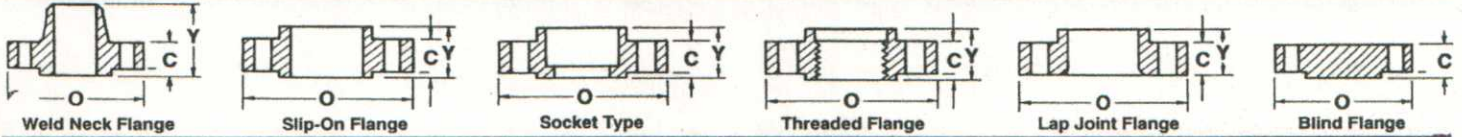


Forged
Steel Flanges

Nom. Pipe Size	CLASS 150 FLANGES						CLASS 300 FLANGES						CLASS 400 FLANGES								
	O	C*	Length Through Hub*			Bolt Circle	No. and Size of Holes	O	C*	Length Through Hub*			Bolt Circle	No. and Size of Holes	O	C*	Length Through Hub*			Bolt Circle	No. and Size of Holes
			Slip-on Thrd. Socket	Lap Joint	Weld Neck					Slip-on Thrd. Socket	Lap Joint	Weld Neck					Slip-on Thrd. Socket	Lap Joint	Weld Neck		
1/2	3.50	.44	.62	.62	1.88	2.38	4-0.62	3.75	.56	.88	.88	2.06	2.62	4-0.62	3.75	.56	.88	.88	2.06	2.62	4-0.62
3/4	3.88	.50	.62	.62	2.06	2.75	4-0.62	4.62	.62	1.00	1.00	2.25	3.25	4-0.75	4.62	.62	1.00	1.00	2.25	3.25	4-0.75
1	4.25	.56	.69	.69	2.19	3.12	4-0.62	4.88	.69	1.06	1.06	2.44	3.50	4-0.75	4.88	.69	1.06	1.06	2.44	3.50	4-0.75
1 1/4	4.62	.62	.81	.81	2.25	3.50	4-0.62	5.25	.75	1.06	1.06	2.56	3.88	4-0.75	5.25	.81	1.12	1.12	2.62	3.88	4-0.75
1 1/2	5.00	.69	.88	.88	2.44	3.88	4-0.62	6.12	.81	1.19	1.19	2.69	4.50	4-0.88	6.12	.88	1.25	1.25	2.75	4.50	4-0.88
2	6.00	.75	1.00	1.00	2.50	4.75	4-0.75	6.50	.88	1.31	1.31	2.75	5.00	8-0.75	6.50	1.00	1.44	1.44	2.88	5.00	8-0.75
2 1/2	7.00	.88	1.12	1.12	2.75	5.50	4-0.75	7.50	1.00	1.50	1.50	3.00	5.88	8-0.88	7.50	1.12	1.62	1.62	3.12	5.88	8-0.88
3	7.50	.94	1.19	1.19	2.75	6.00	4-0.75	8.25	1.12	1.69	1.69	3.12	6.62	8-0.88	8.25	1.25	1.81	1.81	3.25	6.62	8-0.88
3 1/2	8.50	.94	1.25	1.25	2.81	7.00	8-0.75	9.00	1.19	1.75	1.75	3.19	7.25	8-0.88	9.00	1.38	1.94	1.94	3.38	7.25	8-1.00
4	9.00	.94	1.31	1.31	3.00	7.50	8-0.75	10.00	1.25	1.88	1.88	3.38	7.88	8-0.88	10.00	1.38	2.00	2.00	3.50	7.88	8-1.00
5	10.00	.94	1.44	1.44	3.50	8.50	8-0.88	11.00	1.38	2.00	2.00	3.88	9.25	8-0.88	11.00	1.50	2.12	2.12	4.00	9.25	8-1.00
