

BFL FORJA S. COOP.



Your Forging Expert For Forged
Flanges And Fittings



FLANGES

PIPE FLANGES - COMPARATIVE DIMENSIONS

NOMINAL SIZE 25

Table	Flange Dia.		P.C.D.	Hole dia.	No of holes	Bolt Dia.	Raised face		Thickness	
	d	x h					T ₁	T ₂	T ₃	T ₄
BS 4504 6	100	75.10	11.0	M10	4	60.0 X 2.0	11.0	14.0	-	-
BS 4504 10	115.0	85.0	14.0	M12	4	66.0 X 2.0	16.0	16.0	-	-
BS 4504 16	150.0	110.0	18.0	M16	4	88.0 X 2.0	20.0	18.0	-	-
BS 4504 25	200.0	140.0	24.0	M20	4	110.0 X 2.0	26.0	24.0	-	-
BS 4504 40	300.0	210.0	36.0	M24	4	165.0 X 2.0	39.0	36.0	-	-
BS 4504 64	400.0	280.0	48.0	M30	4	220.0 X 2.0	52.0	48.0	-	-
BS 4504 100	500.0	350.0	60.0	M36	4	275.0 X 2.0	65.0	60.0	-	-
ASA 150	108.0	79.4	15.9	M12	4	66.0 X 1.6	11.1	11.1	-	-
ASA 300	123.8	88.9	19.0	M16	4	76.2 X 1.6	17.5	17.5	-	-
ASA 400	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
ASA 600	155.6	114.3	27.5	M24	4	104.8 X 1.6	28.6	28.6	-	-
ASA 25	108.0	79.4	15.9	M12	4	66.0 X 1.6	11.1	11.1	-	-
ASA 125	123.8	88.9	19.0	M16	4	76.2 X 1.6	17.5	17.5	-	-
ASA 250	150.0	110.0	24.0	M20	4	104.8 X 1.6	28.6	28.6	-	-
BS 10 D	114.3	82.6	14.3	M12	4	66.0 X 1.6	11.1	11.1	-	-
BS 10 E	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 F	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 H	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 J	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 K	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 R	127.0	95.2	17.5	M18	4	82.6 X 1.6	22.2	22.2	-	-
SABS 1123	127.0	95.2	17.5	M18	4	82.6 X 1.6	22.2	22.2	-	-
6 (600/4)	100.0	75.0	11.0	M10	4	60.0 X 2.0	-	8.0	-	-
16 (1 600/4)	150.0	110.0	18.0	M16	4	88.0 X 2.0	-	16.0	-	-
26 (4 000/4)	200.0	140.0	24.0	M20	4	110.0 X 2.0	-	24.0	-	-

NOMINAL SIZE 32

BS 4504 6	120.0	90.0	14.0	M12	4	70.0 X 2.0	16.0	14.0	-	-
BS 4504 10	140.0	100.0	18.0	M16	4	78.0 X 2.0	18.0	16.0	-	-
BS 4504 16	180.0	130.0	24.0	M20	4	104.8 X 2.0	24.0	24.0	-	-
BS 4504 25	240.0	180.0	36.0	M24	4	146.3 X 2.0	36.0	36.0	-	-
BS 4504 40	360.0	270.0	54.0	M30	4	220.0 X 2.0	54.0	54.0	-	-
BS 4504 64	480.0	360.0	72.0	M36	4	275.0 X 2.0	72.0	72.0	-	-
BS 4504 100	600.0	450.0	108.0	M42	4	354.0 X 2.0	108.0	108.0	-	-
ASA 150	117.5	88.9	15.9	M12	4	63.5 X 1.6	10.3	15.9	12.7	12.7
ASA 300	133.4	98.4	19.0	M16	4	76.2 X 1.6	15.9	19.0	19.0	19.0
ASA 400	143.0	108.0	22.2	M20	4	88.9 X 1.6	20.6	22.2	22.2	22.2
ASA 600	165.6	123.8	27.5	M24	4	104.8 X 1.6	28.6	28.6	28.6	28.6
ASA 25	108.0	79.4	15.9	M12	4	66.0 X 1.6	11.1	11.1	-	-
ASA 125	123.8	88.9	19.0	M16	4	76.2 X 1.6	17.5	17.5	-	-
ASA 250	150.0	110.0	24.0	M20	4	104.8 X 1.6	28.6	28.6	-	-
BS 10 D	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 E	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 F	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 H	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 J	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 K	120.6	87.3	15.9	M16	4	76.2 X 1.6	17.5	17.5	-	-
BS 10 R	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
SABS 1123	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
6 (600/4)	120.0	90.0	14.0	M12	4	70.0 X 2.0	-	8.0	-	-
16 (1 600/4)	180.0	130.0	24.0	M16	4	104.8 X 2.0	-	16.0	-	-
26 (4 000/4)	240.0	180.0	36.0	M20	4	146.3 X 2.0	-	24.0	-	-

NOMINAL SIZE 40

BS 4504 6	130.0	100.0	14.0	M12	4	80.0 X 3.0	16.0	14.0	-	-
BS 4504 10	150.0	110.0	18.0	M16	4	88.0 X 3.0	18.0	16.0	-	-
BS 4504 16	200.0	140.0	24.0	M20	4	110.0 X 3.0	24.0	24.0	-	-
BS 4504 25	270.0	190.0	36.0	M24	4	146.3 X 3.0	36.0	36.0	-	-
BS 4504 40	400.0	280.0	54.0	M30	4	220.0 X 3.0	54.0	54.0	-	-
BS 4504 64	540.0	380.0	81.0	M36	4	275.0 X 3.0	81.0	81.0	-	-
BS 4504 100	670.0	470.0	111.0	M42	4	354.0 X 3.0	111.0	111.0	-	-
ASA 150	127.0	98.4	15.9	M12	4	73.0 X 1.6	10.3	11.1	11.1	11.1
ASA 300	155.6	114.3	22.2	M16	4	88.9 X 1.6	15.9	20.6	17.5	17.5
ASA 400	165.6	123.8	27.5	M20	4	104.8 X 1.6	20.6	22.2	22.2	22.2
ASA 600	197.8	143.0	33.0	M24	4	127.0 X 1.6	28.6	31.8	31.8	31.8
ASA 25	108.0	79.4	15.9	M12	4	66.0 X 1.6	11.1	11.1	-	-
ASA 125	123.8	88.9	19.0	M16	4	76.2 X 1.6	17.5	17.5	-	-
ASA 250	150.0	110.0	24.0	M20	4	104.8 X 1.6	28.6	28.6	-	-
BS 10 D	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
BS 10 E	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
BS 10 F	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
BS 10 H	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
BS 10 J	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
BS 10 K	133.4	98.4	22.2	M20	4	88.9 X 1.6	22.2	22.2	-	-
BS 10 R	152.4	114.3	27.5	M24	4	104.8 X 1.6	28.6	31.8	31.8	31.8
SABS 1123	152.4	114.3	27.5	M24	4	104.8 X 1.6	28.6	31.8	31.8	31.8
6 (600/4)	130.0	100.0	14.0	M12	4	80.0 X 3.0	-	8.0	-	-
16 (1 600/4)	190.0	140.0	24.0	M16	4	110.0 X 3.0	-	16.0	-	-
26 (4 000/4)	250.0	190.0	36.0	M20	4	146.3 X 3.0	-	24.0	-	-

T₁ = Cast Iron
T₂ = Copper
T₃ = Wrought Steel
T₄ = Cast Steel

FLANGES

PIPE FLANGES - COMPARATIVE DIMENSIONS

NOMINAL SIZE 50

Table	Flange Dia.		P.C.D.	Hole dia.	No of holes	Bolt Dia.	Raised face		Thickness	
	d	x h					T ₁	T ₂	T ₃	T ₄
BS 4504 6	140.0	110.0	14.0	M12	4	90.0 X 3.0	16.0	14.0	-	-
BS 4504 10	165.0	125.0	18.0	M16	4	102.0 X 3.0	20.0	18.0	-	-
BS 4504 16	200.0	150.0	24.0	M20	4	127.0 X 3.0	26.0	24.0	-	-
BS 4504 25	270.0	190.0	36.0	M24	4	165.0 X 3.0	36.0	36.0	-	-
BS 4504 40	400.0	280.0	54.0	M30	4	220.0 X 3.0	54.0	54.0	-	-
BS 4504 64	540.0	380.0	81.0	M36	4	275.0 X 3.0	81.0	81.0	-	-
BS 4504 100	670.0	470.0	111.0	M42	4	354.0 X 3.0	111.0	111.0	-	-
ASA 150	152.4	104.8	19.0	M12	4	92.0 X 1.6	15.9	19.0	15.9	15.9
ASA 300	165.1	114.3	22.2	M16	4	101.6 X 1.6	19.0	25.4	25.4	25.4
ASA 400	175.0	127.0	25.4	M20	4	127.0 X 1.6	25.4	28.6	28.6	28.6
ASA 600	203.2	146.3	31.8	M24	4	152.4 X 1.6	31.8	38.1	38.1	38.1
ASA 25	108.0	79.4	15.9	M12	4	66.0 X 1.6	11.1	11.1	-	-
ASA 125	123.8	88.9	19.0	M16	4	76.2 X 1.6	17.5	17.5	-	-
ASA 250	150.0	110.0	24.0	M20	4	104.8 X 1.6	28.6	28.6	-	-
BS 10 D	152.4	104.8	19.0	M12	4	92.0 X 1.6	15.9	19.0	15.9	15.9
BS 10 E	152.4	104.8	19.0	M12	4	92.0 X 1.6	15.9	19.0	15.9	15.9
BS 10 F	152.4	104.8	19.0	M12	4	92.0 X 1.6	15.9	19.0	15.9	15.9
BS 10 H	152.4	104.8	19.0	M12	4	92.0 X 1.6	15.9	19.0	15.9	15.9
BS 10 J	152.4	104.8	19.0	M12	4	92.0 X 1.6	15.9	19.0	15.9	15.9
BS 10 K	152.4	104.8	19.0	M12	4	92.0 X 1.6	15.9	19.0	15.9	15.9
BS 10 R	175.0	127.0	25.4	M20	4	127.0 X 1.6	25.4	28.6	28.6	28.6
SABS 1123	175.0	127.0	25.4	M20	4	127.0 X 1.6	25.4	28.6	28.6	28.6
6 (600/4)	140.0	110.0	14.0	M12	4	90.0 X 3.0	-	8.0	-	-
16 (1 600/4)	200.0	150.0	24.0	M16	4	122.0 X 3.0	-	16.0	-	-
26 (4 000/4)	260.0	200.0	36.0	M20	4	162.0 X 3.0	-	24.0	-	-

