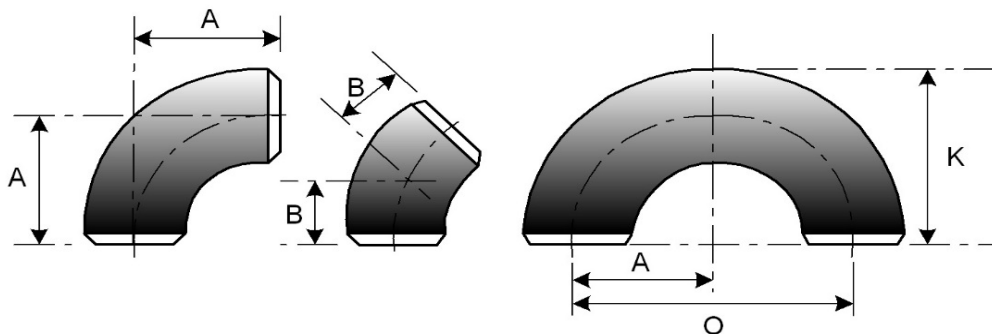


## Dimensions of Elbows and Return Bends to ASME B16.9



Nominal Pipe Size NPS	O.D. at Bevel	Centre-to-End					Centre-to-Centre		Back-to-Face	
		90 Deg Elbows			45 Deg Elbows		180 Deg Return Bends		180 Deg Return Bends	
		LR A	SR A	3D A	LR B	3D B	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	...	2.25	0.75	0.94	3.00	...	2.00	...
1	1.32	1.50	1.00	3.00	0.88	1.25	3.00	2.00	2.19	1.62
1 1/4	1.66	1.88	1.25	3.75	1.00	1.56	3.75	2.50	2.75	2.06
1 1/2	1.90	2.25	1.50	4.50	1.12	1.88	4.50	3.00	3.25	2.44
2	2.38	3.00	2.00	6.00	1.38	2.50	6.00	4.00	4.19	3.19
2 1/2	2.88	3.75	2.50	7.50	1.75	3.12	7.50	5.00	5.19	3.94
3	3.50	4.50	3.00	9.00	2.00	3.75	9.00	6.00	6.25	4.75
3 1/2	4.00	5.25	3.50	10.50	2.25	4.38	10.50	7.00	7.25	5.50
4	4.50	6.00	4.00	12.00	2.50	5.00	12.00	8.00	8.25	6.25
5	5.56	7.50	5.00	15.00	3.12	6.19	15.00	10.00	10.31	7.75
6	6.62	9.00	6.00	18.00	3.75	7.44	18.00	12.00	12.31	9.31
8	8.62	12.00	8.00	24.00	5.00	9.94	24.00	16.00	16.31	12.31
10	10.75	15.00	10.00	30.00	6.25	12.44	30.00	20.00	20.38	15.38
12	12.75	18.00	12.00	36.00	7.50	14.88	36.00	24.00	24.38	18.38
14	14.00	21.00	14.00	42.00	8.75	17.38	42.00	28.00	28.00	21.00
16	16.00	24.00	16.00	48.00	10.00	19.88	48.00	32.00	32.00	24.00
18	18.00	27.00	18.00	54.00	11.25	22.38	54.00	36.00	36.00	27.00
20	20.00	30.00	20.00	60.00	12.50	24.88	60.00	40.00	40.00	30.00
22	22.00	33.00	22.00	66.00	13.50	27.31	66.00	44.00	44.00	33.00
24	24.00	36.00	24.00	72.00	15.00	29.81	72.00	48.00	48.00	36.00
26	26.00	39.00	...	78.00	16.00	32.31	...	...	...	...
28	28.00	42.00	...	84.00	17.25	34.75	...	...	...	...
30	30.00	45.00	...	90.00	18.50	37.25	...	...	...	...
32	32.00	48.00	...	96.00	19.75	39.75	...	...	...	...
34	34.00	51.00	...	102.00	21.00	42.25	...	...	...	...
36	36.00	54.00	...	108.00	22.25	44.69	...	...	...	...
38	38.00	57.00	...	114.00	23.62	47.25	...	...	...	...
40	40.00	60.00	...	120.00	24.88	49.75	...	...	...	...
42	42.00	63.00	...	126.00	26.00	52.19	...	...	...	...
44	44.00	66.00	...	132.00	27.38	54.69	...	...	...	...
46	46.00	69.00	...	138.00	28.62	57.19	...	...	...	...
48	48.00	72.00	...	144.00	29.88	59.69	...	...	...	...

All dimensions are given in inches

Notes:

(1) Dimension "A" is equal to one half dimension "O".

Trans Am

Piping Products Ltd.