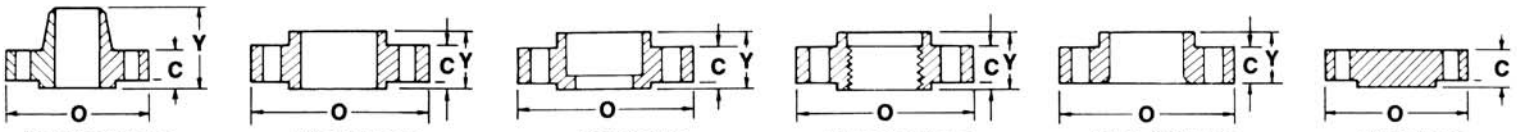
FLANGE DIMENSIONS



Weld Neck Flange | Slip-on Flange | Socket Type | Threaded Flange | Lap Joint Flange | Blind Flange

Nom. Pipe Size	CLASS 150 FLANGES							CLASS 300 FLANGES							CLASS 400 FLANGES						
			Y†							Y†							Y†				
	O	C†	Weld Neck	Slip-on Thrd. Socket	Lap Joint	Bolt Circle	No. and Size of Holes	O	C†	Weld Neck	Slip-on Thrd. Socket	Lap Joint	Bolt Circle	No. and Size of Holes	O	C†	Weld Neck	Slip-on Thrd. Socket	Lap Joint	Bolt Circle	No. and Size of Holes
1/2	3.50	.44	1.88	.62	.62	2.38	4-0.62	3.75	.56	2.06	.88	.88	2.62	4-0.62	3.75	.56	2.06	.88	.88	2.62	4-0.62
3/4	3.88	.50	2.06	.62	.62	2.75	4-0.62	4.62	.62	2.25	1.00	1.00	3.25	4-0.75	4.62	.62	2.25	1.00	1.00	3.25	4-0.75
1	4.25	.56	2.19	.69	.69	3.12	4-0.62	4.88	.69	2.44	1.06	1.06	3.50	4-0.75	4.88	.69	2.44	1.06	1.06	3.50	4-0.75
1 1/4	4.62	.62	2.25	.81	.81	3.50	4-0.62	5.25	.75	2.56	1.06	1.06	3.88	4-0.75	5.25	.81	2.62	1.12	1.12	3.88	4-0.75
1 1/2	5.00	.69	2.44	.88	.88	3.88	4-0.62	6.12	.81	2.69	1.19	1.19	4.50	4-0.88	6.12	.88	2.75	1.25	1.25	4.50	4-0.88
2	6.00	.75	2.50	1.00	1.00	4.75	4-0.75	6.50	.88	2.75	1.31	1.31	5.00	8-0.75	6.50	1.00	2.88	1.44	1.44	5.00	8-0.75
2 1/2	7.00	.88	2.75	1.12	1.12	5.50	4-0.75	7.50	1.00	3.00	1.50	1.50	5.88	8-0.88	7.50	1.12	3.12	1.62	1.62	5.88	8-0.88
3	7.50	.94	2.75	1.19	1.19	6.00	4-0.75	8.25	1.12	3.12	1.69	1.69	6.62	8-0.88	8.25	1.25	3.25	1.81	1.81	6.62	8-0.88
3 1/2	8.50	.94	2.81	1.25	1.25	7.00	8-0.75	9.00	1.19	3.19	1.75	1.75	7.25	8-0.88	9.00	1.38	3.38	1.94	1.94	7.25	8-1.00
4	9.00	.94	3.00	1.31	1.31	7.50	8-0.75	10.00	1.25	3.38	1.88	1.88	7.88	8-0.88	10.00	1.38	3.50	2.00	2.00	7.88	8-1.00
5	10.00	.94	3.50	1.44	1.44	8.50	8-0.88	11.00	1.38	3.88	2.00	2.00	9.25	8-0.88	11.00	1.50	4.00	2.12	2.12	9.25	8-1.00
6	11.00	1.00	3.50	1.56	1.56	9.50	8-0.88	12.50	1.44	3.88	2.06	2.06	10.62	12-0.88	12.50	1.62	4.06	2.25	2.25	10.62	12-1.00
8	13.50	1.12	4.00	1.75	1.75	11.75	8-0.88	15.00	1.62	4.38	2.44	2.44	13.00	12-1.00	15.00	1.88	4.62	2.69	2.69	13.00	12-1.12
10	16.00	1.19	4.00	1.94	1.94	14.25	12-1.00	17.50	1.88	4.62	2.62		15.25	16-1.12	17.50	2.12	4.88	2.88		15.25	16-1.25
12	19.00	1.25	4.50	2.19	2.19	17.00	12-1.00	20.50	2.00	5.12	2.88		17.75	16-1.25	20.50	2.25	5.38	3.12		17.75	16-1.38
14	21.00	1.38	5.00	2.25	USE SLIP-ON DIMS.	18.75	12-1.12	23.00	2.12	5.62	3.00	USE SLIP-ON DIMS.	20.25	20-1.25	23.00	2.38	5.88	3.31	USE SLIP-ON DIMS.	20.25	20-1.38
16	23.50	1.44	5.00	2.50		21.25	16-1.12	25.50	2.25	5.75	3.25		22.50	20-1.38	25.50	2.50	6.00	3.69		22.50	20-1.50
18	25.00	1.56	5.50	2.69		22.75	16-1.25	28.00	2.38	6.25	3.50		24.75	24-1.38	28.00	2.62	6.50	3.88		24.75	24-1.50
20	27.50	1.69	5.69	2.88		25.00	20-1.25	30.50	2.50	6.38	3.75		27.00	24-1.38	30.50	2.75	6.62	4.00		27.00	24-1.62
