

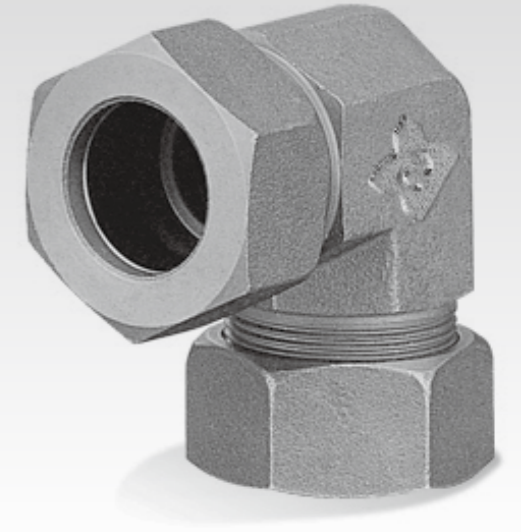


we will do our best to meet customer satisfaction through endless research and development



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30°/ 37°STANDARD FITTINGS & SWIVEL ADAPTERS	61p
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PLUG	155p

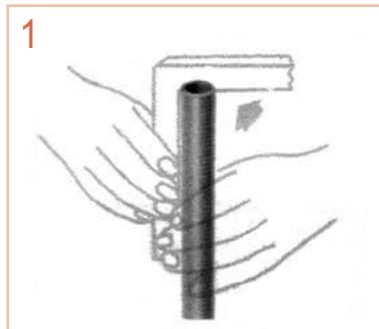


BITE TYPE FITTINGS

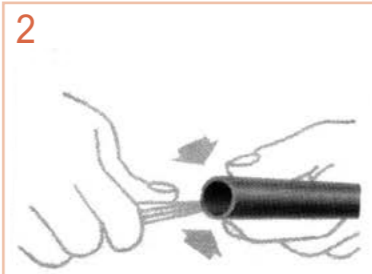


These excellent products assembled with specially heat treated sleeves and bodies made from low carbon steel(S10C to S25C)to prevent leaks. These fittings are available with various end sizes. Working Pressur 25MPa JIS B2351-1 AFHX 1

ASSEMBLY



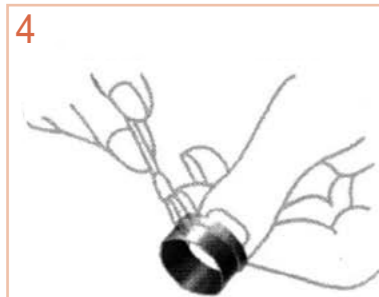
1
Cut and prepare the tube.
(Cutting angle has to be 90° degree)



2
Debar the cut edges.
(do not chamfer)



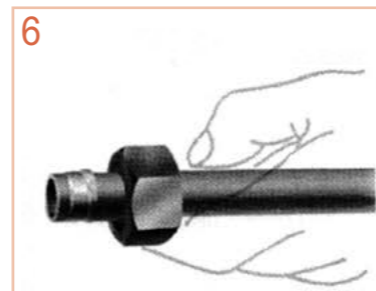
3
apply the oil to the inside
and outside of Body.



4
apply the oil to the sleeve.



5
apply the oil to the nut thread



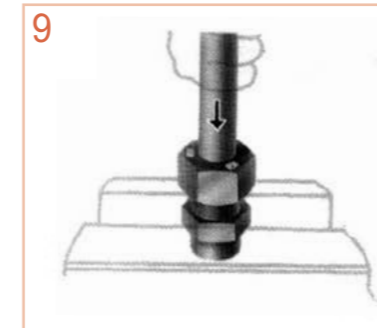
6
inserts sleeve and nut to the tube.



7
check the direction of sleeve.



8
assemble the NUT with hand.



9
make sure tube ends touch
into inside of body.



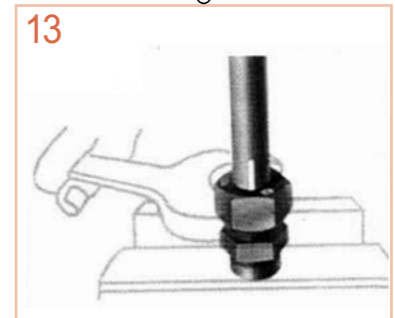
10
setting up the point
before tighten up the nut.



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
 Thread Symbol(PT) — R
 Pipe Thread Designations(1/4") — 04

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	
R	Taper Pipe Threads (BSPT : JIS B0203, ISO 7/1)
G	Parallel Threads (BSPP : JIS B0202, ISO 228/1)
N	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

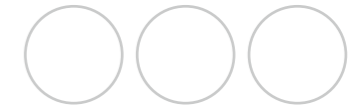
Example 3

ST - 04 - B

Brass

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

HOW TO ORDER

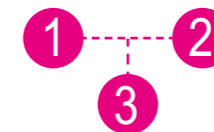


1 When placing an order with us, be sure to specify the fittings with their part numbers as listed in this catalogue.

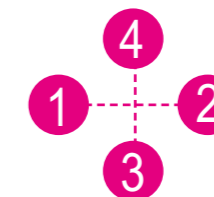
2 For the fitting has two different size
 a If the fitting has two different size end, call out the largest end size first 1, followed by the smaller one 2 and indicate the order of 1 and 2 as shown this picture



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

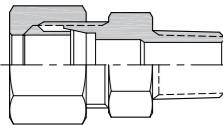
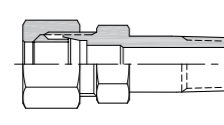
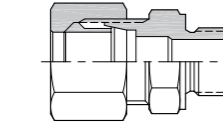
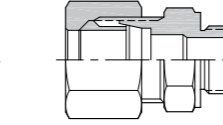
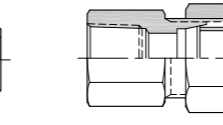
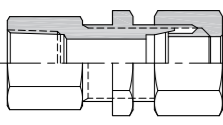
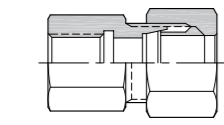
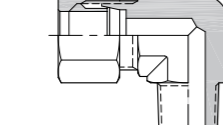
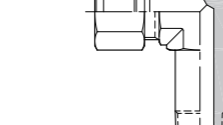
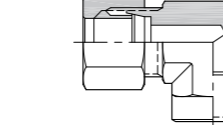
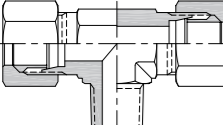
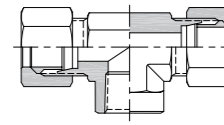
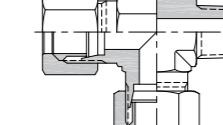
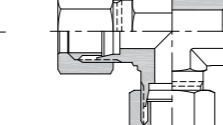
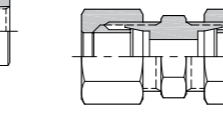
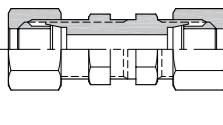
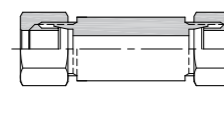
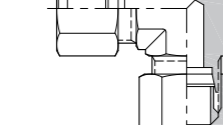
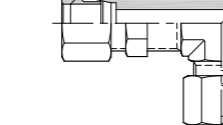
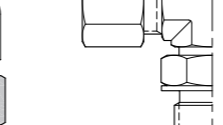


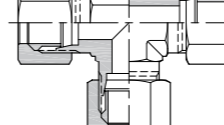
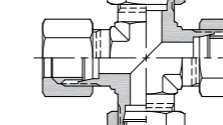
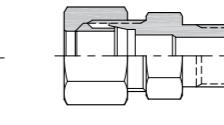
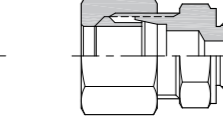
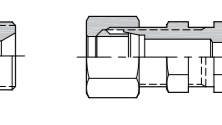
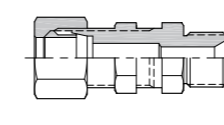
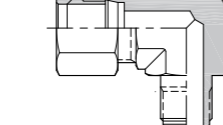
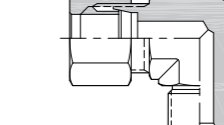
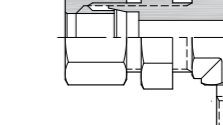
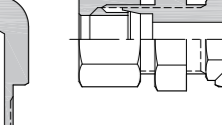
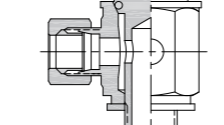
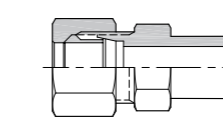
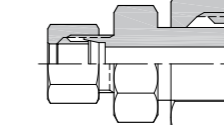
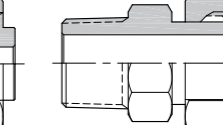
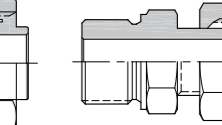
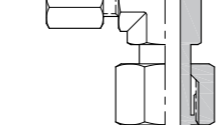
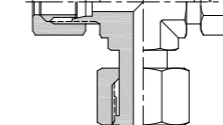
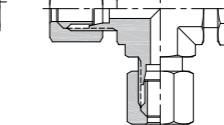
c If the fitting has four different size ends, call out the largest end size first 1, followed by the smaller one 2 of the same direction, and largest end size 3, followed by smaller one 4 of the rest, and indicate 1, 2, 3 and 4 as shown this picture



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.

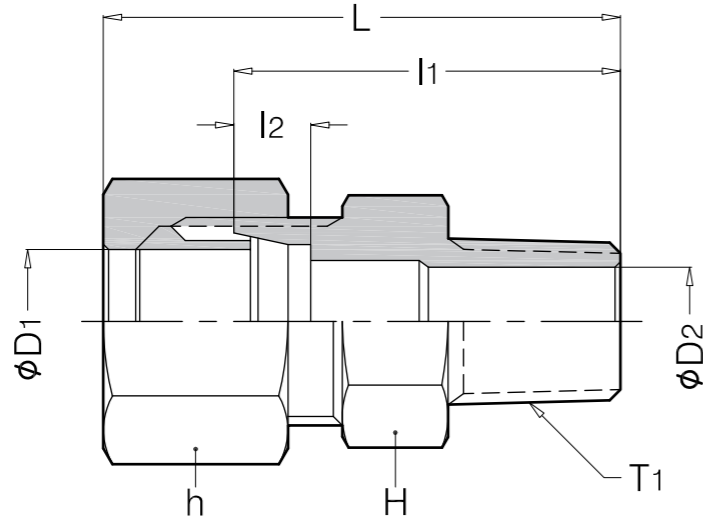
4 The fitting specifications are sometimes subject to change due to continuous improvements of quality and performance.

SMC	SLMC	SMC-G	SOM	SFC
				
P.22	P.24	P.25	P.26	P.27
SBFC	SGC	SLM	SLLM	SLF
				
P.28	P.29	P.30	P.32	P.33
SBTM	SBTF	SRTM	SRTF	SU
				
P.34	P.35	P.36	P.37	P.38
SBU	SBUW	SL	SBL	SOLM
				
P.39	P.40	P.41	P.42	P.43

ST	SC	SHUM	SHUF	SHBUM
				
P.44	P.45	P.46	P.47	P.48 SPA
SHBUF	SHLM	SHLF	SHBLM	SHBLF
				
P.49	P.50	P.51	P.52	P.53
SSLM	SCW	SR	SAR	SAG
				
P.54	P.55	P.56	P.57	P.58
SLA	SBTA	SRTA		
				
P.59	P.60	P.61		

MALE CONNECTOR

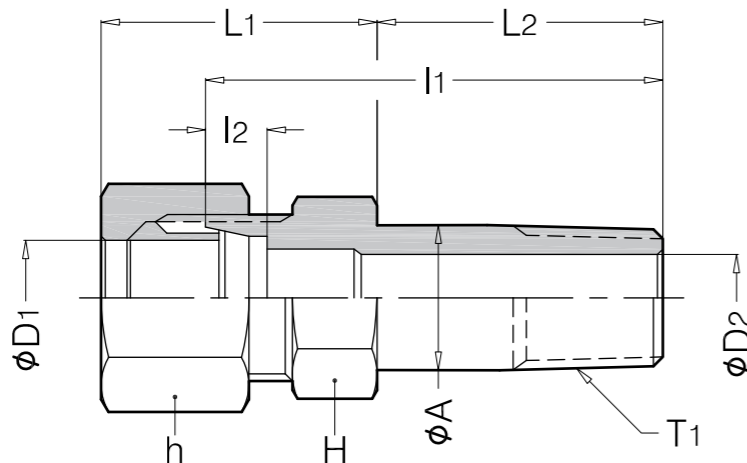
SMC



Part No.	Tube O.D	T (BSPT)	D2	Width across flat		t	l	Approx
	D1			h	H			L
SMC04-02R	4	1/8	2.5	12	12	6	25	32.5
SMC04-04R	4	1/4	5.5	12	14	6	29.5	37
SMC06-02R	6	1/8	4	14	14	7	28	38.5
SMC06-04R	6	1/4	5.5	14	14	7	33	43.5
SMC06-06R	6	3/8	8	14	19	7	34	44.5
SMC06-08R	6	1/2	11.5	14	22	7	39	49.5
SMC06-12R	6	3/4	15.5	14	27	7	40	50.5
SMC08-02R	8	1/8	4	17	17	7	29	39.5
SMC08-04R	8	1/4	6	17	17	7	33	43.5
SMC08-06R	8	3/8	8	17	19	7	35	45.5
SMC08-08R	8	1/2	11.5	17	22	7	39	49.5
SMC10-02R	10	1/8	4.5	19	17	7	30	41
SMC10-04R	10	1/4	6	19	17	7	33	44
SMC10-06R	10	3/8	8	19	19	7	36	47
SMC10-12R	10	3/4	8	19	27	7	42	53
SMC12-04R	12	1/4	5.5	22	19	7	33	44.5
SMC12-06R	12	3/8	10	22	19	7	36	47.5
SMC12-08R	12	1/2	11.5	22	22	7	40	51.5
SMC12-12R	12	3/4	16	22	27	7	42	53.5
SMC15-04R	15	1/4	9	27	24	7.5	37	49
SMC15-06R	15	3/8	9	27	24	7.5	37	49
SMC15-08R	15	1/2	12	27	24	7.5	41	53
SMC15-12R	15	3/4	15.5	27	27	7.5	43	55

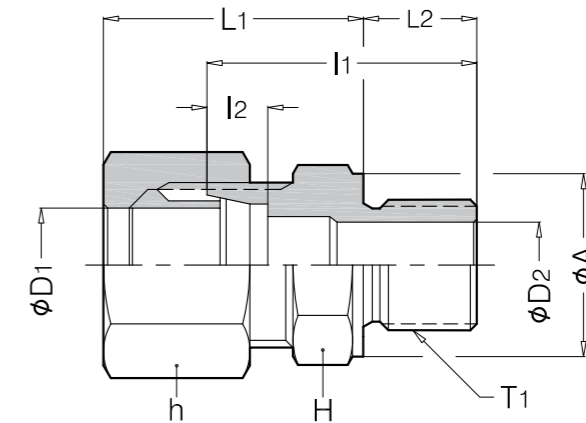
SMC16-06R	16	3/8	9	30	27	7.5	40	52
SMC16-08R	16	1/2	12	30	27	7.5	41	53
SMC16-12R	16	3/4	16	30	27	7.5	44	56
SMC18-06R	18	3/8	9	32	27	8	40	50.5
SMC18-12R	18	3/4	16	32	27	8	44	54.5
SMC18-16R	18	1	20	32	35	8	47	57.5
SMC20-06R	20	3/8	9	36	30	8	43	55.5
SMC20-08R	20	1/2	12	36	30	8	43	55.5
SMC20-12R	20	3/4	16	36	30	8	45	57.5
SMC20-16R	20	1	22	36	35	8	49	51.5
SMC22-06R	22	3/8	9	36	32	9	40	53
SMC22-08R	22	1/2	12	36	32	9	43	56
SMC22-12R	22	3/4	15.5	36	32	9	45	58
SMC22-16R	22	1	20	36	35	9	49	52
SMC25-12R	25	3/4	16	41	36	10	46	59.5
SMC25-16R	25	1	20	41	36	10	49	62.5
SMC25-20R	25	1 1/4	27.5	41	43	10	53	66.5
SMC28-08R	28	1/2	11.5	46	41	10	47	51
SMC28-12R	28	3/4	16	46	41	10	48	52
SMC28-16R	28	1	22	46	41	10	51	65
SMC30-12R	30	3/4	16	46	41	10	49	63.5
SMC30-16R	30	1	22	46	41	10	51	65.5
SMC30-20R	30	1 1/4	27	46	46	10	55	69.5
SMC32-16R	32	1	20	50	46	11	52	67
SMC32-20R	32	1 1/4	26	50	46	11	55	70
SMC35-16R	35	1	22	55	46	11	53	71
SMC35-20R	35	1 1/4	28	55	46	11	55	73
SMC35-24R	35	1 1/2	33	55	50	11	58	76
SMC38-16R	38	1	20	60	50	12	52	72
SMC38-20R	38	1 1/4	27.5	60	50	12	57	77
SMC38-24R	38	1 1/2	32	60	50	12	57	77
SMC42-20R	42	1 1/4	27.5	60	55	12	60	80
SMC81-02R	10.5	1/8	4.5	19	17	7	29	40.5
SMC81-04R	10.5	1/4	5.5	19	17	7	33	44.5
SMC81-06R	10.5	3/8	8	19	19	7	36	47.5
SMC82-04R	13.8	1/4	7	24	22	7.5	36	48
SMC82-06R	13.8	3/8	9	24	22	7.5	38	50
SMC82-08R	13.8	1/2	11.5	24	22	7.5	41	53
SMC82-12R	13.8	3/4	15.5	24	27	7.5	43	55
SMC83-04R	17.3	1/4	5.5	32	27	8	39	51.5
SMC83-06R	17.3	3/8	9	32	27	8	37	49.5
SMC83-08R	17.3	1/2	12	32	27	8	41	43.5
SMC84-06R	21.7	3/8	8	36	32	9	40	53
SMC84-12R	21.7	3/4	15.5	36	32	9	45	58
SMC85-12R	27.2	3/4	16	46	41	10	48	63
SMC85-16R	27.2	1	22	46	41	10	51	66
SMC86-12R	34	3/4	16	55	46	11	51	69
SMC86-16R	34	1	22	55	46	11	52	70
SMC86-20R	34	1 1/4	26	55	46	11	55	73
SMC87-12R	42.7	3/4	15.5	63.5	60	12	57	78
SMC87-20R	42.7	1 1/4	26	63.5	60	12	64	85

