

CSE Wide Range Tube Line

CSE tube fittings can be used for sanitary, pharmaceutical, vacuum...etc purposes.



It can be equipped with different types of connection ends, as 45°/90° elbow, tee, concentric/ eccentric reducer...weld, clamp, unions...

Standard type: 3A, SMS, DIN, BS, BPE...etc.

Material: ASTM 304, 316, 316L

Surface: 1) ID/OD polishing .

2) Only ID polishing .

3) Only OD polishing .

4) unpolished.

Roughness: #400, #320, #240, #180....

Ra≤0.8μm, 0.6μm, 0.5μm, 0.4μm.....

(Other surface finished can be ordered).

CSE Sanitary Tubes For Biochemistry, Pharmaceutical, Food...etc.

3A STANDRD			BPE STANDRD			IDF STANDRD			SMS STANDRD			DIN EN10357 DIN11850/11865					ISO 1127 series 1			A size (JIS G3459) STANDARD			
SIZE	O.D.	T	SIZE	O.D.	T	SIZE	O.D.	T	SIZE	O.D.	T	SIZE	O.D.-D8	O.D.-D4	Q.D.(186g)	T	SIZE	O.D.	T	SIZE	O.D.	T	Q.D.(180g)
1/4"	6.35	1.245	1/4"	6.35	0.89	1.0 ^S	25.4	1.2	DN25	25	1.25/1.5	DN6	—	—	8	1	DN6	10.3	1/1.2/1.6	6A	10.5	1	1.2
3/8"	9.525	1.245	3/8"	9.53	0.89	1.25 ^S	31.8	1.2	DN38	38	1.25/1.5	DN8	—	—	10	1	DN8	13.5	1/1.2/1.6	8A	13.8	1.2	1.65
1/2"	12.7	1.65	1/2"	12.7	1.65	1.5 ^S	38.1	1.2	DN50	51	1.25/1.5	DN10	12	13	13	1.5	DN10	17.2	1/1.6	10A	17.3	1.2	1.65
3/4"	19.05	1.65	3/4"	19.05	1.65	2.0 ^S	50.8	1.5	DN63	63.5	1.5	DN15	18	19	19	1.5	DN15	21.3	1/1.6	15A	21.7	1.65	2.1
1.0"	25.4	1.65	1.0"	25.4	1.65	2.5 ^S	63.5	2	DN76	76.1	1.6/2	DN20	22	23	23	1.5	DN20	26.9	1/1.6	20A	27.2	1.65	2.1
1.5"	38.1	1.65	1.5"	38.1	1.65	3.0 ^S	76.3	2	DN100	101.6/104	2	DN25	28	29	29	1.5	DN25	33.7	1.2/1.6	25A	34	1.65	2.8
2.0"	50.8	1.65	2.0"	50.8	1.65	3.5 ^S	89.1	2				DN32	34	35	35	1.5	DN32	42.4	1.6/2	32A	42.7	1.65	2.8
2.5"	63.5	1.65	2.5"	63.5	1.65	4.0 ^S	101.6	2				DN40	40	41	41	1.5	DN40	48.3	1.6/2	40A	48.6	1.65	2.8
3.0"	76.2	1.65	3.0"	76.2	1.65	4.5 ^S	114.3	3				DN50	52	53	53	1.5	DN50	60.3	1.6/2	50A	60.5	1.65	2.8
4.0"	101.6	2.1	4.0"	101.6	2.11	5.5 ^S	139.8	3				DN65	70	70	70	2	DN65	76.1	1.6/2	65A	76.3	2.1	3
5.0"	127	2.77	6.0"	152.4	2.77	6.5 ^S	165.2	3				DN80	85	85	85	2	DN80	88.9	1.6/2	80A	89.1	2.1	3
6.0"	152.4	2.77										DN100	104	104	104	2	DN100	114.3	1.6/2	90A	101.6	2.1	3
8.0"	203.2	2.77										DN125	129	129	129	2	DN125	139.7	1.6/2	100A	114.3	2.1	3
10"	254	3.05										DN150	154	154	154	2	DN150	168.3	1.6/2	125A	139.8	2.8	3.4
12"	304.8	3.05										DN200	204	204	204	2	DN200	219.1	2/2.6	150A	165.2	2.8	3.4
												DN250	254			2	DN250	273	2/2.6	200A	216.3	2.8	4
												DN300	306			3	DN300	323.9	2.6/3.2	250A	267.4	3.4	4
																				300A	318.5	4	4.5

CSE Sanitary for food, and pharmaceutical industry

Material: ASTM 304, 304L, 316L

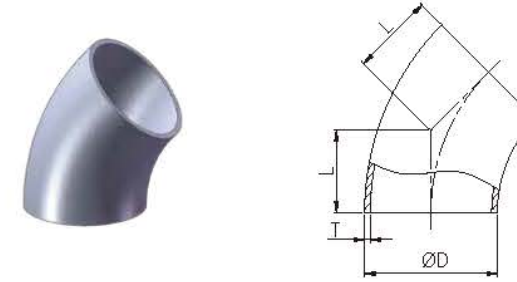
Spec: ASTM A269, A270.

Surface & Roughness:

1. OD/ID Pickle (Ra≤1.0μm)
2. Polished:
 - (1) ID Polished to 180Grit (Ra≤0.8μm).
 - (2) ID Polished to 240Grit (Ra≤0.6μm).
 - (3) ID Polished to 320Grit (Ra≤0.5μm).
 - (4) ID Polished to 420Grit (Ra≤0.4μm).
 - (5) Electro polished:
 - (5-1). ID Electro polished Ra≤0.5μm).
 - (5-2). ID Electro polished Ra≤0.38μm).



3A Tubular Items



2WK SHORT 45° ELBOW

SIZE	ØD	L	T
1/2"	12.7	7.9	1.65
3/4"	19.05	11.8	1.65
1"	25.4	15.8	1.65
1.5"	38.1	23.8	1.65
2"	50.8	31.75	1.65
2.5"	63.5	39.6	1.65
3"	76.2	47.6	1.65
4"	101.6	63.5	2.1
5"	127	78.91	2.77
6"	152.4	95.25	2.77
8.0"	203.2	126.25	3.05
10"	254	157.82	3.05
12"	304.8	189.38	3.05

L2KS LONG 45° ELBOW

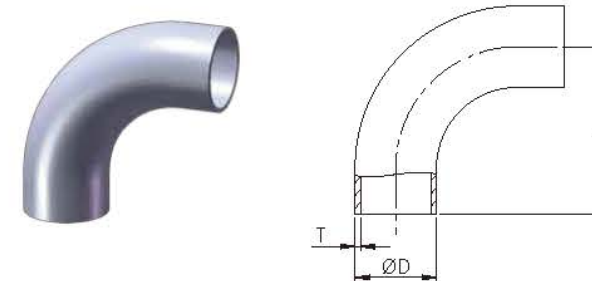
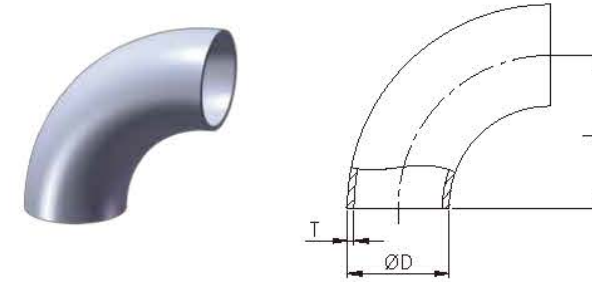
SIZE	ØD	L	T
1/2"	12.7	30.2	1.65
3/4"	19.05	30.2	1.65
1"	25.4	30.2	1.65
1.5"	38.1	41.3	1.65
2"	50.8	58.7	1.65
2.5"	63.5	76.2	1.65
3"	76.2	93.7	1.65
4"	101.6	122.2	2.1
5"	127	142.41	2.77
6"	152.4	158.19	2.77
8"	203.2	189.75	3.05
10"	254	234.02	3.05
12"	304.8	265.58	3.05

2WCL SHORT WELD 90° ELBOW

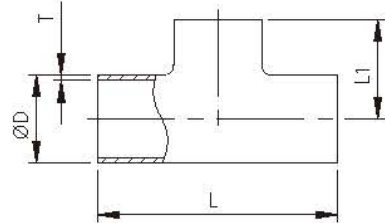
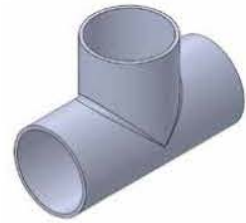
SIZE	ØD	L	T
1/2"	12.7	19.05	1.65
3/4"	19.05	28.58	1.65
1"	25.4	38.1	1.65
1.5"	38.1	57.2	1.65
2"	50.8	76.2	1.65
2.5"	63.5	95.25	1.65
3"	76.2	114.3	1.65
4"	101.6	152.4	2.1
5"	127	190.5	2.77
6"	152.4	228.6	2.77
8"	203.2	304.8	2.77
10"	254	381	3.05
12"	304.8	457.2	3.05

L2S LONG WELD 90° ELBOW

SIZE	ØD	L	T
1/2"	12.7	45	1.65
3/4"	19.05	60	1.65
1"	25.4	52.4	1.65
1.5"	38.1	74.6	1.65
2"	50.8	103.2	1.65
2.5"	63.5	131.8	1.65
3"	76.2	160.3	1.65
4"	101.6	211.1	2.1
5"	127	254	2.77
6"	152.4	292.1	2.77
8"	203.2	368.3	3.05
10"	254	457.2	3.05
12"	304.8	533.4	3.05



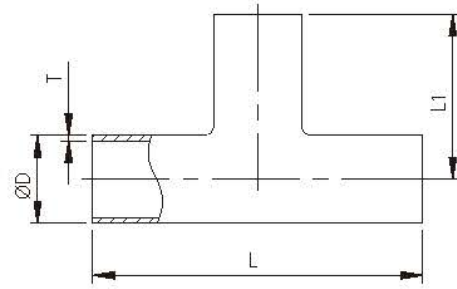
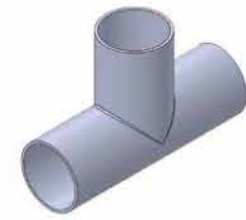
3A Tubular Items



7WWW SHORT EQUAL WELD TEE

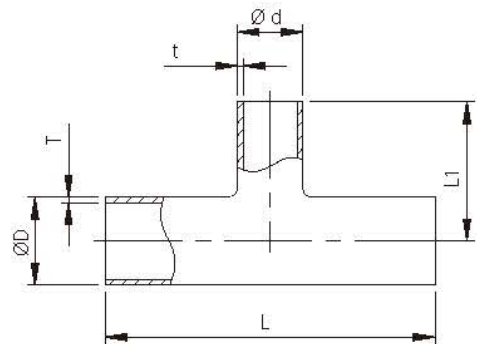
SIZE	ØD	L	L1	T
1/2"	12.7	38.1	19.05	1.65
3/4"	19.05	57.2	28.6	1.65
1.0"	25.4	57.2	28.6	1.65
1.5"	38.1	84.2	42.1	1.65
2.0"	50.8	104.8	52.4	1.65
2.5"	63.5	119	59.5	1.65
3.0"	76.2	131.8	65.9	1.65
4.0"	101.6	174.6	87.3	2.1
5.0"	127	254	127	2.77
6.0"	152.4	254	127	2.77
8.0"	203.2	355.6	177.8	3.05
10"	254	431.8	215.9	3.05
12"	304.8	508	254	3.05

7W LONG EQUAL WELD TEE



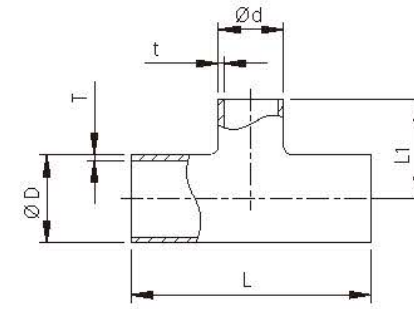
SIZE	ØD	L	L1	T
1/2"	12.7	95.2	47.6	1.65
3/4"	19.05	95.2	47.6	1.65
1.0"	25.4	95.2	47.6	1.65
1.5"	38.1	114.4	57.2	1.65
2.0"	50.8	152.4	76.2	1.65
2.5"	63.5	152.4	76.2	1.65
3.0"	76.2	165.2	82.6	1.65
4.0"	101.6	196.8	98.4	2.1
5.0"	127	285.8	142.9	2.77
6.0"	152.4	285.8	142.9	2.77
8.0"	203.2	355.6	177.8	3.05
10"	254	431.8	215.9	3.05
12"	304.8	508	254	3.05