NOMINAL SIZE 65

BS 4504 6	165.0	130.0	14.0	M12	4	110 X 3.0	16.0	14.0	-	-
BS 4504 10	185.0	145.0	18.0	M16	4	122.0 X 3.0	20.0	18.0	-	-
BS 4504 16	220.0	170.0	24.0	M20	4	146.3 X 3.0	24.0	24.0	-	-
BS 4504 25	280.0	200.0	36.0	M24	4	190.0 X 3.0	36.0	36.0	-	-
BS 4504 40	400.0	280.0	54.0	M30	4	275.0 X 3.0	54.0	54.0	-	-
BS 4504 64	540.0	380.0	81.0	M36	4	354.0 X 3.0	81.0	81.0	-	-
BS 4504 100	670.0	470.0	111.0	M42	4	450.0 X 3.0	111.0	111.0	-	-
ASA 150	177.8	133.7	19.0	M12	4	104.8 X 1.6	15.9	22.2	17.5	17.5
ASA 300	190.5	149.2	22.2	M16	4	127.0 X 1.6	19.0	26.6	25.4	25.4
ASA 400	203.2	152.4	25.4	M20	4	152.4 X 1.6	25.4	31.8	31.8	31.8
ASA 600	231.4	175.0	31.8	M24	4	175.0 X 1.				

FLANGES

PIPE FLANGES - COMPARATIVE DIMENSIONS

NOMINAL SIZE 100

Table	Flange Dia.	P.C.D.	Hole dia.	No of holes	Bolt Dia.	Raised face d x h	Thickness	T ₁	T ₂	T ₃	T ₄
BS 4504 6	210.0	170.0	18.0	4	M16	148.0 X 3.0	18.0	16.0	-	-	-
BS 4504 10	220.0	180.0	18.0	8	M16	158.0 X 3.0	16.0	20.0	20.0	20.0	-
BS 4504 16	230.0	190.0	22.0	8	M20	162.0 X 3.0	24.0	17.0	24.0	24.0	20.0
BS 4504 25	235.0	190.0	22.0	8	M20	162.0 X 3.0	28.0	19.0	24.0	24.0	24.0
BS 4504 40	250.0	200.0	26.0	8	M24	162.0 X 3.0	-	-	-	-	30.0
BS 4504 64	265.0	210.0	30.0	8	M27	162.0 X 3.0	-	-	-	-	34.0
BS 4504 100	286.6	228.6	35.0	8	M33	157.2 X 1.6	-	17.5	12.8	23.8	31.8
ASA 300	254.0	200.0	22.2	8	M19	157.2 X 1.6	-	27.0	31.8	31.8	31.8
ASA 400	264.0	210.0	25.4	8	M22	157.2 X 1.6	-	34.9	34.9	34.9	34.9
ASA 600	273.0	215.9	25.4	8	M22	157.2 X 6.3	-	39.1	38.1	38.1	38.1
ASA 25	228.6	190.5	19.0	8	M15.9	19.0	19.0	-	-	-	-
ASA 125	228.6	190.5	19.0	8	M15.9	19.0	19.0	-	-	-	-
ASA 250	254.0	200.0	22.2	8	M19.0	176.2 X 1.6	31.8	23.8	31.8	31.8	31.8
BS 10 D	215.9	177.8	17.5	4	M15.9	-	19.0	15.9	12.7	17.5	17.5
BS 10 F	228.6	190.5	17.5	8	M15.9	-	22.2	15.9	12.7	17.5	17.5
BS 10 H	228.6	190.5	17.5	8	M15.9	152.4 X 1.6	31.8	19.0	25.4	25.4	19.0
BS 10 J	228.6	190.5	22.2	8	M19.0	152.4 X 1.6	-	34.9	34.9	34.9	34.9
BS 10 K	241.3	196.8	25.4	8	M22	152.4 X 1.6	-	34.9	34.9	34.9	34.9
BS 10 R	241.3	196.8	25.4	8	M22	152.4 X 1.6	-	34.9	34.9	34.9	34.9
SABS 1123	210.0	170.0	18.0	4	M16	148.0 X 3.0	-	10.0	-	-	-
6 (600/4)	220.0	180.0	18.0	8	M16	158.0 X 3.0	-	14.0	-	-	-
16 (1600/4)	235.0	190.0	22.0	8	M20	162.0 X 3.0	-	24.0	-	-	-
26 (4 000/4)	235.0	190.0	22.0	8	M20	162.0 X 3.0	-	24.0	-	-	-

NOMINAL SIZE 125

BS 4504 6	240.0	200.0	18.0	8	M16	178.0 X 3.0	20.0	18.0	-	-	-
BS 4504 10	250.0	210.0	18.0	8	M16	188.0 X 3.0	-	22.0	-	-	-
BS 4504 16	250.0	210.0	18.0	8	M16	188.0 X 3.0	26.0	22.0	-	-	-
BS 4504 25	270.0	220.0	26.0	8	M24	188.0 X 3.0	30.0	26.0	-	-	-
BS 4504 40	270.0	220.0	26.0	8	M24	188.0 X 3.0	-	34.0	-	-	26.0
BS 4504 64	295.0	240.0	30.0	8	M27	188.0 X 3.0	-	40.0	-	-	34.0
BS 4504 100	315.0	250.0	33.0	8	M30	188.0 X 3.0	-	40.0	-	-	40.0
BS 4504 150	354.0	286.6	38.1	8	M33	185.7 X 1.6	19.0	23.8	40.0	40.0	40.0
ASA 300	279.4	235.0	27.9	8	M19.0	185.7 X 1.6	22.2	34.9	23.8	34.9	34.9
ASA 400	279.4	235.0	27.9	8	M19.0	185.7 X 1.6	28.6	38.1	34.9	34.9	34.9
ASA 600	330.2	266.7	28.6	8	M22	185.7 X 6.3	-	44.4	44.4	44.4	44.4
ASA 25	254.0	215.9	19.0	8	M15.9	19.0	19.0	-	-	-	-
ASA 125	254.0	215.9	19.0	8	M15.9	19.0	19.0	-	-	-	-
ASA 250	279.4	235.0	22.2	8	M19.0	23.8	23.8	-	-	-	-
BS 10 D	254.0	209.6	17.5	8	M15.9	211.1 X 1.6	20.6	17.5	14.3	17.5	17.5
BS 10 F	254.0	209.6	17.5	8	M15.9	211.1 X 1.6	22.2	17.5	14.3	17.5	17.5
BS 10 H	279.4	235.0	22.2	8	M19.0	209.6	25.4	22.2	19.0	28.6	22.2
BS 10 J	279.4	235.0	22.2	8	M19.0	209.6	34.9	22.2	19.0	28.6	22.2
BS 10 K	279.4	235.0	25.4	8	M22	177.8 X 1.6	41.3	38.1	41.3	41.3	41.3
BS 10 R	279.4	235.0	25.4	8	M22	177.8 X 1.6	41.3	38.1	41.3	41.3	41.3
SABS 1123	240.0	200.0	18.0	8	M16	178.0 X 3.0	-	10.0	-	-	-
6 (600/4)	250.0	210.0	18.0	8	M16	188.0 X 3.0	-	14.0	-	-	-
16 (1600/4)	270.0	220.0	26.0	8	M24	188.0 X 3.0	-	24.0	-	-	-
26 (4 000/4)	270.0	220.0	26.0	8	M24	188.0 X 3.0	-	24.0	-	-	-

NOMINAL SIZE 150

BS 4504 6	265.0	225.0	18.0	8	M16	202.0 X 3.0	20.0	18.0	-	-	-
BS 4504 10	285.0	240.0	22.0	8	M20	212.0 X 3.0	-	22.0	-	-	22.0
BS 4504 16	285.0	240.0	22.0	8	M20	212.0 X 3.0	23.0	22.0	-	-	22.0
BS 4504 25	300.0	250.0	26.0	8	M24	218.0 X 3.0	24.0	28.0	-	-	28.0
BS 4504 40	300.0	250.0	26.0	8	M24	218.0 X 3.0	-	36.0	-	-	36.0
BS 4504 64	345.0	280.0	30.0	8	M30	218.0 X 3.0	-	36.0	-	-	36.0
BS 4504 100	355.0	290.0	33.0	12	M30	218.0 X 3.0	-	44.0	-	-	44.0
BS 4504 150	394.0	327.0	38.1	12	M33	215.9 X 1.6	20.6	25.4	25.4	25.4	25.4
ASA 300	317.5	269.9	22.2	12	M19.0	215.9 X 1.6	30.2	36.5	36.5	36.5	36.5
ASA 400	317.5	269.9	22.2	12	M19.0	215.9 X 6.3	-	41.3	41.3	41.3	41.3
ASA 600	355.6	292.1	28.6	12	M25.4	215.9 X 6.3	-	47.6	47.6	47.6	47.6
ASA 25	279.4	241.3	19.0	8	M15.9	19.0	19.0	-	-	-	-
ASA 125	279.4	241.3	19.0	8	M15.9	19.0	19.0	-	-	-	-
ASA 250	317.5	269.9	22.2	12	M19.0	246.1 X 1.6	36.5	17.5	12.7	17.5	17.5
BS 10 D	279.4	235.0	17.5	8	M15.9	-	22.2	17.5	17.5	17.5	17.5
BS 10 F	279.4	235.0	17.5	8	M15.9	-	22.2	17.5	17.5	17.5	17.5
BS 10 H	304.8	260.4	22.2	12	M19.0	209.6 X 1.6	34.9	25.4	22.2	22.2	22.2
BS 10 J	304.8	260.4	22.2	12	M19.0	209.6 X 1.6	38.1	28.6	28.6	28.6	28.6
BS 10 K	304.8	260.4	25.4	12	M22	209.6 X 1.6	44.4	38.1	38.1	38.1	38.1
BS 10 R	304.8	260.4	25.4	12	M22	209.6 X 1.6	44.4	38.1	38.1	38.1	38.1
SABS 1123	265.0	225.0	18.0	8	M16	202.0 X 3.0	-	13.0	-	-	-
6 (600/4)	285.0	240.0	22.0	8	M20	212.0 X 3.0	-	18.0	-	-	-
16 (1600/4)	300.0	250.0	26.0	8	M24	218.0 X 3.0	-	28.0	-	-	-
26 (4 000/4)	300.0	250.0	26.0	8	M24	218.0 X 3.0	-	28.0	-	-	-

