

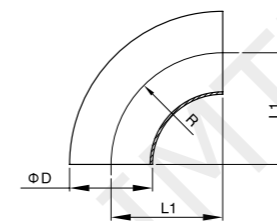
Sanitary Pipe-Fittings



Pipe Fittings

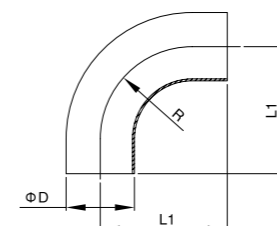
DIN

90° Welded Elbow



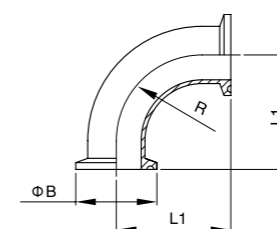
Size	L1	D	R
DN10	26.0	12.0	26.0
DN15	35.0	18.0	35.0
DN20	40.0	22.0	40.0
DN25	50.0	28.0	50.0
DN32	55.0	34.0	55.0
DN40	60.0	40.0	60.0
DN50	70.0	52.0	70.0
DN65	80.0	70.0	80.0
DN80	90.0	85.0	90.0
DN100	100.0	104.0	100.0
DN125	187.0	129.0	187.0
DN150	225.0	154.0	225.0
DN200	300	204	300
DN250	375	254	375
DN300	450	306	450

90° Welded Elbow With Straight Ends



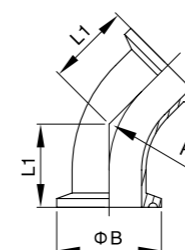
Size	L1	D	R
DN10	38.0	12.0	26.0
DN15	47.0	18.0	35.0
DN20	52.0	22.0	40.0
DN25	70.0	28.0	50.0
DN32	78.0	34.0	55.0
DN40	85.0	40.0	60.0
DN50	97.0	52.0	70.0
DN65	110.0	70.0	80.0
DN80	118.0	85.0	90.0
DN100	140.0	104.0	100.0

90° Clamped Elbow

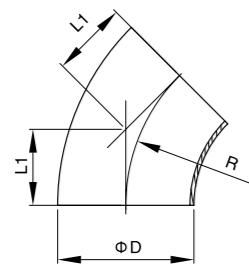


Size	L1	R	B
DN15	53.0	34.0	35.0
DN20	58.0	34.0	40.0
DN25	71.0	50.5	50.0
DN32	76.5	50.5	55.0
DN40	81.5	50.5	60.0
DN50	91.5	64.0	70.0
DN65	108.0	91.0	80.0
DN80	118.0	106.0	90.0
DN100	128.0	119.0	100.0

45° Clamped Elbow

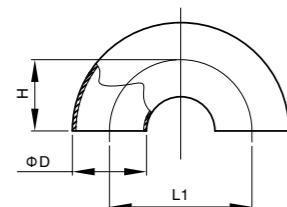


Size	L1	B	R
DN20	34.5	34.0	40.0
DN25	42.2	50.5	50.0
DN32	44.3	50.5	55.0
DN40	46.3	50.5	60.0
DN50	50.5	64.0	70.0
DN65	61.2	91.0	80.0
DN80	65.3	106.0	90.0
DN100	69.5	119.0	100.0



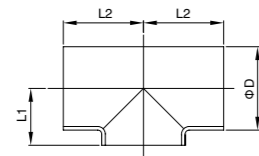
45° Welded Elbow

Size	L1	D	R
DN10	10.7	12.0	26.0
DN15	14.5	18.0	35.0
DN20	16.5	22.0	40.0
DN25	20.7	28.0	50.0
DN32	22.8	34.0	55.0
DN40	24.8	40.0	60.0
DN50	29.0	52.0	70.0
DN65	33.2	70.0	80.0
DN80	37.3	85.0	90.0
DN100	41.5	104.0	100.0
DN125	77.5	129.0	187.0
DN150	93.2	154.0	225.0



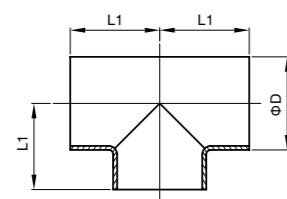
180° Welded Elbow

Size	L1	D	H
DN10	52.0	12.0	26.0
DN15	70.0	18.0	35.0
DN20	80.0	22.0	40.0
DN25	100.0	28.0	50.0
DN32	110.0	34.0	55.0
DN40	120.0	40.0	60.0
DN50	140.0	52.0	70.0
DN65	160.0	70.0	80.0
DN80	180.0	85.0	90.0
DN100	200.0	104.0	100.0
DN125	375.0	129.0	187.5
DN150	450.0	154.0	225.0



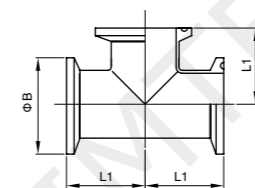
Short welded Tee

Size	L1	L2	D
DN10	7.5	26.0	12.0
DN15	10.5	35.0	18.0
DN20	12.5	40.0	22.0
DN25	16.0	50.0	28.0
DN32	19.5	55.0	34.0
DN40	22.5	60.0	40.0
DN50	30.0	70.0	52.0
DN65	39.5	80.0	70.0
DN80	47.5	90.0	85.0
DN100	58.0	100.0	104.0
DN125	70.5	187.0	129.0
DN150	83.0	225.0	154.0



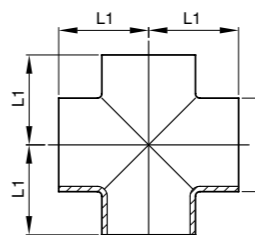
Long welded Tee

Size	L1	D
DN10	26.0	12.0
DN15	35.0	18.0
DN20	40.0	22.0
DN25	50.0	28.0
DN32	55.0	34.0
DN40	60.0	40.0
DN50	70.0	52.0
DN65	80.0	70.0
DN80	90.0	85.0
DN100	100.0	104.0
DN125	187.0	129.0
DN150	225.0	154.0



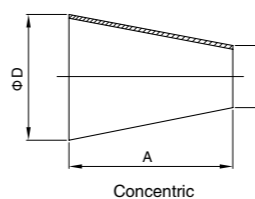
Clamped Tee

Size	L1	B
DN15	53.0	34.0
DN20	58.0	34.0
DN25	71.5	50.5
DN32	76.5	50.5
DN40	81.5	50.5
DN50	91.5	64.0
DN65	108.0	91.0
DN80	118.0	106.0
DN100	128.0	119.0