7RW LONG REDUCING WELD TEE



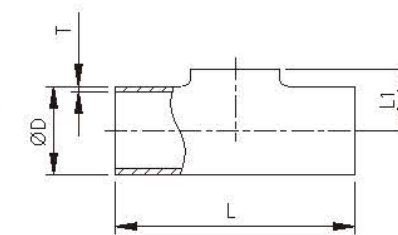
SIZE	ØD	Ød	L	L1	T	t
3/4"×1/2"	19.05	12.7	95.5	47.6	1.65	1.65
1.0"×1/2"	25.4	12.7	95.5	25.4	1.65	1.65
1.0"×3/4"	25.4	19.05	95.5	28.45	1.65	1.65
1.5"×1/2"	38.1	12.7	114.3	31.75	1.65	1.65
1.5"×3/4"	38.1	19.05	114.3	35.05	1.65	1.65
1.5"×1.0"	38.1	25.4	114.3	53.98	1.65	1.65
2.0"×1/2"	50.8	12.7	152.4	38.1	1.65	1.65
2.0"×3/4"	50.8	19.05	152.4	41.4	1.65	1.65
2.0"×1.0"	50.8	25.4	152.4	60.3	1.65	1.65
2.0"×1.5"	50.8	38.1	152.4	63.5	1.65	1.65
2.5"×1.0"	63.5	25.4	152.4	69.85	1.65	1.65
2.5"×1.5"	63.5	38.1	152.4	69.85	1.65	1.65
2.5"×2.0"	63.5	50.8	152.4	82.55	1.65	1.65
3.0"×1.0"	76.2	25.4	165.1	79.38	1.65	1.65
3.0"×1.5"	76.2	38.1	165.1	76.2	1.65	1.65
3.0"×2.0"	76.2	50.8	165.1	88.9	1.65	1.65
3.0"×2.5"	76.2	63.5	165.1	82.55	1.65	1.65
4.0"×1.0"	101.6	25.4	196.8	92.08	2.1	1.65
4.0"×1.5"	101.6	38.1	196.8	92.08	2.1	1.65
4.0"×2.0"	101.6	50.8	196.8	101.6	2.1	1.65
4.0"×2.5"	101.6	63.5	196.8	95.25	2.1	1.65
4.0"×3.0"	101.6	76.2	196.8	95.25	2.1	1.65
6.0"×2.0"	152.4	50.8	285.8	120.65	2.77	1.65
6.0"×2.5"	152.4	63.5	285.8	120.65	2.77	1.65
6.0"×3.0"	152.4	76.2	285.8	120.65	2.77	1.65
6.0"×4.0"	152.4	101.6	285.8	123.8	2.77	2.1

3A Tubular Items



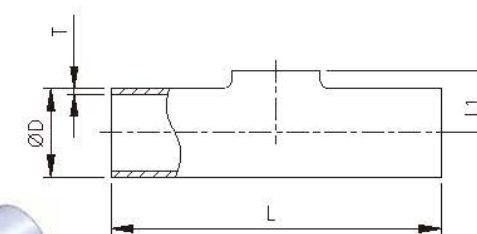
7RWS SHORT REDUCING WELD TEE

SIZE	ØD	Ød	L	L1	T	t
3/4"×1/2"	19.05	12.7	95.3	15.9	1.65	1.65
1.0"×1/2"	25.4	12.7	95.5	25.4	1.65	1.65
1.0"×3/4"	25.4	19.05	95.5	28.45	1.65	1.65
1.5"×1/2"	38.1	12.7	84.2	31.75	1.65	1.65
1.5"×3/4"	38.1	19.05	84.2	35.05	1.65	1.65
1.5"×1.0"	38.1	25.4	84.2	34.9	1.65	1.65
2.0"×1/2"	50.8	12.7	104.8	38.1	1.65	1.65
2.0"×3/4"	50.8	19.05	104.8	41.4	1.65	1.65
2.0"×1.0"	50.8	25.4	104.8	41.3	1.65	1.65
2.0"×1.5"	50.8	38.1	104.8	48.4	1.65	1.65
2.5"×1.0"	63.5	25.4	119	47.6	1.65	1.65
2.5"×1.5"	63.5	38.1	119	54.8	1.65	1.65
2.5"×2.0"	63.5	50.8	119	58.7	1.65	1.65
3.0"×1.0"	76.2	25.4	131.8	54	1.65	1.65
3.0"×1.5"	76.2	38.1	131.8	61.1	1.65	1.65
3.0"×2.0"	76.2	50.8	131.8	65.1	1.65	1.65
3.0"×2.5"	76.2	63.5	131.8	65.9	1.65	1.65
4.0"×1.0"	101.6	25.4	174.6	66.7	2.1	1.65
4.0"×1.5"	101.6	38.1	174.6	73.8	2.1	1.65
4.0"×2.0"	101.6	50.8	174.6	77.8	2.1	1.65
4.0"×2.5"	101.6	63.5	174.6	78.6	2.1	1.65
4.0"×3.0"	101.6	76.2	174.6	80.2	2.1	1.65
6.0"×1.0"	152.4	25.4	254	111	2.77	1.65
6.0"×1.5"	152.4	38.1	254	114.3	2.77	1.65
6.0"×2.0"	152.4	50.8	254	117.5	2.77	1.65
6.0"×2.5"	152.4	63.5	254	120.7	2.77	1.65
6.0"×3.0"	152.4	76.2	254	123.8	2.77	1.65
6.0"×4.0"	152.4	101.6	254	130.2	2.77	2.1



7WWO SHORT EQUAL PULL WITHOUT STRAIGHT WELD TEE

SIZE	ØD	L	L1	T
1.0"	25.4	57.2	16	1.65
1.5"	38.1	84.2	22	1.65
2.0"	50.8	104.8	29	1.65
2.5"	63.5	119	35	1.65
3.0"	76.2	131.8	41	1.65
4.0"	101.6	174.6	54	2.1

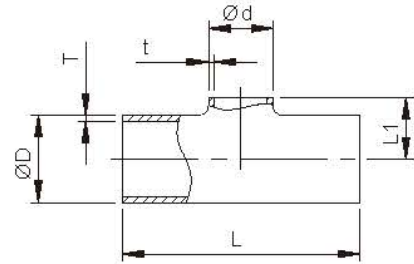


7WO LONG EQUAL PULL WITHOUT STRAIGHT WELD TEE

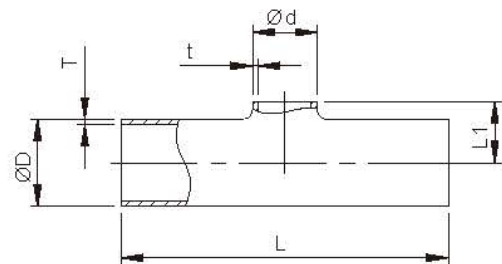
SIZE	ØD	L	L1	T
1/2"	12.7	95.2	9.35	1.65
3/4"	19.05	95.2	12.525	1.65
1.0"	25.4	95.2	16	1.65
1.5"	38.1	114.4	22	1.65
2.0"	50.8	152.4	29	1.65
2.5"	63.5	152.4	35	1.65
3.0"	76.2	165.2	41	1.65
4.0"	101.6	196.8	54	2.1

3A Tubular Items

7RWWO SHORT REDUCING PULL WITHOUT STRAIGHT WELD TEE



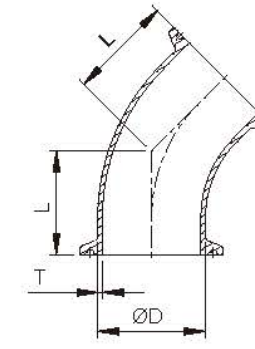
SIZE	ØD	Ød	L	L1	T	t
3/4"×1/2"	19.05	12.7	57.2	12.525	1.65	1.65
1.0"×1/2"	25.4	12.7	57.2	16	1.65	1.65
1.0"×3/4"	25.4	19.05	57.2	16	1.65	1.65
1.5"×1/2"	38.1	12.7	84.2	22	1.65	1.65
1.5"×3/4"	38.1	19.05	84.2	22	1.65	1.65
1.5"×1.0"	38.1	25.4	84.2	22	1.65	1.65
2.0"×1/2"	50.8	12.7	104.8	29	1.65	1.65
2.0"×3/4"	50.8	19.05	104.8	29	1.65	1.65
2.0"×1.0"	50.8	25.4	104.8	29	1.65	1.65
2.0"×1.5"	50.8	38.1	104.8	29	1.65	1.65
2.5"×1.0"	63.5	25.4	119	35	1.65	1.65
2.5"×1.5"	63.5	38.1	119	35	1.65	1.65
2.5"×2.0"	63.5	50.8	119	35	1.65	1.65
3.0"×1.0"	76.2	25.4	131.8	41	1.65	1.65
3.0"×1.5"	76.2	38.1	131.8	41	1.65	1.65
3.0"×2.0"	76.2	50.8	131.8	41	1.65	1.65
3.0"×2.5"	76.2	63.5	131.8	41	1.65	1.65
4.0"×1.0"	101.6	25.4	235	54	2.1	1.65
4.0"×1.5"	101.6	38.1	235	54	2.1	1.65
4.0"×2.0"	101.6	50.8	235	54	2.1	1.65
4.0"×2.5"	101.6	63.5	235	54	2.1	1.65
4.0"×3.0"	101.6	76.2	235	54	2.1	1.65



7RWWO LONG REDUCING PULL WITHOUT STRAIGHT WELD TEE

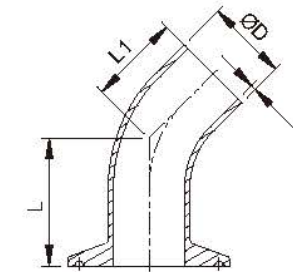
SIZE	ØD	Ød	L	L1	T	t
3/4"×1/2"	19.05	12.7	95.5	12.525	1.65	1.65
1.0"×1/2"	25.4	12.7	95.5	16	1.65	1.65
1.0"×3/4"	25.4	19.05	95.5	16	1.65	1.65
1.5"×1/2"	38.1	12.7	114.3	22	1.65	1.65
1.5"×3/4"	38.1	19.05	114.3	22	1.65	1.65
1.5"×1.0"	38.1	25.4	114.3	22	1.65	1.65
2.0"×1/2"	50.8	12.7	152.4	29	1.65	1.65
2.0"×3/4"	50.8	19.05	152.4	29	1.65	1.65
2.0"×1.0"	50.8	25.4	152.4	29	1.65	1.65
2.0"×1.5"	50.8	38.1	152.4	29	1.65	1.65
2.5"×1.0"	63.5	25.4	152.4	35	1.65	1.65
2.5"×1.5"	63.5	38.1	152.4	35	1.65	1.65
2.5"×2.0"	63.5	50.8	152.4	35	1.65	1.65
3.0"×1.0"	76.2	25.4	165.1	41	1.65	1.65
3.0"×1.5"	76.2	38.1	165.1	41	1.65	1.65
3.0"×2.0"	76.2	50.8	165.1	41	1.65	1.65
3.0"×2.5"	76.2	63.5	165.1	41	1.65	1.65
4.0"×1.0"	101.6	25.4	196.8	54	2.1	1.65
4.0"×1.5"	101.6	38.1	196.8	54	2.1	1.65
4.0"×2.0"	101.6	50.8	196.8	54	2.1	1.65
4.0"×2.5"	101.6	63.5	196.8	54	2.1	1.65
4.0"×3.0"	101.6	76.2	196.8	54	2.1	1.65

3A Tubular Items



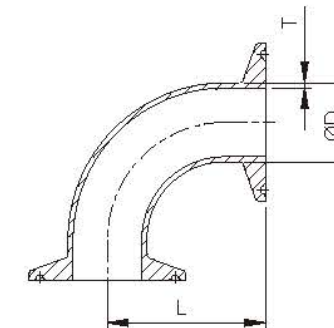
2KMP TRI-CLAMP 45° ELBOW

SIZE	ØD	L	T
1/2"	12.7	19.8	1.65
3/4"	19.05	24.6	1.65
1.0"	25.4	28.5	1.65
1.5"	38.1	36.5	1.65
2.0"	50.8	44.45	1.65
2.5"	63.5	52.3	1.65
3.0"	76.2	60.3	1.65
4.0"	101.6	76.2	2.1
5.0"	127	94.71	2.77
6.0"	152.4	117.5	2.77
8.0"	203.2	147.75	3.05
10"	254	179.32	3.05
12"	304.8	210.88	3.05