LONG MALE CONNECTOR
SLMC



Part No.	Tube O.D D1	T1 (BSPT)	D2	Width across falt		A	l1	l2	Approx L1	L2
				H	h					
SLMC04-02R	4	1/8	4	12	12	10.5	46	6	23.5	30
SLMC06-02R	6	1/8	4	14	14	10.5	63	7	32.5	41
SLMC06-04R	6	1/4	5.5	14	14	14	70	7	32.5	48
SLMC08-02R	8	1/8	4	17	17	10.5	70	7	35.5	41
SLMC08-04R	8	1/4	5.5	17	17	14	70	7	35.5	45
SLMC08-06R	8	3/8	9	19	17	17.5	71	7	35.5	46.5
SLMC10-02R	10	1/8	4.5	17	19	15	71	7	36.5	41
SLMC10-04R	10	1/4	5.5	17	19	14	71	7	36.5	46
SLMC10-06R	10	3/8	8	19	19	17.5	71	7	36.5	46.5
SLMC12-04R	12	1/4	5.5	19	22	14	71	7	36.5	46
SLMC12-06R	12	3/8	9	19	22	17.5	72	7	36.5	46.5
SLMC12-08R	12	1/2	12	22	22	17.5	72	7	36.5	46.5
SLMC15-06R	15	3/8	9	24	27	17.5	81	7.5	41	52.5
SLMC15-08R	15	1/2	12	24	27	22	86	7.5	41	56
SLMC16-06R	16	3/8	9	27	30	17.5	85	7.5	42.5	55
SLMC16-08R	16	1/2	12	27	30	22	86	7.5	42.5	56
SLMC16-12R	16	3/4	15.5	27	30	26.5	86	7.5	42.5	58.5
SLMC18-08R	18	1/2	12	27	32	22	86	8	42.5	56
SLMC20-12R	20	3/4	16	30	36	27.5	92	8	46	58.5
SLMC25-12R	25	3/4	15.5	36	41	27.5	93	10	49	59.5

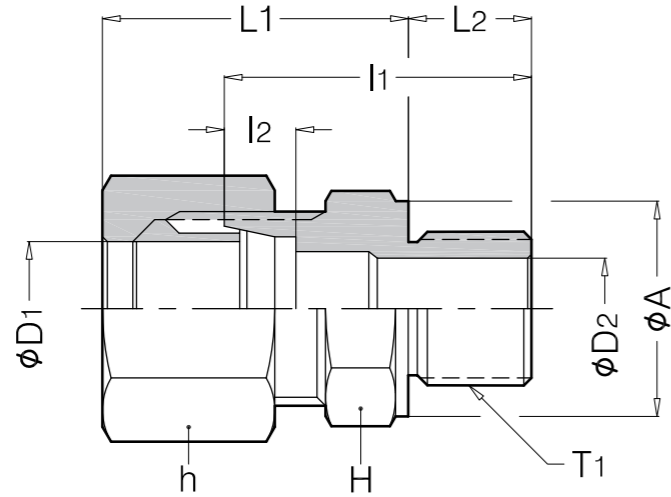
MALE CONNECTOR(FOR COPPER GASKET)
SMC-G



Part No.	Tube O.D		T1 (BSPP)	D2	Width across falt		A	l1	l2	Approx L1	L2
	D1				H	h					
SMC-G04-02G	4		1/8	2.5	14	12	13.5	23	6	22.5	8
SMC-G06-02G	6		1/8	4	14	14	13.5	28	7	30.5	8
SMC-G06-04G	6		1/4	4	19	14	18	33	7	31.5	12
SMC-G08-02G	8		1/8	4	17	17	13.5	28	7	30.5	8
SMC-G08-04G	8		1/4	6	19	17	18	33	7	31.5	12
SMC-G08-06G	8		3/8	8	22	17	21.5	34	7	31.5	12
SMC-G10-04G	10		1/4	6	19	19	18	33	7	32.5	12
SMC-G10-06G	10		3/8	8	22	19	21.5	34	7	33.5	12
SMC-G10-08G	10		1/2	12	27	19	25.5	39	7	33.5	14
SMC-G10-12G	10		3/4	16	32	19	31.5	44	7	33.5	16
SMC-G12-04G	12		1/4	6	19	22	19	33	7	32.5	12
SMC-G12-06G	12		3/8	8	22	22	21.5	34	7	33.5	12
SMC-G15-06G	15		3/8	8	24	27	21.5	37	7.5	37.5	12
SMC-G15-08G	15		1/2	12	27	27	25.5	41	7.5	39.5	14
SMC-G15-12G	15		3/4	16	32	27	31.5	45	7.5	39.5	16
SMC-G16-06G	16		3/8	8	27	30	21.5	38	7.5	39.5	12
SMC-G16-08G	16		1/2	12	27	30	25.5	41	7.5	39.5	14
SMC-G16-12G	16		3/4	15.5	32	30	31.5	45	7.5	39.5	16
SMC-G18-08G	18		1/2	12	27	32	25.5	41	8	39.5	14
SMC-G18-12G	18		3/4	15.5	32	32	31.5	43	8	39.5	16
SMC-G20-08G	20		1/2	12	30	36	25.5	41	8	42.5	14
SMC-G20-12G	20		3/4	16	32	36	31.5	46	8	42.5	16
SMC-G20-16G	20		1	20	41	36	38	49	7.5	42.5	20.5
SMC-G22-08G	22		1/2	12	32	36	25.5	43	9	41.5	14
SMC-G22-12G	22		3/4	16	32	36	31.5	46	9	41.5	16
SMC-G25-12G	25		3/4	16	36	41	35.6	46	10	43.5	16
SMC-G25-16G	25		1	20	41	41	38	50	10	43.5	18
SMC-G28-12G	28		3/4	15.5	41	46	31.5	51	10	48	16
SMC-G28-16G	28		1	22	41	46	38	52	10	48	18
SMC-G28-20G	28		1 1/4	24	50	46	48.5	57	10	48	20
SMC-G30-16G	30		1	22	41	46	38	52	10	48.5	18
SMC-G30-20G	30		1 1/4	25	50	46	48.5	57	10	48.5	20
SMC-G32-20G	32		1 1/4	26	50	50	48.5	57	11	51.5	20
SMC-G32-24G	32		1 1/2	34	60	50	53.5	58	12	51.5	21
SMC-G35-20G	35		1 1/4	28	50	55	49	57	11	54.5	22
SMC-G42-20G	42		1 1/4	27.5	55	60	49	61	12	60.5	20
SMC-G42-24G	42		1 1/2	34	55	60	53.5	62	12	60.5	21
SMC-G83-06G	3/8	17.3	3/8	8	27	32	21.5	38	8	38.5	12
SMC-G83-08G	3/8	17.3	1/2	11.5	27	32	25.5	40	8	39.5	14
SMC-G85-16G	3/4	27.2	1	22	41	46	40.6	52	10	48	18
SMC-G86-16G	1	34	1	22	46	55	40.6	54	11	53.5	18

MALE CONNECTOR(FOR O-SEAL)

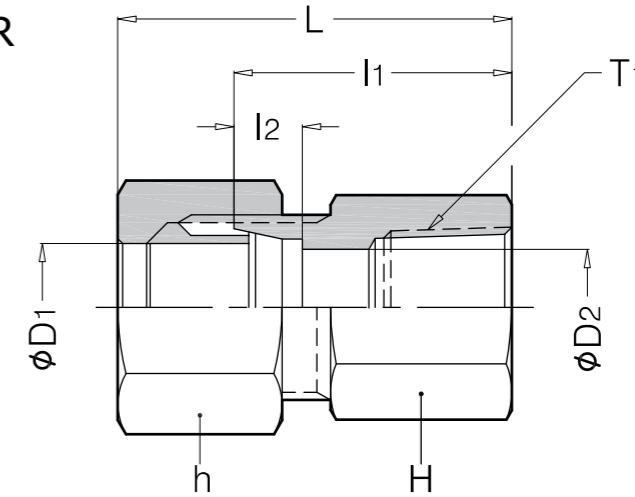
SOM



Part No.	Tube O.D		T ₁ (BSPP)	D ₂	Width across falt		A	l ₁	l ₂	Approx L ₁	L ₂
	D ₁				H	h					
SOM06-02G	6		1/8	4	14	14	13.6	28	7	30.5	8
SOM06-04G	6		1/4	5.5	19	14	19	33	7	31.5	12
SOM08-02G	8		1/8	4	17	17	14	28	7	30.5	8
SOM08-04G	8		1/4	6	19	17	19	33	7	31.5	12
SOM10-04G	10		1/4	6	19	19	19	33	7	32.5	12
SOM10-06G	10		3/8	8	22	19	22	34	7	33.5	12
SOM10-08G	10		1/2	12	27	19	26.6	39	7	33.5	14
SOM12-04G	12		1/4	6	19	22	19	33	7	32.5	12
SOM12-06G	12		3/8	8	22	22	21.6	34	7	33.5	13
SOM12-08G	12		1/2	10	27	22	27	39	7	36.5	14
SOM15-06G	15		3/8	8	24	27	22	37	7.5	37.5	12
SOM15-12G	15		3/4	16	32	27	31.6	45	7.5	37.5	16
SOM16-06G	16		3/8	8	27	30	22	39	7.5	39.5	12
SOM16-08G	16		1/2	12	27	30	26.8	41	7.5	39.5	14
SOM16-12G	16		3/4	16	32	30	32	46	7.5	39.5	16
SOM18-08G	18		1/2	12	27	32	26.6	41	8	39.5	14
SOM18-12G	18		3/4	16	32	32	31.6	46	8	39.5	16
SOM20-08G	20		1/2	11.5	30	36	28.5	43	8	42.5	14
SOM20-12G	20		3/4	16	32	36	32	46	8	42.5	16
SOM20-16G	20		1	20	41	36	40.6	50	8	42.5	18
SOM22-06G	22		3/8	8	32	36	22	41	9	41.5	12
SOM22-08G	22		1/2	11.5	32	36	27	43	9	41.5	14
SOM22-12G	22		3/4	16	32	36	32	46	9	42.5	16
SOM22-16G	22		1	20	41	36	40.6	49	9	42.5	18
SOM25-08G	25		1/2	11.5	36	41	27	46	10	43.5	14
SOM25-12G	25		3/4	16	36	41	35.6	46	10	43.5	16
SOM25-16G	25		1	20	41	41	40.8	48	10	45.5	18
SOM25-20G	25		1 1/4	25	50	41	49.5	54	10	45.5	20
SOM28-12G	28		3/4	15.5	41	46	31.5	51	10	48	16
SOM28-16G	28		1	22	41	46	40.6	52	10	48	18
SOM30-12G	30		3/4	16	41	46	36	50	10	48.5	16
SOM30-16G	30		1	22	41	46	40.6	52	10	51.5	18
SOM30-20G	30		1 1/4	27.5	50	46	49.6	57	10	51.5	20
SOM42-20G	42		1 1/4	27.5	55	60	49	61	12	60.5	20
SOM42-24G	42		1 1/2	34	55	60	55	62	12	60.5	21
SOM50-32G	50		2	40	70	75	69.5	73	12	69.5	24
SOM84-08G	1/2	21.7	1/2	11.5	32	36	27	43	9	41.5	14
SOM85-12G	3/4	27.2	3/4	15.5	41	46	36	50	10	48	16
SOM88-24G	1 1/2	48.6	1 1/2	33	65	75	55	62	12	65.5	21

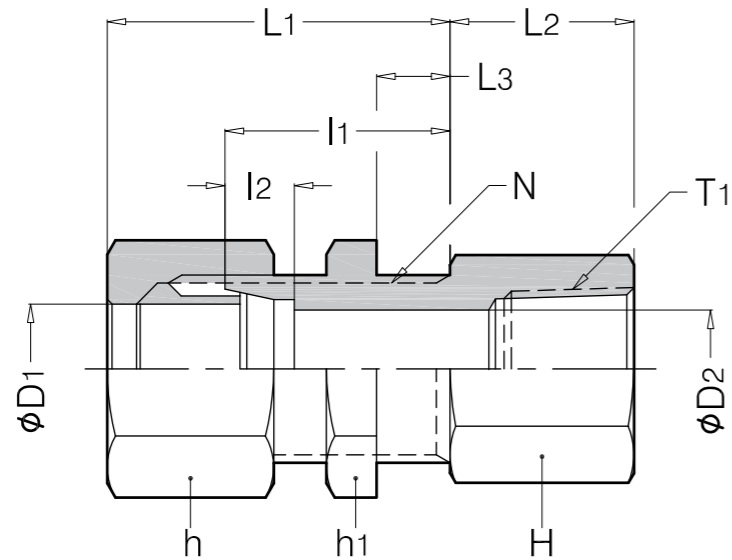
FEMALE CONNECTOR

SFC



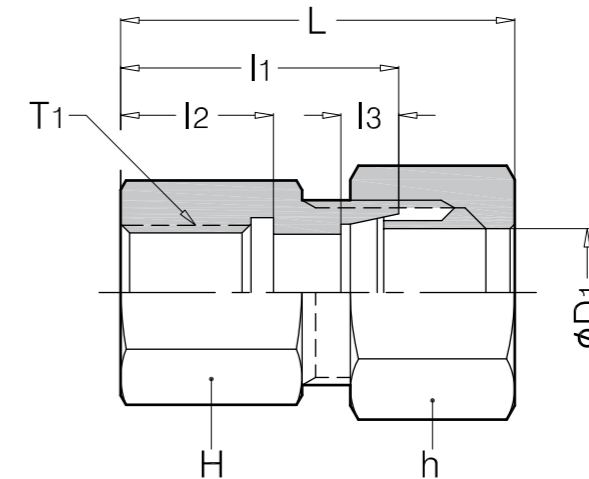
Part No.	Tube O.D		T ₁ (BSPT)	D ₂	Width across falt		l ₁	l ₂	Approx L
	D ₁				H	h			
SFC04-02R	4		1/8	2.5	14	12	23	6	33.5
SFC04-04R	4		1/4	2.5	19	12	30	6	40.5
SFC06-02R	6		1/8	4	17	14	25	7	35.5
SFC06-04R	6		1/4	4	19	14	30	7	40.5
SFC06-06R	6		3/8	4	24	14	32	7	42.5
SFC06-08R	6		1/2	4	30	14	34	7	44.5
SFC08-02R	8		1/8	6	17	17	25	7	35.5
SFC08-04R	8		1/4	6	19	17	30	7	40.5
SFC08-06R	8		3/8	6	24	17	32	7	42.5
SFC08-08R	8		1/2	6	30	17	34	7	44.5
SFC10-02R	10		1/8	8	17	19	30	7	41.5
SFC10-04R	10		1/4	8	19	19	30	7	41.5
SFC10-06R	10		3/8	8	24	19	32	7	43.5
SFC10-08R	10		1/2	8	30	19	38	7	49.5
SFC12-04R	12		1/4	10	19	22	30	7	41.5
SFC12-06R	12		3/8	10	24	22	32	7	43.5
SFC12-08R	12		1/2	10	30	22	38	7	49.5
SFC15-06R	15		3/8	12	24	27	34	7.5	46.5
SFC15-08R	15		1/2	12	30	27	39	7.5	51.5
SFC16-06R	16		3/8	13	27	30	34	7.5	46.5
SFC16-08R	16		1/2	13	30	30	39	7.5	51.5
SFC18-06R	18		3/8	14	27	32	36	8	48.5
SFC18-08R	18		1/2	14	30	32	39	8	51.5
SFC18-12R	18		3/4	14	36	32	41	8	53.5
SFC20-08R	20		1/2	17	30	36	39	8	51.5
SFC20-12R	20		3/4	17	36	36	41	8	53.5
SFC20-16R	20		1	17	41	36	43	8	55.5
SFC22-08R	22		1/2	18	32	36	39	9	51.5
SFC22-12R	22		3/4	18	36	36	41	9	53.5
SFC25-12R	25		3/4	20	36	41	41	10	54.5
SFC25-16R	25		1	20	41	41	45	10	59.5
SFC28-12R	28		3/4	22	41	46	41	10	56
SFC28-16R	28		1	22	41	46	45	10	61
SFC30-12R	30		3/4	25	43	46	41	10	55.5
SFC30-16R	30		1	25	43	46	47	10	61.5
SFC30-20R	30		1 1/4	25	55	46	51	10	65.5
SFC35-20R	35		1 1/4	28	55	55	51	11	68.5
SFC82-06R	1/4	13.8	3/8	11.5	24	24	34	7.5	46
SFC83-08R	3/8	17.3	1/2	14	30	32	39	8	51.5
SFC85-16R	3/4	27.2	1	22	41	46	45	10	59
SFC86-20R	1	34	1 1/4	28	55	55	51	11	68.5
SFC87-24R	1 1/4	42.7	1 1/2	34	65	65	55	12	78.5

