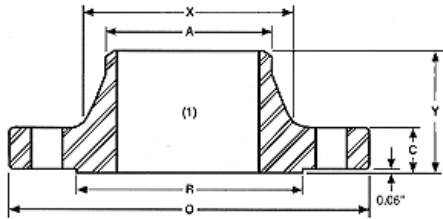
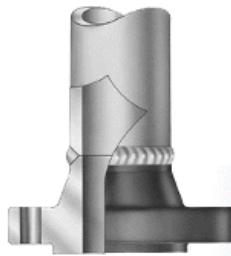
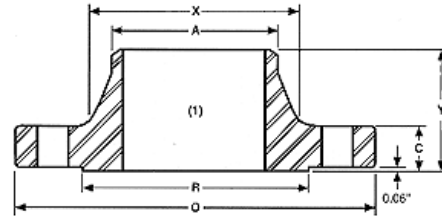
**CLASS 150****WELDING NECK FLANGES**

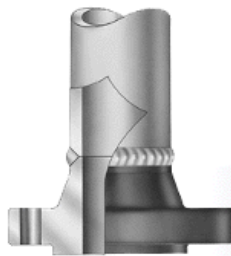
Se distinguen de otros tipos por su cono largo y por su cambio gradual de espesor en la región de la soldadura que la une al tubo. El cono largo suministra un refuerzo importante a la brida desde el punto de vista de resistencia. La ligera transición desde el espesor de la brida hasta el espesor de la pared del tubo efectuada por el cono de la brida es benéfico bajo condiciones de flexión repetida; causada por expansión de la línea u otras fuerzas variables, y produce una resistencia de duración de los ensambles con bridas de cuello soldable, equivalente al de una unión soldada entre tubos, la cual, en la práctica, es la misma a aquella de un tubo.

Así es que este tipo de brida se prefiere para todas las condiciones severas de trabajo, ya sea que esto resulte de altas presiones o de temperaturas elevadas o menores de cero, ya sea también para condiciones de carga que son substancialmente constantes o que fluctúan entre límites amplios; las bridas WN se recomiendan para el manejo de líquidos explosivos, inflamables o costosos, donde la pérdida de ajuste o falla local puede ser acompañada de desastrosas consecuencias.

Nominal size		Outside diam. Of flange	Thick. of flange	Diam. Of raised face	Diam of hub at base	Diam. of hub at point of welding	Length thru hub	No. Of holes	Diam. Of holes	Diam. Of bolts	Diam. Of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	A	Y					
in.	1/2"	3.50	0.44	1.38	1.19	0.84	1.88	4	0.62	1/2	2.38	2
mm.		88.90	11.20	35.10	30.20	21.30	47.80		15.70	12.70	60.50	1
in.	3/4"	3.88	0.50	1.69	1.50	1.05	2.06	4	0.62	1/2	2.75	2
mm.		98.60	12.70	42.90	38.10	26.70	52.30		15.70	12.70	69.90	1
in.	1"	4.25	0.56	2.00	1.94	1.32	2.19	4	0.62	1/2	3.12	3
mm.		108.00	14.20	50.80	49.30	33.50	55.60		15.70	12.70	79.20	1
in.	1 1/4"	4.62	0.62	2.50	2.31	1.66	2.25	4	0.62	1/2	3.50	3
mm.		117.30	15.70	63.50	58.70	42.20	57.20		15.70	12.70	88.90	1
in.	1 1/2"	5.00	0.69	2.88	2.56	1.90	2.44	4	0.62	1/2	3.88	4
mm.		127.00	17.50	73.20	65.00	48.30	62.00		15.70	12.70	98.60	2
in.	2"	6.00	0.75	3.62	3.06	2.38	2.50	4	0.75	5/8	4.75	6
mm.		152.40	19.10	91.90	77.70	60.50	63.50		19.10	15.90	120.70	3
in.	2 1/2"	7.00	0.88	4.12	3.56	2.88	2.75	4	0.75	5/8	5.50	8
mm.		177.80	22.40	104.60	90.40	73.20	69.90		19.10	15.90	139.70	4
in.	3"	7.50	0.94	5.00	4.25	3.50	2.75	4	0.75	5/8	6.00	10
mm.		190.50	23.90	127.00	108.00	88.90	69.90		19.10	15.90	152.40	5
in.	3 1/2"	8.50	0.94	5.50	4.81	4.00	2.81	8	0.75	5/8	7.00	12
mm.		215.90	23.90	139.70	122.20	101.60	71.40		19.10	15.90	177.80	5
in.	4"	9.00	0.94	6.19	5.31	4.50	3.00	8	0.75	5/8	7.50	15
mm.		228.60	23.90	157.20	134.90	114.30	76.20		19.10	15.90	190.50	7
in.	5"	10.00	0.94	7.31	6.44	5.56	3.50	8	0.88	3/4	8.50	19
mm.		254.00	23.90	185.70	163.60	141.20	88.90		22.40	19.10	215.90	9
in.	6"	11.00	1.00	8.50	7.56	6.63	3.50	8	0.88	3/4	9.50	24
mm.		279.40	25.40	215.90	192.00	168.40	88.90		22.40	19.10	241.30	11
in.	8"	13.50	1.12	10.62	9.69	8.63	4.00	8	0.88	3/4	11.75	39
mm.		342.90	28.40	269.70	246.10	219.20	101.60		22.40	19.10	298.50	18
in.	10"	16.00	1.19	12.75	12.00	10.75	4.00	12	1.00	7/8	14.25	52
mm.		406.40	30.20	323.90	304.80	273.10	101.60		25.40	22.20	362.00	24
in.	12"	19.00	1.25	15.00	14.38	12.75	4.50	12	1.00	7/8	17.00	80
mm.		482.60	31.80	381.00	365.30	323.90	114.30		25.40	22.20	431.80	36
in.	14"	21.00	1.38	16.25	15.75	14.00	5.00	12	1.12	1	18.75	110
mm.		533.40	35.10	412.80	400.10	355.60	127.00		28.40	25.40	476.30	50
in.	16"	23.50	1.44	18.50	18.00	16.00	5.00	16	1.12	1	21.25	140
mm.		596.90	36.60	469.90	457.20	406.40	127.00		28.40	25.40	539.80	64
in.	18"	25.00	1.56	21.00	19.88	18.00	5.50	16	1.25	1-1/8	22.75	150
mm.		635.00	39.60	533.40	505.00	457.20	139.70		31.80	28.60	577.90	68
in.	20"	27.50	1.69	23.00	22.00	20.00	5.69	20	1.25	1-1/8	25.00	180
mm.		698.50	42.90	584.20	558.80	508.00	144.50		31.80	28.60	635.00	82
in.	24"	32.00	1.88	27.25	26.12	24.00	6.00	20	1.38	1-1/4	29.50	260
mm.		812.80	47.80	692.20	663.40	609.60	152.40		35.10	31.80	749.30	118

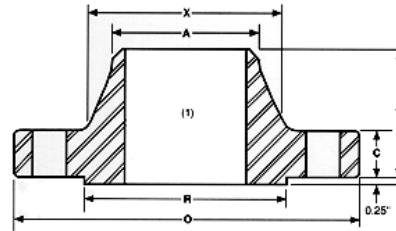
**CLASS 300****WELDING NECK FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam. of hub at base	Diam. of hub at point of welding	Length thru hub	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	A	Y					
in.	1/2"	3.75	0.56	1.38	1.50	0.84	2.06	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10	38.10	21.30	52.30		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	1.88	1.05	2.25	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90	47.80	26.70	57.20		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	2.12	1.32	2.44	4	0.75	5/8	3.50	4
mm.		124.00	17.50	50.80	53.80	33.50	62.00		19.10	15.90	88.90	2
in.	1 1/4"	5.25	0.75	2.50	2.50	1.66	2.56	4	0.75	5/8	3.88	5
mm.		133.40	19.10	63.50	63.50	42.20	65.00		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.81	2.88	2.75	1.90	2.69	4	0.88	3/4	4.50	7
mm.		155.40	20.60	73.20	69.90	48.30	68.30		22.40	19.10	114.30	3
in.	2"	6.50	0.88	3.62	3.31	2.38	2.75	8	0.75	5/8	5.00	9
mm.		165.10	22.40	91.90	84.10	60.50	69.90		19.10	15.90	127.00	4
in.	2 1/2"	7.50	1.00	4.12	3.94	2.88	3.00	8	0.88	3/4	5.88	12
mm.		190.50	25.40	104.60	100.10	73.20	76.20		22.40	19.10	149.40	5
in.	3"	8.25	1.12	5.00	4.62	3.50	3.12	8	0.88	3/4	6.62	15
mm.		209.60	28.40	127.00	117.30	88.90	79.20		22.40	19.10	168.10	7
in.	3 1/2"	9.00	1.19	5.50	5.25	4.00	3.19	8	0.88	3/4	7.25	18
mm.		228.60	30.20	139.70	133.40	101.60	81.00		22.40	19.10	184.20	8
in.	4"	10.00	1.25	6.19	5.75	4.50	3.38	8	0.88	3/4	7.88	25
mm.		254.00	31.80	157.20	146.10	114.30	85.90		22.40	19.10	200.20	11
in.	5"	11.00	1.38	7.31	7.00	5.56	3.88	8	0.88	3/4	9.25	32
mm.		279.40	35.10	185.70	177.80	141.20	98.60		22.40	19.10	235.00	15
in.	6"	12.50	1.44	8.50	8.12	6.63	3.88	12	0.88	3/4	10.62	42
mm.		317.50	36.60	215.90	206.20	168.40	98.60		22.40	19.10	269.70	19
in.	8"	15.00	1.62	10.62	10.25	8.63	4.38	12	1.00	7/8	13.00	67
mm.		381.00	41.10	269.70	260.40	219.20	111.30		25.40	22.20	330.20	30
in.	10"	17.50	1.88	12.75	12.62	10.75	4.62	16	1.12	1	15.25	91
mm.		444.50	47.80	323.90	320.50	273.10	117.30		28.40	25.40	387.40	41
in.	12"	20.50	2.00	15.00	14.75	12.75	5.12	16	1.25	1-1/8	17.75	140
mm.		520.70	50.80	381.00	374.70	323.90	130.00		31.80	28.60	450.90	64
in.	14"	23.00	2.12	16.25	16.75	14.00	5.62	20	1.25	1-1/4	20.25	180
mm.		584.20	53.80	412.80	425.50	355.60	142.70		31.80	28.60	514.40	82
in.	16"	25.50	2.25	18.50	19.00	16.00	5.75	20	1.38	1-1/4	22.50	250
mm.		647.70	57.20	469.90	482.60	406.40	146.10		35.10	31.80	571.50	113
in.	18"	28.00	2.38	21.00	21.00	18.00	6.25	24	1.38	1-1/4	24.75	320
mm.		711.20	60.50	533.40	533.40	457.20	158.80		35.10	31.80	628.70	145
in.	20"	30.50	2.50	23.00	23.12	20.00	6.38	24	1.38	1-1/4	27.00	400
mm.		774.70	63.50	584.20	587.20	508.00	162.10		35.10	31.80	685.80	181
in.	24"	36.00	2.75	27.25	27.62	24.00	6.62	24	1.62	1-1/2	32.00	580
mm.		914.40	69.90	692.20	701.50	609.60	168.10		41.10	38.10	812.80	2

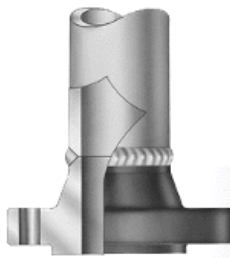
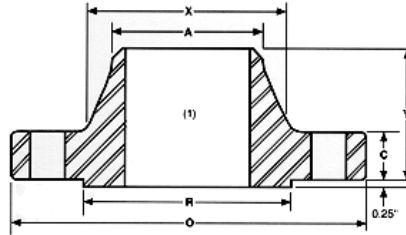


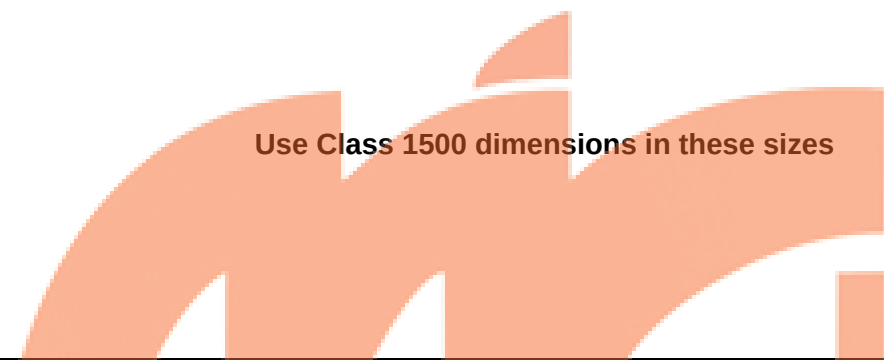
CLASS 600

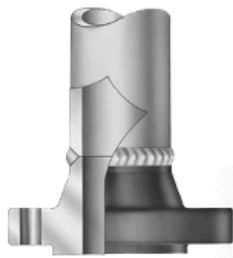
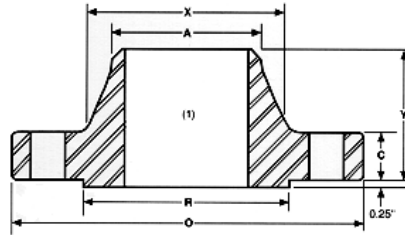
WELDING NECK FLANGES



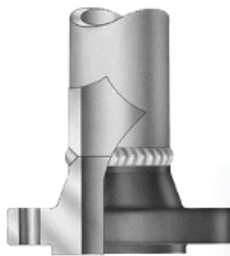
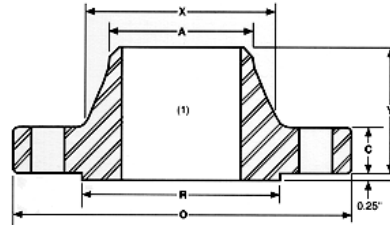
Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam. of hub at base	Diam. of hub at point of welding	Length thru hub	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	A	Y					
in.	1/2"	3.75	0.56	1.38	1.50	0.84	2.06	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10	38.10	21.30	52.30		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	1.88	1.05	2.25	4	0.75	5/8	3.25	4
mm.		117.30	15.70	42.90	47.80	26.70	57.20		19.10	15.90	82.60	2
in.	1"	4.88	0.69	2.00	2.12	1.32	2.44	4	0.75	5/8	3.50	4
mm.		124.00	17.50	50.80	53.80	33.50	62.00		19.10	15.90	88.90	2
in.	1 1/4"	5.25	0.81	2.50	2.50	1.66	2.62	4	0.75	5/8	3.88	6
mm.		133.40	20.60	63.50	63.50	42.20	66.50		19.10	15.90	98.60	3
in.	1 1/2"	6.12	0.88	2.88	2.75	1.90	2.75	4	0.88	3/4	4.50	8
mm.		155.40	22.40	73.20	69.90	48.30	69.90		22.40	19.10	114.30	4
in.	2"	6.50	1.00	3.62	3.31	2.38	2.88	8	0.75	5/8	5.00	12
mm.		165.10	25.40	91.90	84.10	60.50	73.20		19.10	15.90	127.00	5
in.	2 1/2"	7.50	1.12	4.12	3.94	2.88	3.12	8	0.88	3/4	5.88	18
mm.		190.50	28.40	104.60	100.10	73.20	79.20		22.40	19.10	149.40	8
in.	3"	8.25	1.25	5.00	4.62	3.50	3.25	8	0.88	3/4	6.62	23
mm.		209.60	31.80	127.00	117.30	88.90	82.60		22.40	19.10	168.10	10
in.	3 1/2"	9.00	1.38	5.50	5.25	4.00	3.38	8	1.00	7/8	7.25	26
mm.		228.60	35.10	139.70	133.40	101.60	85.90		25.40	22.20	184.20	12
in.	4"	10.75	1.50	6.19	6.00	4.50	4.00	8	1.00	7/8	8.50	42
mm.		273.10	38.10	157.20	152.40	114.30	101.60		25.40	22.20	215.90	19
in.	5"	13.00	1.75	7.31	7.44	5.56	4.50	8	1.12	1	10.50	68
mm.		330.20	44.50	185.70	189.00	141.20	114.30		28.40	25.40	266.70	31
in.	6"	14.00	1.88	8.50	8.75	6.63	4.62	12	1.12	1	11.50	81
mm.		355.60	47.80	215.90	222.30	168.40	117.30		28.40	25.40	292.10	37
in.	8"	16.50	2.19	10.62	10.75	8.63	5.25	12	1.25	1-1/8	13.75	120
mm.		419.10	55.60	269.70	273.10	219.20	133.40		31.80	28.60	349.30	54
in.	10"	20.00	2.50	12.75	13.50	10.75	6.00	16	1.38	1-1/4	17.00	190
mm.		508.00	63.50	323.90	342.90	273.10	152.40		35.10	31.80	431.80	86
in.	12"	22.00	2.62	15.00	15.75	12.75	6.12	20	1.38	1-1/4	19.25	225
mm.		558.80	66.50	381.00	400.10	323.90	155.40		35.10	31.80	489.00	102
in.	14"	23.75	2.75	16.25	17.00	14.00	6.50	20	1.50	1-3/8	20.75	280
mm.		603.30	69.90	412.80	431.80	355.60	165.10		38.10	34.90	527.10	127
in.	16"	27.00	3.00	18.50	19.50	16.00	7.00	20	1.62	1-1/2	23.75	390
mm.		685.80	76.20	469.90	495.30	406.40	177.80		41.10	38.10	603.30	177
in.	18"	29.25	3.25	21.00	21.50	18.00	7.25	20	1.75	1-5/8	25.75	475
mm.		743.00	82.60	533.40	546.10	457.20	184.20		44.50	41.30	654.10	215
in.	20"	32.00	3.50	23.00	24.00	20.00	7.50	24	1.75	1-5/8	28.50	590
mm.		812.80	88.90	584.20	609.60	508.00	190.50		44.50	41.30	723.90	268
in.	24"	37.00	4.00	27.25	28.25	24.00	8.00	24	2.00	1-7/8	33.00	830
mm.		939.80	101.60	692.20	717.60	609.60	203.20		50.80	47.60	838.20	376