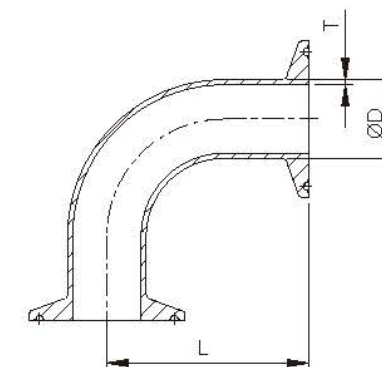
L2KM WELD/CLAMP 45° ELBOW

SIZE	ØD	L	L1	T
1.0"	25.4	42.9	30.2	1.65
1.5"	38.1	54	41.3	1.65
2.0"	50.8	71.4	58.7	1.65
2.5"	63.5	88.9	76.2	1.65
3.0"	76.2	106.4	93.7	1.65
4.0"	101.6	138	122.2	2.1



2CMP TRI-CLAMP 90° SHORT ELBOW

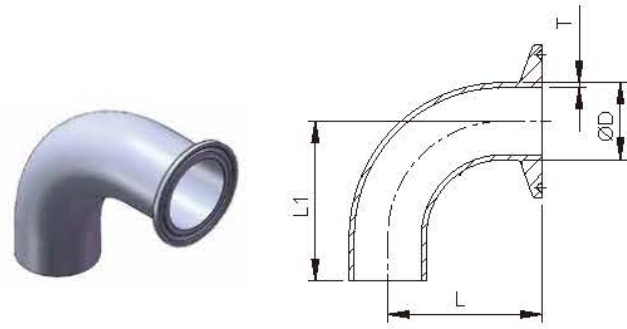
SIZE	ØD	L	T
1/2"	12.7	41.3	1.65
3/4"	19.05	41.3	1.65
1.0"	25.4	50.8	1.65
1.5"	38.1	69.9	1.65
2.0"	50.8	88.9	1.65
2.5"	63.5	107.95	1.65
3.0"	76.2	127	1.65
4.0"	101.6	168.2	2.1
5.0"	127	206.3	2.77
6.0"	152.4	250.8	2.77
8.0"	203.2	326.3	3.05
10"	254	402.5	3.05
12"	304.8	478.7	3.05



TRI-CLAMP 90° LONG ELBOW

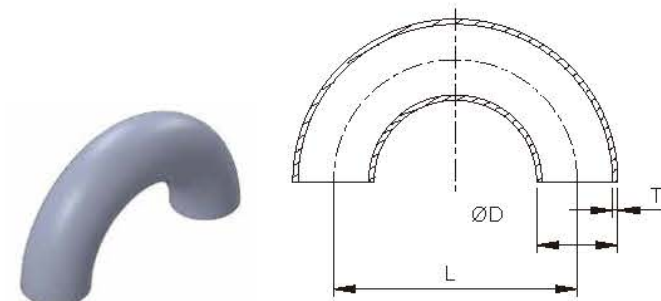
SIZE	ØD	L	T
1/2"	12.7	57.7	1.65
3/4"	19.05	72.7	1.65
1.0"	25.4	65.1	1.65
1.5"	38.1	87.3	1.65
2.0"	50.8	115.9	1.65
2.5"	63.5	144.5	1.65
3.0"	76.2	173	1.65
4.0"	101.6	226.9	2.1
5.0"	127	269.8	2.77
6.0"	152.4	313.6	2.77
8.0"	203.2	389.8	3.05
10"	254	478.7	3.05
12"	304.8	554.9	3.05

3A Tubular Items



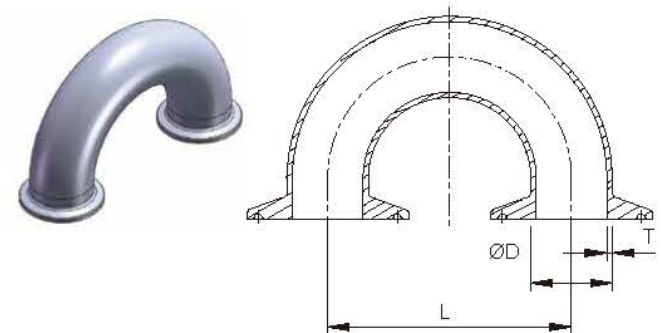
L2CM WELD/CLAMP 90° ELBOW

SIZE	ØD	L	L1	T
1.0"	25.4	65.1	52.4	1.65
1.5"	38.1	87.3	74.6	1.65
2.0"	50.8	115.9	103.2	1.65
2.5"	63.5	144.5	131.8	1.65
3.0"	76.2	173	160.3	1.65
4.0"	101.6	227	211.2	2.1



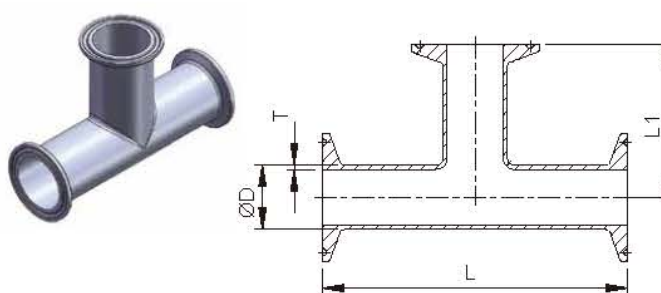
180° WELD ELBOW

SIZE	ØD	L	T
1/2"	12.7	38.1	1.65
3/4"	19.05	57.16	1.65
1.0"	25.4	76.2	1.65
1.5"	38.1	114.4	1.65
2.0"	50.8	152.4	1.65
2.5"	63.5	190.5	1.65
3.0"	76.2	228.6	1.65
4.0"	101.6	304.8	2.1
6.0"	152.4	457.2	2.77
8.0"	203.2	609.6	3.05
10"	254	762	3.05
12"	304.8	914.4	3.05



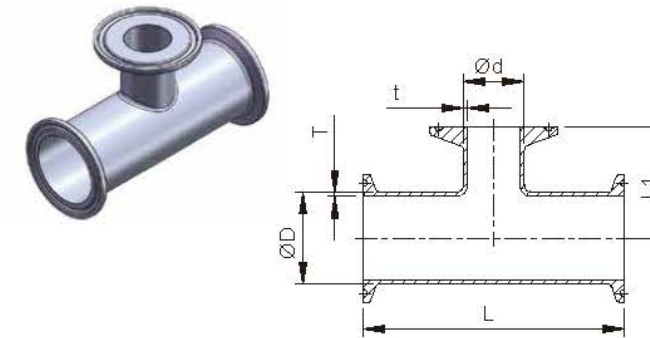
180° CLAMP ELBOW

SIZE	ØD	L	T
3/4"	19.05	57.16	1.65
1.0"	25.4	76.2	1.65
1.5"	38.1	114.4	1.65
2.0"	50.8	152.4	1.65
2.5"	63.5	190.5	1.65
3.0"	76.2	228.6	1.65
4.0"	101.6	304.8	2.1
6.0"	152.4	457.2	2.77
8.0"	203.2	609.6	3.05
10"	254	762	3.05
12"	304.8	914.4	3.05



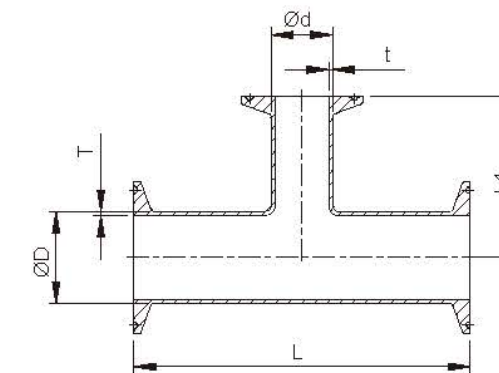
7MP TRI-CLAMP EQUAL TEE

SIZE	ØD	L	L1	T
1/2"	12.7	120.6	60.3	1.65
3/4"	19.05	120.6	60.3	1.65
1.0"	25.4	120.6	60.3	1.65
1.5"	38.1	139.8	69.9	1.65
2.0"	50.8	177.8	88.9	1.65
2.5"	63.5	177.8	88.9	1.65
3.0"	76.2	190.6	95.3	1.65
4.0"	101.6	228.4	114.2	2.1
5.0"	127	317.4	158.7	2.77
6.0"	152.4	330.2	165.1	2.77
8.0"	203.2	398.6	199.3	3.05
10"	254	474.8	237.4	3.05
12"	304.8	551	275.5	3.05



7RMP TRI-CLAMP REDUCING SHORT TEE

SIZE	ØD	Ød	L	L1	T	t
1.5"×1.0"	38.1	25.4	109.6	47.6	1.65	1.65
2.0"×1.5"	50.8	38.1	130.2	61.1	1.65	1.65
2.5"×2.0"	63.5	50.8	144.4	71.4	1.65	1.65
3.0"×2.0"	76.2	50.8	157.2	77.8	1.65	1.65
3.0"×2.5"	76.2	63.5	157.2	78.6	1.65	1.65
4.0"×2.0"	101.6	50.8	206.2	120.7	2.1	1.65
4.0"×2.5"	101.6	63.5	206.2	120.7	2.1	1.65
4.0"×3.0"	101.6	76.2	206.2	120.7	2.1	1.65



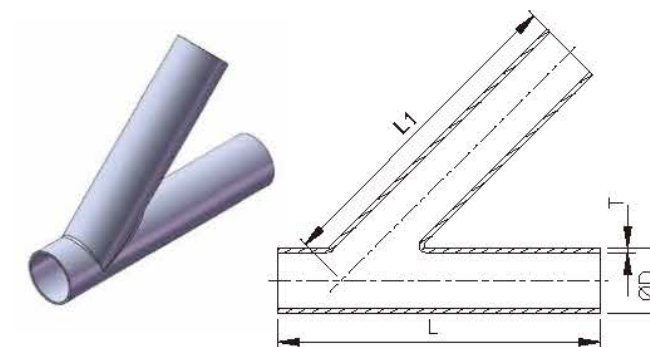
TRI-CLAMP REDUCING LONG TEE

SIZE	ØD	Ød	L	L1	T	t
3/4"×1/2"	19.05	12.7	120.9	60.3	1.65	1.65
1.0"×1/2"	25.4	12.7	120.9	38.1	1.65	1.65
1.0"×3/4"	25.4	19.05	120.9	41.15	1.65	1.65
1.5"×1/2"	38.1	12.7	139.7	44.45	1.65	1.65
1.5"×3/4"	38.1	19.05	139.7	47.75	1.65	1.65
1.5"×1.0"	38.1	25.4	139.7	66.68	1.65	1.65
2.0"×1/2"	50.8	12.7	177.8	50.8	1.65	1.65
2.0"×3/4"	50.8	19.05	177.8	54.1	1.65	1.65
2.0"×1.0"	50.8	25.4	177.8	73	1.65	1.65
2.0"×1.5"	50.8	38.1	177.8	76.2	1.65	1.65
2.5"×1.0"	63.5	25.4	177.8	82.55	1.65	1.65
2.5"×1.5"	63.5	38.1	177.8	82.55	1.65	1.65
2.5"×2.0"	63.5	50.8	177.8	95.25	1.65	1.65
3.0"×1.0"	76.2	25.4	190.5	92.08	1.65	1.65
3.0"×1.5"	76.2	38.1	190.5	88.9	1.65	1.65
3.0"×2.0"	76.2	50.8	190.5	101.6	1.65	1.65
3.0"×2.5"	76.2	63.5	190.5	95.25	1.65	1.65
4.0"×1.0"	101.6	25.4	228.4	104.78	2.1	1.65
4.0"×1.5"	101.6	38.1	228.4	104.78	2.1	1.65
4.0"×2.0"	101.6	50.8	228.4	114.3	2.1	1.65
4.0"×2.5"	101.6	63.5	228.4	107.95	2.1	1.65
4.0"×3.0"	101.6	76.2	228.4	107.95	2.1	1.65
6.0"×2.0"	152.4	50.8	328.8	133.35	2.77	1.65
6.0"×2.5"	152.4	63.5	328.8	133.35	2.77	1.65
6.0"×3.0"	152.4	76.2	328.8	133.35	2.77	1.65
6.0"×4.0"	152.4	101.6	328.8	139.6	2.77	2.1

