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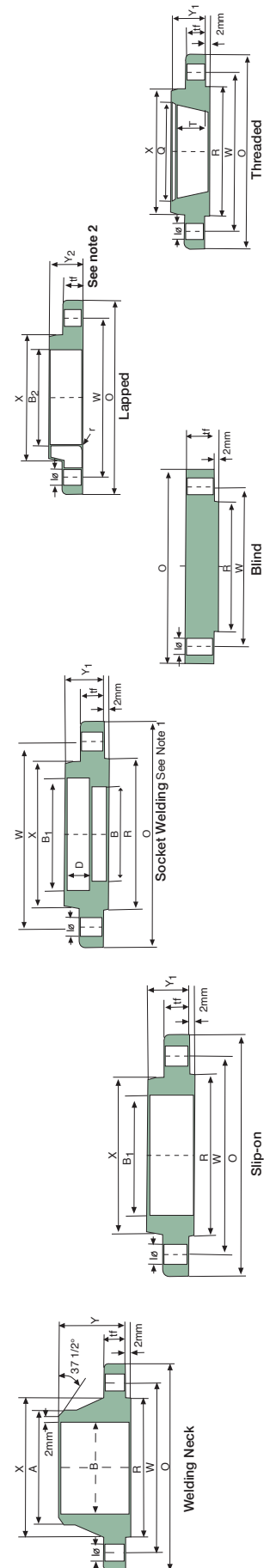
FLANGE DATA TABLES



FLANGES CL150

ASME B16.5

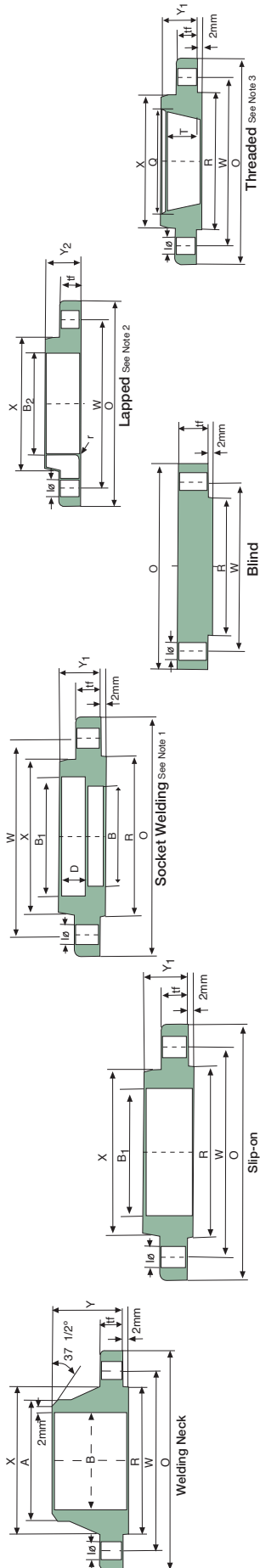
Pipe		Flanges											Hub		Raised Face	Drilling Template			Approx. Weight																
		O (mm)	B (mm)	B ₁ (mm)	B ₂ (mm)	Q (mm)	D (mm)	r (mm)	tf (mm) *See note 2	Y (mm)	Y ₁ (mm)	Y ₂ (mm)	T (mm)	A (mm)	X (mm)	R (mm)	Number	l _o (mm)	W (mm)	W/N (kg)	S/O (kg)	Lapped (kg)	Blind (kg)	S/W (kg)	Thrd (kg)										
1 1/2"	21.3	90	Refer to ASME B36 - 10 / B36 - 19 or as specified by purchaser											22.2	22.9	No counter bore required on threaded flanges											4	15.7	60.3	0.48	0.39	0.38	0.42	0.42	0.39
3/4"	26.7	100	27.7	28.2	28.2	11	3	9.6	46	14	16	16	16	21.3	38	42.9	34.9	4	15.7	69.9	0.17	0.56	0.55	0.61	0.59	0.56									
1"	33.4	110	34.5	34.9	34.9	13	3	12.7	54	16	17	17	17	33.4	49	50.8	4	15.7	79.4	1.01	0.78	0.76	0.86	0.81	0.78										
1 1/4"	42.2	115	43.2	43.7	43.7	14	5	14.3	56	19	21	21	21	42.2	59	63.5	4	15.7	88.9	1.33	1.03	1.01	1.17	1.07	1.03										
1 1/2"	48.3	125	49.5	50.0	50.0	16	6	15.9	60	21	22	22	22	48.3	65	73.0	4	15.7	98.4	1.72	1.32	1.30	1.53	1.36	1.32										
2"	60.3	150	61.9	62.5	62.5	17	8	17.5	62	24	25	25	25	60.3	78	92.1	4	19.1	120.7	2.58	2.06	2.03	2.42	2.10	2.06										
2 1/2"	73.0	180	74.6	75.4	75.4	19	8	20.7	68	27	29	29	29	73.0	90	104.8	4	19.1	139.7	4.11	3.28	3.25	3.94	3.90	3.28										
3"	88.9	190	90.7	91.4	91.4	21	10	22.3	68	29	30	30	30	88.9	108	127.0	4	19.1	152.4	4.92	3.85	3.81	4.93	3.90	3.28										
3 1/2"	101.6	215	103.4	104.1	104.1	10	10	22.3	70	30	32	32	32	101.6	122	139.7	8	19.1	177.8	6.08	4.81	4.76	6.17	4.81	4.81										
4"	114.3	230	116.1	116.8	116.8	11	11	22.3	75	32	33	33	33	114.3	135	157.2	8	19.1	190.5	6.84	5.30	5.28	7.00	5.30	5.30										
5"	141.3	255	143.8	144.4	144.4	11	11	22.3	87	35	36	36	36	141.2	164	185.7	8	22.4	215.9	8.56	6.07	6.02	8.63	6.07	6.07										
6"	168.3	280	170.7	171.4	171.4	13	13	23.9	87	38	40	40	40	168.3	192	215.9	8	22.4	241.3	10.6	7.45	7.40	11.3	7.45	7.45										
8"	219.1	345	221.5	222.3	222.3	13	13	27	100	43	44	44	44	219.1	246	269.9	8	22.4	298.5	17.8	12.1	12.1	19.6	12.1	12.1										
10"	273	405	276.2	277.4	277.4	13	13	28.6	100	48	49	49	49	273.0	305	323.8	12	25.4	362.0	24.0	16.5	16.4	28.8	16.5	16.5										
12"	323.8	485	327.0	328.2	328.2	13	13	30.2	113	54	56	56	56	323.8	365	381.0	12	25.4	431.8	36.5	26.2	26.1	43.2	26.2	26.2										
14"	355.6	535	359.2	360.2	360.2	13	13	33.4	125	56	79	79	79	355.5	400	412.8	12	28.4	476.3	48.4	34.5	34.5	58.1	34.6	34.6										
16"	406.4	595	410.5	411.2	411.2	13	13	35.0	125	62	87	87	87	406.4	457	469.9	16	28.4	539.8	60.6	44.8	44.6	76.0	44.8	44.8										
18"	457	635	461.8	462.3	462.3	13	13	38.1	138	67	97	97	97	457.0	505	533.4	16	31.8	577.9	68.3	48.9	48.7	93.7	48.9	48.9										
20"	508.0	700	513.1	514.4	514.4	13	13	41.3	143	71	103	103	103	508.0	559	584.2	20	31.8	635.0	84.5	61.9	61.6	122.0	61.9	61.9										
24"	610.0	815	616	616.0	616.0	13	13	46.1	151	81	111	111	111	610.0	663	692.2	20	35.1	749.3	115	85.9	86.6	185.0	86.9	86.9										