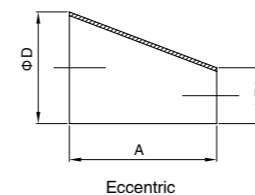


Welded Cross

Size	L1	D
DN25	50.0	28.0
DN32	55.0	34.0
DN40	60.0	40.0
DN50	70.0	52.0
DN65	80.0	70.0
DN80	90.0	85.0
DN100	100.0	104.0



Concentric



Eccentric

Welded Reducer

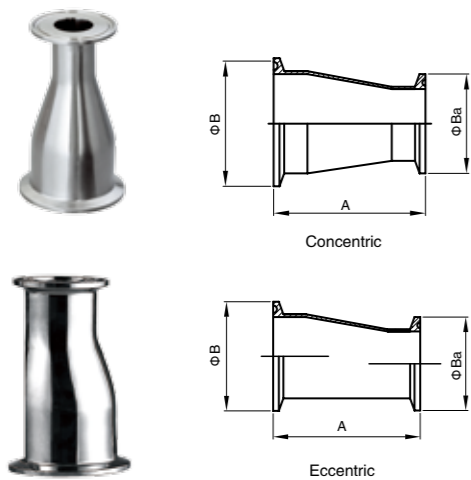
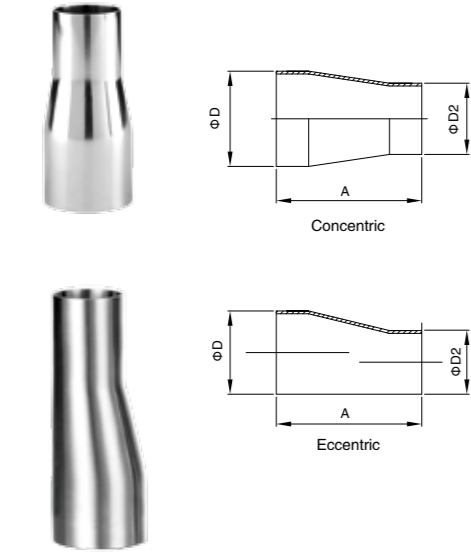
Size	A	D	D2
DN20/15	7.0	22.0	18.0
DN25/20	11.0	28.0	22.0
DN32/20	22.0	34.0	22.0
DN32/25	11.0	34.0	28.0
DN40/20	33.0	40.0	22.0
DN40/25	22.0	40.0	28.0
DN40/32	11.0	40.0	34.0
DN50/25	44.0	52.0	28.0
DN50/32	33.0	52.0	34.0
DN50/40	22.0	52.0	40.0
DN65/25	73.0	70.0	28.0
DN65/32	62.0	70.0	34.0
DN65/40	51.0	70.0	40.0
DN65/50	29.0	70.0	52.0
DN80/40	78.0	85.0	40.0
DN80/50	56.0	85.0	52.0
DN80/65	27.0	85.0	70.0
DN100/50	90.0	104.0	52.0
DN100/65	61.0	104.0	70.0
DN100/80	34.0	104.0	85.0

Welded Reducer

Size	A	D3	D2
DN20/15	60.0	22.0	18.0
DN25/20	60.0	28.0	22.0
DN32/20	80.0	34.0	22.0
DN32/25	80.0	34.0	28.0
DN40/20	102.0	40.0	22.0
DN40/25	102.0	40.0	28.0
DN40/32	88.0	40.0	34.0
DN50/25	115.0	52.0	28.0
DN50/32	129.0	52.0	34.0
DN50/40	113.0	52.0	40.0
DN65/25	125.0	70.0	28.0
DN65/32	125.0	70.0	34.0
DN65/40	120.0	70.0	40.0
DN65/50	130.0	70.0	52.0
DN80/40	140.0	85.0	40.0
DN80/50	125.0	85.0	52.0
DN80/65	120.0	85.0	70.0
DN100/50	160.0	104.0	52.0
DN100/65	127.0	104.0	70.0
DN100/80	120.0	104.0	85.0

Clamped Reducer

Size	A	B	Ba
DN20/15	86.0	34.0	34.0
DN25/20	86.0	50.5	34.0
DN32/20	106.0	50.5	34.0
DN32/25	106.0	50.5	50.5
DN40/20	128.0	50.5	34.0
DN40/25	128.0	50.5	50.5
DN40/32	128.0	50.5	50.5
DN50/25	141.0	64.0	50.5
DN50/32	141.0	64.0	50.5
DN50/40	141.0	64.0	50.5
DN65/25	151.0	91.0	50.5
DN65/32	151.0	91.0	50.5
DN65/40	146.0	91.0	50.5
DN65/50	146.0	91.0	64.0
DN80/40	166.0	106.0	50.5
DN80/50	151.0	106.0	64.0
DN80/65	146.0	106.0	91.0
DN100/50	192.0	119.0	64.0
DN100/65	159.0	119.0	91.0
DN100/80	152.0	119.0	106.0



90° Welded Elbow

Size	L1	D	R
12.7	19.05	12.7	19.05
19	28.6	19	28.6
25	38.1	25.4	38.1
32	47.7	31.8	47.7
38	57.1	38.1	57.1
51	76.2	50.8	76.2
63	95.2	63.5	95.2
76	114.3	76.2	114.3
102	152.4	101.6	152.4
127	190.5	127	190.5
152	228.6	152.4	228.6

90° Welded Elbow with straight ends

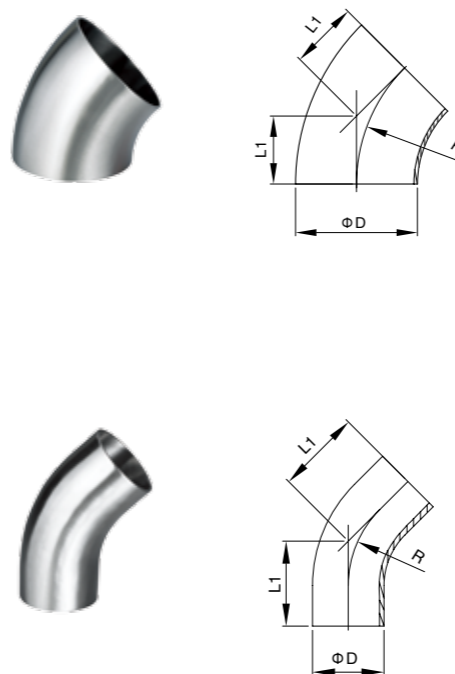
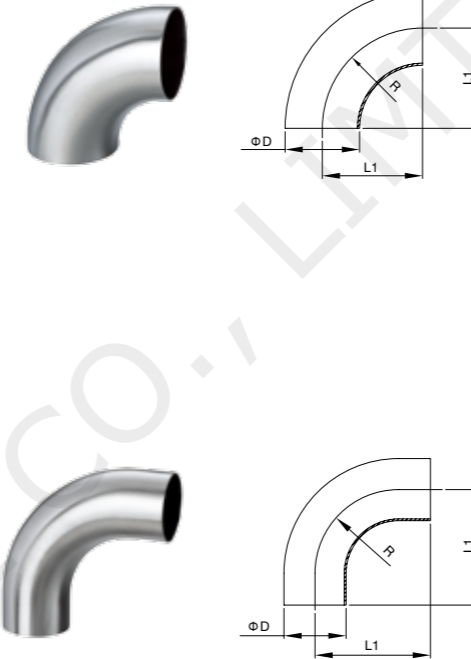
Size	L1	D	R
25	55.0	25.4	32.0
38	70.0	38.1	45.0
51	82.0	50.8	58.0
63	105.0	63.5	70.0
76	110.0	76.2	76.0
102	150.0	101.6	110.0