BULKHEAD FEMALE CONNECTOR SBFC



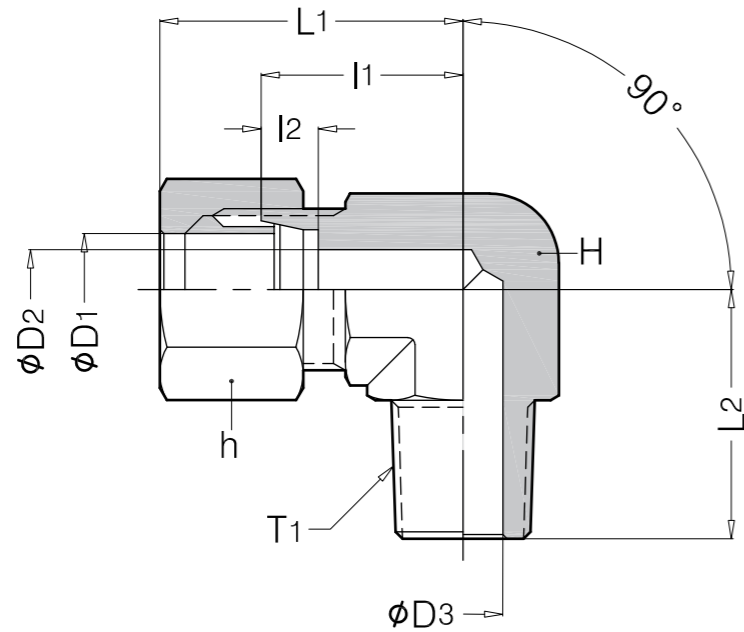
Part No.	Tube O.D		D ₂	Width across flat			I ₁	I ₂	Approx L ₁	L ₂	Panel Max thickness L ₃	Panel Hole Drill size N
	D ₁	T ₁ (BSPT)		H	h	h ₁						
SBFC06-02R	6	1/8	4	17	14	17	32	7	42.5	13	13	12.5
SBFC06-04R	6	1/4	4	19	14	17	32	7	42.5	18	13	14.5
SBFC08-04R	8	1/4	6	19	17	19	32	7	42.5	18	13	14.5
SBFC08-06R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

GAUGE CONNECTOR SGC



Part No.	Tube O.D		Width across flat		I ₁	I ₂	I ₃	Approx L
	D ₁	T ₁ (BSPP)	H	h				
SGC03-04G	3	1/4	19	12	29	13	6	36.5
SGC04-04G	4	1/4	19	12	29	13	6	36.5
SGC04-06G	4	3/8	24	12	30	15	6	37.5
SGC06-04G	6	1/4	19	14	32	13	7	42.5
SGC06-06G	6	3/8	24	14	34	15	7	44.5
SGC06-08G	6	1/2	27	14	34	16	7	46.5
SGC08-04G	8	1/4	19	17	32	13	7	42.5
SGC08-06G	8	3/8	24	17	34	15	7	44.5
SGC08-08G	8	1/2	30	17	34	16	7	46.5
SGC10-04G	10	1/4	19	19	32	13	7	43.5
SGC10-06G	10	3/8	24	19	34	15	7	45.5
SGC12-04G	12	1/4	19	22	32	13	7	43.5
SGC12-06G	12	3/8	24	22	34	15	7	45.5
SGC12-08G	12	1/2	30	22	36	16	7	47.5

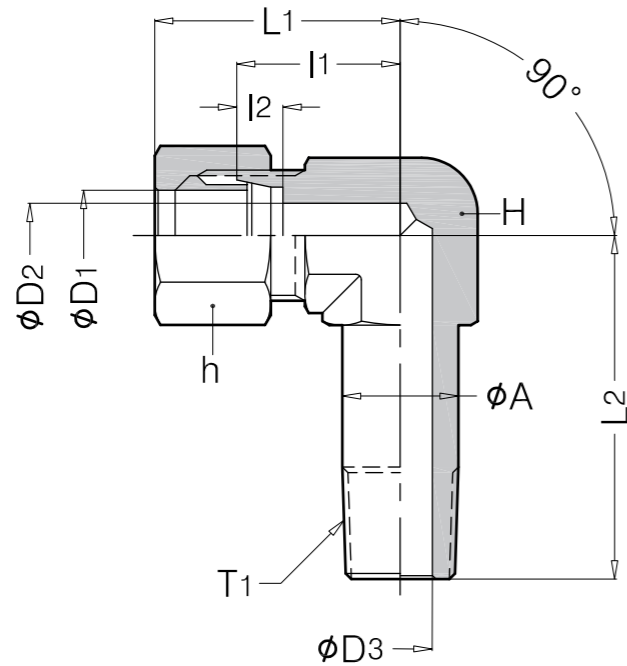
MALE ELBOW
SLM



Part No.	Tube O.D		T ₁ (BSPT)	D ₂	D ₃	Width across flat		l ₁	l ₂	Approx	
	D ₁					H	h			L ₁	L ₂
SLM03-02R	3		1/8	2.5	4.5	12	12	21	6	22.5	21
SLM03-04R	3		1/4	2.5	5.5	14	12	22	6	23.5	25
SLM03-06R	3		3/8	2.5	9	19	12	23	6	24.5	30
SLM04-02R	4		1/8	2.5	4.5	12	12	16	6	22.5	21
SLM04-04R	4		1/4	2.5	5.5	14	12	20	6	26.5	25
SLM06-02R	6		1/8	4	4	14	14	20	7	30.5	23
SLM06-04R	6		1/4	4	5.5	14	14	20	7	33.5	23.5
SLM06-06R	6		3/8	4	9	19	14	23	7	36.5	30
SLM08-02R	8		1/8	6	4	17	17	23	7	33.5	24
SLM08-04R	8		1/4	6	7	17	17	23	7	33.5	26
SLM08-06R	8		3/8	6	9	19	17	23	7	33.5	30
SLM08-08R	8		1/2	6	11.5	22	17	29	7	39.5	36
SLM10-02R	10		1/8	8	4.5	17	19	23	7	34.5	22
SLM10-04R	10		1/4	8	7	17	19	23	7	34.5	26

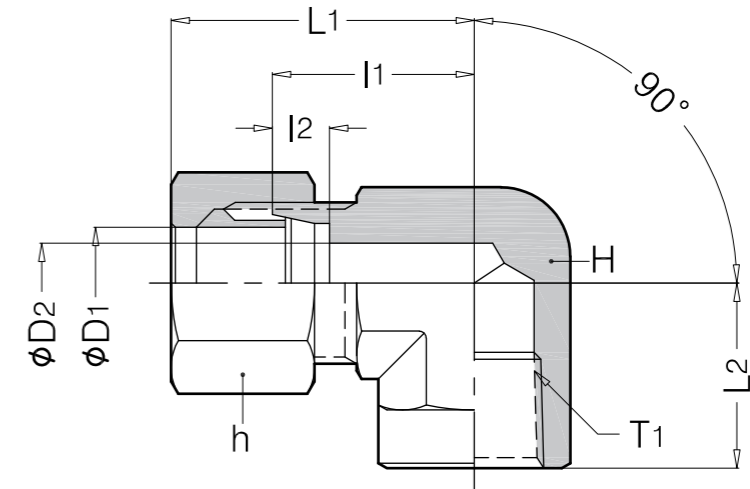
SLM10-08R	10		1/2	8	12	22	19	29	7	40.5	36
SLM12-02R	12		1/8	10	4.5	19	22	23	7	34.5	24
SLM12-04R	12		1/4	10	7	19	22	24	7	35.5	30
SLM12-06R	12		3/8	10	9	19	22	24	7	35.5	30
SLM12-08R	12		1/2	10	12	22	22	29	7	40.5	36
SLM12-12R	12		3/4	10	16	27	22	29.5	7	41	39.5
SLM15-04R	15		1/4	12	7	24	27	29	7.5	41.5	34
SLM15-06R	15		3/8	12	9	24	27	29	7.5	41.5	37
SLM15-08R	15		1/2	12.1	11.5	24	27	29	7.5	41.5	37
SLM15-12R	15		3/4	12	15.5	27	27	31	7.5	43.5	38.5
SLM16-06R	16		3/8	13.1	9	27	30	32	7.5	44.5	37
SLM16-08R	16		1/2	13	12	27	30	32	7.5	44.5	37
SLM16-12R	16		3/4	13	15.5	27	30	31	7.5	43.5	39.5
SLM18-06R	18		3/8	14	9	27	32	32	8	44.5	37
SLM18-08R	18		1/2	14	12	27	32	32	8	44.5	37
SLM18-12R	18		3/4	14	15.5	27	32	32	8	44.5	38.5
SLM20-08R	20		1/2	17	12	30	36	33	8	45.5	38
SLM20-12R	20		3/4	16	15.5	30	36	33	8	45.5	39.5
SLM22-08R	22		1/2	18	11.5	32	36	34	9	46.5	40
SLM22-12R	22		3/4	18.1	15.5	32	36	34	9	46.5	42
SLM22-16R	22		1	18	20	35	36	36	9	48.5	49
SLM25-08R	25		1/2	20	12	36	41	36	10	49.5	43
SLM25-12R	25		3/4	20	16	35	41	36	10	49.5	43
SLM25-16R	25		1	20	22	35	41	36	10	49.5	48
SLM28-12R	28		3/4	22	16	41	46	41	10	55	49
SLM28-16R	28		1	22	22	41	46	41	10	55	49
SLM28-20R	28		1 1/4	22	26	41	46	43	10	57	56
SLM30-12R	30		3/4	25	15.5	41	46	41	10	55.5	49
SLM30-16R	30		1	25	22	41	46	41	10	55.5	49
SLM35-20R	35		1 1/4	28	28	41	55	46	11	63.5	57
SLM38-24R	38		1 1/2	32	32	50	60	50	12	69.5	65
SLM42-24R	42		1 1/2	34	33	50	60	55	12	74.5	65
SLM81-02R	1/8	10.5	1/8	8	4.5	17	19	24	7	34.5	23
SLM81-04R	1/8	10.5	1/4	8	7	17	19	23	7	34.5	26
SLM82-04R	1/4	13.8	1/4	11.5	7	22	24	28	7.5	40	28
SLM82-06R	1/4	13.8	3/8	11.5	9	22	24	28	7.5	40	35.5
SLM83-06R	3/8	17.3	3/8	14	9	27	32	32	8	44.5	37
SLM83-08R	3/8	17.3	1/2	14	11.5	27	32	32	8	44.5	37
SLM84-08R	1/2	21.7	1/2	18	11.5	32	36	34	9	46.5	38.5
SLM84-12R	1/2	21.7	3/4	18	15.5	32	36	34	9	46.5	42
SLM85-12R	3/4	27.2	3/4	22	16	41	46	41	10	55	55
SLM85-16R	3/4	27.2	1	22	22	41	46	41	10	55	57
SLM86-16R	1	34	1	28	22	41	55	46	11	63.5	56
SLM86-20R	1	34	1 1/4	28	26	41	55	46	11	63.5	56
SLM87-20R	1 1/4	42.7	1 1/4	34	26	50	65	57	12	77.5	65
SLM88-24R	1 1/2	48.6	1 1/2	42.5	33	65	75	60.5	12	83.5	70

LONG MALE ELBOW
SLLM



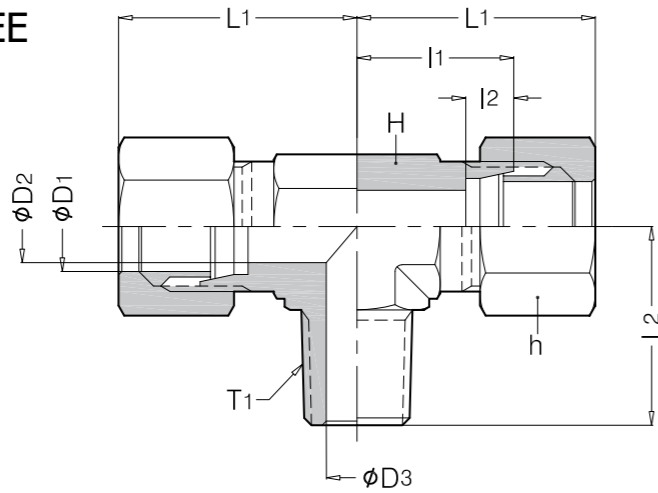
Part No.	Tube O.D D1	T1 (BSPT)	D2	D3	A	Width across flat		l1	l2	Approx	
						H	h			L1	L2
SLLM04-02R	4	1/8	2.5	4	12	14	12	20	6	30.5	43
SLLM06-02R	6	1/8	4	4	12	14	14	20	7	30.5	43
SLLM06-04R	6	1/4	4	7	13.4	14	14	21	7	31.5	49
SLLM06-06R	6	3/8	4	9	17.6	19	14	24	7	34.5	61
SLLM08-02R	8	1/8	6	4.5	16	17	17	23	7	33.5	46
SLLM08-04R	8	1/4	6	7	16	17	17	23	7	33.5	49
SLLM08-06R	8	3/8	6	9	17.6	19	17	23	7	33.5	61
SLLM10-04R	10	1/4	8	7	16	17	19	23	7	34.5	52
SLLM10-06R	10	3/8	8	9	17.6	19	19	24	7	35.5	61
SLLM10-08R	10	1/2	8	11.5	22	24	19	29	7	40.5	74
SLLM12-04R	12	1/4	10	7	17.6	19	22	24	7	35.5	61
SLLM12-06R	12	3/8	10	9	17.6	19	22	24	7	35.5	61
SLLM12-08R	12	1/2	10	11.5	22	24	22	29	7	40.5	73
SLLM15-06R	15	3/8	12	9	23	24	27	29	7.5	41.5	68
SLLM15-08R	15	1/2	12	11.5	23	24	27	29	7.5	41.5	74
SLLM16-06R	16	3/8	13	9	26	27	30	32	7.5	44.5	78.5
SLLM16-08R	16	1/2	13	12	26	27	30	32	7.5	44.5	78.5
SLLM16-12R	16	3/4	13	16	26	27	30	33	7.5	45.5	86
SLLM18-08R	18	1/2	14	12	26	27	32	32	8	44.5	85.5
SLLM20-08R	20	1/2	16	11.5	27	30	36	33	8	45.5	90
SLLM20-12R	20	3/4	17	16	28	30	36	33	8	45.5	92
SLLM22-08R	22	1/2	18	11.5	27	30	36	33	9	45.5	87
SLLM22-12R	22	3/4	18	15.5	29	30	36	34	9	46.5	87
SLLM25-12R	25	3/4	20	15.5	33	36	41	36	10	49.5	100
SLLM25-16R	25	1	20	22	34.5	36	41	36	10	49.5	102

