52	18	48
SMC-G30-16G	30		1	22	41	46	10	38	52	18	48.5
SMC-G30-20G	30		1 1/4	25	50	46	10	48.5	57	20	51.5
SMC-G32-20G	32		1 1/4	26	50	50	11	48.5	57	20	51.5
SMC-G35-20G	35		1 1/4	28	50	55	11	48.5	57	20	54.5
SMC-G38-24G	38		1 1/2	32	55	60	12	53.5	58	21	56.5
SMC-G40-24G	40		1 1/2	32	55	60	12	53.5	62	21	60.5
SMC-G42-24G	42		1 1/2	34	55	60	12	53.5	62	21	60.5
SMC-G50-32G	50		2	40	70	75	12	66	73	25	69.5
SMC-G81-02G	1/8	10.5	1/8	4	17	19	7	14	29	8	32.5
SMC-G81-04G	1/8	10.5	1/4	6	19	19	7	18	33	12	32.5
SMC-G82-04G	1/4	13.8	1/4	6	22	24	7.5	18	36	12	36
SMC-G82-06G	1/4	13.8	3/8	8	22	24	7.5	21.5	36	12	36
SMC-G83-06G	3/8	17.3	3/8	8	27	32	8	21.5	38	12	38.5
SMC-G83-08G	3/8	17.3	1/2	12	27	32	8	25.5	41	14	39.5
SMC-G84-08G	1/2	21.7	1/2	12	32	36	9	25.5	43	14	41.5
SMC-G84-12G	1/2	21.7	3/4	16	32	36	9	31.5	46	16	42.5
SMC-G85-12G	3/4	27.2	3/4	16	41	46	10	31.5	50	16	48
SMC-G85-16G	3/4	27.2	1	22	41	46	10	38	52	18	48
SMC-G86-16G	1	34.0	1	22	46	55	11	38	54	18	53.5
SMC-G86-20G	1	34.0	1 1/4	28	50	55	11	48.5	57	20	54.5
SMC-G87-20G	1 1/4	42.7	1 1/4	31	60	65	12	48.5	63	20	63.5
SMC-G87-24G	1 1/4	42.7	1 1/2	34	60	65	12	53.5	64	21	63.5
SMC-G88-24G	1 1/2	48.6	1 1/2	36	65	75	12	53.5	65	21	65.5
SMC-G88-32G	1 1/2	48.6	2	40	70	75	12	66	73	25	69.5

MALE CONNECTOR (FOR O-SEAL)

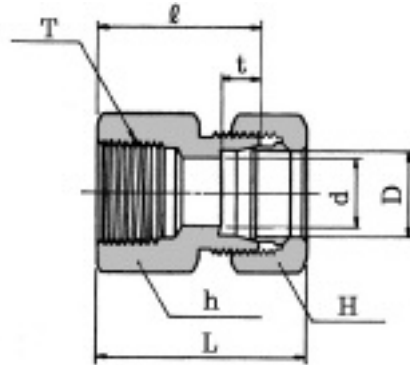
**SOM**



Part No.	Tube O.D		T (BSPP)	d	Width across flat		t	A	l	l <sub>1</sub>	Approx L
	D				h	H					
SOM04-02G	4		1/8	2.5	14	12	6	14	23	8	22.5
SOM06-02G	6		1/8	4	14	14	7	14	28	8	30.5
SOM06-04G	6		1/4	4	19	14	7	19	33	12	31.5
SOM08-02G	8		1/8	4	17	17	7	14	28	8	30.5
SOM08-04G	8		1/4	6	19	17	7	19	33	12	31.5
SOM10-04G	10		1/4	6	19	19	7	19	33	12	32.5
SOM10-06G	10		3/8	8	22	19	7	22	34	12	33.5
SOM12-04G	12		1/4	6	19	22	7	19	33	12	32.5
SOM12-06G	12		3/8	8	22	22	7	22	34	12	33.5
SOM12-08G	12		1/2	10	27	22	7	27	39	14	36.5
SOM15-06G	15		3/8	8	24	27	7.5	22	37	12	37.5
SOM15-08G	15		1/2	12	27	27	7.5	27	41	14	39.5
SOM16-08G	16		1/2	12	27	30	7.5	27	41	14	39.5
SOM18-08G	18		1/2	12	27	32	8	27	41	14	39.5
SOM20-12G	20		3/4	16	32	36	8	36	46	16	42.5
SOM22-08G	22		1/2	12	32	36	9	27	43	14	41.5
SOM22-12G	22		3/4	16	32	36	9	36	46	16	42.5
SOM25-12G	25		3/4	16	36	41	10	36	46	16	43.5
SOM25-16G	25		1	20	41	41	10	41	50	18	45.5
SOM28-16G	28		1	22	41	46	10	41	52	18	48
SOM30-16G	30		1	22	41	46	10	41	52	18	48.5
SOM30-20G	30		1 1/4	25	50	46	10	50	57	20	51.5
SOM32-20G	32		1 1/4	26	50	50	11	50	57	20	51.5
SOM35-20G	35		1 1/4	28	50	55	11	50	57	20	54.5
SOM38-24G	38		1 1/2	32	55	60	12	55	58	21	56.5
SOM40-24G	40		1 1/2	32	55	60	12	55	62	21	60.5
SOM42-24G	42		1 1/2	34	55	60	12	55	62	21	60.5
SOM50-32G	50		2	40	70	75	12	75	73	25	69.5
SOM81-02G	1/8	10.5	1/8	4	17	19	7	14	29	8	32.5
SOM81-04G	1/8	10.5	1/4	6	19	19	7	18	33	12	32.5
SOM82-04G	1/4	13.8	1/4	6	22	24	7.5	19	36	12	36
SOM82-06G	1/4	13.8	3/8	8	22	24	7.5	22	36	12	36
SOM83-06G	3/8	17.3	3/8	8	27	32	8	22	38	12	38.5
SOM83-08G	3/8	17.3	1/2	12	27	32	8	27	41	14	39.5
SOM84-08G	1/2	21.7	1/2	12	32	36	9	27	43	14	41.5
SOM84-12G	1/2	21.7	3/4	16	32	36	9	36	46	16	42.5
SOM85-12G	3/4	27.2	3/4	16	41	46	10	36	50	16	48
SOM85-16G	3/4	27.2	1	22	41	46	10	41	52	18	48
SOM86-16G	1	34.0	1	22	46	55	11	41	54	18	53.5
SOM86-20G	1	34.0	1 1/4	28	50	55	11	50	57	20	54.5
SOM87-20G	1 1/4	42.7	1 1/4	31	60	65	12	50	63	20	63.5
SOM87-24G	1 1/4	42.7	1 1/2	34	60	65	12	55	64	21	63.5
SOM88-24G	1 1/2	48.6	1 1/2	36	65	75	12	55	65	21	65.5
SOM88-32G	1 1/2	48.6	2	40	70	75	12	75	73	25	69.5

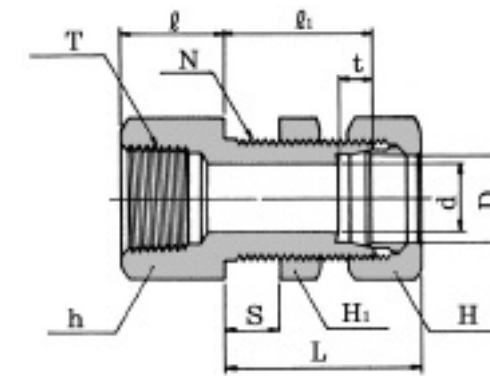


FEMALE CONNECTOR  
**SFC**

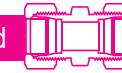


Part No.	Tube O.D		T (BSPT)	d	Width across flat		t	l	Approx L
	D				h	H			
SFC06-02R	6		1/8	4	17	14	7	25	35.5
SFC08-04R	8		1/4	6	19	17	7	30	40.5
SFC10-04R	10		1/4	8	19	19	7	30	41.5
SFC10-06R	10		3/8	8	24	19	7	32	43.5
SFC12-04R	12		1/4	10	19	22	7	30	41.5
SFC12-06R	12		3/8	10	24	22	7	32	43.5
SFC15-06R	15		3/8	12	24	27	7.5	34	46.5
SFC15-08R	15		1/2	12	30	27	7.5	39	51.5
SFC16-08R	16		1/2	13	30	30	7.5	39	51.5
SFC18-08R	18		1/2	14	30	32	8	39	51.5
SFC20-12R	20		3/4	17	36	36	8	41	53.5
SFC22-12R	22		3/4	18	36	36	9	41	53.5
SFC25-12R	25		3/4	20	36	41	10	41	54.5
SFC25-16R	25		1	20	41	41	10	45	58.5
SFC28-16R	28		1	22	41	46	10	47	61
SFC30-16R	30		1	25	41	46	10	47	61.5
SFC30-20R	30		1 1/4	25	55	46	10	51	65.5
SFC32-20R	32		1 1/4	26	55	50	11	51	65.5
SFC35-20R	35		1 1/4	28	55	55	11	51	68.5
SFC38-24R	38		1 1/2	32	65	60	12	51	70.5
SFC40-24R	40		1 1/2	32	65	60	12	55	74.5
SFC42-24R	42		1 1/2	34	65	60	12	55	74.5
SFC50-32R	50		2	40	80	75	12	60	81.5
SFC81-04R	1/8	10.5	1/4	8	19	19	7	30	41.5
SFC82-06R	1/4	13.8	3/8	11	24	24	7.5	34	46
SFC83-08R	3/8	17.3	1/2	14	30	32	8	39	51.5
SFC84-12R	1/2	21.7	3/4	18	36	36	9	41	53.5
SFC85-16R	3/4	27.2	1	22	46	46	10	47	61
SFC86-20R	1	34.0	1 1/4	28	55	55	11	51	68.5
SFC87-24R	1 1/4	42.7	1 1/2	34	65	65	12	55	78.5
SFC88-32R	1 1/2	48.6	2	40	80	75	12	60	81.5

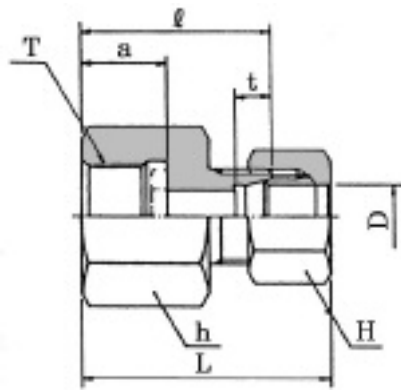
BULKHEAD FEMALE CONNECTOR  
**SBFC**



Part No.	Tube O.D		T (BSPT)	d	Width across flat			t	l	l <sub>1</sub>	Approx L	Panel Hole Drill size N	Panel Max thickness S
	D				h	H	H <sub>1</sub>						
SBFC06-02R	6		1/8	4	17	14	17	7	13	32	42.5	12.5	13
SBFC08-04R	8		1/4	6	19	17	19	7	18	32	42.5	14.5	13
SBFC10-04R	10		1/4	8	19	19	22	7	18	32	43.5	16.5	13
SBFC10-06R	10		3/8	8	24	19	22	7	20	32	43.5	16.5	13
SBFC12-04R	12		1/4	10	19	22	24	7	18	32	43.5	18.5	13
SBFC12-06R	12		3/8	10	24	22	24	7	20	32	43.5	18.5	13
SBFC15-06R	15		3/8	12	24	27	27	7.5	20	37	49.5	22.5	15
SBFC15-08R	15		1/2	12	30	27	27	7.5	25	37	49.5	22.5	15
SBFC16-08R	16		1/2	13	30	30	30	7.5	25	37	49.5	24.5	15
SBFC18-08R	18		1/2	14	30	32	32	8	25	39	51.5	26.5	15
SBFC20-12R	20		3/4	17	36	36	32	8	27	39	51.5	28.5	15
SBFC22-12R	22		3/4	18	36	36	36	9	27	39	51.5	30.5	15
SBFC25-12R	25		3/4	20	41	41	41	10	27	39	52.5	35.5	15
SBFC25-16R	25		1	20	46	41	41	10	31	39	52.5	35.5	15
SBFC28-16R	28		1	22	46	46	46	10	31	41	55	38.5	15
SBFC30-16R	30		1	25	46	46	46	10	31	41	55.5	40.5	15
SBFC30-20R	30		1 1/4	25	55	46	46	10	35	41	55.5	40.5	15
SBFC32-20R	32		1 1/4	26	55	50	46	11	35	43	57.5	42.5	15