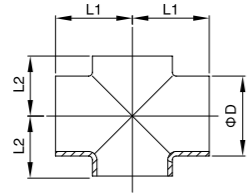
45° Short welded Elbow

Size	L1	D	R
25	15.5	25.4	38.1
38	23.6	38.1	57.2
51	31.6	50.8	76.2
63	39.5	63.5	95.3
76	47.2	76.2	114.3
102	63.0	101.6	152.4

45° Long welded Elbow

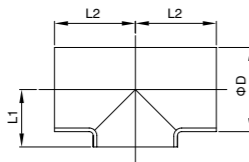
Size	L1	D	R
25	42.5	25.4	38.7
38	56.8	38.1	57.2
51	68.6	50.8	76.2
63	78.4	63.5	95.2
76	85.2	76.2	114.3
102	103.0	101.6	152.4





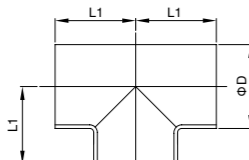
Welded Cross

Size	L1	L2	D
25	55.0	15.0	25.4
38	70.0	21.5	38.1
51	82.0	29.0	50.8
63.5	105.0	36.0	63.5
76.2	110.0	43.0	76.2
102	150.0	57.0	101.6



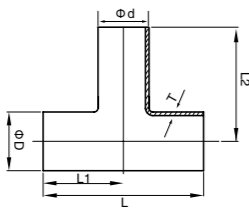
Short welded Tee

Size	L1	L2	D
25	15.0	55.0	25.4
38	21.5	70.0	38.1
51	29.0	82.0	50.8
63	36.0	105.0	63.5
76	43.0	110.0	76.2
102	57.0	150.0	101.6



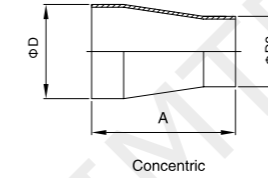
Long welded Tee

Size	L1	D
12.7	55.0	12.7
19	55.0	19
25	55.0	25.4
32	62.5	32
38	70.0	38.1
51	82.0	50.8
63	105.0	63.5
76	110.0	76.2
102	150.0	101.6



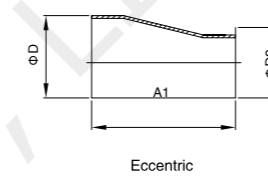
Reducing Welded Tee

Size	L	L1	φ D	φ d	T
25x19	110	55.0	25.0	19.05	1.25
38x19	140	70.0	38.0	19.05	1.25
38x25	140	70.0	38.0	25.0	1.25
51x25	164	82.0	51.0	25.0	1.25
51x38	164	82.0	51.0	38.0	1.25
63.5x25	210	105.0	63.5	25.0	1.5
63.5x38	210	105.0	63.5	38.0	1.5
63.5x51	210	105.0	63.5	51.0	1.5
76.1x25	220	110.0	76.1	25.0	1.6
76.1x38	220	110.0	76.1	38.0	1.6
76.1x51	220	110.0	76.1	51.0	1.6
76.1x63	220	110.0	76.1	63.0	1.6
101.6x51	300	150.0	101.6	51.0	2.0
101.6x63	300	150.0	101.6	63.5	2.0
101.6x76	300	150.0	101.6	76.1	2.0



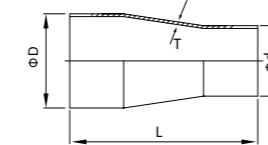
Welded Reducer

Size	A	A1	D	D2
1.5" / 1.0"	39.0	46.0	38.1	25.4
2.0" / 1.0"	57.0	68.0	50.8	25.4
2.0" / 1.5"	39.0	47.0	50.8	38.1
2.5" / 1.0"	74	92	63.5	25.4
2.5" / 1.5"	57.0	70.0	63.5	38.1
2.5" / 2.0"	39.0	44.0	63.5	50.8
3.0" / 1.0"	92	117	76.2	25.4
3.0" / 1.5"	74.0	92.0	76.2	38.1
3.0" / 2.0"	57.0	68.0	76.2	50.8
3.0" / 2.5"	39.0	47.0	76.2	63.5
4.0" / 1.5"	112	47.0	101.6	38.1
4.0" / 2.0"	95.0	117.0	101.6	50.8
4.0" / 2.5"	78.0	94.0	101.6	63.5
4.0" / 3.0"	60.0	74.0	101.6	76.2



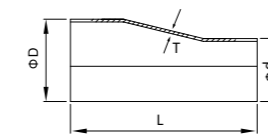
Concentric Reducers With Straight End

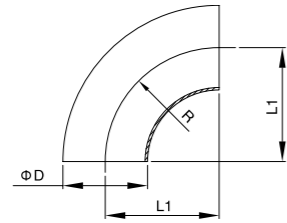
Size	φ D	φ d	L	T
25x19	25.0	19.05	85.0	1.25
38x19	38.0	19.05	85.0	1.25
38x25	38.0	25.0	99.0	1.25
51x25	51.0	25.0	117.0	1.25
51x38	51.0	38.0	99.0	1.25
63.5x25	63.5	25.0	134.0	1.5
63.5x38	63.5	38.0	117.5	1.5
63.5x51	63.5	51.0	99.0	1.5
76.1x25	76.1	25.0	152.0	1.6
76.1x38	76.1	38.0	134.0	1.6
76.1x51	76.1	51.0	117.0	1.6
76.1x63	76.1	63.5	99.0	1.6
102x51	102.0	51.0	155.0	2.0
102x63	102.0	63.5	138.0	2.0
102x76	102.0	76.1	120.0	2.0



Eccentric Reducers With Straight End

Size	φ D	φ d	L	T
38x25	38.0	25.0	106.0	1.25
51x25	51.0	25.0	128.0	1.25
51x38	51.0	38.0	107.0	1.25
63.5x25	63.5	25.0	150.5	1.5
63.5x38	63.5	38.0	130.0	1.5
63.5x51	63.5	51.0	104.0	1.5
76.1x38	76.1	38.0	149.0	1.6
76.1x51	76.1	51.0	128.0	1.6
76.1x63	76.1	63.5	107.0	1.6
101x51	101.6	51.0	177.0	2.0
101x63	101.6	63.5	154.0	2.0
101x76	101.6	76.1	134.0	2.0
102x51	102.0	51.0	177.0	2.0
102x63	102.0	63.5	154.0	2.0
102x76	102.0	76.1	134.0	2.0

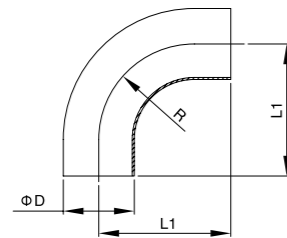




2WCL-90° Welded Elbow

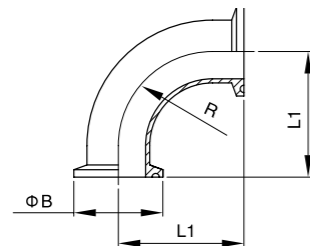
Size	L1	D	R
1/2"	19.1	12.7	19.1
3/4"	28.6	19.1	28.6
1"	38.1	25.4	38.1
1 1/4"	47.6	32	47.6
1 1/2"	57.2	38.1	57.2
2"	76.2	50.8	76.2
2 1/2"	95.3	63.5	95.3
3"	114.3	76.2	114.3
4"	152.4	101.6	152.4
5"	190.5	127.0	190.5
6"	228.6	152.4	228.6
8"	304.8	203.2	304.8
10"	381	254	381
12"	457.2	304.8	457.2