6	11.00	1.00	1.56	1.56	3.50	9.50	8-0.88	12.50	1.44	2.06	2.06	3.88	10.62	12-0.88	12.50	1.62	2.25	2.25	4.06	10.62	12-1.00
8	13.50	1.12	1.75	1.75	4.00	11.75	8-0.88	15.00	1.62	2.44	2.44	4.38	13.00	12-1.00	15.00	1.88	2.69	2.69	4.62	13.00	12-1.12
10	16.00	1.19	1.94	1.94	4.00	14.25	12-1.00	17.50	1.88	2.62	2.62	4.62	15.25	16-1.12	17.50	2.12	2.88	2.88	4.88	15.25	16-1.25
12	19.00	1.25	2.19	2.19	4.50	17.00	12-1.00	20.50	2.00	2.88	2.88	5.12	17.75	16-1.25	20.50	2.25	3.12	3.12	5.38	17.75	16-1.38
14	21.00	1.38	2.25	2.25	5.00	18.75	12-1.12	23.00	2.12	3.00	3.00	5.62	20.25	20-1.25	23.00	2.38	3.31	3.31	5.88	20.25	20-1.38
16	23.50	1.44	2.50	2.50	5.00	21.25	16-1.12	25.50	2.25	3.25	3.25	5.75	22.50	20-1.38	25.50	2.50	3.69	3.69	6.00	22.50	20-1.50
18	25.00	1.56	2.69	2.69	5.50	22.75	16-1.25	28.00	2.38	3.50	3.50	6.25	24.75	24-1.38	28.00	2.62	3.88	3.88	6.50	24.75	24-1.50
20	27.50	1.69	2.88	2.88	5.69	25.00	20-1.25	30.50	2.50	3.75	3.75	6.38	27.00	24-1.38	30.50	2.75	4.00	4.00	6.62	27.00	24-1.62
24	32.00	1.88	3.25	3.25	6.00	29.50	20-1.38	36.00	2.75	4.19	4.19	6.62	32.00	24-1.62	36.00	3.00	4.50	4.50	6.88	32.00	24-1.88
30	38.75	2.94			5.38	36.00	28-1.38	43.00	3.62			8.25	39.25	28-1.88	43.00	4.00			8.62	39.25	28-2.12
36	46.00	3.56			6.19	42.75	32-1.62	50.00	4.12			9.50	46.00	32-2.12	50.00	4.50			9.88	46.00	32-2.12
42	53.00	3.81			6.75	49.50	36-1.62	50.75	4.69			7.88	47.50	32-1.75	52.00	5.25			8.81	48.25	32-2.00
48	59.50	4.25			7.56	56.00	44-1.62	57.75	5.25			8.81	54.00	32-2.00	59.50	6.00			10.12	55.25	28-2.38
54	66.25	4.75			8.50	62.75	44-1.88	65.25	6.00			9.94	61.00	28-2.38	67.00	6.69			11.38	62.25	28-2.62
60	73.00	5.19			9.44	69.25	52-1.88	71.25	6.44			10.75	67.00	32-2.38	74.25	7.31			12.56	69.00	32-2.88