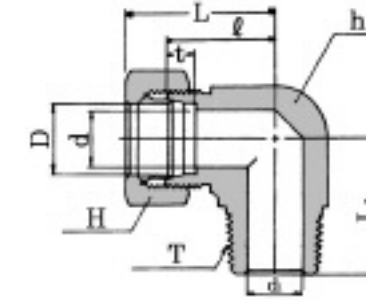


GAUGE CONNECTOR  
**SGC**



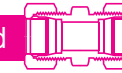
Part No.	Tube O.D	T (BSPP)	a	Width across flat		t	ℓ	Approx
	D			h	H			L
SGC04-04G	4	1/4	14	19	12	6	29	36.5
SGC04-06G	4	3/8	15	24	12	6	30	37.5
SGC06-04G	6	1/4	14	19	14	7	32	42.5
SGC06-06G	6	3/8	15	24	14	7	34	44.5
SGC06-08G	6	1/2	16	30	14	7	36	46.5
SGC08-04G	8	1/4	14	19	17	7	32	42.5
SGC08-06G	8	3/8	15	24	17	7	34	44.5
SGC08-08G	8	1/2	16	30	17	7	36	46.5
SGC10-04G	10	1/4	14	19	19	7	32	43.5
SGC10-06G	10	3/8	15	24	19	7	34	45.5
SGC10-08G	10	1/2	16	30	19	7	36	47.5
SGC12-04G	12	1/4	14	19	22	7	32	43.5
SGC12-06G	12	3/8	15	24	22	7	34	45.5
SGC12-08G	12	1/2	16	30	22	7	36	47.5

MALE ELBOW  
**SLM**

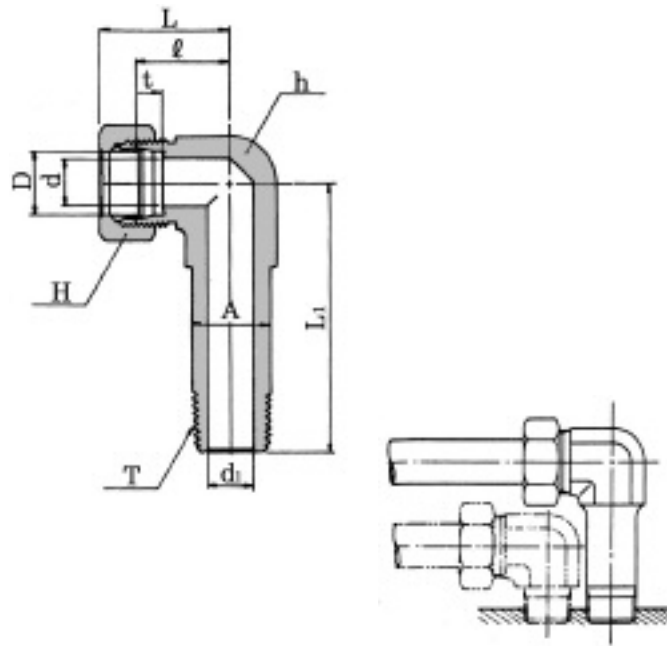


Part No.	Tube O.D		T (BSPT)	d	d <sub>1</sub>	Width across flat		t	ℓ	Approx	
	D					h	H			L	L <sub>1</sub>
SLM04-02R	4		1/8	2.5	4	12	12	6	15	22.5	21
SLM06-02R	6		1/8	4	4	14	14	7	20	30.5	23
SLM06-04R	6		1/4	4	5.5	14	14	7	23	33.5	23.5
SLM08-02R	8		1/8	6	4	17	17	7	23	33.5	24
SLM08-04R	8		1/4	6	7	17	17	7	23	33.5	26
SLM10-04R	10		1/4	8	7	17	19	7	23	34.5	26
SLM10-06R	10		3/8	8	9	19	19	7	24	35.5	30
SLM10-08R	10		1/2	8	12	22	19	7	29	40.5	37
SLM12-04R	12		1/4	10	7	19	22	7	24	35.5	30
SLM12-06R	12		3/8	10	9	19	22	7	24	35.5	30
SLM12-08R	12		1/2	10	12	22	22	7	29	40.5	37
SLM15-06R	15		3/8	12	9	24	27	7.5	29	41.5	37
SLM15-08R	15		1/2	12	12	24	27	7.5	29	41.5	37
SLM16-06R	16		3/8	13	9	27	30	7.5	32	44.5	37
SLM16-08R	16		1/2	13	12	27	30	7.5	32	44.5	37
SLM18-06R	18		3/8	14	9	27	32	8	32	44.5	37
SLM18-08R	18		1/2	14	12	27	32	8	32	44.5	37
SLM20-08R	20		1/2	17	12	30	36	8	33	45.5	38
SLM20-12R	20		3/4	17	16	30	36	8	33	45.5	42
SLM22-08R	22		1/2	18	12	32	36	9	34	46.5	39
SLM22-12R	22		3/4	18	16	32	36	9	34	46.5	42
SLM25-12R	25		3/4	20	16	36	41	10	36	49.5	43
SLM25-16R	25		1	20	22	36	41	10	36	49.5	48
SLM28-12R	28		3/4	22	16	41	46	10	41	55	49
SLM28-16R	28		1	22	22	41	46	10	41	55	49
SLM30-16R	30		1	25	22	41	46	10	41	55.5	49
SLM30-20R	30		1 1/4	25	26	41	46	10	46	60.5	57
SLM32-20R	32		1 1/4	26	26	41	50	11	46	60.5	57
SLM35-20R	35		1 1/4	28	26	41	55	11	46	63.5	57
SLM38-24R	38		1 1/2	32	33	50	60	12	50	69.5	65
SLM40-24R	40		1 1/2	32	33	50	60	12	55	74.5	65
SLM42-24R	42		1 1/2	34	33	50	60	12	55	74.5	65
SLM50-32R	50		2	40	43	65	75	12	62	83.5	68
SLM81-02R	1/8	10.5	1/8	8	4	17	19	7	23	34.5	23
SLM81-04R	1/8	10.5	1/4	8	7	17	19	7	23	34.5	26
SLM82-04R	1/4	13.8	1/4	11	7	22	24	7.5	28	40	35
SLM82-06R	1/4	13.8	3/8	11	9	22	24	7.5	28	40	35.5
SLM83-06R	3/8	17.3	3/8	14	9	27	32	8	32	44.5	37
SLM83-08R	3/8	17.3	1/2	14	12	27	32	8	32	44.5	37
SLM84-08R	1/2	21.7	1/2	18	12	32	36	9	34	46.5	38
SLM84-12R	1/2	21.7	3/4	18	16	32	36	9	34	46.5	42
SLM85-12R	3/4	27.2	3/4	22	16	41	46	10	41	55	49
SLM85-16R	3/4	27.2	1	22	22	41	46	10	41	55	49
SLM86-16R	1	34.0	1	28	22	41	55	11	46	63.5	58
SLM86-20R	1	34.0	1 1/4	28	26	41	55	11	46	63.5	58
SLM87-20R	1 1/4	42.7	1 1/4	34	26	50	65	12	57	77.5	65
SLM87-24R	1 1/4	42.7	1 1/2	34	33	50	75	12	57	77.5	65
SLM88-24R	1 1/2	48.6	1 1/2	40	33	65	75	12	62	83.5	65
SLM88-32R	1 1/2	48.6	2	40	43	65	75	12	62	83.5	68

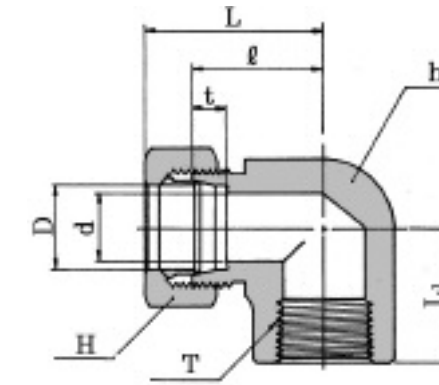




LONG MALE ELBOW  
**SLLM**

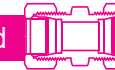


FEMALE ELBOW  
**SLF**

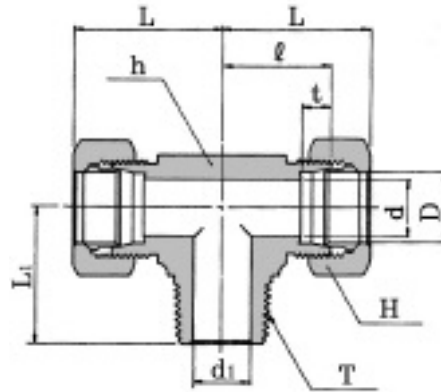


Part No.	Tube O.D D	T (BSPT)	d	d <sub>1</sub>	Width across flat		t	A	ℓ	Approx	
					h	H				L	L <sub>1</sub>
SLLM06-02R	6	1/8	4	4	14	14	7	12	20	30.5	43
SLLM08-04R	8	1/4	6	7	17	17	7	16	23	33.5	49
SLLM10-04R	10	1/4	8	7	17	19	7	16	23	34.5	52
SLLM12-04R	12	1/4	10	7	19	22	7	18	24	35.5	58
SLLM12-06R	12	3/8	10	9	19	22	7	18	24	35.5	61
SLLM15-06R	15	3/8	12	9	24	27	7.5	23	29	41.5	68
SLLM15-08R	15	1/2	12	12	24	27	7.5	23	29	41.5	75.5
SLLM16-08R	16	1/2	13	12	27	30	7.5	24	32	44.5	78.5
SLLM18-08R	18	1/2	14	12	27	32	8	26	32	44.5	85.5
SLLM20-12R	20	3/4	17	16	30	36	8	28	33	45.5	92
SLLM22-12R	22	3/4	18	16	32	36	9	30	34	46.5	93
SLLM25-12R	25	3/4	20	16	36	41	10	35	36	49.5	100
SLLM25-16R	25	1	20	22	36	41	10	35	36	49.9	102
SLLM28-16R	28	1	22	22	41	46	10	40	41	55	115
SLLM30-20R	30	1 1/4	25	26	46	46	10	44	46	60.5	117.5
SLLM32-20R	32	1 1/4	26	26	46	50	11	44	46	60.5	117.5
SLLM35-20R	35	1 1/4	28	26	46	55	11	44	46	63.5	134.5

Part No.	Tube O.D D	T (BSPT)	d	Width across flat		t	ℓ	Approx	
				h	H			L	L <sub>1</sub>
SLF08-04R	8	1/4	6	19	17	7	24	24	34.5
SLF10-04R	10	1/4	8	19	19	7	24	24	35.5
SLF12-04R	12	1/4	10	19	22	7	24	24	35.5
SLF12-06R	12	3/8	10	24	22	7	29	29	40.5
SLF15-06R	15	3/8	12	24	27	7.5	29	29	41.5
SLF15-08R	15	1/2	12	27	27	7.5	33	33	45.5
SLF16-08R	16	1/2	13	27	30	7.5	33	33	45.5
SLF18-08R	18	1/2	14	27	32	8	33	33	45.5
SLF20-12R	20	3/4	17	35	36	8	36	36	48.5
SLF22-12R	22	3/4	18	36	36	9	36	36	48.5
SLF25-12R	25	3/4	20	36	41	10	36	36	49.5
SLF25-16R	25	1	20	41	41	10	46	46	59.5
SLF28-16R	28	1	22	41	46	10	46	46	60
SLF30-20R	30	1 1/4	25	50	46	10	55	55	69.5
SLF32-20R	32	1 1/4	26	50	50	11	55	55	69.5
SLF35-20R	35	1 1/4	28	50	55	11	55	55	72.5

