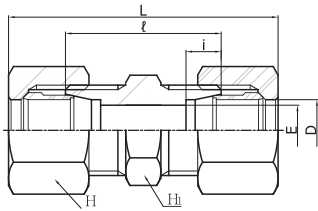
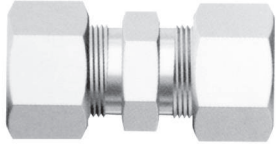


SBU

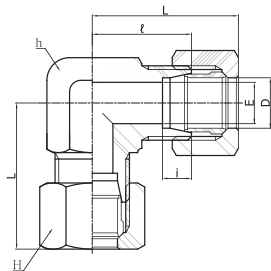
Straight Union



Designations	Tube O.D. D	E	H1	H	i	ℓ	About L	
SBU-06	6	4	14	14	7	30	51	
SBU-08	8	6	17	17	7	31	52	
SBU-10	10	8	17	19	7	31	54	
SBU-12	12	10	19	22	7	31	54	
SBU-15	15	12	24	27	7.5	36	61	
SBU-16	16	13	27	30	7.5	36	61	
SBU-18	18	14	27	32	8	36	61	
SBU-20	20	17	30	36	8	38	63	
SBU-22	22	18	32	36	9	38	63	
SBU-25	25	20	36	41	10	39	66	
SBU-28	28	22	41	46	10	43	71	
SBU-30	30	25	41	46	10	43	72	
SBU-32	32	26	46	50	11	44	73	
SBU-35	35	28	46	55	11	44	79	
SBU-38	38	32	50	60	12	46	85	
SBU-40	40	32	55	60	12	55	94	
SBU-42	42	34	55	60	12	55	94	
SBU-11	1/8	10.5	8	17	19	7	31	54
SBU-13	1/4	13.8	11	22	24	7.5	36	60
SBU-17	3/8	17.3	14	27	32	8	36	61
SBU-21	1/2	21.7	18	32	36	9	38	63
SBU-27	3/4	27.2	22	41	46	10	43	71
SBU-34	1	34.0	28	46	55	11	44	79
SBU-43	1-1/4	42.7	34	60	65	12	57	98
SBU-48	1-1/2	48.6	40	65	75	12	60	103

SBL

Union Elbow

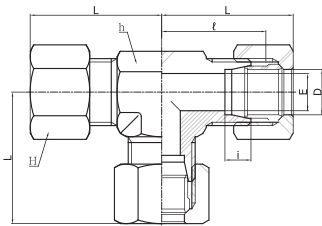
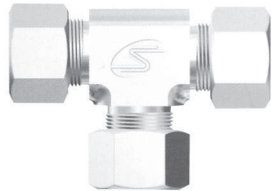


Designations	Tube O.D. D	E	H1	H	i	ℓ	About L	
SBL-06	6	4	14	14	7	20	30.5	
SBL-08	8	6	17	17	7	23	33.5	
SBL-10	10	8	17	19	7	23	34.5	
SBL-12	12	10	19	22	7	24	35.5	
SBL-15	15	12	24	27	7.5	29	41.5	
SBL-16	16	13	27	30	7.5	32	44.5	
SBL-18	18	14	27	32	8	32	44.5	
SBL-20	20	17	30	36	8	33	45.5	
SBL-22	22	18	32	36	9	34	46.5	
SBL-25	25	20	36	41	10	36	49.5	
SBL-28	28	22	41	46	10	41	55	
SBL-30	30	25	41	46	10	41	55.5	
SBL-32	32	26	46	50	11	45	59.5	
SBL-35	35	28	46	55	11	46	63.5	
SBL-38	38	32	50	60	12	50	69.5	
SBL-40	40	32	55	60	12	55	74.5	
SBL-42	42	34	55	60	12	55	74.5	
SBL-11	1/8	10.5	8	17	19	7	23	34.5
SBL-13	1/4	13.8	11	22	24	7.5	28	40
SBL-17	3/8	17.3	14	27	32	8	32	44.5
SBL-21	1/2	21.7	18	32	36	9	34	46.5
SBL-27	3/4	27.2	22	41	46	10	41	55
SBL-34	1	34.0	28	46	55	11	46	63.5
SBL-43	1-1/4	42.7	34	60	65	12	57	77.5
SBL-48	1-1/2	48.6	40	65	75	12	62	83.5

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBT

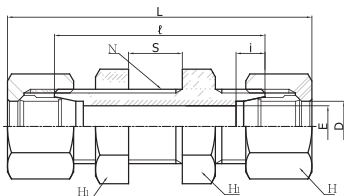
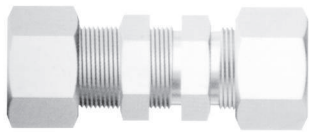
Union Tee



Designations	Tube O.D. D	E	h	H	i	ℓ	About L	
SBT-06	6	4	14	14	7	20	30.5	
SBT-08	8	6	17	17	7	23	33.5	
SBT-10	10	8	17	19	7	23	34.5	
SBT-12	12	10	19	22	7	24	35.5	
SBT-15	15	12	24	27	7.5	29	41.5	
SBT-16	16	13	27	30	7.5	32	44.5	
SBT-18	18	14	27	32	8	32	44.5	
SBT-20	20	17	30	36	8	33	45.5	
SBT-22	22	18	32	36	9	34	46.5	
SBT-25	25	20	36	41	10	36	49.5	
SBT-28	28	22	41	46	10	41	55	
SBT-30	30	25	41	46	10	41	55.5	
SBT-32	32	26	46	50	11	45	59.5	
SBT-35	35	28	46	55	11	46	63.5	
SBT-38	38	32	50	60	12	50	69.5	
SBT-40	40	32	55	60	12	55	74.5	
SBT-42	42	34	55	60	12	55	74.5	
SBT-11	1/8	10.5	8	17	19	7	23	34.5
SBT-13	1/4	13.8	11	22	24	7.5	28	40
SBT-17	3/8	17.3	14	27	32	8	32	44.5
SBT-21	1/2	21.7	18	32	36	9	34	46.5
SBT-27	3/4	27.2	22	41	46	10	41	55
SBT-34	1	34.0	28	46	55	11	46	63.5
SBT-43	1-1/4	42.7	34	60	65	12	57	77.5
SBT-48	1-1/2	48.6	40	65	75	12	62	83.5

SBBU

Bulkhead Union

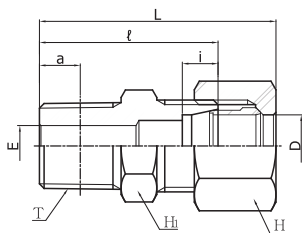
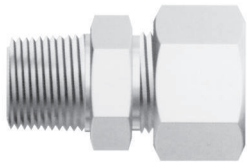


Designations	Tube O.D. D	E	H ₁	H	i	ℓ	About L	Panel Hole Drill size N	Max. Panel Thickness S	
SBBU-06	6	4	17	14	7	51	72	12.5	13	
SBBU-08	8	6	19	17	7	51	72	14.5	13	
SBBU-10	10	8	22	19	7	52	75	16.5	13	
SBBU-12	12	10	24	22	7	52	75	18.5	13	
SBBU-15	15	12	27	27	7.5	59	84	22.5	15	
SBBU-16	16	13	30	30	7.5	61	86	24.5	15	
SBBU-18	18	14	32	32	8	63	88	26.5	15	
SBBU-20	20	17	32	36	8	63	88	28.5	15	
SBBU-22	22	18	36	36	9	64	89	30.5	15	
SBBU-25	25	20	41	41	10	64	91	35.5	15	
SBBU-28	28	22	46	46	10	69	97	38.5	15	
SBBU-30	30	25	46	46	10	69	98	40.5	15	
SBBU-32	32	26	50	50	11	73	102	42.5	15	
SBBU-35	35	28	50	55	11	73	108	45.5	15	
SBBU-38	38	32	55	60	12	76	115	48.5	15	
SBBU-40	40	32	60	60	12	87	126	52.5	15	
SBBU-11	1/8	10.5	8	22	19	7	52	72	16.5	13
SBBU-13	1/4	13.8	11	27	24	7.5	59	83	20.5	15
SBBU-17	3/8	17.3	14	32	32	8	63	88	26.5	15
SBBU-21	1/2	21.7	18	36	36	9	64	89	30.5	15
SBBU-27	3/4	27.2	22	46	46	10	69	97	38.5	15
SBBU-34	1	34.0	28	50	55	11	73	108	45.5	15
SBBU-43	1-1/4	42.7	34	65	65	12	90	131	52.5	15
SBBU-48	1-1/2	48.6	40	70	75	12	93	136	60.5	15

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBMC -R

Male Connector

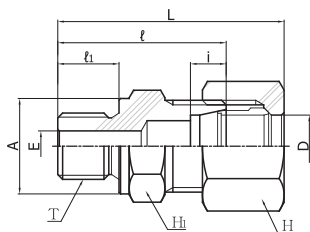
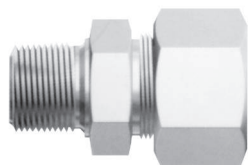


Designations	Tube O.D. D	(PT) T	E	Basic Ruge length a	H ₁	H	i	ℓ	About L	
SBMC 06-01 R	6	1/8	4	3.97	14	14	7	28	34.5	
SBMC 06-02 R	6	1/4	4	6.01	17	14	7	33	37.5	
SBMC 06-03 R	6	3/8	4	6.35	17	14	7	34	38.5	
SBMC 08-01 R	8	1/8	4	3.97	17	17	7	29	35.5	
SBMC 08-02 R	8	1/4	6	6.01	17	17	7	33	37.5	
SBMC 10-02 R	10	1/4	7	6.01	17	19	7	33	38.5	
SBMC 10-03 R	10	3/8	8	6.35	19	19	7	34	39	
SBMC 10-04 R	10	1/2	8	8.16	22	19	7	39	42.5	
SBMC 12-02 R	12	1/4	7	6.01	19	22	7	33	38.5	
SBMC 12-03 R	12	3/8	9	6.35	19	22	7	34	39	
SBMC 12-04 R	12	1/2	10	8.16	24	22	7	39	42.5	
SBMC 15-03 R	15	3/8	9	6.35	24	27	7.5	37	43	
SBMC 15-04 R	15	1/2	12	8.16	24	27	7.5	41	45.5	
SBMC 16-03 R	16	3/8	9	6.35	27	30	7.5	37	43	
SBMC 16-04 R	16	1/2	12	8.16	27	30	7.5	41	45.5	
SBMC 18-04 R	18	1/2	12	8.16	27	32	8	41	45.5	
SBMC 20-04 R	20	1/2	12	8.16	30	36	8	43	47.5	
SBMC 20-06 R	20	3/4	16	9.53	30	36	8	45	48	
SBMC 22-04 R	22	1/2	12	8.16	32	36	9	43	47.5	
SBMC 22-06 R	22	3/4	16	9.53	32	36	9	45	48	
SBMC 25-08 R	25	1	20	10.39	36	41	10	49	52	
SBMC 28-08 R	28	1	22	10.39	41	46	10	51	54.5	
SBMC 30-08 R	30	1	22	10.39	41	46	10	51	55	
SBMC 30-10 R	30	1-1/4	25	12.70	46	46	10	55	57	
SBMC 32-10 R	32	1-1/4	26	12.70	46	50	11	55	57	
SBMC 35-10 R	35	1-1/4	28	12.70	46	55	11	55	60	
SBMC 38-12 R	38	1-1/2	32	12.70	50	60	12	57	64	
SBMC 40-12 R	40	1-1/2	32	12.70	55	60	12	62	69	
SBMC 42-12 R	42	1-1/2	34	12.70	55	60	12	62	69	
SBMC 11-01 R	1/8	10.5	1/8	4	3.97	17	19	7	29	36.5
SBMC 11-02 R	1/8	10.5	1/4	7	6.01	17	19	7	33	38.5
SBMC 13-02 R	1/4	13.8	1/4	7	6.01	22	24	7.5	36	42
SBMC 13-03 R	1/4	13.8	3/8	9	6.35	22	24	7.5	37	42.5
SBMC 17-03 R	3/8	17.3	3/8	9	6.35	27	32	8	37	43
SBMC 17-04 R	3/8	17.3	1/2	12	8.16	27	32	8	41	45.5
SBMC 21-04 R	1/2	21.7	1/2	12	8.16	32	36	9	43	47.5
SBMC 21-06 R	1/2	21.7	3/4	16	9.53	32	36	9	45	48
SBMC 27-06 R	3/4	27.2	3/4	16	9.53	41	46	10	48	52.5
SBMC 27-08 R	3/4	27.2	1	22	10.39	41	46	10	51	54.5
SBMC 34-08 R	1	34.0	1	22	10.39	46	55	11	52	59
SBMC 34-10 R	1	34.0	1-1/4	28	12.70	46	55	11	55	60
SBMC 43-10 R	1-1/4	42.7	1-1/4	31	12.70	60	65	12	64	72
SBMC 43-12 R	1-1/4	42.7	1-1/2	34	12.70	60	65	12	64	72
SBMC 48-12 R	1-1/2	48.6	1-1/2	36	12.70	65	75	12	64	76
SBMC 48-16 R	1-1/2	48.6	2	40	15.88	65	75	12	71	76.5

