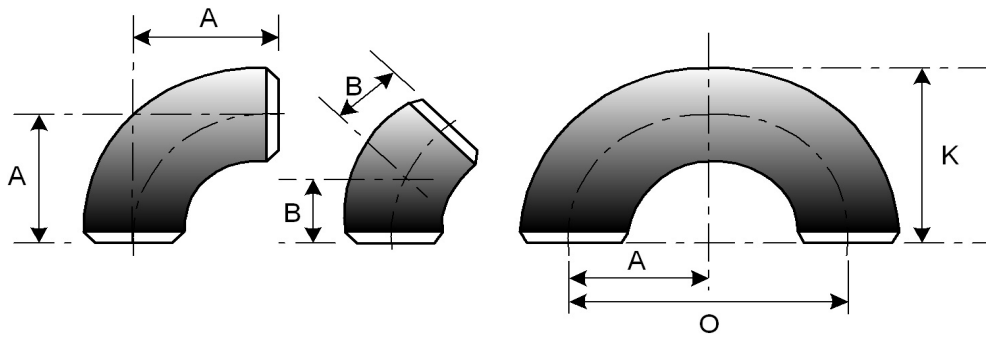


## Dimensions of Elbows and Return Bends to ASME B16.9



Nominal Pipe Size NPS	O.D. at Bevel	Centre-to-End			Centre-to-Centre		Back-to-Face	
		90 Deg Elbows		45 Deg Elbows B	180 Deg Return Bends		180 Deg Return Bends	
		LR A	SR A		LR O <sup>(1)</sup>	SR O <sup>(1)</sup>	LR K	SR K
1/2	0.84	1.50	...	0.62	3.00	...	1.88	...
3/4	1.05	1.50	...	0.75	3.00 <sup>(2)</sup>	...	2.00 <sup>(2)</sup>	...
1	1.32	1.50	1.00	0.88	3.00	2.00	2.19	1.62
1 1/4	1.66	1.88	1.25	1.00	3.75	2.50	2.75	2.06
1 1/2	1.90	2.25	1.50	1.12	4.50	3.00	3.25	2.44
2	2.38	3.00	2.00	1.38	6.00	4.00	4.19	3.19
2 1/2	2.88	3.75	2.50	1.75	7.50	5.00	5.19	3.94
3	3.50	4.50	3.00	2.00	9.00	6.00	6.25	4.75
3 1/2	4.00	5.25	3.50	2.25	10.50	7.00	7.25	5.50
4	4.50	6.00	4.00	2.50	12.00	8.00	8.25	6.25
5	5.56	7.50	5.00	3.12	15.00	10.00	10.31	7.75
6	6.62	9.00	6.00	3.75	18.00	12.00	12.31	9.31
8	8.62	12.00	8.00	5.00	24.00	16.00	16.31	12.31
10	10.75	15.00	10.00	6.25	30.00	20.00	20.38	15.38
12	12.75	18.00	12.00	7.50	36.00	24.00	24.38	18.38
14	14.00	21.00	14.00	8.75	42.00	28.00	28.00	21.00
16	16.00	24.00	16.00	10.00	48.00	32.00	32.00	24.00
18	18.00	27.00	18.00	11.25	54.00	36.00	36.00	27.00
20	20.00	30.00	20.00	12.50	60.00	40.00	40.00	30.00
22	22.00	33.00	22.00	13.50	66.00	44.00	44.00	33.00
24	24.00	36.00	24.00	15.00	72.00	48.00	48.00	36.00
26	26.00	39.00	...	16.00	...	...	...	...
28	28.00	42.00	...	17.25	...	...	...	...
30	30.00	45.00	...	18.50	...	...	...	...
32	32.00	48.00	...	19.75	...	...	...	...
34	34.00	51.00	...	21.00	...	...	...	...
36	36.00	54.00	...	22.25	...	...	...	...
38	38.00	57.00	...	23.62	...	...	...	...
40	40.00	60.00	...	24.88	...	...	...	...
42	42.00	63.00	...	26.00	...	...	...	...
44	44.00	66.00	...	27.38	...	...	...	...
46	46.00	69.00	...	28.62	...	...	...	...
48	48.00	72.00	...	29.88	...	...	...	...

All dimensions are given in inches

Notes:

- (1) Dimension "A" is equal to one half dimension "O".
- (2) "O" dimension of 2.25" and "K" dimension of 1.69" may be furnished for NPS 3/4 at the manufacturer's option