**CLASS 900****WELDING NECK FLANGES**

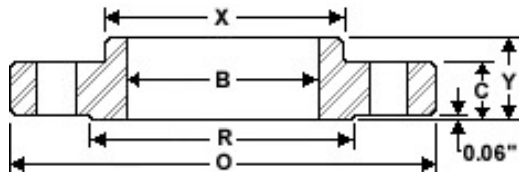
Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Diam. of hub at point of welding	Length thru hub	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	A	Y					
in.	1/2"											
mm.												
in.	3/4"											
mm.												
in.	1"											
mm.												
in.	1 1/4"											
mm.												
in.	1 1/2"											
mm.												
in.	2"											
mm.												
in.	2 1/2"											
mm.												
in.	3"	9.50	1.50	5.00	5.00	3.50	4.00	8	1.00	7/8	7.50	31
mm.		241.30	38.10	127.00	127.00	88.90	101.60		25.40	22.20	190.50	14
in.	4"	11.50	1.75	6.19	6.25	4.50	4.50	8	1.25	1-1/8	9.25	53
mm.		292.10	44.50	157.20	158.80	114.30	114.30		31.80	28.60	235.00	24
in.	5"	13.75	2.00	7.31	7.50	5.56	5.00	8	1.38	1-1/4	11.00	86
mm.		349.30	50.80	185.70	190.50	141.20	127.00		35.10	31.80	279.40	39
in.	6"	15.00	2.19	8.50	9.25	6.63	5.50	12	1.25	1-1/8	12.50	110
mm.		381.00	55.60	215.90	235.00	168.40	139.70		31.80	28.60	317.50	50
in.	8"	18.50	2.50	10.62	11.75	8.63	6.38	12	1.50	1-3/8	15.50	175
mm.		469.90	63.50	269.70	298.50	219.20	162.10		38.10	34.90	393.70	79
in.	10"	21.50	2.75	12.75	14.50	10.75	7.25	16	1.50	1-3/8	18.50	260
mm.		546.10	69.90	323.90	368.30	273.10	184.20		38.10	34.90	469.90	118
in.	12"	24.00	3.12	15.00	16.50	12.75	7.88	20	1.50	1-3/8	21.00	325
mm.		609.60	79.20	381.00	419.10	323.90	200.20		38.10	34.90	533.40	147
in.	14"	25.25	3.38	16.25	17.75	14.00	8.38	20	1.62	1-1/2	22.00	400
mm.		641.40	85.90	412.80	450.90	355.60	212.90		41.10	38.10	558.80	181
in.	16"	27.75	3.50	18.50	20.00	16.00	8.50	20	1.75	1-5/8	24.25	495
mm.		704.90	88.90	469.90	508.00	406.40	215.90		44.50	41.30	616.00	225
in.	18"	31.00	4.00	21.00	22.25	18.00	9.00	20	2.00	1-7/8	27.00	680
mm.		787.40	101.60	533.40	565.20	457.20	228.60		50.80	47.60	685.80	308
in.	20"	33.75	4.25	23.00	24.50	20.00	9.75	20	2.12	2	29.50	830
mm.		857.30	108.00	584.20	622.30	508.00	247.70		53.80	50.80	749.30	376
in.	24"	41.00	5.50	27.25	29.50	24.00	11.50	20	2.62	2-1/2	35.50	1500
mm.		1041.40	139.70	692.20	749.30	609.60	292.10		66.50	63.50	901.70	680

**CLASS 1500****WELDING NECK FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Diam. of hub at point of welding	Length thru hub	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	A	Y					
in.	1/2"	4.75	0.88	1.38	1.50	0.84	2.38	4	0.88	3/4	3.25	5
mm.		120.70	22.40	35.10	38.10	21.30	60.50		22.40	19.10	82.60	2
in.	3/4"	5.12	1.00	1.69	1.75	1.05	2.75	4	0.88	3/4	3.50	6
mm.		130.00	25.40	42.90	44.50	26.70	69.90		22.40	19.10	88.90	3
in.	1"	5.88	1.12	2.00	2.06	1.32	2.88	4	1.00	7/8	4.00	9
mm.		149.40	28.40	50.80	52.30	33.50	73.20		25.40	22.20	101.60	4
in.	1 1/4"	6.25	1.12	2.50	2.50	1.66	2.88	4	1.00	7/8	4.38	10
mm.		158.80	28.40	63.50	63.50	42.20	73.20		25.40	22.20	111.30	5
in.	1 1/2"	7.00	1.25	2.88	2.75	1.90	3.25	4	1.12	1	4.88	13
mm.		177.80	31.80	73.20	69.90	48.30	82.60		28.40	25.40	124.00	6
in.	2"	8.50	1.50	3.62	4.12	2.38	4.00	8	1.00	7/8	6.50	25
mm.		215.90	38.10	91.90	104.60	60.50	101.60		25.40	22.20	165.10	11
in.	2 1/2"	9.62	1.62	4.12	4.88	2.88	4.12	8	1.12	1	7.50	36
mm.		244.30	41.10	104.60	124.00	73.20	104.60		28.40	25.40	190.50	16
in.	3"	10.50	1.88	5.00	5.25	3.50	4.62	8	1.25	1-1/8	8.00	48
mm.		266.70	47.80	127.00	133.40	88.90	117.30		31.80	28.60	203.20	22
in.	4"	12.25	2.12	6.19	6.38	4.50	4.88	8	1.38	1-1/4	9.50	73
mm.		311.20	53.80	157.20	162.10	114.30	124.00		35.10	31.80	241.30	33
in.	5"	14.75	2.88	7.31	7.75	5.56	6.12	8	1.62	1-1/2	11.50	130
mm.		374.70	73.20	185.70	196.90	141.20	155.40		41.10	38.10	292.10	59
in.	6"	15.50	3.25	8.50	9.00	6.63	6.75	12	1.50	1-3/8	12.50	165
mm.		393.70	82.60	215.90	228.60	168.40	171.50		38.10	34.90	317.50	75
in.	8"	19.00	3.62	10.62	11.50	8.63	8.38	12	1.75	1-5/8	15.50	275
mm.		482.60	91.90	269.70	292.10	219.20	212.90		44.50	41.30	393.70	125
in.	10"	23.00	4.25	12.75	14.50	10.75	10.00	12	2.00	1-7/8	19.00	455
mm.		584.20	108.00	323.90	368.30	273.10	254.00		50.80	47.60	482.60	206
in.	12"	26.50	4.88	15.00	17.75	12.75	11.12	16	2.12	2	22.50	690
mm.		673.10	124.00	381.00	450.90	323.90	282.40		53.80	50.80	571.50	313
in.	14"	29.50	5.25	16.25	19.50	14.00	11.75	16	2.38	2-1/4	25.00	940
mm.		749.30	133.40	412.80	495.30	355.60	298.50		60.50	57.20	635.00	426
in.	16"	32.50	5.75	18.50	21.75	16.00	12.25	16	2.62	2-1/2	27.75	1250
mm.		825.50	146.10	469.90	552.50	406.40	311.20		66.50	63.50	704.90	567
in.	18"	36.00	6.38	21.00	23.50	18.00	12.88	16	2.88	2-3/4	30.50	1625
mm.		914.40	162.10	533.40	596.90	457.20	327.20		73.20	69.90	774.70	737
in.	20"	38.75	7.00	23.00	25.25	20.00	14.00	16	3.12	3	32.75	2050
mm.		984.30	177.80	584.20	641.40	508.00	355.60		79.20	76.20	831.90	930
in.	24"	46.00	8.00	27.25	30.00	24.00	16.00	16	3.62	3-1/2	39.00	3325
mm.		1168.40	203.20	692.20	762.00	609.60	406.40		91.90	88.90	990.60	1508

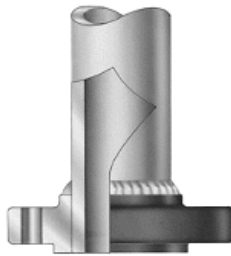
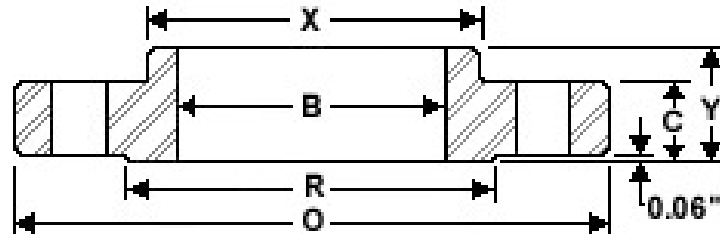
**CLASS 2500****WELDING NECK FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Diam. of hub at point of welding	Length thru hub	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	A	Y					
in.	1/2"	5.25	1.19	1.38	1.69	0.84	2.88	4	0.88	3/4	3.50	7
mm.		133.40	30.20	35.10	42.90	21.30	73.20		22.40	19.10	88.90	3
in.	3/4"	5.50	1.25	1.69	2.00	1.05	3.12	4	0.88	3/4	3.75	8
mm.		139.70	31.80	42.90	50.80	26.70	79.20		22.40	19.10	95.30	4
in.	1"	6.25	1.38	2.00	2.25	1.32	3.50	4	1.00	7/8	4.25	12
mm.		158.80	35.10	50.80	57.20	33.50	88.90		25.40	22.20	108.00	5
in.	1 1/4"	7.25	1.50	2.50	2.88	1.66	3.75	4	1.12	1	5.12	17
mm.		184.20	38.10	63.50	73.20	42.20	95.30		28.40	25.40	130.00	8
in.	1 1/2"	8.00	1.75	2.88	3.12	1.90	4.38	4	1.25	1-1/8	5.75	25
mm.		203.20	44.50	73.20	79.20	48.30	111.30		31.80	28.60	146.10	11
in.	2"	9.25	2.00	3.62	3.75	2.38	5.00	8	1.12	1	6.75	42
mm.		235.00	50.80	91.90	95.30	60.50	127.00		28.40	25.40	171.50	19
in.	2 1/2"	10.50	2.25	4.12	4.50	2.88	5.62	8	1.25	1-1/8	7.75	52
mm.		266.70	57.20	104.60	114.30	73.20	142.70		31.80	28.60	196.90	24
in.	3"	12.00	2.62	5.00	5.25	3.50	6.62	8	1.38	1-1/4	9.00	94
mm.		304.80	66.50	127.00	133.40	88.90	168.10		35.10	31.80	228.60	43
in.	4"	14.00	3.00	6.19	6.50	4.50	7.50	8	1.62	1-1/2	10.75	145
mm.		355.60	76.20	157.20	165.10	114.30	190.50		41.10	38.10	273.10	66
in.	5"	16.50	3.62	7.31	8.00	5.56	9.00	8	1.88	1-3/4	12.75	245
mm.		419.10	91.90	185.70	203.20	141.20	228.60		47.80	44.50	323.90	111
in.	6"	19.00	4.25	8.50	9.25	6.63	10.75	8	2.12	2	14.50	380
mm.		482.60	108.00	215.90	235.00	168.40	273.10		53.80	50.80	368.30	172
in.	8"	21.75	5.00	10.62	12.00	8.63	12.50	12	2.12	2	17.25	580
mm.		552.50	127.00	269.70	304.80	219.20	317.50		53.80	50.80	438.20	263
in.	10"	26.50	6.50	12.75	14.75	10.75	16.50	12	2.62	2-1/2	21.25	1075
mm.		673.10	165.10	323.90	374.70	273.10	419.10		66.50	63.50	539.80	488
in.	12"	30.00	7.25	15.00	17.38	12.75	18.25	12	2.88	2-3/4	24.38	1525
mm.		762.00	184.20	381.00	441.50	323.90	463.60		73.20	69.90	619.30	692

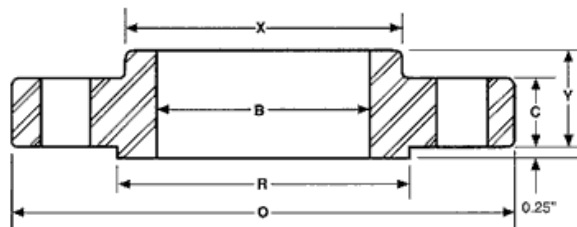
**CLASS 150****SLIP-ON FLANGES**

Estas bridas se prefieren sobre las de cuello soldable, por muchos clientes debido a su costo más bajo, la menor precisión requerida al cortar los tubos a la medida, a la mayor facilidad de alineamiento en el ensamble. Y su costo de instalación final es menor que las bridas WN. Su resistencia calculada bajo presión interna es del orden de 2/3 de las bridas WN, y su vida bajo condiciones de fatiga es aproximadamente 1/3 de las últimas. El manual de construcción de calderas ASME limita su uso a 4".

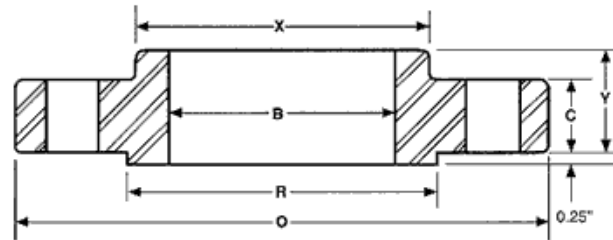
Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Diam. of bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B					
in.	1/2"	3.50	0.44	1.38	1.19	0.62	0.88	4	0.62	1/2	2.38	1
mm.		88.90	11.20	35.10	30.20	15.70	22.40		15.70	12.70	60.50	0.5
in.	3/4"	3.88	0.50	1.69	1.50	0.62	1.09	4	0.62	1/2	2.75	2
mm.		98.60	12.70	42.90	38.10	15.70	27.70		15.70	12.70	69.90	1
in.	1"	4.25	0.56	2.00	1.94	0.69	1.36	4	0.62	1/2	3.12	2
mm.		108.00	14.20	50.80	49.30	17.50	34.50		15.70	12.70	79.20	1
in.	1 1/4"	4.62	0.62	2.50	2.31	0.81	1.70	4	0.62	1/2	3.50	3
mm.		117.30	15.70	63.50	58.70	20.60	43.20		15.70	12.70	88.90	1
in.	1 1/2"	5.00	0.69	2.88	2.56	0.88	1.95	4	0.62	1/2	3.88	3
mm.		127.00	17.50	73.20	65.00	22.40	49.50		15.70	12.70	98.60	1
in.	2"	6.00	0.75	3.62	3.06	1.00	2.44	4	0.75	5/8	4.75	5
mm.		152.40	19.10	91.90	77.70	25.40	62.00		19.10	15.90	120.70	2
in.	2 1/2"	7.00	0.88	4.12	3.56	1.12	2.94	4	0.75	5/8	5.50	7
mm.		177.80	22.40	104.60	90.40	28.40	74.70		19.10	15.90	139.70	3
in.	3"	7.50	0.94	5.00	4.25	1.19	3.57	4	0.75	5/8	6.00	8
mm.		190.50	23.90	127.00	108.00	30.20	90.70		19.10	15.90	152.40	4
in.	3 1/2"	8.50	0.94	5.50	4.81	1.25	4.07	8	0.75	5/8	7.00	11
mm.		215.90	23.90	139.70	122.20	31.80	103.40		19.10	15.90	177.80	5
in.	4"	9.00	0.94	6.19	5.31	1.31	4.57	8	0.75	5/8	7.50	13
mm.		228.60	23.90	157.20	134.90	33.30	116.10		19.10	15.90	190.50	6
in.	5"	10.00	0.94	7.31	6.44	1.44	5.66	8	0.88	3/4	8.50	15
mm.		254.00	23.90	185.70	163.60	36.60	143.80		22.40	19.10	215.90	7
in.	6"	11.00	1.00	8.50	7.56	1.56	6.72	8	0.88	3/4	9.50	19
mm.		279.40	25.40	215.90	192.00	39.60	170.70		22.40	19.10	241.30	9
in.	8"	13.50	1.12	10.62	9.69	1.75	8.72	8	0.88	3/4	11.75	30
mm.		342.90	28.40	269.70	246.10	44.50	221.50		22.40	19.10	298.50	14
in.	10"	16.00	1.19	12.75	12.00	1.94	10.88	12	1.00	7/8	14.25	43
mm.		406.40	30.20	323.90	304.80	49.30	276.40		25.40	22.20	362.00	20
in.	12"	19.00	1.25	15.00	14.38	2.19	12.88	12	1.00	7/8	17.00	64
mm.		482.60	31.80	381.00	365.30	55.60	327.20		25.40	22.20	431.80	29
in.	14"	21.00	1.38	16.25	15.75	2.25	14.14	12	1.12	1	18.75	90
mm.		533.40	35.10	412.80	400.10	57.20	359.20		28.40	25.40	476.30	41
in.	16"	23.50	1.44	18.50	18.00	2.50	16.16	16	1.12	1	21.25	98
mm.		596.90	36.60	469.90	457.20	63.50	410.50		28.40	25.40	539.80	44
in.	18"	25.00	1.56	21.00	19.88	2.69	18.18	16	1.25	1-1/8	22.75	130
mm.		635.00	39.60	533.40	505.00	68.30	461.80		31.80	28.60	577.90	59
in.	20"	27.50	1.69	23.00	22.00	2.88	20.20	20	1.25	1-1/8	25.00	165
mm.		698.50	42.90	584.20	558.80	73.20	513.10		31.80	28.60	635.00	75
in.	24"	32.00	1.88	27.25	26.12	3.25	24.25	20	1.38	1-1/4	29.50	220
mm.		812.80	47.80	692.20	663.40	82.60	616.00		35.10	31.80	749.30	100