FFEMALE ELBOW
SLF



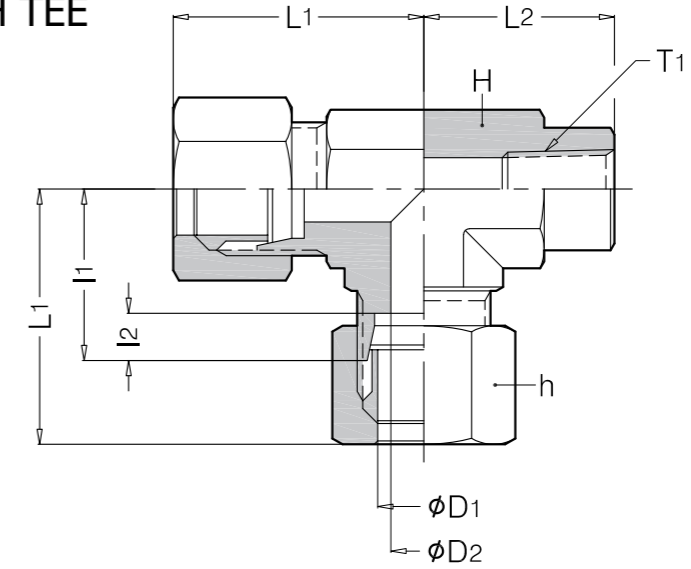
Part No.	Tube O.D D1	T1 (BSPT)	D2	Width across flat		l1	l2	Approx	
				H	h			L1	L2
SLF06-02R	6	1/8	4	14	14	24	7	24	20
SLF06-04R	6	1/4	4	19	14	24	7	24	24
SLF08-04R	8	1/4	6	19	19	24	7	24	27
SLF08-06R	8	3/8	6	24	19	29	7	29	29
SLF08-08R	8	1/2	6	27	19	33	7	33	33
SLF10-04R	10	1/4	8	19	19	24	7	24	24
SLF10-06R	10	3/8	8	24	19	29	7	29	29
SLF10-08R	10	1/2	8	27	19	33	7	33	33
SLF12-04R	12	1/4	10	19	22	24	7	24	24
SLF12-06R	12	3/8	10	24	22	29	7	29	29
SLF12-08R	12	1/2	10	27	22	32	7	32	33
SLF15-06R	15	3/8	12	24	27	29	7.5	29	29
SLF15-08R	15	1/2	12	27	27	33	7.5	33	33
SLF16-06R	16	3/8	13	27	30	33	7.5	33	33
SLF16-08R	16	1/2	13	27	30	33	7.5	33	33
SLF18-08R	18	1/2	14	27	32	33	8	33	33
SLF20-06R	20	3/8	16	30	36	33	8	33	33
SLF20-08R	20	1/2	16	30	36	33	8	33	33
SLF20-12R	20	3/4	16	35	36	36	8	36	36
SLF22-12R	22	3/4	18	36	36	36	9	36	36
SLF25-12R	25	3/4	20	36	41	36	10	36	36

MALE BRANCH TEE
SBTM



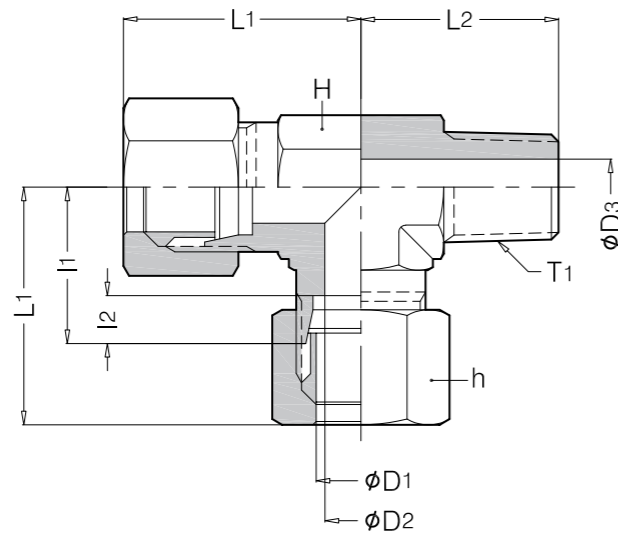
Part No.	Tube O.D		T ₁ (BSPT)	D ₂	D ₃	Width across flat		l ₁	l ₂	Approx	
	D ₁					H	h			L ₁	L ₂
SBTM04-02R	4		1/8	2.5	4.5	12	12	18	6	22.5	21
SBTM04-04R	4		1/4	2.5	7	14	12	21	6	25.5	23.5
SBTM06-02R	6		1/8	4	4	14	14	20	7	30.5	21
SBTM06-04R	6		1/4	4	7	14	14	23	7	33.5	23.5
SBTM06-06R	6		3/8	4	9	19	14	24	7	34.5	30
SBTM08-02R	8		1/8	6	4.5	17	17	23	7	33.5	24
SBTM08-04R	8		1/4	6	7	17	17	23	7	33.5	26
SBTM08-06R	8		3/8	6	9	19	17	23	7	33.5	30
SBTM08-08R	8		1/2	6	12	22	17	28	7	38.5	34
SBTM10-02R	10		1/8	8	4.5	17	19	23	7	34.5	24
SBTM10-04R	10		1/4	8	7	17	19	23	7	34.5	26
SBTM10-06R	10		3/8	8	9	19	19	24	7	35.5	30
SBTM10-08R	10		1/2	8	12	22	19	28	7	39.5	34
SBTM10-12R	10		3/4	8	16	27	19	35	7	46.5	40
SBTM12-04R	12		1/4	10	7	19	22	24	7	35.5	30
SBTM12-06R	12		3/8	10	9	19	22	24	7	35.5	30
SBTM12-08R	12		1/2	10	12	22	22	28	7	39.5	34
SBTM15-06R	15		3/8	12	9	24	27	29	7.5	41.5	34
SBTM15-08R	15		1/2	12	12	24	27	29	7.5	41.5	34
SBTM15-12R	15		3/4	12	15.5	27	27	32	7.5	44.5	40.5
SBTM16-06R	16		3/8	13	9	27	30	32	7.5	44.5	37
SBTM16-08R	16		1/2	13	11.5	27	30	32	7.5	44.5	37
SBTM16-12R	16		3/4	13	15.5	27	30	32	7.5	44.5	40.5
SBTM18-06R	18		3/8	14	9	27	32	32	8	44.5	37
SBTM18-08R	18		1/2	14	11.5	27	32	32	8	44.5	37
SBTM20-08R	20		1/2	17	11.5	30	36	35	8	47.5	40
SBTM20-12R	20		3/4	17	16	30	36	35	8	47.5	40
SBTM22-08R	22		1/2	18	11.5	32	36	34	9	46.5	40
SBTM22-16R	22		1	18	20	36	36	36	9	48.5	47
SBTM25-12R	25		3/4	20	15.5	35	41	36	10	49.5	46
SBTM25-16R	25		1	20	20	36	41	36	10	49.5	47
SBTM28-12R	28		3/4	22	15.5	41	46	41	10	55	49
SBTM28-16R	28		1	22	20	41	46	41	10	55	49
SBTM30-08R	30		1/2	25	12	41	46	41	10	55.5	49
SBTM30-16R	30		1	25	20	41	46	41	10	55.5	49
SBTM38-12R	38		3/4	32	15.5	50	60	50	12	69.5	59
SBTM81-04R	1/8	10.5	1/4	8	7	17	19	23	7	34.5	26

FEMALE BRANCH TEE
SBTF



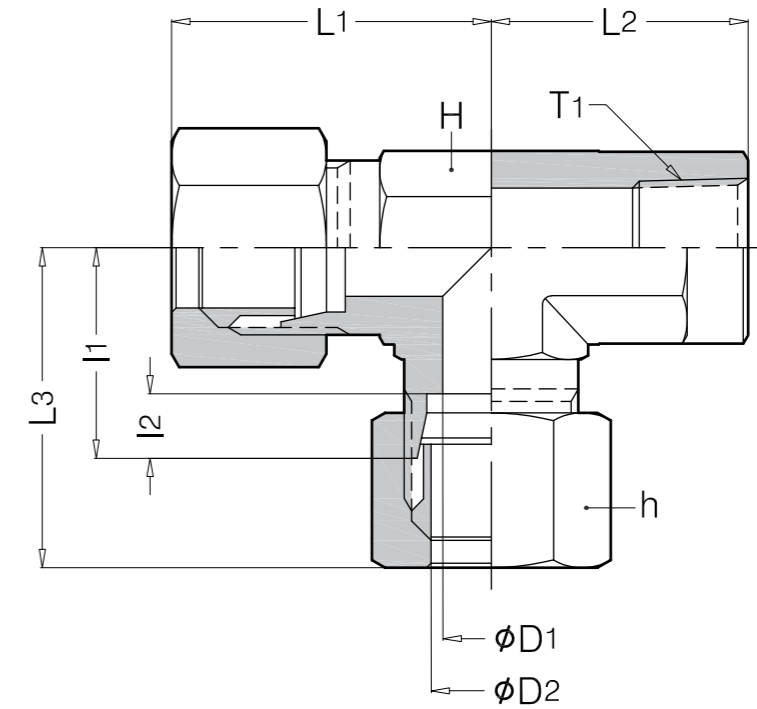
Part No.	Tube O.D		T ₁ (BSPT)	D ₂	Width across flat		l ₁	l ₂	Approx	
	D ₁				H	h			L ₁	L ₂
SBTF06-02R	6		1/8	4	14	14	23	7	33.5	21
SBTF06-04R	6		1/4	4	19	14	24	7	34.5	24
SBTF08-02R	8		1/8	6	17	17	24	7	34.5	24
SBTF08-04R	8		1/4	6	19	17	24	7	34.5	24
SBTF08-06R	8		3/8	6	24	17	29	7	39.5	29
SBTF10-04R	10		1/4	8	19	19	24	7	35.5	24
SBTF10-06R	10		3/8	8	24	19	29	7	39.5	29
SBTF10-08R	10		1/2	8	27	19	33	7	43.5	33
SBTF12-04R	12		1/4	10	19	22	24	7	35.5	24
SBTF12-06R	12		3/8	10	24	22	29	7	40.5	29
SBTF12-08R	12		1/2	10	27	22	33	7	44.5	33
SBTF15-06R	15		3/8	12	24	27	29	7.5	41.5	29
SBTF15-08R	15		1/2	12	27	27	33	7.5	45.5	33
SBTF16-06R	16		3/8	13	27	30	33	7.5	45.5	33
SBTF16-08R	16		1/2	13	27	30	33	7.5	45.5	33
SBTF16-12R	16		3/4	13	36	30	36	7.5	48.5	36
SBTF18-06R	18		3/8	14	27	32	33	8	45.5	33
SBTF18-08R	18		1/2	14	27	32	33	8	45.5	33
SBTF18-12R	18		3/4	14	35	32	36	8	48.5	36
SBTF20-06R	20		3/8	17	30	36	33	8	45.5	36
SBTF20-08R	20		1/2	17	30	36	33	8	45.5	36
SBTF20-12R	20		3/4	17	36	36	36	8	48.5	36
SBTF22-08R	22		1/2	18	32	36	36	9	48.5	33
SBTF22-12R	22		3/4	18	35	36	36	9	48.5	36
SBTF25-12R	25		3/4	20	35	41	36	10	49.5	36
SBTF25-16R	25		1	20	41	41	46	10	59.5	50
SBTF28-08R	28		1/2	22	41	46	46	10	60	46
SBTF28-16R	28		1	22	41	46	46	10	60	46
SBTF30-12R	30		3/4	25	41	46	46	10	60.5	46
SBTF30-16R	30		1	25	41	46	46	10	60.5	46
SBTF30-20R	30		1 1/4	25	50	46	54	10	68.5	54
SBTF35-20R	35		1 1/4	28	50	50	54	11	72.5	54
SBTF38-16R	38		1	32	50	60	50	12	76.5	50
SBTF38-20R	38		1 1/4	32	50	60	50	12	76.5	50

MALE RUN TEE
SRTM



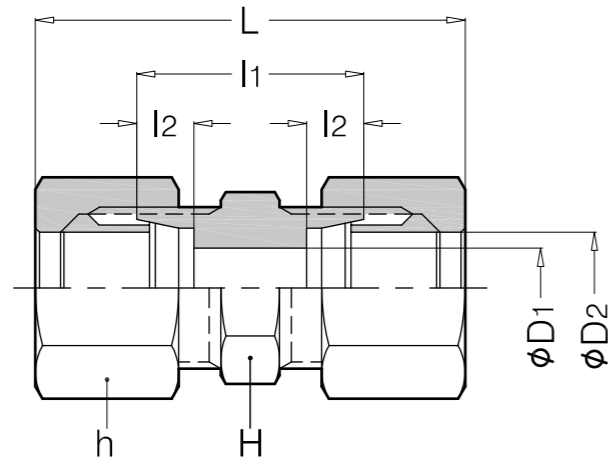
Part No.	Tube O.D		T ₁ (BSPT)	D ₂	D ₃	Width across flat		l ₁	l ₂	Approx	
	D ₁					H	h			L ₁	L ₂
SRTM04-02R	4		1/8	2.5	4	12	12	20	6	30.5	21
SRTM04-04R	4		1/4	2.5	7	14	12	21	6	31.5	23.5
SRTM06-02R	6		1/8	4	4	14	14	20	7	30.5	21
SRTM06-04R	6		1/4	4	7	14	14	23	7	33.5	26
SRTM06-06R	6		3/8	4	9	19	14	24	7	34.5	30
SRTM08-02R	8		1/8	6	4	17	17	23	7	33.5	24
SRTM08-04R	8		1/4	6	7	17	17	23	7	33.5	26
SRTM08-06R	8		3/8	6	9	19	17	23	7	33.5	30
SRTM08-08R	8		1/2	6	12	22	17	28	7	38.5	34
SRTM10-02R	10		1/8	8	4.5	17	19	23	7	34.5	24
SRTM10-04R	10		1/4	7	7	17	19	23	7	34.5	26
SRTM10-06R	10		3/8	8	9	19	19	24	7	35.5	30
SRTM10-08R	10		1/2	8	12	22	19	28	7	39.5	34
SRTM10-12R	10		3/4	8	16	27	19	35	7	46.5	40
SRTM12-04R	12		1/4	10	6	19	22	24	7	35.5	30
SRTM12-06R	12		3/8	10	9	19	22	24	7	35.5	30
SRTM12-08R	12		1/2	10	11.5	22	22	28	7	39.5	34
SRTM15-06R	15		3/8	12	9	24	27	29	7.5	30.5	34
SRTM15-08R	15		1/2	12	12	24	27	29	7.5	30.5	34
SRTM15-12R	15		3/4	12	15.5	27	27	29	7.5	30.5	39
SRTM16-06R	16		3/8	13	9	27	30	32	7.5	44.5	37
SRTM16-08R	16		1/2	13	11.5	27	30	32	7.5	44.5	37
SRTM16-12R	16		3/4	13	15.5	27	30	32	7.5	44.5	39
SRTM18-08R	18		1/2	14	11.5	27	32	32	8	44.5	37
SRTM18-12R	18		3/4	14	15.5	27	32	32	8	44.5	39
SRTM20-08R	20		1/2	17	11.5	30	36	33	8	45.5	39
SRTM20-12R	20		3/4	17	16	30	36	33	8	45.5	39
SRTM22-12R	22		3/4	18	15.5	32	36	34	9	46.5	41
SRTM25-12R	25		3/4	20	15.5	36	41	36	10	49.5	46
SRTM25-16R	25		1	20	20	35	41	36	10	49.5	46
SRTM28-16R	28		1	22	22	41	46	41	10	55	49
SRTM30-16R	30		1	25	22	41	46	41	10	55.5	49
SRTM81-04R	1/8	10.5	1/4	7	7	17	19	23	7	34.5	26
SRTM83-08R	3/8	17.3	1/2	14	11.5	27	32	32	8	44.5	37
SRTM84-06R	1/2	21.7	3/4	18	15.5	32	36	34	9	46.5	42
SRTM85-08R	3/4	27.2	1	22	22	41	46	41	10	55	49