L2S-90° Welded Elbow with straight ends



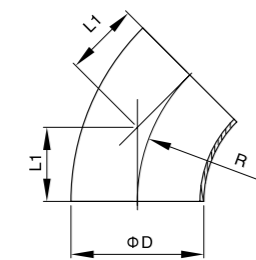
Size	L1	D	R
1/2"	76.2	12.7	19.1
3/4"	76.2	19.1	28.6
1"	52.4	25.4	38.1
1 1/2"	74.6	38.1	57.2
2"	103.2	50.8	76.2
2 1/2"	131.8	63.5	95.3
3"	160.3	76.2	114.3
4"	211.1	101.6	152.4
6"	292.1	152.4	228.6
6"	279.4	152.4	228.6

2CMP-90° Clamped Elbow

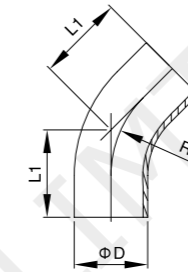


Size	L1	B	R
1"	50.8	50.5	38.1
1 1/2"	69.9	50.5	57.2
2"	88.9	64.0	76.2
2 1/2"	108.0	77.5	95.3
3"	127.0	91.0	114.3
4"	168.2	119.0	152.4
6"	250.8	167	228.6

2WK-45° Welded Elbow

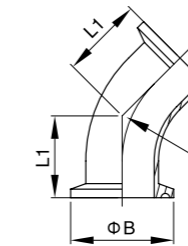


Size	L1	D	R
1/2"	7.9	12.7	19.05
3/4"	11.9	19	28.5
1"	15.8	25.4	38.1
1 1/4"	19.7	32	47.6
1 1/2"	23.8	38.1	57.2
2"	31.8	50.8	76.2
2 1/2"	39.6	63.5	95.3
3"	47.6	76.2	114.3
4"	63.5	101.6	152.4
5"	78.9	127	190.5
6"	94.7	152.4	228.6
8"	127	203.2	304.8
10"	158.75	254	381



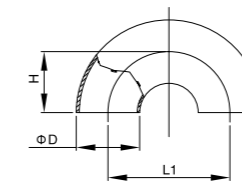
L2KS-45° Welded Elbow with straight ends

Size	L1	D	R
1"	30.2	25.4	38.1
1 1/2"	41.3	38.1	57.2
2"	58.7	50.8	76.2
2 1/2"	76.2	63.5	95.3
3"	93.7	76.2	114.3
4"	122.2	101.6	152.4
6"	158.2	152.4	228.6



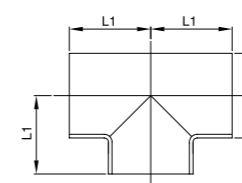
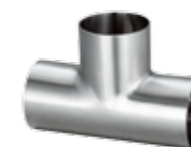
2KMP-45° Clamped Elbow

Size	L1	B	R
1"	28.5	50.5	38.1
1 1/2"	36.5	50.5	57.2
2"	44.5	64.0	76.2
2 1/2"	52.3	77.5	95.3
3"	60.3	91.0	114.3
4"	76.2	119.0	152.4



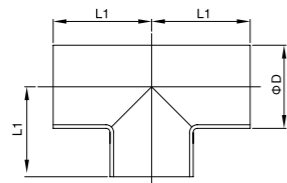
2WU-180° Welded Elbow

Size	L1	D	H
1"	76.2	25.4	38.1
1 1/2"	114.3	38.1	57.2
2"	152.4	50.8	76.2
2 1/2"	190.5	63.5	95.3
3"	228.6	76.2	114.3
4"	304.8	101.6	152.4



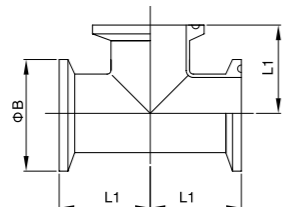
7WWW-Short welded Tee

Size	L1	D
1/2"	28.6	12.7
3/4"	28.6	19
1"	28.6	25.4
1 1/2"	42.0	38.1
2"	52.3	50.8
2 1/2"	59.5	63.5
3"	65.9	76.2
4"	87.3	101.6
5"	127	127
6"	127	152.4



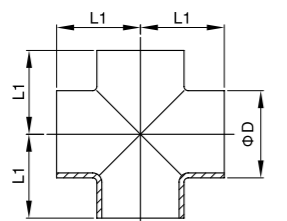
7W-Long welded Tee

Size	L1	D
1/2"	47.6	12.7
3/4"	47.6	19
1"	47.6	25.4
1 1/4"	52.4	32
1 1/2"	57.2	38.1
2"	76.2	50.8
2 1/2"	76.2	63.5
3"	82.6	76.2
4"	98.4	101.6
5"	132.5	127
6"	143	152.4
8"	177.8	203.2
10"	216	254



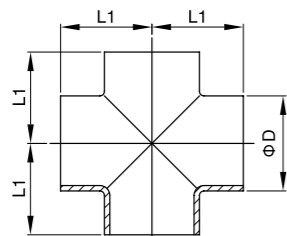
7MP-Clamped Tee

Size	L1	B
1/2"	60.3	25.2
3/4"	60.3	25.2
1"	60.3	50.5
1 1/2"	69.9	50.5
2"	88.9	64.0
2 1/2"	88.9	77.5
3"	95.3	91.0
4"	114.2	119.0
6"	164.5	167
8"	199.3	217.7



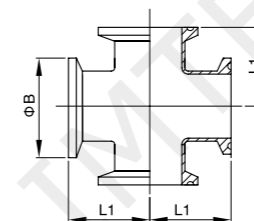
9W-Welded Cross (Long-type)

Size	L1	D
1/2"	47.6	12.7
3/4"	47.6	19
1"	47.6	25.4
1 1/2"	57.2	38.1
2"	76.2	50.8
2 1/2"	76.2	63.5
3"	82.6	76.2
4"	98.4	101.6
6"	143	152.4
8"	177.8	203.2



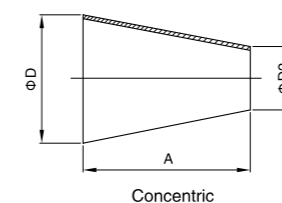
9WWW-Welded Cross (Short-type)

Size	L1	D
1"	28.6	25.4
1 1/2"	42.1	38.1
2"	52.4	50.8
2 1/2"	54.5	63.5
3"	65.9	76.2
4"	87.3	101.6

