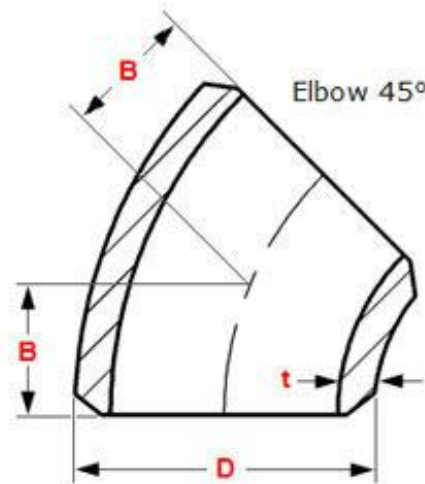




TSM Technology Co., Ltd.

5th Keji Road, Gaoxin District, Xi'an City, China
 Tel: 0086 29 87547434 Fax: 0086 29 87547434

DIMENSIONS OF ASME B 16.9 BUTTWELD 45° LONG RADIUS ELBOW



NPS	O.D.	45 degrees Long Radius Center-to-End B	45 degrees 3D Center-to-End B
1/2	21.3	16	-
3/4	26.7	19	24
1	33.4	22	31
1¼	42.2	25	39
1½	48.3	29	47
2	60.3	35	63
2½	73	44	79
3	88.9	51	95
3½	101.6	57	111
4	114.3	64	127
5	141.3	79	157



TSM Technology Co., Ltd.

5th Keji Road, Gaoxin District, Xi'an City, China
Tel: 0086 29 87547434 Fax: 0086 29 87547434

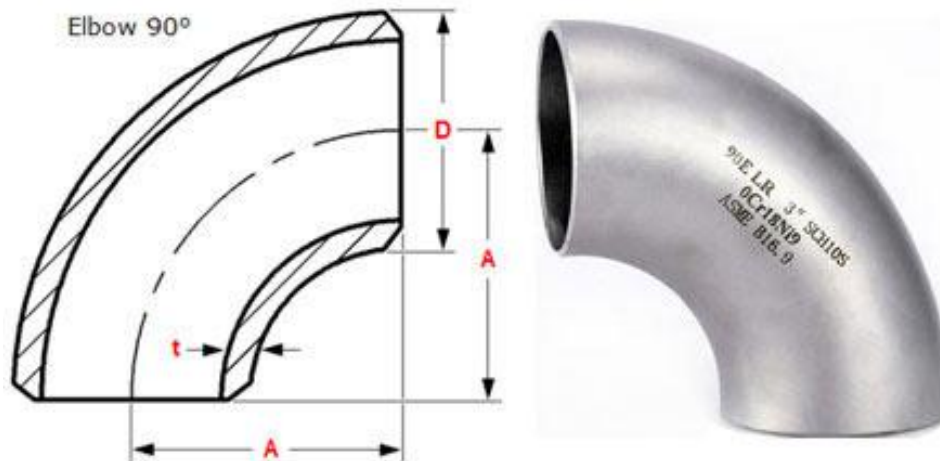
6	168.3	95	189
8	219.1	127	252
10	273	159	316
12	323.8	190	378
14	355.6	222	441
16	406.4	254	505
18	457	286	568
20	508	318	632
22	559	343	694
24	610	381	757
26	660	406	821
28	711	438	883
30	762	470	964
32	813	502	1010
34	864	533	1073
36	914	565	1135
38	965	600	1200
40	1016	632	1264
42	1067	660	1326
44	1118	695	1389
46	1168	727	1453
48	1219	759	1516



TSM Technology Co., Ltd.

5th Keji Road, Gaoxin District, Xi'an City, China
 Tel: 0086 29 87547434 Fax: 0086 29 87547434

DIMENSIONS OF ASME B 16.9 BUTTWELD 90° LONG RADIUS ELBOW



NPS	O.D. D	90 degrees Long Radius Center-to-End A	90 degrees 3D Center-to-End A
1/2	21.3	38	-
3/4	26.7	38	57
1	33.4	38	76
1¼	42.2	48	95
1½	48.3	57	114
2	60.3	76	152
2½	73	95	190
3	88.9	114	229
3½	101.6	133	267
4	114.3	152	305
5	141.3	190	381



TSM Technology Co., Ltd.

5th Keji Road, Gaoxin District, Xi'an City, China
Tel: 0086 29 87547434 Fax: 0086 29 87547434

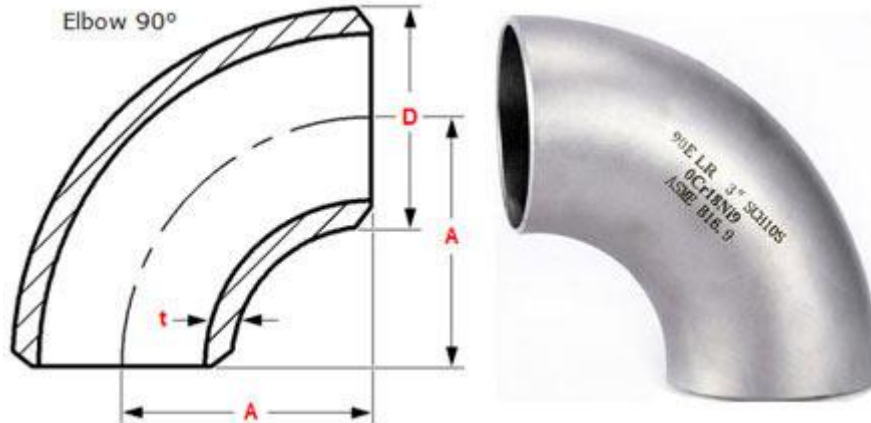
6	168.3	229	457
8	219.1	305	610
10	273	381	762
12	323.8	457	914
14	355.6	533	1067
16	406.4	610	1219
18	457	686	1372
20	508	762	1524
22	559	838	1676
24	610	914	1829
26	660	991	1981
28	711	1067	2134
30	762	1143	2286
32	813	1219	2438
34	864	1295	2591
36	914	1372	2743
38	965	1448	2896
40	1016	1524	3048
42	1067	1600	3200
44	1118	1676	3353
46	1168	1753	3505



TSM Technology Co., Ltd.

5th Keji Road, Gaoxin District, Xi'an City, China
 Tel: 0086 29 87547434 Fax: 0086 29 87547434

DIMENSIONS OF ASME B 16.9 BUTTWELD 180° LONG RADIUS ELBOW



NPS	O.D. D	180° Long Radius	
		Center to Center	Back to Face
		O	K
1/2	21.3	76	48
3/4	26.7	76	51
1	33.4	76	56
1¼	42.2	95	70
1½	48.3	114	83
2	60.3	152	106
2½	73	190	132
3	88.9	229	159
3½	101.6	267	184
4	114.3	305	210
5	141.3	381	262
6	168.3	457	313
8	219.1	610	414
10	273	762	518
12	323.8	914	619



TSM Technology Co., Ltd.

5th Keji Road, Gaoxin District, Xi'an City, China

Tel: 0086 29 87547434 Fax: 0086 29 87547434

14	355.6	1067	711
16	406.4	1219	813
18	457	1372	914
20	508	1524	1016
22	559	1676	1118
24	610	1829	1219