24	32.00	1.88	6.00	3.25		29.50	20-1.38	36.00	2.75	6.62	4.19		32.00	24-1.62	36.00	3.00	6.88	4.50		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						
			Y†							Y†							Y†				
	O	C†	Weld Neck	Slip-on Thrd. Socket	Lap Joint	Bolt Circle	No. and Size of Holes	O	C†	Weld Neck	Slip-on Thrd. Socket	Lap Joint	Bolt Circle	No. and Size of Holes	O	C†	Weld Neck	Slip-on Thrd. Socket	Lap Joint	Bolt Circle	No. and Size of Holes
1/2	3.75	.56	2.06	.88	.88	2.62	4-0.62	4.75	.88	2.38	1.25	1.25	3.25	4-0.88	4.75	.88	2.38	1.25	1.25	3.25	4-0.88
3/4	4.62	.62	2.25	1.00	1.00	3.25	4-0.75	5.12	1.00	2.75	1.38	1.38	3.50	4-0.88	5.12	1.00	2.75	1.38	1.38	3.50	4-0.88
1	4.88	.69	2.44	1.06	1.06	3.50	4-0.75	5.88	1.12	2.88	1.62	1.62	4.00	4-1.00	5.88	1.12	2.88	1.62	1.62	4.00	4-1.00
1 1/4	5.25	.81	2.62	1.12	1.12	3.88	4-0.75	6.25	1.12	2.88	1.62	1.62	4.38	4-1.00	6.25	1.12	2.88	1.62	1.62	4.38	4-1.00
1 1/2	6.12	.88	2.75	1.25	1.25	4.50	4-0.88	7.00	1.25	3.25	1.75	1.75	4.88	4-1.12	7.00	1.25	3.25	1.75	1.75	4.88	4-1.12
2	6.50	1.00	2.88	1.44	1.44	5.00	8-0.75	8.50	1.50	4.00	2.25	2.25	6.50	8-1.00	8.50	1.50	4.00	2.25	2.25	6.50	8-1.00
2 1/2	7.50	1.12	3.12	1.62	1.62	5.88	8-0.88	9.62	1.62	4.12	2.50	2.50	7.50	8-1.12	9.62	1.62	4.12	2.50	2.50	7.50	8-1.12
3	8.25	1.25	3.25	1.81	1.81	6.62	8-0.88	9.50	1.50	4.00	2.12	2.12	7.50	8-1.00	10.50	1.88	4.62	2.88	2.88	8.00	8-1.25
3 1/2	9.00	1.38	3.38	1.94	1.94	7.25	8-1.00														
4	10.75	1.50	4.00	2.12	2.12	8.50	8-1.00	11.50	1.75	4.50	2.75	2.75	9.25	8-1.25	12.25	2.12	4.88	3.56	3.56	9.50	8-1.38
5	13.00	1.75	4.50	2.38	2.38	10.50	8-1.12	13.75	2.00	5.00	3.12	3.12	11.00	8-1.38	14.75	2.88	6.12	4.12	4.12	11.50	8-1.62
6	14.00	1.88	4.62	2.62	2.62	11.50	12-1.12	15.00	2.19	5.50	3.38	3.38	12.50	12-1.25	15.50	3.25	6.75	4.69	4.69	12.50	12-1.50
8	16.50	2.19	5.25	3.00	3.00	13.75	12-1.25	18.50	2.50	6.38	4.00		15.50	12-1.50	19.00	3.62	8.38	5.62	5.62	15.50	12-1.75
10	20.00	2.50	6.00	3.38		17.00	16-1.38	21.50	2.75	7.25	4.25		18.50	16-1.50	23.00	4.25	10.00	6.25		19.00	12-2.00
12	22.00	2.62	6.12	3.62		19.25	20-1.38	24.00	3.12	7.88	4.62		21.00	20-1.50	26.50	4.88	11.12	7.12		22.50	16-2.12
14	23.75	2.75	6.50	3.69	USE SLIP-ON DIMS.	20.75	20-1.50	25.25	3.38	8.38	5.12	USE SLIP-ON DIMS.	22.00	20-1.62	29.50	5.25	11.75			25.00	16-2.38
16	27.00	3.00	7.00	4.19		23.75	20-1.62	27.75	3.50	8.50	5.25		24.25	20-1.75	32.50	5.75	12.25			27.75	16-2.62
18	29.25	3.25	7.25	4.62		25.75	20-1.75	31.00	4.00	9.00	6.00		27.00	20-2.00	36.00	6.38	12.88			30.50	16-2.88
20	32.00	3.50	7.50	5.00		28.50	24-1.75	33.75	4.25	9.75	6.25		29.50	20-2.12	38.75	7.00	14.00			32.75	16-3.12
24	37.00	4.00	8.00	5.50		33.00	24-2.00	41.00	5.50	11.50	8.00		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														