FEMALE RUN TEE
SRTF



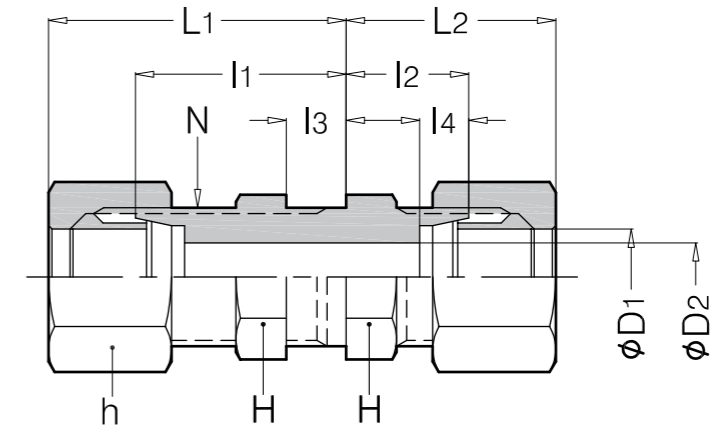
Part No.	Tube O.D		T ₁ (BSPT)	D ₂	Width across flat		l ₁	l ₂	Approx	
	D ₁				H	h			L ₁	L ₂
SRTF06-02R	6		1/8	4	14	14	23	7	33.5	23
SRTF06-04R	6		1/4	4	19	14	27	7	37.5	25
SRTF08-04R	8		1/4	6	19	17	24	7	34.5	24
SRTF10-04R	10		1/4	8	19	19	24	7	35.5	24
SRTF10-06R	10		3/8	8	24	19	29	7	40.5	29
SRTF12-04R	12		1/4	10	19	22	24	7	35.5	24
SRTF12-06R	12		3/8	10	24	22	29	7	40.5	29
SRTF15-06R	15		3/8	12	24	27	29	7.5	41.5	29
SRTF15-08R	15		1/2	12	27	27	33	7.5	45.5	33
SRTF16-08R	16		1/2	13	27	30	33	7.5	45.5	33
SRTF18-08R	18		1/2	14	27	32	34	8	45.5	34
SRTF20-08R	20		1/2	17	30	36	36	8	48.5	36
SRTF20-12R	20		3/4	17	36	36	36	8	48.5	36
SRTF22-12R	22		3/4	18	36	36	36	9	48.5	36
SRTF25-12R	25		3/4	20	36	41	36	10	49.5	36

STRAIGHT UNION SU



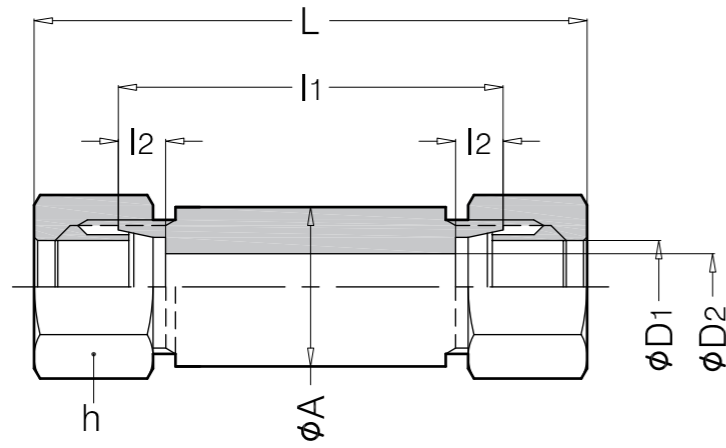
Part No.	Tube O.D		D ₂	Width across flat		l ₁	l ₂	Approx L
	D ₁			H	h			
SU-04	4		2.5	12	12	20	6	35
SU-06	6		4	14	14	30	7	51
SU-08	8		6	17	17	31	7	52
SU-10	10		8	17	19	31	7	54
SU-12	12		10	19	22	32	7	54
SU-15	15		12	24	27	36	7.5	61
SU-16	16		13	27	30	36	7.5	61
SU-18	18		14	27	32	36	8	61
SU-20	20		16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

STRAIGHT BULKHEAD UNION SBU



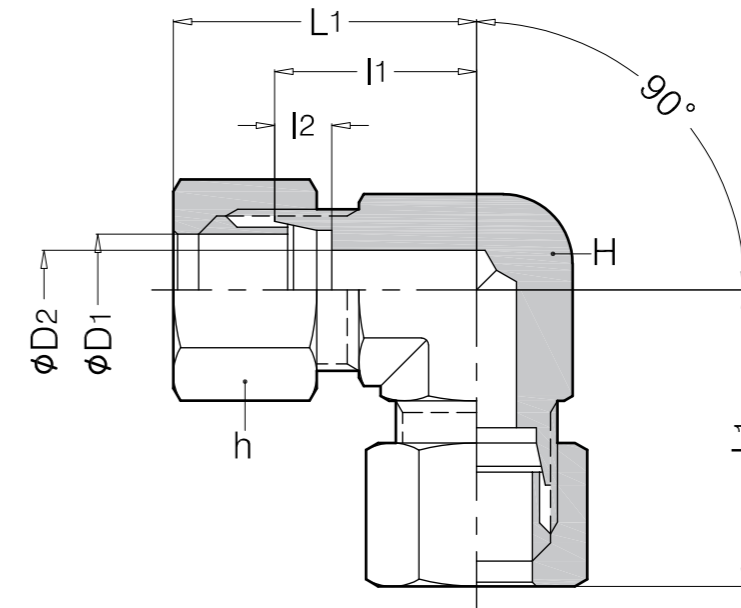
Part No.	Tube O.D		D ₂	Width across flat		l ₁	l ₂	Panel Max thickness l ₃	Panel Hole Drill size l ₄	Approx		
	D ₁			H	h					N	L ₁	L ₂
SBU-04	4		2.5	14	12	25	14	13	6	10.5	32.5	21.5
SBU-06	6		4	17	14	32	19	13	7	12.5	42.5	29.5
SBU-08	8		6	19	17	32	19	13	7	14.5	42.5	29.5
SBU-10	10		8	22	19	32	20	13	7	16.5	43.5	31.5
SBU-12	12		10	24	22	32	20	13	7	18.5	43.5	31.5
SBU-15	15		12	27	27	37	22	15	7.5	22.5	49.5	34.5
SBU-16	16		13	30	30	37	24	15	7.5	24.5	49.5	36.5
SBU-18	18		14	32	32	39	24	15	8	26.5	51.5	36.5
SBU-20	20		17	32	36	39	24	15	8	28.5	51.5	36.5
SBU-22	22		18	36	36	39	25	15	9	30.5	51.5	37.5
SBU-25	25		20	41	41	39	25	15	10	35.5	52.5	38.5
SBU-28	28		22	46	46	43	26	15	10	38.5	55	42
SBU-30	30		25	46	46	44.5	29	15	10	40.5	55.5	42.5
SBU-82	1/4	13.8	11.5	27	24	39	20	15	7.5	20.5	49	34
SBU-84	1/2	21.7	18	36	36	39	25	15	9	30.5	51.5	37.5
SBU-86	1	34	28	50	55	43	30	15	11	45.5	60.5	47.5

WELDING BULKHEAD UNION SBUW



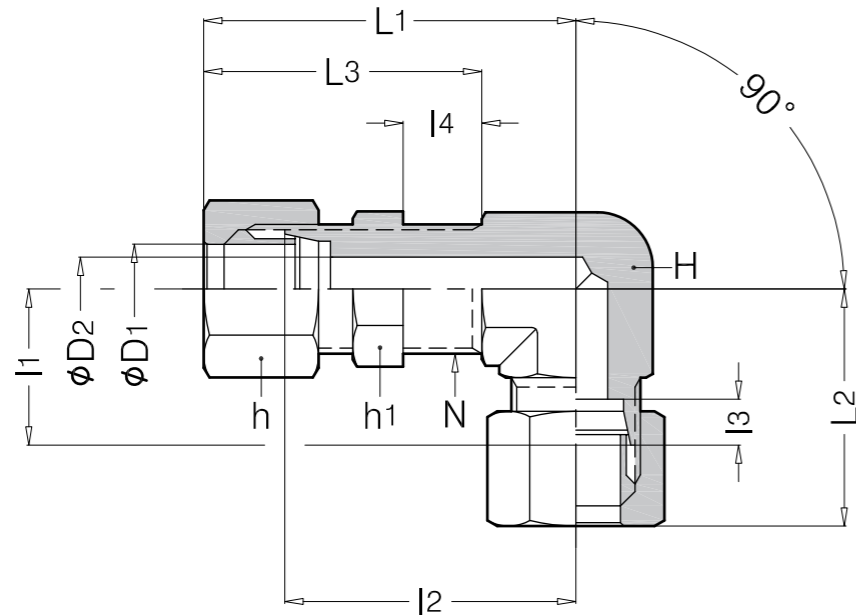
Part No.	Tube O.D		D2	A	Width across flat		l1	l2	Approx L
	D1				h				
SBUW-06	6		4	16	14		74	7	95
SBUW-08	8		6	16	17		74	7	95
SBUW-10	10		8	19	19		74	7	97
SBUW-12	12		10	20	22		74	7	97
SBUW-15	15		12	25	27		78	7.5	103
SBUW-16	16		13	28	30		78	7.5	103
SBUW-18	18		14	28	32		78	8	103
SBUW-20	20		17	32	36		78	8	103
SBUW-22	22		18	32	36		78	9	103
SBUW-25	25		20	38	41		78	10	105
SBUW-28	28		22	39	46		82	10	110
SBUW-30	30		25	46	46		82	10	111
SBUW-32	32		26	46	50		82	11	111
SBUW-35	35		28	46	55		82	11	117
SBUW-38	38		32	55	60		82	12	121
SBUW-40	40		32	55	60		90	12	129
SBUW-50	50		40	65	75		90	12	133
SBUW-81	1/8	10.5	8	19	19		74	7	97
SBUW-82	1/4	13.8	11	22	24		78	7.5	102
SBUW-83	3/8	17.3	14	28	32		78	8	103
SBUW-84	1/2	21.7	18	32	36		78	9	103
SBUW-85	3/4	27.2	22	39	46		82	10	110
SBUW-86	1	34	28	46	55		82	11	117
SBUW-87	1 1/4	42.7	34	58	65		90	12	131
SBUW-88	1 1/2	48.6	40	65	75		90	12	133

UNION ELBOW SL



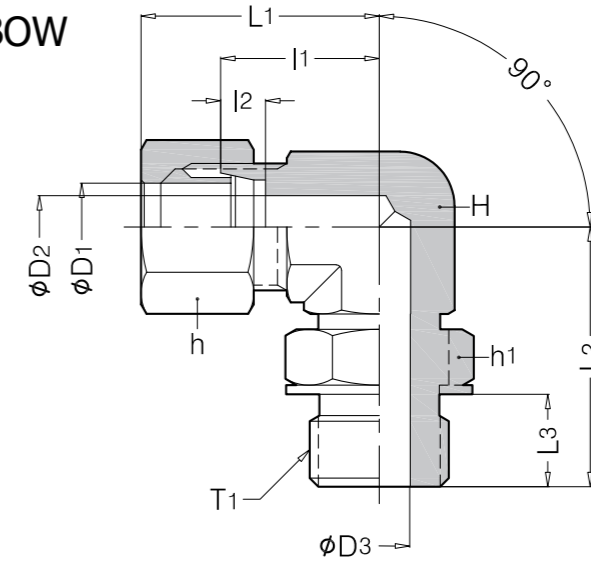
Part No.	Tube O.D		D2	Width across flat		l1	l2	Approx L1
	D1			H	h			
SL-04	4		2.5	12	12	15	6	22.5
SL-06	6		4	14	14	20	7	30.5
SL-08	8		6	17	17	23	7	33.5
SL-10	10		8	17	19	23	7	34.5
SL-12	12		10	19	22	24	7	35.5
SL-15	15		12	24	27	29	7.5	41.5
SL-16	16		13	27	30	32	7.5	44.5
SL-18	18		14	27	32	32	8	44.5
SL-20	20		16	30	36	33	8	45.5
SL-22	22		18	32	36	34	9	46.5
SL-25	25		20	36	41	36	10	49.5
SL-28	28		22	41	46	41	10	55
SL-30	30		25	41	46	41	10	55.5
SL-32	32		26	41	50	45	11	59.5
SL-35	35		28	41	55	46	11	63.5
SL-38	38		32	50	60	50	12	69.5
SL-42	42		34	50	60	57	12	74.5
SL-81	1/8	10.5	8	17	19	23	7	34.5
SL-83	3/8	17.3	14	27	32	32	8	44.5
SL-84	1/2	21.7	18	32	36	34	9	46.5
SL-85	3/4	27.2	22	41	46	41	10	55
SL-86	1	34	28	41	55	46	11	63.5
SL-87	1 1/4	42.7	34	50	65	57	12	77.5
SL-88	1 1/2	48.6	42.5	65	75	60.5	12	83.5

BULKHEAD ELBOW
SBL



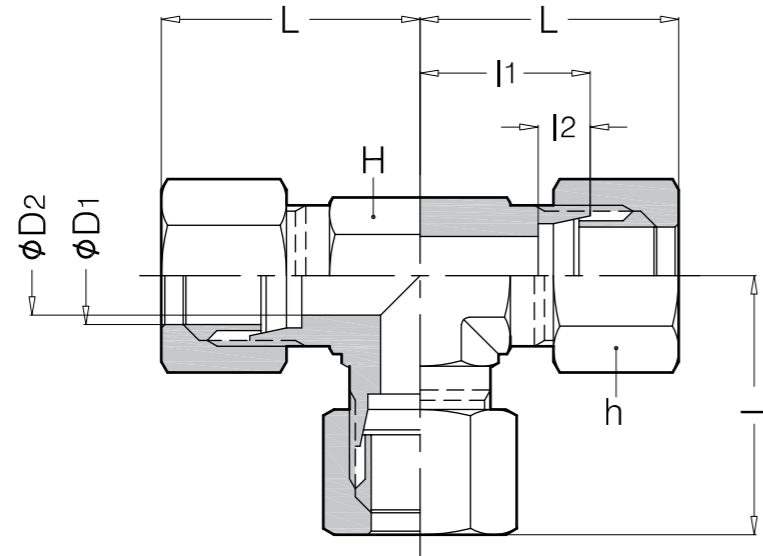
Part No.	Tube O.D		Width across flat			l ₁	l ₂	l ₃	Panel Max thickness	Panel Hole Drill size	Approx		
	D ₁	D ₂	H	h	h ₁						l ₄	N	L ₁
SBL-06	6	4	17	14	17	23	45	7	13	12.5	55.5	33.5	42.5
SBL-08	8	6	19	17	19	24	46	7	13	14.5	56.5	34.5	42.5
SBL-10	10	8	22	19	22	26	48	7	13	16.5	59.5	37.5	43.5
SBL-12	12	10	24	22	24	27	49	7	13	18.5	60.5	38.5	43.5
SBL-15	15	12	27	27	27	31	57	7.5	15	22.5	69.5	43.5	49.5
SBL-16	16	13	30	30	30	33	59	7.5	15	24.5	71.5	45.5	49.5
SBL-18	18	14	32	32	32	33	63	8	15	26.5	75.5	45.5	51.5
SBL-20	20	17	32	32	36	33	65	8	15	28.5	77.5	45.5	51.5
SBL-22	22	18	36	36	36	36	65	9	15	30.5	77.5	48.5	51.5
SBL-25	25	20	41	41	41	39	66	10	15	35.5	81.5	52.5	52.5
SBL-28	28	22	41	46	46	41	66	10	15	38.5	84	55	55
SBL-30	30	25	46	46	46	46	74	10	15	40.5	88.5	60.5	55.5