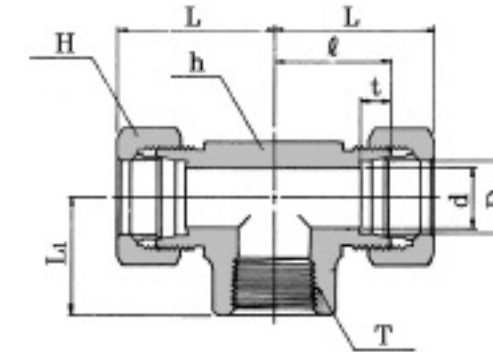


MALE BRANCH TEE  
**SBTM**

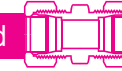


Part No.	Tube O.D		T (BSPT)	d	d <sub>1</sub>	Width across flat		t	ℓ	Approx L	L <sub>1</sub>
	D					h	H				
SBTM04-02R	4		1/8	2.5	4	12	12	6	15	22.5	21
SBTM06-02R	6		1/8	4	4	14	14	7	20	30.5	21
SBTM06-04R	6		1/4	4	7	17	14	7	23	33.5	23.5
SBTM08-02R	8		1/8	6	4	17	17	7	23	33.5	24
SBTM08-04R	8		1/4	6	7	17	17	7	23	33.5	26
SBTM10-04R	10		1/4	8	7	17	19	7	23	34.5	26
SBTM10-06R	10		3/8	8	9	19	19	7	24	35.5	30
SBTM12-04R	12		1/4	10	7	19	22	7	24	35.5	30
SBTM12-06R	12		3/8	10	9	19	22	7	24	35.5	30
SBTM15-06R	15		3/8	12	9	24	27	7.5	29	41.5	34
SBTM15-08R	15		1/2	12	12	24	27	7.5	29	41.5	34
SBTM16-08R	16		1/2	13	12	27	30	7.5	32	44.5	37
SBTM18-08R	18		1/2	14	12	27	32	8	32	44.5	37
SBTM20-12R	20		3/4	17	16	30	36	8	33	45.5	40
SBTM22-12R	22		3/4	18	16	32	36	9	34	46.5	42
SBTM25-12R	25		3/4	20	16	36	41	10	36	49.5	46
SBTM25-16R	25		1	20	22	36	41	10	36	49.5	49
SBTM28-16R	28		1	22	22	41	46	10	41	55	49
SBTM30-16R	30		1	25	22	41	46	10	41	55.5	49
SBTM30-20R	30		1 1/4	25	26	41	46	10	46	60.5	52
SBTM32-20R	32		1 1/4	26	26	41	50	11	46	60.5	52
SBTM35-20R	35		1 1/4	28	26	41	55	11	46	63.5	58
SBTM38-24R	38		1 1/2	32	33	50	60	12	50	69.5	58
SBTM40-24R	40		1 1/2	32	33	50	60	12	55	74.5	58
SBTM50-32R	50		2	40	43	65	75	12	62	83.5	68
SBTM81-04R	1/8	10.5	1/4	8	7	17	19	7	23	34.5	26
SBTM82-06R	1/4	13.8	3/8	11	9	22	24	7.5	28	40	32
SBTM83-08R	3/8	17.3	1/2	14	12	27	32	8	32	44.5	37
SBTM84-12R	1/2	21.7	3/4	18	16	32	36	9	34	46.5	42
SBTM85-16R	3/4	27.2	1	22	22	41	46	10	41	55	49
SBTM86-20R	1	34.0	1 1/4	28	26	41	55	11	46	63.5	58
SBTM87-24R	1 1/4	42.7	1 1/2	34	33	50	65	12	57	77.5	58
SBTM88-32R	1 1/2	48.6	2	40	43	65	75	12	62	83.5	68

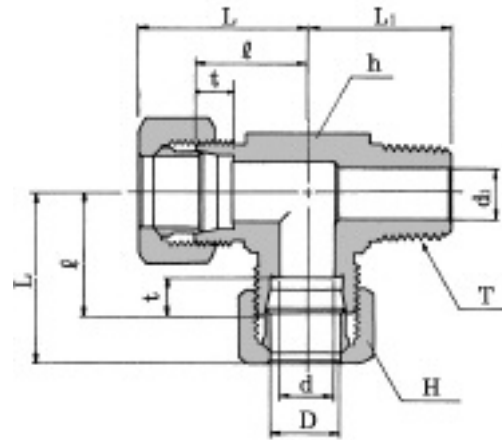
FEMALE BRANCH TEE  
**SBTF**



Part No.	Tube O.D		T (BSPT)	d	Width across flat		t	ℓ	Approx L	L <sub>1</sub>
	D				h	H				
SBTF08-04R	8		1/4	6	19	17	7	24	34.5	24
SBTF10-04R	10		1/4	8	19	19	7	24	35.5	24
SBTF12-04R	12		1/4	10	19	22	7	24	35.5	24
SBTF12-06R	12		3/8	10	24	22	7	29	40.5	29
SBTF15-06R	15		3/8	12	24	27	7.5	29	41.5	29
SBTF15-08R	15		1/2	12	27	27	7.5	33	45.5	33
SBTF16-08R	16		1/2	13	27	30	7.5	33	45.5	33
SBTF18-08R	18		1/2	14	27	32	8	33	45.5	33
SBTF20-12R	20		3/4	17	36	36	8	36	48.5	36
SBTF22-12R	22		3/4	18	36	36	9	36	48.5	36
SBTF25-12R	25		3/4	20	36	41	10	36	49.5	36
SBTF25-16R	25		1	20	41	41	10	46	59.5	46
SBTF28-16R	28		1	22	41	46	10	46	60	46
SBTF30-16R	30		1	25	41	46	10	46	60.5	46
SBTF30-20R	30		1 1/4	25	50	46	10	55	69.5	55
SBTF32-20R	32		1 1/4	26	50	50	11	55	69.5	55
SBTF35-20R	35		1 1/4	28	50	55	11	55	72.5	55
SBTF81-04R	1/8	10.5	1/4	8	19	19	7	24	35.5	24
SBTF82-06R	1/4	13.8	3/8	11	24	24	7.5	29	41	29
SBTF83-08R	3/8	17.3	1/2	14	27	32	8	33	45.5	33
SBTF84-12R	1/2	21.7	3/4	18	36	36	9	36	48.5	36
SBTF85-16R	3/4	27.2	1	22	41	46	10	46	60	46
SBTF86-20R	1	34.0	1 1/4	28	50	55	11	55	72.5	55

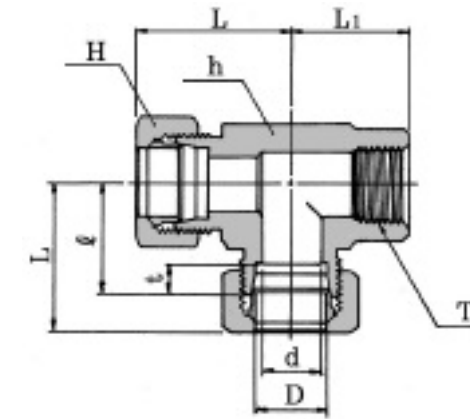


MALE RUN TEE  
**SRTM**



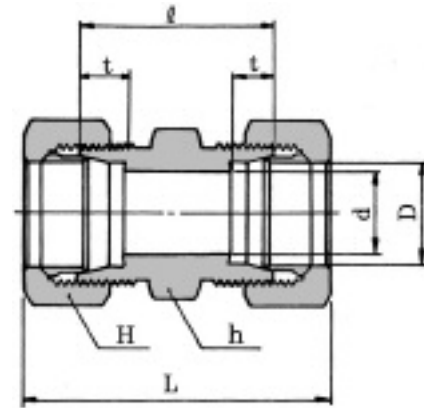
Part No.	Tube O.D		T (BSPT)	d	d <sub>1</sub>	Width across flat		t	ℓ	Approx L	L <sub>1</sub>
	D					h	H				
SRTM04-02R	4		1/8	2.5	4	12	12	6	15	22.5	2
SRTM06-02R	6		1/8	4	4	14	14	7	20	30.5	21
SRTM06-04R	6		1/4	4	7	14	14	7	23	33.5	23.5
SRTM08-02R	8		1/8	6	4	17	17	7	23	33.5	24
SRTM08-04R	8		1/4	6	7	17	17	7	23	33.5	26
SRTM10-04R	10		1/4	8	7	17	19	7	23	34.5	26
SRTM10-06R	10		3/8	8	9	19	19	7	24	35.5	30
SRTM12-04R	12		1/4	10	7	19	22	7	24	35.5	30
SRTM12-06R	12		3/8	10	9	19	22	7	24	35.5	30
SRTM15-06R	15		3/8	12	9	24	27	7.5	29	41.5	34
SRTM15-08R	15		1/2	12	12	24	27	7.5	29	41.5	34
SRTM16-08R	16		1/2	13	12	27	30	7.5	32	44.5	37
SRTM18-08R	18		1/2	14	12	27	32	8	32	44.5	37
SRTM20-12R	20		3/4	17	16	30	36	8	33	45.5	39
SRTM22-12R	22		3/4	18	16	32	36	9	34	46.5	42
SRTM25-12R	25		3/4	20	16	36	41	10	36	49.5	46
SRTM25-16R	25		1	20	22	36	41	10	36	49.5	49
SRTM28-16R	28		1	22	22	41	46	10	41	55	49
SRTM30-16R	30		1	25	22	41	46	10	41	55.5	49
SRTM30-20R	30		1 1/4	25	26	41	46	10	46	60.5	52
SRTM32-20R	32		1 1/4	26	26	41	50	11	46	60.5	52
SRTM35-20R	35		1 1/4	28	26	41	55	11	46	63.5	58
SRTM38-24R	38		1 1/2	32	33	50	60	12	50	69.5	58
SRTM40-24R	40		1 1/2	32	33	50	60	12	55	74.5	58
SRTM50-32R	50		2	40	43	65	75	12	62	83.5	68
SRTM81-04R	1/8	10.5	1/4	8	7	17	19	7	23	34.5	26
SRTM82-06R	1/4	13.8	3/8	11	9	22	24	7.5	28	40	32
SRTM83-08R	3/8	17.3	1/2	14	12	27	32	8	32	44.5	27
SRTM84-12R	1/2	21.7	3/4	18	16	32	36	9	34	46.5	42
SRTM85-16R	3/4	27.2	1	22	22	41	46	10	41	55	49
SRTM86-20R	1	34.0	1 1/4	28	26	41	55	11	46	63.5	58
SRTM87-24R	1 1/4	42.7	1 1/2	34	33	50	65	12	57	77.5	58
SRTM88-32R	1 1/2	48.6	2	40	43	65	75	12	62	83.5	68

FEMALE RUN TEE  
**SRTF**

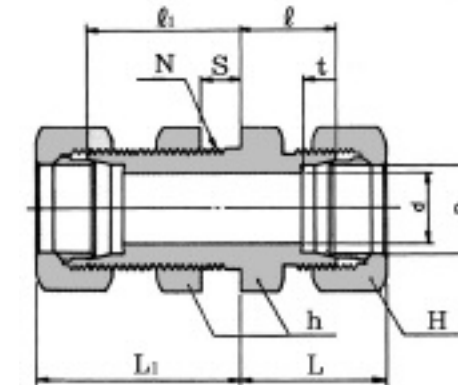


Part No.	Tube O.D		T (BSPT)	d	Width across flat		t	ℓ	Approx L	L <sub>1</sub>
	D				h	H				
SRTF08-04R	8		1/4	6	19	17	7	24	34.5	24
SRTF10-04R	10		1/4	8	19	19	7	24	35.5	24
SRTF12-04R	12		1/4	10	19	22	7	24	35.5	24
SRTF12-06R	12		3/8	10	24	22	7	29	40.5	29
SRTF15-06R	15		3/8	12	24	27	7.5	29	41.5	29
SRTF15-08R	15		1/2	12	27	27	7.5	33	45.5	33
SRTF16-08R	16		1/2	13	27	30	7.5	33	45.5	33
SRTF18-08R	18		1/2	14	27	32	8	33	45.5	33
SRTF20-12R	20		3/4	17	36	36	8	36	48.5	36
SRTF22-12R	22		3/4	18	36	36	9	36	48.5	36
SRTF25-12R	25		3/4	20	36	41	10	36	49.5	36
SRTF25-16R	25		1	20	41	41	10	46	59.5	46
SRTF28-16R	28		1	22	41	46	10	46	60	46
SRTF30-16R	30		1	25	41	46	10	46	60.5	46
SRTF30-20R	30		1 1/4	25	50	46	10	55	69.5	55
SRTF32-20R	32		1 1/4	26	50	50	11	55	69.5	55
SRTF35-20R	35		1 1/4	28	50	55	11	55	72.5	55
SRTF81-04R	1/8	10.5	1/4	8	19	19	7	24	35.5	24
SRTF82-06R	1/4	13.8	3/8	11	24	24	7.5	29	41	29
SRTF83-08R	3/8	17.3	1/2	14	27	32	8	33	45.5	33
SRTF84-12R	1/2	21.7	3/4	18	36	36	9	36	48.5	36
SRTF85-16R	3/4	27.2	1	22	41	46	10	46	60	46
SRTF86-20R	1	34.0	1 1/4	28	50	55	11	55	72.5	55

## STRAIGHT UNION SU



## STRAIGHT BULKHEAD UNION SBU

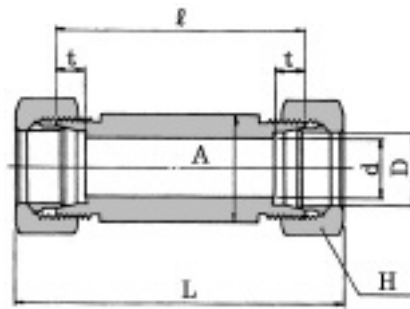


Part No.	Tube O.D		d	Width across flat		t	ℓ	Approx
	D			h	H			L
SU-04	4		2.5	12	12	6	20	35
SU-06	6		4	14	14	7	30	51
SU-08	8		6	17	17	7	31	52
SU-10	10		8	17	19	7	31	54
SU-12	12		10	19	22	7	32	54
SU-15	15		12	24	27	7.5	36	61
SU-16	16		13	27	30	7.5	36	61
SU-18	18		14	27	32	8	36	61
SU-20	20		17	30	36	8	38	63
SU-22	22		18	32	36	9	38	63
SU-25	25		20	36	41	10	39	66
SU-28	28		22	41	46	10	43	71
SU-30	30		25	41	46	10	43	72
SU-32	32		26	46	50	11	44	73
SU-35	35		28	46	55	11	44	79
SU-38	38		32	50	60	12	46	85
SU-40	40		32	55	60	12	55	94
SU-42	42		34	55	60	12	55	94
SU-50	50		40	65	75	12	60	103
SU-81	1/8	10.5	8	17	19	7	31	54
SU-82	1/4	13.8	11	22	24	7.5	36	60
SU-83	3/8	17.3	14	27	32	8	36	61
SU-84	1/2	21.7	18	32	36	9	38	63
SU-85	3/4	27.2	22	41	46	10	43	71
SU-86	1	34.0	28	46	55	11	44	79
SU-87	1 1/4	42.7	34	60	65	12	57	98
SU-88	1 1/2	48.6	40	65	75	12	60	103