Nom. Pipe Size	CLASS 2500 FLANGES						
			Y†				
	O	C†	Weld Neck	Slip-on Thrd. Socket	Lap Joint	Bolt Circle	No. and Size of Holes
1/2	5.25	1.19	2.88	1.56	1.56	3.50	4-0.88
3/4	5.50	1.25	3.12	1.69	1.69	3.75	4-0.88
1	6.25	1.38	3.50	1.88	1.88	4.25	4-1.00
1 1/4	7.25	1.50	3.75	2.06	2.06	5.12	4-1.12
1 1/2	8.00	1.75	4.38	2.38	2.38	5.75	4-1.25
2	9.25	2.00	5.00	2.75	2.75	6.75	8-1.12
2 1/2	10.50	2.25	5.62	3.12	3.12	7.75	8-1.25
3	12.00	2.62	6.62	3.62	3.62	9.00	8-1.38
4	14.00	3.00	7.50	4.25	4.25	10.75	8-1.62
5	16.50	3.62	9.00	5.12	5.12	12.75	8-1.88
6	19.00	4.25	10.75	6.00	6.00	14.50	8-2.12
8	21.75	5.00	12.50	7.00	7.00	17.25	12-2.12
10	26.50	6.50	16.50	9.00	9.00	21.25	12-2.62
12	30.00	7.25	18.25	10.00	10.00	24.38	12-2.88

Notes:

- Flange dimensions are to ANSI B16.5 for sizes 24″ and smaller. Sizes over 24″ are to MSS-SP44.
- Always specify bore or matching pipe wall when ordering.
- Other types, sizes and facings on application.

† Includes .06 raised face in Class 150 and Class 300 standards. Does NOT include .25 raised face in Class 400 and heavier standards.

Applicable Forging Specifications:

ASTM A181 A105 A694 A182 A350