T₁ = Cast Iron
T₂ = Copper
T₃ = Wrought Steel
T₄ = Cast Steel

FLANGES

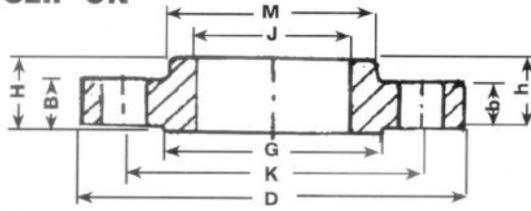
PIPE FLANGES - COMPARATIVE DIMENSIONS

NOMINAL SIZE 200

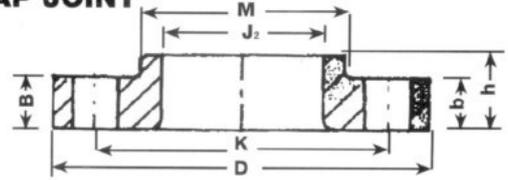
Table	Flange Dia.	P.C.D.	Hole dia.	No of holes	Bolt Dia.	Raised face d x h	Thickness	T ₁	T ₂	T ₃	T ₄
BS 4504 6	320.0	280.0	18.0	8	M16	258.0 X 3.0	22.0	20.0	-	-	-
BS 4504 10	340.0	295.0	22.0	8	M20	268.0 X 3.0	26.0	24.0	-	-	24.0
BS 4504 16	340.0	295.0	22.0	12	M20	268.0 X 3.0	30.0	24.0	-	-	24.0
BS 4504 25	360.0	310.0	26.0	12	M24	278.0 X 3.0	34.0	30.0	-	-	30.0
BS 4504 40	375.0	320.0	30.0	12	M27	285.0 X 3.0	-	34.0	-	-	34.0
BS 4504 64	415.0	345.0	36.0	12	M33	285.0 X 3.0	-	42.0	-	-	42.0
BS 4504 100	430.0	360.0	36.0	12	M33	285.0 X 3.0	-	52.0	-	-	52.0
ASA 150	342.9	298.4	22.2	8	M19.0	269.9 X 1.6	-	23.8	28.6	28.6	28.6
ASA 300	361.0	330.2	25.4	12	M22	269.9 X 1.6	-	34.9	41.3	41.3	41.3
ASA 400	381.0	350.2	28.6	12	M25.4	269.9 X 6.3	-	47.6	47.6	47.6	47.6
ASA 600	419.1	349.2	31.8	12	M28.6	269.9 X 6.3	-	55.6	55.6	55.6	55.6
ASA 25	12.9	298.4	19.0	8	M15.9	-	19.0	-	-	-	-
ASA 125	342.9	298.4	22.2	8	M19.0	-	28.6	-	-	-	-
ASA 250	381.0	330.2	25.4	12	M22	303.2 X 1.6	41.3	22.2	19.0	12.7	19.0
BS 10 D	336.6	229.1	17.5	8	M15.9	-	22.2	19.0	19.0	19.0	19.0
BS 10 F	336.6	229.1	17.5	8	M15.9	-	22.2	19.0	19.0	19.0	19.0
BS 10 H	368.3	323.8	22.2	12	M19.0	-	28.6	25.4	25.4	25.4	25.4
BS 10 J	368.3	323.8	22.2	12	M19.0	-	28.6	25.4	25.4	25.4	25.4
BS 10 K	368.3	323.8	25.4	12	M22	260.4 X 1.6	-	41.3	41.3	41.3	41.3
BS 10 R	368.3	323.8	25.4	12	M22	260.4 X 1.6	-	41.3	41.3	41.3	41.3
SABS 1123	320.0	280.0	18.0	8	M16	312.0 X 3.0	24.0	22.0	-	-	-
6 (600/4)	350.0	300.0	22.0	12	M20	320.0 X 3.0	28.0	26.0	-	-	26.0
16 (1600/4)	405.0	355.0	26.0	12	M24	320.0 X 3.0	32.0	32.0	-	-	32.0
26 (4 000/4)	425.0	370.0	30.0	12	M27	335.0 X 3.0	36.0	32.0	-	-	32.0
BS 4504 6	450.0	365.0	30.0	12	M30	345.0 X 3.0	-	38.0	-	-	38.0
BS 4504 10	450.0	365.0	30.0	12	M30	345.0 X 3.0	-	46.0	-	-	46.0
BS 4504 16	505.0	400.0	36.0	12	M36	345.0 X 3.0	-	60.0	-	-	60.0
BS 4504 25	406.4	362.0	25.4	12	M22	323.8 X 1.6	-	30.2	30.2	30.2	30.2
ASA 150	444.5	387.4	28.6	16	M25.4	323.8 X 1.6	-	47.6	47.6	47.6	47.6
ASA 300	444.5	387.4	28.6	16	M25.4	323.8 X 1.6	-	54.0	54.0	54.0	54.0
ASA 400	444.5	387.4	28.6	16	M25.4	323.8 X 6.3	-	63.5	63.5	63.5	63.5
ASA 600	406.4	362.0	19.0	12	M15.9	-	22.2	-	-	-	-
ASA 25	12.9	362.0	19.0	8	M15.9	-	22.2	-	-	-	-
ASA 1											

FORGED STEEL FLANGES

SLIP ON



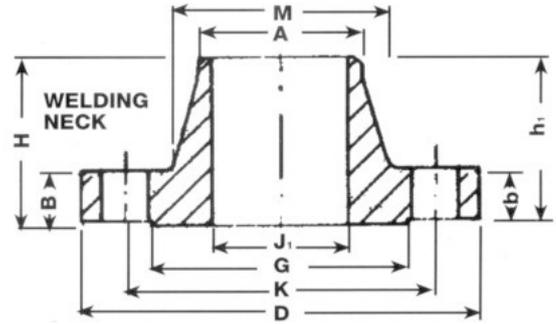
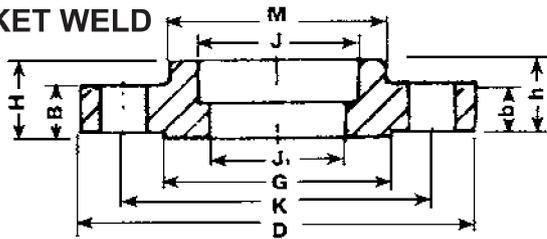
LAP JOINT