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBMC -G

Male Connector (For gasket)

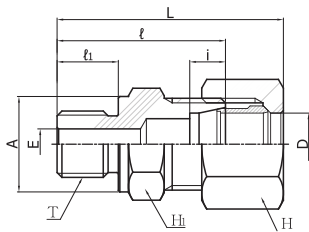
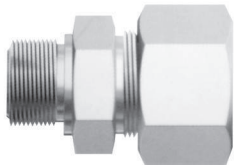


Designations	Tube O.D. D	(PF) T	E	H ₁	H	i	ℓ	A	ℓ ₁	About L	
SBMC 06-01 G	6	1/8	4	14	14	7	28	14	8	30.5	
SBMC 06-02 G	6	1/4	4	19	14	7	33	18	12	31.5	
SBMC 08-01 G	8	1/8	4	17	17	7	28	14	8	30.5	
SBMC 08-02 G	8	1/4	6	19	17	7	33	18	12	31.5	
SBMC 10-02 G	10	1/4	6	19	19	7	33	18	12	32.5	
SBMC 10-03 G	10	3/8	8	22	19	7	34	21.5	12	33.5	
SBMC 12-02 G	12	1/4	6	19	22	7	33	18	12	32.5	
SBMC 12-03 G	12	3/8	8	22	22	7	34	21.5	12	33.5	
SBMC 12-04 G	12	1/2	10	27	22	7	39	25.5	14	36.5	
SBMC 15-03 G	15	3/8	8	24	27	7.5	37	21.5	12	37.5	
SBMC 15-04 G	15	1/2	12	27	27	7.5	41	25.5	14	39.5	
SBMC 16-04 G	16	1/2	12	27	30	7.5	41	25.5	14	39.5	
SBMC 18-04 G	18	1/2	12	27	32	8	41	25.5	14	39.5	
SBMC 20-06 G	20	3/4	16	32	36	8	46	31.5	16	42.5	
SBMC 22-04 G	22	1/2	12	32	36	9	43	25.5	14	41.5	
SBMC 22-06 G	22	3/4	16	32	36	9	46	31.5	16	42.5	
SBMC 25-06 G	25	3/4	16	36	41	10	46	31.5	16	43.5	
SBMC 25-08 G	25	1	20	41	41	10	50	38	18	45.5	
SBMC 28-08 G	28	1	22	41	46	10	52	38	18	48	
SBMC 30-08 G	30	1	22	41	46	10	52	38	18	48.5	
SBMC 30-10 G	30	1-1/4	25	50	46	10	57	48.5	20	51.5	
SBMC 32-10 G	32	1-1/4	26	50	50	11	57	48.5	20	51.5	
SBMC 35-10 G	35	1-1/4	28	50	55	11	57	48.5	20	54.5	
SBMC 38-12 G	38	1-1/2	32	55	60	12	58	53.5	21	56.5	
SBMC 40-12 G	40	1-1/2	32	55	60	12	62	53.5	21	60.5	
SBMC 42-12 G	42	1-1/2	34	55	60	12	62	53.5	21	60.5	
SBMC 11-01 G	1/8	10.5	1/8	4	17	19	7	29	14	8	32.5
SBMC 11-02 G	1/8	10.5	1/4	6	19	19	7	33	18	12	32.5
SBMC 13-02 G	1/4	13.8	1/4	6	22	24	7.5	36	18	12	36
SBMC 13-03 G	1/4	13.8	3/8	8	22	24	7.5	36	21.5	12	36
SBMC 17-03 G	3/8	17.3	3/8	8	27	32	8	38	21.5	12	38.5
SBMC 17-04 G	3/8	17.3	1/2	12	27	32	8	41	25.5	14	39.5
SBMC 21-04 G	1/2	21.7	1/2	12	32	36	9	43	25.5	14	41.5
SBMC 21-06 G	1/2	21.7	3/4	16	32	36	9	46	31.5	16	42.5
SBMC 27-06 G	3/4	27.2	3/4	16	41	46	10	50	31.5	16	48
SBMC 27-08 G	3/4	27.2	1	22	41	46	10	52	38	18	48
SBMC 34-08 G	1	34.0	1	22	46	55	11	54	38	18	53.5
SBMC 34-10 G	1	34.0	1-1/4	28	50	55	11	57	48.5	20	54.5
SBMC 43-10 G	1-1/4	42.7	1-1/4	31	60	65	12	63	48.5	20	63.5
SBMC 43-12 G	1-1/4	42.7	1-1/2	34	60	65	12	64	53.5	21	63.5
SBMC 48-12 G	1-1/2	48.6	1-1/2	36	65	75	12	65	53.5	21	65.5
SBMC 48-16 G	1-1/2	48.6	2	40	70	75	12	73	66	25	69.5

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBOM

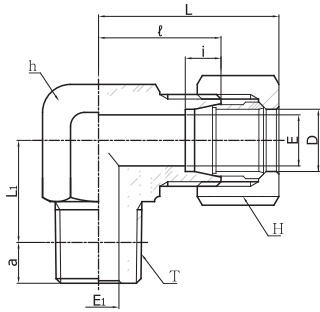
Male Connector (For O-Ring)



Designations	Tube O.D. D	(PF) T	E	H ₁	H	i	A	ℓ ₁	ℓ	About L	
SBOM 06-01 OR	6	1/8	4	14	14	7	14	8	28	30.5	
SBOM 06-02 OR	6	1/4	4	19	14	7	19	12	33	31.5	
SBOM 08-01 OR	8	1/8	4	17	17	7	14	8	28	30.5	
SBOM 08-02 OR	8	1/4	6	19	17	7	19	12	33	31.5	
SBOM 10-02 OR	10	1/4	6	19	19	7	19	12	33	32.5	
SBOM 10-03 OR	10	3/8	8	22	19	7	22	12	34	33.5	
SBOM 12-02 OR	12	1/4	6	19	22	7	19	12	33	32.5	
SBOM 12-03 OR	12	3/8	8	22	22	7	22	12	34	33.5	
SBOM 12-04 OR	12	1/2	10	27	22	7	27	14	39	36.5	
SBOM 15-03 OR	15	3/8	8	24	27	7.5	22	12	37	37.5	
SBOM 15-04 OR	15	1/2	12	27	27	7.5	27	14	41	39.5	
SBOM 16-04 OR	16	1/2	12	27	30	7.5	27	14	41	39.5	
SBOM 18-04 OR	18	1/2	12	27	32	8	27	14	41	39.5	
SBOM 20-06 OR	20	3/4	16	32	36	8	36	16	46	42.5	
SBOM 22-06 OR	22	3/4	16	32	36	9	36	16	46	42.5	
SBOM 25-06 OR	25	3/4	16	36	41	10	36	16	46	43.5	
SBOM 25-08 OR	25	1	20	41	41	10	41	18	50	45.5	
SBOM 28-08 OR	28	1	22	41	46	10	41	18	52	48	
SBOM 30-08 OR	30	1	22	41	46	10	41	18	52	48.5	
SBOM 30-10 OR	30	1-1/4	25	50	46	10	50	20	57	51.5	
SBOM 32-10 OR	32	1-1/4	26	50	50	11	50	20	57	51.5	
SBOM 35-10 OR	35	1-1/4	28	50	55	11	50	20	57	54.5	
SBOM 38-12 OR	38	1-1/2	32	55	60	12	55	21	58	56.5	
SBOM 40-12 OR	40	1-1/2	32	55	60	12	55	21	62	60.5	
SBOM 42-12 OR	42	1-1/2	34	55	60	12	55	21	62	60.5	
SBOM 11-01 OR	1/8	10.5	1/8	4	17	19	7	14	8	29	32.5
SBOM 11-02 OR	1/8	10.5	1/4	6	19	19	7	19	12	33	32.5
SBOM 13-02 OR	1/4	13.8	1/4	6	22	24	7.5	19	12	36	36
SBOM 13-03 OR	1/4	13.8	3/8	8	22	24	7.5	22	12	36	36
SBOM 17-03 OR	3/8	17.3	3/8	8	27	32	8	22	12	38	38.5
SBOM 17-04 OR	3/8	17.3	1/2	12	27	32	8	27	14	41	39.5
SBOM 21-04 OR	1/2	21.7	1/2	12	32	36	9	27	14	43	41.5
SBOM 21-06 OR	1/2	21.7	3/4	16	32	36	9	36	16	46	42.5
SBOM 27-06 OR	3/4	27.2	3/4	16	41	46	10	36	16	50	48
SBOM 27-08 OR	3/4	27.2	1	22	41	46	10	41	18	52	48
SBOM 34-08 OR	1	34.0	1	22	46	55	11	41	18	54	53.5
SBOM 34-10 OR	1	34.0	1-1/4	28	50	55	11	50	20	57	54.5
SBOM 43-10 OR	1-1/4	42.7	1-1/4	31	60	65	12	50	20	63	63.5
SBOM 43-12 OR	1-1/4	42.7	1-1/2	34	60	65	12	55	21	64	63.5
SBOM 48-12 OR	1-1/2	48.6	1-1/2	36	65	75	12	55	21	65	65.5
SBOM 48-16 OR	1-1/2	48.6	2	40	70	75	12	75	25	73	69.5

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBLM *Male Elbow*

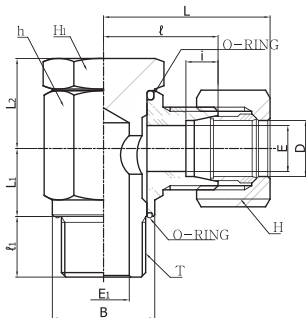
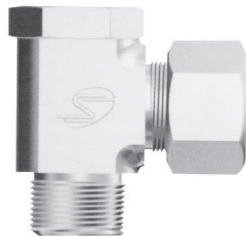