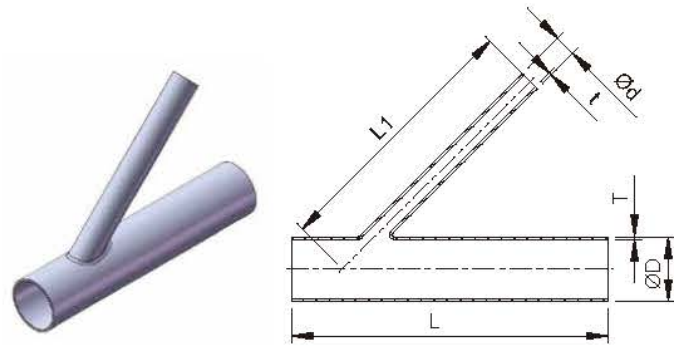


28WA 45° WELD EQUAL LATERALS

SIZE	ØD	L	L1	T
1/2"	12.7	152.4	127	1.65
3/4"	19.05	152.4	127	1.65
1.0"	25.4	152.4	127	1.65
1.5"	38.1	187.3	157.1	1.65
2.0"	50.8	222.3	181	1.65
2.5"	63.5	254	215.9	1.65
3.0"	76.2	273	225.4	1.65
4.0"	101.6	324	271.5	2.1
6.0"	152.4	470	374.7	2.77

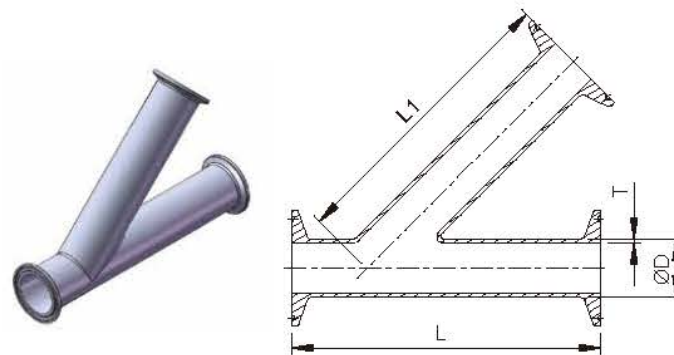


3A Tubular Items



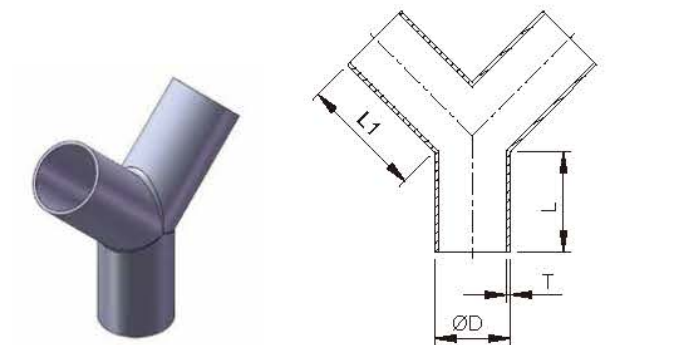
45° WELD REDUCING LATERALS

SIZE	ØD	Ød	L	L1	T	t
1.5"×1/2"	38.1	12.7	187.3	157.1	1.65	1.65
1.5"×1.0"	38.1	25.4	187.3	157.1	1.65	1.65
2.0"×1/2"	50.8	12.7	222.3	181	1.65	1.65
2.0"×3/4"	50.8	19.05	222.3	181	1.65	1.65
2.0"×1.0"	50.8	25.4	222.3	181	1.65	1.65
2.0"×1.5"	50.8	38.1	222.3	181	1.65	1.65



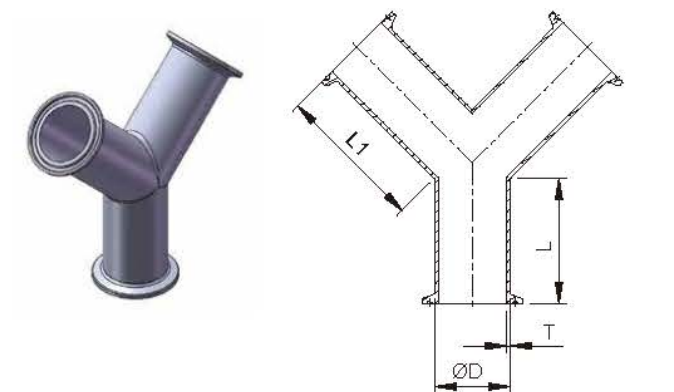
28AMP 45° CLAMP EQUAL LATERALS

SIZE	ØD	L	L1	T
1/2"	12.7	177.8	139.7	1.65
3/4"	19.05	177.8	139.7	1.65
1.0"	25.4	177.8	139.7	1.65
1.5"	38.1	212.7	169.8	1.65
2.0"	50.8	247.7	193.7	1.65
2.5"	63.5	279.4	228.6	1.65
3.0"	76.2	298.4	238.1	1.65
4.0"	101.6	355.6	287.3	2.1
6.0"	152.4	501.7	390.5	2.77



28W 90° Y TRUE WELD END

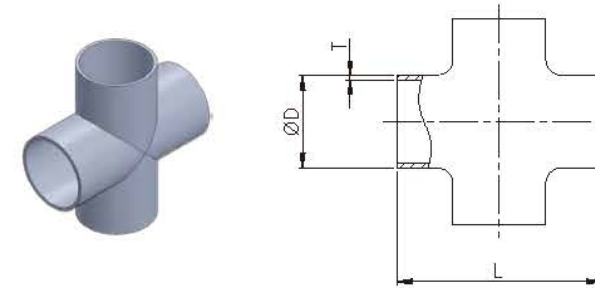
SIZE	ØD	L	L1	T
1/2"	12.7	48.17	48.17	1.65
3/4"	19.05	46.85	46.85	1.65
1.0"	25.4	50.8	61.9	1.65
1.5"	38.1	50.8	61.9	1.65
2.0"	50.8	66.7	82.6	1.65
2.5"	63.5	85.6	104.8	1.65
3.0"	76.2	101.6	123.8	1.65
4.0"	101.6	136.6	136.6	2.1
6.0"	152.4	171.64	171.46	2.77



28BMP 90° Y TRUE CLAMP END

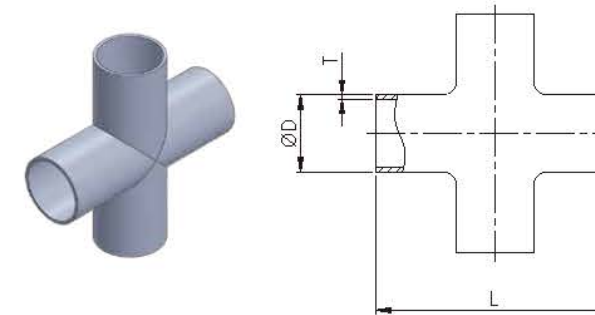
SIZE	ØD	L	L1	T
1/2"	12.7	60.87	60.87	1.65
3/4"	19.05	59.55	59.55	1.65
1.0"	25.4	63.5	74.6	1.65
1.5"	38.1	63.5	74.6	1.65
2.0"	50.8	79.4	95.3	1.65
2.5"	63.5	98.3	117.5	1.65
3.0"	76.2	114.3	136.5	1.65
4.0"	101.6	152.4	152.4	2.1
6.0"	152.4	193.14	193.14	2.77

3A Tubular Items



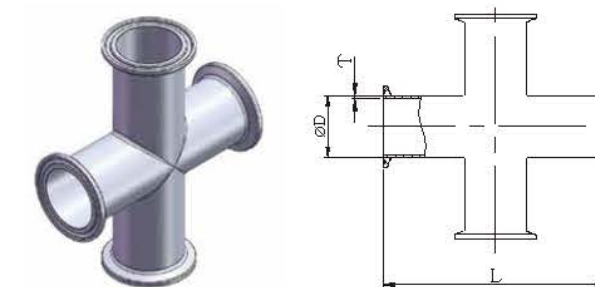
9WWW SHORT EQUAL WELD CROSS

SIZE	ØD	L	T
1/2"	12.7	38.1	1.65
3/4"	19.05	57.2	1.65
1"	25.4	57.2	1.65
1.5"	38.1	84.2	1.65
2"	50.8	104.8	1.65
2.5"	63.5	119	1.65
3"	76.2	131.8	1.65
4"	101.6	174.6	2.1



9W LONG EQUAL WELD CROSS

SIZE	ØD	L	T
1/2"	12.7	95.2	1.65
3/4"	19.05	95.2	1.65
1"	25.4	95.2	1.65
1.5"	38.1	114.4	1.65
2"	50.8	152.4	1.65
2.5"	63.5	152.4	1.65
3"	76.2	165.2	1.65
4"	101.6	196.8	2.1

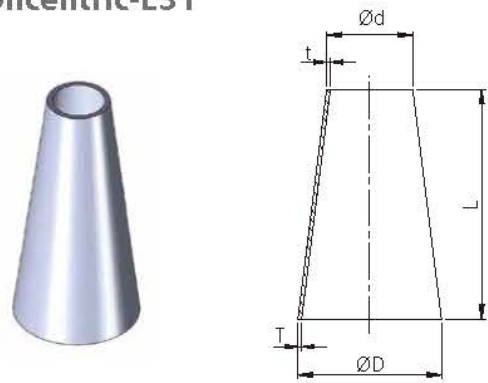


9MP CLAMP LONG CROSS

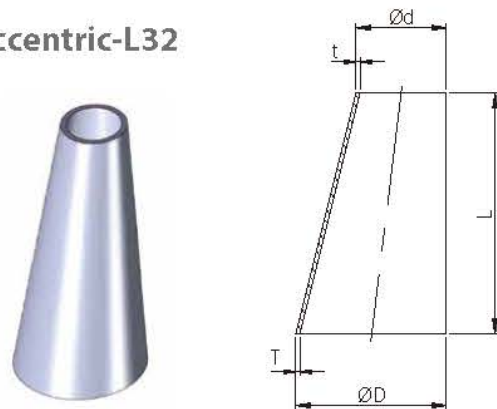
SIZE	ØD	L	T
1"	25.4	120.6	1.65
1.5"	38.1	139.8	1.65
2"	50.8	177.8	1.65
2.5"	63.5	177.8	1.65
3"	76.2	190.6	1.65
4"	101.6	228.4	2.1

3A Tubular Items

Concentric-L31



Eccentric-L32



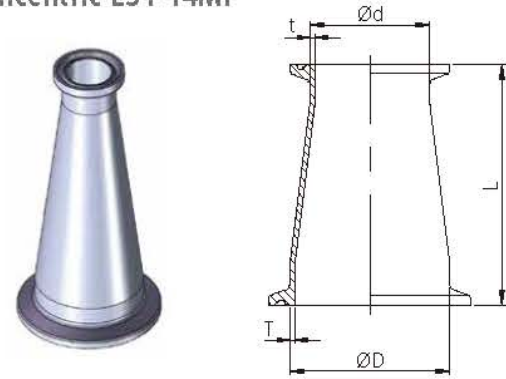
WELD REDUCERS

SIZE	ØD	Ød	L	T	t
3/4"×1/2"	19.05	12.7	25.4	1.65	1.65
1"×1/2"	25.4	12.7	50.8	1.65	1.65
1"×3/4"	25.4	19.05	25.4	1.65	1.65
1.5"×1/2"	38.1	12.7	101.6	1.65	1.65
1.5"×3/4"	38.1	19.05	76.2	1.65	1.65
1.5"×1"	38.1	25.4	50.8	1.65	1.65
2"×1/2"	50.8	12.7	152.4	1.65	1.65
2"×3/4"	50.8	19.05	127	1.65	1.65
2"×1"	50.8	25.4	101.6	1.65	1.65
2"×1.5"	50.8	38.1	50.8	1.65	1.65
2.5"×1"	63.5	25.4	152.4	1.65	1.65
2.5"×1.5"	63.5	38.1	101.6	1.65	1.65
2.5"×2"	63.5	50.8	50.8	1.65	1.65
3"×1"	76.2	25.4	203.2	1.65	1.65
3"×1.5"	76.2	38.1	152.4	1.65	1.65
3"×2"	76.2	50.8	101.6	1.65	1.65
3"×2.5"	76.2	63.5	50.8	1.65	1.65
4"×1"	101.6	25.4	304.8	2.1	1.65
4"×1.5"	101.6	38.1	254	2.1	1.65
4"×2"	101.6	50.8	203.2	2.1	1.65
4"×2.5"	101.6	63.5	152.4	2.1	1.65
4"×3"	101.6	76.2	101.6	2.1	1.65
6"×2"	152.4	50.8	139.7	2.77	1.65
6"×2.5"	152.4	63.5	139.7	2.77	1.65
6"×3"	152.4	76.2	139.7	2.77	1.65
6"×4"	152.4	101.6	139.7	2.77	2.1