Part No.	Tube O.D		d	Width across flat		t	ℓ	ℓ <sub>1</sub>	Approx		Panel Hole Drill size N	Panel Max thickness S
	D			h	H				L	L <sub>1</sub>		
SBU-04	4		2.5	14	12	6	14	25	21.5	32.5	10.5	13
SBU-06	6		4	17	14	7	19	32	29.5	42.5	12.5	13
SBU-08	8		6	19	17	7	19	32	29.5	42.5	14.5	13
SBU-10	10		8	22	19	7	20	32	31.5	43.5	16.5	13
SBU-12	12		10	24	22	7	20	32	31.5	43.5	18.5	13
SBU-15	15		12	27	27	7.5	22	37	34.5	49.5	22.5	15
SBU-16	16		13	30	30	7.5	24	37	36.5	49.5	24.5	15
SBU-18	18		14	32	32	8	24	39	36.5	51.5	26.5	15
SBU-20	20		17	32	36	8	24	39	36.5	51.5	28.5	15
SBU-22	22		18	36	36	9	25	39	37.5	51.5	30.5	15
SBU-25	25		20	41	41	10	25	39	38.5	52.5	35.5	15
SBU-28	28		22	46	46	10	28	41	42.0	55.0	38.5	15
SBU-30	30		25	46	46	10	28	41	42.5	55.5	40.5	15
SBU-32	32		26	50	50	11	30	43	44.5	57.5	42.5	15
SBU-35	35		28	50	55	11	39	43	47.5	60.5	45.5	15
SBU-38	38		32	55	60	12	31	45	50.5	64.5	48.5	15
SBU-40	40		32	60	60	12	37	50	56.5	69.5	52.5	15
SBU-50	50		40	70	75	12	43	50	64.5	71.5	64.5	15
SBU-81	1/8	10.5	8	22	19	7	20	32	31.5	43.5	16.5	13
SBU-82	1/4	13.8	11	27	24	7.5	22	37	34.0	49.0	20.5	15
SBU-83	3/8	17.3	14	32	32	8	24	39	36.5	51.5	26.5	15
SBU-84	1/2	21.7	18	36	36	9	25	39	37.5	51.5	30.5	15
SBU-85	3/4	27.2	22	46	46	10	28	41	42.0	55.0	38.5	15
SBU-86	1	34.0	28	50	55	11	30	43	47.5	60.5	45.5	15
SBU-87	1 1/4	42.7	34	65	65	12	40	50	60.5	70.5	56.5	15
SBU-88	1 1/2	48.6	40	70	75	12	43	50	64.5	71.5	64.5	15

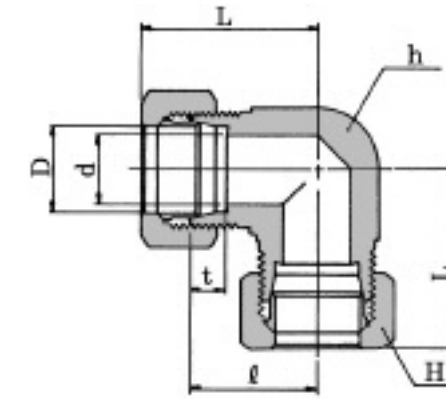


## WELDING BULKHEAD UNION SBUW



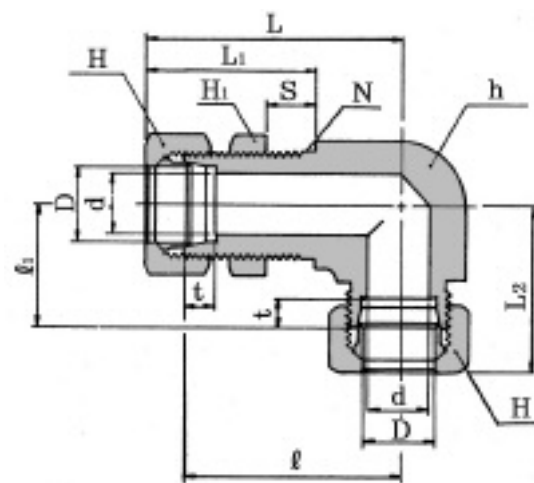
Part No.	Tube O.D		d	A	Width across flat		t	ℓ	Approx L
	D				H				
SBUW-06	6		4	16	14		7	74	95
SBUW-08	8		6	16	17		7	74	95
SBUW-10	10		8	19	19		7	74	97
SBUW-12	12		10	20	22		7	74	97
SBUW-15	15		12	25	27		7.5	78	103
SBUW-16	16		13	28	30		7.5	78	103
SBUW-18	18		14	28	32		8	78	103
SBUW-20	20		17	32	36		8	78	103
SBUW-22	22		18	32	36		9	78	103
SBUW-25	25		20	38	41		10	78	105
SBUW-28	28		22	39	46		10	82	110
SBUW-30	30		25	46	46		10	82	111
SBUW-32	32		26	46	50		11	82	111
SBUW-35	35		28	46	55		11	82	117
SBUW-38	38		32	55	60		12	82	121
SBUW-40	40		32	55	60		12	90	129
SBUW-50	50		40	65	75		12	90	133
SBUW-81	1/8	10.5	8	19	19		7	74	97
SBUW-82	1/4	13.8	11	22	24		7.5	78	102
SBUW-83	3/8	17.3	14	28	32		8	78	103
SBUW-84	1/2	21.7	18	32	36		9	78	103
SBUW-85	3/4	27.2	22	39	46		10	82	110
SBUW-86	1	34.0	28	46	55		11	82	117
SBUW-87	1 1/4	42.7	34	58	65		12	90	131
SBUW-88	1 1/2	48.6	40	65	75		12	90	133

## UNION ELBOW SL



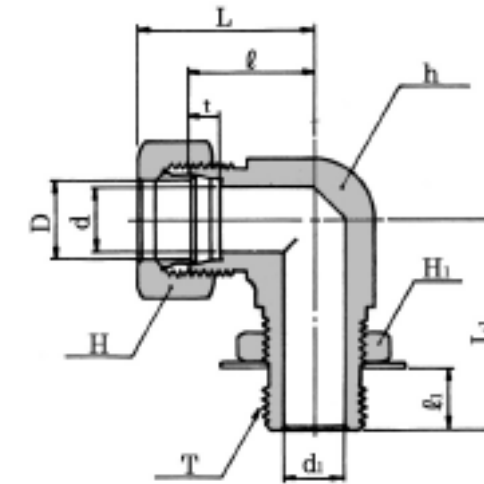
Part No.	Tube O.D		d	Width across flat		t	ℓ	Approx L
	D			h	H			
SL-04	4		2.5	12	12	6	15	22.5
SL-06	6		4	14	14	7	20	30.5
SL-08	8		6	17	17	7	23	33.5
SL-10	10		8	17	19	7	23	34.5
SL-12	12		10	19	22	7	24	35.5
SL-15	15		12	24	27	7.5	29	41.5
SL-16	16		13	27	30	7.5	32	44.5
SL-18	18		14	27	32	8	32	44.5
SL-20	20		17	30	36	8	33	45.5
SL-22	22		18	32	36	9	34	46.5
SL-25	25		20	36	41	10	36	49.5
SL-28	28		22	41	46	10	41	55
SL-30	30		25	41	46	10	41	55.5
SL-32	32		26	41	50	11	45	59.5
SL-35	35		28	41	55	11	46	63.5
SL-38	38		32	50	60	12	50	69.5
SL-40	40		32	50	60	12	55	74.5
SL-42	42		34	50	60	12	55	74.5
SL-50	50		40	65	75	12	62	83.5
SL-81	1/8	10.5	8	17	19	7	23	34.5
SL-82	1/4	13.8	11	22	24	7.5	28	40
SL-83	3/8	17.3	14	27	32	8	32	44.5
SL-84	1/2	21.7	18	32	36	9	34	46.5
SL-85	3/4	27.2	22	41	46	10	41	55
SL-86	1	34.0	28	41	55	11	46	63.5
SL-87	1 1/4	42.7	34	50	65	12	57	77.5
SL-88	1 1/2	48.6	40	65	75	12	62	83.5

## BULKHEAD ELBOW SBL



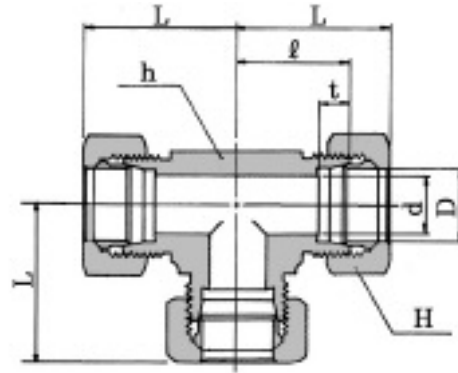
Part No.	Tube O.D D	d	Width across flat			t	ℓ	ℓ <sub>1</sub>	Approx			Panel Hole Drill size N	Panel Max thickness S
			h	H	H <sub>1</sub>				L	L <sub>1</sub>	L <sub>2</sub>		
SBL-06	6	4	17	14	17	7	45	23	55.5	42.5	33.5	12.5	13
SBL-08	8	6	19	17	19	7	46	24	56.5	42.5	34.5	14.5	13
SBL-10	10	8	22	19	22	7	48	26	59.5	43.5	37.5	16.5	13
SBL-12	12	10	24	22	24	7	49	27	60.5	43.5	38.5	18.5	13
SBL-15	15	12	27	27	27	7.5	57	31	69.5	49.5	43.5	22.5	15
SBL-16	16	13	30	30	30	7.5	59	33	71.5	49.5	45.5	24.5	15
SBL-18	18	14	32	32	32	8	63	33	75.5	51.5	45.5	26.5	15
SBL-20	20	17	32	32	36	8	65	33	77.5	51.5	45.5	28.5	15
SBL-22	22	18	36	36	36	9	65	36	77.5	51.5	48.5	30.5	15
SBL-25	25	20	41	41	41	10	66	39	81.5	52.5	52.5	35.5	15
SBL-28	28	22	41	46	46	10	66	41	84.0	55.0	55.0	38.5	15
SBL-30	30	25	46	46	46	10	74	46	88.5	55.5	60.5	40.5	15

## O-SEAL MALE ELBOW SOLM



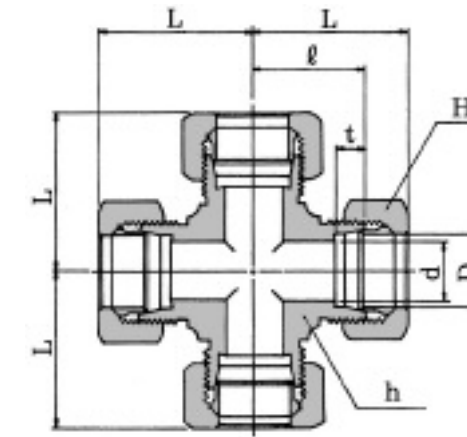
Part No.	Tube O.D D	T (BSP)	d	d <sub>1</sub>	Width across flat			t	ℓ	ℓ <sub>1</sub>	Approx L	L <sub>1</sub>
					h	H	H <sub>1</sub>					
SOLM06-02G	6	1/8	4	4	14	14	14	7	20	10	30.5	30
SOLM08-04G	8	1/4	6	7	14	17	19	7	23	12	33.5	34
SOLM10-04G	10	1/4	8	7	19	19	19	7	23	12	34.5	35
SOLM12-04G	12	1/4	10	7	19	22	19	7	24	12	35.5	36
SOLM12-06G	12	3/8	10	8	19	22	22	7	24	12	35.5	36
SOLM12-08G	12	1/2	10	12	24	22	27	7	24	16	35.5	46
SOLM15-06G	15	3/8	12	8	24	27	22	7.5	29	12	41.5	40
SOLM15-08G	15	1/2	12	12	24	27	27	7.5	29	16	41.5	46
SOLM16-08G	16	1/2	13	12	27	30	27	7.5	32	16	44.5	46
SOLM18-08G	18	1/2	14	12	27	32	27	8	32	16	44.5	46
SOLM20-12G	20	3/4	17	16	32	36	36	8	34	17	45.5	52
SOLM22-12G	22	3/4	18	16	32	36	36	9	34	17	46.5	52
SOLM25-12G	25	3/4	20	16	36	41	36	10	36	17	49.5	60
SOLM25-16G	25	1	20	22	36	41	41	10	36	21	49.5	62
SOLM28-16G	28	1	22	22	41	46	41	10	44	21	55.0	62
SOLM30-16G	30	1	25	22	41	46	41	10	44	21	55.5	66
SOLM30-20G	30	1 1/4	25	31	41	46	50	10	44	21	58.5	66
SOLM32-20G	32	1 1/4	26	31	41	50	50	11	46	21	60.5	66
SOLM35-20G	35	1 1/4	28	31	41	55	50	11	46	21	63.5	57
SOLM38-24G	38	1 1/2	32	36	50	60	55	12	50	21	69.5	73