Designations	Tube O.D. D	(PT) T	E	E ₁	Basic Gauge length a	h	H	i	ℓ	About L	L ₁	
SBLM 06-01 R	6	1/8	4	4	3.97	14	14	7	20	30.5	14	
SBLM 06-02 R	6	1/4	4	7	6.01	17	14	7	23	33.5	17	
SBLM 08-01 R	8	1/8	6	4	3.97	17	17	7	23	33.5	16	
SBLM 08-02 R	8	1/4	6	7	6.01	17	17	7	23	33.5	18	
SBLM 10-02 R	10	1/4	8	7	6.01	17	19	7	23	34.5	19	
SBLM 10-03 R	10	3/8	8	9	6.35	19	19	7	24	35.5	19.5	
SBLM 10-04 R	10	1/2	8	12	8.16	22	19	7	29	40.5	26	
SBLM 12-02 R	12	1/4	10	7	6.01	19	22	7	24	35.5	20	
SBLM 12-03 R	12	3/8	10	9	6.35	19	22	7	24	35.5	20.5	
SBLM 12-04 R	12	1/2	10	12	8.16	24	22	7	29	40.5	26	
SBLM 15-03 R	15	3/8	12	9	6.35	24	27	7.5	29	41.5	23.5	
SBLM 15-04 R	15	1/2	12	12	8.16	24	27	7.5	29	41.5	26	
SBLM 16-03 R	16	3/8	13	9	6.35	27	30	7.5	32	44.5	25.5	
SBLM 16-04 R	16	1/2	13	12	8.16	27	30	7.5	32	44.5	27	
SBLM 18-03 R	18	3/8	14	9	6.35	27	32	8	32	44.5	27.5	
SBLM 18-04 R	18	1/2	14	12	8.16	27	32	8	32	44.5	30	
SBLM 20-04 R	20	1/2	17	12	8.16	30	36	8	33	45.5	32	
SBLM 20-06 R	20	3/4	17	16	9.53	30	36	8	33	45.5	30.5	
SBLM 22-04 R	22	1/2	18	12	8.16	32	36	9	34	46.5	32	
SBLM 22-06 R	22	3/4	18	16	9.53	32	36	9	34	46.5	32.5	
SBLM 25-06 R	25	3/4	20	16	9.53	36	41	10	36	49.5	33.5	
SBLM 25-08 R	25	1	20	22	10.39	36	41	10	36	49.5	35.5	
SBLM 28-06 R	28	3/4	22	16	9.53	41	46	10	41	55	37.5	
SBLM 28-08 R	28	1	22	22	10.39	41	46	10	41	55	39.5	
SBLM 30-08 R	30	1	25	22	10.39	41	46	10	41	55.5	39.5	
SBLM 30-10 R	30	1-1/4	25	31	12.70	46	46	10	46	60.5	42.5	
SBLM 32-10 R	32	1-1/4	26	31	12.70	46	50	11	46	60.5	43.5	
SBLM 35-10 R	35	1-1/4	28	31	12.70	46	55	11	46	63.5	45.5	
SBLM 38-12 R	38	1-1/2	32	36	12.70	50	60	12	50	69.5	48.5	
SBLM 40-12 R	40	1-1/2	32	36	12.70	55	60	12	55	74.5	49.5	
SBLM 42-12 R	42	1-1/2	34	36	12.70	55	60	12	55	74.5	49.5	
SBLM 11-01 R	1/8	10.5	1/8	8	4	3.97	17	19	7	23	34.5	17
SBLM 11-02 R	1/8	10.5	1/8	8	7	6.01	17	19	7	23	34.5	19
SBLM 13-02 R	1/4	13.8	1/4	11	7	6.01	22	24	7.5	28	40	22.5
SBLM 13-03 R	1/4	13.8	1/4	11	9	6.35	22	24	7.5	28	40	22.5
SBLM 17-03 R	3/8	17.3	3/8	14	9	6.35	27	32	8	32	44.5	27.5
SBLM 17-04 R	3/8	17.3	3/8	14	12	8.16	27	32	8	32	44.5	30
SBLM 21-04 R	1/2	21.7	1/2	18	12	8.16	32	36	9	34	46.5	32
SBLM 21-06 R	1/2	21.7	1/2	18	16	9.53	32	36	9	34	46.5	32.5
SBLM 27-06 R	3/4	27.2	3/4	22	16	9.53	41	46	10	41	55	37.5
SBLM 27-08 R	3/4	27.2	3/4	22	22	10.39	41	46	10	41	55	39.5
SBLM 34-08 R	1	34.0	1	28	22	10.39	46	55	11	46	63.5	44.5
SBLM 34-10 R	1	34.0	1	28	31	12.70	46	55	11	46	63.5	45.5
SBLM 43-10 R	1-1/4	42.7	1-1/4	34	31	12.70	60	65	12	57	77.5	51.5
SBLM 43-12 R	1-1/4	42.7	1-1/4	34	36	12.70	60	75	12	57	77.5	51.5
SBLM 48-12 R	1-1/2	48.6	1-1/2	40	36	12.70	65	75	12	62	83.5	57.5
SBLM 48-16 R	1-1/2	48.6	1-1/2	40	46	15.88	65	75	12	62	83.5	58

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBSLM

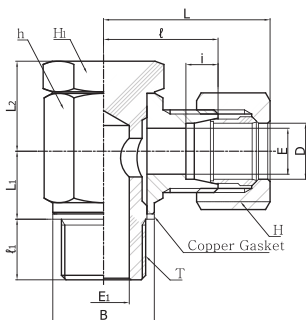
Banjo Elbow



Designations	Tube O.D. (PT)		E	E ₁	h	H ₁	H	i	ℓ ₁	ℓ	About			B	
	D	T									L ₁	L ₂	L		
SBSLM 06-01 G	6	1/8	4	4	17	17	14	7	8	23	13	14	33.5	17	
SBSLM 08-02 G	8	1/4	7	6	22	22	17	7	12	25	16	17	35.5	22	
SBSLM 10-02 G	10	1/4	7	8	22	22	19	7	12	25	16	17	36.5	22	
SBSLM 12-03 G	12	3/8	9	10	27	27	22	7	12	29	19	22	40.5	27	
SBSLM 15-04 G	15	1/2	12	12	36	30	27	7.5	14	36	24	28	48.5	30	
SBSLM 16-04 G	16	1/2	12	13	36	30	30	7.5	14	36	24	28	48.5	30	
SBSLM 18-04 G	18	1/2	12	14	36	30	32	8	14	36	24	28	48.5	30	
SBSLM 20-06 G	20	3/4	16	17	41	41	36	8	16	38	28	32	50.5	40	
SBSLM 22-06 G	22	3/4	16	18	42	41	36	9	16	38	28	32	50.5	40	
SBSLM 25-08 G	25	1	22	20	50	50	41	10	18	42	37	38	55.5	45	
SBSLM 28-08 G	28	1	22	22	50	50	46	10	18	42	37	38	56	45	
SBSLM 11-02 G	1/8	10.5	1/4	7	8	22	22	19	7	12	25	16	17	36.5	18
SBSLM 13-03 G	1/4	13.8	3/8	9	11	27	27	24	7.5	12	29	19	22	41	21.5
SBSLM 17-04 G	3/8	17.3	1/2	12	14	36	30	32	8	14	36	24	28	48.5	25.5
SBSLM 21-06 G	1/2	21.7	3/4	16	18	41	41	36	9	16	38	28	32	50.5	31.5
SBSLM 27-08 G	3/4	27.2	1	22	22	50	50	46	10	18	42	37	38	56	38

SBSLM

Banjo Elbow

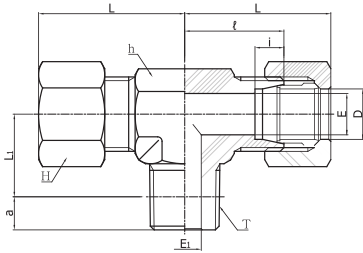


Designations	Tube O.D. (PT)		E	E ₁	h	H ₁	H	i	ℓ ₁	ℓ	About			B	
	D	T									L ₁	L ₂	L		
SBSLM 06-01 G	6	1/8	4	4	17	17	14	7	8	23	13	14	33.5	17	
SBSLM 08-02 G	8	1/4	7	6	22	22	17	7	12	25	16	17	35.5	22	
SBSLM 10-02 G	10	1/4	7	8	22	22	19	7	12	25	16	17	36.5	22	
SBSLM 12-03 G	12	3/8	9	10	27	27	22	7	12	29	19	22	40.5	27	
SBSLM 15-04 G	15	1/2	12	12	36	30	27	7.5	14	36	24	28	48.5	30	
SBSLM 16-04 G	16	1/2	12	13	36	30	30	7.5	14	36	24	28	48.5	30	
SBSLM 18-04 G	18	1/2	12	14	36	30	32	8	14	36	24	28	48.5	30	
SBSLM 20-06 G	20	3/4	16	17	41	41	36	8	16	38	28	32	50.5	40	
SBSLM 22-06 G	22	3/4	16	18	42	41	36	9	16	38	28	32	50.5	40	
SBSLM 25-08 G	25	1	22	20	50	50	41	10	18	42	37	38	55.5	45	
SBSLM 28-08 G	28	1	22	22	50	50	46	10	18	42	37	38	56	45	
SBSLM 11-02 G	1/8	10.5	1/4	7	8	22	22	19	7	12	25	16	17	36.5	18
SBSLM 13-03 G	1/4	13.8	3/8	9	11	27	27	24	7.5	12	29	19	22	41	21.5
SBSLM 17-04 G	3/8	17.3	1/2	12	14	36	30	32	8	14	36	24	28	48.5	25.5
SBSLM 21-06 G	1/2	21.7	3/4	16	18	41	41	36	9	16	38	28	32	50.5	31.5
SBSLM 27-08 G	3/4	27.2	1	22	22	50	50	46	10	18	42	37	38	56	38

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBBTM

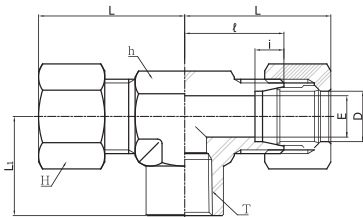
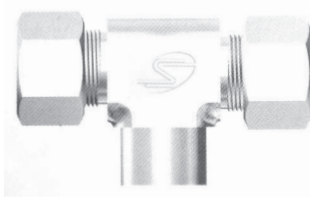
Male Branch Tee



Designations	Tube O.D. D	(PT) T	E	E ₁	Basic Gauge length a	h	H	i	ℓ	About		
										L	L ₁	
SBBTM 06-01 R	6	1/8	4	4	3.97	14	14	7	20	30.5	14	
SBBTM 06-02 R	6	1/4	4	7	6.01	17	14	7	23	33.5	17	
SBBTM 08-01 R	8	1/8	6	4	3.97	17	17	7	23	33.5	16	
SBBTM 08-02 R	8	1/4	6	7	6.01	17	17	7	23	33.5	18	
SBBTM 10-02 R	10	1/4	8	7	6.01	17	19	7	23	34.5	19	
SBBTM 10-03 R	10	3/8	8	9	6.35	19	19	7	24	35.5	19.5	
SBBTM 12-02 R	12	1/4	10	7	6.01	19	22	7	24	35.5	18	
SBBTM 12-03 R	12	3/8	10	9	6.35	19	22	7	24	35.5	20.5	
SBBTM 15-03 R	15	3/8	12	9	6.35	24	27	7.5	29	41.5	23.5	
SBBTM 15-04 R	15	1/2	12	12	8.16	24	27	7.5	29	41.5	26	
SBBTM 16-04 R	16	1/2	13	12	8.16	27	30	7.5	32	44.5	27	
SBBTM 18-04 R	18	1/2	14	12	8.16	27	32	8	32	44.5	30	
SBBTM 20-06 R	20	3/4	17	16	9.53	30	36	8	33	45.5	30.5	
SBBTM 22-06 R	22	3/4	18	16	9.53	32	36	9	34	46.5	32.5	
SBBTM 25-06 R	25	3/4	20	16	9.53	36	41	10	36	49.5	33.5	
SBBTM 25-08 R	25	1	20	22	10.39	36	41	10	36	49.5	35.5	
SBBTM 28-08 R	28	1	22	22	10.39	41	46	10	41	55	39.5	
SBBTM 30-08 R	30	1	25	22	10.39	41	46	10	41	55.5	39.5	
SBBTM 30-10 R	30	1-1/4	25	31	12.70	46	46	10	46	60.5	42.5	
SBBTM 32-10 R	32	1-1/4	26	31	12.70	46	50	11	46	60.5	43.5	
SBBTM 35-10 R	35	1-1/4	28	31	12.70	46	55	11	46	63.5	45.5	
SBBTM 38-12 R	38	1-1/2	32	36	12.70	50	60	12	50	69.5	48.5	
SBBTM 40-12 R	40	1-1/2	32	36	12.70	55	60	12	55	74.5	49.5	
SBBTM 11-02 R	1/8	10.5	1/4	8	7	6.01	17	19	7	23	34.5	19
SBBTM 13-03 R	1/4	13.8	3/8	11	9	6.35	22	24	7.5	28	40	22.5
SBBTM 17-04 R	3/8	17.3	1/2	14	12	8.16	27	32	8	32	44.5	30
SBBTM 21-06 R	1/2	21.7	3/4	18	16	9.53	32	36	9	34	46.5	32.5
SBBTM 27-08 R	3/4	27.2	1	22	22	10.39	41	46	10	41	55	39.5
SBBTM 34-10 R	1	34.0	1-1/4	28	31	12.70	46	55	11	46	63.5	45.5
SBBTM 43-12 R	1-1/4	42.7	1-1/2	34	36	12.70	60	60	12	57	77.5	51.5
SBBTM 48-16 R	1-1/2	48.6	2	40	46	15.88	65	70	12	62	83.5	58