TRI-CLAMP REDUCERS

SIZE	ØD	Ød	L	T	t
3/4"×1/2"	19.05	12.7	50.8	1.65	1.65
1"×1/2"	25.4	12.7	76.2	1.65	1.65
1"×3/4"	25.4	19.05	50.8	1.65	1.65
1.5"×1/2"	38.1	12.7	127	1.65	1.65
1.5"×3/4"	38.1	19.05	101.6	1.65	1.65
1.5"×1"	38.1	25.4	76.2	1.65	1.65
2"×1/2"	50.8	12.7	177.8	1.65	1.65
2"×3/4"	50.8	19.05	152.4	1.65	1.65
2"×1"	50.8	25.4	127	1.65	1.65
2.5"×1"	63.5	25.4	177.8	1.65	1.65
2.5"×1.5"	63.5	38.1	76.2	1.65	1.65
2.5"×2"	63.5	50.8	76.2	1.65	1.65
3"×1"	76.2	25.4	228.6	1.65	1.65
3"×1.5"	76.2	38.1	177.8	1.65	1.65
3"×2"	76.2	50.8	127	1.65	1.65
3"×2.5"	76.2	63.5	76.2	1.65	1.65
4"×1.0"	101.6	25.4	333.3	2.1	1.65
4"×1.5"	101.6	38.1	282.5	2.1	1.65
4"×2"	101.6	50.8	231.7	2.1	1.65
4"×2.5"	101.6	63.5	180.9	2.1	1.65
4"×3"	101.6	76.2	130.1	2.1	1.65
6"×2"	152.4	50.8	173.9	2.77	1.65
6"×2.5"	152.4	63.5	173.9	2.77	1.65
6"×3"	152.4	76.2	173.9	2.77	1.65
6"×4"	152.4	101.6	177	2.77	2.1

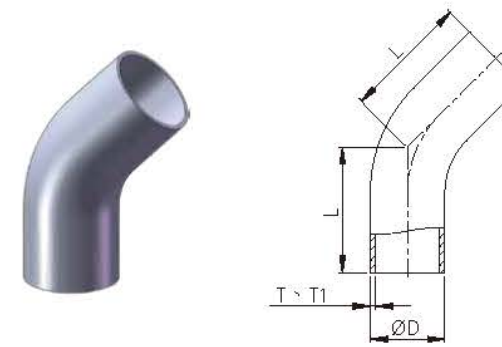
Concentric-L31-14MP



Eccentric-L32-14MP

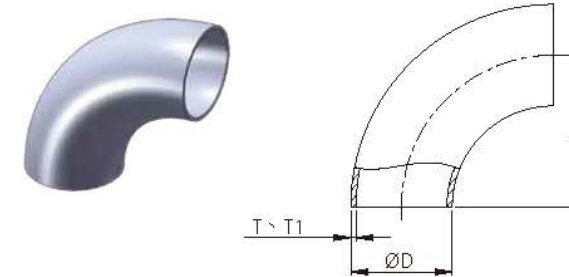


SMS Tubular Items



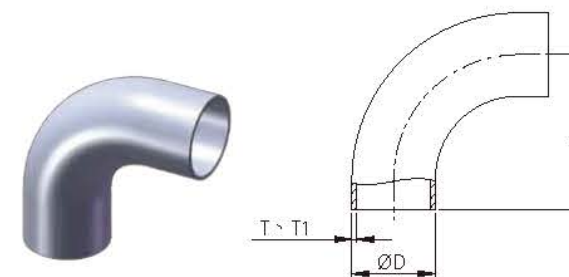
L2KS1D
LONG 45° ELBOW

SIZE	ØD	L	T	T1
DN25	25	42.33	1.25	1.5
DN38	38	48.72	1.25	1.5
DN50	51	58.15	1.25	1.5
DN63	63.5	75.3	1.5	1.5
DN76	76.1	79.37	1.6	2
DN100	101.6/104	85.54	2	2



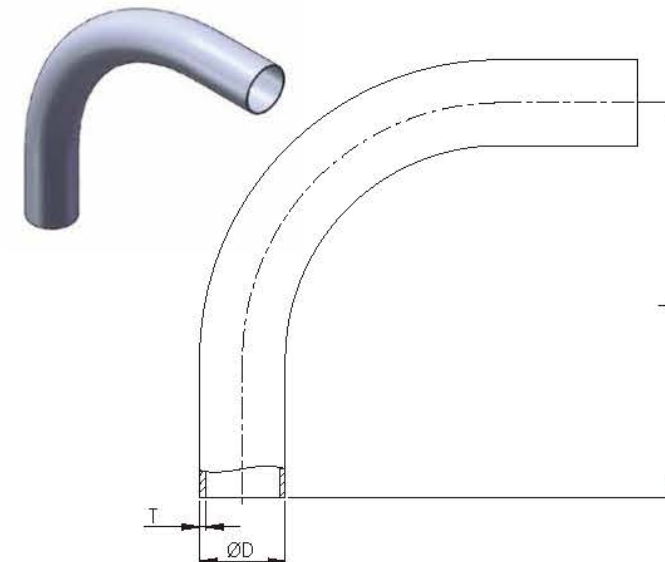
2WCL
SHORT 90° ELBOW

SIZE	ØD	L	T	T1
DN25	25	37.5	1.25	1.5
DN38	38	57	1.25	1.5
DN50	51	76.5	1.25	1.5
DN63	63.5	95.25	1.5	1.5
DN76	76.1	114.15	1.6	2
DN100	101.6/104	152.1	2	2



L2S1D
LONG 90° ELBOW

SIZE	ØD	L	T	T1
DN25	25	55	1.25	1.5
DN38	38	70	1.25	1.5
DN50	51	82	1.25	1.5
DN63	63.5	105	1.5	1.5
DN76	76.1	110	1.6	2
DN100	101.6/104	150	2	2

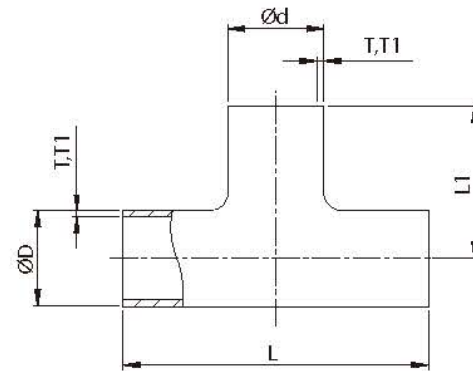
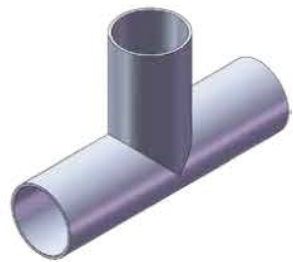


LONG 90° ELBOW (3D)

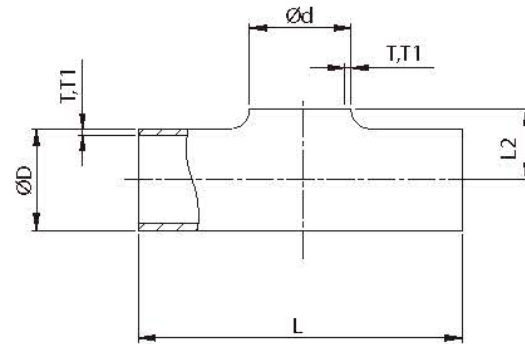
SIZE	ØD	L	T
DN25	25	115	1.2
DN38	38	138	1.2
DN40	40	170	1.5
DN50	51	180	1.2
DN63	63.5	230	1.5
DN76	76.1	250	1.6

SMS Tubular Items

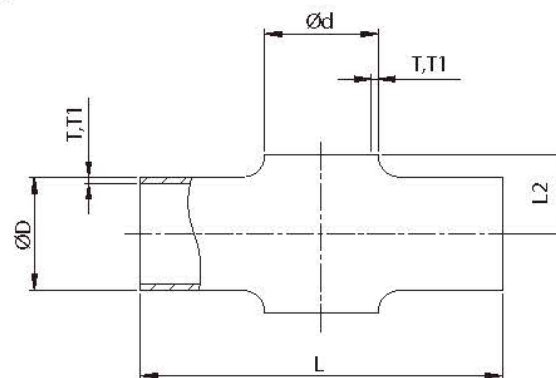
SMS 7W
Tee With Stright-End



SMS 7WO
TEE Without Straight-End



SMS 9WO
Welding Cross Without Straight-End

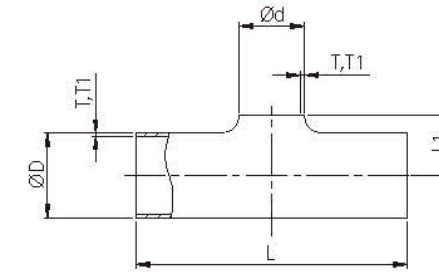


SIZE	ØD	Ød	L	L1	L2	T	T1
DN25	25	25	110	55	14	1.25	1.5
DN38	38	38	140	70	21	1.25	1.5
DN50	51	51	164	82	28.5	1.25	1.5
DN63	63.5	63.5	210	105	36	1.5	1.5
DN76	76.1	76.1	220	110	43	1.6	2
DN100	104	104	300	150	58	2	2

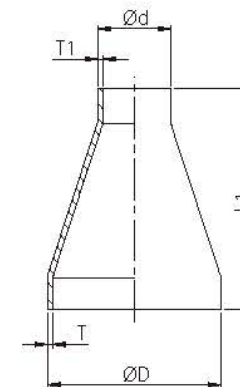
SMS Tubular Items

7RW0
WELDING REDUCING TEE WITHOUT STRAIGHT-END

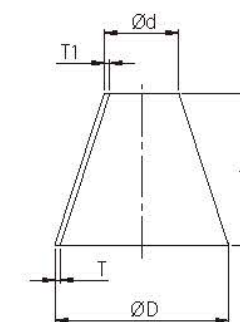
SIZE	ØD	Ød	L	L1	T	T1
38*25	38	25	140	21	1.25	1.5
50*25	51	25	164	29	1.25	1.5
50*38	51	38	164	29	1.25	1.5
63*25	63.5	25	210	34.5	1.5	1.5
63*38	63.5	38	210	35	1.5	1.5
63*50	63.5	51	210	36	1.5	1.5
76*25	76.1	25	220	41	1.6	2
76*38	76.1	38	220	42	1.6	2
76*50	76.1	51	220	43	1.6	2
76*63	76.1	63.5	220	43	1.6	2
100*25	104	25	300	56	2	2
100*38	104	38	300	56	2	2
100*50	104	51	300	57	2	2
100*63	104	63.5	300	58	2	2
100*76	104	76.1	300	58	2	2