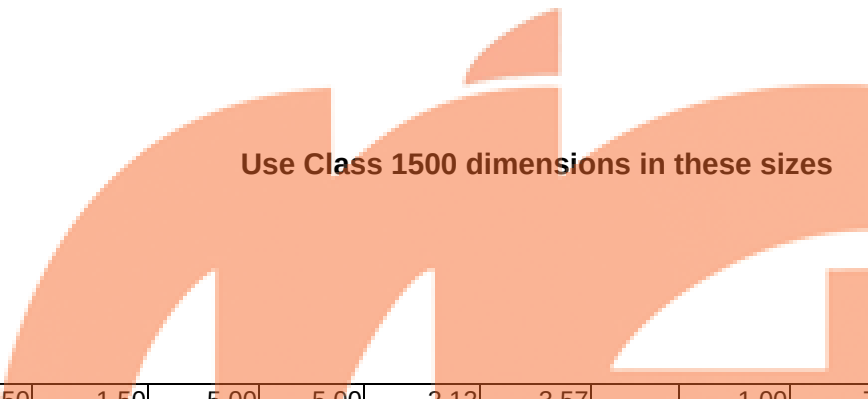
**CLASS 300****SLIP-ON FLANGES**

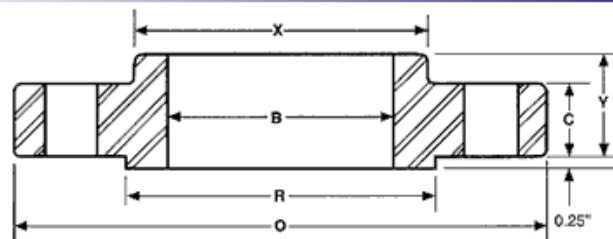
Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Diam. of bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B					
in.	1/2"	3.75	0.56	1.38	1.50	0.88	0.88	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10	38.10	22.40	22.40		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	1.88	1.00	1.09	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90	47.80	25.40	27.70		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	2.12	1.06	1.36	4	0.75	5/8	3.50	3
mm.		124.00	17.50	50.80	53.80	26.90	34.50		19.10	15.90	88.90	1
in.	1 1/4"	5.25	0.75	2.50	2.50	1.06	1.70	4	0.75	5/8	3.88	4
mm.		133.40	19.10	63.50	63.50	26.90	43.20		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.81	2.88	2.75	1.19	1.95	4	0.88	3/4	4.50	6
mm.		155.40	20.60	73.20	69.90	30.20	49.50		22.40	19.10	114.30	3
in.	2"	6.50	0.88	3.62	3.31	1.31	2.44	8	0.75	5/8	5.00	7
mm.		165.10	22.40	91.90	84.10	33.30	62.00		19.10	15.90	127.00	3
in.	2 1/2"	7.50	1.00	4.12	3.94	1.50	2.94	8	0.88	3/4	5.88	10
mm.		190.50	25.40	104.60	100.10	38.10	74.70		22.40	19.10	149.40	5
in.	3"	8.25	1.12	5.00	4.62	1.69	3.57	8	0.88	3/4	6.62	13
mm.		209.60	28.40	127.00	117.30	42.90	90.70		22.40	19.10	168.10	6
in.	3 1/2"	9.00	1.19	5.50	5.25	1.75	4.07	8	0.88	3/4	7.25	17
mm.		228.60	30.20	139.70	133.40	44.50	103.40		22.40	19.10	184.20	8
in.	4"	10.00	1.25	6.19	5.75	1.88	4.57	8	0.88	3/4	7.88	22
mm.		254.00	31.80	157.20	146.10	47.80	116.10		22.40	19.10	200.20	10
in.	5"	11.00	1.38	7.31	7.00	2.00	5.66	8	0.88	3/4	9.25	28
mm.		279.40	35.10	185.70	177.80	50.80	143.80		22.40	19.10	235.00	13
in.	6"	12.50	1.44	8.50	8.12	2.06	6.72	12	0.88	3/4	10.62	39
mm.		317.50	36.60	215.90	206.20	52.30	170.70		22.40	19.10	269.70	18
in.	8"	15.00	1.62	10.62	10.25	2.44	8.72	12	1.00	7/8	13.00	58
mm.		381.00	41.10	269.70	260.40	62.00	221.50		25.40	22.20	330.20	26
in.	10"	17.50	1.88	12.75	12.62	2.62	10.88	16	1.12	1	15.25	81
mm.		444.50	47.80	323.90	320.50	66.50	276.40		28.40	25.40	387.40	37
in.	12"	20.50	2.00	15.00	14.75	2.88	12.88	16	1.25	1-1/8	17.75	115
mm.		520.70	50.80	381.00	374.70	73.20	327.20		31.80	28.60	450.90	52
in.	14"	23.00	2.12	16.25	16.75	3.00	14.14	20	1.25	1-1/8	20.25	165
mm.		584.20	53.80	412.80	425.50	76.20	359.20		31.80	28.60	514.40	75
in.	16"	25.50	2.25	18.50	19.00	3.25	16.16	20	1.38	1-1/4	22.50	190
mm.		647.70	57.20	469.90	482.60	82.60	410.50		35.10	31.80	571.50	86
in.	18"	28.00	2.38	21.00	21.00	3.50	18.18	24	1.38	1-1/4	24.75	250
mm.		711.20	60.50	533.40	533.40	88.90	461.80		35.10	31.80	628.70	113
in.	20"	30.50	2.50	23.00	23.12	3.75	20.20	24	1.38	1-1/4	27.00	315
mm.		774.70	63.50	584.20	587.20	95.30	513.10		35.10	31.80	685.80	143
in.	24"	36.00	2.75	27.25	27.62	4.19	24.25	24	1.62	1-1/2	32.00	475
mm.		914.40	69.90	692.20	701.50	106.40	616.00		41.10	38.10	812.80	215

**CLASS 600****SLIP-ON FLANGES**

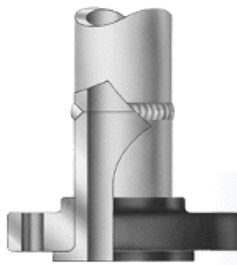
Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Diam. of bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B					
in.	1/2"	3.75	0.56	1.38	1.50	0.88	0.88	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10	38.10	22.40	22.40		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	1.88	1.00	1.09	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90	47.80	25.40	27.70		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	2.12	1.06	1.36	4	0.75	5/8	3.50	4
mm.		124.00	17.50	50.80	53.80	26.90	34.50		19.10	15.90	88.90	2
in.	1 1/4"	5.25	0.81	2.50	2.50	1.12	1.70	4	0.75	5/8	3.88	5
mm.		133.40	20.60	63.50	63.50	28.40	43.20		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.88	2.88	2.75	1.25	1.95	4	0.88	3/4	4.50	7
mm.		155.40	22.40	73.20	69.90	31.80	49.50		22.40	19.10	114.30	3
in.	2"	6.50	1.00	3.62	3.31	1.44	2.44	8	0.75	5/8	5.00	9
mm.		165.10	25.40	91.90	84.10	36.60	62.00		19.10	15.90	127.00	4
in.	2 1/2"	7.50	1.12	4.12	3.94	1.62	2.94	8	0.88	3/4	5.88	13
mm.		190.50	28.40	104.60	100.10	41.10	74.70		22.40	19.10	149.40	6
in.	3"	8.25	1.25	5.00	4.62	1.81	3.57	8	0.88	3/4	6.62	16
mm.		209.60	31.80	127.00	117.30	46.00	90.70		22.40	19.10	168.10	7
in.	3 1/2"	9.00	1.38	5.50	5.25	1.94	4.07	8	1.00	7/8	7.25	21
mm.		228.60	35.10	139.70	133.40	49.30	103.40		25.40	22.20	184.20	10
in.	4"	10.75	1.50	6.19	6.00	2.12	4.57	8	1.00	7/8	8.50	37
mm.		273.10	38.10	157.20	152.40	53.80	116.10		25.40	22.20	215.90	17
in.	5"	13.00	1.75	7.31	7.44	2.38	5.66	8	1.12	1	10.50	63
mm.		330.20	44.50	185.70	189.00	60.50	143.80		28.40	25.40	266.70	29
in.	6"	14.00	1.88	8.50	8.75	2.62	6.72	12	1.12	1	11.50	80
mm.		355.60	47.80	215.90	222.30	66.50	170.70		28.40	25.40	292.10	36
in.	8"	16.50	2.19	10.62	10.75	3.00	8.72	12	1.25	1-1/8	13.75	115
mm.		419.10	55.60	269.70	273.10	76.20	221.50		31.80	28.60	349.30	52
in.	10"	20.00	2.50	12.75	13.50	3.38	10.88	16	1.38	1-1/4	17.00	170
mm.		508.00	63.50	323.90	342.90	85.90	276.40		35.10	31.80	431.80	77
in.	12"	22.00	2.62	15.00	15.75	3.62	12.88	20	1.38	1-1/4	19.25	200
mm.		558.80	66.50	381.00	400.10	91.90	327.20		35.10	31.80	489.00	91
in.	14"	23.75	2.75	16.25	17.00	3.69	14.14	20	1.50	1-3/8	20.75	230
mm.		603.30	69.90	412.80	431.80	93.70	359.20		38.10	34.90	527.10	104
in.	16"	27.00	3.00	18.50	19.50	4.19	16.16	20	1.62	1-1/2	23.75	330
mm.		685.80	76.20	469.90	495.30	106.40	410.50		41.10	38.10	603.30	150
in.	18"	29.25	3.25	21.00	21.50	4.62	18.18	20	1.75	1-5/8	25.75	400
mm.		743.00	82.60	533.40	546.10	117.30	461.80		44.50	41.30	654.10	181
in.	20"	32.00	3.50	23.00	24.00	5.00	20.20	24	1.75	1-5/8	28.50	510
mm.		812.80	88.90	584.20	609.60	127.00	513.10		44.50	41.30	723.90	231
in.	24"	37.00	4.00	27.25	28.25	5.50	24.25	24	2.00	1-7/8	33.00	730
mm.		939.80	101.60	692.20	717.60	139.70	616.00		50.80	47.60	838.20	331

**CLASS 900****SLIP-ON FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Diam. of bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B					
in.	1/2"											
mm.												
in.	3/4"											
mm.												
in.	1"											
mm.												
in.	1 1/4"											
mm.												
in.	1 1/2"											
mm.												
in.	2"											
mm.												
in.	2 1/2"											
mm.												
in.	3"											
mm.		241.30	38.10	127.00	127.00	53.80	90.70	25.40	22.20	190.50	12	
in.	4"	11.50	1.75	6.19	6.25	2.75	4.57	8	1.25	1-1/8	9.25	53
mm.		292.10	44.50	157.20	158.80	69.90	116.10		31.80	28.60	235.00	24
in.	5"	13.75	2.00	7.31	7.50	3.12	5.66	8	1.38	1-1/4	11.00	83
mm.		349.30	50.80	185.70	190.50	79.20	143.80		35.10	31.80	279.40	38
in.	6"	15.00	2.19	8.50	9.25	3.38	6.72	12	1.25	1-1/8	12.50	110
mm.		381.00	55.60	215.90	235.00	85.90	170.70		31.80	28.60	317.50	50
in.	8"	18.50	2.50	10.62	11.75	4.00	8.72	12	1.50	1-3/8	15.50	170
mm.		469.90	63.50	269.70	298.50	101.60	221.50		38.10	34.90	393.70	77
in.	10"	21.50	2.75	12.75	14.50	4.25	10.88	16	1.50	1-3/8	18.50	245
mm.		546.10	69.90	323.90	368.30	108.00	276.40		38.10	34.90	469.90	111
in.	12"	24.00	3.12	15.00	16.50	4.62	12.88	20	1.50	1-3/8	21.00	325
mm.		609.60	79.20	381.00	419.10	117.30	327.20		38.10	34.90	533.40	147
in.	14"	25.25	3.38	16.25	17.75	5.12	14.14	20	1.62	1-1/2	22.00	400
mm.		641.40	85.90	412.80	450.90	130.00	359.20		41.10	38.10	558.80	181
in.	16"	27.75	3.50	18.50	20.00	5.25	16.16	20	1.75	1-5/8	24.25	425
mm.		704.90	88.90	469.90	508.00	133.40	410.50		44.50	41.30	616.00	193
in.	18"	31.00	4.00	21.00	22.25	6.00	18.18	20	2.00	1-7/8	27.00	600
mm.		787.40	101.60	533.40	565.20	152.40	461.80		50.80	47.60	685.80	272
in.	20"	33.75	4.25	23.00	24.50	6.25	20.20	20	2.12	2	29.50	730
mm.		857.30	108.00	584.20	622.30	158.80	513.10		53.80	50.80	749.30	331
in.	24"	41.00	5.50	27.25	29.50	8.00	24.25	20	2.62	2-1/2	35.50	1400
mm.		1041.40	139.70	692.20	749.30	203.20	616.00		66.50	63.50	901.70	635

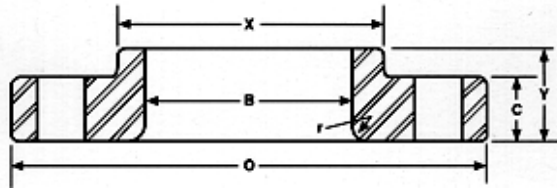
**CLASS 1500****SLIP-ON FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam. of hub at base	Length thru hub	Diam. of bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B					
in.	1/2"	4.75	0.88	1.38	1.50	1.25	0.88	4	0.88	3/4	3.25	4
mm.		120.70	22.40	35.10	38.10	31.80	22.40		22.40	19.10	82.60	2
in.	3/4"	5.12	1.00	1.69	1.75	1.38	1.09	4	0.88	3/4	3.50	5
mm.		130.00	25.40	42.90	44.50	35.10	27.70		22.40	19.10	88.90	2
in.	1"	5.88	1.12	2.00	2.06	1.62	1.36	4	1.00	7/8	4.00	8
mm.		149.40	28.40	50.80	52.30	41.10	34.50		25.40	22.20	101.60	4
in.	1 1/4"	6.25	1.12	2.50	2.50	1.62	1.70	4	1.00	7/8	4.38	9
mm.		158.80	28.40	63.50	63.50	41.10	43.20		25.40	22.20	111.30	4
in.	1 1/2"	7.00	1.25	2.88	2.75	1.75	1.95	4	1.12	1	4.88	12
mm.		177.80	31.80	73.20	69.90	44.50	49.50		28.40	25.40	124.00	5
in.	2"	8.50	1.50	3.62	4.12	2.25	2.44	8	1.00	7/8	6.50	25
mm.		215.90	38.10	91.90	104.60	57.20	62.00		25.40	22.20	165.10	11
in.	2 1/2"	9.62	1.62	4.12	4.88	2.50	2.94	8	1.12	1	7.50	36
mm.		244.30	41.10	104.60	124.00	63.50	74.70		28.40	25.40	190.50	16
in.	3"	10.50	1.88	5.00	5.25	2.88		8	1.25	1-1/8	8.00	48
mm.		266.70	47.80	127.00	133.40	73.20			31.80	28.60	203.20	22
in.	4"	12.25	2.12	6.19	6.38	3.56		8	1.38	1-1/4	9.50	73
mm.		311.20	53.80	157.20	162.10	90.40			35.10	31.80	241.30	33
in.	5"	14.75	2.88	7.31	7.75	4.12		8	1.62	1-1/2	11.50	130
mm.		374.70	73.20	185.70	196.90	104.60			41.10	38.10	292.10	59
in.	6"	15.50	3.25	8.50	9.00	4.69		12	1.50	1-3/8	12.50	165
mm.		393.70	82.60	215.90	228.60	119.10			38.10	34.90	317.50	75
in.	8"	19.00	3.62	10.62	11.50	5.62		12	1.75	1-5/8	15.50	260
mm.		482.60	91.90	269.70	292.10	142.70			44.50	41.30	393.70	118
in.	10"	23.00	4.25	12.75	14.50	6.25		12	2.00	1-7/8	19.00	435
mm.		584.20	108.00	323.90	368.30	158.80			50.80	47.60	482.60	197
in.	12"	26.50	4.88	15.00	17.75	7.12		16	2.12	2	22.50	580
mm.		673.10	124.00	381.00	450.90	180.80			53.80	50.80	571.50	263
in.	14"	29.50	5.25	16.25	19.50			16	2.38	2-1/4	25.00	
mm.		749.30	133.40	412.80	495.30				60.50	57.20	635.00	
in.	16"	32.50	5.75	18.50	21.75			16	2.62	2-1/2	27.75	
mm.		825.50	146.10	469.90	552.50				66.50	63.50	704.90	
in.	18"	36.00	6.38	21.00	23.50			16	2.88	2-3/4	30.50	
mm.		914.40	162.10	533.40	596.90				73.20	69.90	774.70	
in.	20"	38.75	7.00	23.00	25.25			16	3.12	3	32.75	
mm.		984.30	177.80	584.20	641.40				79.20	76.20	831.90	
in.	24"	46.00	8.00	27.25	30.00			16	3.62	3-1/2	39.00	
mm.		1168.40	203.20	692.20	762.00				91.90	88.90	990.60	



CLASS 150

LAP JOINT FLANGES

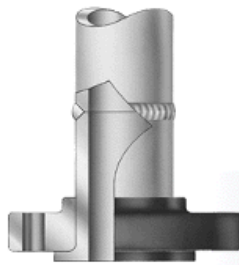


Estas bridas se usan primordialmente con casquillos de traslape, el costo inicial combinado de los dos productos es aproximadamente 1/3 mayor que el de las bridas WN.

Su resistencia a la presión es pequeña, pero mejor que aquellas de las bridas deslizables; su vida bajo condiciones de fatiga del ensamble es solamente un décimo de las bridas WN.

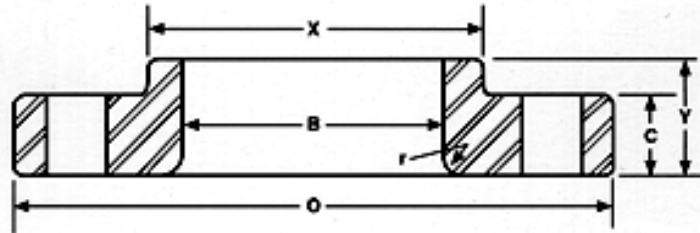
El uso principal de las Bridas de traslape en sistemas de tubería de acero al carbón o baja aleación se encuentra en instalaciones que requieren frecuentes desmantelamientos debido a inspección y limpieza y donde el movimiento de bridas así como el alineamiento de los barrenos de los pernos materialmente simplifica la colocación de diámetros grandes. Su uso en lugares donde ocurre flexión excesiva debe evitarse.