SBBTF

Female Branch Tee

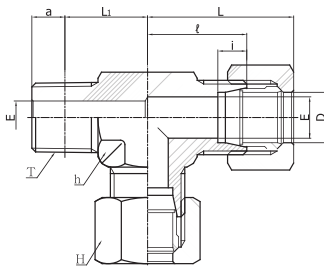
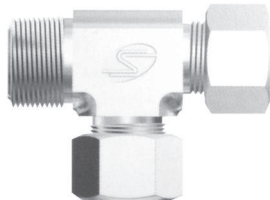


Designations	Tube O.D. D	(PT) T	E	h	H	i	ℓ	About		
								L	L ₁	
SBBTF 06-01 R	6	1/8	4	17	14	7	23	34.5	24	
SBBTF 08-01 R	8	1/4	6	19	17	7	24	34.5	24	
SBBTF 10-02 R	10	1/4	8	19	19	7	24	35.5	24	
SBBTF 12-02 R	12	1/4	10	19	22	7	24	35.5	24	
SBBTF 12-03 R	12	3/8	10	24	22	7	29	40.5	29	
SBBTF 15-03 R	15	3/8	12	24	27	7.5	29	41.5	29	
SBBTF 15-04 R	15	1/2	12	30	27	7.5	33	45.5	33	
SBBTF 16-04 R	16	1/2	13	30	30	7.5	33	45.5	33	
SBBTF 18-04 R	18	1/2	14	30	32	8	33	45.5	33	
SBBTF 20-06 R	20	3/4	17	36	36	8	36	48.5	36	
SBBTF 22-06 R	22	3/4	18	36	36	9	36	48.5	36	
SBBTF 25-06 R	25	3/4	20	36	41	10	36	49.5	36	
SBBTF 25-08 R	25	1	20	46	41	10	46	59.5	46	
SBBTF 28-08 R	28	1	22	46	46	10	46	60	46	
SBBTF 30-08 R	30	1	25	46	46	10	46	60.5	46	
SBBTF 30-10 R	30	1-1/4	25	55	46	10	55	69.5	55	
SBBTF 32-10 R	32	1-1/4	26	55	50	11	55	69.5	55	
SBBTF 35-10 R	35	1-1/4	28	55	55	11	55	72.5	55	
SBBTF 11-02 R	1/8	10.5	1/4	8	19	19	7	24	35.5	24
SBBTF 13-03 R	1/4	13.8	3/8	11	24	24	7.5	29	41	29
SBBTF 17-04 R	3/8	17.3	1/2	14	30	32	8	33	45.5	33
SBBTF 21-06 R	1/2	21.7	3/4	18	36	36	9	36	48.5	36
SBBTF 27-08 R	3/4	27.2	1	22	46	46	10	46	60	46
SBBTF 34-10 R	1	34.0	1-1/4	28	55	55	11	55	72.5	55

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBRTM

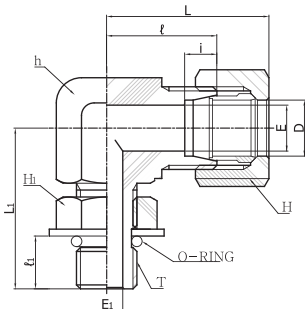
Male Run Tee



Designations	Tube O.D. D	(PT) T	E	E ₁	Basic Gauge length a	h	H	i	ℓ	About		
										L	L ₁	
SBRTM 06-01 R	6	1/8	4	4	3.97	14	14	7	20	30.5	14	
SBRTM 06-02 R	6	1/4	4	7	6.01	17	14	7	23	33.5	17	
SBRTM 08-01 R	8	1/8	6	4	3.97	17	17	7	23	33.5	16	
SBRTM 08-02 R	8	1/4	6	7	6.01	17	17	7	23	33.5	18	
SBRTM 10-02 R	10	1/4	8	7	6.01	17	19	7	23	34.5	19	
SBRTM 10-03 R	10	3/8	8	9	6.35	19	19	7	24	35.5	19.5	
SBRTM 12-02 R	12	1/4	10	7	6.01	19	22	7	24	35.5	18	
SBRTM 12-03 R	12	3/8	10	9	6.35	19	22	7	24	35.5	20.5	
SBRTM 15-03 R	15	3/8	12	9	6.35	24	27	7.5	29	41.5	23.5	
SBRTM 15-04 R	15	1/2	12	12	8.16	24	27	7.5	29	41.5	26	
SBRTM 16-04 R	16	1/2	13	12	8.16	27	30	7.5	32	44.5	27	
SBRTM 18-04 R	18	1/2	14	12	8.16	27	32	8	32	44.5	30	
SBRTM 20-06 R	20	3/4	17	16	9.53	30	36	8	33	45.5	30.5	
SBRTM 22-06 R	22	3/4	18	16	9.53	32	36	9	34	46.5	32.5	
SBRTM 25-06 R	25	3/4	20	16	9.53	36	41	10	36	49.5	33.5	
SBRTM 25-08 R	25	1	20	22	10.39	36	41	10	36	49.5	35.5	
SBRTM 28-08 R	28	1	22	22	10.39	41	46	10	41	55	39.5	
SBRTM 30-08 R	30	1	25	22	10.39	41	46	10	41	55.5	39.5	
SBRTM 30-10 R	30	1-1/4	25	31	12.70	46	46	10	46	60.5	42.5	
SBRTM 32-10 R	32	1-1/4	26	31	12.70	46	50	11	46	60.5	43.5	
SBRTM 35-10 R	35	1-1/4	28	31	12.70	46	55	11	46	63.5	45.5	
SBRTM 38-12 R	38	1-1/2	32	36	12.70	50	60	12	50	69.5	48.5	
SBRTM 40-12 R	40	1-1/2	32	36	12.70	55	60	12	55	74.5	49.5	
SBRTM 11-02 R	1/8	10.5	1/4	8	7	6.01	17	19	7	23	34.5	19
SBRTM 13-03 R	1/4	13.8	3/8	11	9	6.35	22	24	7.5	28	40	22.5
SBRTM 17-04 R	3/8	17.3	1/2	14	12	8.16	27	32	8	32	44.5	30
SBRTM 21-06 R	1/2	21.7	3/4	18	16	9.53	32	36	9	34	46.5	32.5
SBRTM 27-08 R	3/4	27.2	1	22	22	10.39	41	46	10	41	55	39.5
SBRTM 34-10 R	1	34.0	1-1/4	28	31	12.70	46	55	11	46	63.5	45.5
SBRTM 43-12 R	1-1/4	42.7	1-1/2	34	36	12.70	60	60	12	57	77.5	51.5
SBRTM 48-16 R	1-1/2	48.6	2	40	46	15.88	65	70	12	62	83.5	58

SBOLM

O-Seal Male Elbow

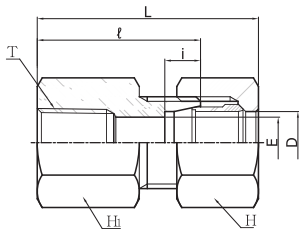
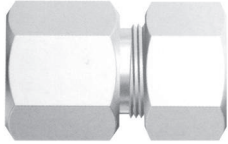


Designations	Tube O.D. D	(PF) T	E	E ₁	h	H ₁	H	i	ℓ ₁	ℓ	About	
											L	L ₁
SBOLM 06-01 G	6	1/8	4	4	14	14	14	7	10	20	30	30.5
SBOLM 08-02 G	8	1/4	6	6	17	19	17	7	12	23	34	33.5
SBOLM 10-02 G	10	1/4	8	6	17	19	19	7	12	23	35	34.5
SBOLM 12-02 G	12	1/4	10	6	19	19	22	7	12	24	36	35.5
SBOLM 12-03 G	12	3/8	10	9	19	22	22	7	12	24	36	35.5
SBOLM 12-04 G	12	1/2	10	12	24	27	22	7	16	24	46	35.5
SBOLM 15-03 G	15	3/8	12	9	24	27	27	7.5	12	29	40	41.5
SBOLM 15-04 G	15	1/2	12	12	24	27	27	7.5	16	29	46	41.5
SBOLM 16-04 G	16	1/2	13	12	24	27	30	7.5	16	32	46	44.5
SBOLM 18-04 G	18	1/2	14	12	30	27	32	8	16	32	52	44.5
SBOLM 20-06 G	20	3/4	17	16	30	36	36	8	17	33	52	45.5
SBOLM 22-06 G	22	3/4	18	16	32	36	36	9	17	34	52	46.5
SBOLM 25-06 G	25	3/4	20	16	36	36	41	10	17	36	60	49.5
SBOLM 25-08 G	25	1	20	22	36	41	41	10	21	36	62	49.5
SBOLM 28-08 G	28	1	22	22	41	41	46	10	21	41	62	55
SBOLM 30-08 G	30	1	25	22	41	41	46	10	21	41	66	55.5
SBOLM 30-10 G	30	1-1/4	25	31	46	50	46	10	21	44	66	58.5
SBOLM 32-10 G	32	1-1/4	26	31	46	50	50	11	21	46	66	60.5
SBOLM 35-10 G	35	1-1/4	28	31	46	50	55	11	21	46	66	63.5
SBOLM 38-12 G	38	1-1/2	32	36	50	55	60	12	21	50	73	69.5

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBFC

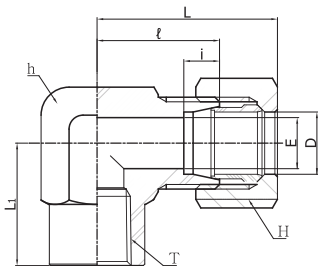
Female Connector



Designations	Tube O.D. D	(PT) T	E	H ₁	H	i	ℓ	About L	
SBFC 06-01 R	6	1/8	4	17	14	7	25	35.5	
SBFC 08-02 R	8	1/4	6	19	17	7	30	40.5	
SBFC 10-02 R	10	1/4	8	19	19	7	30	41.5	
SBFC 10-03 R	10	3/8	8	24	19	7	32	43.5	
SBFC 12-02 R	12	1/4	10	19	22	7	30	41.5	
SBFC 12-03 R	12	3/8	10	24	22	7	32	43.5	
SBFC 15-03 R	15	3/8	12	24	27	7.5	34	46.5	
SBFC 15-04 R	15	1/2	12	30	27	7.5	39	51.5	
SBFC 16-04 R	16	1/2	13	30	30	7.5	39	51.5	
SBFC 18-04 R	18	1/2	14	30	32	8	39	51.5	
SBFC 20-06 R	20	3/4	17	36	36	8	41	53.5	
SBFC 22-06 R	22	3/4	18	36	36	9	41	53.5	
SBFC 25-06 R	25	3/4	20	36	41	10	41	54.5	
SBFC 25-08 R	25	1	20	46	41	10	45	58.5	
SBFC 28-08 R	28	1	22	46	46	10	47	61	
SBFC 30-08 R	30	1	25	46	46	10	47	61.5	
SBFC 30-10 R	30	1-1/4	25	55	46	10	51	65.5	
SBFC 32-10 R	32	1-1/4	26	55	50	11	51	65.5	
SBFC 35-10 R	35	1-1/4	28	55	55	11	51	68.5	
SBFC 38-12 R	38	1-1/2	32	65	60	12	51	70.5	
SBFC 40-12 R	40	1-1/2	32	65	60	12	55	74.5	
SBFC 42-12 R	42	1-1/2	34	65	60	12	55	74.5	
SBFC 11-02 R	1/8	10.5	1/4	8	19	19	7	30	41.5
SBFC 13-03 R	1/4	13.8	3/8	11	24	24	7.5	34	46
SBFC 17-04 R	3/8	17.3	1/2	14	30	32	8	39	51.5
SBFC 21-06 R	1/2	21.7	3/4	18	36	36	9	41	53.5
SBFC 27-08 R	3/4	27.2	1	22	46	46	10	47	61
SBFC 34-10 R	1	34.0	1-1/4	28	55	55	11	51	68.5
SBFC 43-12 R	1-1/4	42.7	1-1/2	34	65	60	12	55	78.5
SBFC 48-16 R	1-1/2	48.6	2	40	80	70	12	60	81.5