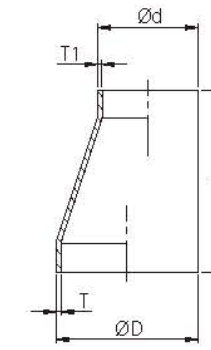
SMS L31SE
Concentric Reducer



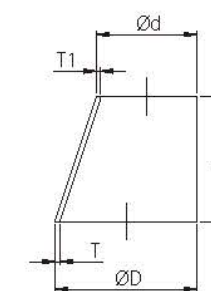
SMS L31
Concentric Reducer



SMS L32SE
Eccentric Reducer



SMS L32
Eccentric Reducer



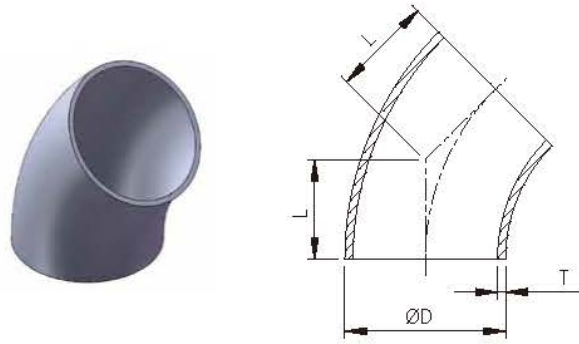
WELD REDUCER

SIZE	ØD	Ød	L	L1	T	T1
38*25	38	25	39	46	1.25	1.25
50*25	51	25	57	68	1.25	1.25
50*38	51	38	39	47	1.25	1.25
63*25	63.5	25	74	92	1.5	1.25
63*38	63.5	38	57	70	1.5	1.25
63*50	63.5	51	39	44	1.5	1.25
76*25	76.1	25	92	—	1.6	1.25
76*38	76.1	38	74	92	1.6	1.25
76*50	76.1	51	57	68	1.6	1.25
76*63	76.1	63.5	39	47	1.6	1.5
100*50	104	51	95	117	2	1.25
100*63	104	63.5	78	94	2	1.5
100*76	104	76.1	60	74	2	1.6

W/O STRAIGHT END REDUCER

SIZE	ØD	Ød	L1	T	T1
38*25	38	25	39	1.2	1.2
50*25	51	25	78	1.2	1.2
50*38	51	38	39	1.2	1.2
63*25	63.5	25	116	1.6	1.2
63*38	63.5	38	76	1.6	1.2
63*50	63.5	51	38	1.6	1.2
76*25	76.1	25	153	1.6	1.2
76*38	76.1	38	114	1.6	1.2
76*50	76.1	51	75	1.6	1.2
76*63	76.1	63.5	38	1.6	1.2
100*38	104	38	198	2	1.2
100*50	104	51	159	2	1.2
100*63	104	63.5	122	2	1.2
100*76	104	76.1	84	2	1.6

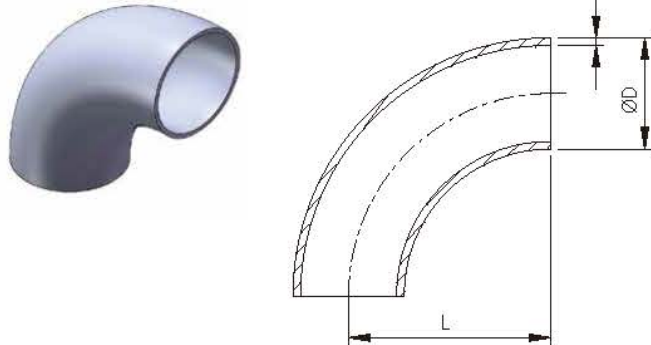
DIN Tubular Items



2WK SHORT 45° ELBOW

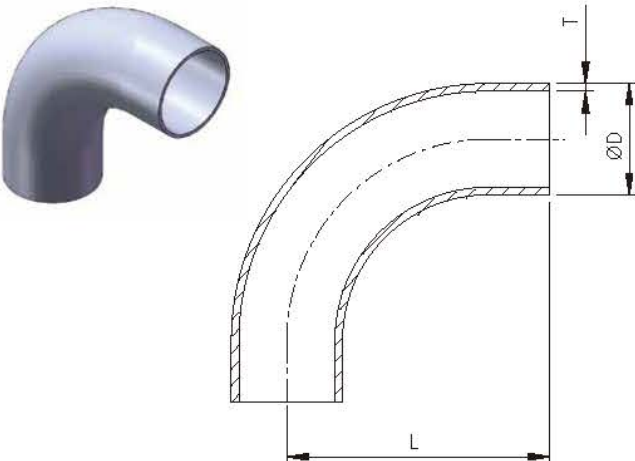
SIZE	ØD	L	T
DN10	12/13	10.77	1.5
DN15	18/19	14.5	1.5
DN20	22/23	16.6	1.5
DN25	28/29	20.7	1.5
DN32	34/35	22.8	1.5
DN40	40/41	24.9	1.5
DN50	52/53	29	1.5
DN65	70	33.1	2
DN80	85	37.3	2
DN100	104	41.4	2
DN125	129	77.67	2
DN150	154	93.2	2
DN200	204	124.26	2
DN250	254	155.33	2
DN300	306	186.4	3

2WCL SHORT 90° ELBOW



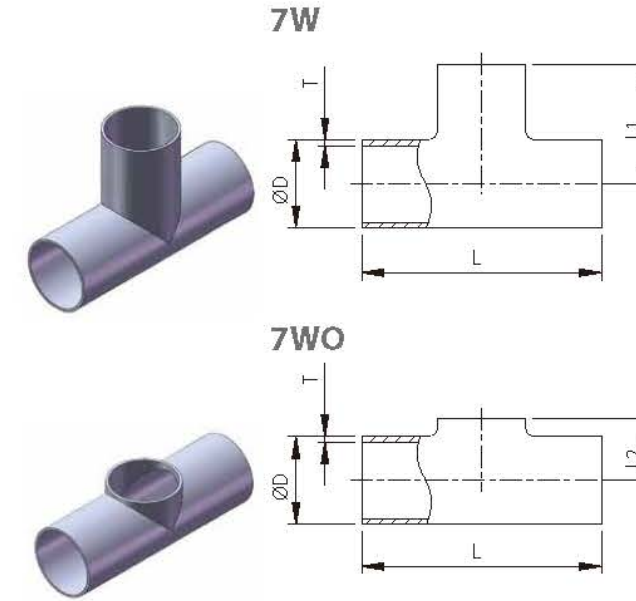
SIZE	ØD	L	T
DN10	12/13	26	1.5
DN15	18/19	35	1.5
DN20	22/23	40	1.5
DN25	28/29	50	1.5
DN32	34/35	55	1.5
DN40	40/41	60	1.5
DN50	52/53	70	1.5
DN65	70	80	2
DN80	85	90	2
DN100	101.6	152.4	2
DN125	129	187.5	2
DN150	154	225	2
DN200	204	300	2
DN250	254	375	2
DN300	306	450	3

L2S LONG 90° ELBOW



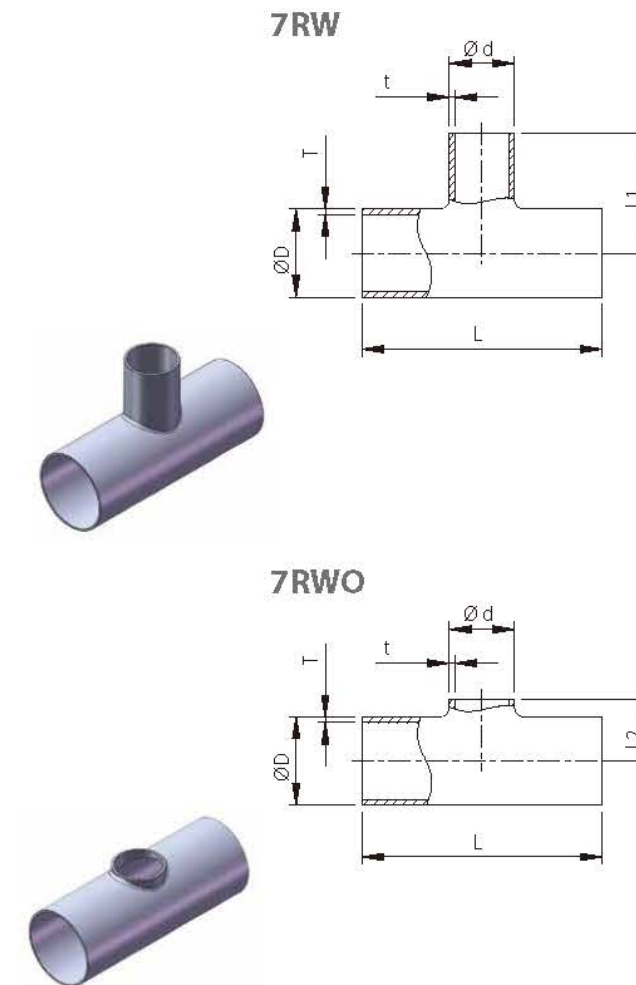
SIZE	ØD	L	T
DN10	12/13	51	1.5
DN15	18/19	60	1.5
DN20	22/23	52	1.5
DN25	28/29	65	1.5
DN32	34/35	73	1.5
DN40	40/41	80	1.5
DN50	52/53	92	1.5
DN65	70	105	2
DN80	85	119	2
DN100	101.6	175	2
DN125	129	251	2
DN150	154	288.5	2
DN200	204	363.5	2
DN250	254	451.2	2
DN300	306	526.2	3

DIN Tubular Items



TEE & PULL TEE

SIZE	ØD	L	L1	L2	T
DN10	12/13	52	26	11	1.5
DN15	18/19	70	35	11	1.5
DN20	22/23	80	40	13	1.5
DN25	28/29	100	50	16	1.5
DN32	34/35	110	55	19.5	1.5
DN40	40/41	120	60	23	1.5
DN50	52/53	140	70	30	1.5
DN65	70	160	80	40	2
DN80	85	180	90	47.5	2
DN100	101.6	300	150	56	2
DN125	129	375	187.5	74	2
DN150	154	450	225	90	2
DN200	204	600	300	115	2
DN250	254	600	300	140	2
DN300	306	600	300	166	3

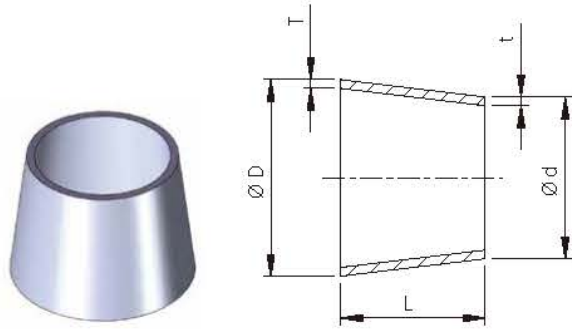


REDUCING TEE & REDUCING PULL TEE

SIZE	ØD	Ød	L	L1	L2	T	t
15*10	18/19	12/13	70	29	10.5	1.5	1.5
20*10	22/23	12/13	80	31	12.5	1.5	1.5
20*15	22/23	18/19	80	37	13	1.5	1.5
25*15	28/29	18/19	100	40	16	1.5	1.5
25*20	28/29	22/23	100	43	16	1.5	1.5
32*15	34/35	18/19	110	43	19	1.5	1.5
32*20	34/35	22/23	110	46	19	1.5	1.5
32*25	34/35	28/29	110	53	19	1.5	1.5
40*20	40/41	22/23	120	49	22	1.5	1.5
40*25	40/41	28/29	120	56	22	1.5	1.5
40*32	40/41	34/35	120	58	22.5	1.5	1.5
50*25	52/53	28/29	140	62	28	1.5	1.5
50*32	52/53	34/35	140	64	28.5	1.5	1.5
50*40	52/53	40/41	140	66	29	1.5	1.5
65*32	70	34/35	160	72.5	37	2	1.5
65*40	70	40/41	160	74.5	37.5	2	1.5
65*50	70	52/53	160	78.5	38.5	2	1.5
80*40	85	40/41	180	82	45	2	1.5
80*50	85	52/53	180	86	46	2	1.5
80*65	85	70	180	87.5	47.5	2	2
100*50	104	52/53	200	95.5	55.5	2	1.5
100*65	104	70	200	97	57	2	2
100*80	104	85	200	99.5	57	2	2
125*65	129	70	375	109.5	69.5	2	2
125*80	129	85	375	112	69.5	2	2
125*100	129	104	375	112.5	70.5	2	2
150*80	154	85	450	124.5	82	2	2
150*100	154	104	450	125	83	2	2
150*125	154	129	450	200	86.5	2	2
200*100	204	104	600	150	108	2	2
200*125	204	129	600	225	111.5	2	2
200*150	204	154	600	250	115	2	2