Nominal size		Outside diam. of flange	Thick. of flange	Diam of hub at base	Length thru hub	Diam. of bore	Fillet radius	No. of holes	Diam. of holes	Diam. of bolts	Diam. Of bolt circle	Approx. Weight Lbs / Kg
		O	C	X	Y	B	r					
in.	1/2"	3.50	0.44	1.19	0.62	0.90	0.12	4	0.62	1/2	2.38	1
mm.		88.90	11.20	30.20	15.70	22.90	3.00		15.70	12.70	60.50	0.5
in.	3/4"	3.88	0.50	1.50	0.62	1.11	0.12	4	0.62	1/2	2.75	2
mm.		98.60	12.70	38.10	15.70	28.20	3.00		15.70	12.70	69.90	1
in.	1"	4.25	0.56	1.94	0.69	1.38	0.12	4	0.62	1/2	3.12	2
mm.		108.00	14.20	49.30	17.50	35.10	3.00		15.70	12.70	79.20	1
in.	1 1/4"	4.62	0.62	2.31	0.81	1.72	0.19	4	0.62	1/2	3.50	3
mm.		117.30	15.70	58.70	20.60	43.70	4.80		15.70	12.70	88.90	1
in.	1 1/2"	5.00	0.69	2.56	0.88	1.97	0.25	4	0.62	1/2	3.88	3
mm.		127.00	17.50	65.00	22.40	50.00	6.40		15.70	12.70	98.60	1
in.	2"	6.00	0.75	3.06	1.00	2.46	0.31	4	0.75	5/8	4.75	5
mm.		152.40	19.10	77.70	25.40	62.50	7.90		19.10	15.90	120.70	2
in.	2 1/2"	7.00	0.88	3.56	1.12	2.97	0.31	4	0.75	5/8	5.50	7
mm.		177.80	22.40	90.40	28.40	75.40	7.90		19.10	15.90	139.70	3
in.	3"	7.50	0.94	4.25	1.19	3.60	0.38	4	0.75	5/8	6.00	8
mm.		190.50	23.90	108.00	30.20	91.40	9.70		19.10	15.90	152.40	4
in.	3 1/2"	8.50	0.94	4.81	1.25	4.10	0.38	8	0.75	5/8	7.00	11
mm.		215.90	23.90	122.20	31.80	104.10	9.70		19.10	15.90	177.80	5
in.	4"	9.00	0.94	5.31	1.31	4.60	0.44	8	0.75	5/8	7.50	13
mm.		228.60	23.90	134.90	33.30	116.80	11.20		19.10	15.90	190.50	6
in.	5"	10.00	0.94	6.44	1.44	5.69	0.44	8	0.88	3/4	8.50	15
mm.		254.00	23.90	163.60	36.60	144.50	11.20		22.40	19.10	215.90	7
in.	6"	11.00	1.00	7.56	1.56	6.75	0.50	8	0.88	3/4	9.50	19
mm.		279.40	25.40	192.00	39.60	171.50	12.70		22.40	19.10	241.30	9
in.	8"	13.50	1.12	9.69	1.75	8.75	0.50	8	0.88	3/4	11.75	30
mm.		342.90	28.40	246.10	44.50	222.30	12.70		22.40	19.10	298.50	14
in.	10"	16.00	1.19	12.00	1.94	10.92	0.50	12	1.00	7/8	14.25	43
mm.		406.40	30.20	304.80	49.30	277.40	12.70		25.40	22.20	362.00	20
in.	12"	19.00	1.25	14.38	2.19	12.92	0.50	12	1.00	7/8	17.00	64
mm.		482.60	31.80	365.30	55.60	328.20	12.70		25.40	22.20	431.80	29
in.	14"	21.00	1.38	15.75	3.12	14.18	0.50	12	1.12	1	18.75	105
mm.		533.40	35.10	400.10	79.20	360.20	12.70		28.40	25.40	476.30	48
in.	16"	23.50	1.44	18.00	3.44	16.19	0.50	16	1.12	1	21.25	140
mm.		596.90	36.60	457.20	87.40	411.20	12.70		28.40	25.40	539.80	64
in.	18"	25.00	1.56	19.88	3.81	18.20	0.50	16	1.25	1-1/8	22.75	160
mm.		635.00	39.60	505.00	96.80	462.30	12.70		31.80	28.60	577.90	73
in.	20"	27.50	1.69	22.00	4.06	20.25	0.50	20	1.25	1-1/8	25.00	195
mm.		698.50	42.90	558.80	103.10	514.40	12.70		31.80	28.60	635.00	88
in.	24"	32.00	1.88	26.12	4.38	24.25	0.50	20	1.38	1-1/4	29.50	275
mm.		812.80	47.80	663.40	111.30	616.00	12.70		35.10	31.80	749.30	125

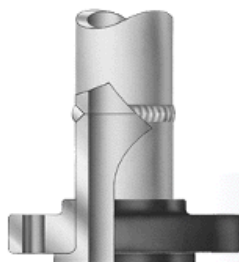


CLASS 300

LAP JOINT FLANGES

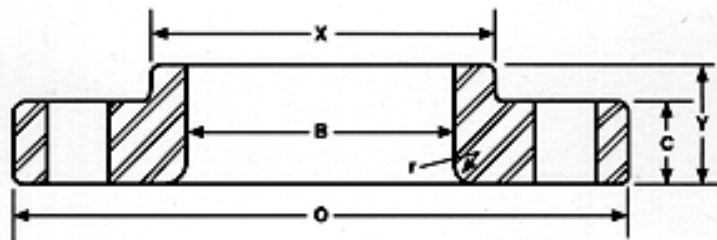


Nominal size		Outside diam. of flange	Thick. of flange	Diam of hub at base	Length thru hub	Diam. of bore	Fillet radius	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	X	Y	B	r					
in.	1/2"	3.75	0.56	1.50	0.88	0.90	0.12	4	0.62	1/2	2.62	2
mm.		95.30	14.20	38.10	22.40	22.90	3.00		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.88	1.00	1.11	0.12	4	0.75	5/8	3.25	3
mm.		117.30	15.70	47.80	25.40	28.20	3.00		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.12	1.06	1.38	0.12	4	0.75	5/8	3.50	3
mm.		124.00	17.50	53.80	26.90	35.10	3.00		19.10	15.90	88.90	1
in.	1 1/4"	5.25	0.75	2.50	1.06	1.72	0.19	4	0.75	5/8	3.88	4
mm.		133.40	19.10	63.50	26.90	43.70	4.80		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.81	2.75	1.19	1.97	0.25	4	0.88	3/4	4.50	6
mm.		155.40	20.60	69.90	30.20	50.00	6.40		22.40	19.10	114.30	3
in.	2"	6.50	0.88	3.31	1.31	2.46	0.31	8	0.75	5/8	5.00	7
mm.		165.10	22.40	84.10	33.30	62.50	7.90		19.10	15.90	127.00	3
in.	2 1/2"	7.50	1.00	3.94	1.50	2.97	0.31	8	0.88	3/4	5.88	10
mm.		190.50	25.40	100.10	38.10	75.40	7.90		22.40	19.10	149.40	5
in.	3"	8.25	1.12	4.62	1.69	3.60	0.38	8	0.88	3/4	6.62	13
mm.		209.60	28.40	117.30	42.90	91.40	9.70		22.40	19.10	168.10	6
in.	3 1/2"	9.00	1.19	5.25	1.75	4.10	0.38	8	0.88	3/4	7.25	17
mm.		228.60	30.20	133.40	44.50	104.10	9.70		22.40	19.10	184.20	8
in.	4"	10.00	1.25	5.75	1.88	4.60	0.44	8	0.88	3/4	7.88	22
mm.		254.00	31.80	146.10	47.80	116.80	11.20		22.40	19.10	200.20	10
in.	5"	11.00	1.38	7.00	2.00	5.69	0.44	8	0.88	3/4	9.25	28
mm.		279.40	35.10	177.80	50.80	144.50	11.20		22.40	19.10	235.00	13
in.	6"	12.50	1.44	8.12	2.06	6.75	0.50	12	0.88	3/4	10.62	39
mm.		317.50	36.60	206.20	52.30	171.50	12.70		22.40	19.10	269.70	18
in.	8"	15.00	1.62	10.25	2.44	8.75	0.50	12	1.00	7/8	13.00	58
mm.		381.00	41.10	260.40	62.00	222.30	12.70		25.40	22.20	330.20	26
in.	10"	17.50	1.88	12.62	3.75	10.92	0.50	16	1.12	1	15.25	91
mm.		444.50	47.80	320.50	95.30	277.40	12.70		28.40	25.40	387.40	41
in.	12"	20.50	2.00	14.75	4.00	12.92	0.50	16	1.25	1-1/8	17.75	140
mm.		520.70	50.80	374.70	101.60	328.20	12.70		31.80	28.60	450.90	64
in.	14"	23.00	2.12	16.75	4.38	14.18	0.50	20	1.25	1-1/8	20.25	190
mm.		584.20	53.80	425.50	111.30	360.20	12.70		31.80	28.60	514.40	86
in.	16"	25.50	2.25	19.00	4.75	16.19	0.50	20	1.38	1-1/4	22.50	250
mm.		647.70	57.20	482.60	120.70	411.20	12.70		35.10	31.80	571.50	113
in.	18"	28.00	2.38	21.00	5.12	18.20	0.50	24	1.38	1-1/4	24.75	295
mm.		711.20	60.50	533.40	130.00	462.30	12.70		35.10	31.80	628.70	134
in.	20"	30.50	2.50	23.12	5.50	20.25	0.50	24	1.38	1-1/4	27.00	370
mm.		774.70	63.50	587.20	139.70	514.40	12.70		35.10	31.80	685.80	168
in.	24"	36.00	2.75	27.62	6.00	24.25	0.50	24	1.62	1-1/2	32.00	550
mm.		914.40	69.90	701.50	152.40	616.00	12.70		41.10	38.10	812.80	249

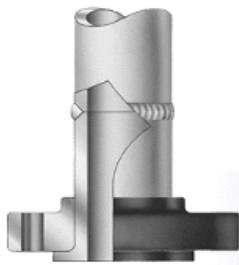


CLASS 600

LAP JOINT FLANGES

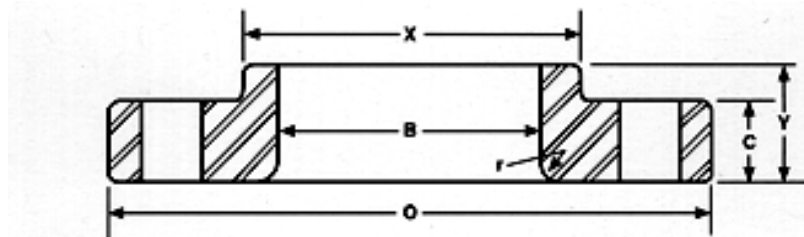


Nominal size		Outside diam. of flange	Thick. of flange	Diam of hub at base	Length thru hub	Diam. of bore	Fillet radius	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	X	Y	B	r					
in.	1/2"	3.75	0.56	1.50	0.88	0.90	0.12	4	0.62	1/2	2.62	2
mm.		95.30	14.20	38.10	22.40	22.90	3.00		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.88	1.00	1.11	0.12	4	0.75	5/8	3.25	3
mm.		117.30	15.70	47.80	25.40	28.20	3.00		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.12	1.06	1.38	0.12	4	0.75	5/8	3.50	4
mm.		124.00	17.50	53.80	26.90	35.10	3.00		19.10	15.90	88.90	2
in.	1 1/4"	5.25	0.81	2.50	1.12	1.72	0.19	4	0.75	5/8	3.88	5
mm.		133.40	20.60	63.50	28.40	43.70	4.80		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.88	2.75	1.25	1.97	0.25	4	0.88	3/4	4.50	7
mm.		155.40	22.40	69.90	31.80	50.00	6.40		22.40	19.10	114.30	3
in.	2"	6.50	1.00	3.31	1.44	2.46	0.31	8	0.75	5/8	5.00	9
mm.		165.10	25.40	84.10	36.60	62.50	7.90		19.10	15.90	127.00	4
in.	2 1/2"	7.50	1.12	3.94	1.62	2.97	0.31	8	0.88	3/4	5.88	12
mm.		190.50	28.40	100.10	41.10	75.40	7.90		22.40	19.10	149.40	5
in.	3"	8.25	1.25	4.62	1.81	3.60	0.38	8	0.88	3/4	6.62	15
mm.		209.60	31.80	117.30	46.00	91.40	9.70		22.40	19.10	168.10	7
in.	3 1/2"	9.00	1.38	5.25	1.94	4.10	0.38	8	1.00	7/8	7.25	20
mm.		228.60	35.10	133.40	49.30	104.10	9.70		25.40	22.20	184.20	9
in.	4"	10.75	1.50	6.00	2.12	4.60	0.44	8	1.00	7/8	8.50	36
mm.		273.10	38.10	152.40	53.80	116.80	11.20		25.40	22.20	215.90	16
in.	5"	13.00	1.75	7.44	2.38	5.69	0.44	8	1.12	1	10.50	61
mm.		330.20	44.50	189.00	60.50	144.50	11.20		28.40	25.40	266.70	28
in.	6"	14.00	1.88	8.75	2.62	6.75	0.50	12	1.12	1	11.50	78
mm.		355.60	47.80	222.30	66.50	171.50	12.70		28.40	25.40	292.10	35
in.	8"	16.50	2.19	10.75	3.00	8.75	0.50	12	1.25	1-1/8	13.75	110
mm.		419.10	55.60	273.10	76.20	222.30	12.70		31.80	28.60	349.30	50
in.	10"	20.00	2.50	13.50	4.38	10.92	0.50	16	1.38	1-1/4	17.00	170
mm.		508.00	63.50	342.90	111.30	277.40	12.70		35.10	31.80	431.80	77
in.	12"	22.00	2.62	15.75	4.62	12.92	0.50	20	1.38	1-1/4	19.25	200
mm.		558.80	66.50	400.10	117.30	328.20	12.70		35.10	31.80	489.00	91
in.	14"	23.75	2.75	17.00	5.00	14.18	0.50	20	1.50	1-3/8	20.75	250
mm.		603.30	69.90	431.80	127.00	360.20	12.70		38.10	34.90	527.10	113
in.	16"	27.00	3.00	19.50	5.50	16.19	0.50	20	1.62	1-1/2	23.75	365
mm.		685.80	76.20	495.30	139.70	411.20	12.70		41.10	38.10	603.30	166
in.	18"	29.25	3.25	21.50	6.00	18.20	0.50	20	1.75	1-5/8	25.75	435
mm.		743.00	82.60	546.10	152.40	462.30	12.70		44.50	41.30	654.10	197
in.	20"	32.00	3.50	24.00	6.50	20.25	0.50	24	1.75	1-5/8	28.50	570
mm.		812.80	88.90	609.60	165.10	514.40	12.70		44.50	41.30	723.90	259
in.	24"	37.00	4.00	28.25	7.25	24.25	0.50	24	2.00	1-7/8	33.00	810
mm.		939.80	101.60	717.60	184.20	616.00	12.70		50.80	47.60	838.20	367

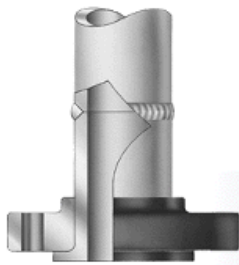
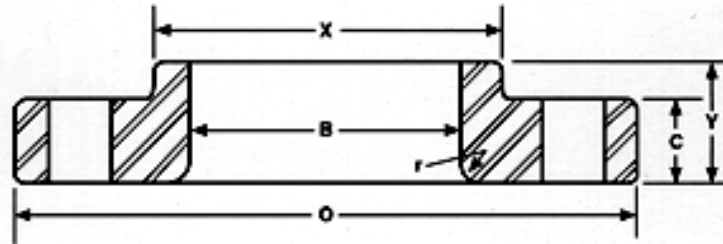


CLASS 900

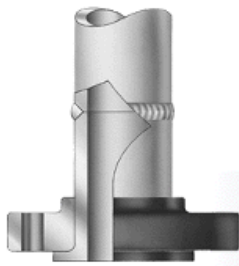
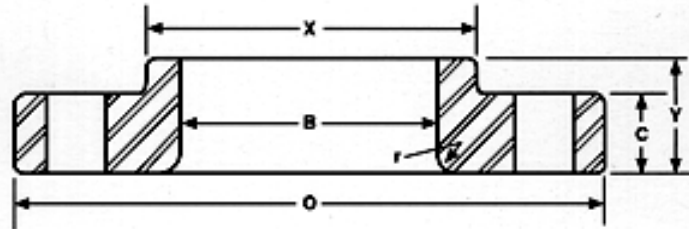
LAP JOINT FLANGES



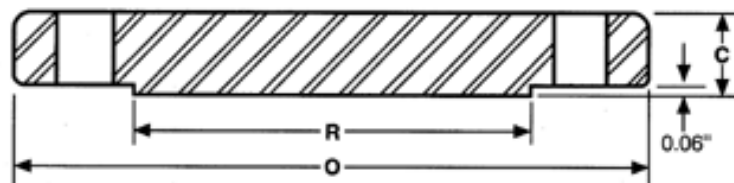
Nominal size		Outside diam. of flange	Thick. of flange	Diam of hub at base	Length thru hub	Diam. of bore	Fillet radius	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	X	Y	B	r					
in.	1/2"							Sizes 1/2" thru 2 1/2" are identical to Class 1500				
mm.												
in.	3/4"											
mm.												
in.	1"											
mm.												
in.	1 1/4"											
mm.												
in.	1 1/2"											
mm.												
in.	2"											
mm.												
in.	2 1/2"											
mm.												
in.	3"	9.50	1.50	5.00	2.12	3.60	0.38	8	1.00	7/8	7.50	25
mm.		241.30	38.10	127.00	53.80	91.40	9.70		25.40	22.20	190.50	11
in.	4"	11.50	1.75	6.25	2.75	4.60	0.44	8	1.25	1-1/8	9.25	51
mm.		292.10	44.50	158.80	69.90	116.80	11.20		31.80	28.60	235.00	23
in.	5"	13.75	2.00	7.50	3.12	5.69	0.44	8	1.38	1-1/4	11.00	81
mm.		349.30	50.80	190.50	79.20	144.50	11.20		35.10	31.80	279.40	37
in.	6"	15.00	2.19	9.25	3.38	6.75	0.50	12	1.25	1-1/8	12.50	105
mm.		381.00	55.60	235.00	85.90	171.50	12.70		31.80	28.60	317.50	48
in.	8"	18.50	2.50	11.75	4.50	8.75	0.50	12	1.50	1-3/8	15.50	190
mm.		469.90	63.50	298.50	114.30	222.30	12.70		38.10	34.90	393.70	86
in.	10"	21.50	2.75	14.50	5.00	10.92	0.50	16	1.50	1-3/8	18.50	275
mm.		546.10	69.90	368.30	127.00	277.40	12.70		38.10	34.90	469.90	125
in.	12"	24.00	3.12	16.50	5.62	12.92	0.50	20	1.50	1-3/8	21.00	370
mm.		609.60	79.20	419.10	142.70	328.20	12.70		38.10	34.90	533.40	168
in.	14"	25.25	3.38	17.75	6.12	14.18	0.50	20	1.62	1-1/2	22.00	415
mm.		641.40	85.90	450.90	155.40	360.20	12.70		41.10	38.10	558.80	188
in.	16"	27.75	3.50	20.00	6.50	16.19	0.50	20	1.75	1-5/8	24.25	465
mm.		704.90	88.90	508.00	165.10	411.20	12.70		44.50	41.30	616.00	211
in.	18"	31.00	4.00	22.25	7.50	18.20	0.50	20	2.00	1-7/8	27.00	650
mm.		787.40	101.60	565.20	190.50	462.30	12.70		50.80	47.60	685.80	295
in.	20"	33.75	4.25	24.50	8.25	20.25	0.50	20	2.12	2	29.50	810
mm.		857.30	108.00	622.30	209.60	514.40	12.70		53.80	50.80	749.30	367
in.	24"	41.00	5.50	29.50	10.50	24.25	0.50	20	2.62	2-1/2	35.50	1550
mm.		1041.40	139.70	749.30	266.70	616.00	12.70		66.50	63.50	901.70	703