ND	D	M	A	J	J ₂	G	B	H	H ₁	H ₂	K	HOLES		APPROX WEIGHT IN KGS.					ND		
												N	Ø	WN	SW	SO	LJ	THR		BL	
CLASS 150 LBS																					
ASA B 16.5	½	88.9	30.2	21.3	22.3	22.9	34.9	11.1	15.2	49.6	15.9	60.3	4	15.9	0.5	0.4	0.4	0.4	0.4	0.4	½
	¾	98.4	38.1	26.7	27.7	28.2	42.9	12.7	15.9	52.4	15.9	69.8	4	15.9	0.7	0.7	0.7	0.7	0.7	0.7	¾
	1	107.9	49.2	33.5	34.5	35.05	50.8	14.3	17.5	55.6	17.5	79.4	4	15.9	1.1	0.9	0.8	0.8	0.8	0.9	1
	1¼	117.5	48.7	42.2	43.2	43.7	63.5	15.9	20.6	57.1	20.6	88.90	4	15.9	1.5	1.2	1.1	1.1	1.2	1.3	1¼
	1½	127.0	65.1	48.3	49.5	50.0	73.0	17.5	22.2	61.9	22.2	98.4	4	15.9	1.8	1.5	1.4	1.4	1.5	1.6	1½
	2	152.4	77.8	60.45	62.0	62.5	92.1	19.05	25.4	63.5	25.4	120.6	4	19.0	2.7	2.3	2.2	2.2	2.3	2.6	2
	2½	117.8	90.5	73.10	74.7	75.4	104.8	22.3	28.6	69.7	28.6	139.7	4	19.0	4.4	3.7	3.6	3.6	3.7	4.1	2½
	3	190.5	107.9	88.9	90.7	91.4	127.0	23.8	30.2	69.8	30.2	152.4	4	19.0	5.2	4.2	4.1	4.1	4.2	5	3
	3½	215.9	122.2	101.6	103.4	104.1	139.7	23.8	31.7	71.4	31.7	177.8	8	19.0	6.4	5.3	5.2	5.2	5.3	6.4	3½
	4	228.6	134.6	114.3	116.1	116.8	157.2	23.8	33.3	76.2	33.3	190.5	8	19.0	7.5	5.9	5.6	5.6	5.9	7.1	4
	5	254.0	163.5	141.2	143.8	144.5	185.7	23.8	36.5	88.9	36.5	215.9	8	22.2	9.2	7	6.3	6.3	7	9	5
	6	279.4	192.0	168.4	170.7	171.45	215.9	25.4	39.7	88.9	39.7	241.3	8	22.2	11	8.4	7.5	7.5	8.4	11.8	6
	8	342.9	246.1	219.2	221.5	222.25	269.9	28.6	44.4	101.6	44.4	298.4	8	22.2	18.3	13	12.6	12.6	13	21	8
	10	406.4	304.8	273.0	276.35	277.4	323.8	30.2	49.2	101.6	49.2	361.9	12	25.4	25	17.8	18.5	18.5	17.8	30	10
	12	482.6	265.1	323.8	327.15	328.2	318.0	31.7	55.6	114.3	55.6	431.8	12	25.4	39	29.5	28	28	29.5	45	12
	14	533.4	400.0	355.6	359.15	360.2	412.7	34.9	57.1	127.0	79.4	476.2	12	28.6	51	39	36	42	39	59	14
	16	596.9	457.2	406.4	410.5	411.2	469.9	36.5	63.5	127.0	87.3	539.7	16	28.6	60	42	46	52	42	79	16
	18	635.0	504.8	457.2	461.8	462.3	533.4	39.7	68.3	139.7	96.8	577.8	16	31.7	71	54	50	58	54	97	18
20	698.5	558.8	508.0	513.1	514.35	584.2	42.9	73.0	144.5	103.2	635.0	20	31.7	88	70	64	74	68	124	20	
22	749.3	609.6	558.8	564.4	565.1	614.2	46.0	79.4	149.2	107.9	692.1	20	34.9	102	72	91	91	91	151	22	
24	812.8	663.6	609.6	615.95	615.95	692.1	47.6	82.5	125.4	111.1	749.3	20	34.9	119	95	89	101	93	188	24	
CLASS 300 LBS																					
ASA B 16.5	½	95.2	38.1	21.3	22.3	22.9	34.9	14.3	22.2	52.4	22.2	66.7	4	15.9	0.9	0.7	0.7	0.7	0.7	0.7	½
	¾	117.5	47.6	26.7	27.7	28.2	42.9	15.9	25.4	57.1	25.4	82.5	4	19.05	1.5	1.2	1.1	1.1	1.2	1.2	¾
	1	123.8	54.0	33.5	34.5	35.05	50.8	17.5	27.0	61.9	27.0	88.9	4	19.05	1.9	1.4	1.4	1.4	1.4	1.5	1
	1¼	133.5	63.5	42.2	43.2	43.7	63.5	19.05	27.0	65.1	27.0	98.4	4	19.05	2.6	1.9	1.8	1.8	1.9	2	1¼
	1½	155.6	69.8	48.3	49.5	50.0	73.0	20.6	30.2	68.3	30.2	114.3	4	22.2	3.3	2.8	2.6	2.6	2.9	2.9	2
	2	165.1	84.1	60.45	62.0	62.5	92.1	22.2	33.3	69.8	33.3	127.0	8	19.05	3.6	3.3	3.4	3.4	3.3	3.4	2
	2½	190.5	100.0	73.15	74.7	75.4	104.8	25.4	38.1	76.2	38.1	149.2	8	22.2	5.4	4.6	4.4	4.4	4.6	5.1	2½
	3	209.55	117.5	88.9	90.7	91.4	127.0	28.6	42.9	79.4	42.9	168.3	8	22.2	7.4	6.3	6.1	6.1	6.3	7	3
	3½	228.6	133.35	101.6	103.4	104.1	139.7	30.2	44.4	81.0	44.4	184.15	8	22.2	8.9	7.8	7.5	7.5	7.8	8.9	3½
	4	254.0	146.05	114.3	116.1	116.8	157.2	31.7	47.6	85.7	47.6	200.0	8	22.2	11.9	10.2	10.1	10.1	10.2	11.8	4
	5	279.4	177.8	141.2	143.8	144.5	185.7	34.9	50.8	98.4	50.8	234.95	8	22.2	16	12.5	12.5	12.9	15.5	5	
	6	317.5	206.04	168.4	170.7	171.45	215.9	36.5	52.4	98.4	52.4	269.9	12	22.2	20.2	14.1	14.1	14.1	18	21.3	6
	8	381.0	260.35	219.2	221.5	222.25	269.9	41.3	61.9	111.1	61.9	330.2	12	25.4	31	24.8	24.8	26	35.2	8	
	10	444.5	320.7	273.05	276.35	277.4	323.8	47.6	66.7	117.5	95.2	387.3	16	28.6	44.3	37.1	42	37.5	57	10	
	12	520.7	374.6	323.85	327.15	328.2	318.0	50.8	73.0	130.2	101.6	450.8	16	31.7	64	50	64	52	82	12	
	14	584.2	425.5	355.6	359.15	360.2	412.7	54.0	76.2	142.9	111.1	514.3	20	31.7	88	70	87	72	106	14	
	16	647.7	482.6	406.4	410.5	411.2	469.9	57.1	82.5	146.05	120.6	571.5	20	34.9	113	90	114	100	140	16	
	18	711.2	533.4	457.2	461.8	462.3	533.4	60.3	88.9	158.75	130.2	628.6	24	34.9	134	112	134	126	178	18	
20	774.7	587.4	508.0	513.1	515.35	584.2	63.5	95.2	176.19	139.7	685.8	24	34.9	177	133	168	148	223	20		
22	838.2	641.2	558.8	564.4	565.1	641.2	66.7	101.6	165.1	146.06	742.9	24	41.3	195	117	198	198	270	22		
24	914.4	701.7	609.6	615.95	615.95	692.1	69.8	106.4	168.3	152.4	812.4	24	41.3	238	208	250	222	345	24		