DIN Tubular Items

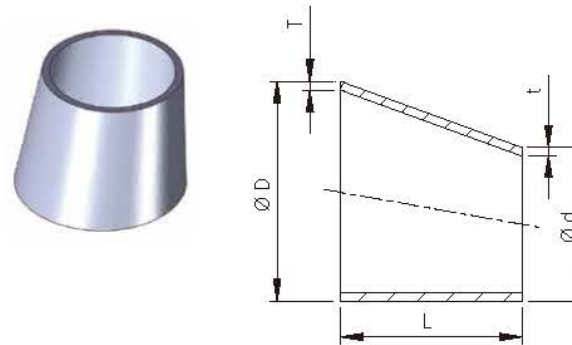
L31



CONCENTRIC REDUCER

SIZE	ØD	Ød	L	T	t
15*10	18/19	12/13	11	1.5	1.5
20*10	22/23	12/13	18	1.5	1.5
20*15	22/23	18/19	7	1.5	1.5
25*15	28/29	18/19	18	1.5	1.5
25*20	28/29	22/23	11	1.5	1.5
32*20	34/35	22/23	22	1.5	1.5
32*25	34/35	28/29	25	1.5	1.5
40*20	40/41	22/23	33	1.5	1.5
40*25	40/41	28/29	23	1.5	1.5
40*32	40/41	34/35	23	1.5	1.5
50*25	52/53	28/29	27	1.5	1.5
50*32	52/53	34/35	28	1.5	1.5
50*40	52/53	40/41	27	1.5	1.5
65*25	70	28/29	35	2	1.5
65*40	70	40/41	39	2	1.5
65*50	70	52/53	29	2	1.5
80*50	85	52/53	45	2	1.5
80*65	85	70	33	2	2
100*50	104	52/53	50	2	1.5
100*65	104	70	44	2	2
100*80	104	85	60	2	2
125*80	129	85	79	2	2
125*100	129	104	45	2	2
150*100	154	104	90	2	2
150*125	154	129	45	2	2
200*150	204	154	90	2	2

L32



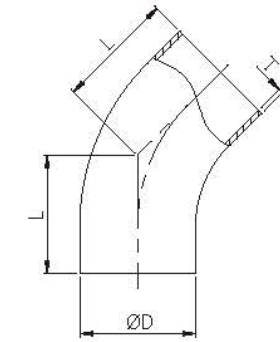
ECCENTRIC REDUCER

SIZE	ØD	Ød	L	T	t
32*25	34/35	28/29	16.5	1.5	1.5
40*25	40/41	28/29	33	1.5	1.5
40*32	40/41	34/35	16.5	1.5	1.5
50*25	52/53	28/29	66	1.5	1.5
50*32	52/53	34/35	49.5	1.5	1.5
50*40	52/53	40/41	33	1.5	1.5
65*40	70	40/41	77	2	1.5
65*50	70	52/53	44	2	1.5
80*50	85	52/53	85	2	1.5
80*65	85	70	41.2	2	2
100*50	104	52/53	137.5	2	1.5
100*65	104	70	93.5	2	2
100*80	104	85	52.5	2	2

180° WELD ELBOW

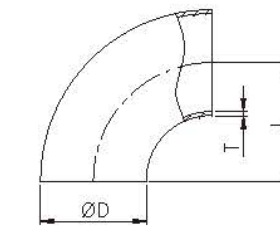
SIZE	ØD	L	T
DN10	12/13	52	1.5
DN15	18/19	70	1.5
DN20	22/23	80	1.5
DN25	28/29	100	1.5
DN32	34/35	110	1.5
DN40	40/41	120	1.5
DN50	52/53	140	1.5
DN65	70	160	2
DN80	85	180	2
DN100	104	200	2
DN125	129	375	2

BS Tubular Items



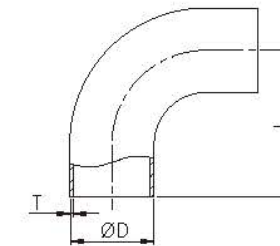
L2KS LONG 45° ELBOW

SIZE	ØD	L	T
1"	25.4	30.2	1.65
1.5"	38.1	41.3	1.65
2"	50.8	58.7	1.65
2.5"	63.5	76.2	1.65
3"	76.2	93.7	1.65
4"	101.6	122.2	2.1



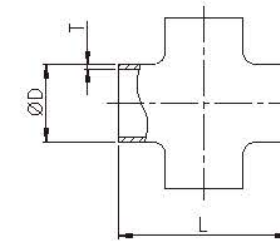
2WCL SHORT WELD 90° ELBOW

SIZE	ØD	L	T
1"	25.4	43.5	1.65
1.5"	38.1	63.5	1.65
2"	50.8	88.5	1.65
2.5"	63.5	113.5	1.65
3"	76.2	133.5	1.65
4"	101.6	173.5	2.1



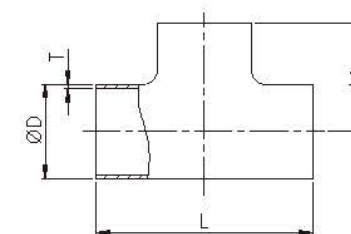
L2S LONG WELD 90° ELBOW

SIZE	ØD	L	T
1/2"	12.7	45	1.65
3/4"	19.05	60	1.65
1"	25.4	65	1.65
1.5"	38.1	85	1.65
2"	50.8	110	1.65
2.5"	63.5	135	1.65
3"	76.2	155	1.65
4"	101.6	195	2.1



9W LONG CROSS

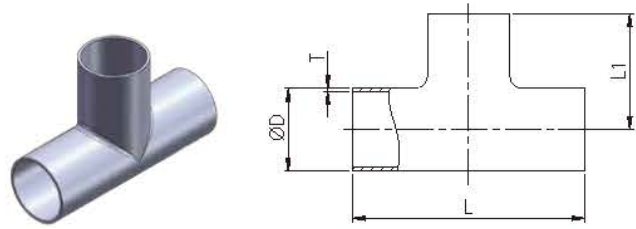
SIZE	ØD	L	T
1"	25.4	130	1.65
1.5"	38.1	170	1.65
2"	50.8	220	1.65
2.5"	63.5	270	1.65
3"	76.2	310	1.65
4"	101.6	390	2.1



7WWW SHORT TEE

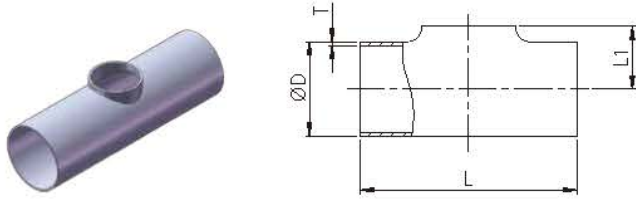
SIZE	ØD	L	L1	T
1"	25.4	87	43.5	1.65
1.5"	38.1	127	63.5	1.65
2"	50.8	177	88.5	1.65
2.5"	63.5	227	113.5	1.65
3"	76.2	267	133.5	1.65
4"	101.6	347	173.5	2.1

BS Tubular Items



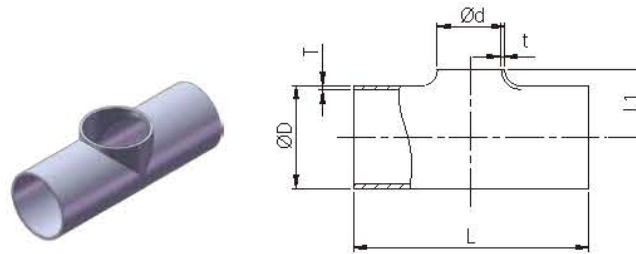
7W LONG TEE

SIZE	ØD	L	L1	T
1/2"	12.7	108	54	1.65
3/4"	19.05	108	54	1.65
1"	25.4	130	65	1.65
1.5"	38.1	170	85	1.65
2"	50.8	220	110	1.65
2.5"	63.5	270	135	1.65
3"	76.2	310	155	1.65
4"	101.6	390	195	2.1



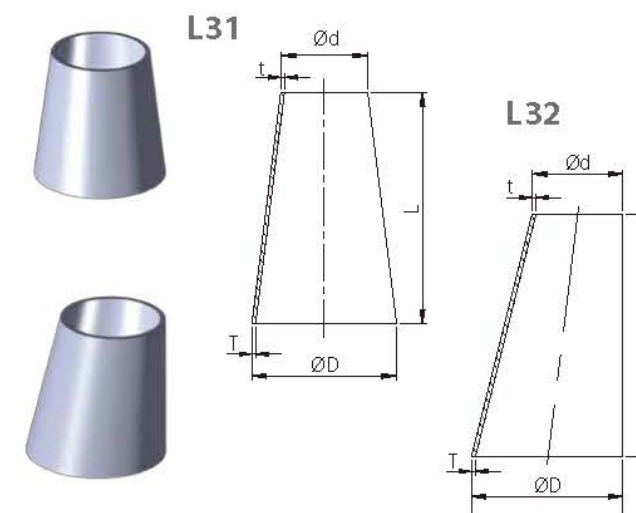
7WO PULL TEE

SIZE	ØD	L	L1	T
1"	25.4	87	13.8	1.65
1.5"	38.1	127	19.9	1.65
2"	50.8	177	27.6	1.65
2.5"	63.5	227	34.9	1.65
3"	76.2	267	42.9	1.65
4"	101.6	347	54.7	2.1



7RWO REDUCING PULL TEE

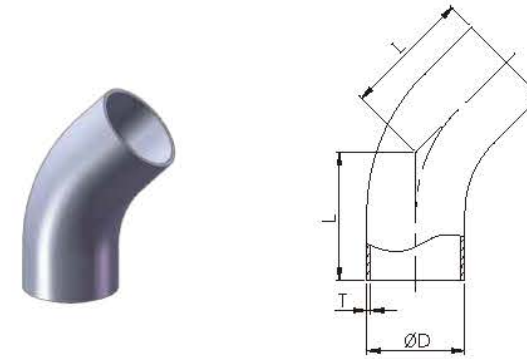
SIZE	ØD	Ød	L	L1	T	t
1.0"×1/2"	25.4	12.7	100	27	1.65	1.65
1.0"×3/4"	25.4	19.05	100	27	1.65	1.65
1.5"×1"	38.1	25.4	127	22	1.65	1.65
2.0"×1/2"	50.8	12.7	177	27.4	1.65	1.65
2.0"×3/4"	50.8	19.05	177	27.4	1.65	1.65
2"×1"	50.8	25.4	177	29	1.65	1.65
2"×1.5"	50.8	38.1	177	29	1.65	1.65
2.5"×1"	63.5	25.4	227	35	1.65	1.65
2.5"×1.5"	63.5	38.1	227	35	1.65	1.65
2.5"×2"	63.5	50.8	227	35	1.65	1.65
3"×1"	76.2	25.4	267	41	1.65	1.65
3"×1.5"	76.2	38.1	267	41	1.65	1.65
3"×2"	76.2	50.8	267	41	1.65	1.65
3"×2.5"	76.2	63.5	267	41	1.65	1.65
4"×1"	101.6	25.4	347	55	2.1	1.65
4"×1.5"	101.6	38.1	347	55	2.1	1.65
4"×2"	101.6	50.8	347	55	2.1	1.65
4"×2.5"	101.6	63.5	347	55	2.1	1.65
4"×3"	101.6	76.2	347	55	2.1	1.65



WELD REDUCERS

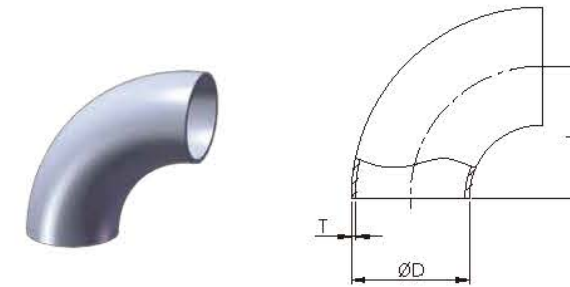
SIZE	ØD	Ød	L	L1	T	t
3/4"×1/2"	19.05	12.7	—	25.4	1.65	1.65
1"×1/2"	25.4	12.7	25.4	38.1	1.65	1.65
1"×3/4"	25.4	19.05	25.4	25.4	1.65	1.65
1.5"×1"	38.1	25.4	48	33	1.65	1.65
2"×1"	50.8	25.4	50	66	1.65	1.65
2"×1.5"	50.8	38.1	66	33	1.65	1.65
2.5"×1"	63.5	25.4	68	73	1.65	1.65
2.5"×1.5"	63.5	38.1	48	68	1.65	1.65
2.5"×2"	63.5	50.8	66	39	1.65	1.65
3"×1"	76.2	25.4	98	95	1.65	1.65
3"×1.5"	76.2	38.1	75	70	1.65	1.65
3"×2"	76.2	50.8	70	48	1.65	1.65
3"×2.5"	76.2	63.5	72	40	1.65	1.65
4"×1.5"	101.6	38.1	60	98	2.1	1.65
4"×2"	101.6	50.8	60	98	2.1	1.65
4"×2.5"	101.6	63.5	76	70	2.1	1.65
4"×3"	101.6	76.2	50	77	2.1	1.65