**CLASS 1500****LAP JOINT FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam of hub at base	Length thru hub	Diam. of bore	Fillet radius	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	X	Y	B	r					
in.	1/2"	4.75	0.88	1.50	1.25	0.90	0.12	4	0.88	3/4	3.25	4
mm.		120.70	22.40	38.10	31.80	22.90	3.00		22.40	19.10	82.60	2
in.	3/4"	5.12	1.00	1.75	1.38	1.11	0.12	4	0.88	3/4	3.50	5
mm.		130.00	25.40	44.50	35.10	28.20	3.00		22.40	19.10	88.90	2
in.	1"	5.88	1.12	2.06	1.62	1.38	0.12	4	1.00	7/8	4.00	8
mm.		149.40	28.40	52.30	41.10	35.10	3.00		25.40	22.20	101.60	4
in.	1 1/4"	6.25	1.12	2.50	1.62	1.72	0.19	4	1.00	7/8	4.38	9
mm.		158.80	28.40	63.50	41.10	43.70	4.80		25.40	22.20	111.30	4
in.	1 1/2"	7.00	1.25	2.75	1.75	1.97	0.25	4	1.12	1	4.88	12
mm.		177.80	31.80	69.90	44.50	50.00	6.40		28.40	25.40	124.00	5
in.	2"	8.50	1.50	4.12	2.25	2.46	0.31	8	1.00	7/8	6.50	25
mm.		215.90	38.10	104.60	57.20	62.50	7.90		25.40	22.20	165.10	11
in.	2 1/2"	9.62	1.62	4.88	2.50	2.97	0.31	8	1.12	1	7.50	35
mm.		244.30	41.10	124.00	63.50	75.40	7.90		28.40	25.40	190.50	16
in.	3"	10.50	1.88	5.25	2.88	3.60	0.38	8	1.25	1-1/8	8.00	47
mm.		266.70	47.80	133.40	73.20	91.40	9.70		31.80	28.60	203.20	21
in.	4"	12.25	2.12	6.38	3.56	4.60	0.44	8	1.38	1-1/4	9.50	75
mm.		311.20	53.80	162.10	90.40	116.80	11.20		35.10	31.80	241.30	34
in.	5"	14.75	2.88	7.75	4.12	5.69	0.44	8	1.62	1-1/2	11.50	140
mm.		374.70	73.20	196.90	104.60	144.50	11.20		41.10	38.10	292.10	64
in.	6"	15.50	3.25	9.00	4.69	6.75	0.50	12	1.50	1-3/8	12.50	170
mm.		393.70	82.60	228.60	119.10	171.50	12.70		38.10	34.90	317.50	77
in.	8"	19.00	3.62	11.50	5.62	8.75	0.50	12	1.75	1-5/8	15.50	285
mm.		482.60	91.90	292.10	142.70	222.30	12.70		44.50	41.30	393.70	129
in.	10"	23.00	4.25	14.50	7.00	10.92	0.50	12	2.00	1-7/8	19.00	485
mm.		584.20	108.00	368.30	177.80	277.40	12.70		50.80	47.60	482.60	220
in.	12"	26.50	4.88	17.75	8.62	12.92	0.50	16	2.12	2	22.50	630
mm.		673.10	124.00	450.90	218.90	328.20	12.70		53.80	50.80	571.50	286
in.	14"	29.50	5.25	19.50	9.50	14.18	0.50	16	2.38	2-1/4	25.00	890
mm.		749.30	133.40	495.30	241.30	360.20	12.70		60.50	57.20	635.00	404
in.	16"	32.50	5.75	21.75	10.25	16.19	0.50	16	2.62	2-1/2	27.75	1050
mm.		825.50	146.10	552.50	260.40	411.20	12.70		66.50	63.50	704.90	476
in.	18"	36.00	6.38	23.50	10.88	18.20	0.50	16	2.88	2-3/4	30.50	1475
mm.		914.40	162.10	596.90	276.40	462.30	12.70		73.20	69.90	774.70	669
in.	20"	38.75	7.00	25.25	11.50	20.25	0.50	16	3.12	3	32.75	1775
mm.		984.30	177.80	641.40	292.10	514.40	12.70		79.20	76.20	831.90	805
in.	24"	46.00	8.00	30.00	13.00	24.25	0.50	16	3.62	3-1/2	39.00	2825
mm.		1168.40	203.20	762.00	330.20	616.00	12.70		91.90	88.90	990.60	1281

**CLASS 2500****LAP JOINT FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam of hub at base	Length thru hub	Diam. of bore	Fillet radius	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	X	Y	B	r					
in.	1/2"	5.25	1.19	1.69	1.56	0.90	0.12	4	0.88	3/4	3.50	7
mm.		133.40	30.20	42.90	39.60	22.90	3.00		22.40	19.10	88.90	3
in.	3/4"	5.50	1.25	2.00	1.69	1.11	0.12	4	0.88	3/4	3.75	8
mm.		139.70	31.80	50.80	42.90	28.20	3.00		22.40	19.10	95.30	4
in.	1"	6.25	1.38	2.25	1.88	1.38	0.12	4	1.00	7/8	4.25	11
mm.		158.80	35.10	57.20	47.80	35.10	3.00		25.40	22.20	108.00	5
in.	1 1/4"	7.25	1.50	2.88	2.06	1.72	0.19	4	1.12	1	5.12	16
mm.		184.20	38.10	73.20	52.30	43.70	4.80		28.40	25.40	130.00	7
in.	1 1/2"	8.00	1.75	3.12	2.38	1.97	0.25	4	1.25	1-1/8	5.75	22
mm.		203.20	44.50	79.20	60.50	50.00	6.40		31.80	28.60	146.10	10
in.	2"	9.25	2.00	3.75	2.75	2.46	0.31	8	1.12	1	6.75	37
mm.		235.00	50.80	95.30	69.90	62.50	7.90		28.40	25.40	171.50	17
in.	2 1/2"	10.50	2.25	4.50	3.12	2.97	0.31	8	1.25	1-1/8	7.75	53
mm.		266.70	57.20	114.30	79.20	75.40	7.90		31.80	28.60	196.90	24
in.	3"	12.00	2.62	5.25	3.62	3.60	0.38	8	1.38	1-1/4	9.00	80
mm.		304.80	66.50	133.40	91.90	91.40	9.70		35.10	31.80	228.60	36
in.	4"	14.00	3.00	6.50	4.25	4.60	0.44	8	1.62	1-1/2	10.75	120
mm.		355.60	76.20	165.10	108.00	116.80	11.20		41.10	38.10	273.10	54
in.	5"	16.50	3.62	8.00	5.12	5.69	0.44	8	1.88	1-3/4	12.75	205
mm.		419.10	91.90	203.20	130.00	144.50	11.20		47.80	44.50	323.90	93
in.	6"	19.00	4.25	9.25	6.00	6.75	0.50	8	2.12	2	14.50	315
mm.		482.60	108.00	235.00	152.40	171.50	12.70		53.80	50.80	368.30	143
in.	8"	21.75	5.00	12.00	7.00	8.75	0.50	12	2.12	2	17.25	470
mm.		552.50	127.00	304.80	177.80	222.30	12.70		53.80	50.80	438.20	213
in.	10"	26.50	6.50	14.75	9.00	10.92	0.50	12	2.62	2-1/2	21.25	900
mm.		673.10	165.10	374.70	228.60	277.40	12.70		66.50	63.50	539.80	408
in.	12"	30.00	7.25	17.38	10.00	12.92	0.50	12	2.88	2-3/4	24.38	1100
mm.		762.00	184.20	441.50	254.00	328.20	12.70		73.20	69.90	619.30	499

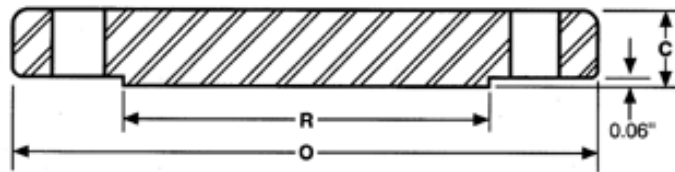
**CLASS 150****BLIND FLANGES**

Nominal size		Outside diam. Of flange	Thick. of flange	Diam. of raised face	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R					
in.	1/2"	3.50	0.44	1.38	4	0.62	1/2	2.38	1
mm.		88.90	11.20	35.10		15.70	12.70	60.50	0.5
in.	3/4"	3.88	0.50	1.69	4	0.62	1/2	2.75	2
mm.		98.60	12.70	42.90		15.70	12.70	69.90	1
in.	1"	4.25	0.56	2.00	4	0.62	1/2	3.12	2
mm.		108.00	14.20	50.80		15.70	12.70	79.20	1
in.	1 1/4"	4.62	0.62	2.50	4	0.62	1/2	3.50	3
mm.		117.30	15.70	63.50		15.70	12.70	88.90	1
in.	1 1/2"	5.00	0.69	2.88	4	0.62	1/2	3.88	4
mm.		127.00	17.50	73.20		15.70	12.70	98.60	2
in.	2"	6.00	0.75	3.62	4	0.75	5/8	4.75	5
mm.		152.40	19.10	91.90		19.10	15.90	120.70	2
in.	2 1/2"	7.00	0.88	4.12	4	0.75	5/8	5.50	7
mm.		177.80	22.40	104.60		19.10	15.90	139.70	3
in.	3"	7.50	0.94	5.00	4	0.75	5/8	6.00	9
mm.		190.50	23.90	127.00		19.10	15.90	152.40	4
in.	3 1/2"	8.50	0.94	5.50	8	0.75	5/8	7.00	13
mm.		215.90	23.90	139.70		19.10	15.90	177.80	6
in.	4"	9.00	0.94	6.19	8	0.75	5/8	7.50	17
mm.		228.60	23.90	157.20		19.10	15.90	190.50	8
in.	5"	10.00	0.94	7.31	8	0.88	3/4	8.50	20
mm.		254.00	23.90	185.70		22.40	19.10	215.90	9
in.	6"	11.00	1.00	8.50	8	0.88	3/4	9.50	26
mm.		279.40	25.40	215.90		22.40	19.10	241.30	12
in.	8"	13.50	1.12	10.62	8	0.88	3/4	11.75	45
mm.		342.90	28.40	269.70		22.40	19.10	298.50	20
in.	10"	16.00	1.19	12.75	12	1.00	7/8	14.25	70
mm.		406.40	30.20	323.90		25.40	22.20	362.00	32
in.	12"	19.00	1.25	15.00	12	1.00	7/8	17.00	110
mm.		482.60	31.80	381.00		25.40	22.20	431.80	50
in.	14"	21.00	1.38	16.25	12	1.12	1	18.75	140
mm.		533.40	35.10	412.80		28.40	25.40	476.30	64
in.	16"	23.50	1.44	18.50	16	1.12	1	21.25	180
mm.		596.90	36.60	469.90		28.40	25.40	539.80	82
in.	18"	25.00	1.56	21.00	16	1.25	1-1/8	22.75	220
mm.		635.00	39.60	533.40		31.80	28.60	577.90	100
in.	20"	27.50	1.69	23.00	20	1.25	1-1/8	25.00	285
mm.		698.50	42.90	584.20		31.80	28.60	635.00	129
in.	24"	32.00	1.88	27.25	20	1.38	1-1/4	29.50	430
mm.		812.80	47.80	692.20		35.10	31.80	749.30	195



CLASS 300

BLIND FLANGES

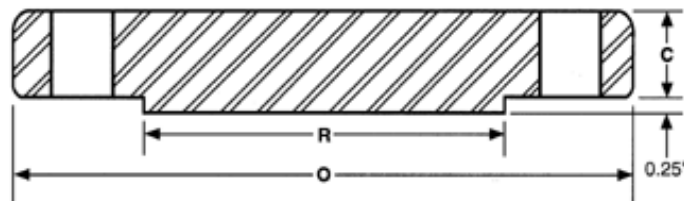


Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R					
in.	1/2"	3.75	0.56	1.38	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	4	0.75	5/8	3.50	3
mm.		124.00	17.50	50.80		19.10	15.90	88.90	1
in.	1 1/4"	5.25	0.75	2.50	4	0.75	5/8	3.88	4
mm.		133.40	19.10	63.50		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.81	2.88	4	0.88	3/4	4.50	6
mm.		155.40	20.60	73.20		22.40	19.10	114.30	3
in.	2"	6.50	0.88	3.62	8	0.75	5/8	5.00	8
mm.		165.10	22.40	91.90		19.10	15.90	127.00	4
in.	2 1/2"	7.50	1.00	4.12	8	0.88	3/4	5.88	12
mm.		190.50	25.40	104.60		22.40	19.10	149.40	5
in.	3"	8.25	1.12	5.00	8	0.88	3/4	6.62	16
mm.		209.60	28.40	127.00		22.40	19.10	168.10	7
in.	3 1/2"	9.00	1.19	5.50	8	0.88	3/4	7.25	21
mm.		228.60	30.20	139.70		22.40	19.10	184.20	10
in.	4"	10.00	1.25	6.19	8	0.88	3/4	7.88	27
mm.		254.00	31.80	157.20		22.40	19.10	200.20	12
in.	5"	11.00	1.38	7.31	8	0.88	3/4	9.25	35
mm.		279.40	35.10	185.70		22.40	19.10	235.00	16
in.	6"	12.50	1.44	8.50	12	0.88	3/4	10.62	50
mm.		317.50	36.60	215.90		22.40	19.10	269.70	23
in.	8"	15.00	1.62	10.62	12	1.00	7/8	13.00	81
mm.		381.00	41.10	269.70		25.40	22.20	330.20	37
in.	10"	17.50	1.88	12.75	16	1.12	1	15.25	124
mm.		444.50	47.80	323.90		28.40	25.40	387.40	56
in.	12"	20.50	2.00	15.00	16	1.25	1-1/8	17.75	185
mm.		520.70	50.80	381.00		31.80	28.60	450.90	84
in.	14"	23.00	2.12	16.25	20	1.25	1-1/8	20.25	250
mm.		584.20	53.80	412.80		31.80	28.60	514.40	113
in.	16"	25.50	2.25	18.50	20	1.38	1-1/4	22.50	295
mm.		647.70	57.20	469.90		35.10	31.80	571.50	134
in.	18"	28.00	2.38	21.00	24	1.38	1-1/4	24.75	395
mm.		711.20	60.50	533.40		35.10	31.80	628.70	179
in.	20"	30.50	2.50	23.00	24	1.38	1-1/4	27.00	505
mm.		774.70	63.50	584.20		35.10	31.80	685.80	229
in.	24"	36.00	2.75	27.25	24	1.62	1-1/2	32.00	790
mm.		914.40	69.90	692.20		41.10	38.10	812.80	358

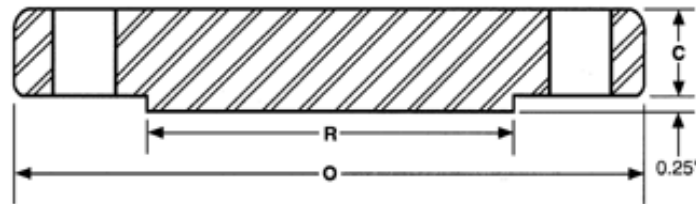
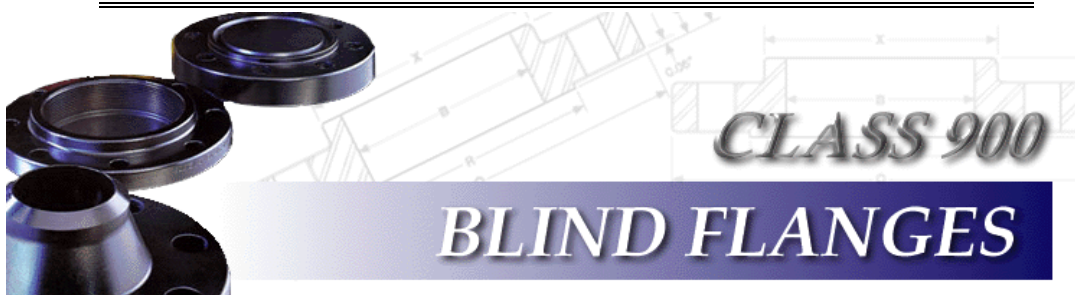


CLASS 600

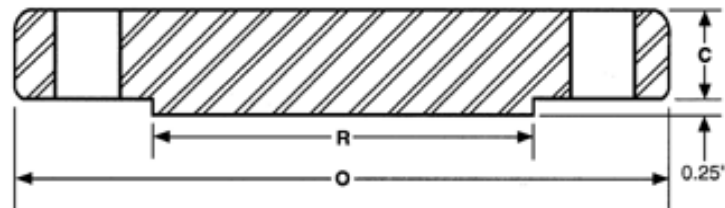
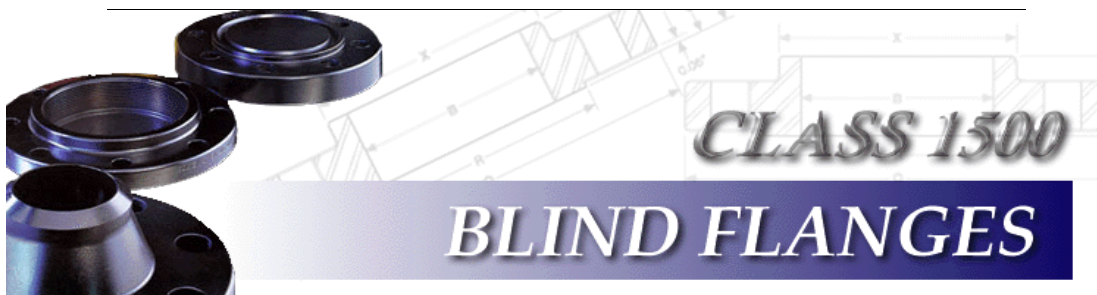
BLIND FLANGES



Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R					
in.	1/2"	3.75	0.56	1.38	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	4	0.75	5/8	3.50	4
mm.		124.00	17.50	50.80		19.10	15.90	88.90	2
in.	1 1/4"	5.25	0.81	2.50	4	0.75	5/8	3.88	5
mm.		133.40	20.60	63.50		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.88	2.88	4	0.88	3/4	4.50	8
mm.		155.40	22.40	73.20		22.40	19.10	114.30	4
in.	2"	6.50	1.00	3.62	8	0.75	5/8	5.00	10
mm.		165.10	25.40	91.90		19.10	15.90	127.00	5
in.	2 1/2"	7.50	1.12	4.12	8	0.88	3/4	5.88	15
mm.		190.50	28.40	104.60		22.40	19.10	149.40	7
in.	3"	8.25	1.25	5.00	8	0.88	3/4	6.62	20
mm.		209.60	31.80	127.00		22.40	19.10	168.10	9
in.	3 1/2"	9.00	1.38	5.50	8	1.00	7/8	7.25	29
mm.		228.60	35.10	139.70		25.40	22.20	184.20	13
in.	4"	10.75	1.50	6.19	8	1.00	7/8	8.50	41
mm.		273.10	38.10	157.20		25.40	22.20	215.90	19
in.	5"	13.00	1.75	7.31	8	1.12	1	10.50	68
mm.		330.20	44.50	185.70		28.40	25.40	266.70	31
in.	6"	14.00	1.88	8.50	12	1.12	1	11.50	86
mm.		355.60	47.80	215.90		28.40	25.40	292.10	39
in.	8"	16.50	2.19	10.62	12	1.25	1-1/8	13.75	140
mm.		419.10	55.60	269.70		31.80	28.60	349.30	64
in.	10"	20.00	2.50	12.75	16	1.38	1-1/4	17.00	230
mm.		508.00	63.50	323.90		35.10	31.80	431.80	104
in.	12"	22.00	2.62	15.00	20	1.38	1-1/4	19.25	295
mm.		558.80	66.50	381.00		35.10	31.80	489.00	134
in.	14"	23.75	2.75	16.25	20	1.50	1-3/8	20.75	355
mm.		603.30	69.90	412.80		38.10	34.90	527.10	161
in.	16"	27.00	3.00	18.50	20	1.62	1-1/2	23.75	495
mm.		685.80	76.20	469.90		41.10	38.10	603.30	225
in.	18"	29.25	3.25	21.00	20	1.75	1-5/8	25.75	630
mm.		743.00	82.60	533.40		44.50	41.30	654.10	286
in.	20"	32.00	3.50	23.00	24	1.75	1-5/8	28.50	810
mm.		812.80	88.90	584.20		44.50	41.30	723.90	367
in.	24"	37.00	4.00	27.25	24	2.00	1-7/8	33.00	1250
mm.		939.80	101.60	692.20		50.80	47.60	838.20	567



Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R					
in.	1/2"				Use Class 1500 dimensions in these sizes				
mm.									
in.	3/4"								
mm.									
in.	1"								
mm.									
in.	1 1/4"								
mm.									
in.	1 1/2"				Use Class 1500 dimensions in these sizes				
mm.									
in.	2"								
mm.									
in.	2 1/2"								
mm.									
in.	3"	9.50	1.50	5.00	8	1.00	7/8	7.50	29
mm.		241.30	38.10	127.00		25.40	22.20	190.50	13
in.	4"	11.50	1.75	6.19	8	1.25	1-1/8	9.25	54
mm.		292.10	44.50	157.20		31.80	28.60	235.00	24
in.	5"	13.75	2.00	7.31	8	1.38	1-1/4	11.00	87
mm.		349.30	50.80	185.70		35.10	31.80	279.40	39
in.	6"	15.00	2.19	8.50	12	1.25	1-1/8	12.50	115
mm.		381.00	55.60	215.90		31.80	28.60	317.50	52
in.	8"	18.50	2.50	10.62	12	1.50	1-3/8	15.50	200
mm.		469.90	63.50	269.70		38.10	34.90	393.70	91
in.	10"	21.50	2.75	12.75	16	1.50	1-3/8	18.50	290
mm.		546.10	69.90	323.90		38.10	34.90	469.90	132
in.	12"	24.00	3.12	15.00	20	1.50	1-3/8	21.00	415
mm.		609.60	79.20	381.00		38.10	34.90	533.40	188
in.	14"	25.25	3.38	16.25	20	1.62	1-1/2	22.00	520
mm.		641.40	85.90	412.80		41.10	38.10	558.80	236
in.	16"	27.75	3.50	18.50	20	1.75	1-5/8	24.25	600
mm.		704.90	88.90	469.90		44.50	41.30	616.00	272
in.	18"	31.00	4.00	21.00	20	2.00	1-7/8	27.00	850
mm.		787.40	101.60	533.40		50.80	47.60	685.80	386
in.	20"	33.75	4.25	23.00	20	2.12	2	29.50	1075
mm.		857.30	108.00	584.20		53.80	50.80	749.30	488
in.	24"	41.00	5.50	27.25	20	2.62	2-1/2	35.50	2025
mm.		1041.40	139.70	692.20		66.50	63.50	901.70	919

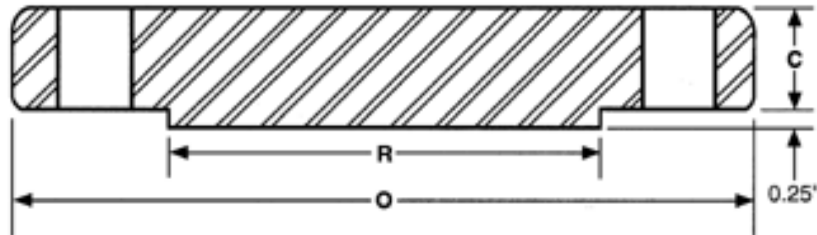


Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R					
in.	1/2"	4.75	0.88	1.38	4	0.88	3/4	3.25	4
mm.		120.70	22.40	35.10		22.40	19.10	82.60	2
in.	3/4"	5.12	1.00	1.69	4	0.88	3/4	3.50	6
mm.		130.00	25.40	42.90		22.40	19.10	88.90	3
in.	1"	5.88	1.12	2.00	4	1.00	7/8	4.00	8
mm.		149.40	28.40	50.80		25.40	22.20	101.60	4
in.	1 1/4"	6.25	1.12	2.50	4	1.00	7/8	4.38	9
mm.		158.80	28.40	63.50		25.40	22.20	111.30	4
in.	1 1/2"	7.00	1.25	2.88	4	1.12	1	4.88	13
mm.		177.80	31.80	73.20		28.40	25.40	124.00	6
in.	2"	8.50	1.50	3.62	8	1.00	7/8	6.50	25
mm.		215.90	38.10	91.90		25.40	22.20	165.10	11
in.	2 1/2"	9.62	1.62	4.12	8	1.12	1	7.50	35
mm.		244.30	41.10	104.60		28.40	25.40	190.50	16
in.	3"	10.50	1.88	5.00	8	1.25	1-1/8	8.00	48
mm.		266.70	47.80	127.00		31.80	28.60	203.20	22
in.	4"	12.25	2.12	6.19	8	1.38	1-1/4	9.50	73
mm.		311.20	53.80	157.20		35.10	31.80	241.30	33
in.	5"	14.75	2.88	7.31	8	1.62	1-1/2	11.50	140
mm.		374.70	73.20	185.70		41.10	38.10	292.10	64
in.	6"	15.50	3.25	8.50	12	1.50	1-3/8	12.50	160
mm.		393.70	82.60	215.90		38.10	34.90	317.50	73
in.	8"	19.00	3.62	10.62	12	1.75	1-5/8	15.50	300
mm.		482.60	91.90	269.70		44.50	41.30	393.70	136
in.	10"	23.00	4.25	12.75	12	2.00	1-7/8	19.00	510
mm.		584.20	108.00	323.90		50.80	47.60	482.60	231
in.	12"	26.50	4.88	15.00	16	2.12	2	22.50	690
mm.		673.10	124.00	381.00		53.80	50.80	571.50	313
in.	14"	29.50	5.25	16.25	16	2.38	2-1/4	25.00	975
mm.		749.30	133.40	412.80		60.50	57.20	635.00	442
in.	16"	32.50	5.75	18.50	16	2.62	2-1/2	27.75	1300
mm.		825.50	146.10	469.90		66.50	63.50	704.90	590
in.	18"	36.00	6.38	21.00	16	2.88	2-3/4	30.50	1750
mm.		914.40	162.10	533.40		73.20	69.90	774.70	794
in.	20"	38.75	7.00	23.00	16	3.12	3	32.75	2225
mm.		984.30	177.80	584.20		79.20	76.20	831.90	1009
in.	24"	46.00	8.00	27.25	16	3.62	3-1/2	39.00	3625
mm.		1168.40	203.20	692.20		91.90	88.90	990.60	1644

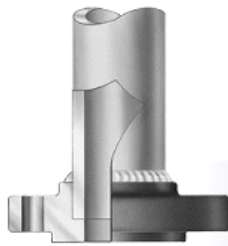
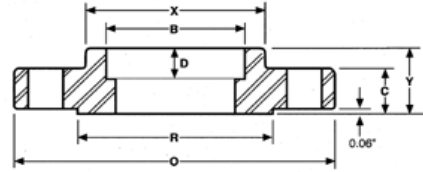


CLASS 2500

BLIND FLANGES



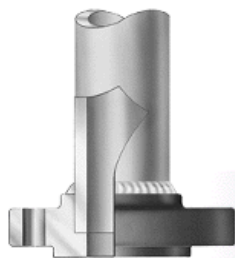
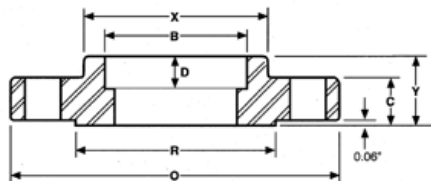
Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R					
in.	1/2"	5.25	1.19	1.38	4	0.88	3/4	3.50	7
mm.		133.40	30.20	35.10		22.40	19.10	88.90	3
in.	3/4"	5.50	1.25	1.69	4	0.88	3/4	3.75	8
mm.		139.70	31.80	42.90		22.40	19.10	95.30	4
in.	1"	6.25	1.38	2.00	4	1.00	7/8	4.25	11
mm.		158.80	35.10	50.80		25.40	22.20	108.00	5
in.	1 1/4"	7.25	1.50	2.50	4	1.12	1	5.12	17
mm.		184.20	38.10	63.50		28.40	25.40	130.00	8
in.	1 1/2"	8.00	1.75	2.88	4	1.25	1-1/8	5.75	23
mm.		203.20	44.50	73.20		31.80	28.60	146.10	10
in.	2"	9.25	2.00	3.62	8	1.12	1	6.75	39
mm.		235.00	50.80	91.90		28.40	25.40	171.50	18
in.	2 1/2"	10.50	2.25	4.12	8	1.25	1-1/8	7.75	56
mm.		266.70	57.20	104.60		31.80	28.60	196.90	25
in.	3"	12.00	2.62	5.00	8	1.38	1-1/4	9.00	86
mm.		304.80	66.50	127.00		35.10	31.80	228.60	39
in.	4"	14.00	3.00	6.19	8	1.62	1-1/2	10.75	135
mm.		355.60	76.20	157.20		41.10	38.10	273.10	61
in.	5"	16.50	3.62	7.31	8	1.88	1-3/4	12.75	225
mm.		419.10	91.90	185.70		47.80	44.50	323.90	102
in.	6"	19.00	4.25	8.50	8	2.12	2	14.50	345
mm.		482.60	108.00	215.90		53.80	50.80	368.30	156
in.	8"	21.75	5.00	10.62	12	2.12	2	17.25	530
mm.		552.50	127.00	269.70		53.80	50.80	438.20	240
in.	10"	26.50	6.50	12.75	12	2.62	2-1/2	21.25	1025
mm.		673.10	165.10	323.90		66.50	63.50	539.80	465
in.	12"	30.00	7.25	15.00	12	2.88	2-3/4	24.38	1300
mm.		762.00	184.20	381.00		73.20	69.90	619.30	590

**CLASS 150****SOCKET WELDING FLANGES**

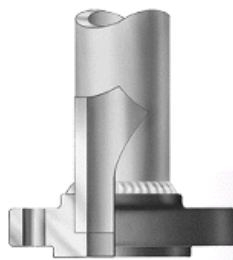
Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Diam. of bore	Depth of socket	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B	D					
in.	1/2"	3.50	0.44	1.38	1.19	0.62	0.88	0.38	4	0.62	1/2	2.38	1
mm.		88.90	11.20	35.10	30.20	15.70	22.40	9.70		15.70	12.70	60.50	0.5
in.	3/4"	3.88	0.50	1.69	1.50	0.62	1.09	0.44	4	0.62	1/2	2.75	2
mm.		98.60	12.70	42.90	38.10	15.70	27.70	11.20		15.70	12.70	69.90	1
in.	1"	4.25	0.56	2.00	1.94	0.69	1.36	0.50	4	0.62	1/2	3.12	2
mm.		108.00	14.20	50.80	49.30	17.50	34.50	12.70		15.70	12.70	79.20	1
in.	1 1/4"	4.62	0.62	2.50	2.31	0.81	1.70	0.56	4	0.62	1/2	3.50	3
mm.		117.30	15.70	63.50	58.70	20.60	43.20	14.20		15.70	12.70	88.90	1
in.	1 1/2"	5.00	0.69	2.88	2.56	0.88	1.95	0.62	4	0.62	1/2	3.88	3
mm.		127.00	17.50	73.20	65.00	22.40	49.50	15.70		15.70	12.70	98.60	1
in.	2"	6.00	0.75	3.62	3.06	1.00	2.44	0.69	4	0.75	5/8	4.75	5
mm.		152.40	19.10	91.90	77.70	25.40	62.00	17.50		19.10	15.90	120.70	2
in.	2 1/2"	7.00	0.88	4.12	3.56	1.12	2.94	0.75	4	0.75	5/8	5.50	7
mm.		177.80	22.40	104.60	90.40	28.40	74.70	19.10		19.10	15.90	139.70	3
in.	3"	7.50	0.94	5.00	4.25	1.19	3.57	0.81	4	0.75	5/8	6.00	8
mm.		190.50	23.90	127.00	108.00	30.20	90.70	20.60		19.10	15.90	152.40	4
in.	3 1/2"	8.50	0.94	5.50	4.81	1.25	4.07		8	0.75	5/8	7.00	11
mm.		215.90	23.90	139.70	122.20	31.80	103.40			19.10	15.90	177.80	5
in.	4"	9.00	0.94	6.19	5.31	1.31	4.57		8	0.75	5/8	7.50	13
mm.		228.60	23.90	157.20	134.90	33.30	116.10			19.10	15.90	190.50	6
in.	5"	10.00	0.94	7.31	6.44	1.44	5.66		8	0.88	3/4	8.50	15
mm.		254.00	23.90	185.70	163.60	36.60	143.80			22.40	19.10	215.90	7
in.	6"	11.00	1.00	8.50	7.56	1.56	6.72		8	0.88	3/4	9.50	19
mm.		279.40	25.40	215.90	192.00	39.60	170.70			22.40	19.10	241.30	9
in.	8"	13.50	1.12	10.62	9.69	1.75	8.72		8	0.88	3/4	11.75	30
mm.		342.90	28.40	269.70	246.10	44.50	221.50			22.40	19.10	298.50	14
in.	10"	16.00	1.19	12.75	12.00	1.94	10.88		12	1.00	7/8	14.25	43
mm.		406.40	30.20	323.90	304.80	49.30	276.40			25.40	22.20	362.00	20
in.	12"	19.00	1.25	15.00	14.38	2.19	12.88		12	1.00	7/8	17.00	64
mm.		482.60	31.80	381.00	365.30	55.60	327.20			25.40	22.20	431.80	29
in.	14"	21.00	1.38	16.25	15.75	2.25	14.14		12	1.12	1	18.75	90
mm.		533.40	35.10	412.80	400.10	57.20	359.20			28.40	25.40	476.30	41
in.	16"	23.50	1.44	18.50	18.00	2.50	16.16		16	1.12	1	21.25	98
mm.		596.90	36.60	469.90	457.20	63.50	410.50			28.40	25.40	539.80	44
in.	18"	25.00	1.56	21.00	19.88	2.69	18.18		16	1.25	1-1/8	22.75	130
mm.		635.00	39.60	533.40	505.00	68.30	461.80			31.80	28.60	577.90	59
in.	20"	27.50	1.69	23.00	22.00	2.88	20.20		20	1.25	1-1/8	25.00	165
mm.		698.50	42.90	584.20	558.80	73.20	513.10			31.80	28.60	635.00	75
in.	24"	32.00	1.88	27.25	26.12	3.25	24.25		20	1.38	1-1/4	29.50	220
mm.		812.80	47.80	692.20	663.40	82.60	616.00			35.10	31.80	749.30	100

(1) When these flanges are required with flat face, either the full thickness or thickness with raised face removed may be furnished. Users are reminded that removing the raised face will make the length through hub nonstandard.

(2) This dimension is for large end of hub, which may be straight or tapered. Taper shall not exceed 7 degrees on threaded, slip-on, socket welding, and lapped flanges.

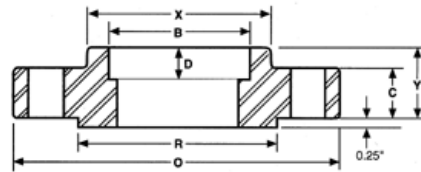
**CLASS 300****SOCKET WELDING FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Diam. of bore	Depth of socket	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B	D					
in.	1/2"	3.75	0.56	1.38	1.50	0.88	0.88	0.38	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10	38.10	22.40	22.40	9.70		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	1.88	1.00	1.09	0.44	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90	47.80	25.40	27.70	11.20		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	2.12	1.06	1.36	0.50	4	0.75	5/8	3.50	3
mm.		124.00	17.50	50.80	53.80	26.90	34.50	12.70		19.10	15.90	88.90	1
in.	1 1/4"	5.25	0.75	2.50	2.50	1.06	1.70	0.56	4	0.75	5/8	3.88	4
mm.		133.40	19.10	63.50	63.50	26.90	43.20	14.20		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.81	2.88	2.75	1.19	1.95	0.62	4	0.88	3/4	4.50	6
mm.		155.40	20.60	73.20	69.90	30.20	49.50	15.70		22.40	19.10	114.30	3
in.	2"	6.50	0.88	3.62	3.31	1.31	2.44	0.69	8	0.75	5/8	5.00	7
mm.		165.10	22.40	91.90	84.10	33.30	62.00	17.50		19.10	15.90	127.00	3
in.	2 1/2"	7.50	1.00	4.12	3.94	1.50	2.94	0.75	8	0.88	3/4	5.88	10
mm.		190.50	25.40	104.60	100.10	38.10	74.70	19.10		22.40	19.10	149.40	5
in.	3"	8.25	1.12	5.00	4.62	1.69	3.57	0.81	8	0.88	3/4	6.62	13
mm.		209.60	28.40	127.00	117.30	42.90	90.70	20.60		22.40	19.10	168.10	6
in.	3 1/2"	9.00	1.19	5.50	5.25	1.75	4.07		8	0.88	3/4	7.25	17
mm.		228.60	30.20	139.70	133.40	44.50	103.40			22.40	19.10	184.20	8
in.	4"	10.00	1.25	6.19	5.75	1.88	4.57		8	0.88	3/4	7.88	22
mm.		254.00	31.80	157.20	146.10	47.80	116.10			22.40	19.10	200.20	10
in.	5"	11.00	1.38	7.31	7.00	2.00	5.66		8	0.88	3/4	9.25	28
mm.		279.40	35.10	185.70	177.80	50.80	143.80			22.40	19.10	235.00	13
in.	6"	12.50	1.44	8.50	8.12	2.06	6.72		12	0.88	3/4	10.62	39
mm.		317.50	36.60	215.90	206.20	52.30	170.70			22.40	19.10	269.70	18
in.	8"	15.00	1.62	10.62	10.25	2.44	8.72		12	1.00	7/8	13.00	58
mm.		381.00	41.10	269.70	260.40	62.00	221.50			25.40	22.20	330.20	26
in.	10"	17.50	1.88	12.75	12.62	2.62	10.88		16	1.12	1	15.25	81
mm.		444.50	47.80	323.90	320.50	66.50	276.40			28.40	25.40	387.40	37
in.	12"	20.50	2.00	15.00	14.75	2.88	12.88		16	1.25	1-1/8	17.75	115
mm.		520.70	50.80	381.00	374.70	73.20	327.20			31.80	28.60	450.90	52
in.	14"	23.00	2.12	16.25	16.75	3.00	14.14		20	1.25	1-1/8	20.25	165
mm.		584.20	53.80	412.80	425.50	76.20	359.20			31.80	28.60	514.40	75
in.	16"	25.50	2.25	18.50	19.00	3.25	16.16		20	1.38	1-1/4	22.50	190
mm.		647.70	57.20	469.90	482.60	82.60	410.50			35.10	31.80	571.50	86
in.	18"	28.00	2.38	21.00	21.00	3.50	18.18		24	1.38	1-1/4	24.75	250
mm.		711.20	60.50	533.40	533.40	88.90	461.80			35.10	31.80	628.70	113
in.	20"	30.50	2.50	23.00	23.12	3.75	20.20		24	1.38	1-1/4	27.00	315
mm.		774.70	63.50	584.20	587.20	95.30	513.10			35.10	31.80	685.80	143
in.	24"	36.00	2.75	27.25	27.62	4.19	24.25		24	1.62	1-1/2	32.00	475
mm.		914.40	69.90	692.20	701.50	106.40	616.00			41.10	38.10	812.80	215