FORGED STEEL FLANGES

SOCKET WELD



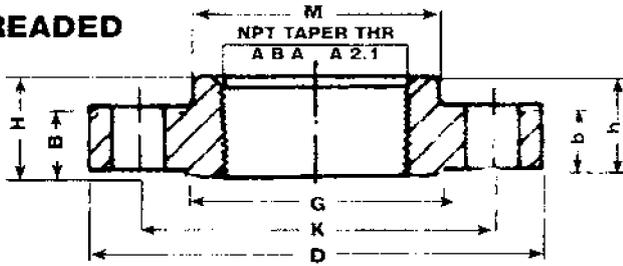
J₁

TO BE INDICATED
IN ORDER
SEE TABLE OF
PIPE SCHEDULES

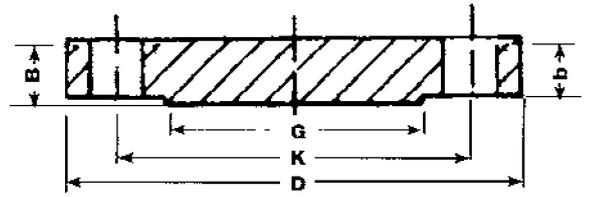
ND	D	M	A	J	J ₂	G	B	H	H ₁	H ₂	K	HOLES		APPROX WEIGHT IN KGS.					ND			
												N	Ø	WN	SW	SO	LJ	THR		BL		
CLASS 400 LBS																						
ASA B 16.5	½	95.2	38.1	21.3	22.3	22.9	34.0	14.3	22.2	52.4	22.2	66.7	4	15.9	1.8		0.8	0.8	1.0	0.5	½	
	¾	117.5	47.6	26.7	27.7	28.2	42.9	15.9	25.4	57.1	25.4	82.5	4	19.05	1.3		1.4	1.4	1.6	1.2	¾	
	1	123.8	54.0	33.5	34.5	35.05	50.8	17.5	27.0	61.9	27.0	88.9	4	19.05	1.7		1.6	1.6	1.8	1.5	1	
	1¼	133.5	63.5	42.2	43.2	43.7	63.5	20.6	28.5	66.7	28.6	98.4	4	19.05	2.2		2.1	2.1	2.6	2.0	1¼	
		155.6	69.8	48.3	49.5	50.0	73.0	22.2	32.1	69.8	31.7	114.3	4	22.2	3.2		3.1	3.1	3.3	3.2	1½	
	2	165.1	84.1	60.45	62.0	62.5	92.1	25.4	35.5	73.0	36.5	127.0	8	19.05	4.7		3.7	3.7	3.9	4.3	2	
	2½	190.5	100.0	73.15	74.7	75.4	104.8	28.6	41.3	79.4	41.3	149.2	8	22.2	6.5		5.4	5.4	6	6.0	2½	
		209.55	117.5	88.9	90.7	91.4	127.0	31.7	46.0	82.5	46.0	168.8	8	22.2	8.5		7.3	7.3	7.1	8.0	3	
	3½	228.6	133.35	101.6	103.4	104.1	139.7	34.9	49.2	85.7	49.2	184.15	8	25.4	11.2		8.9	8.9	10	10.5	3½	
	4	254.0	146.05	114.3	116.1	116.8	157.2	34.9	50.8	88.9	50.8	200.0	8	25.4	1.4		11.5	11.5	12.5	14	4	
		279.4	177.8	141.2	143.8	144.5	185.7	38.1	54.0	101.6	54.0	234.95	8	25.4	1.9		14.5	14.5	15.5	19	5	
		317.5	206.4	168.4	170.7	171.45	215.9	41.3	57.1	103.2	57.1	269.9	12	25.4	25.5		19	19	21.0	26	6	
	8	381.0	260.35	219.2	221.5	222.25	269.9	47.6	68.3	117.5	68.3	330.2	12	28.6	39.5		78	32	31	43	8	
		444.5	320.7	273.05	276.35	277.4	323.8	54.0	73.0	123.8	101.6	387.3	16	31.7	54		39	44	42	65	10	
		420.7	374.6	323.85	327.15	328.2	318.0	57.1	79.4	136.5	107.8	450.8	16	34.9	78		68	65	61	95	12	
	14	584.2	425.5	355.6	359.15	360.2	412.7	60.3	84.1	149.2	117.5	518.3	20	34.9	105		82	91	85	126	14	
		647.7	482.6	406.4	410.5	411.2	469.9	63.5	93.7	152.4	127.0	571.5	20	38.1	131		105	115	110	163	16	
		711.2	533.4	457.2	461.8	462.3	533.4	66.7	98.4	165.1	136.5	628.6	24	38.1	15.9		126	139	131	206	18	
	20	774.7	587.4	508.0	513.1	514.35	584.2	69.8	101.6	168.3	146.05	685.8	24	41.3	130		152	170	157	270	20	
		838.2	461.2	558.8	564.4	565.1	614.2	73.0	107.9	171.45	152.4	742.9	24	44.4	211		211	206	311	311	22	
		914.4	701.7	609.6	615.95	615.95	692.1	76.0	114.3	174.6	158.75	812.8	24	47.6	285		232	260	225	410	24	
	CLASS 600 LBS																					
	ASA B 16.5	½	95.2	38.1	21.3	22.3	22.9	34.0	14.3	22.2	52.4	22.2	66.7	4	15.9	0.9	1.0	0.8	0.8	1.0	0.7	½
		¾	117.5	47.6	26.7	27.7	28.2	42.9	15.9	25.4	57.1	25.4	82.5	4	19.05	1.5	1.6	1.4	1.4	1.6	1.2	¾
1		123.8	54.0	33.5	34.5	35.05	50.8	17.5	27	61.9	27.0	88.9	4	19.05	1.9	1.8	1.6	1.6	1.8	1.5	1	
1¼		133.5	63.5	42.2	43.2	43.7	63.5	20.0	28.6	66.7	28.6	98.4	4	19.05	2.6	2.6	2.1	2.1	2.6	2.0	1¼	
		155.6	69.8	48.3	49.5	50.0	73.0	22.2	32.1	69.8	31.7	114.3	4	22.2	3.3	3.3	3.1	3.1	3.3	3.2	1½	
2		165.1	84.1	60.45	62.0	62.5	92.1	25.4	36.5	73.0	36.5	127.0	8	19.05	4.7	3.9	3.7	3.7	3.9	4.3	2	
2½		190.5	100.0	73.15	74.7	75.4	104.8	28.6	41.3	79.4	41.3	149.2	8	22.2	6.5	6.0	5.4	5.4	6	6.0	2½	
		209.55	117.5	88.9	90.7	91.4	127.0	31.7	46.0	82.5	46.0	168.3	8	22.2	8.7	7.4	7.3	7.3	7.4	8.0	3	
3½		228.6	133.35	101.6	103.4	104.1	139.7	34.9	49.2	85.7	49.2	184.15	8	25.4	11.2	9.5	8.9	8.9	9.5	10.5	3½	
4		273.05	152.4	114.3	116.1	116.8	157.2	38.1	54.0	101.8	54.0	215.9	8	25.4	18.1		15.8	15.8	17.0	18	4	
		330.2	188.9	141.2	143.8	144.5	185.7	44.4	60.3	114.3	60.3	266.7	8	28.6	30.5		24.5	24.5	26.5	28.5	5	
		355.6	222.25	168.4	170.7	171.45	215.9	47.6	66.7	117.5	66.7	292.1	12	28.6	36.2		29.5	29.5	32	35.5	6	
8		419.1	273.05	219.2	221.5	222.25	269.9	55.6	76.2	133.35	76.2	349.2	12	31.7	56.5		43	43	46	58	8	
		508.0	342.9	273.05	276.35	277.4	323.8	63.5	85.7	152.4	111.1	431.8	16	34.9	91		70	77	74	98	10	
		558.8	400.0	323.85	327.15	328.2	318.0	66.7	92.1	155.6	117.5	488.9	20	34.9	105		86	92	90	125	12	
14		603.2	431.8	355.6	359.15	360.2	412.7	69.8	93.7	165.1	127.0	527.0	20	38.1	127		100	114	106	151	14	
		685.8	495.3	406.4	410.5	411.2	469.9	76.2	106.4	177.8	139.7	603.2	20	41.32	178		142	160	150	215	16	
		742.9	546.1	457.2	461.8	462.3	533.5	82.6	117.5	184.15	152.4	654.0	20	44.4	216		175	192	180	287	18	
20		812.8	609.6	508.0	513.1	514.35	584.2	88.9	127.0	190.5	165.1	723.9	24	44.4	268		232	260	230	366	20	
		869.9	666.7	558.8	564.4	565.1	641.2	95.2	133.35	196.8	174.6	777.9	24	47.6	328		292	305	336	437	22	
		939.8	717.5	609.6	615.95	615.95	692.1	101.6	139.7	203.2	184.15	838.3	24	50.8	380		330	368	325	532	24	

FORGED STEEL FLANGES

THREADED



BLIND



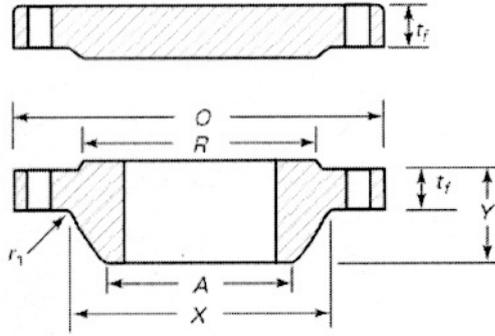
	ND	D	M	A	J	J ₂	G	B	H	H ₁	H ₂	K	HOLES		APPROX WEIGHT IN KGS.					ND		
													N	Ø	WN	SW	SO	LJ	THR		BL	
CLASS 900 LBS																						
ASA B 16.5	3	241.3	127.0	88.9	90.7	91.4	127.0	38.1	54.0	101.6	54.0	190.5	8	25.4	15		11.6	11.6	11.9	13.1	3	
	4	292.1	158.75	114.3	116.1	116.8	157.2	44.4	69.8	114.3	69.8	234.9	8	31.7	24		19.8	19.8	20	22.1	4	
	5	349.2	190.5	141.2	143.8	144.5	185.7	50.8	79.4	127.0	79.4	276.4	8	34.9	37		32	32	32.5	36.5	5	
	6	381.0	234.9	168.4	170.7	171.45	215.9	55.6	85.7	139.7	85.7	317.5	12	31.7	50		41.2	41.2	41.7	47.4	6	
	8	469.9	298.4	219.2	221.5	222.25	269.9	63.5	101.6	161.9	114.0	393.7	12	38.1	85		78	78	77.5	82.5	8	
	10	546.1	368.3	273.05	276.35	277.4	323.8	69.8	107.9	184.15	127.0	469.9	16	38.1	127		110	115	110	123	10	
	12	609.9	419.1	323.85	327.15	328.2	381.0	79.4	117.5	200.0	142.9	533.4	20	38.1	170		149	155	149	174	1	
	14	341.3	450.8	355.6	359.15	360.2	412.7	85.7	130.2	212.7	155.6	558.8	20	41.3	198		181	177	181	225	14	
	16	704.8	408.0	406.4	410.5	411.2	469.9	88.9	133.35	215.9	165.1	615.9	20	44.4	224		194	210	194	280	16	
	18	787.4	565.1	457.2	461.8	462.3	533.4	101.6	152.4	228.6	190.5	685.8	20	50.8	300		274	298	274	400	18	
	20	857.2	622.3	508.0	513.1	514.35	584.2	107.9	157.5	247.65	209.55	749.3	20	54.0	374		332	370	332	503	20	
	24	1041.4	749.3	609.6	615.95	615.95	692.1	139.7	203.2	292.1	266.7	901.7	20	66.7	680		637	710	637	953	24	
CLASS 1500 LBS																						
ASA B 16.5	½	120.6	38.1	21.3	22.3	22.9	34.9	22.2	31.7	60.3	31.7	82.5	4	22.2	1.9	1.7	1.7	1.7	1.7	1.8	½	
	¾	130.2	44.4	26.7	27.7	28.2	42.9	25.4	34.9	69.8	34.9	88.9	4	22.2	2.6	2.4	2.3	2.3	2.4	2.4	¾	
	1	149.2	52.4	33.5	34.55	35.05	50.8	28.6	41.3	73.0	41.3	101.6	4	25.4	3.8	3.5	3.4	3.4	3.5	3.6	1	
	1¼	158.7	63.5	42.2	43.2	43.7	63.5	28.6	41.3	73.0	41.3	111.1	4	25.4	4.4	4.0	3.9	3.9	4.0	4.1	1¼	
	1½	177.8	69.8	48.3	49.5	50.0	73.0	31.7	44.4	82.5	44.4	123.8	4	28.6	6.1	5.5	5.4	5.4	5.4	5.8	1½	
	2	215.9	104.8	60.4	62.0	62.5	92.1	38.1	57.1	101.6	57.1	165.1	8	25.4	11.1	10.0	9.8	9.8	10.0	10.1	2	
	2½	244.5	123.8	73.1	74.7	75.4	104.8	41.3	63.5	104.8	63.5	190.5	8	28.6	15.5	13.9	13.7	13.7	13.9	14	2½	
	3	266.7	133.35	88.9	90.7	91.4	127.0	47.6	73.0	117.5	73.0	203.2	8	31.7	20.4		18	18	18.1	19	3	
	4	311.1	161.9	114.3	116.1	116.8	157.2	54.0	90.5	123.8	90.5	241.3	8	34.9	30.5		27.8	27.8	28	30	4	
	5	374.6	196.8	141.2	143.8	144.5	185.7	73.0	104.8	155.6	104.8	292.1	8	41.3	58		52	52	52	58	5	
	6	393.7	228.6	168.4	170.7	171.45	215.9	82.6	119.1	171.4	119.1	317.5	12	38.1	70		61	61	61	72	6	
	8	482.6	292.1	219.2	221.5	222.25	269.9	92.1	142.9	212.7	142.9	393.7	12	44.4	125		104	104	105	122	8	
	10	584.2	268.3	273.0	276.3	277.4	323.8	107.9	158.75	254.0	177.8	482.6	12	50.8	204		175	220	176	210	10	
	12	673.1	450.8	323.8	327.1	328.2	381.0	123.8	181.0	282.5	219.1	571.5	16	54.0	303		564	287	266	315	12	
	14	749.3	495.3	355.6	359.1	360.2	412.7	133.45		298.4	241.3	635.0	16	60.1	427			405		324	14	
	16	825.5	552.4	404.4	410.5	411.2	469.9	146.15		311.1	270.35	704.8	16	66.7	570			525		590	16	
	18	914.4	596.9	457.2	461.8	462.3	533.4	161.9		317.0	276.2	774.4	16	73.1	740			670		795	18	
	20	984.2	614.3	508.0	513.1	514.3	584.2	177.8		355.6	292.1	831.8	16	79.4	935			810		1030	20	
	24	1168.4	762.9	609.6	615.9	615.9	692.1	203.2		406.4	330.2	990.6	16	92.1	1515			1290		1650	24	
	CLASS 2500 LBS																					
	ASA B 16.5	½	133.35	42.9	21.3	22.35	22.9	34.9	30.2	39.7	73.0	39.7	88.9	4	22.2	3.6		3	3	3	3	½
		¾	169.7	50.8	26.7	27.7	28.2	42.9	31.7	42.9	79.4	42.9	95.2	4	22.2	4.0		4	4	4	4	¾
		1	158.75	57.1	33.5	34.5	35.05	50.8	34.9	47.6	88.9	47.6	107.9	4	25.4	6.0		5	5	5	5	1
		1¼	184.15	73.0	42.2	43.2	43.7	63.5	38.1	52.4	95.2	52.4	130.2	4	28.6	9		8	8	8	8	1¼
1½		203.2	79.4	48.3	49.5	50.0	73.0	44.4	60.3	111.1	60.3	146.05	4	31.7	13		11	11	11	11	1½	
2		234.95	95.2	60.45	62.0	62.5	92.1	50.8	69.8	127.0	69.8	171.45	8	28.6	19		17	17	17	17	2	
2½		266.7	114.3	73.15	74.7	75.4	104.8	57.1	79.4	142.9	79.4	196.85	8	31.7	24		25	25	25	25	2½	
3		304.8	133.35	88.9	90.7	91.4	127.0	56.7	92.1	168.3	92.1	228.6	8	34.9	43		38	38	38	39	3	
4		355.6	165.1	114.3	116.1	116.8	157.2	76.2	107.9	190.5	107.9	273.05	8	41.3	66		58	58	58	60	4	
5		419.9	203.2	141.2	143.8	144.5	185.7	92.1	130.2	228.6	130.2	323.8	8	47.6	111		95	95	95	101	5	
6		482.6	234.95	168.4	170.7	171.45	215.9	107.9	152.4	273.05	152.4	368.3	8	54.0	172		146	146	146	156	6	
8		552.4	304.8	219.2	221.5	222.25	269.9	127.0	177.8	317.5	177.8	438.1	12	54.0	261		220	220	220	242	8	
10	673.1	374.6	276.35	277.4	277.4	323.8	165.1	228.6	419.1	228.6	539.7	12	66.7	485		420	420	420	465	10		
12	762.0	441.3	323.85	327.15	328.2	381.0	184.15	254.0	463.5	254.0	619.1	12	73.0	730		500	500	590	665	12		