O-SEAL MALE ELBOW
SOLM



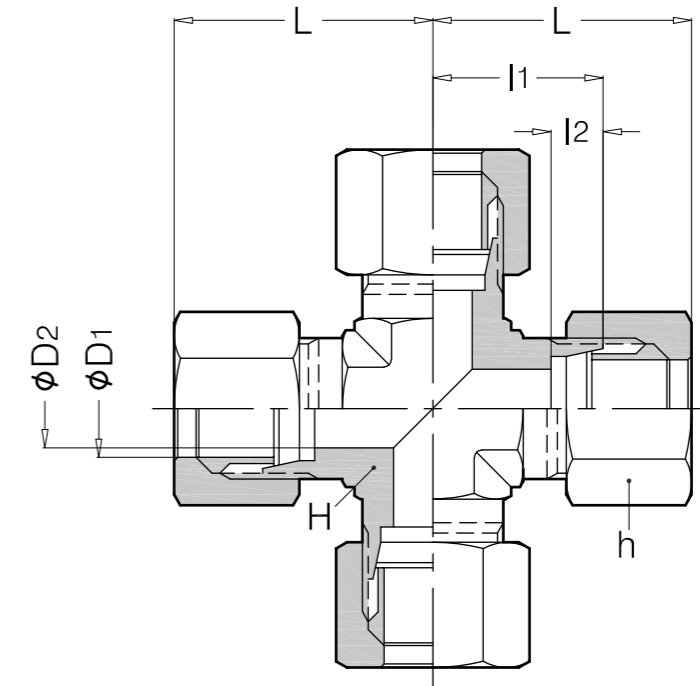
Part No.	Tube O.D		T ₁ (BSPP)	D ₂	D ₃	Width across flat			l ₁	l ₂	Approx L ₁	L ₂	L ₃
	D ₁	D ₂				H	h	h ₁					
SOLM06-02G	6	1/8	4	4	4	14	14	14	20	7	30.5	30	10
SOLM06-04G	6	1/4	4	5.5	5.5	14	14	19	23	7	33.5	31.5	12
SOLM08-02G	8	1/8	6	4	4	14	17	14	23	7	33.5	28	10
SOLM08-04G	8	1/4	6	5.5	5.5	17	17	19	24	7	34.5	36	12
SOLM08-06G	8	3/8	6	8	8	19	17	22	23	7	33.5	37	12
SOLM08-08G	8	1/2	6	11.5	11.5	22	17	27	29	7	39.5	43	16
SOLM10-04G	10	1/4	8	5.5	5.5	19	19	19	23	7	34.5	35	12
SOLM10-06G	10	3/8	8	8	8	16	19	22	24	7	35.5	36	12
SOLM10-08G	10	1/2	8	11.5	11.5	22	19	27	27	7	38.5	43	16
SOLM12-04G	12	1/4	10	5.5	5.5	19	22	19	24	7	35.5	36	12
SOLM12-06G	12	3/8	10	8	8	19	22	22	24	7	35.5	36.5	12
SOLM12-08G	12	1/2	10	11.5	11.5	22	22	27	29	7	40.5	46	16
SOLM15-06G	15	3/8	12	8	8	22	27	22	29	7.5	41.5	40	12
SOLM15-08G	15	1/2	12	11.5	11.5	22	27	27	29	7.5	41.5	46	16
SOLM15-12G	15	3/4	12	16	16	27	27	32	32	7.5	44.5	49	17
SOLM15-16G	15	1	12	21	21	35	27	41	36	7.5	48.5	52	21
SOLM16-06G	16	3/8	13	8	8	27	30	22	32	7.5	44.5	46	12
SOLM16-08G	16	1/2	13	11.5	11.5	27	30	22	32	7.5	44.5	46	16
SOLM16-12G	16	3/4	13	16	16	27	30	32	32	7.5	44.5	49	17
SOLM18-08G	18	1/2	14	11.5	11.5	27	32	27	32	8	44.5	46	16
SOLM18-12G	18	3/4	14	16	16	27	32	32	32	8	44.5	49	17
SOLM20-08G	20	1/2	16	11.5	11.5	30	36	27	34	8	45.5	46	16
SOLM20-12G	20	3/4	17	16	16	32	36	32	34	8	45.5	52	17
SOLM20-16G	20	1	16	21	21	35	36	41	36	8	47.5	52	21
SOLM22-08G	22	1/2	18	11.5	11.5	32	36	27	34	9	46.5	50	16
SOLM22-12G	22	3/4	18	16	16	32	36	32	34	9	46.5	52	17
SOLM22-16G	22	1	18	21	21	35	36	41	36	9	48.5	52	21
SOLM25-08G	25	1/2	20	11.5	11.5	36	41	27	36	10	49.5	52	16
SOLM25-12G	25	3/4	20	16	16	36	41	32	36	10	49.5	60	17
SOLM25-16G	25	1	20	21	21	35	41	41	36	10	49.5	52	21
SOLM28-16G	28	1	22	21	21	41	46	41	44	10	55	62	21
SOLM30-16G	30	1	25	21	21	41	46	41	41	10	55.5	59	21
SOLM30-20G	30	1 1/4	25	27	27	41	46	50	44	10	58.5	66	21
SOLM35-16G	35	1	28	20	20	41	55	41	46	11	63.5	65	21
SOLM35-20G	35	1 1/4	28	27	27	41	55	50	46	11	63.5	66	21
SOLM35-24G	35	1 1/2	28	34.5	34.5	50	55	55	51	11	68.5	66	21
SOLM38-24G	38	1 1/2	32	33	33	50	60	55	53	12	72.5	65	21

UNION TEE
ST



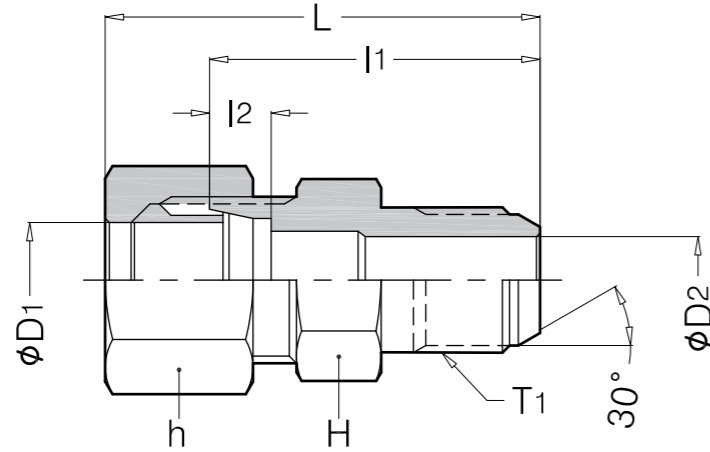
Part No.	Tube O.D		D ₂	Width across flat		l ₁	l ₂	Approx L
	D ₁			H	h			
ST-03	3		2.5	12	12	20	6	27.5
ST-04	4		2.5	12	12	18	6	25.5
ST-06	6		4	14	14	20	7	30.5
ST-08	8		6	17	17	23	7	33.5
ST-10	10		8	17	19	23	7	34.5
ST-12	12		10	19	22	24	7	35.5
ST-15	15		12	24	27	29	7.5	41.5
ST-16	16		13	27	30	32	7.5	44.5
ST-18	18		14	27	32	32	8	44.5
ST-20	20		17	30	36	33	8	45.5
ST-22	22		18	32	36	34	9	46.5
ST-25	25		20	36	41	36	7.5	49.5
ST-30	30		25	41	46	41	10	55.5
ST-32	32		26	41	50	45	11	59.5
ST-35	35		28	41	55	46	11	63.5
ST-38	38		32	50	60	50	12	69.5
ST-42	42		34	50	60	55	12	74.5
ST-81	1/8	10.5	8	17	19	23	7	34.5
ST-82	1/4	13.8	11	22	24	28	7.5	40
ST-83	3/8	17.3	14	27	32	32	8	44.5
ST-84	1/2	21.7	18	32	36	34	9	46.5
ST-85	3/4	27.2	22	41	46	41	10	55
ST-86	1	34	28	41	55	46	11	63.5

CROSS
SC



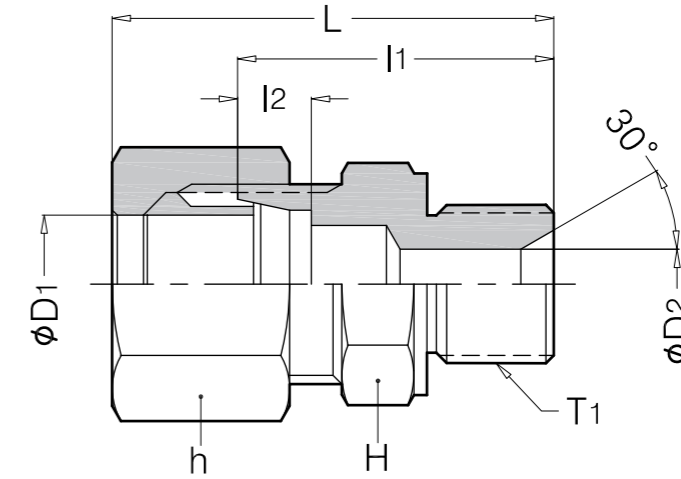
Part No.	Tube O.D		D ₂	Width across flat		l ₁	l ₂	Approx L
	D ₁			H	h			
SC-06	6		4	14	14	20	7	30.5
SC-08	8		6	19	17	23	7	33.5
SC-10	10		8	19	19	24	7	35.5
SC-12	12		10	19	22	24	7	35.5
SC-15	15		12	27	27	31	7.5	43.5
SC-16	16		13	27	30	31	7.5	43.5
SC-20	20		17	27	36	31	8	43.5
SC-25	25		20	36	41	36	10	49.5
SC-30	30		25	46	46	45	10	59.5
SC-32	32		26	46	50	45	10	59.5

HOSE UNION SHUM



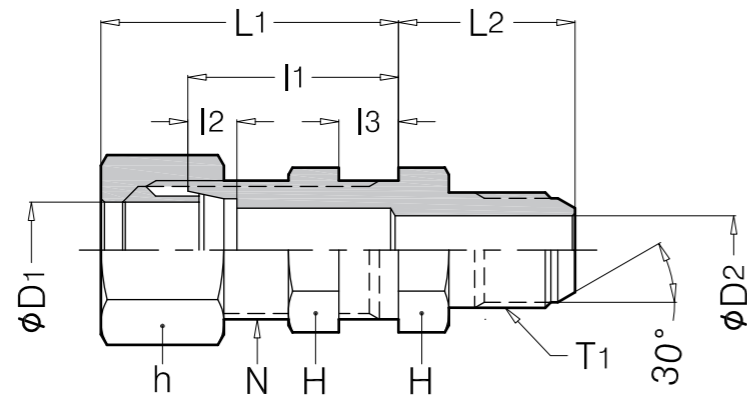
Part No.	Tube O.D	T ₁ (BSPP)	D ₂	Width across flat		l ₁	l ₂	Approx L
	D ₁			H	h			
SHUM06-04G	6	1/4	5.5	14	14	34	7	44.5
SHUM08-04G	8	1/4	6	17	17	33	7	43.5
SHUM10-04G	10	1/4	6	17	19	33	7	46.5
SHUM10-06G	10	3/8	8	19	19	37	7	48.5
SHUM12-04G	12	1/4	5.5	19	22	35	7	46.5
SHUM12-06G	12	3/8	8	19	22	37.5	7	49
SHUM12-08G	12	1/2	10	22	22	40	7	51.5
SHUM15-06G	15	3/8	8	24	27	38	8	51
SHUM15-08G	15	1/2	11.5	24	27	42	7.5	54.5
SHUM15-12G	15	3/4	15.5	27	27	43	7.5	55.5
SHUM16-06G	16	3/8	8	27	30	40	7.5	52.5
SHUM16-08G	16	1/2	11.5	27	30	42	7.5	54.5
SHUM16-12G	16	3/4	15.5	27	30	44	7.5	56.5
SHUM18-08G	18	1/2	11.5	27	32	42	8	54.5
SHUM20-06G	20	3/8	8	30	36	42	8	54.5
SHUM20-08G	20	1/2	11.5	30	36	45	8	57.5
SHUM20-12G	20	3/4	16	30	36	46	8	58.5
SHUM22-08G	22	1/2	11.5	32	36	44	9	56.5
SHUM22-12G	22	3/4	16	32	36	46	9	58.5
SHUM25-16G	25	1	20	36	41	49	10	62.5
SHUM28-16G	28	1	22	41	46	50	10	64
SHUM30-16G	30	1	20	41	46	51	10	65.5

HOSE UNION SHUF



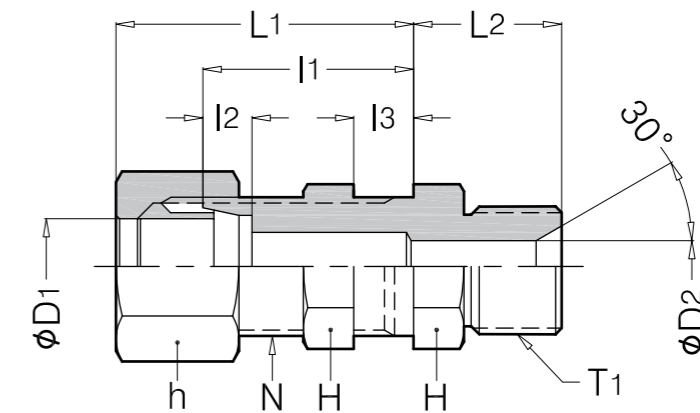
Part No.	Tube O.D		T ₁ (BSPP)	D ₂	Width across flat		l ₁	l ₂	Approx L
	D ₁				H	h			
SHUF06-04G	6		1/4	6	14	14	32	7	42.5
SHUF08-04G	8		1/4	6	17	17	33	7	43.5
SHUF08-06G	8		3/8	8	19	17	34	7	44.5
SHUF10-04G	10		1/4	6	17	19	33	7	44.5
SHUF10-06G	10		3/8	8	19	19	34	7	45.5
SHUF12-04G	12		1/4	5.5	19	22	33	7	44.5
SHUF12-06G	12		3/8	8	19	22	34	7	45.5
SHUF12-08G	12		1/2	12	22	22	38	7	49.5
SHUF14-08G	14		1/2	12	22	24	39	7.5	50.5
SHUF15-06G	15		3/8	9	24	27	37	7.5	49.5
SHUF15-08G	15		1/2	12	24	27	40	7.5	52.5
SHUF16-06G	16		3/8	8	27	30	39	7.5	49.5
SHUF16-08G	16		1/2	12	27	30	42	7.5	52.5
SHUF18-08G	18		1/2	12	27	32	42	8	52.5
SHUF18-12G	18		3/4	16	27	32	43	8	55.5
SHUF20-08G	20		1/2	12	27	36	42	8	54.5
SHUF20-12G	20		3/4	16	30	36	43	8	54.5
SHUF22-08G	22		1/2	12	32	36	42	9	54.5
SHUF22-12G	22		3/4	16	32	36	44	9	55.5
SHUF25-12G	25		3/4	16	36	41	46	10	57.5
SHUF25-16G	25		1	20	36	41	48	10	59.5
SHUF28-16G	28		1	22	41	46	48	10	62
SHUF30-12G	30		3/4	15.5	41	46	46	10	60.5
SHUF30-16G	30		1	22	41	46	48	10	62.5
SHUF32-20G	32		1 1/4	28	46	50	55	11	69.5
SHUF35-20G	35		1 1/4	27	46	55	55	11	69.5
SHUF38-24G	38		1 1/2	32	50	60	57	12	76.5
SHUF82-08G	1/4	13.8	1/2	12	22	24	40	7	51.5

HOSE BULKHEAD UNION SHBUM



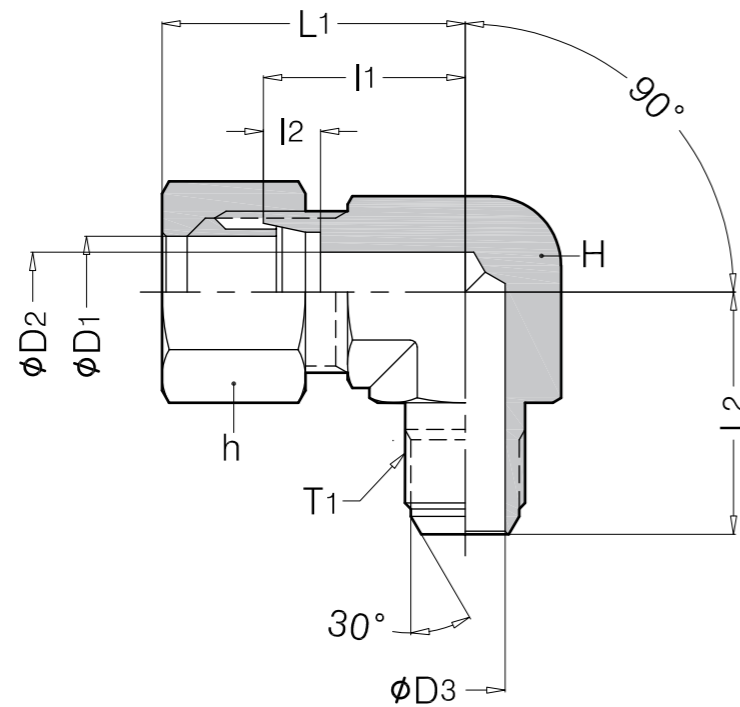
Part No.	Tube O.D D1	T1 (BSPP)	D2	Width across flat		l1	l2	Panel Max thickness l3	Panel Hole Drill size N	Approx	
				H	h					L1	L2
SHBUM08-04G	8	1/4	5.5	19	17	32	7	13	14.5	42.5	23
SHBUM08-06G	8	3/8	8	19	17	32	7	13	14.5	42.5	25
SHBUM10-04G	10	1/4	5.5	22	19	32	7	13	16.5	43.5	24
SHBUM10-06G	10	3/8	8	22	19	32	7	13	16.5	43.5	26
SHBUM10-08G	10	1/2	11.5	22	19	32	7	13	16.5	43.5	28
SHBUM12-04G	12	1/4	5.5	24	22	32	7	13	18.5	43.5	24
SHBUM12-06G	12	3/8	8	24	22	32	7	13	18.5	43.5	26
SHBUM12-08G	12	1/2	11.5	24	22	32	7	13	18.5	43.5	28
SHBUM15-06G	15	3/8	8	27	27	37	7.5	15	22.5	49.5	26
SHBUM15-08G	15	1/2	11.5	27	27	37	7.5	15	22.5	49.5	28
SHBUM16-06G	16	3/8	8	30	30	37	7.5	15	24.5	49.5	28
SHBUM16-08G	16	1/2	11.5	30	30	37	7.5	15	24.5	49.5	30
SHBUM20-12G	20	3/4	15.5	32	36	39	8	15	28.5	51.5	32
SHBUM22-12G	22	3/4	15.5	36	36	39	9	15	30.5	51.5	33
SHBUM25-12G	25	3/4	15.5	41	41	39	10	15	35.5	52.5	33