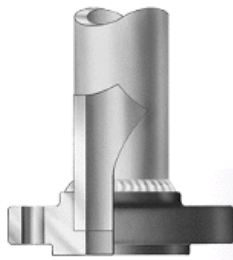


CLASS 600

SOCKET WELDING FLANGES

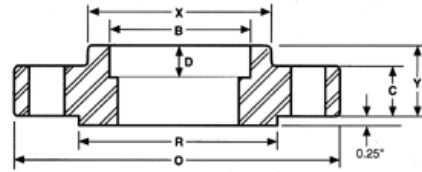


Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Diam. of bore	Depth of socket	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B	D					
in.	1/2"	3.75	0.56	1.38	1.50	0.88	0.88	0.38	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10	38.10	22.40	22.40	9.70		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	1.88	1.00	1.09	0.44	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90	47.80	25.40	27.70	11.20		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	2.12	1.06	1.36	0.50	4	0.75	5/8	3.50	4
mm.		124.00	17.50	50.80	53.80	26.90	34.50	12.70		19.10	15.90	88.90	2
in.	1 1/4"	5.25	0.81	2.50	2.50	1.12	1.70	0.56	4	0.75	5/8	3.88	5
mm.		133.40	20.60	63.50	63.50	28.40	43.20	14.20		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.88	2.88	2.75	1.25	1.95	0.62	4	0.88	3/4	4.50	7
mm.		155.40	22.40	73.20	69.90	31.80	49.50	15.70		22.40	19.10	114.30	3
in.	2"	6.50	1.00	3.62	3.31	1.44	2.44	0.69	8	0.75	5/8	5.00	9
mm.		165.10	25.40	91.90	84.10	36.60	62.00	17.50		19.10	15.90	127.00	4
in.	2 1/2"	7.50	1.12	4.12	3.94	1.62	2.94	0.75	8	0.88	3/4	5.88	13
mm.		190.50	28.40	104.60	100.10	41.10	74.70	19.10		22.40	19.10	149.40	6
in.	3"	8.25	1.25	5.00	4.62	1.81	3.57	0.81	8	0.88	3/4	6.62	16
mm.		209.60	31.80	127.00	117.30	46.00	90.70	20.60		22.40	19.10	168.10	7
in.	3 1/2"	9.00	1.38	5.50	5.25	1.94	4.07		8	1.00	7/8	7.25	21
mm.		228.60	35.10	139.70	133.40	49.30	103.40			25.40	22.20	184.20	10
in.	4"	10.75	1.50	6.19	6.00	2.12	4.57		8	1.00	7/8	8.50	37
mm.		273.10	38.10	157.20	152.40	53.80	116.10			25.40	22.20	215.90	17
in.	5"	13.00	1.75	7.31	7.44	2.38	5.66		8	1.12	1	10.50	63
mm.		330.20	44.50	185.70	189.00	60.50	143.80			28.40	25.40	266.70	29
in.	6"	14.00	1.88	8.50	8.75	2.62	6.72		12	1.12	1	11.50	80
mm.		355.60	47.80	215.90	222.30	66.50	170.70			28.40	25.40	292.10	36
in.	8"	16.50	2.19	10.62	10.75	3.00	8.72		12	1.25	1-1/8	13.75	115
mm.		419.10	55.60	269.70	273.10	76.20	221.50			31.80	28.60	349.30	52
in.	10"	20.00	2.50	12.75	13.50	3.38	10.88		16	1.38	1-1/4	17.00	170
mm.		508.00	63.50	323.90	342.90	85.90	276.40			35.10	31.80	431.80	77
in.	12"	22.00	2.62	15.00	15.75	3.62	12.88		20	1.38	1-1/4	19.25	200
mm.		558.80	66.50	381.00	400.10	91.90	327.20			35.10	31.80	489.00	91
in.	14"	23.75	2.75	16.25	17.00	3.69	14.14		20	1.50	1-3/8	20.75	230
mm.		603.30	69.90	412.80	431.80	93.70	359.20			38.10	34.90	527.10	104
in.	16"	27.00	3.00	18.50	19.50	4.19	16.16		20	1.62	1-1/2	23.75	330
mm.		685.80	76.20	469.90	495.30	106.40	410.50			41.10	38.10	603.30	150
in.	18"	29.25	3.25	21.00	21.50	4.62	18.18		20	1.75	1-5/8	25.75	400
mm.		743.00	82.60	533.40	546.10	117.30	461.80			44.50	41.30	654.10	181
in.	20"	32.00	3.50	23.00	24.00	5.00	20.20		24	1.75	1-5/8	28.50	510
mm.		812.80	88.90	584.20	609.60	127.00	513.10			44.50	41.30	723.90	231
in.	24"	37.00	4.00	27.25	28.25	5.50	24.25		24	2.00	1-7/8	33.00	730
mm.		939.80	101.60	692.20	717.60	139.70	616.00			50.80	47.60	838.20	331

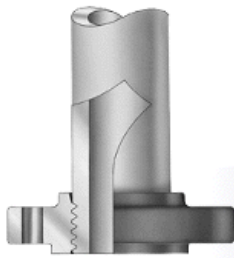
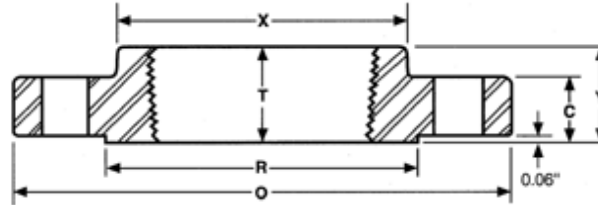


CLASS 1500

SOCKET WELDING FLANGES



Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam. of hub at base	Length thru hub	Diam. of bore	Depth of socket	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	B	D					
in.	1/2"	4.75	0.88	1.38	1.50	1.25	0.88	0.38	4	0.88	3/4	3.25	4
mm.		120.70	22.40	35.10	38.10	31.80	22.40	9.70		22.40	19.10	82.60	2
in.	3/4"	5.12	1.00	1.69	1.75	1.38	1.09	0.44	4	0.88	3/4	3.50	5
mm.		130.00	25.40	42.90	44.50	35.10	27.70	11.20		22.40	19.10	88.90	2
in.	1"	5.88	1.12	2.00	2.06	1.62	1.36	0.50	4	1.00	7/8	4.00	8
mm.		149.40	28.40	50.80	52.30	41.10	34.50	12.70		25.40	22.20	101.60	4
in.	1 1/4"	6.25	1.12	2.50	2.50	1.62	1.70	0.56	4	1.00	7/8	4.38	9
mm.		158.80	28.40	63.50	63.50	41.10	43.20	14.20		25.40	22.20	111.30	4
in.	1 1/2"	7.00	1.25	2.88	2.75	1.75	1.95	0.62	4	1.12	1	4.88	12
mm.		177.80	31.80	73.20	69.90	44.50	49.50	15.70		28.40	25.40	124.00	5
in.	2"	8.50	1.50	3.62	4.12	2.25	2.44	0.69	8	1.00	7/8	6.50	25
mm.		215.90	38.10	91.90	104.60	57.20	62.00	17.50		25.40	22.20	165.10	11
in.	2 1/2"	9.62	1.62	4.12	4.88	2.50	2.94	0.75	8	1.12	1	7.50	36
mm.		244.30	41.10	104.60	124.00	63.50	74.70	19.10		28.40	25.40	190.50	16
in.	3"	10.50	1.88	5.00	5.25	2.88			8	1.25	1-1/8	8.00	48
mm.		266.70	47.80	127.00	133.40	73.20				31.80	28.60	203.20	22
in.	4"	12.25	2.12	6.19	6.38	3.56			8	1.38	1-1/4	9.50	73
mm.		311.20	53.80	157.20	162.10	90.40				35.10	31.80	241.30	33
in.	5"	14.75	2.88	7.31	7.75	4.12			8	1.62	1-1/2	11.50	130
mm.		374.70	73.20	185.70	196.90	104.60				41.10	38.10	292.10	59
in.	6"	15.50	3.25	8.50	9.00	4.69			12	1.50	1-3/8	12.50	165
mm.		393.70	82.60	215.90	228.60	119.10				38.10	34.90	317.50	75
in.	8"	19.00	3.62	10.62	11.50	5.62			12	1.75	1-5/8	15.50	260
mm.		482.60	91.90	269.70	292.10	142.70				44.50	41.30	393.70	118
in.	10"	23.00	4.25	12.75	14.50	6.25			12	2.00	1-7/8	19.00	435
mm.		584.20	108.00	323.90	368.30	158.80				50.80	47.60	482.60	197
in.	12"	26.50	4.88	15.00	17.75	7.12			16	2.12	2	22.50	580
mm.		673.10	124.00	381.00	450.90	180.80				53.80	50.80	571.50	263
in.	14"	29.50	5.25	16.25	19.50				16	2.38	2-1/4	25.00	
mm.		749.30	133.40	412.80	495.30					60.50	57.20	635.00	
in.	16"	32.50	5.75	18.50	21.75				16	2.62	2-1/2	27.75	
mm.		825.50	146.10	469.90	552.50					66.50	63.50	704.90	
in.	18"	36.00	6.38	21.00	23.50				16	2.88	2-3/4	30.50	
mm.		914.40	162.10	533.40	596.90					73.20	69.90	774.70	
in.	20"	38.75	7.00	23.00	25.25				16	3.12	3	32.75	
mm.		984.30	177.80	584.20	641.40					79.20	76.20	831.90	
in.	24"	46.00	8.00	27.25	30.00				16	3.62	3-1/2	39.00	
mm.		1168.40	203.20	692.20	762.00					91.90	88.90	990.60	

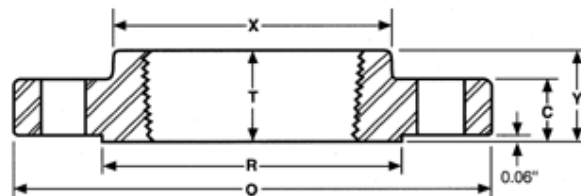
**CLASS 150****THREADED FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Min. thread lenght	Min. Counter bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	T	Q					
in.	1/2"	3.50	0.44	1.38	1.19	0.62	0.62		4	0.62	1/2	2.38	1
mm.		88.9	11.2	35.1	30.2	15.7	15.7			15.7	12.7	60.5	0.5
in.	3/4"	3.88	0.50	1.69	1.50	0.62	0.62		4	0.62	1/2	2.75	2
mm.		98.6	12.7	42.9	38.1	15.7	15.7			15.7	12.7	69.9	1
in.	1"	4.25	0.56	2.00	1.94	0.69	0.69		4	0.62	1/2	3.12	2
mm.		108.0	14.2	50.8	49.3	17.5	17.5			15.7	12.7	79.2	1
in.	1 1/4"	4.62	0.62	2.50	2.31	0.81	0.81		4	0.62	1/2	3.50	3
mm.		117.3	15.7	63.5	58.7	20.6	20.6			15.7	12.7	88.9	1
in.	1 1/2"	5.00	0.69	2.88	2.56	0.88	0.88		4	0.62	1/2	3.88	3
mm.		127.0	17.5	73.2	65.0	22.4	22.4			15.7	12.7	98.6	1
in.	2"	6.00	0.75	3.62	3.06	1.00	1.00		4	0.75	5/8	4.75	5
mm.		152.4	19.1	91.9	77.7	25.4	25.4			19.1	15.9	120.7	2
in.	2 1/2"	7.00	0.88	4.12	3.56	1.12	1.12		4	0.75	5/8	5.50	7
mm.		177.8	22.4	104.6	90.4	28.4	28.4			19.1	15.9	139.7	3
in.	3"	7.50	0.94	5.00	4.25	1.19	1.19		4	0.75	5/8	6.00	8
mm.		190.5	23.9	127.0	108.0	30.2	30.2			19.1	15.9	152.4	4
in.	3 1/2"	8.50	0.94	5.50	4.81	1.25	1.25		8	0.75	5/8	7.00	11
mm.		215.9	23.9	139.7	122.2	31.8	31.8			19.1	15.9	177.8	5
in.	4"	9.00	0.94	6.19	5.31	1.31	1.31		8	0.75	5/8	7.50	13
mm.		228.6	23.9	157.2	134.9	33.3	33.3			19.1	15.9	190.5	6
in.	5"	10.00	0.94	7.31	6.44	1.44	1.44		8	0.88	3/4	8.50	15
mm.		254.0	23.9	185.7	163.6	36.6	36.6			22.4	19.1	215.9	7
in.	6"	11.00	1.00	8.50	7.56	1.56	1.56		8	0.88	3/4	9.50	19
mm.		279.4	25.4	215.9	192.0	39.6	39.6			22.4	19.1	241.3	9
in.	8"	13.50	1.12	10.62	9.69	1.75	1.75		8	0.88	3/4	11.75	30
mm.		342.9	28.4	269.7	246.1	44.5	44.5			22.4	19.1	298.5	14
in.	10"	16.00	1.19	12.75	12.00	1.94	1.94		12	1.00	7/8	14.25	43
mm.		406.4	30.2	323.9	304.8	49.3	49.3			25.4	22.2	362.0	20
in.	12"	19.00	1.25	15.00	14.38	2.19	2.19		12	1.00	7/8	17.00	64
mm.		482.6	31.8	381.0	365.3	55.6	55.6			25.4	22.2	431.8	29
in.	14"	21.00	1.38	16.25	15.75	2.25	2.25		12	1.12	1	18.75	90
mm.		533.4	35.1	412.8	400.1	57.2	57.2			28.4	25.4	476.3	41
in.	16"	23.50	1.44	18.50	18.00	2.50	2.50		16	1.12	1	21.25	98
mm.		596.9	36.6	469.9	457.2	63.5	63.5			28.4	25.4	539.8	44
in.	18"	25.00	1.56	21.00	19.88	2.69	2.69		16	1.25	1-1/8	22.75	130
mm.		635.0	39.6	533.4	505.0	68.3	68.3			31.8	28.6	577.9	59
in.	20"	27.50	1.69	23.00	22.00	2.88	2.88		20	1.25	1 1/8	25.00	165
mm.		698.5	42.9	584.2	558.8	73.2	73.2			31.8	28.6	635.0	75
in.	24"	32.00	1.88	27.25	26.12	3.25	3.25		20	1.38	1 1/4	29.50	220
mm.		812.8	47.8	692.2	663.4	82.6	82.6			35.1	31.8	749.3	100

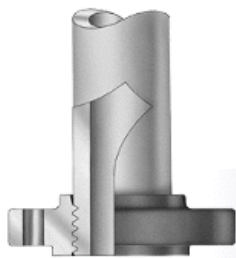


CLASS 300

THREADED FLANGES

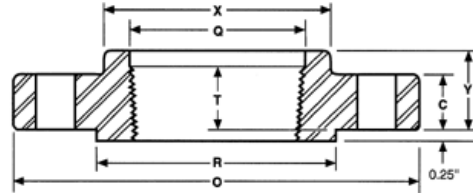


Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam. of hub at base	Length thru hub	Min. thread length	Min. counter-bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	T	Q					
in.	1/2"	3.75	0.56	1.38	1.50	0.88	0.62	0.93	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10	38.10	22.40	15.70	23.60		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	1.88	1.00	0.62	1.14	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90	47.80	25.40	15.70	29.00		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	2.12	1.06	0.69	1.41	4	0.75	5/8	3.50	3
mm.		124.00	17.50	50.80	53.80	26.90	17.50	35.80		19.10	15.90	88.90	1
in.	1 1/4"	5.25	0.75	2.50	2.50	1.06	0.81	1.75	4	0.75	5/8	3.88	4
mm.		133.40	19.10	63.50	63.50	26.90	20.60	44.50		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.81	2.88	2.75	1.19	0.88	1.99	4	0.88	3/4	4.50	6
mm.		155.40	20.60	73.20	69.90	30.20	22.40	50.50		22.40	19.10	114.30	3
in.	2"	6.50	0.88	3.62	3.31	1.31	1.12	2.50	8	0.75	5/8	5.00	7
mm.		165.10	22.40	91.90	84.10	33.30	28.40	63.50		19.10	15.90	127.00	3
in.	2 1/2"	7.50	1.00	4.12	3.94	1.50	1.25	3.00	8	0.88	3/4	5.88	10
mm.		190.50	25.40	104.60	100.10	38.10	31.80	76.20		22.40	19.10	149.40	5
in.	3"	8.25	1.12	5.00	4.62	1.69	1.25	3.63	8	0.88	3/4	6.62	13
mm.		209.60	28.40	127.00	117.30	42.90	31.80	92.20		22.40	19.10	168.10	6
in.	3 1/2"	9.00	1.19	5.50	5.25	1.75	1.44	4.13	8	0.88	3/4	7.25	17
mm.		228.60	30.20	139.70	133.40	44.50	36.60	104.90		22.40	19.10	184.20	8
in.	4"	10.00	1.25	6.19	5.75	1.88	1.44	4.63	8	0.88	3/4	7.88	22
mm.		254.00	31.80	157.20	146.10	47.80	36.60	117.60		22.40	19.10	200.20	10
in.	5"	11.00	1.38	7.31	7.00	2.00	1.69	5.69	8	0.88	3/4	9.25	28
mm.		279.40	35.10	185.70	177.80	50.80	42.90	144.50		22.40	19.10	235.00	13
in.	6"	12.50	1.44	8.50	8.12	2.06	1.81	6.75	12	0.88	3/4	10.62	39
mm.		317.50	36.60	215.90	206.20	52.30	46.00	171.50		22.40	19.10	269.70	18
in.	8"	15.00	1.62	10.62	10.25	2.44	2.00	8.75	12	1.00	7/8	13.00	58
mm.		381.00	41.10	269.70	260.40	62.00	50.80	222.30		25.40	22.20	330.20	26
in.	10"	17.50	1.88	12.75	12.62	2.62	2.19	10.88	16	1.12	1	15.25	81
mm.		444.50	47.80	323.90	320.50	66.50	55.60	276.40		28.40	25.40	387.40	37
in.	12"	20.50	2.00	15.00	14.75	2.88	2.38	12.94	16	1.25	1-1/8	17.75	115
mm.		520.70	50.80	381.00	374.70	73.20	60.50	328.70		31.80	28.60	450.90	52
in.	14"	23.00	2.12	16.25	16.75	3.00	2.50	14.19	20	1.25	1-1/8	20.25	165
mm.		584.20	53.80	412.80	425.50	76.20	63.50	360.40		31.80	28.60	514.40	75
in.	16"	25.50	2.25	18.50	19.00	3.25	2.69	16.19	20	1.38	1-1/4	22.50	190
mm.		647.70	57.20	469.90	482.60	82.60	68.30	411.20		35.10	31.80	571.50	86
in.	18"	28.00	2.38	21.00	21.00	3.50	2.75	18.19	24	1.38	1-1/4	24.75	250
mm.		711.20	60.50	533.40	533.40	88.90	69.90	462.00		35.10	31.80	628.70	113
in.	20"	30.50	2.50	23.00	23.12	3.75	2.88	20.19	24	1.38	1-1/4	27.00	315
mm.		774.70	63.50	584.20	587.20	95.30	73.20	512.80		35.10	31.80	685.80	143
in.	24"	36.00	2.75	27.25	27.62	4.19	3.25	24.19	24	1.62	1-1/2	32.00	475
mm.		914.40	69.90	692.20	701.50	106.40	82.60	614.40		41.10	38.10	812.80	215