We are stockists and manufacturers of forged steel fittings and flanges in carbon, alloy and stainless steel.

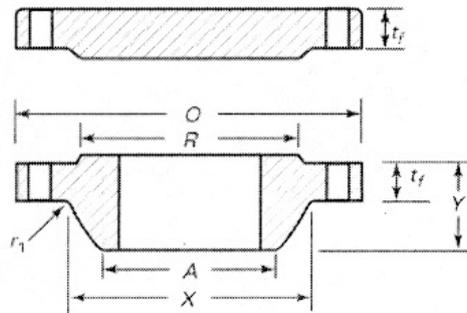


Dimensions of Class 150 Series A Flanges



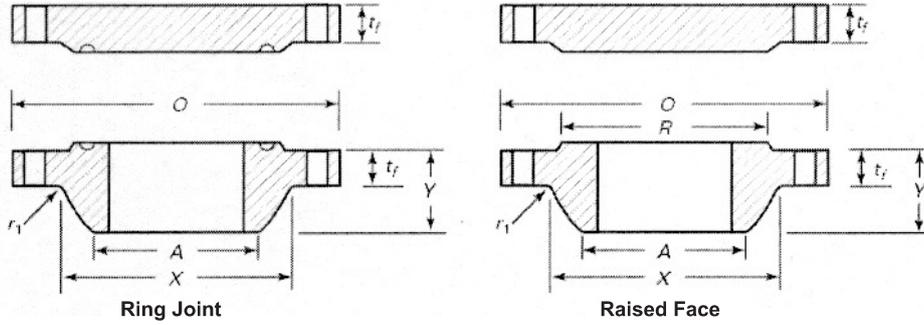
Nominal Pipe Size	O.D. of Flange, O	Minimum Thickness of Flange, t_f [Note (1)]		Length Through Hub, Y	Diam. Of Hub, X [Note (2)]	Hub Diam. Top, A [Note (3)]	Raised Face Diam., R	Drilling			Minimum Fillet Radius, r_1	
		WNF	Blind					Diam. of Bolt Circle	No. Of Bolt Holes	Diam. of Bolt Hole, in.		Diam. of Bolt, in.
		26	870					66.7	66.7	119		676
28	925	69.9	69.9	124	727	711.2	800	863.6	28	1 3/8	1 1/4	11
30	985	73.1	73.1	135	781	762.0	857	914.4	28	1 3/8	1 1/4	11
32	1 060	79.4	79.4	143	832	812.8	914	977.9	28	1 3/8	1 1/2	11
34	1 110	81.0	81.0	148	883	863.6	965	1 028.7	32	1 3/8	1 1/2	13
36	1 170	88.9	88.9	156	933	914.4	1 022	1 085.8	32	1 3/8	1 1/2	13
38	1 240	85.8	85.8	156	991	965.2	1 073	1 149.4	32	1 3/8	1 1/2	13
40	1 290	88.9	88.9	162	1 041	1 016.0	1 124	1 200.2	36	1 3/8	1 1/2	13
42	1 345	95.3	95.3	170	1 092	1 066.8	1 194	1 257.3	36	1 3/8	1 1/2	13
44	1 405	100.1	100.1	176	1 143	1 117.6	1 245	1 314.4	40	1 3/8	1 1/2	13
46	1 455	101.6	101.6	184	1 197	1 168.4	1 295	1 365.2	40	1 3/8	1 1/2	13
48	1 510	106.4	106.4	191	1 248	1 219.2	1 359	1 422.4	44	1 3/8	1 1/2	13
50	1 570	109.6	109.6	202	1 302	1 270.0	1 410	1 479.6	44	1 3/8	1 3/4	13
52	1 625	114.3	114.3	208	1 353	1 320.8	1 461	1 536.7	44	1 3/8	1 3/4	13
54	1 685	119.1	129.1	214	1 403	1 371.6	1 511	1 593.8	44	1 3/8	1 3/4	13
56	1 745	122.3	122.3	227	1 457	1 422.4	1 575	1 651.0	48	1 3/8	1 3/4	13
58	1 805	127.0	127.0	233	1 508	1 473.2	1 626	1 708.2	48	1 3/8	1 3/4	13
60	1 855	130.2	130.2	238	1 559	1 524.0	1 676	1 759.0	52	1 3/8	1 3/4	13

Dimensions of Class 150 Series B Flanges



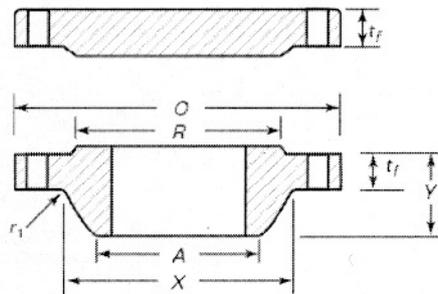
Nominal Pipe Size	O.D. of Flange, O	Minimum Thickness of Flange, t_f [Note (1)]		Length Through Hub, Y	Diam. Of Hub, X [Note (2)]	Hub Diam. Top, A [Note (3)]	Raised Face Diam., R	Drilling			Minimum Fillet Radius, r_1	
		WNF	Blind					Diam. of Bolt Circle	No. Of Bolt Holes	Diam. of Bolt Hole, in.		Diam. of Bolt, in.
		26	785					39.5	43.0	87		684
28	835	43.0	46.2	94	735	712.7	762	795.3	40	1 1/8	3/4	10
30	885	43.0	49.3	98	787	763.5	813	846.1	44	1 1/8	3/4	10
32	940	44.6	52.5	106	840	814.3	864	900.1	48	1 1/8	3/4	10
34	1 005	47.7	55.7	109	892	865.1	921	957.3	40	1	7/8	10
36	1 055	50.9	57.3	116	945	915.9	972	1 009.6	44	1	7/8	10
38	1 125	52.5	62.0	122	997	968.2	1 022	1 070.0	40	1 1/8	1	10
40	1 175	54.1	65.2	127	1 049	1 019.0	1 080	1 120.8	44	1 1/8	1	10
42	1 225	57.3	66.8	132	1 102	1 069.8	1 130	1 171.6	48	1 1/8	1	11
44	1 275	58.9	70.0	135	1 153	1 120.6	1 181	1 222.4	52	1 1/8	1	11
46	1 340	60.4	73.1	143	1 205	1 174.4	1 235	1 284.3	40	1 1/4	1 1/8	11
48	1 390	63.6	76.3	148	1 257	1 222.2	1 289	1 335.1	44	1 1/4	1 1/8	11
50	1 445	66.8	79.5	152	1 308	1 273.0	1 340	1 385.9	48	1 1/4	1 1/8	11
52	1 495	68.4	82.7	156	1 360	1 323.8	1 391	1 436.7	52	1 1/4	1 1/8	11
54	1 550	70.0	85.8	160	1 416	1 374.6	1 441	1 492.2	56	1 1/4	1 1/8	11
56	1 600	71.6	89.0	165	1 465	1 425.4	1 492	1 543.0	60	1 1/4	1 1/8	14
58	1 675	73.1	91.9	173	1 516	1 476.2	1 543	1 611.3	48	1 3/8	1 1/4	14
60	1 725	74.7	95.4	178	1 570	1 527.0	1 600	1 662.1	52	1 3/8	1 1/4	14