HOSE BULKHEAD UNION SHBUF



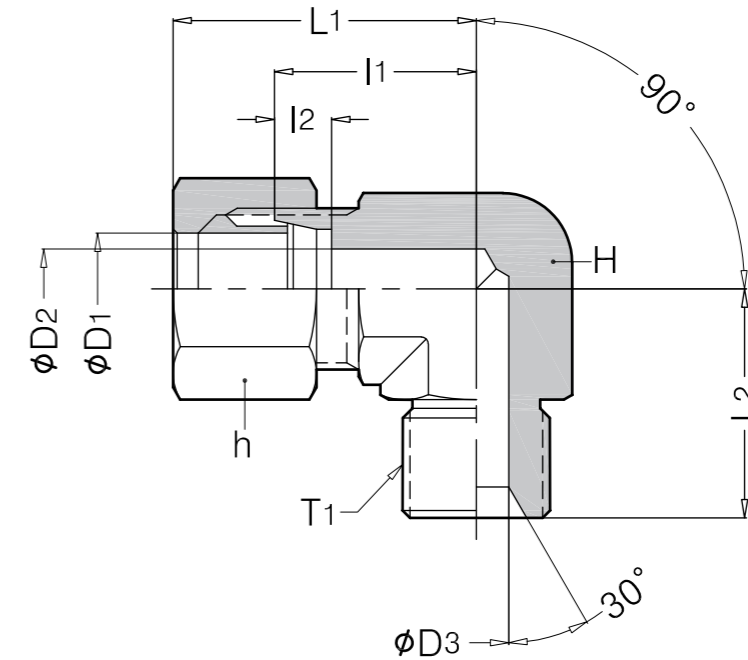
Part No.	Tube O.D D1	T1 (BSPP)	D2	Width across flat		l1	l2	Panel Max thickness l3	Panel Hole Drill size N	Approx	
				H	h					L1	L2
SHBUF06-04G	6	1/4	5.5	17	14	32	7	13	14.5	42.5	21
SHBUF08-04G	8	1/4	6	19	17	32	7	13	14.5	42.5	21
SHBUF08-06G	8	3/8	6	19	17	32	7	13	14.5	42.5	22
SHBUF10-04G	10	1/4	6	22	19	32	7	13	16.5	43.5	22
SHBUF10-06G	10	3/8	8	22	19	32	7	13	16.5	43.5	23
SHBUF12-04G	12	1/4	6	24	22	32	7	13	18.5	43.5	22
SHBUF12-06G	12	3/8	9	24	22	32	7	13	18.5	43.5	23
SHBUF12-08G	12	1/2	11.5	24	22	32	7	13	18.5	43.5	26
SHBUF15-06G	15	3/8	9	27	27	37	7.5	15	22.5	49.5	23
SHBUF15-08G	15	1/2	11.5	27	27	37	7.5	15	22.5	49.5	26
SHBUF16-08G	16	1/2	12	30	30	37	7.5	15	24.5	49.5	30
SHBUF18-08G	18	1/2	12	32	32	39	8	15	26.5	51.5	28
SHBUF20-12G	20	3/4	16	32	36	39	8	15	28.5	51.5	29
SHBUF22-12G	22	3/4	15.5	36	36	39	9	15	30.5	51.5	30

HOSE MALE ELBOW
SHLM



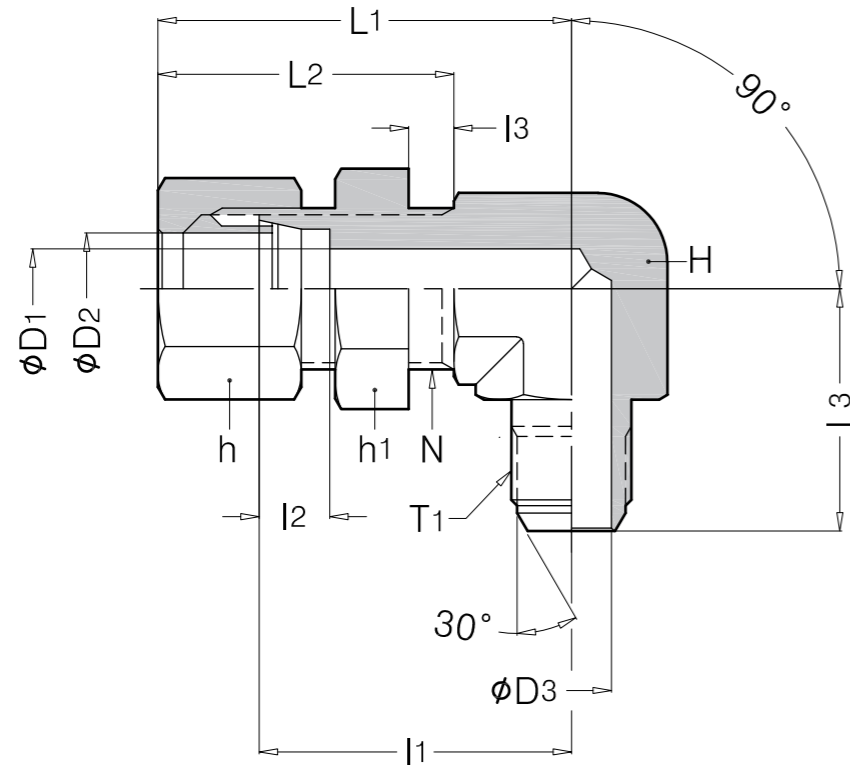
Part No.	Tube O.D D ₁	T ₁ (BSPP)	D ₂	D ₃	Width across flat		l ₁	l ₂	Approx	
					H	h			L ₁	L ₂
SHLM06-04G	6	1/4	4	5.5	14	14	21	7	31.5	26
SHLM08-02G	8	1/8	6	4	17	17	23	7	32.5	25
SHLM08-04G	8	1/4	6	5.5	17	17	23	7	33.5	25
SHLM08-06G	8	3/8	6	8	19	17	24	7	34.5	31.5
SHLM10-04G	10	1/4	8	5.5	17	19	24	7	35.5	26
SHLM10-06G	10	3/8	8	10	19	19	24	7	35.5	30
SHLM10-08G	10	1/2	8	11.5	22	19	29	7	40.5	34
SHLM12-04G	12	1/4	10	5.5	19	22	24	7	35.5	28
SHLM12-06G	12	3/8	10	8	19	22	24	7	35.5	30
SHLM12-08G	12	1/2	10	11.5	22	22	29	7	40.5	34
SHLM15-06G	15	3/8	12	8	24	27	29	7.5	41.5	33
SHLM16-06G	16	3/8	13	8	27	30	32	7.5	44.5	36
SHLM16-08G	16	1/2	13	11.5	27	30	32	7.5	44.5	38
SHLM16-12G	16	3/4	13	15.5	27	30	32	7.5	44.5	42
SHLM18-04G	18	1/4	14	5.5	27	32	32	8	44.5	33
SHLM18-06G	18	3/8	14	8	27	32	32	8	44.5	36
SHLM18-08G	18	1/2	14	11.5	27	32	32	8	44.5	38
SHLM20-12G	20	3/4	17	15.5	30	36	33	8	45.5	41
SHLM22-12G	22	3/4	18	15.5	30	36	33	9	46.5	41
SHLM25-12G	25	3/4	20	15.5	35	41	36	10	49.5	46
SHLM25-16G	25	1	20	20	35	41	36	10	49.5	46
SHLM30-20G	30	1 1/4	25	26	41	46	46	10	52.5	56
SHLM32-16G	32	1	26	20	41	50	46	11	60.5	54
SHLM32-20G	32	1 1/4	26	26	41	50	46	11	60.5	56

HOSE MALE ELBOW
SHLF



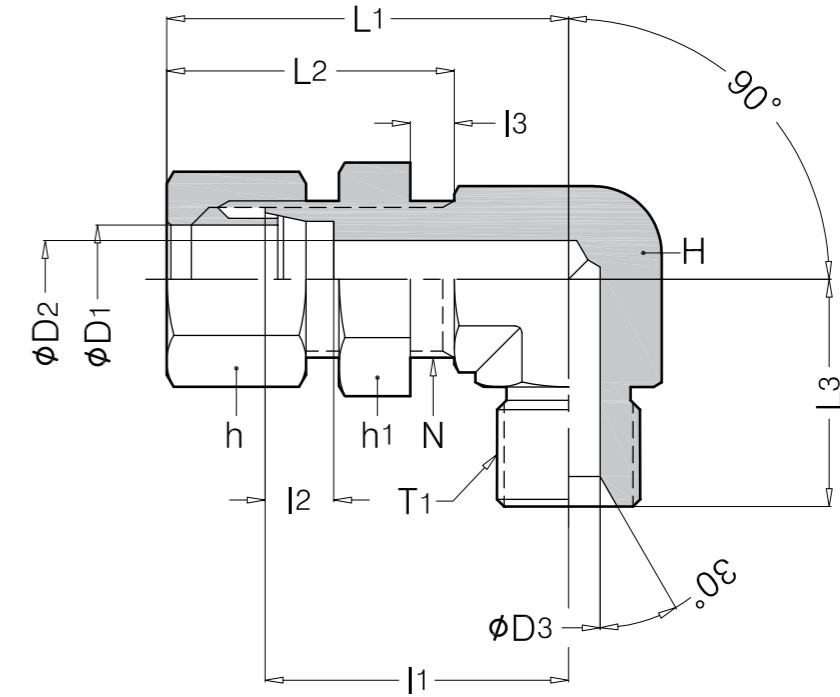
Part No.	Tube O.D D ₁	T ₁ (BSPP)	D ₂	D ₃	Width across flat		l ₁	l ₂	Approx	
					H	h			L ₁	L ₂
SHLF06-04G	6	1/4	4	6	14	14	23	7	33.5	25
SHLF08-04G	8	1/4	6	6	17	17	23	7	33.5	25
SHLF08-06G	8	3/8	6	8	19	17	27	7	34.5	27
SHLF10-04G	10	1/4	8	6	17	19	24	7	35.5	26
SHLF10-06G	10	3/8	8	9	19	19	24	7	35.5	27
SHLF10-08G	10	1/2	8	11.5	22	19	29	7	40.5	33
SHLF12-04G	12	1/4	10	6	19	22	24	7	35.5	26
SHLF12-06G	12	3/8	10	9	19	22	24	7	35.5	27
SHLF12-08G	12	1/2	10	12	22	22	29	7	40.5	33
SHLF15-06G	15	3/8	12	8	24	27	29	7.5	41.5	30
SHLF15-08G	15	1/2	12	12	24	27	29	7.5	44.5	33
SHLF16-08G	16	1/2	13	11.5	27	30	32	7.5	44.5	36
SHLF18-08G	18	1/2	14	11.5	27	32	32	8	44.5	36
SHLF20-08G	20	1/2	17	11.5	30	36	33	8	45.5	38
SHLF20-12G	20	3/4	17	16	30	36	33	8	45.5	38
SHLF22-12G	22	3/4	18	16	32	36	34	9	46.5	39
SHLF25-16G	25	1	20	20	35	41	36	10	49.5	43
SHLF28-16G	28	1	22	22	41	46	43	10	53	50
SHLF30-16G	30	1	25	21	41	46	49	13.5	52.5	50
SHLF30-20G	30	1 1/4	25	27	41	46	41	10	44.5	51
SHLF32-20G	32	1 1/4	26	27	41	50	46	11	60.5	56

HOSE BULKHEAD ELBOW SHBLM



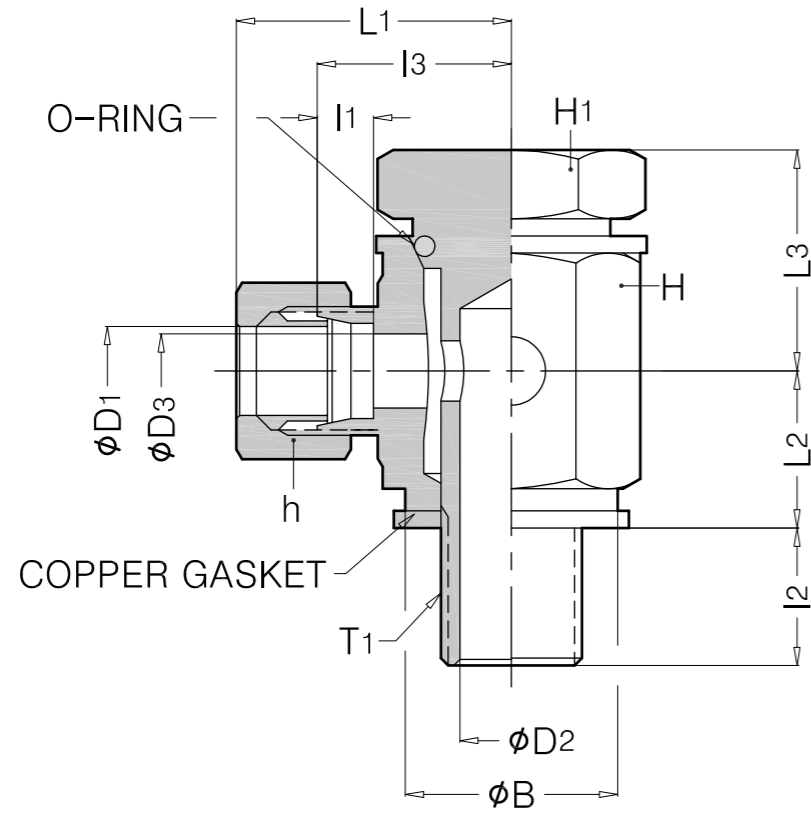
Part No.	Tube O.D D1	T1 (BSPP)	D2	D3	Width across flat			I1	I2	Panel Max thickness I3	Panel Hole Drill size N	Approx		
					H	h	h1					L1	L2	L3
SHBLM08-04G	8	1/4	6	5.5	19	17	19	46	7	13	14.5	56.5	42.5	28
SHBLM10-04G	10	1/4	8	5.5	22	19	22	48	7	13	16.5	59.5	43.5	28
SHBLM10-06G	10	3/8	8	8	22	19	22	48	7	13	16.5	59.5	43.5	30
SHBLM12-04G	12	1/4	10	5.5	24	22	24	48	7	13	18.5	60.5	43.5	28
SHBLM12-06G	12	3/8	10	8	24	22	24	49	7	13	18.5	60.5	43.5	33
SHBLM12-08G	12	1/2	10	11.5	24	22	24	49	7	13	18.5	60.5	43.5	35
SHBLM15-06G	15	3/8	12	8	27	27	27	57	7.5	15	22.5	69.5	49.5	36
SHBLM15-08G	15	1/2	12	11.5	27	27	27	57	7.5	15	22.5	69.5	49.5	37
SHBLM16-08G	16	1/2	13	11.5	30	30	30	59	7.5	15	24.5	71.5	49.5	38
SHBLM20-12G	20	3/4	16	15.5	30	32	36	65	8	15	28.5	77.5	51.5	40.8
SHBLM25-16G	25	1	20	20	41	41	41	66	10	15	35.5	81.5	52.5	50