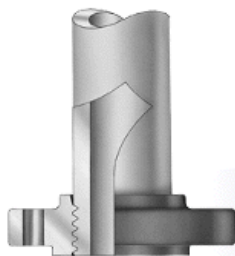
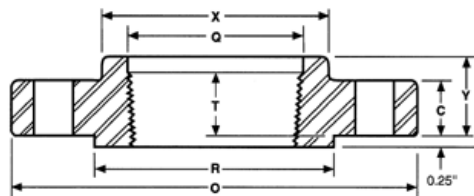


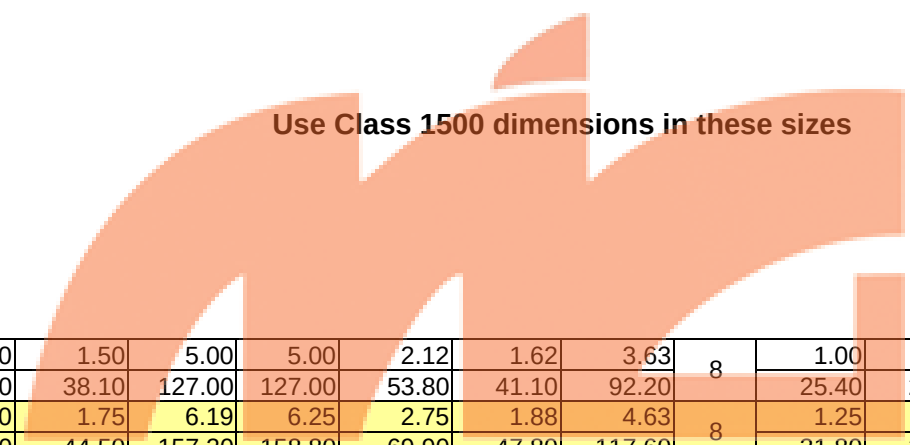
CLASS 600

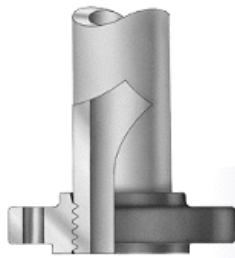
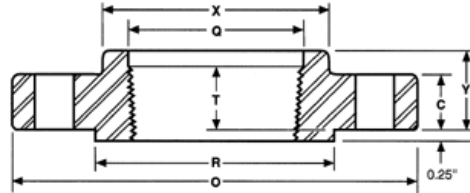
THREADED FLANGES



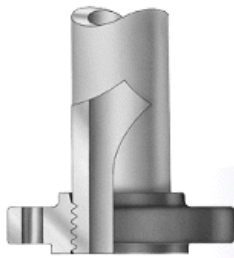
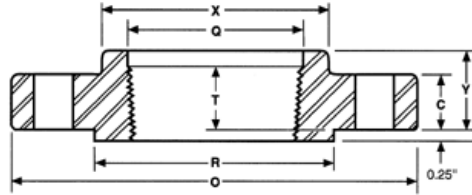
Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam. of hub at base	Length thru hub	Min. thread length	Min. counter-bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	T	Q					
in.	1/2"	3.75	0.56	1.38	1.50	0.88	0.62	0.93	4	0.62	1/2	2.62	2
mm.		95.30	14.20	35.10	38.10	22.40	15.70	23.60		15.70	12.70	66.50	1
in.	3/4"	4.62	0.62	1.69	1.88	1.00	0.62	1.14	4	0.75	5/8	3.25	3
mm.		117.30	15.70	42.90	47.80	25.40	15.70	29.00		19.10	15.90	82.60	1
in.	1"	4.88	0.69	2.00	2.12	1.06	0.69	1.41	4	0.75	5/8	3.50	4
mm.		124.00	17.50	50.80	53.80	26.90	17.50	35.80		19.10	15.90	88.90	2
in.	1 1/4"	5.25	0.81	2.50	2.50	1.12	0.81	1.75	4	0.75	5/8	3.88	5
mm.		133.40	20.60	63.50	63.50	28.40	20.60	44.50		19.10	15.90	98.60	2
in.	1 1/2"	6.12	0.88	2.88	2.75	1.25	0.88	1.99	4	0.88	3/4	4.50	7
mm.		155.40	22.40	73.20	69.90	31.80	22.40	50.50		22.40	19.10	114.30	3
in.	2"	6.50	1.00	3.62	3.31	1.44	1.12	2.50	8	0.75	5/8	5.00	9
mm.		165.10	25.40	91.90	84.10	36.60	28.40	63.50		19.10	15.90	127.00	4
in.	2 1/2"	7.50	1.12	4.12	3.94	1.62	1.25	3.00	8	0.88	3/4	5.88	13
mm.		190.50	28.40	104.60	100.10	41.10	31.80	76.20		22.40	19.10	149.40	6
in.	3"	8.25	1.25	5.00	4.62	1.81	1.38	3.63	8	0.88	3/4	6.62	16
mm.		209.60	31.80	127.00	117.30	46.00	35.10	92.20		22.40	19.10	168.10	7
in.	3 1/2"	9.00	1.38	5.50	5.25	1.94	1.56	4.13	8	1.00	7/8	7.25	21
mm.		228.60	35.10	139.70	133.40	49.30	39.60	104.90		25.40	22.20	184.20	10
in.	4"	10.75	1.50	6.19	6.00	2.12	1.62	4.63	8	1.00	7/8	8.50	37
mm.		273.10	38.10	157.20	152.40	53.80	41.10	117.60		25.40	22.20	215.90	17
in.	5"	13.00	1.75	7.31	7.44	2.38	1.88	5.69	8	1.12	1	10.50	63
mm.		330.20	44.50	185.70	189.00	60.50	47.80	144.50		28.40	25.40	266.70	29
in.	6"	14.00	1.88	8.50	8.75	2.62	2.00	6.75	12	1.12	1	11.50	80
mm.		355.60	47.80	215.90	222.30	66.50	50.80	171.50		28.40	25.40	292.10	36
in.	8"	16.50	2.19	10.62	10.75	3.00	2.25	8.75	12	1.25	1-1/8	13.75	115
mm.		419.10	55.60	269.70	273.10	76.20	57.20	222.30		31.80	28.60	349.30	52
in.	10"	20.00	2.50	12.75	13.50	3.38	2.56	10.88	16	1.38	1-1/4	17.00	170
mm.		508.00	63.50	323.90	342.90	85.90	65.00	276.40		35.10	31.80	431.80	77
in.	12"	22.00	2.62	15.00	15.75	3.62	2.75	12.94	20	1.38	1-1/4	19.25	200
mm.		558.80	66.50	381.00	400.10	91.90	69.90	328.70		35.10	31.80	489.00	91
in.	14"	23.75	2.75	16.25	17.00	3.69	2.88	14.19	20	1.50	1-3/8	20.75	230
mm.		603.30	69.90	412.80	431.80	93.70	2.90	360.40		38.10	34.90	527.10	104
in.	16"	27.00	3.00	18.50	19.50	4.19	3.06	16.19	20	1.62	1-1/2	23.75	330
mm.		685.80	76.20	469.90	495.30	106.40	77.70	411.20		41.10	38.10	603.30	150
in.	18"	29.25	3.25	21.00	21.50	4.62	3.12	18.19	20	1.75	1-5/8	25.75	400
mm.		743.00	82.60	533.40	546.10	117.30	79.20	462.00		44.50	41.30	654.10	181
in.	20"	32.00	3.50	23.00	24.00	5.00	3.25	20.19	24	1.75	1-5/8	28.50	510
mm.		812.80	88.90	584.20	609.60	127.00	82.60	512.80		44.50	41.30	723.90	231
in.	24"	37.00	4.00	27.25	28.25	5.50	3.62	24.19	24	2.00	1-7/8	33.00	730
mm.		939.80	101.60	692.20	717.60	139.70	91.90	614.40		50.80	47.60	838.20	331

**CLASS 900****THREADED FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Min. thread length	Min. counter-bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	T	Q					
in.	1/2"												
mm.													
in.	3/4"												
mm.													
in.	1"												
mm.													
in.	1 1/4"												
mm.													
in.	1 1/2"												
mm.													
in.	2"												
mm.													
in.	2 1/2"												
mm.													
in.	3"												
mm.		241.30	38.10	127.00	127.00	53.80	41.10	92.20	25.40	22.20	190.50	12	
in.	4"	11.50	1.75	6.19	6.25	2.75	1.88	4.63	8	1.25	1-1/8	9.25	53
mm.		292.10	44.50	157.20	158.80	69.90	47.80	117.60		31.80	28.60	235.00	24
in.	5"	13.75	2.00	7.31	7.50	3.12	2.12	5.69	8	1.38	1-1/4	11.00	83
mm.		349.30	50.80	185.70	190.50	79.20	53.80	144.50		35.10	31.80	279.40	38
in.	6"	15.00	2.19	8.50	9.25	3.38	2.25	6.75	12	1.25	1-1/8	12.50	110
mm.		381.00	55.60	215.90	235.00	85.90	57.20	171.50		31.80	28.60	317.50	50
in.	8"	18.50	2.50	10.62	11.75	4.00	2.50	8.75	12	1.50	1-3/8	15.50	170
mm.		469.90	63.50	269.70	298.50	101.60	63.50	222.30		38.10	34.90	393.70	77
in.	10"	21.50	2.75	12.75	14.50	4.25	2.81	10.88	16	1.50	1-3/8	18.50	245
mm.		546.10	69.90	323.90	368.30	108.00	71.40	276.40		38.10	34.90	469.90	111
in.	12"	24.00	3.12	15.00	16.50	4.62	3.00	12.94	20	1.50	1-3/8	21.00	325
mm.		609.60	79.20	381.00	419.10	117.30	76.20	328.70		38.10	34.90	533.40	147
in.	14"	25.25	3.38	16.25	17.75	5.12	3.25	14.19	20	1.62	1-1/2	22.00	400
mm.		641.40	85.90	412.80	450.90	130.00	82.60	360.40		41.10	38.10	558.80	181
in.	16"	27.75	3.50	18.50	20.00	5.25	3.38	16.19	20	1.75	1-5/8	24.25	425
mm.		704.90	88.90	469.90	508.00	133.40	85.90	411.20		44.50	41.30	616.00	193
in.	18"	31.00	4.00	21.00	22.25	6.00	3.50	18.19	20	2.00	1-7/8	27.00	600
mm.		787.40	101.60	533.40	565.20	152.40	88.90	462.00		50.80	47.60	685.80	272
in.	20"	33.75	4.25	23.00	24.50	6.25	3.62	20.19	20	2.12	2	29.50	730
mm.		857.30	108.00	584.20	622.30	158.80	91.90	512.80		53.80	50.80	749.30	331
in.	24"	41.00	5.50	27.25	29.50	8.00	4.00	24.19	20	2.62	2-1/2	35.50	1400
mm.		1041.40	139.70	692.20	749.30	203.20	101.60	614.40		66.50	63.50	901.70	635

**CLASS 1500****THREADED FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam. of hub at base	Length thru hub	Min. thread length	Min. counter-bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	T	Q					
in.	1/2"	4.75	0.88	1.38	1.50	1.25	0.88	0.93	4	0.88	3/4	3.25	4
mm.		120.70	22.40	35.10	38.10	31.80	22.40	23.60		22.40	19.10	82.60	2
in.	3/4"	5.12	1.00	1.69	1.75	1.38	1.00	1.14	4	0.88	3/4	3.50	5
mm.		130.00	25.40	42.90	44.50	35.10	25.40	29.00		22.40	19.10	88.90	2
in.	1"	5.88	1.12	2.00	2.06	1.62	1.12	1.41	4	1.00	7/8	4.00	8
mm.		149.40	28.40	50.80	52.30	41.10	28.40	35.80		25.40	22.20	101.60	4
in.	1 1/4"	6.25	1.12	2.50	2.50	1.62	1.19	1.75	4	1.00	7/8	4.38	9
mm.		158.80	28.40	63.50	63.50	41.10	30.20	44.50		25.40	22.20	111.30	4
in.	1 1/2"	7.00	1.25	2.88	2.75	1.75	1.25	1.99	4	1.12	1	4.88	12
mm.		177.80	31.80	73.20	69.90	44.50	31.80	50.50		28.40	25.40	124.00	5
in.	2"	8.50	1.50	3.62	4.12	2.25	1.50	2.50	8	1.00	7/8	6.50	25
mm.		215.90	38.10	91.90	104.60	57.20	38.10	63.50		25.40	22.20	165.10	11
in.	2 1/2"	9.62	1.62	4.12	4.88	2.50	1.88	3.00	8	1.12	1	7.50	36
mm.		244.30	41.10	104.60	124.00	63.50	47.80	76.20		28.40	25.40	190.50	16

**CLASS 2500****THREADED FLANGES**

Nominal size		Outside diam. of flange	Thick. of flange	Diam. of raised face	Diam of hub at base	Length thru hub	Min. thread length	Min. counter-bore	No. of holes	Diam. of holes	Diam. of bolts	Diam. of bolt circle	Approx. Weight Lbs / Kg
		O	C	R	X	Y	T	Q					
in.	1/2"	5.25	1.19	1.38	1.69	1.56	1.12	0.93	4	0.88	3/4	3.50	7
mm.		133.40	30.20	35.10	42.90	39.60	28.40	23.60		22.40	19.10	88.90	3
in.	3/4"	5.50	1.25	1.69	2.00	1.69	1.25	1.14	4	0.88	3/4	3.75	8
mm.		139.70	31.80	42.90	50.80	42.90	31.80	29.00		22.40	19.10	95.30	4
in.	1"	6.25	1.38	2.00	2.25	1.88	1.38	1.41	4	1.00	7/8	4.25	11
mm.		158.80	35.10	50.80	57.20	47.80	35.10	35.80		25.40	22.20	108.00	5
in.	1 1/4"	7.25	1.50	2.50	2.88	2.06	1.50	1.75	4	1.12	1	5.12	16
mm.		184.20	38.10	63.50	73.20	52.30	38.10	44.50		28.40	25.40	130.00	7
in.	1 1/2"	8.00	1.75	2.88	3.12	2.38	1.75	1.99	4	1.25	1-1/8	5.75	22
mm.		203.20	44.50	73.20	79.20	60.50	44.50	50.50		31.80	28.60	146.10	10
in.	2"	9.25	2.00	3.62	3.75	2.75	2.00	2.50	8	1.12	1	6.75	38
mm.		235.00	50.80	91.90	95.30	69.90	50.80	63.50		28.40	25.40	171.50	17
in.	2 1/2"	10.50	2.25	4.12	4.50	3.12	2.25	3.00	8	1.25	1-1/8	7.75	55
mm.		266.70	57.20	104.60	114.30	79.20	57.20	76.20		31.80	28.60	196.90	25

DIMENSIONAL TOLERANCES • ASME B16.5**WELDING NECK FLANGES**

O	Outside Diameter	When O is 24" or less. When O is over 24".	$\pm 0.06"$ $\pm 0.12"$	± 1.6 mm ± 3.2 mm
R	Diameter of Contact Face	0.06" (1.6 mm) raised face. 0.25" (6.4 mm) raised face.	$\pm 0.03"$ $\pm 0.02"$	± 0.8 mm ± 0.5 mm
A	Diameter of Hub at Point of Welding	NPS 5 and smaller. NPS 6 and larger.	+0.09", -0.03" $\pm 0.16"$, -0.03"	+2.4 mm, -0.8 mm ± 4.0 mm, -0.8 mm
B	Inside Diameter	NPS 10 and smaller. NPS 12 to 18, inclusive. NPS 20 and larger.	$\pm 0.03"$ $\pm 0.06"$ $\pm 0.12"$, -0.06"	± 0.8 mm ± 1.6 mm ± 3.2 mm, -1.6 mm
X	Diameter of Hub at Base	When Hub Base is 24" or less. When Hub Base is over 24".	$\pm 0.06"$ $\pm 0.12"$	± 1.6 mm ± 3.2 mm
C	Thickness	NPS 18 and smaller. NPS 20 and larger.	+0.12" +0.19"	+3.2 mm +4.8 mm
	Drilling and Facings	Bolt circle diameter Bolt Hole Spacing	$\pm 0.06"$ $\pm 0.03"$	± 1.6 mm ± 0.8 mm
	Eccentricity of Bolt Circle and Facing with respect to Bore	NPS 2 1/2 and smaller. NPS 3 and larger.	$\pm 0.03"$ $\pm 0.06"$	± 0.8 mm ± 1.6 mm
	Length Through Hub	NPS 10 and smaller. NPS 12 and larger.	$\pm 0.06"$ $\pm 0.12"$	± 1.6 mm ± 3.2 mm

SLIP-ON, LAP JOINT, SOCKET WELDING, THREADED and BLIND FLANGES

Nominal size	Outside Diameter	When O is 24" or less. When O is over 24".	$\pm 0.06"$ $\pm 0.12"$	± 1.6 mm ± 3.2 mm
R	Facings	0.06" (1.6 mm) raised face. 0.25" (6.4 mm) raised face.	$\pm 0.03"$ $\pm 0.02"$	± 0.8 mm ± 0.5 mm
B	Inside Diameter at face of Socket Welding Flanges	NPS 10 and smaller. NPS 12 to 18, inclusive. NPS 20 and larger.	$\pm 0.03"$ $\pm 0.06"$ $\pm 0.12"$, -0.06"	± 0.8 mm ± 1.6 mm ± 3.2 mm, -1.6 mm
	Inside Diameter of Slip-On, Lap Joint, and Socket Welding	NPS 10 and smaller NPS 12 and larger	+0.03" +0.06"	+0.8 mm +1.6 mm
Q	Counterbore, Threaded Flanges	NPS 10 and smaller NPS 12 and larger	+0.03" +0.06"	+0.8 mm +1.6 mm
X	Diameter of Hub at Base	NPS 12" and smaller. NPS 14" and larger.	+0.09", -0.06" $\pm 0.12"$	+2.4 mm, -1.6 mm ± 3.2 mm
C	Thickness	NPS 18 and smaller. NPS 20 and larger.	+0.12" +0.19"	+3.2 mm +4.8 mm
	Drilling	Bolt Circle Diameter Bolt Hole Spacing	$\pm 0.06"$ $\pm 0.03"$	± 1.6 mm ± 0.8 mm
	Eccentricity of Bolt Circle and Facing with respect to Bore	NPS 2 1/2 and smaller. NPS 3 and larger.	$\pm 0.03"$ $\pm 0.06"$	± 0.8 mm ± 1.6 mm
	Overall Length Through Hub	NPS 18 and smaller. NPS 20 and larger.	+0.12", -0.03" $\pm 0.19"$, -0.03"	+3.2 mm, -0.8 mm ± 4.8 mm, -1.6 mm

MATERIALES INDUSTRIALES DE GUADALAJARA, S.A. DE C.V.



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