Dimensions of Class 300 Series A Flanges



Nominal Pipe Size	O.D. of Flange, O	Minimum Thickness of Flange, t_f [Note (1)]		Length Through Hub, Y	Diam. Of Hub, X [Note (2)]	Hub Diam. Top, A [Note (3)]	Raised Face Diam., R	Drilling			Diam. of Bolt, in.	Minimum Fillet Radius, r_1
		WNF	Blind					Diam. of Bolt Circle	No. Of Bolt Holes	Diam. of Bolt Hole, in.		
26	970	77.8	82.6	183	721	660.4	749	876.3	28	1 $\frac{3}{4}$	1 $\frac{5}{8}$	10
28	1 035	84.2	88.9	195	775	711.2	800	939.8	28	1 $\frac{3}{4}$	1 $\frac{5}{8}$	11
30	1 090	90.5	93.7	208	827	762.0	857	997.0	28	1 $\frac{3}{4}$	1 $\frac{5}{8}$	11
32	1 150	96.9	98.5	221	881	812.8	914	1 054.1	28	2	1 $\frac{5}{8}$	11
34	1 205	100.1	103.2	230	937	863.6	965	1 104.9	28	2	1 $\frac{5}{8}$	13
36	1 270	103.2	109.6	240	991	914.4	1 022	1 168.4	32	2 $\frac{1}{8}$	2	13
38	1 170	106.4	106.4	179	994	965.2	1 029	1 092.2	32	1 $\frac{3}{8}$	1 $\frac{1}{2}$	13
40	1 240	112.8	112.8	192	1 048	1 016.0	1 086	1 155.7	32	1 $\frac{3}{4}$	1 $\frac{5}{8}$	13
42	1 290	117.5	117.5	198	1 099	1 066.8	1 137	1 206.5	32	1 $\frac{3}{4}$	1 $\frac{5}{8}$	13
44	1 355	122.3	122.3	205	1 149	1 117.6	1 194	1 263.6	32	1 $\frac{3}{8}$	1 $\frac{3}{4}$	13
46	1 415	127.0	127.0	214	1 203	1 168.4	1 245	1 320.8	28	2	1 $\frac{5}{8}$	13
48	1 465	131.8	131.8	222	1 254	1 219.2	1 302	1 371.6	32	2	1 $\frac{5}{8}$	13
50	1 530	138.2	138.2	230	1 305	1 270.0	1 359	1 428.8	32	2 $\frac{1}{8}$	2	13
52	1 580	142.9	142.9	237	1 356	1 320.8	1 410	1 479.6	32	2 $\frac{1}{8}$	2	13
54	1 660	150.9	150.9	251	1 410	1 371.6	1 467	1 549.4	28	2 $\frac{3}{8}$	2 $\frac{1}{4}$	13
56	1 170	152.4	152.4	259	1 464	1 422.4	1 518	1 600.2	28	2 $\frac{3}{8}$	2 $\frac{1}{4}$	13
58	1 760	157.2	157.2	265	1 514	1 473.2	1 575	1 651.0	32	2 $\frac{3}{8}$	2 $\frac{1}{4}$	13
60	1 810	162.0	162.0	271	1 565	1 524.0	1 626	1 701.8	32	2 $\frac{3}{8}$	2 $\frac{1}{4}$	13

Dimensions of Class 300 Series B Flanges

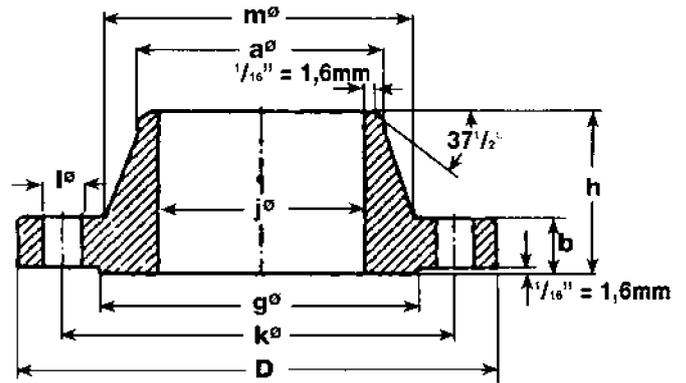
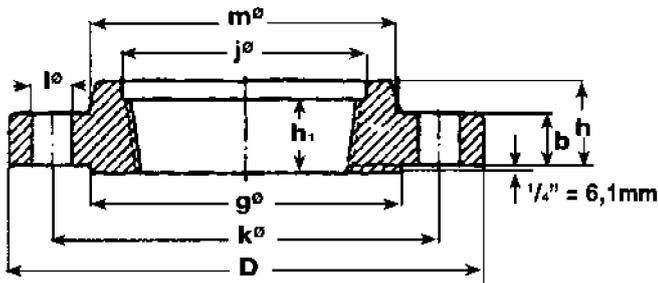


Nominal Pipe Size	O.D. of Flange, O	Minimum Thickness of Flange, t_f [Note (1)]		Length Through Hub, Y	Diam. Of Hub, X [Note (2)]	Hub Diam. Top, A [Note (3)]	Raised Face Diam., R	Drilling			Diam. of Bolt, in.	Minimum Fillet Radius, r_1
		WNF	Blind					Diam. of Bolt Circle	No. Of Bolt Holes	Diam. of Bolt Hole, in.		
26	865	87.4	87.4	168	702	665.2	737	803.3	32	1 $\frac{3}{8}$	1 $\frac{1}{4}$	14
28	920	87.4	87.4	148	756	716.0	787	857.2	36	1 $\frac{3}{8}$	1 $\frac{1}{4}$	14
30	990	92.1	92.1	156	813	768.4	945	920.8	36	1 $\frac{1}{2}$	1 $\frac{1}{8}$	14
32	1 055	101.6	101.6	167	864	819.2	902	977.9	32	1 $\frac{1}{8}$	1 $\frac{1}{2}$	16
34	1 110	101.6	101.6	171	918	870.0	953	1 031.9	36	1 $\frac{1}{8}$	1 $\frac{1}{2}$	16
36	1 170	101.6	101.6	179	965	920.8	1 010	1 089.0	32	1 $\frac{3}{4}$	1 $\frac{5}{8}$	16
38	1 220	109.6	109.6	165	1 016	971.6	1 060	1 139.8	36	1 $\frac{3}{4}$	1 $\frac{5}{8}$	16
40	1 275	114.3	114.3	197	1 067	1 022.4	1 114	1 190.6	40	1 $\frac{3}{4}$	1 $\frac{5}{8}$	16
42	1 335	117.5	117.5	203	1 118	1 074.7	1 168	1 244.6	36	1 $\frac{1}{8}$	1 $\frac{3}{4}$	16
44	1 385	125.5	125.5	213	1 173	1 125.5	1 219	1 295.4	40	1 $\frac{1}{8}$	1 $\frac{3}{4}$	16
46	1 460	127.0	128.6	221	1 229	1 176.3	1 270	1 365.2	36	2	1 $\frac{5}{8}$	16
48	1 510	127.0	133.4	222	1 278	1 227.1	1 327	1 416.0	40	2	1 $\frac{5}{8}$	16
50	1 560	136.6	138.2	233	1 330	1 277.9	1 378	1 466.8	44	2	1 $\frac{5}{8}$	16
52	1 615	141.3	142.6	241	1 383	1 328.7	1 429	1 517.6	48	2	1 $\frac{5}{8}$	16
54	1 675	135.0	147.7	238	1 435	1 379.5	1 480	1 578.0	48	2	1 $\frac{5}{8}$	16
56	1 765	152.4	155.4	267	1 494	1 430.3	1 537	1 651.0	36	2 $\frac{3}{8}$	2 $\frac{1}{4}$	17
58	1 825	152.4	160.4	273	1 548	1 481.1	1 594	1 712.9	40	2 $\frac{3}{8}$	2 $\frac{1}{4}$	17
60	1 880	149.3	165.1	270	1 599	1 557.3	1 651	1 763.7	40	2 $\frac{3}{8}$	2 $\frac{1}{4}$	17