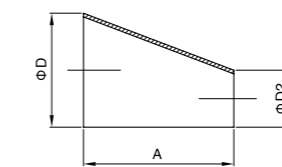


9MP-ClampedCross

Size	L1	B
1/2"	60.3	25.2
3/4"	60.3	25.2
1"	60.3	50.5
1 1/2"	69.9	50.5
2"	88.9	64.0
2 1/2"	88.9	91.0
3"	95.3	106.0
4"	114.3	119.0
6"	164.5	167



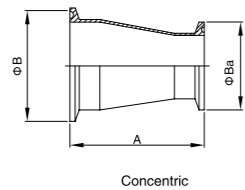
Concentric



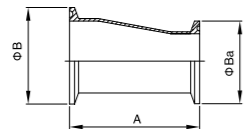
Eccentric

L31/32-Welded Reducer

Size	A	D	D2
1"/0.5"	50.8	25.4	12.7
1.5"/0.75"	76.2	38.1	19
1.5"/1.0"	50.8	38.1	25.4
2.0"/1.0"	101.6	50.8	25.4
2.0"/1.5"	50.8	50.8	38.1
2.5"/1.0"	152.4	63.5	25.4
2.5"/1.5"	101.6	63.5	38.1
2.5"/2.0"	50.8	63.5	50.8
3.0"/1.0"	203.2	76.2	25.4
3.0"/1.5"	152.4	76.2	38.1
3.0"/2.0"	101.6	76.2	50.8
3.0"/2.5"	50.8	76.2	63.5
4.0"/1.0"	304.8	101.6	25.4
4.0"/1.5"	254	101.6	38.1
4.0"/2.0"	203.2	101.6	50.8
4.0"/2.5"	152.4	101.6	63.5
4.0"/3.0"	101.6	101.6	76.2
5.0"/3.0"	127	127	76.2
5.0"/4.0"	127	127	101.6
6.0"/2.0"	140	152.4	50.8
6.0"/2.5"	140	152.4	63.5
6.0"/3.0"	140.0	152.4	76.2
6.0"/4.0"	140.0	152.4	101.6
8.0"/3.0"	152.4	203.2	76.2
8.0"/4.0"	152.4	203.2	101.6
8.0"/6.0"	152.4	203.2	152.4
10.0"/6.0"	177.8	254	152.4
10.0"/8.0"	177.8	254	203.2
12.0"/6.0"	203.2	304.8	152.4
12.0"/8.0"	203.2	304.8	203.2



Concentric

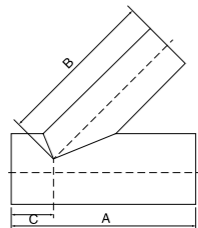


Eccentric

31-14MP/32-14MP Clamped Reducer

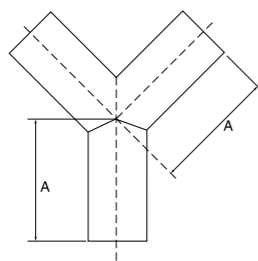
Size	A	B	Ba
1.5"/1.0"	76.2	50.5	50.5
2.0"/1.0"	127.0	64.0	50.5
2.0"/1.5"	76.2	64.0	50.5
2.5"/1.5"	127.0	77.5	50.5
2.5"/2.0"	76.2	77.5	64.0
3.0"/1.5"	177.8	91.0	50.5
3.0"/2.0"	127.0	91.0	64.0
3.0"/2.5"	76.2	91.0	77.5
4.0"/2.0"	231.8	119.0	64.0
4.0"/2.5"	181.0	119.0	77.5
4.0"/3.0"	130.2	119.0	91.0

28WA-Butt weld Y-type Tee



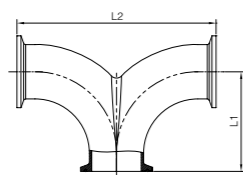
Size	A	B	C
1/2"	152.4	127.0	25.4
3/4"	152.4	127.0	25.4
1"	152.4	127.0	25.4
1 1/2"	187.3	173.1	30.2
2"	222.2	180.9	41.3
2 1/2"	254	215.9	38.1
3"	273.1	225.4	47.6
4"	325.5	273.1	52.4
6"	419.1	317.5	101.6

28WB-Butt weld Y-type Tee

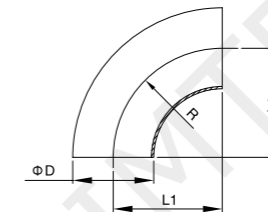


Size	A
1/2"	50.8
3/4"	50.8
1"	76.2
1 1/2"	76.2
2"	101.6
2 1/2"	127
3"	152.4
4"	203.2
6"	203.2

90°Clamp Double Bend

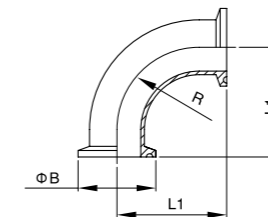


Size	L1	L2
1"	50.8	101.6
1 1/2"	69.85	139.7
1 1/4"	60.4	120.8
2"	88.9	177.8
2 1/2"	107.9	215.9
3"	127.0	228.6
4"	168.4	336.8



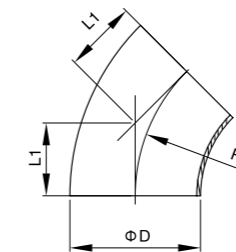
90° Welded Elbow

Size	L1	D	R
48	57		57
60	76		76
1"	33.5	25.4	33.5
1 1/4"	38.0	32.0	38.0
1 1/2"	48.5	38.1	48.5
2"	60.5	50.8	60.5
2 1/2"	83.5	63.5	83.5
3"	88.5	76.2	88.5
3 1/2"	103.5	89.0	103.5
4"	127	101.6	127
4 1/2"	152.4	114.3	152.4
5"	190.5	133.0	190.5
6"	228.6	159.0	228.6



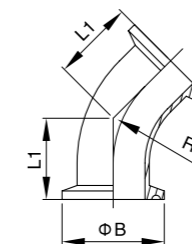
90° Clamped Elbow

Size	L1	B	R
phi 25	55.0	50.5	33.5
phi 32	59.5	50.5	38.0
phi 38	70.0	50.5	48.5
phi 51	82.0	64.0	60.5
phi 63	105.0	77.5	83.5
phi 76	110.0	91.0	88.5
phi 89	125.0	106.0	103.5
phi 102	143.5	119.0	122
phi 102	148.5	119.0	129



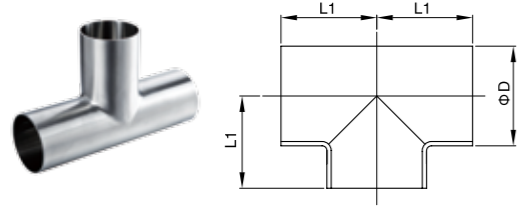
45° Welded Elbow

Size	L1	D	R
1"	13.9	25.4	33.5
1 1/4"	15.7	32.0	38.0
1 1/2"	20.1	38.1	48.5
2"	25.1	50.8	60.5
2 1/2"	34.6	63.5	83.5
3"	36.7	76.2	88.5
3 1/2"	42.9	89.0	103.5
4"	50.8	101.6	122
102	52.6	101.6	127