SBLF

Female Elbow

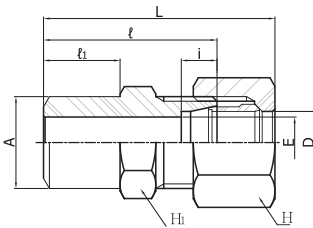
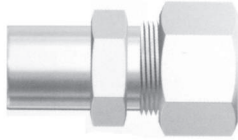


Designations	Tube O.D. D	(PT) T	E	h	H	i	ℓ	About L	L ₁
SBLF 08-02 R	8	1/4	6	17	17	7	24	24	34.5
SBLF 10-02 R	10	1/4	8	19	19	7	24	24	35.5
SBLF 12-02 R	12	1/4	10	19	22	7	24	24	35.5
SBLF 12-03 R	12	3/8	10	24	22	7	29	29	40.5
SBLF 15-03 R	15	3/8	12	24	27	7.5	29	29	41.5
SBLF 15-04 R	15	1/2	12	30	27	7.5	33	33	45.5
SBLF 16-04 R	16	1/2	13	30	30	7.5	33	33	45.5
SBLF 18-04 R	18	1/2	14	30	32	8	33	33	45.5
SBLF 20-06 R	20	3/4	17	36	36	8	36	36	48.5
SBLF 22-06 R	22	3/4	18	36	36	9	36	36	48.5
SBLF 25-06 R	25	3/4	20	36	41	10	36	36	49.5
SBLF 25-08 R	25	1	20	46	41	10	36	46	59.5
SBLF 28-08 R	28	1	22	46	46	10	46	46	60
SBLF 30-10 R	30	1-1/4	25	55	46	10	46	55	69.5
SBLF 32-10 R	32	1-1/4	26	55	50	11	55	55	69.5
SBLF 35-10 R	35	1-1/4	28	55	55	11	55	55	72.5

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBCW

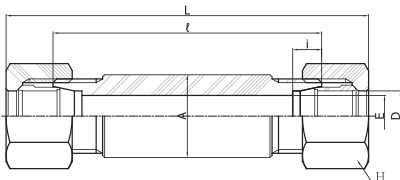
Welding Connector



Designations	Tube O.D. D	A	E	H ₁	H	ℓ	i	ℓ ₁	About L	
SBCW-06	6	12	4	14	14	29	7	11	39.5	
SBCW-08	8	14	6	17	17	34	7	15	44.5	
SBCW-10	10	16	8	17	19	34	7	15	45.5	
SBCW-12	12	18	10	19	22	34	7	15	45.5	
SBCW-15	15	21	12	24	27	40	7.5	18	52.5	
SBCW-16	16	22	13	27	30	44	7.5	22	56.5	
SBCW-18	18	25	14	27	32	44	8	22	56.5	
SBCW-20	20	28	17	30	36	46	8	22	58.5	
SBCW-22	22	28	18	32	36	46	9	22	58.5	
SBCW-25	25	33	20	36	41	46	10	26	64.5	
SBCW-28	28	36	22	41	46	55	10	28	69	
SBCW-30	30	39	25	41	46	55	10	28	69.5	
SBCW-32	32	40	26	46	50	56	11	28	70.5	
SBCW-35	35	43	28	46	55	56	11	28	73.5	
SBCW-38	38	45	32	50	60	58	12	28	77.5	
SBCW-40	40	46	32	55	60	65	12	30	84.5	
SBCW-11	1/8	10.5	16	8	17	19	34	7	15	45.5
SBCW-13	1/4	13.8	19	11	22	24	40	7.5	18	52
SBCW-17	3/8	17.3	24	14	27	32	44	8	22	56.5
SBCW-21	1/2	21.7	28	18	32	36	46	9	22	58.5
SBCW-27	3/4	27.2	33	22	41	46	52	10	25	66
SBCW-34	1	34.0	40	28	46	55	56	11	28	73.5
SBCW-43	1-1/4	42.7	47	34	60	60	65	12	28	85.5
SBCW-48	1-1/2	48.6	55	40	65	70	70	12	30	91.5

SBBUW

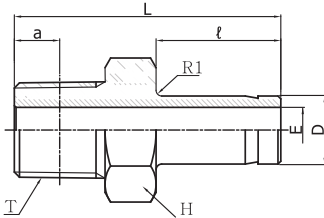
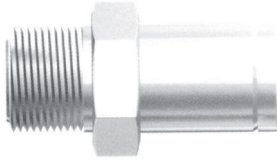
Welding Bulkhead Union



Designations	Tube O.D. D	A	E	H	ℓ	i	About L	
SBBUW-06	6	16	4	14	74	7	95	
SBBUW-08	8	16	6	17	74	7	95	
SBBUW-10	10	19	8	19	74	7	97	
SBBUW-12	12	20	10	22	74	7	97	
SBBUW-15	15	25	12	27	78	7.5	103	
SBBUW-16	16	28	13	30	78	7.5	103	
SBBUW-18	18	28	14	32	78	8	103	
SBBUW-20	20	32	17	36	78	8	103	
SBBUW-22	22	32	18	36	78	9	103	
SBBUW-25	25	38	20	41	78	10	105	
SBBUW-28	28	39	22	46	82	10	110	
SBBUW-30	30	46	25	46	82	10	111	
SBBUW-32	32	46	26	50	82	11	111	
SBBUW-35	35	46	28	55	82	11	117	
SBBUW-38	38	55	32	60	82	12	121	
SBBUW-40	40	55	32	60	90	12	129	
SBBUW-11	1/8	10.5	19	8	19	74	7	97
SBBUW-13	1/4	13.8	22	11	24	78	7.5	102
SBBUW-17	3/8	17.3	28	14	32	78	8	103
SBBUW-21	1/2	21.7	32	18	36	78	9	103
SBBUW-27	3/4	27.2	39	22	46	82	10	110
SBBUW-34	1	34.0	46	28	55	82	11	117
SBBUW-43	1-1/4	42.7	58	34	60	90	12	131
SBBUW-48	1-1/2	48.6	65	40	70	90	12	133

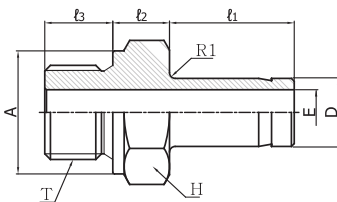
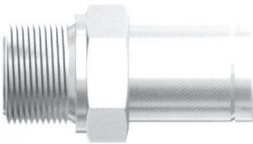
All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBA-R Adaptor



Designations	Tube O.D. D	(PT) T	E	Basic Gauge length a	H	ℓ	About L
SBA 06-01 R	6	1/8	3	3.97	12	20	32
SBA 08-02 R	8	1/4	5	6.01	14	20	35
SBA 10-02 R	10	1/4	6	6.01	14	21	36
SBA 10-03 R	10	3/8	6	6.35	19	21	36.5
SBA 12-02 R	12	1/4	7	6.01	14	22	37
SBA 12-03 R	12	3/8	8	6.35	19	22	37.5
SBA 15-03 R	15	3/8	8	6.35	19	24	40.5
SBA 15-04 R	15	1/2	10	8.16	22	24	43
SBA 16-04 R	16	1/2	11	8.16	22	24	43
SBA 18-04 R	18	1/2	12	8.16	22	24	43
SBA 20-06 R	20	3/4	14	9.53	27	25	46.5
SBA 22-06 R	22	3/4	14	9.53	27	26	47.5
SBA 25-06 R	25	3/4	16	9.53	27	28	49.5
SBA 25-08 R	25	1	17	10.39	36	28	52.5
SBA 28-08 R	28	1	18	10.39	36	28	52.5
SBA 30-08 R	30	1	20	10.39	36	29	53.5
SBA 30-10 R	30	1-1/4	20	12.70	46	29	55
SBA 32-10 R	32	1-1/4	22	12.70	46	30	56
SBA 38-12 R	38	1-1/2	26	12.70	50	36	64.5
SBA 40-12 R	40	1-1/2	28	12.70	50	36	64
SBA 11-02 R	1/8 10.5	1/4	6	6.01	14	21	36
SBA 13-03 R	1/4 13.8	3/8	9	6.35	19	22	38.5
SBA 17-04 R	3/8 17.3	1/2	11	8.16	22	24	43
SBA 21-06 R	1/2 21.7	3/4	14	9.53	27	26	47.5
SBA 27-08 R	3/4 27.2	1	18	10.39	36	28	52.5
SBA 34-10 R	1 34.0	1-1/4	23	12.70	46	33	59
SBA 43-12 R	1-1/4 42.7	1-1/2	29	12.70	50	36	67
SBA 48-16 R	1-1/2 48.6	2	33	15.88	65	37	72

SBA-G Adaptor (For Copper Gasket)

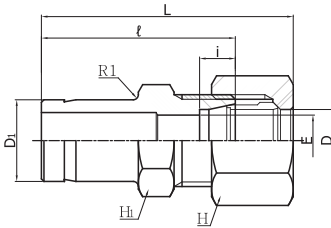
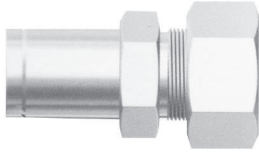


Designations	Tube O.D. D	(PT) T	E	H	A	ℓ ₁	About ℓ ₂	ℓ ₃
SBA 06-01 G	6	1/8	3	14	14	20	8	8
SBA 08-02 G	8	1/4	5	19	18	20	9	12
SBA 10-02 G	10	1/4	6	19	18	21	9	12
SBA 10-03 G	10	3/8	6	22	21.5	21	10	12
SBA 12-02 G	12	1/4	7	19	18	22	9	12
SBA 12-03 G	12	3/8	8	22	21.5	22	10	12
SBA 15-03 G	15	3/8	8	22	21.5	24	10	12
SBA 15-04 G	15	1/2	10	27	25.5	24	13	14
SBA 16-04 G	16	1/2	11	27	25.5	24	13	14
SBA 18-04 G	18	1/2	12	27	25.5	24	13	14
SBA 20-06 G	20	3/4	14	32	31.5	25	16	16
SBA 22-06 G	22	3/4	14	32	31.5	26	16	16
SBA 25-06 G	25	3/4	16	32	31.5	28	16	16
SBA 25-08 G	25	1	17	41	38	28	18	18
SBA 28-08 G	28	1	18	41	38	28	18	18
SBA 30-08 G	30	1	20	41	38	29	21	18
SBA 30-10 G	30	1-1/4	20	50	48.5	29	21	20
SBA 32-10 G	32	1-1/4	22	50	48.5	30	21	20
SBA 38-12 G	38	1-1/2	26	55	53.5	36	21	21
SBA 40-12 G	40	1-1/2	28	55	53.5	36	21	21
SBA 11-02 G	1/8 10.5	1/4	6	19	18	21	9	12
SBA 13-03 G	1/4 13.8	3/8	9	22	21.5	22	10	12
SBA 17-04 G	3/8 17.3	1/2	11	27	25.5	24	13	14
SBA 21-06 G	1/2 21.7	3/4	14	32	31.5	26	16	16
SBA 27-08 G	3/4 27.2	1	18	41	38	28	18	18
SBA 34-10 G	1 34.0	1-1/4	23	50	48.5	33	21	20
SBA 43-12 G	1-1/4 42.7	1-1/2	29	55	53.5	36	23	21
SBA 48-16 G	1-1/2 48.6	2	33	70	66	37	28	24