Nom. Pipe Size	CLASS 600 FLANGES						CLASS 900 FLANGES						CLASS 1500 FLANGES									
	O	C*	Length Through Hub*			Bolt Circle	No. and Size of Holes	O	C*	Length Through Hub*			Bolt Circle	No. and Size of Holes	O	C*	Length Through Hub*			Bolt Circle	No. and Size of Holes	
			Slip-on Thrd. Socket	Lap Joint	Weld Neck					Slip-on Thrd. Socket	Lap Joint	Weld Neck					Slip-on Thrd. Socket	Lap Joint	Weld Neck			
1/2	3.75	.56	.88	.88	2.06	2.62	4-0.62	4.75	.88	1.25	1.25	2.38	3.25	4-0.88	4.75	.88	1.25	1.25	2.38	3.25	4-0.88	
3/4	4.62	.62	1.00	1.00	2.25	3.25	4-0.75	5.12	1.00	1.38	1.38	2.75	3.50	4-0.88	5.12	1.00	1.38	1.38	2.75	3.50	4-0.88	
1	4.88	.69	1.06	1.06	2.44	3.50	4-0.75	5.88	1.12	1.62	1.62	2.88	4.00	4-1.00	5.88	1.12	1.62	1.62	2.88	4.00	4-1.00	
1 1/4	5.25	.81	1.12	1.12	2.62	3.88	4-0.75	6.25	1.12	1.62	1.62	2.88	4.38	4-1.00	6.25	1.12	1.62	1.62	2.88	4.38	4-1.00	
1 1/2	6.12	.88	1.25	1.25	2.75	4.50	4-0.88	7.00	1.25	1.75	1.75	3.25	4.88	4-1.12	7.00	1.25	1.75	1.75	3.25	4.88	4-1.12	
2	6.50	1.00	1.44	1.44	2.88	5.00	8-0.75	8.50	1.50	2.25	2.25	4.00	6.50	8-1.00	8.50	1.50	2.25	2.25	4.00	6.50	8-1.00	
2 1/2	7.50	1.12	1.62	1.62	3.12	5.88	8-0.88	9.62	1.62	2.50	2.50	4.12	7.50	8-1.12	9.62	1.62	2.50	2.50	4.12	7.50	8-1.12	
3	8.25	1.25	1.81	1.81	3.25	6.62	8-0.88	9.50	1.50	2.12	2.12	4.00	7.50	8-1.00	10.50	1.88	2.88	2.88	4.62	8.00	8-1.25	
3 1/2	9.00	1.38	1.94	1.94	3.38	7.25	8-1.00															
4	10.75	1.50	2.12	2.12	4.00	8.50	8-1.00	11.50	1.75	2.75	2.75	4.50	9.25	8-1.25	12.25	2.12	3.56	3.56	4.88	9.50	8-1.38	
5	13.00	1.75	2.38	2.38	4.50	10.50	8-1.12	13.75	2.00	3.12	3.12	5.00	11.00	8-1.38	14.75	2.88	4.12	4.12	6.12	11.50	8-1.62	
6	14.00	1.88	2.62	2.62	4.62	11.50	12-1.12	15.00	2.19	3.38	3.38	5.50	12.50	12-1.25	15.50	3.25	4.69	4.69	6.75	12.50	12-1.50	
8	16.50	2.19	3.00	3.00	5.25	13.75	12-1.25	18.50	2.50	4.00	4.00	6.38	15.50	12-1.50	19.00	3.62	5.62	5.62	8.38	15.50	12-1.75	
10	20.00	2.50	3.38	3.38	6.00	17.00	16-1.38	21.50	2.75	4.25	4.25	7.25	18.50	16-1.50	23.00	4.25	6.25	6.25	10.00	19.00	12-2.00	
12	22.00	2.62	3.62	3.62	6.12	19.25	20-1.38	24.00	3.12	4.62	4.62	7.88	21.00	20-1.50	26.50	4.88	7.12	7.12	11.12	22.50	16-2.12	
14	23.75	2.75	3.69	3.69	6.50	20.75	20-1.50	25.25	3.38	5.12	5.12	8.38	22.00	20-1.62	29.50	5.25			11.75	25.00	16-2.38	
16	27.00	3.00	4.19	4.19	7.00	23.75	20-1.62	27.75	3.50	5.25	5.25	8.50	24.25	20-1.75	32.50	5.75			12.25	27.75	16-2.62	
18	29.25	3.25	4.62	4.62	7.25	25.75	20-1.75	31.00	4.00	6.00	6.00	9.00	27.00	20-2.00	36.00	6.38			12.88	30.50	16-2.88	
20	32.00	3.50	5.00	5.00	7.50	28.50	24-1.75	33.75	4.25	6.25	6.25	9.75	29.50	20-2.12	38.75	7.00			14.00	32.75	16-3.12	
24	37.00	4.00	5.50	5.50	8.00	33.00	24-2.00	41.00	5.50	8.00	8.00	11.50	35.50	20-2.62	46.00	8.00			16.00	39.00	16-3.62	
30	44.50	4.50			9.75	40.25	28-2.12	48.50	5.88			12.25	42.75	20-3.12								
36	51.75	4.88			11.12	47.00	28-2.62	57.50	6.75			14.25	50.75	20-3.62								
42	55.25	6.62			11.00	50.50	28-2.62	61.50	8.12			14.62	54.75	24-3.62								
48	62.75	7.44			12.44	57.50	32-2.88	70.25	9.19			16.50	62.50	24-4.12								
54	70.00	8.25			13.75	64.25	32-3.12															
60	78.50	9.19			15.31	71.75	28-3.62															

NOTES: Flange dimensions conform to ANSI B16.5 for sizes 24" and smaller.

Thicknesses on blind flanges, 24" and over, to be specified. Dimensions are in inches.

Lap joint flanges will be furnished with slip-on "Y" dimension unless otherwise specified.

*includes .06 raised face in Class 150 and Class 300 standards, but does not include .25 raised face in Class 400 and heavier standards.

ESP, Inc. is not responsible for any printing errors in the data contained herein. Although care was taken for proper representation, verification of all specifications is the sole responsibility of the customer.

Nom. Pipe Size	CLASS 2500 FLANGES						
	O	C*	Length Through Hub*			Bolt Circle	No. and Size of Holes
			Slip-on Thrd. Socket	Lap Joint	Weld Neck		
1/2	5.25	1.19	1.56	1.56	2.88	3.50	4-0.88
3/4	5.50	1.25	1.69	1.69	3.12	3.75	4-0.88
1	6.25	1.38	1.88	1.88	3.50	4.25	4-1.00
1 1/4	7.25	1.50	2.06	2.06	3.75	5.12	4-1.12
1 1/2	8.00	1.75	2.38	2.38	4.38	5.75	4-1.25
2							