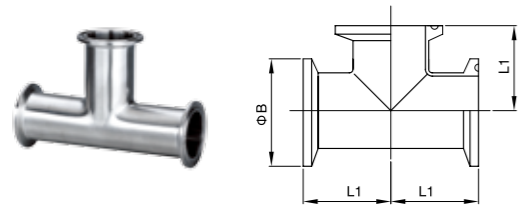
45° Clamped Elbow

Size	L1	D	R
phi 25	35.4	50.5	33.5
phi 32	37.2	50.5	38.0
phi 38	41.6	50.5	48.5
phi 51	46.6	64.0	60.5
phi 63	56.1	77.5	83.5
phi 76	58.2	91.0	88.5
phi 89	64.4	106.0	103.5
phi 102	72.3	119.0	122
phi 102	80.5	119.0	127



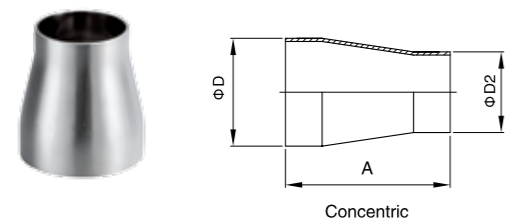
Welded Tee

Size	L1	D
12.7	38.2	25.4
19	60	25.4
1"	33.5	25.4
1 1/4"	38.1	31.8
1 1/2"	48.5	38.1
2"	60.5	50.8
2 1/2"	83.5	63.5
3"	88.5	76.2
3 1/2"	103.5	88.9
4"	127	101.6
4 1/2"	152.4	114.3
5"	190	133.0
6"	228.6	159.0

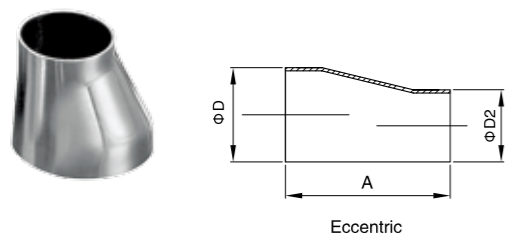


Clamped Tee

Size	L1	D
1"	55.0	50.5
1 1/4"	59.5	50.5
1 1/2"	70.0	50.5
2"	82.0	64.0
2 1/2"	105	77.5
3"	110	91.0
3 1/2"	125	106.0
4"	148.5	119.0



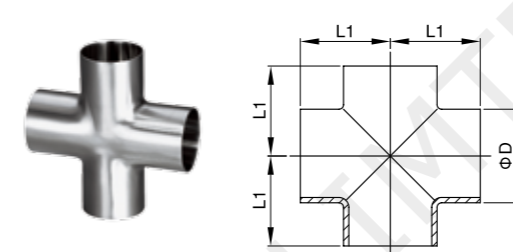
Concentric



Eccentric

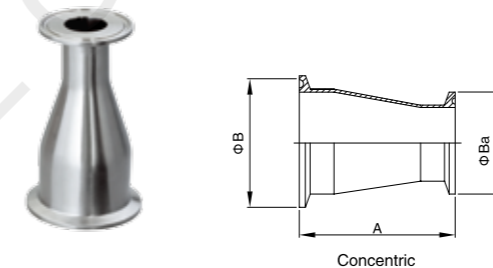
Welded Reducer

Size	A	D	D2
1.0"/0.75"	38.0	25.4	19.05
1.25"/1.0"	50.0	31.8	25.4
1.5"/1.25"	50.0	38.1	31.8
1.5"/1.0"	50.0	38.1	25.4
2.0"/1.5"	67.0	50.8	38.1
2.0"/1.25"	67.0	50.8	31.8
2.0"/1.0"	67.0	50.8	25.4
2.5"/2.0"	67.0	63.5	50.8
2.5"/1.5"	67.0	63.5	38.1
2.5"/1.0"	67.0	63.5	25.4
3.0"/2.5"	67.0	76.2	63.5
3.0"/2.0"	67.0	76.2	50.8
3.0"/1.5"	67.0	76.2	38.1
3.5"/3.0"	76	88.9	76.2
3.5"/2.5"	67.0	88.9	63.5
3.5"/2.0"	67.0	88.9	50.8
4.0"/3.5"	87	101.6	88.9
4.0"/3.0"	87	101.6	76.2
4.0"/2.5"	87	101.6	63.5
4.0"/2.0"	87	101.6	50.8

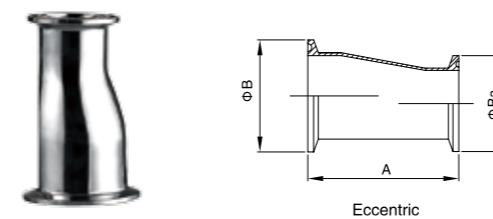


Welded Cross

Size	L1	D
1"	33.5	25.4
1 1/4"	38.0	32.0
1 1/2"	48.5	38.0
2"	60.5	51.0
2 1/2"	83.5	63.5
3"	88.5	76.0
3 1/2"	103.5	89.0
4"	127	101.6



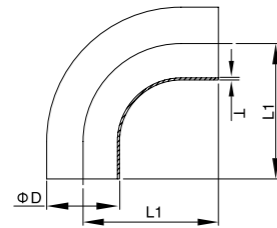
Concentric



Eccentric

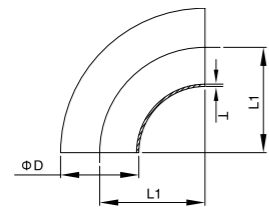
Clamped Reducer

Size	A	D	Ba
1.0"/0.75"	64	50.5	34.0
1.25"/1.0"	76	50.5	50.5
1.5"/1.25"	76	50.5	50.5
1.5"/1.0"	76	50.5	50.5
2.0"/1.5"	93	64.0	50.5
2.0"/1.25"	93	64.0	50.5
2.0"/1.0"	93	64.0	50.5
2.5"/2.0"	93	77.5	64.0
2.5"/1.5"	93	77.5	50.5
2.5"/1.0"	93	77.5	50.5
3.0"/2.5"	93	91.0	77.5
3.0"/2.0"	93	91.0	64.0
3.0"/1.5"	93	91.0	50.5
3.5"/3.0"	93	106.0	91.0
3.5"/2.5"	93	106.0	77.5
3.5"/2.0"	93	106.0	64.0
4.0"/3.5"	118	119.0	106.0
4.0"/3.0"	118	119.0	91.0
4.0"/2.5"	118	119.0	77.5
4.0"/2.0"	118	119.0	64.0



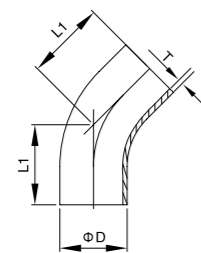
90° Long welded Elbow with straight ends

Size	L1	D	T
1/2"	49.1	12.7	1.6
3/4"	58.6	19.1	1.6
1"	68.1	25.4	1.6
1 1/4"	77.7	31.8	1.6
1 1/2"	87.0	38.1	1.6
2"	106.2	50.8	1.6
2 1/2"	125.0	63.5	1.6
3"	144.2	76.2	1.6
4"	182.4	101.6	2.0



