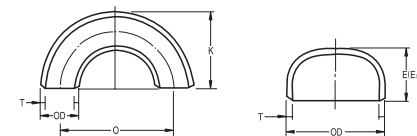


180° Elbow (Long, Short) Cap

Sch5s, Sch10s, Sch40s, Sch80s



(Unit : mm)

ASME B16.9, MSS SP-43

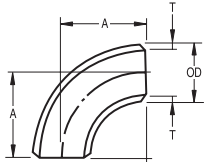
Nominal Pipe Size	Outside Diameter O.D	Wall Thickness				Length
		5S	10S	40S	80S	E
1/2	21.3	1.65	2.11	2.77	3.73	25
3/4	26.7	1.65	2.11	2.87	3.91	25
1	33.4	1.65	2.77	3.38	4.55	38
1-1/4	42.2	1.65	2.77	3.56	4.85	38
1-1/2	48.3	1.65	2.77	3.68	5.08	38
2	60.3	1.65	2.77	3.91	5.54	38
2-1/2	73.0	2.11	3.05	5.16	7.01	38
3	88.9	2.11	3.05	5.49	7.62	51
3-1/2	101.6	2.11	3.05	5.74	8.08	64
4	114.3	2.11	3.05	6.02	8.56	64
5	141.3	2.77	3.40	6.55	9.53	76
6	168.3	2.77	3.40	7.11	10.97	89
8	219.1	2.77	3.76	8.18	12.70	102
10	273.0	3.40	4.19	9.27	12.70	127
12	323.8	3.96	4.57	9.53	12.70	152
14	355.6	3.96	4.78	9.53	12.70	165
16	406.4	4.19	4.78	9.53	12.70	178
18	457.0	4.19	4.78	9.53	12.70	203
20	508.0	4.78	5.54	9.53	12.70	229
22	559.0	4.78	5.54			254
24	610.0	5.54	6.35	9.53	12.70	267
30	762.0	6.35	7.92			267

Nominal Pipe Size	Limiting Wall Thickness for Length E	Length E1	180° Elbow			
			Long		Short	
			O	K	O	K
1/2	4.57	25		48		
3/4	3.81	25		51		
1	4.57	38		56	51	41
1-1/4	4.83	38	95	70	64	52
1-1/2	5.08	38	114	83	76	62
2	5.59	44	152	106	102	81
2-1/2	7.11	51	190	132	127	100
3	7.62	64	229	159	152	121
3-1/2	8.13	76	267	184	178	140
4	8.64	76	305	210	203	159
5	9.65	89	381	262	254	197
6	10.92	102	457	313	305	237
8	12.70	127	610	414	406	313
10	12.70	152	762	518	508	391
12	12.70	178	914	619	610	467
14	12.70	191	1067	711	711	533
16	12.70	203	1219	813	813	610
18	12.70	229	1372	914	914	686
20	12.70	254	1524	1016	1016	762
22	12.70	254	1676	1118	1118	838
24	12.70	305	1829	1219	1219	914
30						

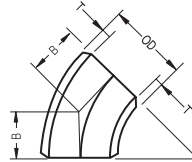
- Length E applies for thickness not exceeding that given in column "Limiting Wall Thickness for Length E."
- Length E1 applies for thickness greater than that given in column "Limiting Wall Thickness" for NPS 24 and smaller for NPS 26 and larger, length E1 shall be by agreement between manufacturer and Purchaser.

Special Fittings Elbow (90°,45°)

90° Elbow

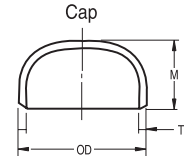
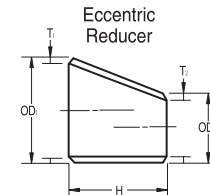
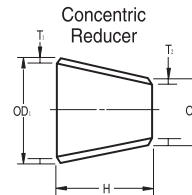


45° Elbow



(Unit : mm)

Special Fittings Reducer, Cap



(Unit : mm)

Nominal Pipe Size	ELBOW					
	OD	Wall Thickness		LONG		SHORT
		STD	X-S	A	B	A
50	1270.0	9.53	12.70	1905.0	789.1	1270.0
52	1320.8	9.53	12.70	1981.2	820.6	1320.8
54	1371.6	9.53	12.70	2057.4	852.2	1371.6
56	1422.4	9.53	12.70	2133.6	883.8	1422.4
58	1473.2	9.53	12.70	2209.8	915.3	1473.2
60	1524.0	9.53	12.70	2286.0	946.9	1524.0
62	1574.8	9.53	12.70	2362.2	978.5	1574.8
64	1625.6	9.53	12.70	2438.4	1010.0	1625.6
66	1676.4	9.53	12.70	2514.6	1041.6	1676.4
68	1727.2	9.53	12.70	2590.8	1073.2	1727.2
70	1778.0	9.53	12.70	2667.0	1104.7	1778.0
72	1828.8	9.53	12.70	2743.2	1136.3	1828.8
74	1879.6	9.53	12.70	2819.4	1167.8	1879.6
76	1930.4	9.53	12.70	2895.6	1199.4	1930.4
78	1981.2	9.53	12.70	2971.8	1231.0	1981.2
80	2032.0	9.53	12.70	3048.0	1211.7	2032.0
82	2082.8	9.53	12.70	3124.2	1294.1	2082.8

Nominal Pipe Size	REDUCER / CAP		
	OD	Wall Thickness	
		STD	X-S
50	1270.0	9.53	12.70
52	1320.8	9.53	12.70
54	1371.6	9.53	12.70
56	1422.4	9.53	12.70
58	1473.2	9.53	12.70
60	1524.0	9.53	12.70
62	1574.8	9.53	12.70
64	1625.6	9.53	12.70
66	1676.4	9.53	12.70
68	1727.2	9.53	12.70
70	1778.0	9.53	12.70
72	1828.8	9.53	12.70
74	1879.6	9.53	12.70
76	1930.4	9.53	12.70
78	1981.2	9.53	12.70
80	2032.0	9.53	12.70
82	2082.8	9.53	12.70

• Wall Thickness Conform to ASME B 36.19M Specifications

• Reducer for 50" and above shall be Conical shape.
 • Dimension 'H' to be provided by customer or agreed.
 • Dimension 'M' for caps for 50" and above to be provided by customer or agreed.