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBR

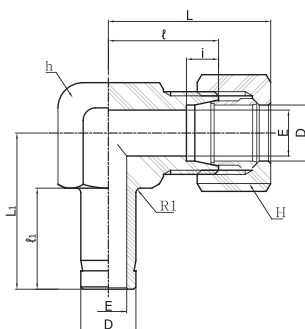
Reducer



Designations	Tube O.D.		E	H ₁	H	i	ℓ	About L		
	D ₁	D								
SBR 08-06	8	6	4	14	14	7	39	49.5		
SBR 10-06	10	6	4	14	14	7	40	50.5		
SBR 10-08	10	8	6	17	17	7	40	50.5		
SBR 12-06	12	6	4	14	14	7	41	51.5		
SBR 12-08	12	8	6	17	17	7	41	51.5		
SBR 12-10	12	10	8	17	19	7	41	52.5		
SBR 15-08	15	8	6	17	17	7	43	53.5		
SBR 15-10	15	10	8	17	19	7	43	54.5		
SBR 16-06	16	6	4	17	14	7	43	53.5		
SBR 16-10	16	10	8	17	19	7	43	54.5		
SBR 16-12	16	12	10	19	22	7	43	54.5		
SBR 18-10	18	10	8	19	19	7	44	55.5		
SBR 18-15	18	15	12	24	27	7.5	45	57.5		
SBR 20-06	20	6	4	22	14	7	45	55.5		
SBR 20-12	20	12	10	22	22	7	45	56.5		
SBR 20-16	20	16	13	27	30	7.5	47	59.5		
SBR 22-15	22	15	12	24	27	7.5	48	60.5		
SBR 22-18	22	18	14	27	32	8	48	60.5		
SBR 25-16	25	16	13	27	30	7.5	50	62.5		
SBR 25-20	25	20	17	30	36	8	52	64.5		
SBR 28-18	28	18	14	30	32	8	52	64.5		
SBR 28-22	28	22	18	32	36	9	52	64.5		
SBR 30-20	30	20	17	32	36	8	53	65.5		
SBR 30-25	30	25	20	36	41	10	54	67.5		
SBR 32-25	32	25	20	36	41	10	55	68.5		
SBR 35-22	35	22	18	36	36	9	58	70.5		
SBR 35-28	35	28	22	41	36	10	60	74		
SBR 38-25	38	25	20	41	41	10	61	74.5		
SBR 38-30	38	30	25	41	46	10	63	77.5		
SBR 13-11	1/4	13.8	1/8	10.5	8	17	19	7	41	52.5
SBR 17-11	3/8	17.3	1/8	10.5	8	19	19	7	44	55.5
SBR 17-13	3/8	17.3	1/4	13.8	11	22	24	7.5	46	58
SBR 21-13	1/2	21.7	1/4	13.8	11	24	24	7.5	48	60
SBR 21-17	1/2	21.7	3/8	17.3	14	27	32	8	48	60.5
SBR 27-17	3/4	27.2	3/8	17.3	14	30	32	8	52	64.5
SBR 27-21	3/4	27.2	1/2	21.7	18	32	36	9	52	64.5
SBR 34-21	1	34	1/2	21.7	18	36	36	9	58	70.5
SBR 34-27	1	34	3/4	27.2	22	41	46	10	60	74

SBLA

Adjustable Elbow

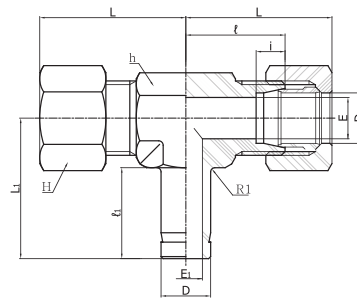
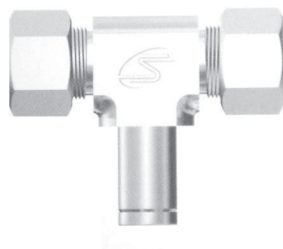


Designations	Tube O.D.		E	E ₁	h	H	i	ℓ	ℓ ₁	About L	
	D	D ₁								L	L ₁
SBLA-10	10	8	6	17	19	7	23	21	34.5	35	
SBLA-12	12	10	8	19	22	7	24	22	35.5	37	
SBLA-15	15	12	10	24	27	7.5	29	24	44.5	40	
SBLA-16	16	13	11	27	30	7.5	32	24	44.5	43	
SBLA-18	18	14	12	27	32	8	32	24	44.5	43	
SBLA-20	20	17	14	30	36	8	33	25	45.5	45	
SBLA-22	22	18	14	32	36	9	34	26	46.5	46	
SBLA-25	25	20	17	36	41	10	36	28	49.5	49	
SBLA-28	28	22	18	41	46	10	41	28	55	53	
SBLA-30	30	25	20	41	46	10	41	29	55.5	54	
SBLA-32	32	26	22	46	50	11	50	30	64.5	66	
SBLA-38	38	32	26	50	60	12	50	36	69.5	72	

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBFTA

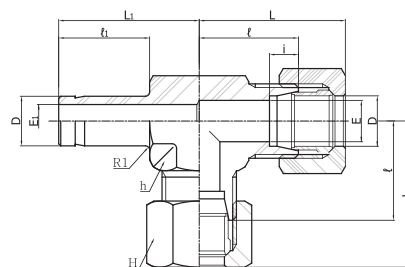
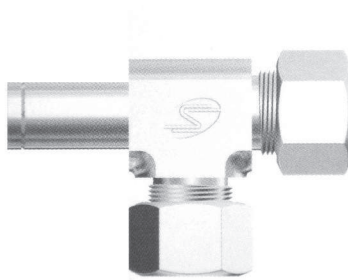
Adjustable Branch Tee



Designations	Tube O.D. D	E	E ₁	h	H	i	ℓ	ℓ ₁	About	
									L	L ₁
SBFTA-10	10	8	6	17	19	7	23	21	34.5	35
SBFTA-12	12	10	8	19	22	7	24	22	35.5	37
SBFTA-15	15	12	10	24	27	7.5	32	24	44.5	43
SBFTA-16	16	13	11	27	30	7.5	32	24	44.5	43
SBFTA-18	18	14	12	27	32	8	32	24	44.5	43
SBFTA-20	20	17	14	30	36	8	33	25	45.5	45
SBFTA-22	22	18	14	32	36	9	34	26	46.5	46
SBFTA-25	25	20	17	36	41	10	36	28	49.5	49

SBRTA

Adjustable Run Tee

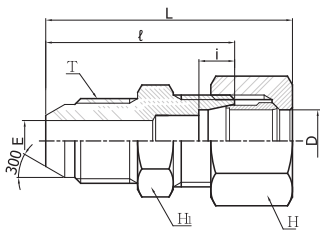
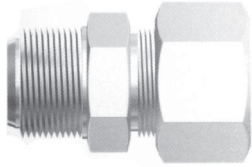


Designations	Tube O.D. D	E	E ₁	h	H	i	ℓ	ℓ ₁	About	
									L	L ₁
SBRTA-10	10	8	6	17	19	7	23	21	34.5	35
SBRTA-12	12	10	8	19	22	7	24	22	35.5	37
SBRTA-15	15	12	10	24	27	7.5	32	24	44.5	43
SBRTA-16	16	13	11	27	30	7.5	32	24	44.5	43
SBRTA-18	18	14	12	27	32	8	32	24	44.5	43
SBRTA-20	20	17	14	30	36	8	33	25	45.5	45
SBRTA-22	22	18	14	32	36	9	34	26	46.5	46
SBRTA-25	25	20	17	36	41	10	36	28	49.5	49

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBBUM

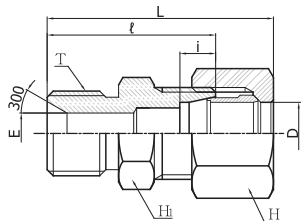
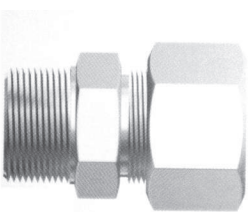
Hose Male Union



Designations	Tube O.D. D	(PF) T	E	H ₁	H	i	ℓ	About L
SBBUM 06-01 G	6	1/8	4	14	14	7	34	44.5
SBBUM 08-02 G	8	1/4	6	17	17	7	35	45.5
SBBUM 08-03 G	8	3/8	6	19	17	7	37	47.5
SBBUM 10-02 G	10	1/4	6	17	19	7	35	46.5
SBBUM 10-03 G	10	3/8	8	19	19	7	37	48.5
SBBUM 10-04 G	10	1/2	8	22	19	7	40	51.5
SBBUM 12-02 G	12	1/4	6	19	22	7	35	46.5
SBBUM 12-03 G	12	3/8	9	19	22	7	37	48.5
SBBUM 12-04 G	12	1/2	10	22	22	7	40	51.5
SBBUM 15-03 G	15	3/8	9	24	27	7.5	40	52.5
SBBUM 15-04 G	15	1/2	12	24	27	7.5	42	54.5
SBBUM 16-03 G	16	3/8	9	27	30	7.5	40	52.5
SBBUM 16-04 G	16	1/2	12	27	30	7.5	42	54.5
SBBUM 18-04 G	18	1/2	12	27	32	8	42	54.5
SBBUM 20-06 G	20	3/4	16	30	36	8	46	58.5
SBBUM 22-04 G	22	1/2	12	32	36	9	44	56.5
SBBUM 22-06 G	22	3/4	16	32	36	9	46	58.5
SBBUM 25-06 G	25	3/4	16	36	41	10	47	60.5
SBBUM 25-08 G	25	1	20	36	41	10	49	62.5
SBBUM 28-06 G	28	3/4	16	41	46	10	49	63
SBBUM 28-08 G	28	1	22	41	46	10	51	65
SBBUM 30-06 G	30	3/4	16	41	46	10	49	63.5
SBBUM 30-08 G	30	1	22	41	46	10	51	65.5
SBBUM 32-08 G	32	1	22	46	50	11	52	66.5
SBBUM 32-10 G	32	1-1/4	28	46	50	11	56	70.5

SBBUF

Hose Female Union

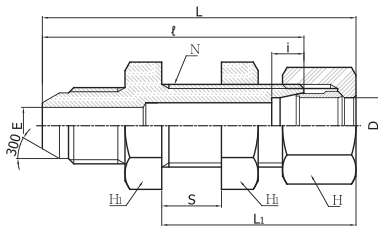
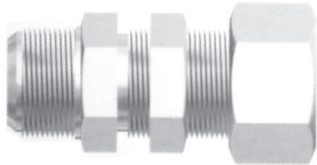