UNION TEE  
**ST**



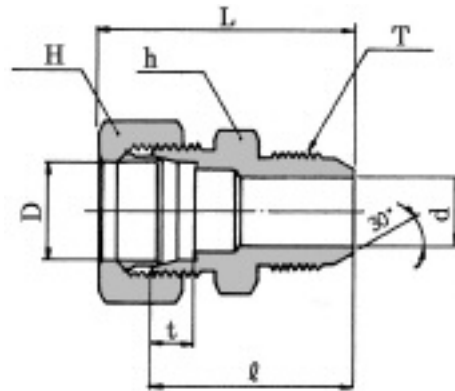
Part No.	Tube O.D		d	Width across flat		t	ℓ	Approx L
	D			h	H			
ST-04	4		2.5	12	12	6	15	22.5
ST-06	6		4	14	14	7	20	30.5
ST-08	8		6	17	17	7	23	33.5
ST-10	10		8	17	19	7	23	34.5
ST-12	12		10	19	22	7	24	35.5
ST-15	15		12	24	27	7.5	29	41.5
ST-16	16		13	27	30	7.5	32	44.5
ST-18	18		14	27	32	8	32	44.5
ST-20	20		17	30	36	8	33	45.5
ST-22	22		18	32	36	9	34	46.5
ST-25	25		20	36	41	10	36	49.5
ST-28	28		22	41	46	10	41	55
ST-30	30		25	41	46	10	41	55.5
ST-32	32		26	41	50	11	45	59.5
ST-35	35		28	41	55	11	46	63.5
ST-38	38		32	50	60	12	50	69.5
ST-40	40		32	50	60	12	55	74.5
ST-42	42		34	50	60	12	55	74.5
ST-50	50		40	65	75	12	62	83.5
ST-81	1/8	10.5	8	17	19	7	23	34.5
ST-82	1/4	13.8	11	22	24	7.5	28	40
ST-83	3/8	17.3	14	27	32	8	32	44.5
ST-84	1/2	21.7	18	32	36	9	34	46.5
ST-85	3/4	27.2	22	41	46	10	41	55
ST-86	1	34.0	28	41	55	11	46	63.5
ST-87	1 1/4	42.7	34	50	65	12	57	77.5
ST-88	1 1/2	48.6	40	65	75	12	62	83.5

CROSS  
**SC**



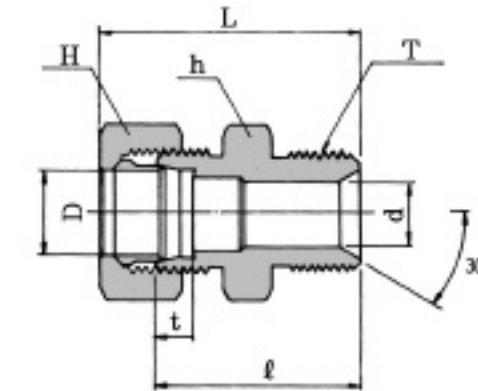
Part No.	Tube O.D		d	Width across flat		t	ℓ	Approx L
	D			h	H			
SC-06	6		4	14	14	7	20	30.5
SC-08	8		6	19	17	7	23	33.5
SC-10	10		8	19	19	7	24	35.5
SC-12	12		10	19	22	7	24	35.5
SC-15	15		12	27	27	7.5	32	44.5
SC-16	16		13	27	30	7.5	32	44.5
SC-18	18		14	30	32	8	33	45.5
SC-20	20		17	30	36	8	33	45.5
SC-25	25		20	36	41	10	36	49.5
SC-30	30		25	46	46	10	45	59.5
SC-32	32		26	46	50	11	45	59.5

# HOSE UNION SHUM



Part No.	Tube O.D	T (BSPP)	d	Width across flat		t	ℓ	Approx L
	D			h	H			
SHUM08-04G	8	1/4	6	17	17	7	35	45.5
SHUM08-06G	8	3/8	6	19	17	7	37	47.5
SHUM10-04G	10	1/4	6	17	19	7	35	46.5
SHUM10-06G	10	3/8	8	19	19	7	37	48.5
SHUM10-08G	10	1/2	8	22	19	7	40	51.5
SHUM12-04G	12	1/4	6	19	22	7	35	46.5
SHUM12-06G	12	3/8	8	19	22	7	37	48.5
SHUM12-08G	12	1/2	10	22	22	7	40	51.5
SHUM15-06G	15	3/8	8	24	27	7.5	40	52.5
SHUM15-08G	15	1/2	12	24	27	7.5	42	54.5
SHUM16-06G	16	3/8	8	27	30	7.5	40	52.5
SHUM16-08G	16	1/2	12	27	30	7.5	42	54.5
SHUM18-08G	18	1/2	12	27	32	8	42	54.5
SHUM20-12G	20	3/4	16	30	36	8	46	58.5
SHUM22-08G	22	1/2	12	32	36	9	44	56.5
SHUM22-12G	22	3/4	16	32	36	9	46	58.5
SHUM25-12G	25	3/4	16	36	41	10	47	60.5
SHUM25-16G	25	1	20	36	41	10	49	62.5
SHUM28-12G	28	3/4	16	41	46	10	49	63.0
SHUM28-16G	28	1	22	41	46	10	51	65.0
SHUM30-12G	30	3/4	16	41	46	10	49	63.5
SHUM30-16G	30	1	22	41	46	10	51	65.5
SHUM32-16G	32	1	22	46	50	11	52	66.5
SHUM32-20G	32	1 1/4	28	46	50	11	56	70.5

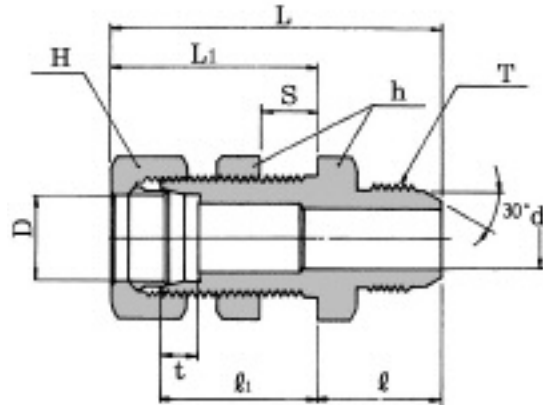
# HOSE UNION SHUF



Part No.	Tube O.D	T (BSPP)	d	Width across flat		t	ℓ	Approx L
	D			h	H			
SHUF08-04G	8	1/4	6	17	17	7	33	43.5
SHUF08-06G	8	3/8	6	19	17	7	34	44.5
SHUF10-04G	10	1/4	6	17	19	7	33	44.5
SHUF10-06G	10	3/8	8	19	19	7	34	45.5
SHUF10-08G	10	1/2	8	22	19	7	38	49.5
SHUF12-04G	12	1/4	6	19	22	7	33	44.5
SHUF12-06G	12	3/8	9	19	22	7	34	45.5
SHUF12-08G	12	1/2	10	22	22	7	38	49.5
SHUF15-06G	15	3/8	9	24	27	7.5	37	49.5
SHUF15-08G	15	1/2	12	24	27	7.5	40	52.5
SHUF16-06G	16	3/8	9	27	30	7.5	39	49.5
SHUF16-08G	16	1/2	12	27	30	7.5	42	52.5
SHUF18-08G	18	1/2	12	27	32	8	42	52.5
SHUF20-12G	20	3/4	16	30	36	8	44	55.5
SHUF22-08G	22	1/2	12	32	36	9	42	54.5
SHUF22-12G	22	3/4	16	32	36	9	44	55.5
SHUF25-12G	25	3/4	16	36	41	10	46	57.5
SHUF25-16G	25	1	20	36	41	10	48	59.5
SHUF28-12G	28	3/4	16	41	46	10	46	60
SHUF28-16G	28	1	22	41	46	10	48	62
SHUF30-12G	30	3/4	16	41	46	10	46	60.5
SHUF30-16G	30	1	22	41	46	10	48	62.5
SHUF32-16G	32	1	22	46	50	11	49	63.5
SHUF32-20G	32	1 1/4	28	46	50	11	55	69.5
SHUF38-24G	38	1 1/2	32	50	60	12	57	76.5
SHUF40-24G	40	1 1/2	32	55	60	12	62	81.5
SHUF50-32G	50	2	40	65	75	12	70	91.5

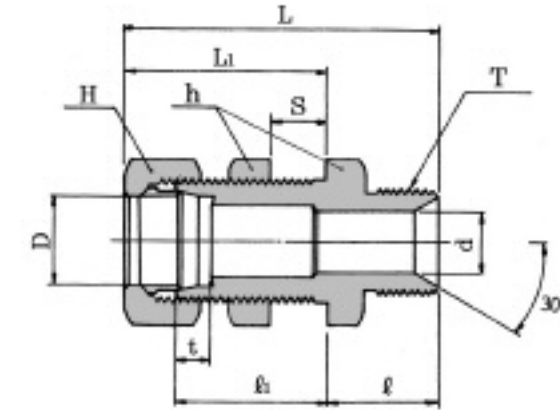


## HOSE BULKHEAD UNION SHBUM



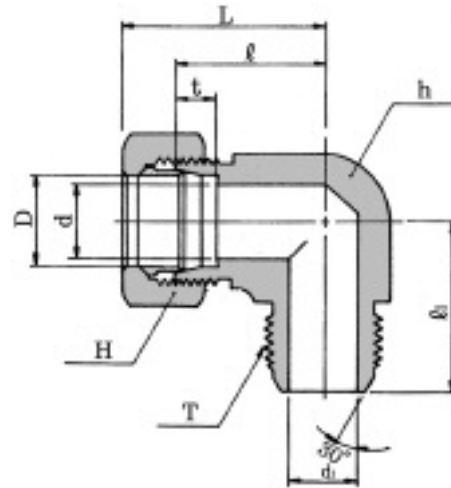
Part No.	Tube O.D D	T (BSPP)	d	Width across flat		t	l	l <sub>1</sub>	Approx		Panel Hole Drill size N	Panel Max thickness S
				h	H				L	L <sub>1</sub>		
SHBUM08-04G	8	1/4	6	19	17	7	23	32	65.5	42.5	14.5	13
SHBUM08-06G	8	3/8	8	19	17	7	25	32	67.5	42.5	14.5	13
SHBUM10-04G	10	1/4	6	22	19	7	24	32	67.5	43.5	16.5	13
SHBUM10-06G	10	3/8	8	22	19	7	26	32	69.5	43.5	16.5	13
SHBUM10-08G	10	1/2	8	22	19	7	28	32	71.5	43.5	16.5	13
SHBUM12-04G	12	1/4	6	24	22	7	24	32	67.5	43.5	18.5	13
SHBUM12-06G	12	3/8	8	24	22	7	26	32	69.5	43.5	18.5	13
SHBUM12-08G	12	1/2	10	24	22	7	28	32	71.5	43.5	18.5	13
SHBUM15-06G	15	3/8	8	27	27	7.5	26	37	75.5	49.5	22.5	15
SHBUM15-08G	15	1/2	12	27	27	7.5	28	37	77.5	49.5	22.5	15
SHBUM16-06G	16	3/8	8	30	30	7.5	28	37	77.5	49.5	24.5	15
SHBUM16-08G	16	1/2	12	30	30	7.5	30	37	79.5	49.5	24.5	15
SHBUM18-08G	18	1/2	12	32	32	8	30	39	81.5	51.5	26.5	15
SHBUM20-12G	20	3/4	16	32	36	8	32	39	83.5	51.5	28.5	15
SHBUM22-08G	22	1/2	12	36	36	9	31	39	82.5	51.5	30.5	15
SHBUM22-12G	22	3/4	16	36	36	9	33	39	84.5	51.5	30.5	15
SHBUM25-12G	25	3/4	16	41	41	10	33	39	87.5	52.5	35.5	15
SHBUM25-16G	25	1	20	41	41	10	35	39	89.5	52.5	35.5	15
SHBUM28-12G	28	3/4	16	46	46	10	34	41	89	55	38.5	15
SHBUM28-16G	28	1	22	46	46	10	36	41	91	55	38.5	15
SHBUM30-12G	30	3/4	16	46	46	10	34	41	89.5	55.5	40.5	15
SHBUM30-16G	30	1	22	46	46	10	36	41	91.5	55.5	40.5	15
SHBUM32-16G	32	1	22	50	50	11	38	43	95.5	57.5	42.5	15
SHBUM32-20G	32	1 1/4	28	50	50	11	42	43	99.5	57.5	42.5	15