HOSE BULKHEAD ELBOW SHBLF



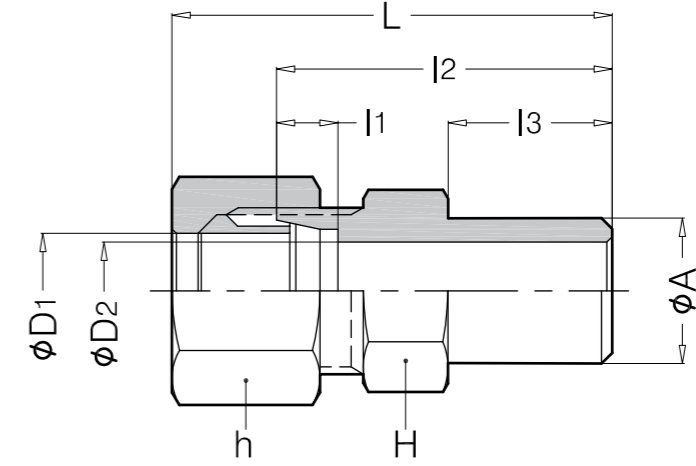
Part No.	Tube O.D D1	T1 (BSPP)	D2	D3	Width across flat			I1	I2	Panel Max thickness I3	Panel Hole Drill size N	Approx		
					H	h	h1					L1	L2	L3
SHBLF08-04G	8	1/4	6	6	19	17	19	46	7	13	14.5	56.5	42.5	28
SHBLF08-06G	8	3/8	6	8	19	17	19	46	7	13	14.5	56.5	42.5	30
SHBLF10-04G	10	1/4	8	6	22	19	22	48	7	13	16.5	59.5	43.5	28
SHBLF10-06G	10	3/8	8	8	22	19	22	48	7	13	16.5	59.5	43.5	30
SHBLF10-08G	10	1/2	8	12	24	19	22	49	7	13	16.5	60.5	43.5	35
SHBLF12-04G	12	1/4	10	6	24	22	24	49	7	13	18.5	60.5	43.5	31
SHBLF12-06G	12	3/8	10	8	24	22	24	49	7	13	18.5	60.5	43.5	33
SHBLF12-08G	12	1/2	10	12	24	22	24	49	7	13	18.5	60.5	43.5	35
SHBLF15-06G	15	3/8	12	8	27	27	27	57	7.5	15	22.5	69.5	49.5	36
SHBLF15-08G	15	1/2	12	12	27	27	27	57	7.5	15	22.5	69.5	49.5	37
SHBLF16-06G	16	3/8	13	8	30	30	30	59	7.5	15	24.5	71.5	49.5	37
SHBLF16-08G	16	1/2	13	12	30	30	30	59	7.5	15	24.5	71.5	49.5	38
SHBLF18-08G	18	1/2	14	12	30	32	32	63	8	15	26.5	75.5	51.5	39
SHBLF20-12G	20	3/4	16	16	30	32	36	65	8	15	28.5	77.5	51.5	40
SHBLF22-08G	22	1/2	18	12	36	36	36	65	9	15	30.5	77.5	51.5	40
SHBLF22-12G	22	3/4	18	16	36	36	38	65	9	15	30.5	77.5	51.5	40
SHBLF25-12G	25	3/4	20	16	41	41	41	66	10	15	35.5	81.5	52.5	43
SHBLF25-16G	25	1	20	20	41	41	41	66	10	15	35.5	81.5	52.5	43
SHBLF28-12G	28	3/4	22	16	46	46	46	74	10	15	38.5	88	55	48
SHBLF28-16G	28	1	22	22	46	46	46	74	10	15	38.5	88	55	48
SHBLF30-12G	30	3/4	25	16	46	46	46	74	10	15	40.5	88.5	55.5	48
SHBLF30-16G	30	1	25	22	46	46	46	74	10	15	40.5	88.5	55.5	48

STUD ELBOW
SSLM



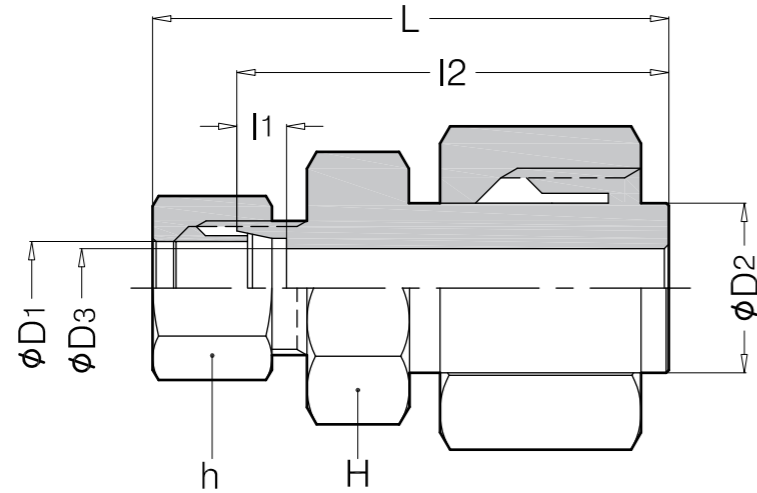
Part No.	Tube O.D		T ₁ (BSPP)	D ₂	D ₃	Width across flat			l ₁	l ₂	l ₃	Approx L ₁	L ₂	L ₃	B	O-ring
	D ₁					H	h	H ₁								
SSLM06-02G	6		1/8	4	4	17	14	17	7	8	22	33.5	13	14	14	P10
SSLM08-04G	8		1/4	7	6	19	17	19	7	12	24	35.5	16	17	18	P12
SSLM10-04G	10		1/4	7	8	19	19	19	7	12	24	36.5	16	17	18	P12
SSLM12-06G	12		3/8	9	10	27	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	16	41	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	44	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



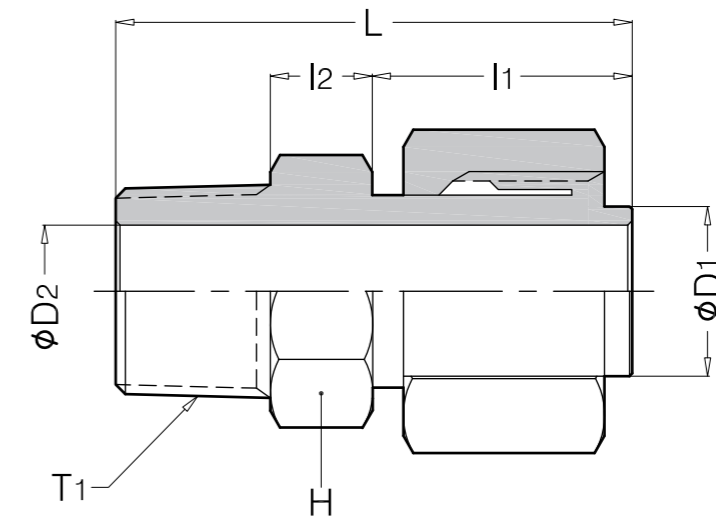
Part No.	Tube O.D		A	D ₂	Width across flat		l ₁	l ₂	l ₃	Approx L
	D ₁				H	h				
SCW06	6		12	4	14	14	7	29	11	39.5
SCW08	8		14	6	17	17	7	34	15	44.5
SCW10	10		16	8	17	19	7	34	15	45.5
SCW12	12		18	10	19	22	7	34	15	45.5
SCW15	15		21	12	24	27	7.5	40	18	52.5
SCW16	16		22	13	27	30	7.5	44	22	56.5
SCW18	18		25	14	27	32	8	44	22	56.5
SCW20	20		28	17	30	36	8	46	22	58.5
SCW22	22		28	18	32	36	9	46	22	58.5
SCW25	25		33	20	36	41	10	51	26	64.5
SCW28	28		36	22	41	46	10	55	28	69
SCW30	30		39	25	41	46	10	55	28	69.5
SCW32	32		40	26	46	50	11	56	28	70.5
SCW35	35		43	28	46	55	11	56	28	73.5
SCW38	38		45	32	50	60	12	58	28	77.5
SCW40	40		46	32	55	60	12	65	30	84.5
SCW50	50		57	40	65	75	12	70	30	91.5
SCW81	1/8	10.5	16	8	17	19	7	34	15	45.5
SCW82	1/4	13.8	19	11	22	24	7.5	40	18	52
SCW83	3/8	17.3	24	14	27	32	8	44	22	56.5
SCW84	1/2	21.7	28	18	32	36	9	46	22	58.5
SCW85	3/4	27.2	33	22	41	46	10	52	25	66
SCW86	1	34.0	40	28	46	55	11	56	28	73.5
SCW87	1 1/4	42.7	47	34	60	65	12	65	28	85.5
SCW88	1 1/2	48.6	55	40	65	75	12	70	30	91.5

REDUCER
SR



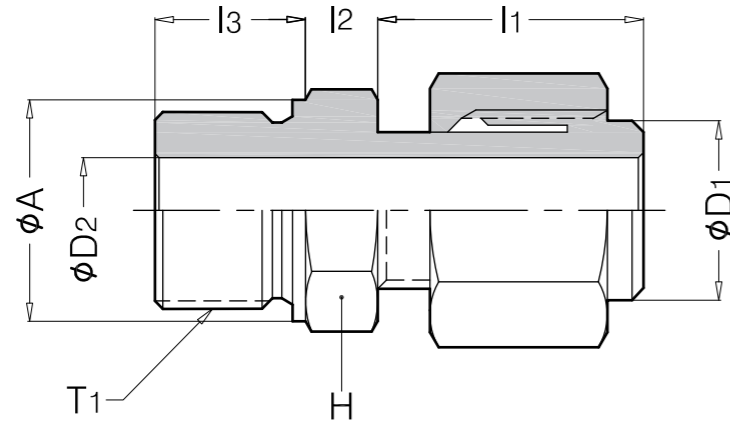
Part No.	Tube O.D		D ₂	D ₃	Width across flat		l ₁	l ₂	Approx L	
	D ₁				H	h				
SR08 × 06	6		8	4	14	14	7	39	49.5	
SR10 × 06	6		10	4	14	14	7	40	50.5	
SR10 × 08	8		10	6	17	17	7	40	50.5	
SR12 × 06	6		12	4	14	14	7	41	51.5	
SR12 × 08	8		12	6	17	17	7	41	51.5	
SR12 × 10	10		12	8	17	19	7	41	52.5	
SR15 × 08	8		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	22.1	12	32	32	9	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



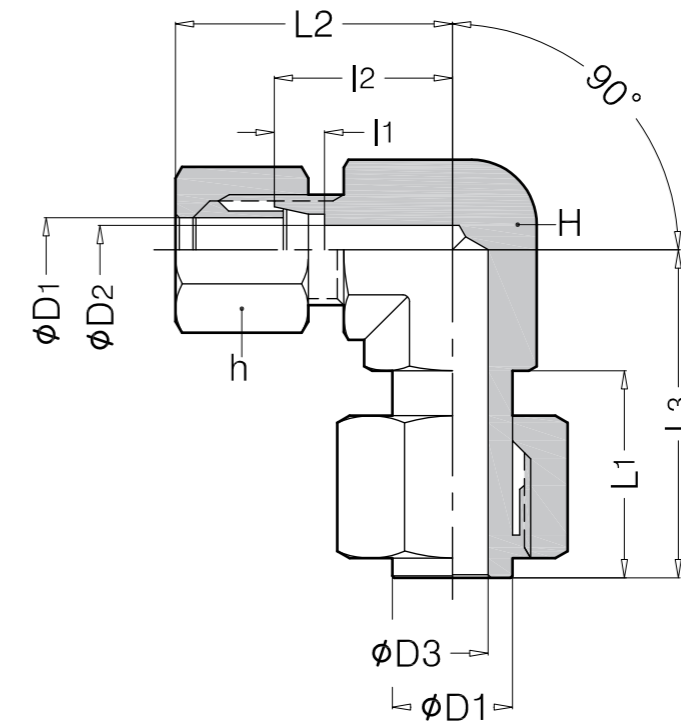
Part No.	Tube O.D		T ₁ (BSPT)	D ₂	Width across flat		l ₁	l ₂	Approx L
	D ₁				H				
SAR06-02R	6		1/8	3	12		20	6	36
SAR08-04R	8		1/4	5	14		20	7	41
SAR10-04R	10		1/4	6	14		21	7	42
SAR10-06R	10		3/8	6	19		21	7	43
SAR12-04R	12		1/4	7	14		22	7	43
SAR12-06R	12		3/8	8	19		22	7	44
SAR15-06R	15		3/8	8	19		24	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	12	63
SAR28-16R	28		1	18	36		28	11	63
SAR30-16R	30		1	20	36		29	12	64
SAR30-20R	30		1 1/4	20	46		29	12	68
SAR32-20R	32		1 1/4	22	46		30	13	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



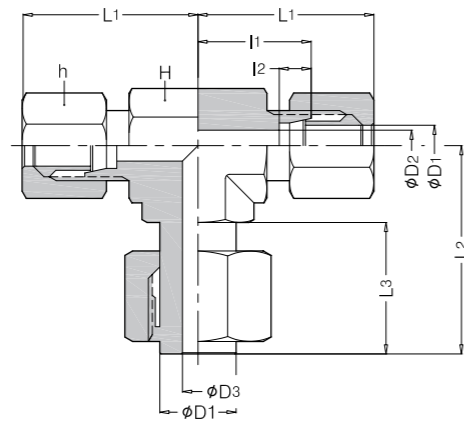
Part No.	Tube O.D		T ₁ (BSPP)	D ₂	Width across flat		A	Approx l ₁	l ₂	l ₃
	D ₁				H					
SAG06-02G	6		1/8	3	14	14	20	8	8	
SAG08-04G	8		1/4	5	19	18	20	9	12	
SAG10-04G	10		1/4	6	19	18	21	9	12	
SAG10-06G	10		3/8	6	22	21.5	21	10	12	
SAG12-04G	12		1/4	6	19	18	22	9	12	
SAG12-06G	12		3/8	8	22	21.5	22	10	12	
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	40.6	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	49	29	21	20	
SAG32-20G	32		1 1/4	22	50	48.5	30	21	20	
SAG38-24G	38		1 1/2	26	55	54	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



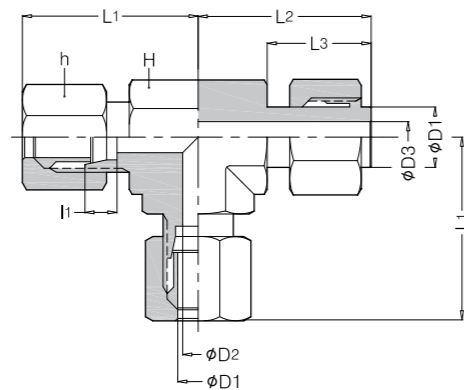
Part No.	Tube O.D		D ₃	Width across flat		l ₁	l ₂	L ₁	Approx L ₂	L ₃
	D ₁	D ₂		H	h					
SLA10	10	8	6	17	19	7	23	21	34.5	35
SLA12	12	10	8	19	22	7	24	22	35.5	37
SLA15	15	12	10	22	27	7.5	29	24	44.5	40
SLA16	16	12	11	27	30	7.5	32	24	44.5	43
SLA18	18	14	12	27	32	8	32	24	44.5	43
SLA20	20	17	14	30	36	8	33	25	45.5	45
SLA22	22	18	14	32	36	9	34	26	46.5	46
SLA25	25	20	17	36	41	10	36	28	49.5	49
SLA28	28	22	18	41	46	10	41	28	55	53
SLA30	30	25	20	41	46	10	41	29	55.5	54
SLA32	32	26	22	46	50	11	50	30	64.5	66
SLA38	38	32	26	50	60	12	50	36	69.5	72

ADJUSTABLE BRANCH TEE
SBTA



Part No.	Tube O.D	D ₂	D ₃	Width across flat		l ₁	l ₂	Approx	L ₂	L ₃
	D ₁			h	H			L ₁		
SBTA06	6	4	3	14	14	20	7	33.5	31	20
SBTA08	8	6	6	17	14	23	7	34.5	31	21
SBTA10	10	8	6	19	19	23	7	34.5	35	21
SBTA12	12	10	8	22	19	24	7	35.5	37	22
SBTA15	15	12	10	27	22	32	7.5	44.5	43	24
SBTA16	16	13	12	30	27	32	7.5	44.5	41	24
SBTA18	18	14	12	32	27	33	8	44.5	41	24
SBTA20	20	17	14	36	27	34	8	45.5	45	25
SBTA25	25	20	17	41	36	36	10	49.5	49	28

ADJUSTABLE RUN TEE
SRTA



Part No.	Tube O.D	D ₂	D ₃	Width across flat		l ₁	Approx	L ₂	L ₃
	D ₁			h	H		L ₁		
SRTA06	6	4	3	14	14	7	30.5	31	20
SRTA08	8	6	6	17	14	7	34.5	31	21
SRTA10	10	8	3	19	19	7	34.5	35	21
SRTA12	12	10	8	22	19	7	35.5	37	22
SRTA15	15	12	10	27	22	7.5	44.5	43	24
SRTA16	16	12	11	30	27	7.5	44.5	38	21
SRTA18	18	14	12	32	27	8	44.5	41	24
SRTA20	20	17	14	36	27	8	45.5	45	25
SRTA25	25	20	17	36	36	10	49.5	47	28
SRTA28	28	22	18	41	41	10	49.5	53	28



30°/37° STANDARD FITTINGS & SWIVEL ADAPTERS



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.

SIZE	PRESS MPa	TORQUE N-m	
6	1/4	34.5	25
9	3/8	34.5	34
12	1/2	34.5	64
19	3/4	27.5	132
25	1	20.5	196
32	1 1/4	17.0	225
38	1 1/2	10.5	255
50	2	10.5	316

Working Pressure & Recommended Tightening Torque JIS B8363