Designations	Tube O.D. D	(PF) T	E	H ₁	H	i	ℓ	About L
SBBUF 06-01 G	6	1/8	4	14	14	7	32	43.5
SBBUF 08-02 G	8	1/4	6	17	17	7	33	43.5
SBBUF 08-03 G	8	3/8	6	19	17	7	34	44.5
SBBUF 10-02 G	10	1/4	6	17	19	7	33	44.5
SBBUF 10-03 G	10	3/8	8	19	19	7	34	45.5
SBBUF 10-04 G	10	1/2	8	22	19	7	38	49.5
SBBUF 12-02 G	12	1/4	6	19	22	7	33	44.5
SBBUF 12-03 G	12	3/8	9	19	22	7	34	45.5
SBBUF 12-04 G	12	1/2	10	22	22	7	38	49.5
SBBUF 15-03 G	15	3/8	9	24	27	7.5	37	49.5
SBBUF 15-04 G	15	1/2	12	24	27	7.5	40	52.5
SBBUF 16-03 G	16	3/8	9	27	30	7.5	37	52.5
SBBUF 16-04 G	16	1/2	12	27	30	7.5	40	49.5
SBBUF 18-04 G	18	1/2	12	27	32	8	40	52.5
SBBUF 20-06 G	20	3/4	16	30	36	8	43	55.5
SBBUF 22-04 G	22	1/2	12	32	36	9	42	54.5
SBBUF 22-06 G	22	3/4	16	32	36	9	43	55.5
SBBUF 25-06 G	25	3/4	16	36	41	10	44	57.5
SBBUF 25-08 G	25	1	20	36	41	10	46	59.5
SBBUF 28-06 G	28	3/4	16	41	46	10	46	60
SBBUF 28-08 G	28	1	22	41	46	10	48	62
SBBUF 30-06 G	30	3/4	16	41	46	10	46	60.5
SBBUF 30-08 G	30	1	22	41	46	10	48	62.5
SBBUF 32-08 G	32	1	22	46	50	11	49	63.5
SBBUF 32-10 G	32	1-1/4	28	46	50	11	55	69.5
SBBUF 38-12 G	38	1-1/2	32	50	60	12	57	76.5
SBBUF 40-12 G	40	1-1/2	32	55	60	12	62	81.5

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBHBM

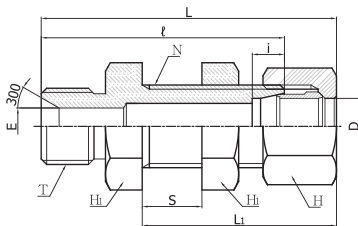
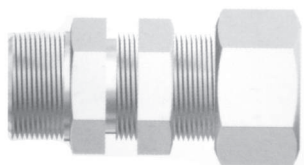
Hose Bulkhead Male Union



Designations	Tube O.D. (PF)		E	H ₁	H	i	ℓ	About		Panel Hole Drill size N	Max Panel Thickness S
	D	T						L	L ₁		
SBHBM 06-01 G	6	1/8	4	17	14	7	54	42.5	63.5	12.5	13
SBHBM 08-02 G	8	1/4	6	19	17	7	55	42.5	65.5	14.5	13
SBHBM 08-03 G	8	3/8	6	19	17	7	57	42.5	67.5	14.5	13
SBHBM 10-02 G	10	1/4	6	22	19	7	56	43.5	67.5	16.5	13
SBHBM 10-03 G	10	3/8	8	22	19	7	58	43.5	69.5	16.5	13
SBHBM 10-04 G	10	1/2	8	22	19	7	60	43.5	71.5	16.5	13
SBHBM 12-02 G	12	1/4	6	24	22	7	56	43.5	67.5	18.5	13
SBHBM 12-03 G	12	3/8	9	24	22	7	58	43.5	69.5	18.5	13
SBHBM 12-04 G	12	1/2	10	24	22	7	60	43.5	71.5	18.5	13
SBHBM 15-03 G	15	3/8	9	27	27	7.5	63	49.5	75.5	22.5	15
SBHBM 15-04 G	15	1/2	12	27	27	7.5	65	49.5	77.5	22.5	15
SBHBM 16-03 G	16	3/8	9	30	30	7.5	65	49.5	77.5	24.5	15
SBHBM 16-04 G	16	1/2	12	30	30	7.5	67	49.5	79.5	24.5	15
SBHBM 18-04 G	18	1/2	12	32	32	8	69	51.5	81.5	26.5	15
SBHBM 20-06 G	20	3/4	16	32	36	8	71	51.5	83.5	28.5	15
SBHBM 22-04 G	22	1/2	12	36	36	9	70	51.5	82.5	30.5	15
SBHBM 22-06 G	22	3/4	16	36	36	9	72	51.5	84.5	30.5	15
SBHBM 25-06 G	25	3/4	16	41	41	10	72	52.5	87.5	35.5	15
SBHBM 25-08 G	25	1	20	41	41	10	74	52.5	89.5	35.5	15
SBHBM 28-06 G	28	3/4	16	46	46	10	75	55	89	38.5	15
SBHBM 28-08 G	28	1	22	46	46	10	77	55	91	38.5	15
SBHBM 30-06 G	30	3/4	16	46	46	10	75	55.5	89.5	40.5	15
SBHBM 30-08 G	30	1	22	46	46	10	77	55.5	91.5	40.5	15
SBHBM 32-08 G	32	1	22	50	50	11	81	57.5	95.5	42.5	15
SBHBM 32-10 G	32	1-1/4	28	50	50	11	85	57.5	99.5	42.5	15

SBHBF

Hose Bulkhead Female Union

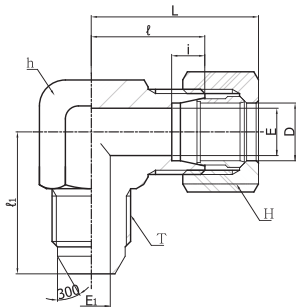
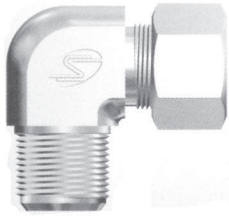


Designations	Tube O.D. (PF)		E	H ₁	H	i	ℓ	About		Panel Hole Drill size N	Max Panel Thickness S
	D	T						L	L ₁		
SBHBF 06-01 G	6	1/8	4	17	14	7	52	42.5	62.5	12.5	13
SBHBF 08-02 G	8	1/4	6	19	17	7	53	42.5	63.5	14.5	13
SBHBF 08-03 G	8	3/8	6	19	17	7	54	42.5	64.5	14.5	13
SBHBF 10-02 G	10	1/4	6	22	19	7	54	43.5	65.5	16.5	13
SBHBF 10-03 G	10	3/8	8	22	19	7	55	43.5	66.5	16.5	13
SBHBF 10-04 G	10	1/2	8	22	19	7	58	43.5	69.5	16.5	13
SBHBF 12-02 G	12	1/4	6	24	22	7	54	43.5	65.5	18.5	13
SBHBF 12-03 G	12	3/8	9	24	22	7	55	43.5	66.5	18.5	13
SBHBF 12-04 G	12	1/2	10	24	22	7	58	43.5	69.5	18.5	13
SBHBF 15-03 G	15	3/8	9	27	27	7.5	60	49.5	72.5	22.5	15
SBHBF 15-04 G	15	1/2	12	27	27	7.5	63	49.5	75.5	22.5	15
SBHBF 16-03 G	16	3/8	9	30	30	7.5	62	49.5	74.5	24.5	15
SBHBF 16-04 G	16	1/2	12	30	30	7.5	65	49.5	77.5	24.5	15
SBHBF 18-04 G	18	1/2	12	32	32	8	67	51.5	79.5	26.5	15
SBHBF 20-06 G	20	3/4	16	32	36	8	68	51.5	80.5	28.5	15
SBHBF 22-04 G	22	1/2	12	36	36	9	68	51.5	80.5	30.5	15
SBHBF 22-06 G	22	3/4	16	36	36	9	69	51.5	81.5	30.5	15
SBHBF 25-06 G	25	3/4	16	41	41	10	69	52.5	82.5	35.5	15
SBHBF 25-08 G	25	1	20	41	41	10	71	52.5	84.5	35.5	15
SBHBF 28-08 G	28	1	22	46	46	10	74	55	88	38.5	15
SBHBF 30-06 G	30	3/4	16	46	46	10	72	55.5	86.5	40.5	15
SBHBF 30-08 G	30	1	22	46	46	10	74	55.5	88.5	40.5	15
SBHBF 32-08 G	32	1	22	50	50	11	78	57.5	92.5	42.5	15
SBHBF 32-10 G	32	1-1/4	28	50	50	11	84	57.5	98.5	42.5	15
SBHBF 38-12 G	38	1-1/2	31	55	60	12	87	64.5	106.5	48.5	15
SBHBF 40-12 G	40	1-1/2	32	60	60	12	94	69.5	113.5	52.5	15

All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBHLM

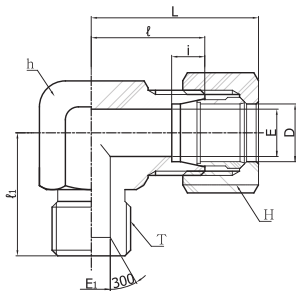
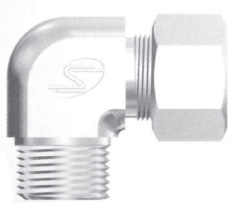
Hose Male Elbow



Designations	Tube O.D. (PF)		E	E ₁	h	H	i	l	l ₁	About L
	D	T								
SBHLM 06-01 G	6	1/8	4	4	14	14	7	20	25	33.5
SBHLM 08-02 G	8	1/4	6	6	17	17	7	23	25	33.5
SBHLM 08-03 G	8	3/8	6	9	19	17	7	24	28	34.5
SBHLM 10-02 G	10	1/4	8	6	19	19	7	24	28	35.5
SBHLM 10-03 G	10	3/8	8	9	19	19	7	24	28	35.5
SBHLM 10-04 G	10	1/2	8	12	24	19	7	29	34	40.5
SBHLM 12-02 G	12	1/4	10	6	19	22	7	24	28	35.5
SBHLM 12-03 G	12	3/8	10	9	19	22	7	24	28	35.5
SBHLM 12-04 G	12	1/2	10	12	24	22	7	29	34	40.5
SBHLM 15-03 G	15	3/8	12	9	24	27	7.5	29	33	41.5
SBHLM 15-04 G	15	1/2	12	12	24	27	7.5	29	34	41.5
SBHLM 16-03 G	16	3/8	13	9	27	30	7.5	32	36	44.5
SBHLM 16-04 G	16	1/2	13	12	27	30	7.5	32	38	44.5
SBHLM 18-04 G	18	1/2	14	12	27	32	8	32	38	44.5
SBHLM 20-06 G	20	3/4	17	16	30	36	8	33	41	45.5
SBHLM 22-04 G	22	1/2	18	12	32	36	9	34	40	46.5
SBHLM 22-06 G	22	3/4	18	16	32	36	9	34	42	46.5
SBHLM 25-06 G	25	3/4	20	16	36	41	10	36	44	49.5
SBHLM 25-08 G	25	1	20	20	36	41	10	36	46	49.5
SBHLM 28-06 G	28	3/4	22	16	41	46	10	41	47	55
SBHLM 28-08 G	28	1	22	22	41	46	10	41	49	55
SBHLM 30-06 G	30	3/4	25	16	41	46	10	41	47	55.5
SBHLM 30-08 G	30	1	25	22	41	46	10	41	49	55.5
SBHLM 32-08 G	32	1	26	22	46	50	11	46	54	60.5
SBHLM 32-10 G	32	1-1/4	26	28	46	50	11	46	56	60.5