DIMENSIONAL TOLERANCES ANSI - FLANGES

ANSI B 16.5

ANSI B 16.5

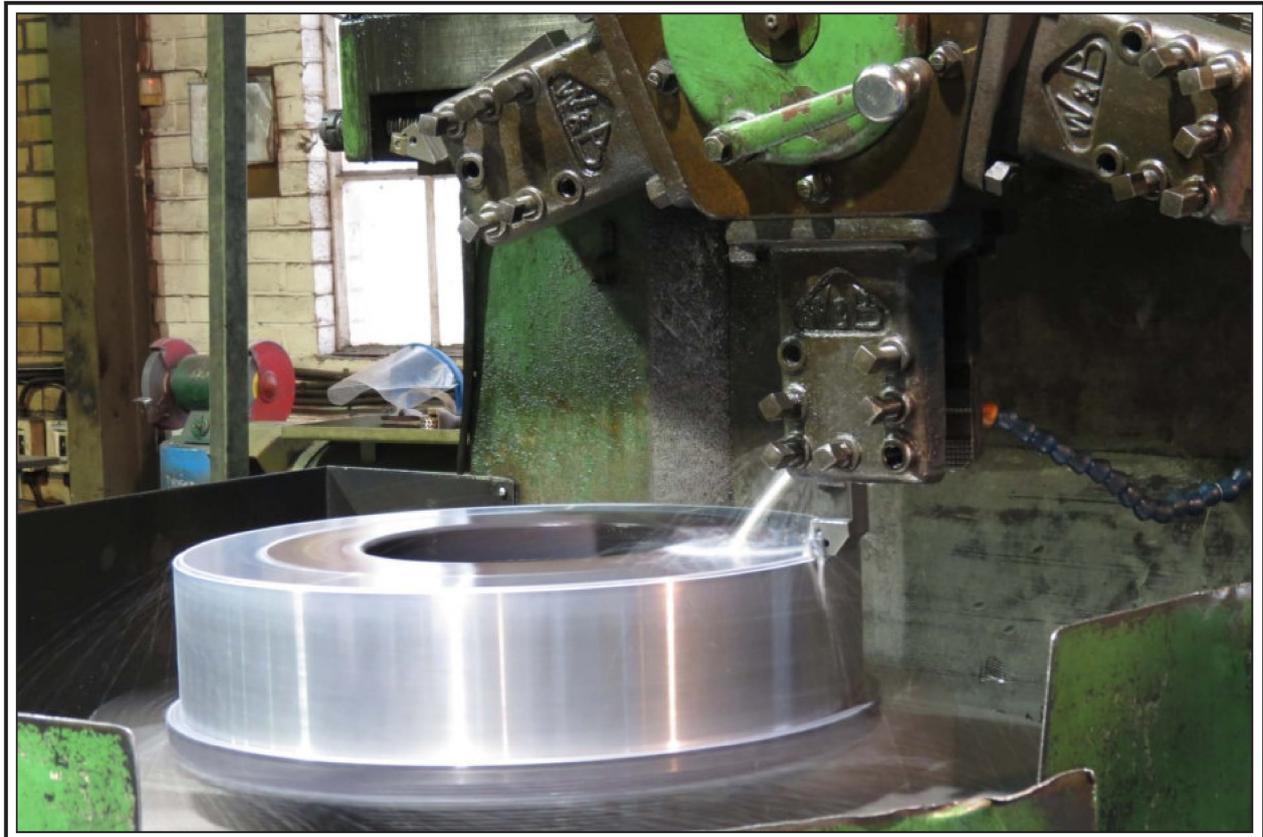
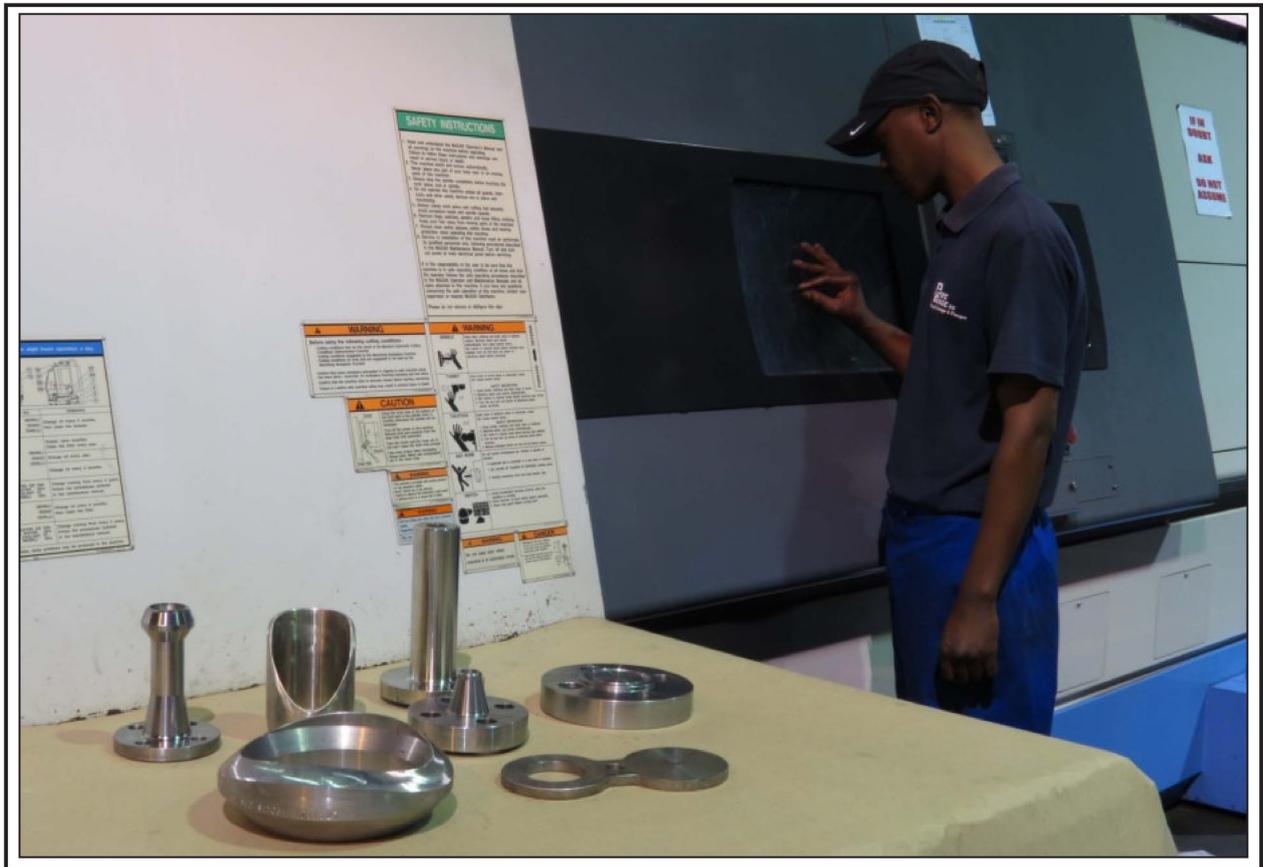


Slip-on, Lap joint, Threaded and Blind Flanges

Outside Diameter ¹⁾ D	When O D is 24" or less	$\pm \frac{1}{16}''$
	When O D is over 24"	$\pm \frac{1}{8}''$
Inside Diameter J	Slip-on and Lap Joint 10" and smaller	$\pm \frac{1}{32}'' - 0''$
	12" and larger	$\pm \frac{1}{16}'' - 0''$
	Threaded	Within limits on boring gauge
Diameter of Counterbore	Same as for Inside diameter	
Diameter of Contact face g	$\pm \frac{1}{16}''$ Raised Face $\pm \frac{1}{4}''$ Raised Face Tongue and Groove Male and Female	$\pm \frac{1}{32}''$ $\pm \frac{1}{64}''$ $\pm \frac{1}{64}''$
		$\pm \frac{1}{64}''$
Outside Diameter of Hub ¹⁾ m	12" and smaller	$\pm \frac{3}{32}'' - \frac{1}{16}''$
	14" and larger 12" and smaller	$\pm \frac{1}{16}''$
Drilling l	Bolt Circle K	$\pm \frac{1}{16}''$
	Bolt Hole Spacing	$\pm \frac{1}{32}''$
	Eccentricity between bolt circle diameter (k) and machined facing diameters: Size 2 1/2" and smaller Size 3" and larger	max. $\frac{1}{32}''$ max. $\frac{1}{16}''$
Length Thru Hub) m	18" and smaller	$+\frac{1}{8}'' - \frac{1}{32}''$
	20" and larger	$+\frac{3}{16}'' - \frac{1}{16}''$
Thickness b	18" and larger	$+\frac{1}{8}'' - 0''$
	20" and larger	$+\frac{3}{16}'' - 0''$

Welding Neck Flanges

Outside Diameter ¹⁾ D	When O D is 24" or less	$\pm \frac{1}{16}''$
	When O D is over 24"	$\pm \frac{1}{8}''$
Inside Diameter J	10" and smaller	$\pm \frac{1}{32}''$
	12" through 18"	$\pm \frac{1}{16}''$
	20" and larger	$+\frac{1}{8}'' - \frac{1}{16}''$
Diameter of Contact face g	$\pm \frac{1}{8}''$ Raised Face $\pm \frac{1}{4}''$ Raised Face Tongue and Groove Male and Female	$\pm \frac{1}{32}''$ $\pm \frac{1}{64}''$ $\pm \frac{1}{64}''$
		$\pm \frac{1}{64}''$
Outside Diameter of Hub ¹⁾ m	5" and smaller	$+\frac{3}{32}'' - \frac{1}{32}''$
	6" and larger	$+\frac{3}{32}'' - \frac{1}{32}''$
	When Hub Base is 24" or less	$\pm \frac{1}{16}''$
	When Hub Base is over 24"	$\pm \frac{1}{8}''$
Drilling l	Bolt Circle k	$\pm \frac{1}{16}''$
	Bolt Hole Spacing	$\pm \frac{1}{32}''$
	Eccentricity between bolt circle diameter (k) and machined facing diameters: Size 2 1/2" and smaller Size 3" and larger	max. $\frac{1}{32}''$ max. $\frac{1}{16}''$
Length Thru Hub ¹⁾ m	10" and smaller	$\pm \frac{1}{16}''$
	12" and larger	$\pm \frac{1}{8}''$
Thickness b	18" and larger	$+\frac{1}{8}'' - 0''$
	20" and larger	$+\frac{1}{16}'' - 0''$





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