## HOSE BULKHEAD UNION SHBUF



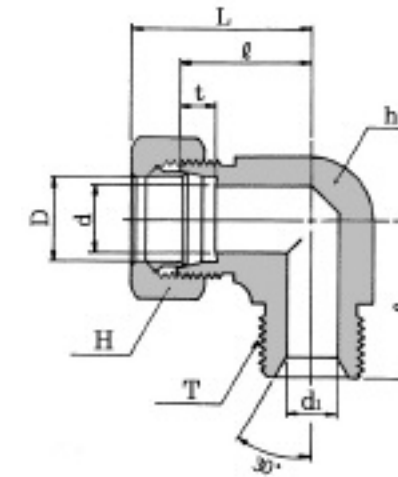
Part No.	Tube O.D D	T (BSPP)	d	Width across flat		t	l <sub>1</sub>	l	Approx		Panel Hole Drill size N	Panel Max thickness S
				h	H				L	L <sub>1</sub>		
SHBUF08-04G	8	1/4	6	19	17	7	32	21	63.5	42.5	14.5	13
SHBUF08-06G	8	3/8	6	19	17	7	32	22	64.5	42.5	14.5	13
SHBUF10-04G	10	1/4	6	22	19	7	32	22	65.5	43.5	16.5	13
SHBUF10-06G	10	3/8	8	22	19	7	32	23	66.5	43.5	16.5	13
SHBUF10-08G	10	1/2	8	22	19	7	32	26	69.5	43.5	16.5	13
SHBUF12-04G	12	1/4	6	24	22	7	32	22	65.5	43.5	18.5	13
SHBUF12-06G	12	3/8	8	24	22	7	32	23	66.5	43.5	18.5	13
SHBUF12-08G	12	1/2	10	24	22	7	32	26	69.5	43.5	18.5	13
SHBUF15-06G	15	3/8	8	27	27	7.5	37	23	72.5	49.5	22.5	15
SHBUF15-08G	15	1/2	12	27	27	7.5	37	26	75.5	49.5	22.5	15
SHBUF16-06G	16	3/8	8	30	30	7.5	37	25	74.5	49.5	24.5	15
SHBUF16-08G	16	1/2	12	30	30	7.5	37	28	77.5	49.5	24.5	15
SHBUF18-08G	18	1/2	12	32	32	8	39	28	79.5	51.5	26.5	15
SHBUF20-12G	20	3/4	16	32	36	8	39	29	80.5	51.5	28.5	15
SHBUF22-08G	22	1/2	12	36	36	9	39	29	80.5	51.5	30.5	15
SHBUF22-12G	22	3/4	16	36	36	9	39	30	81.5	51.5	30.5	15
SHBUF25-12G	25	3/4	16	41	41	10	39	30	82.5	52.5	35.5	15
SHBUF25-16G	25	1	20	41	41	10	39	32	84.5	52.5	35.5	15
SHBUF28-12G	28	3/4	16	46	46	10	41	31	86	55	38.5	15
SHBUF28-16G	28	1	22	46	46	10	41	33	88	55	38.5	15
SHBUF30-12G	30	3/4	16	46	46	10	41	31	86.5	55.5	40.5	15
SHBUF30-16G	30	1	22	46	46	10	41	33	88.5	55.5	40.5	15
SHBUF32-16G	32	1	22	50	50	11	43	35	92.5	57.5	42.5	15
SHBUF32-20G	32	1 1/4	28	50	50	11	43	41	98.5	57.5	42.5	15
SHBUF38-24G	38	1 1/2	31	55	60	12	45	42	106.5	64.5	48.5	15
SHBUF40-24G	40	1 1/2	32	60	60	12	50	44	113.5	69.5	52.5	15
SHBUF50-32G	50	2	40	70	75	12	50	53	124.5	71.5	64.5	15

## HOSE MALE ELBOW SHLM



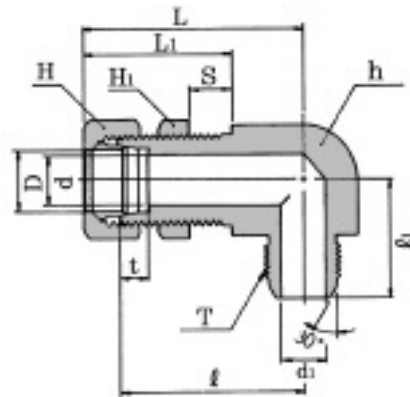
Part No.	Tube O.D D	T (BSPP)	d	d <sub>1</sub>	Width across flat		t	l <sub>1</sub>	l	Approx L
					h	H				
SHLM08-04G	8	1/4	6	6	17	17	7	25	23	33.5
SHLM08-06G	8	3/8	6	8	19	17	7	28	24	34.5
SHLM10-04G	10	1/4	8	6	17	19	7	28	24	35.5
SHLM10-06G	10	3/8	8	8	19	19	7	28	24	35.5
SHLM10-08G	10	1/2	8	12	22	19	7	34	29	40.5
SHLM12-04G	12	1/4	10	6	19	22	7	28	24	35.5
SHLM12-06G	12	3/8	10	8	19	22	7	28	24	35.5
SHLM12-08G	12	1/2	10	12	22	22	7	34	29	40.5
SHLM15-06G	15	3/8	12	8	24	27	7.5	33	29	41.5
SHLM15-08G	15	1/2	12	12	24	27	7.5	34	29	41.5
SHLM16-06G	16	3/8	13	8	27	30	7.5	36	32	44.5
SHLM16-08G	16	1/2	13	12	27	30	7.5	38	32	44.5
SHLM18-08G	18	1/2	14	12	27	32	8	38	32	44.5
SHLM20-12G	20	3/4	17	16	30	36	8	41	33	45.5
SHLM22-08G	22	1/2	18	12	32	36	9	40	34	46.5
SHLM22-12G	22	3/4	18	16	32	36	9	42	34	46.5
SHLM25-12G	25	3/4	20	16	36	41	10	44	36	49.5
SHLM25-16G	25	1	20	20	36	41	10	46	36	49.5
SHLM28-12G	28	3/4	22	16	41	46	10	47	41	55
SHLM28-16G	28	1	22	22	41	46	10	49	41	55
SHLM30-12G	30	3/4	25	16	41	46	10	47	41	55.5
SHLM30-16G	30	1	25	22	41	46	10	49	41	55.5
SHLM32-16G	32	1	26	22	41	50	11	54	46	60.5
SHLM32-20G	32	1 1/4	26	28	41	50	11	56	46	60.5

## HOSE MALE ELBOW SHLF



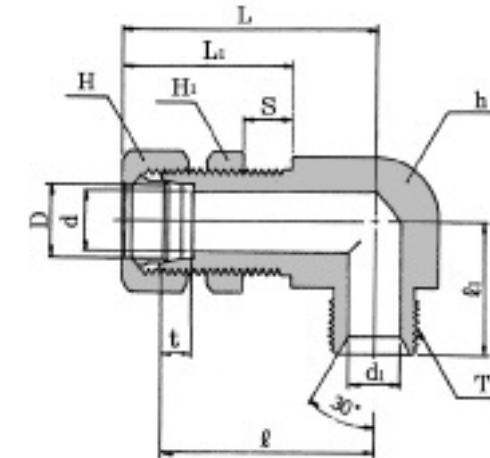
Part No.	Tube O.D D	T (BSPP)	d	d <sub>1</sub>	Width across flat		t	l	l <sub>1</sub>	Approx L
					h	H				
SHLF08-04G	8	1/4	6	6	17	17	7	23	25	33.5
SHLF08-06G	8	3/8	6	8	19	17	7	27	27	34.5
SHLF10-04G	10	1/4	8	6	17	19	7	24	26	35.5
SHLF10-06G	10	3/8	8	8	19	19	7	24	27	35.5
SHLF10-08G	10	1/2	8	12	22	19	7	29	33	40.5
SHLF12-04G	12	1/4	10	6	19	22	7	24	26	35.5
SHLF12-06G	12	3/8	10	8	19	22	7	24	27	35.5
SHLF12-08G	12	1/2	10	12	22	22	7	29	33	40.5
SHLF15-06G	15	3/8	12	8	24	27	7.5	29	30	41.5
SHLF15-08G	15	1/2	12	12	24	27	7.5	29	33	41.5
SHLF16-06G	16	3/8	13	8	27	30	7.5	32	33	44.5
SHLF16-08G	16	1/2	13	12	27	30	7.5	32	36	44.5
SHLF18-08G	18	1/2	14	12	27	32	8	32	36	44.5
SHLF20-12G	20	3/4	17	16	30	36	8	33	38	45.5
SHLF22-08G	22	1/2	18	12	32	36	9	34	38	46.5
SHLF22-12G	22	3/4	18	16	32	36	9	34	39	46.5
SHLF25-12G	25	3/4	20	16	36	41	10	36	41	49.5
SHLF25-16G	25	1	20	20	36	41	10	36	43	49.5
SHLF28-12G	28	3/4	22	16	41	46	10	41	44	55
SHLF28-16G	28	1	22	22	41	46	10	41	46	55
SHLF30-12G	30	3/4	25	16	41	46	10	41	44	55.5
SHLF30-16G	30	1	25	22	41	46	10	41	46	55.5
SHLF32-16G	32	1	26	22	41	50	11	46	51	60.5
SHLF32-20G	32	1 1/4	26	28	41	50	11	46	57	60.5
SHLF38-24G	38	1 1/2	32	34	50	50	12	50	61	69.5
SHLF40-24G	40	1 1/2	32	34	50	60	12	55	62	74.5
SHLF50-32G	50	2	40	46	65	75	12	62	72	83.5

## HOSE BULKHEAD ELBOW SHBLM

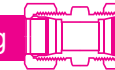


Part No.	Tube O.D D	T (BSPP)	d	d <sub>1</sub>	Width across flat			t	ℓ	ℓ <sub>1</sub>	Approx		Panel Hole Drill size N	Max Panel thickness S
					h	H	H <sub>1</sub>				L	L <sub>1</sub>		
SHBLM08-04G	8	1/4	6	6	19	17	19	7	46	28	56.5	42.5	14.5	13
SHBLM08-06G	8	3/8	6	8	19	17	19	7	46	30	56.5	42.5	14.5	13
SHBLM10-04G	10	1/4	8	6	22	19	22	7	48	28	59.5	43.5	16.5	13
SHBLM10-06G	10	3/8	8	8	22	19	22	7	48	30	59.5	43.5	16.5	13
SHBLM10-08G	10	1/2	8	12	24	19	22	7	49	35	60.5	43.5	16.5	13
SHBLM12-04G	12	1/4	10	6	24	22	24	7	49	31	60.5	43.5	18.5	13
SHBLM12-06G	12	3/8	10	8	24	22	24	7	49	33	60.5	43.5	18.5	13
SHBLM12-08G	12	1/2	10	12	24	22	24	7	49	35	60.5	43.5	18.5	13
SHBLM15-06G	15	3/8	12	8	27	27	27	7.5	57	36	69.5	49.5	22.5	15
SHBLM15-08G	15	1/2	12	12	27	27	27	7.5	57	37	69.5	49.5	22.5	15
SHBLM16-06G	16	3/8	13	8	30	30	30	7.5	59	37	71.5	49.5	24.5	15
SHBLM16-08G	16	1/2	13	12	30	30	30	7.5	59	38	71.5	49.5	24.5	15
SHBLM18-08G	18	1/2	14	12	30	32	32	8	63	39	75.5	51.5	26.5	15
SHBLM20-12G	20	3/4	16	16	30	32	36	8	65	40	77.5	51.5	28.5	15
SHBLM22-08G	22	1/2	18	12	36	36	36	9	65	40	77.5	51.5	30.5	15
SHBLM22-12G	22	3/4	18	16	36	36	38	9	65	40	77.5	51.5	30.5	15
SHBLM25-12G	25	3/4	20	16	41	41	41	10	66	43	81.5	52.5	35.5	15
SHBLM25-16G	25	1	20	20	41	41	41	10	66	43	81.5	52.5	35.5	15
SHBLM28-12G	28	3/4	22	16	46	46	46	10	74	48	88.0	55.0	38.5	15
SHBLM28-16G	28	1	22	22	46	46	46	10	74	48	88.0	55.0	38.5	15
SHBLM30-12G	30	3/4	25	16	46	46	46	10	74	48	88.5	55.5	40.5	15
SHBLM30-16G	30	1	25	22	46	46	46	10	74	48	88.5	55.5	40.5	15