SBHLF

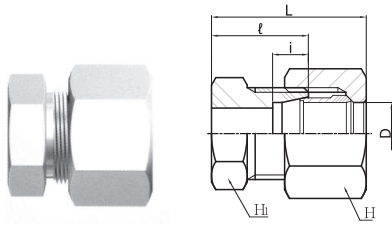
Hose Female Elbow



Designations	Tube O.D. (PF)		E	E ₁	h	H	i	l	l ₁	About L
	D	T								
SBHLF 08-02 G	8	1/4	6	6	17	17	7	23	25	33.5
SBHLF 08-03 G	8	3/8	6	9	19	17	7	24	27	34.5
SBHLF 10-02 G	10	1/4	8	6	19	19	7	24	26	35.5
SBHLF 10-03 G	10	3/8	8	9	19	19	7	24	27	35.5
SBHLF 10-04 G	10	1/2	8	12	24	19	7	29	23	40.5
SBHLF 12-02 G	12	1/4	10	6	19	22	7	24	26	35.5
SBHLF 12-03 G	12	3/8	10	9	19	22	7	24	27	35.5
SBHLF 12-04 G	12	1/2	10	12	24	22	7	29	33	40.5
SBHLF 15-03 G	15	3/8	12	9	24	27	7.5	29	30	41.5
SBHLF 15-04 G	15	1/2	12	12	24	27	7.5	29	33	41.5
SBHLF 16-03 G	16	3/8	13	9	27	30	7.5	32	33	44.5
SBHLF 16-04 G	16	1/2	13	12	27	30	7.5	32	36	44.5
SBHLF 18-04 G	18	1/2	14	12	27	32	8	32	36	44.5
SBHLF 20-06 G	20	3/4	17	16	30	36	8	33	38	45.5
SBHLF 22-04 G	22	1/2	18	12	32	36	9	34	38	46.5
SBHLF 22-06 G	22	3/4	18	16	32	36	9	34	39	46.5
SBHLF 25-06 G	25	3/4	20	16	36	41	10	36	41	49.5
SBHLF 25-08 G	25	1	20	20	36	41	10	36	43	49.5
SBHLF 28-06 G	28	3/4	22	16	41	46	10	41	44	55
SBHLF 28-08 G	28	1	22	22	41	46	10	41	46	55
SBHLF 30-06 G	30	3/4	25	16	41	46	10	41	44	55.5
SBHLF 30-08 G	30	1	25	22	41	46	10	41	46	55.5
SBHLF 32-08 G	32	1	26	22	46	50	11	46	51	60.5
SBHLF 32-10 G	32	1-1/4	26	28	46	50	11	46	57	60.5
SBHLF 38-12 G	38	1-1/2	32	34	50	60	12	50	61	69.5
SBHLF 40-12 G	40	1-1/2	32	34	55	60	12	55	62	74.5

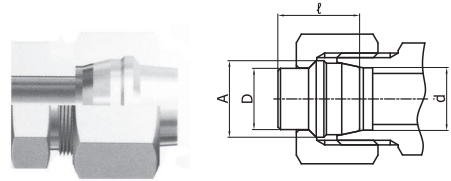
All dimensions are in millimeters. Dimensions are for reference only, subject to change.

SBC Cap



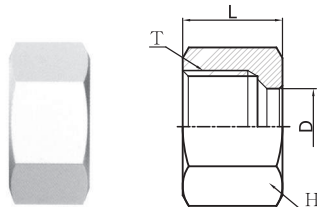
Designations	Tube O.D. D	H ₁	H	i	ℓ	About L
SBC-06	6	14	14	7	18	28.5
SBC-08	8	17	17	7	19	29.5
SBC-10	10	17	19	7	20	31.5
SBC-12	12	19	22	7	20	31.5
SBC-15	15	24	27	7.5	22	34.5
SBC-16	16	27	30	7.5	24	36.5
SBC-18	18	27	32	8	24	36.5
SBC-20	20	30	36	8	24	36.5
SBC-22	22	32	36	9	25	37.5
SBC-25	25	36	41	10	25	38.5
SBC-28	28	41	46	10	28	42
SBC-30	30	41	46	10	28	42.5
SBC-32	32	46	50	11	30	44

SBP Plug



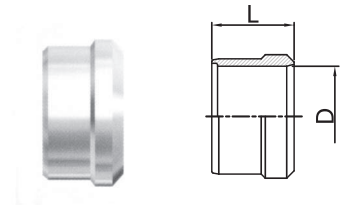
Designations	Tube O.D. D	d	A	ℓ
SBP-06	6	8	9	13.5
SBP-08	8	10	11	13.5
SBP-10	10	12	13	14.5
SBP-12	12	14	15	14.5
SBP-15	15	17	18	16
SBP-16	16	18	19	16
SBP-18	18	20	21	17.5
SBP-20	20	22	23	17.5
SBP-22	22	24	25	17.5
SBP-25	25	27.4	28.5	19
SBP-28	28	30.4	31.5	19
SBP-30	30	32.4	33.5	20
SBP-32	32	34.4	35.5	20

SBN Nut



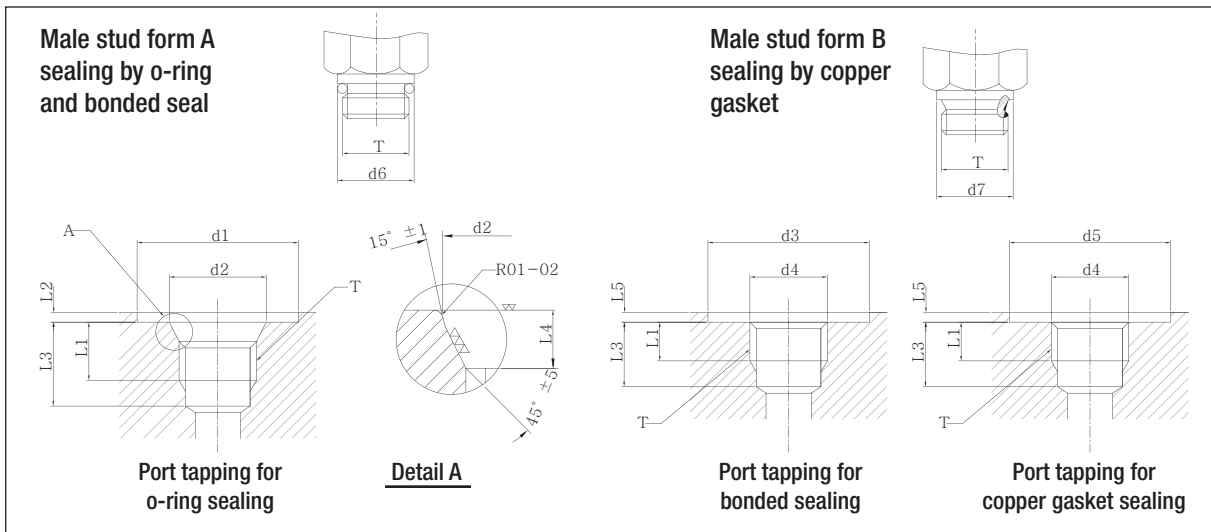
Designations	Tube O.D. D	T	H	L	
SBN-06	6	M12X1.5	14	15	
SBN-08	8	M14X1.5	17	15	
SBN-10	10	M16X1.5	19	16	
SBN-12	12	M18X1.5	22	16	
SBN-15	15	M22X1.5	27	19	
SBN-16	16	M24X1.5	30	19	
SBN-18	18	M26X1.5	32	19	
SBN-20	20	M28X1.5	36	19	
SBN-22	22	M30X1.5	36	19	
SBN-25	25	M35X1.5	41	20	
SBN-28	28	M38X1.5	46	21	
SBN-30	30	M40X1.5	46	22	
SBN-32	32	M42X1.5	50	22	
SBN-35	35	M45X1.5	55	25	
SBN-38	38	M48X1.5	60	27	
SBN-40	40	M52X2.0	60	29	
SBN-42	42	M52X2.0	60	29	
SBN-11	1/8	10.5	M16X1.5	19	16
SBN-13	1/4	13.8	M20X1.5	24	18
SBN-17	3/8	17.3	M26X1.5	32	19
SBN-21	1/2	21.7	M30X1.5	36	19
SBN-27	3/4	27.2	M38X1.5	46	21
SBN-34	1	34.0	M45X1.5	55	25
SBN-43	1-1/4	42.7	M52X2.0	60	29
SBN-48	1-1/2	48.6	M60X2.0	70	32

SBS Sleeve



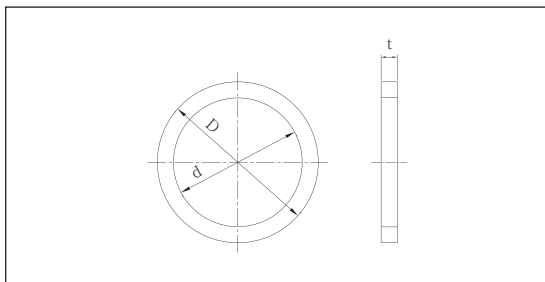
Designations	Tube O.D. D	L	
SBS-06	6	9	
SBS-08	8	9	
SBS-10	10	10	
SBS-12	12	10	
SBS-15	15	10	
SBS-16	16	10	
SBS-18	18	10	
SBS-20	20	10	
SBS-22	22	10	
SBS-25	25	11	
SBS-28	28	11	
SBS-30	30	11	
SBS-32	32	11	
SBS-35	35	14	
SBS-38	38	14	
SBS-40	40	14	
SBS-42	42	14	
SBS-11	1/8	10.5	10
SBS-13	1/4	13.8	10
SBS-17	3/8	17.3	10
SBS-21	1/2	21.7	10
SBS-27	3/4	27.2	11
SBS-34	1	34.0	14
SBS-43	1-1/4	42.7	14
SBS-48	1-1/2	48.6	14

MALE STUD FORM AND SEALING



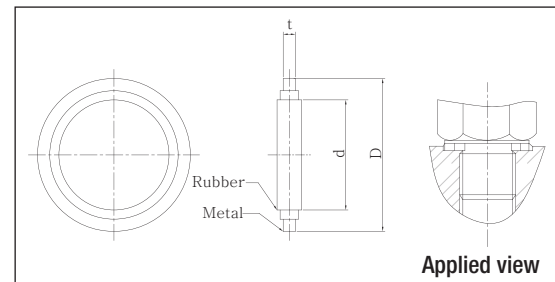
T	d ₁	d ₂ ^{+0.1} ₀	d ₃ ^{+0.3} ₀	MAX d ₄	d ₅ ^{+0.3} ₀	d ₆	d ₇	Min ℓ ₁	Max ℓ ₂	Min ℓ	ℓ ₄ ^{+0.4} ₀	ℓ ₅	Suitable Seal		
													O-Ring	Bonded Seal	Copper Gasket
PF 1/8	18	11.6	17.4	9.7	18.2	14	14	10	1	15	2	1	P 8	KP-C-01	KP-A-01
PF 1/4	24	15.6	20.9	13.1	22.2	19	18	14	1.5	20	2.5	1	P 11	KP-C-02	KP-A-03
PF 3/8	28	18.6	24.4	16.6	26.2	22	21.5	14	2	20	2.5	1	P 14	KP-C-03	KP-A-05
PF 1/2	34	22.6	29.4	20.9	32.2	27	25.5	17	2.5	25	2.5	1	P 18	KP-C-04	KP-A-07
PF 3/4	45	29.8	34.9	26.4	38.2	36	31.5	19	2.5	27	3.5	1	P 24	KP-C-05	KP-A-11
PF 1	51	35.8	41.9	33.2	42.3	41	38	22	2.5	31	3.5	1	P 29	KP-C-06	KP-A-16
PF 1 1/4	62	44.8	50.9	41.9	53.3	50	48.5	24	2.5	33	3.5	1	P 38	KP-C-07	KP-A-20
PF 1 1/2	68	50.8	57.4	47.8	60.3	55	53.5	25	2.5	34	3.5	1	P 44	KP-C-08	KP-A-23
PF 2	76	67.2	69.4	59.6	72.3	75	66	29	2.5	48	3.5	1	P 56	KP-C-09	KP-A-28

COPPER GASKET



Part No.	Male Thread	d	D	t
KP-A-01	PF 1/8	10	18	2
KP-A-03	PF 1/4	14	22	2
KP-A-05	PF 3/8	17	26	2
KP-A-07	PF 1/2	22	32	2
KP-A-11	PF 3/4	27	38	2
KP-A-16	PF 1	34	42	2
KP-A-20	PF 1 1/4	43	53	2
KP-A-23	PF 1 1/2	49	60	2
KP-A-28	PF 2	61	72	2

BONDED SEAL



Part No.	Male Thread	d	D	t
KP-C-01	PF 1/8	9.9	17	2
KP-C-02	PF 1/4	13.3	20.5	2
KP-C-03	PF 3/8	16.8	24	2
KP-C-04	PF 1/2	21.1	29	2
KP-C-05	PF 3/4	26.6	34.5	2
KP-C-06	PF 1	33.4	41.5	2.3
KP-C-07	PF 1 1/4	42.1	50.5	2.3
KP-C-08	PF 1 1/2	48.0	57	2.3
KP-C-09	PF 2	59.8	69	2.3