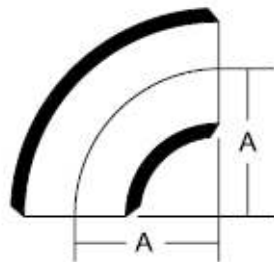
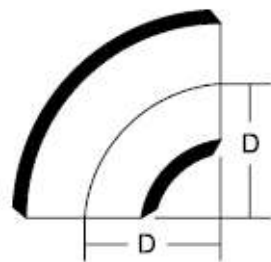




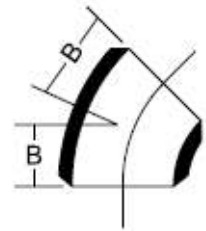
## IPS INDUSTRIAL ELBOWS AND RETURNS



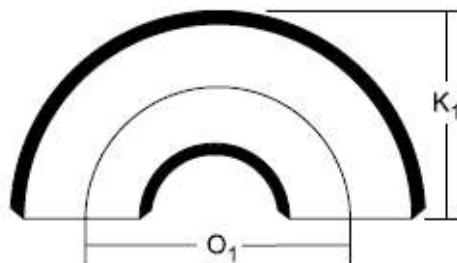
90° Elbow/Long Radius



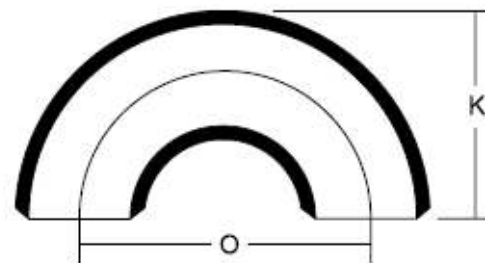
90° Elbow/Short Radius



45° Elbow



180° Return/Short Radius



180° Return/Long Radius

NOM PIPE SIZE	OUTSIDE DIAM. O.D.	A	B	D	O	K	O'	K'
1/2	0.84	1.50	0.62	-	3.00	1.88	-	-
3/4	1.05	1.50*	0.75**	-	3.00	2.00	-	-
1	1.315	1.50	0.88	1.00	3.00	2.19	2.00	1.62
1-1/4	1.66	1.88	1.00	1.25	3.75	2.75	2.50	2.06
1-1/2	1.90	2.25	1.12	1.50	4.50	3.25	3.00	2.44
2	2.375	3.00	1.38	2.00	6.00	4.19	4.00	3.19
2-1/2	2.875	3.75	1.75	2.50	7.50	5.19	5.00	3.94
3	3.50	4.50	2.00	3.00	9.00	6.25	6.00	4.75
3-1/2	4.00	5.25	2.25	3.50	10.50	7.25	7.00	5.50
4	4.50	6.00	2.50	4.00	12.00	8.25	8.00	6.25
5	5.563	7.50	3.12	5.00	15.00	10.31	10.00	7.75
6	6.625	9.00	3.75	6.00	18.00	12.31	12.00	9.31
8	8.625	12.00	5.00	8.00	24.00	16.31	16.00	12.31
10	10.75	15.00	6.25	10.00	30.00	20.38	20.00	15.38
12	12.75	18.00	7.50	12.00	36.00	24.38	24.00	18.38
14	14.00	21.00	8.75	14.00	42.00	28.00	28.00	21.00
16	16.00	24.00	10.00	16.00	48.00	32.00	32.00	24.00
18	18.00	27.00	11.25	18.00	54.00	36.00	36.00	27.00
20	20.00	30.00	12.50	20.00	60.00	40.00	40.00	30.00
22	22.00	33.00	13.50	22.00	66.00	44.00	44.00	33.00
24	24.00	36.00	15.00	24.00	72.00	48.00	48.00	36.00

All dimensions are in inches

All dimensions are in accordance with ASME/ANSI B16.9

\* May be 1.12 at manufacturer's option

\*\* May be 0.44 at manufacturer's option