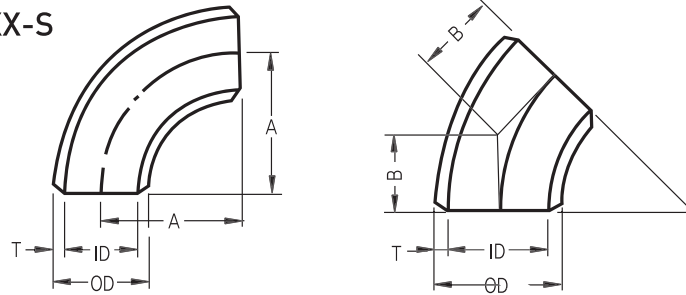


90° Elbow (Long, Short) 45° Elbow (Long)



STD, Sch40, X-S, Sch80, Sch160, XX-S



ASME B16.9

Dimensions are in millimeters.

Nominal Pipe Size	Outside Diameter O.D	Center to End			STD		Sch40		X-S		Sch80		Sch160		XX-S		Nominal Pipe Size
		Long		Short	T	I.D	T	I.D	T	I.D	T	I.D	T	I.D			
		A	B												A		
1/2	21.3	38	16		2.77	15.8	2.77	15.8	3.73	13.8	3.73	13.8	4.78	11.7	7.47	6.4	1/2
3/4	26.7	38	19		2.87	21.0	2.87	21.0	3.91	18.9	3.91	18.9	5.56	15.6	7.82	11.1	3/4
1	33.4	38	22	25	3.38	26.6	3.38	26.6	4.55	24.3	4.55	24.3	6.35	20.7	9.09	15.2	1
1-1/4	42.2	48	25	32	3.56	35.1	3.56	35.1	4.85	32.5	4.85	32.5	6.35	29.5	9.70	22.8	1-1/4
1-1/2	48.3	57	29	38	3.68	40.9	3.68	40.9	5.08	38.1	5.08	38.1	7.14	34.0	10.15	28.0	1-1/2
2	60.3	76	35	51	3.91	52.5	3.91	52.5	5.54	49.2	5.54	49.2	8.74	42.8	11.07	38.2	2
2-1/2	73.0	95	44	64	5.16	62.7	5.16	62.7	7.01	59.0	7.01	59.0	9.53	53.9	14.02	45.0	2-1/2
3	88.9	114	51	76	5.49	77.9	5.49	77.9	7.62	73.7	7.62	73.7	11.13	66.6	15.24	58.4	3
3-1/2	101.6	133	57	89	5.74	90.1	5.74	90.1	8.08	85.4	8.08	85.4					3-1/2
4	114.3	152	64	102	6.02	102.3	6.02	102.3	8.56	97.2	8.56	97.2	13.49	87.3	17.12	80.1	4
5	141.3	190	79	127	6.55	128.2	6.55	128.2	9.53	122.2	9.53	122.2	15.88	109.5	19.05	103.2	5
6	168.3	229	95	152	7.11	154.1	7.11	154.1	10.97	146.4	10.97	146.4	18.26	131.8	21.95	124.4	6
8	219.1	305	127	203	8.18	202.7	8.18	202.7	12.70	193.7	12.70	193.7	23.01	173.1	22.23	174.6	8
10	273.0	381	159	254	9.27	254.5	9.27	254.5	12.70	247.6	15.09	242.8	28.58	215.8	25.40	222.2	10
12	323.8	457	190	305	9.53	304.7	10.31	303.2	12.70	298.4	17.48	288.8	33.32	257.2	25.40	273.0	12
14	355.6	533	222	356	9.53	336.5	11.13	333.3	12.70	330.2	19.05	317.5	35.71	284.2			14
16	406.4	610	254	406	9.53	387.3	12.70	381.0	12.70	381.0	21.44	363.5	40.49	325.4			16
18	457.0	686	286	457	9.53	437.9	14.27	428.5	12.70	431.6	23.83	409.3	45.24	366.5			18
20	508.0	762	318	508	9.53	488.9	15.09	477.8	12.70	482.6	26.19	455.6	50.01	408.0			20
22	559.0	838	343	559	9.53	539.9			12.70	533.6	28.58	501.8	53.98	451.0			22
24	610.0	914	381	610	9.53	590.9	17.48	575.0	12.70	584.6	30.96	548.1	59.54	490.9			24
26	660.0	991	406		9.53	640.9			12.70	634.6							26
28	711.0	1067	438		9.53	691.9			12.70	685.6							28
30	762.0	1143	470		9.53	742.9			12.70	736.6							30
32	813.0	1219	502		9.53	793.9	17.48	778.0	12.70	787.6							32
34	864.0	1295	533		9.53	844.9	17.48	829.0	12.70	838.6							34
36	914.0	1372	565		9.53	894.9	19.05	875.9	12.70	888.6							36
38	965.0	1448	600		9.53	945.9			12.70	939.6							38
40	1016.0	1524	632		9.53	996.9			12.70	990.6							40
42	1067.0	1600	660		9.53	1047.9			12.70	1041.6							42
44	1118.0	1676	695		9.53	1098.9			12.70	1092.6							44
46	1168.0	1753	727		9.53	1148.9			12.70	1142.6							46
48	1219.0	1829	759		9.53	1199.9			12.70	1193.6							48

Wall Thickness Conform to ASME B 36.10M Specifications