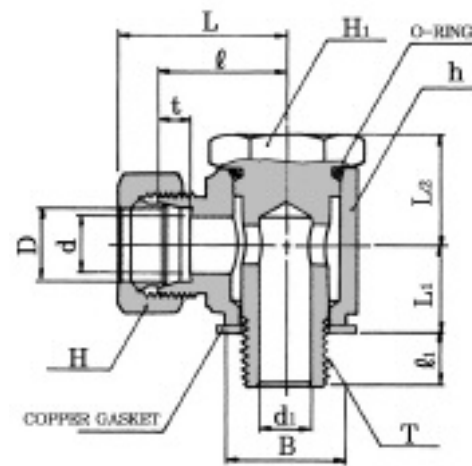
## HOSE BULKHEAD ELBOW SHBLF



Part No.	Tube O.D D	T (BSPP)	d	d <sub>1</sub>	Width across flat			t	ℓ	ℓ <sub>1</sub>	Approx		Panel Hole Drill size N	Panel Max thickness S
					h	H	H <sub>1</sub>				L	L <sub>1</sub>		
SHBLF08-04G	8	1/4	6	6	19	17	19	7	46	28	56.5	42.5	14.5	13
SHBLF08-06G	8	3/8	6	8	19	17	19	7	46	30	56.5	42.5	14.5	13
SHBLF10-04G	10	1/4	8	6	22	19	22	7	48	28	59.5	43.5	16.5	13
SHBLF10-06G	10	3/8	8	8	22	19	22	7	48	30	59.5	43.5	16.5	13
SHBLF10-08G	10	1/2	8	12	24	19	22	7	49	35	60.5	43.5	16.5	13
SHBLF12-04G	12	1/4	10	6	24	22	24	7	49	31	60.5	43.5	18.5	13
SHBLF12-06G	12	3/8	10	8	24	22	24	7	49	33	60.5	43.5	18.5	13
SHBLF12-08G	12	1/2	10	12	24	22	24	7	49	35	60.5	43.5	18.5	13
SHBLF15-06G	15	3/8	12	8	27	27	27	7.5	57	36	69.5	49.5	22.5	15
SHBLF15-08G	15	1/2	12	12	27	27	27	7.5	57	37	69.5	49.5	22.5	15
SHBLF16-06G	16	3/8	13	8	30	30	30	7.5	59	37	71.5	49.5	24.5	15
SHBLF16-08G	16	1/2	13	12	30	30	30	7.5	59	38	71.5	49.5	24.5	15
SHBLF18-08G	18	1/2	14	12	30	32	32	8	63	39	75.5	51.5	26.5	15
SHBLF20-12G	20	3/4	16	16	30	32	36	8	65	40	77.5	51.5	28.5	15
SHBLF22-08G	22	1/2	18	12	36	36	36	9	65	40	77.5	51.5	30.5	15
SHBLF22-12G	22	3/4	18	16	36	36	38	9	65	40	77.5	51.5	30.5	15
SHBLF25-12G	25	3/4	20	16	41	41	41	10	66	43	81.5	52.5	35.5	15
SHBLF25-16G	25	1	20	20	41	41	41	10	66	43	81.5	52.5	35.5	15
SHBLF28-12G	28	3/4	22	16	46	46	46	10	74	48	88.0	55.0	38.5	15
SHBLF28-16G	28	1	22	22	46	46	46	10	74	48	88.0	55.0	38.5	15
SHBLF30-12G	30	3/4	25	16	46	46	46	10	74	48	88.5	55.5	40.5	15
SHBLF30-16G	30	1	25	22	46	46	46	10	74	48	88.5	55.5	40.5	15

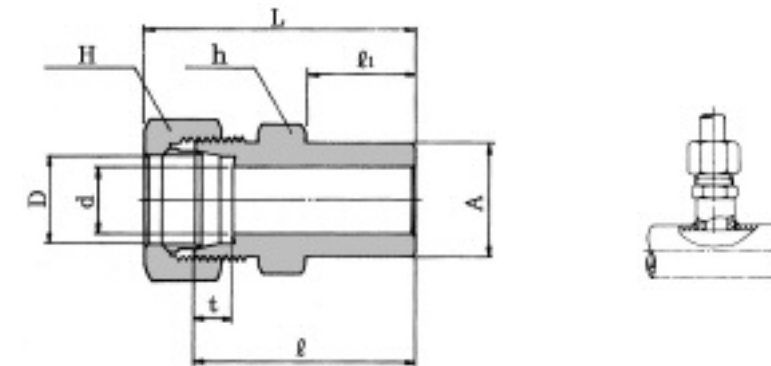


## STUD ELBOW SSLM



Part No.	Tube O.D		T (BSPP)	d <sub>1</sub>	d	Width across flat			t	l <sub>1</sub>	l	Approx L	L <sub>1</sub>	L <sub>2</sub>	B	O-ring
	D					h	H	H <sub>1</sub>								
SSLM06-02G	6		1/8	4	4	17	14	17	7	8	23	33.5	13	14	14	P10
SSLM08-04G	8		1/4	7	6	22	17	19	7	12	25	35.5	16	17	18	P12
SSLM10-04G	10		1/4	7	8	22	19	19	7	12	25	36.5	16	17	18	P12
SSLM12-06G	12		3/8	9	10	28	22	27	7	12	29	40.5	19	22	21.5	P18
SSLM15-08G	15		1/2	12	12	36	27	36	7.5	14	36	48.5	24	28	25.5	P22
SSLM16-08G	16		1/2	12	13	36	30	36	7.5	14	36	48.5	24	28	25.5	P22
SSLM18-08G	18		1/2	12	14	36	32	36	8	14	36	48.5	24	28	25.5	P22
SSLM20-12G	20		3/4	16	17	42	36	41	8	16	38	50.5	28	32	31.5	P28
SSLM22-12G	22		3/4	16	18	42	36	41	9	16	38	50.5	28	32	31.5	P28
SSLM25-16G	25		1	22	20	50	41	50	10	18	42	55.5	37	38	38	P36
SSLM28-16G	28		1	22	22	50	46	50	10	18	42	56	37	38	38	P36
SSLM81-04G	1/8	10.5	1/4	7	8	22	19	22	7	12	25	36.5	16	17	18	P12
SSLM82-06G	1/4	13.8	3/8	9	11	28	24	27	7.5	12	29	41	19	22	21.5	P18
SSLM83-08G	3/8	17.3	1/2	12	14	37	32	30	8	14	36	48.5	24	28	25.5	P22
SSLM84-12G	1/2	21.7	3/4	16	18	42	36	41	9	16	38	50.5	28	32	31.5	P28
SSLM85-16G	3/4	27.2	1	22	22	50	46	50	10	18	42	56	37	38	38	P36

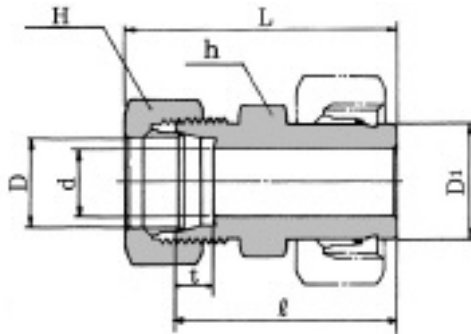
## WELDING CONNECTOR SCW



Part No.	Tube O.D		A	d	Width across flat		t	l	l <sub>1</sub>	Approx L
	D				h	H				
SCW-06	6		12	4	14	14	7	29	11	39.5
SCW-08	8		14	6	17	17	7	34	15	44.5
SCW-10	10		16	8	17	19	7	34	15	45.5
SCW-12	12		18	10	19	22	7	34	15	45.5
SCW-15	15		21	12	24	27	7.5	40	18	52.5
SCW-16	16		22	13	27	30	7.5	44	22	56.5
SCW-18	18		25	14	27	32	8	44	22	56.5
SCW-20	20		28	17	30	36	8	46	22	58.5
SCW-22	22		28	18	32	36	9	46	22	58.5
SCW-25	25		33	20	36	41	10	51	26	64.5
SCW-28	28		36	22	41	46	10	55	28	69
SCW-30	30		39	25	41	46	10	55	28	69.5
SCW-32	32		40	26	46	50	11	56	28	70.5
SCW-35	35		43	28	46	55	11	56	28	73.5
SCW-38	38		45	32	50	60	12	58	28	77.5
SCW-40	40		46	32	55	60	12	65	30	84.5
SCW-50	50		57	40	65	75	12	70	30	91.5
SCW-81	1/8	10.5	16	8	17	19	7	34	15	45.5
SCW-82	1/4	13.8	19	11	22	24	7.5	40	18	52
SCW-83	3/8	17.3	24	14	27	32	8	44	22	56.5
SCW-84	1/2	21.7	28	18	32	36	9	46	22	58.5
SCW-85	3/4	27.2	33	22	41	46	10	52	25	66
SCW-86	1	34.0	40	28	46	55	11	56	28	73.5
SCW-87	1 1/4	42.7	47	34	60	65	12	65	28	85.5
SCW-88	1 1/2	48.6	55	40	65	75	12	70	30	91.5

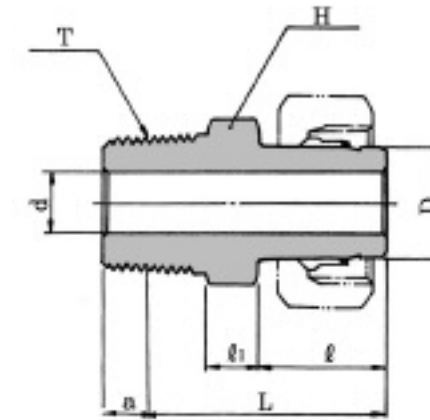


REDUCER  
**SR**



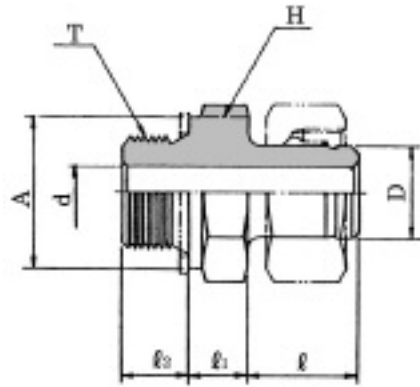
Part No.	Tube O.D		D <sub>1</sub>	d	Width across flat		t	ℓ	Approx L	
	D				h	H				
SR08 × 06	6		8	4	14	14	7	39	49.5	
SR10 × 06	6		10	4	14	14	7	40	50.5	
SR10 × 08	8		10	6	17	17	7	40	50.5	
SR12 × 06	6		12	4	14	14	7	41	51.5	
SR12 × 08	8		12	6	17	17	7	41	51.5	
SR12 × 10	10		12	8	17	19	7	41	52.5	
SR15 × 08	8		15	6	17	17	7	43	53.5	
SR15 × 10	10		15	8	17	19	7	43	54.5	
SR16 × 06	6		16	4	17	14	7	43	53.5	
SR16 × 10	10		16	8	17	19	7	43	54.5	
SR16 × 12	12		16	10	19	22	7	43	54.5	
SR18 × 10	10		18	8	19	19	7	44	55.5	
SR18 × 15	15		18	12	24	27	7.5	45	57.5	
SR20 × 06	6		20	4	22	14	7	45	55.5	
SR20 × 12	12		20	10	22	22	7	45	56.5	
SR20 × 16	16		20	13	27	30	7.5	47	59.5	
SR22 × 15	15		22	12	24	27	7.5	48	60.5	
SR22 × 18	18		22	14	27	32	8	48	60.5	
SR25 × 16	16		25	13	27	30	7.5	50	62.5	
SR25 × 20	20		25	17	30	36	8	52	64.5	
SR28 × 18	18		28	14	30	32	8	52	64.5	
SR28 × 22	22		28	18	32	36	9	52	64.5	
SR30 × 20	20		30	17	32	36	8	53	65.5	
SR30 × 25	25		30	20	36	41	10	54	67.5	
SR32 × 25	25		32	20	36	41	10	55	68.5	
SR35 × 22	22		35	18	36	36	9	58	70.5	
SR35 × 28	28		35	22	41	46	10	60	74	
SR38 × 25	25		38	20	41	41	10	61	74.5	
SR38 × 30	30		38	25	41	46	10	63	77.5	
SR82 × 81	1/8	10.5	1/4	13.8	8	17	19	7	41	52.5
SR83 × 81	1/8	10.5	3/8	17.3	8	19	19	7	44	55.5
SR83 × 82	1/4	13.8	3/8	17.3	11	22	24	7.5	46	58
SR84 × 82	1/4	13.8	1/2	21.3	11	24	24	7.5	48	60
SR84 × 83	3/8	17.3	1/2	21.7	14	27	32	8	48	60.5
SR85 × 83	3/8	17.3	3/4	27.2	14	30	32	8	52	64.5
SR85 × 84	1/2	21.7	3/4	27.2	18	32	36	9	52	64.5
SR86 × 84	1/2	21.7	1	34.0	18	36	36	9	58	70.5
SR86 × 85	3/4	27.2	1	34.0	22	41	46	10	60	74