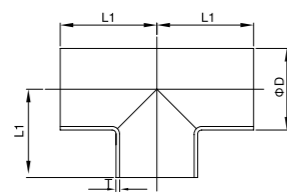
90° Welded Elbow

Size	L1	D	T
1/2"	19.1	12.7	1.6
3/4"	28.6	19.1	1.6
1"	38.1	25.4	1.6
1 1/4"	47.7	31.8	1.6
1 1/2"	57.0	38.1	1.6
2"	76.2	50.8	1.6
2 1/2"	95.0	63.5	1.6
3"	114.2	76.2	1.6
4"	152.4	101.6	2.0



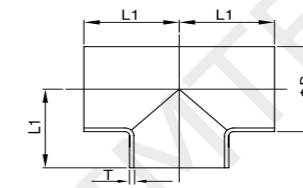
45° Long welded Elbow

Size	L1	D	T
1/2"	37.9	12.7	1.6
3/4"	41.8	19.1	1.6
1"	45.8	25.4	1.6
1 1/4"	49.7	31.8	1.6
1 1/2"	53.7	38.1	1.6
2"	61.6	50.8	1.6
2 1/2"	69.5	63.5	1.6
3"	77.3	76.2	1.6
4"	92.8	101.6	2.0



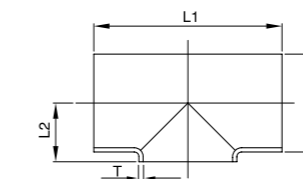
Long welded Tee

Size	L1	D	T
1/2"	49.1	12.7	1.6
3/4"	58.6	19.1	1.6
1"	68.1	25.4	1.6
1 1/4"	77.7	31.8	1.6
1 1/2"	87.0	38.1	1.6
2"	106.2	50.8	1.6
2 1/2"	125.0	63.5	1.6
3"	144.2	76.2	1.6
4"	182.4	101.6	2.0



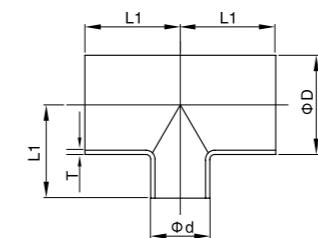
Equal welded Tee

Size	L1	D	T
1/2"	19.1	12.7	1.6
3/4"	28.6	19.1	1.6
1"	38.1	25.4	1.6
1 1/4"	47.7	31.8	1.6
1 1/2"	57.0	38.1	1.6
2"	76.2	50.8	1.6
2 1/2"	95.0	63.5	1.6
3"	114.2	76.2	1.6
4"	152.4	101.6	2.0



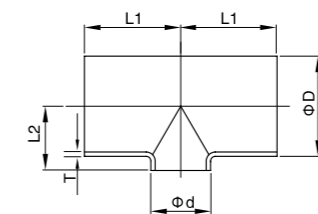
Short welded Tee

Size	L1	L2	D	T
1/2"	38.2	9.35	12.7	1.6
3/4"	57.2	12.55	19.1	1.6
1"	76.2	15.7	25.4	1.6
1 1/4"	95.4	18.9	31.8	1.6
1 1/2"	114.0	22.05	38.1	1.6
2"	152.4	28.4	50.8	1.6
2 1/2"	190.0	34.75	63.5	1.6
3"	228.4	41.1	76.2	1.6
4"	304.8	53.8	101.6	2.0



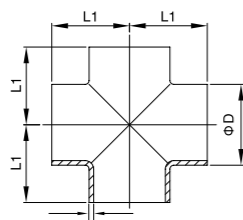
Reducing welded Tee

Size	L1	D	d	T
1 1/2"x 1"	80	38.1	25.4	1.6
2"x 1"	80	50.8	25.4	1.6
2"x 1 1/2"	80	50.8	38.1	1.6
2 1/2"x 1 1/2"	80	63.5	38.1	1.6
2 1/2"x 2"	80	63.5	50.8	1.6
3"x 1 1/2"	80	76.2	38.1	1.6
3"x 2"	80	76.2	50.8	1.6
3"x 2 1/2"	80	76.2	63.5	1.6
4"x 2"	80	101.6	50.8	1.6
4"x 2 1/2"	80	101.6	63.5	1.6
4"x 3"	80	101.6	76.2	2.0



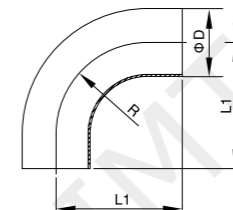
Short reducing welded Tee

Size	L1	L2	D	d	T
1 1/2"x 1"	80	22.05	38.1	25.4	1.6
2"x 1"	80	28.4	50.8	25.4	1.6
2"x 1 1/2"	80	28.4	50.8	38.1	1.6
2 1/2"x 1 1/2"	80	34.75	63.5	38.1	1.6
2 1/2"x 2"	80	34.75	63.5	50.8	1.6
3"x 1 1/2"	80	41.1	76.2	38.1	1.6
3"x 2"	80	41.1	76.2	50.8	1.6
3"x 2 1/2"	80	41.1	76.2	63.5	1.6
4"x 2"	80	53.8	101.6	50.8	1.6
4"x 2 1/2"	80	53.8	101.6	63.5	1.6
4"x 3"	80	53.8	101.6	76.2	2.0



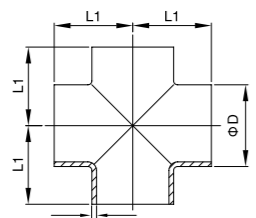
Long welded Cross

Size	L1	D	T
1/2"	49.1	12.7	1.6
3/4"	58.6	19.1	1.6
1"	68.1	25.4	1.6
1 1/4"	77.7	31.8	1.6
1 1/2"	87.0	38.1	1.6
2"	106.2	50.8	1.6
2 1/2"	125.0	63.5	1.6
3"	144.2	76.2	1.6
4"	182.4	101.6	2.0



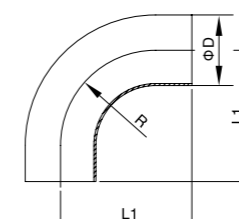
90° Welded Elbow

Size	L1	R	D
1"	43.5	38.1	25.4
1 1/2"	63.5	57.2	38.1
2"	88.5	76.2	50.8
2 1/2"	113.5	95.3	63.5
3"	133.5	114.3	76.2
4"	173.5	152.4	101.6



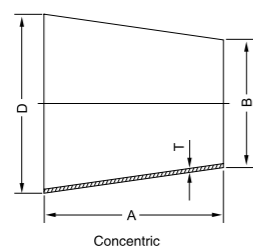
Short welded Cross

Size	L1	D	T
1/2"	19.1	12.7	1.6
3/4"	28.6	19.1	1.6
1"	38.1	25.4	1.6
1 1/4"	47.7	31.8	1.6
1 1/2"	57.0	38.1	1.6
2"	76.2	50.8	1.6
2 1/2"	95.0	63.5	1.6
3"	114.2	76.2	1.6
4"	152.4	101.6	2.0