AS Tubular Items



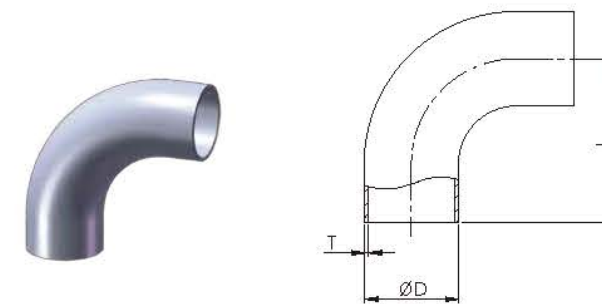
L2KS LONG 45° ELBOW

SIZE	ØD	L	T
1/2"	12.7	37.91	1.6
3/4"	19.1	41.85	1.6
1"	25.4	45.78	1.6/2
1.25"	31.8	49.76	1.6/2
1.5"	38.1	53.61	1.6/2
2"	50.8	61.56	1.6/2
2.5"	63.5	69.35	1.6/2
3"	76.2	77.3	1.6/2
4"	101.6	93.13	1.6/2



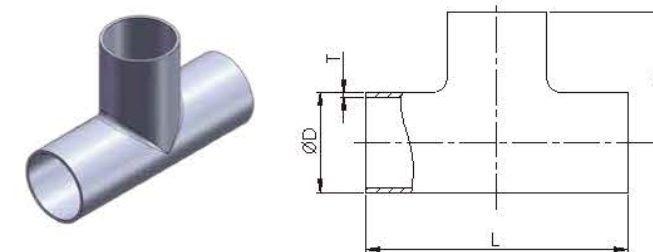
2WCL SHORT WELD 90° ELBOW

SIZE	ØD	L	T
1/2"	12.7	19.1	1.6
3/4"	19.1	28.6	1.6
1"	25.4	38.1	1.6/2
1.25"	31.8	47.7	1.6/2
1.5"	38.1	57	1.6/2
2"	50.8	76.2	1.6/2
2.5"	63.5	95	1.6/2
3"	76.2	114.2	1.6/2
4"	101.6	152.4	1.6/2
6"	152.4	228.5	1.6/2



L2S LONG WELD 90° ELBOW

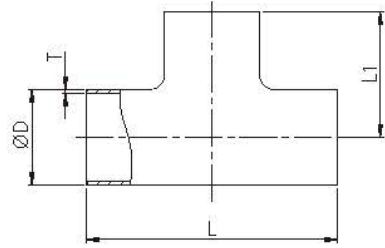
SIZE	ØD	L	T
1/2"	12.7	49.1	1.6/2
3/4"	19.1	58.6	1.6/2
1"	25.4	68.1	1.6/2
1.25"	31.8	77.7	1.6/2
1.5"	38.1	87	1.6/2
2"	50.8	106.2	1.6/2
2.5"	63.5	125	1.6/2
3"	76.2	144.2	1.6/2
4"	101.6	182.4	1.6/2



7W LONG EQUAL WELD TEE

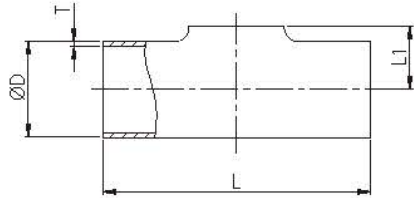
SIZE	ØD	L	L1	T
1/2"	12.7	98.2	49.1	1.6/2
3/4"	19.1	117.2	58.6	1.6/2
1"	25.4	136.2	68.1	1.6/2
1.25"	31.8	155.4	77.7	1.6/2
1.5"	38.1	174	87	1.6/2
2"	50.8	212.4	106.2	1.6/2
2.5"	63.5	250	125	1.6/2
3"	76.2	288.4	144.2	1.6/2
4"	101.6	364.8	182.4	1.6/2

AS Tubular Items



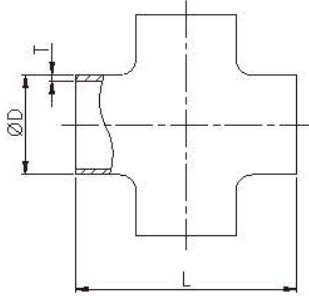
7WWW SHORT EQUAL WELD TEE

SIZE	ØD	L	L1	T
1/2"	12.7	38.2	19.1	1.6/2
3/4"	19.1	57.2	28.6	1.6/2
1"	25.4	76.2	38.1	1.6/2
1.25"	31.8	95.4	47.7	1.6/2
1.5"	38.1	114	57	1.6/2
2"	50.8	152.4	76.2	1.6/2
2.5"	63.5	190	95	1.6/2
3"	76.2	228.4	144.2	1.6/2
4"	101.6	304.8	152.4	1.6/2



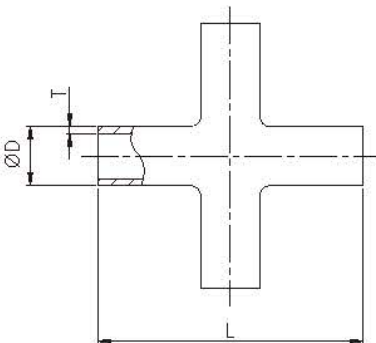
7WO EQUAL TEE W/O STRAIGHT END

SIZE	ØD	L	L1	T
1/2"	12.7	38.2	9.35	1.6/2
3/4"	19.1	57.2	12.55	1.6/2
1"	25.4	76.2	15.7	1.6/2
1.25"	31.8	95.4	18.9	1.6/2
1.5"	38.1	114	22.05	1.6/2
2"	50.8	152.4	28.4	1.6/2
2.5"	63.5	190	34.75	1.6/2
3"	76.2	228.4	41.1	1.6/2
4"	101.6	304.8	53.8	1.6/2



9WWW SHORT CROSS WELD END

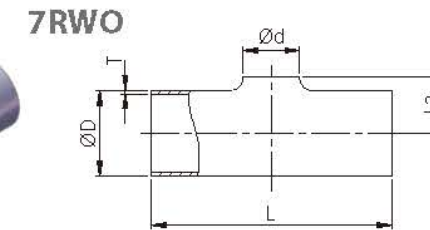
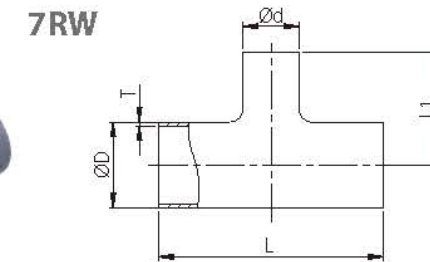
SIZE	ØD	L	T
1/2"	12.7	38.2	1.6/2
3/4"	19.1	57.2	1.6/2
1"	25.4	76.2	1.6/2
1.25"	31.8	95.4	1.6/2
1.5"	38.1	114	1.6/2
2"	50.8	152.4	1.6/2
2.5"	63.5	190	1.6/2
3"	76.2	228.4	1.6/2
4"	101.6	304.8	1.6/2



9W LONG CROSS WELD END

SIZE	ØD	L	T
1/2"	12.7	98.2	1.6/2
3/4"	19.1	117.2	1.6/2
1"	25.4	136.2	1.6/2
1.25"	31.8	155.4	1.6/2
1.5"	38.1	174	1.6/2
2"	50.8	212.4	1.6/2
2.5"	63.5	250	1.6/2
3"	76.2	288.4	1.6/2
4"	101.6	364.8	1.6/2

AS Tubular Items

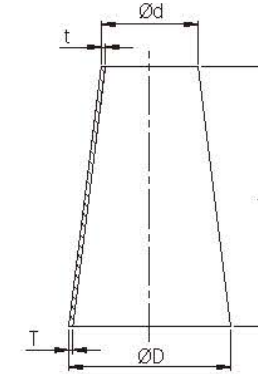


REDUCING TEE/REDUCING TEE

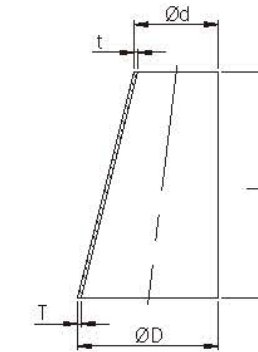
SIZE	ØD	Ød	L	L1	L2	T
1.5"×1"	38.1	25.4	160	80	22.05	1.6/2
2"×1"	50.8	25.4	160	80	28.4	1.6/2
2"×1.5"	50.8	38.1	160	80	28.4	1.6/2
2.5"×1.5"	63.5	38.1	160	80	34.75	1.6/2
2.5"×2"	63.5	50.8	160	80	37.75	1.6/2
3"×1.5"	76.2	38.1	160	80	41.1	1.6/2
3"×2"	76.2	50.8	160	80	41.1	1.6/2
3"×2.5"	76.2	63.5	190.5	95.3	41.1	1.6/2
4"×2"	101.6	50.8	160	80	53.8	1.6/2
4"×2.5"	101.6	63.5	190.5	95.3	53.8	1.6/2
4"×3"	101.6	76.2	228.6	114.3	53.8	1.6/2



L31



L32



CONCENTRIC REDUCER/ECCENTRIC REDUCER

SIZE	ØD	Ød	L	T	t
3/4"×1/2"	19.1	12.7	19.1	1.6/2	1.6/2
1"×1/2"	25.4	12.7	25.4	1.6/2	1.6/2
1"×3/4"	25.4	19.1	25.4	1.6/2	1.6/2
1.25"×3/4"	31.8	19.1	31.8	1.6/2	1.6/2
1.25"×1"	31.8	25.4	31.8	1.6/2	1.6/2
1.5"×3/4"	38.1	19.1	38.1	1.6/2	1.6/2
1.5"×1"	38.1	25.4	38.1	1.6/2	1.6/2
1.5"×1.25"	38.1	31.8	38.1	1.6/2	1.6/2
2"×1/2"	50.8	12.7	50.8	1.6/2	1.6/2
2"×3/4"	50.8	19.1	50.8	1.6/2	1.6/2
2"×1"	50.8	25.4	50.8	1.6/2	1.6/2
2"×1.25"	50.8	31.8	50.8	1.6/2	1.6/2
2"×1.5"	50.8	38.1	50.8	1.6/2	1.6/2
2.5"×1"	63.5	25.4	63.5	1.6/2	1.6/2
2.5"×1.25"	63.5	31.8	63.5	1.6/2	1.6/2
2.5"×1.5"	63.5	38.1	63.5	1.6/2	1.6/2
2.5"×2"	63.5	50.8	63.5	1.6/2	1.6/2
3"×1"	76.2	25.4	76.2	1.6/2	1.6/2
3"×1.25"	76.2	31.8	76.2	1.6/2	1.6/2
3"×1.5"	76.2	38.1	76.2	1.6/2	1.6/2
3"×2"	76.2	50.8	76.2	1.6/2	1.6/2
3"×2.5"	76.2	63.5	76.2	1.6/2	1.6/2
4"×1"	101.6	25.4	101.6	1.6/2	1.6/2
4"×1.25"	101.6	31.8	101.6	1.6/2	1.6/2
4"×1.5"	101.6	38.1	101.6	1.6/2	1.6/2
4"×2"	101.6	50.8	101.6	1.6/2	1.6/2
4"×2.5"	101.6	63.5	101.6	1.6/2	1.6/2
4"×3"	101.6	76.2	101.6	1.6/2	1.6/2
5"×2"	127	50.8	127	1.6/2	1.6/2
5"×3"	127	76.2	127	1.6/2	1.6/2
5"×4"	127	101.6	127	1.6/2	1.6/2
6"×2"	152.4	50.8	152.4	1.6/2	1.6/2
6"×2.5"	152.4	63.5	152.4	1.6/2	1.6/2
6"×3"	152.4	76.2	152.4	1.6/2	1.6/2
6"×4"	152.4	101.6	152.4	1.6/2	1.6/2
6"×5"	152.4	127	152.4	1.6/2	1.6/2