ADAPTER  
**SAR**



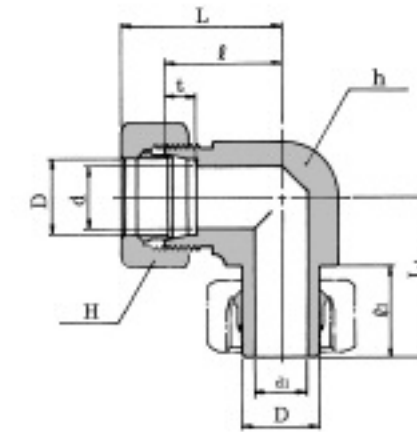
Part No.	Tube O.D		T (BSPT)	d	Width across flat		ℓ	ℓ <sub>1</sub>	Approx L
	D				H				
SAR06 - 02R	6		1/8	3	12		20	6	36
SAR08 - 04R	8		1/4	5	14		20	7	41
SAR10 - 04R	10		1/4	6	14		21	7	42
SAR10 - 06R	10		3/8	6	19		21	7	43
SAR12 - 04R	12		1/4	7	14		22	7	43
SAR12 - 06R	12		3/8	8	19		22	7	44
SAR15 - 06R	15		3/8	8	19		24	8	47
SAR15 - 08R	15		1/2	10	22		24	8	51
SAR16 - 08R	16		1/2	11	22		24	8	51
SAR18 - 08R	18		1/2	12	22		24	8	51
SAR20 - 12R	20		3/4	14	27		25	10	56
SAR22 - 12R	22		3/4	14	27		26	10	57
SAR25 - 12R	25		3/4	16	27		28	10	59
SAR25 - 16R	25		1	17	36		28	11	63
SAR28 - 16R	28		1	18	36		28	11	63
SAR30 - 16R	30		1	20	36		29	11	64
SAR30 - 20R	30		1 1/4	20	46		29	12	68
SAR32 - 20R	32		1 1/4	22	46		30	12	69
SAR38 - 24R	38		1 1/2	26	50		36	14	77
SAR40 - 24R	40		1 1/2	28	50		36	14	77
SAR50 - 32R	50		2	34	65		37	20	86.5
SAR81 - 04R	1/8	10.5	1/4	6	14		21	7	42
SAR82 - 06R	1/4	13.8	3/8	9	19		22	8	45
SAR83 - 08R	3/8	17.3	1/2	11	22		24	8	51
SAR84 - 12R	1/2	21.7	3/4	14	27		26	10	57
SAR85 - 16R	3/4	27.2	1	18	36		28	11	63
SAR86 - 20R	1	34.0	1 1/4	23	46		33	12	72
SAR87 - 24R	1 1/4	42.7	1 1/2	29	50		36	17	80
SAR88 - 32R	1 1/2	48.6	2	33	65		37	20	86.5

## ADAPTER SAG

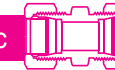


Part No.	Tube O.D		T (BSPP)	d	Width across flat		Approx ℓ	ℓ <sub>1</sub>	ℓ <sub>2</sub>
	D				H	A			
SAG06 - 02G	6		1/8	3	14	14	20	8	8
SAG08 - 04G	8		1/4	5	19	18	20	9	12
SAG10 - 04G	10		1/4	6	19	18	21	9	12
SAG10 - 06G	10		3/8	6	22	21.5	21	10	12
SAG12 - 04G	12		1/4	7	19	18	22	9	12
SAG12 - 06G	12		3/8	8	22	21.5	22	10	12
SAG15 - 06G	15		3/8	8	22	21.5	24	10	12
SAG15 - 08G	15		1/2	10	27	25.5	24	13	14
SAG16 - 08G	16		1/2	11	27	25.5	24	13	14
SAG18 - 08G	18		1/2	12	27	25.5	24	13	14
SAG20 - 12G	20		3/4	14	32	31.5	25	16	16
SAG22 - 12G	22		3/4	14	32	31.5	26	16	16
SAG25 - 12G	25		3/4	16	32	31.5	28	16	16
SAG25 - 16G	25		1	17	41	38	28	18	18
SAG28 - 16G	28		1	18	41	38	28	18	18
SAG30 - 16G	30		1	20	41	38	29	21	18
SAG30 - 20G	30		1 1/4	20	50	48.5	29	21	20
SAG32 - 20G	32		1 1/4	22	50	48.5	30	21	20
SAG38 - 24G	38		1 1/2	26	55	53.5	36	21	21
SAG40 - 24G	40		1 1/2	28	55	53.5	36	21	21
SAG50 - 32G	50		2	34	70	66	37	28	24
SAG81 - 04G	1/8	10.5	1/4	6	19	18	21	9	12
SAG82 - 06G	1/4	13.8	3/8	9	22	21.5	22	10	12
SAG83 - 08G	3/8	17.3	1/2	11	27	25.5	24	13	14
SAG84 - 12G	1/2	21.7	3/4	14	32	31.5	26	16	16
SAG85 - 16G	3/4	27.2	1	18	41	38	28	18	18
SAG86 - 20G	1	34.0	1 1/4	23	50	48.5	33	21	20
SAG87 - 24G	1 1/4	42.7	1 1/2	29	55	53.5	36	23	21
SAG88 - 32G	1 1/2	48.6	2	33	70	66	37	28	24

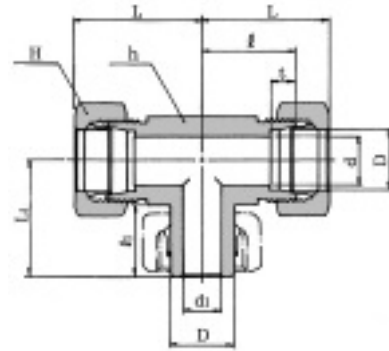
## ADJUSTABLE ELBOW SLA



Part No.	Tube O.D		d	d <sub>1</sub>	Width across flat		t	ℓ	ℓ <sub>1</sub>	Approx L	L <sub>1</sub>
	D				h	H					
SLA - 10	10		8	6	19	19	7	23	21	34.5	35
SLA - 12	12		10	8	19	22	7	24	22	35.5	37
SLA - 15	15		12	10	24	27	7.5	29	24	44.5	40
SLA - 16	16		13	11	27	30	7.5	32	24	44.5	43
SLA - 18	18		14	12	27	32	8	32	24	44.5	43
SLA - 20	20		17	14	30	36	8	33	25	45.5	45
SLA - 22	22		18	14	32	36	9	34	26	46.5	46
SLA - 25	25		20	17	36	41	10	36	28	49.5	49
SLA - 28	28		22	18	41	46	10	41	28	55	53
SLA - 30	30		25	20	41	46	10	41	29	55.5	54
SLA - 32	32		26	22	46	50	11	50	30	64.5	66
SLA - 38	38		32	26	50	60	12	50	36	69.5	72

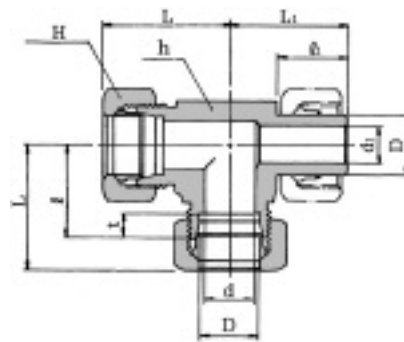


## ADJUSTABLE BRANCH TEE SBTA



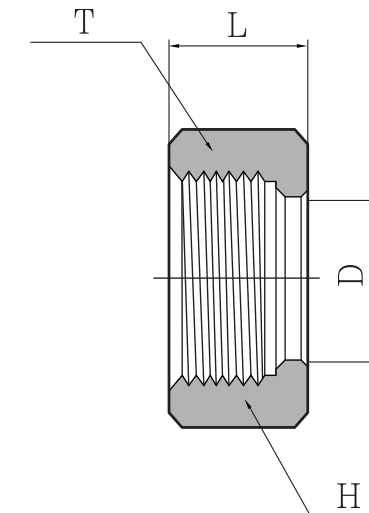
Part No.	Tube O.D	d	d1	Width across flat		t	l	l1	Approx	L1
	D			h	H				L	
SBTA - 10	10	8	6	17	19	7	23	21	34.5	35
SBTA - 12	12	10	8	19	22	7	24	22	35.5	37
SBTA - 15	15	12	10	24	27	7.5	32	24	44.5	43
SBTA - 16	16	13	11	27	30	7.5	32	24	44.5	43
SBTA - 18	18	14	12	27	32	8	32	24	44.5	43
SBTA - 20	20	17	14	30	36	8	33	25	45.5	45
SBTA - 22	22	18	14	32	36	9	34	26	46.5	46
SBTA - 25	25	20	17	36	41	10	36	28	49.5	49

## ADJUSTABLE RUN TEE SRTA



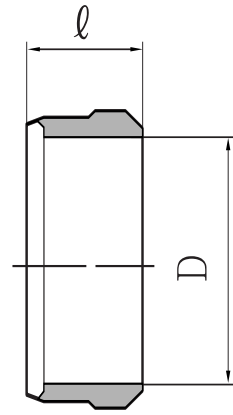
Part No.	Tube O.D	d	d1	Width across flat		t	l	l1	Approx	L1
	D			h	H				L	
SRTA - 10	10	8	6	17	19	7	23	21	34.5	35
SRTA - 12	12	10	8	19	22	7	24	22	35.5	37
SRTA - 15	15	12	10	24	27	7.5	32	24	44.5	43
SRTA - 16	16	13	11	27	30	7.5	32	24	44.5	43
SRTA - 18	18	14	12	27	32	8	32	24	44.5	43
SRTA - 20	20	17	14	30	36	8	33	25	45.5	45
SRTA - 22	22	18	14	32	36	9	34	26	46.5	46
SRTA - 25	25	20	17	36	41	10	36	28	49.5	49

## NUT SN



Part No.	Tube O.D	T (METRIC)	Width across flat	Approx	
	D		H	L	
SN-04	4	M10 × 1.25	12	12	
SN-06	6	M12 × 1.5	14	16	
SN-08	8	M14 × 1.5	17	16	
SN-10	10	M16 × 1.5	19	17	
SN-12	12	M18 × 1.5	22	17	
SN-15	15	M22 × 1.5	27	19.5	
SN-16	16	M24 × 1.5	30	19.5	
SN-18	18	M26 × 1.5	32	19.5	
SN-20	20	M28 × 1.5	36	20	
SN-22	22	M30 × 1.5	36	20	
SN-25	25	M35 × 1.5	41	20	
SN-28	28	M38 × 1.5	46	21	
SN-30	30	M40 × 1.5	46	22	
SN-32	32	M42 × 1.5	50	22	
SN-35	35	M45 × 1.5	55	25	
SN-38	38	M48 × 1.5	60	25.5	
SN-40	40	M52 × 2	60	28	
SN-42	42	M52 × 2	60	29.5	
SN-50	50	M64 × 2	75	31.5	
SN-81	1/8 (6A)	10.5	M16 × 1.5	19	17
SN-82	1/4 (8A)	13.8	M20 × 1.5	24	18
SN-83	3/8 (10A)	17.3	M26 × 1.5	32	20
SN-84	1/2 (15A)	21.7	M30 × 1.5	36	20
SN-85	3/4 (20A)	27.2	M38 × 1.5	46	21
SN-86	1 (25A)	34.0	M45 × 1.5	55	25
SN-87	1 1/4 (32A)	42.7	M56 × 2	65	30.5
SN-88	1 1/2 (40A)	48.6	M64 × 2	75	31.5

SLEEVE  
**SS**



Part No.	Tube O.D		l	
	D			
SS-04		4	7	
SS-06		6	9	
SS-08		8	9.8	
SS-10		10	10	
SS-12		12	10	
SS-15		15	10	
SS-16		16	11	
SS-18		18	11	
SS-20		20	11	
SS-22		22	11	
SS-25		25	11	
SS-28		28	11.5	
SS-30		30	12	
SS-32		32	12	
SS-35		35	14	
SS-38		38	14	
SS-40		40	14	
SS-42		42	14	
SS-50		50	14	
SS-81	1/8	(6A)	10.5	10
SS-82	1/4	(8A)	13.8	10
SS-83	3/8	(10A)	17.3	10
SS-84	1/2	(15A)	21.7	10
SS-85	3/4	(20A)	27.2	11
SS-86	1	(25A)	34.0	14
SS-87	1 1/4	(32A)	42.7	14
SS-88	1 1/2	(40A)	48.6	14