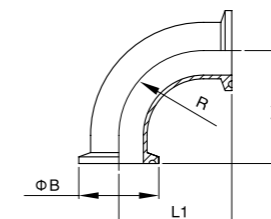
90° Welded Elbow with straight ends

Size	L1	R	D
1"	65.0	38.1	25.4
1 1/2"	85.0	57.2	38.1
2"	110.0	76.2	50.8
2 1/2"	135.0	95.3	63.5
3"	155.0	114.3	76.2
4"	195.0	152.4	101.6



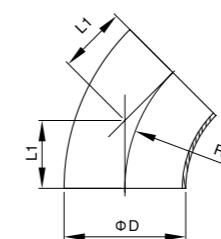
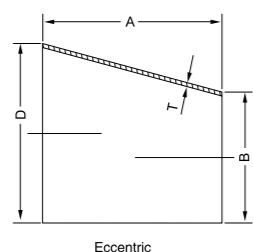
Welded Reducer

Size	A	B	D	T
3/4"x 1/2"	19.1	12.7	19.1	1.6
1"x 1/2"	25.4	12.7	25.4	1.6
1"x 3/4"	25.4	19.1	25.4	1.6
1 1/4"x 3/4"	31.8	19.1	31.8	1.6
1 1/4"x 1"	31.8	25.4	31.8	1.6
1 1/2"x 3/4"	38.1	19.1	38.1	1.6
1 1/2"x 1"	38.1	25.4	38.1	1.6
2"x 1/2"	50.8	12.7	50.8	1.6
2"x 3/4"	50.8	19.1	50.8	1.6
2"x 1"	50.8	25.4	50.8	1.6
2"x 1 1/4"	50.8	31.8	50.8	1.6
2"x 1 1/2"	50.8	38.1	50.8	1.6
2 1/2"x 1"	63.5	25.4	63.5	1.6
2 1/2"x 1 1/4"	63.5	31.8	63.5	1.6
2 1/2"x 1 1/2"	63.5	38.1	63.5	1.6
2 1/2"x 2"	63.5	50.8	63.5	1.6
3"x 1"	76.2	25.4	76.2	1.6
3"x 1 1/4"	76.2	31.8	76.2	1.6
3"x 1 1/2"	76.2	38.1	76.2	1.6
3"x 2"	76.2	50.8	76.2	1.6
3"x 2 1/2"	76.2	63.5	76.2	1.6
4"x 1"	101.6	25.4	101.6	2.0
4"x 1 1/4"	101.6	31.8	101.6	2.0
4"x 1 1/2"	101.6	38.1	101.6	2.0
4"x 2"	101.6	50.8	101.6	2.0
4"x 2 1/2"	101.6	63.5	101.6	2.0
4"x 3"	101.6	76.2	101.6	2.0



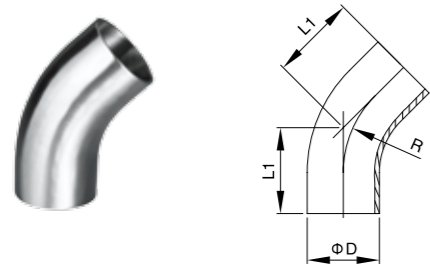
90° Clamped Elbow

Size	L1	B	R
1"	65.0	50.5	38.1
1 1/2"	85.0	50.5	57.2
2"	110.0	64	76.2
2 1/2"	135.0	77.5	95.3
3"	155.0	91	114.3
4"	195.0	119	152.4



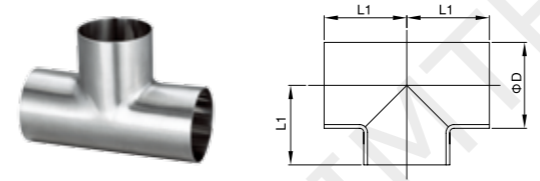
45° Short welded Elbow

Size	L1	D	R
1"	15.8	25.4	38.1
1 1/2"	23.7	38.1	57.2
2"	31.8	50.8	76.2
2 1/2"	39.6	63.5	95.3
3"	47.5	76.2	114.3
4"	63.2	101.6	152.4



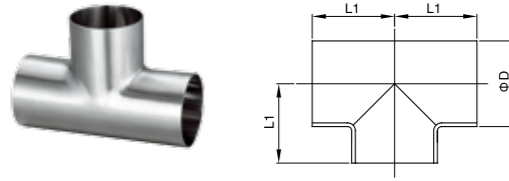
45° Long welded Elbow

Size	L1	D	R
1"	30.2	25.4	38.1
1 1/2"	41.3	38.1	57.2
2"	58.7	50.8	76.2
2 1/2"	76.2	63.5	95.3
3"	93.7	76.2	114.3
4"	122.2	101.6	152.4



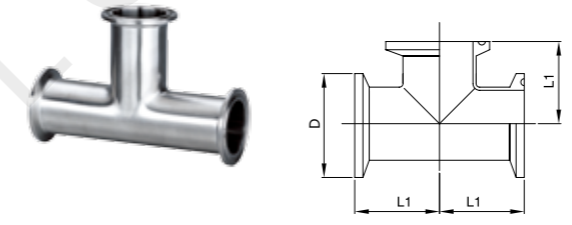
Long welded Tee

Size	L1	D
1/2"	47.6	12.7
3/4"	50.8	19.05
1"	54.0	25.4
1 1/2"	60.3	38.1
2"	73.0	50.8
2 1/2"	79.4	63.5
3"	85.7	76.2
4"	104.8	101.6



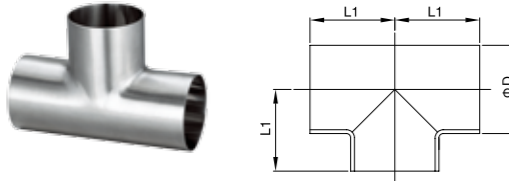
Short welded Tee

Size	L1	D
1"	43.5	25.4
1 1/2"	63.5	38.1
2"	88.5	50.8
2 1/2"	113.5	63.5
3"	133.5	76.2
4"	173.5	101.6



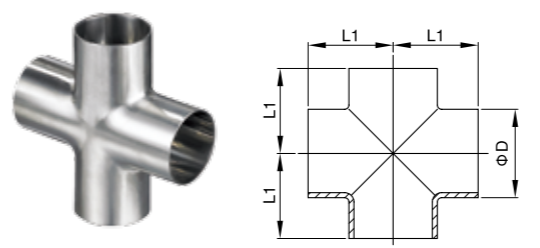
Clamped Tee

Size	L1	D
1/2"	57.2	25.4
3/4"	60.3	25.4
1"	66.7	50.5
1 1/2"	73.0	50.5
2"	85.7	64.0
2 1/2"	92.1	77.5
3"	98.4	91.0
4"	120.7	119.0



Long welded Tee

Size	L1	D
1"	65.0	25.4
1 1/2"	85.0	38.1
2"	110.0	50.8
2 1/2"	135.0	63.5
3"	155.0	76.2
4"	195.0	101.6



Welded Cross

Size	L1	D
1"	65.0	25.4
1 1/2"	85.0	38.1
2"	110.0	50.8
2 1/2"	135.0	63.5
3"	155.0	76.2
4"	195.0	101.6