Note 1: Socket weld flanges up to 3" in this pressure rating.

Note 2: For Lapped flanges, add 1.6mm to tf dimension.

Note 3: Threaded Flanges shall have a taper pipe thread conforming to ASME B1.20.1



Pipe		Flanges											Hub		Drilling Template				Approx. Weight							
Nom. Size	O D (mm)	O (mm)	B (mm)	B ₁ (mm)	B ₂ (mm)	Q (mm)	D (mm)	r (mm)	tf (mm)	Y (mm)	Y ₁ (mm)	Y ₂ (mm)	T (mm)	A (mm)	X (mm)	R (mm)	Number	lo (mm)	W (mm)	W/N (kg)	S/O (kg)	Lapped (kg)	Blind (kg)	S/W (kg)	Thrd (kg)	
1/2"	21.3	95	Refer to ASME B36 - 10 / B36 - 19 or as specified by purchaser											16	21.3	38	34.9	4	16.7	66.7	0.75	0.64	0.62	0.64	0.66	0.64
3/4"	26.7	115											16	26.7	48	42.9	4	19.0	82.6	1.26	1.12	1.10	1.11	1.15	1.12	
1"	33.4	125											18	33.4	54	50.8	4	19.0	88.8	1.52	1.36	1.33	1.39	1.40	1.36	
1 1/4"	42.2	135											21	42.2	64	63.5	4	19.0	96.4	2.03	1.68	1.65	1.79	1.75	1.58	
1 1/2"	48.3	155											23	48.3	70	73.1	4	22.3	114.3	2.89	2.49	2.44	2.66	2.55	2.49	
2"	60.3	165											29	60.3	84	91.9	8	19.0	127.0	3.40	2.87	2.83	3.18	2.93	2.87	
2 1/2"	73.0	190											32	73.0	100	104.6	8	22.3	149.2	5.17	4.32	4.25	4.85	4.40	4.32	
3"	88.9	210											32	88.9	117	127.0	8	22.3	168.3	6.93	5.85	5.78	6.81	3.92	5.86	
3 1/2"	101.8	230											37	101.6	133	139.7	8	22.3	184.2	8.87	7.34	7.27	8.71		7.34	
4"	114.3	255											37	114.3	146	157.2	8	22.3	200.0	11.2	9.61	9.55	11.5		9.61	
5"	141.3	280											43	141.3	178	185.6	8	22.3	235.0	15.1	12.3	12.2	15.0		12.30	
6"	168.3	320											47	168.3	206	215.9	12	22.4	269.9	19.1	15.6	15.5	20.9		15.80	
8"	219.1	380											51	219.1	260	269.9	12	22.3	330.2	29.9	24.2	24.1	34.3		24.20	
10"	273	445											56	273.0	321	323.8	16	25.4	387.4	42.7	34.1	34.4	53.3		34.10	
12"	323.8	520											61	323.6	375	331.0	16	28.4	450.8	61.8	49.8	50.4	78.8		49.80	
14"	355.6	585											64	355.6	425	412.8	20	31.7	541.4	85.0	69.9	70.9	105.0		69.9	
16"	406.4	650											69	406.4	483	469.9	20	31.7	571.5	106	88.1	89.5	137.0		88.10	
18"	457.2	710											70	457.0	533	533.4	24	35.0	628.6	131	109.0	111.0	175.0		109.0	
20"	508.0	775											74	508.0	587	584.2	24	35.0	685.8	158	134.0	137.0	221.0		134.0	
24"	610	915											83	610.0	702	692.2	24	41.1	812.8	230	201.0	204.0	339.0		201.0	

Note 1: Socket weld flanges up to 3" in this pressure rating.

Note 2: For Lapped flanges, add 1.6mm to tf dimension.

Note 3: Threaded flanges shall have a tapered thread to ASME B1.20.1.

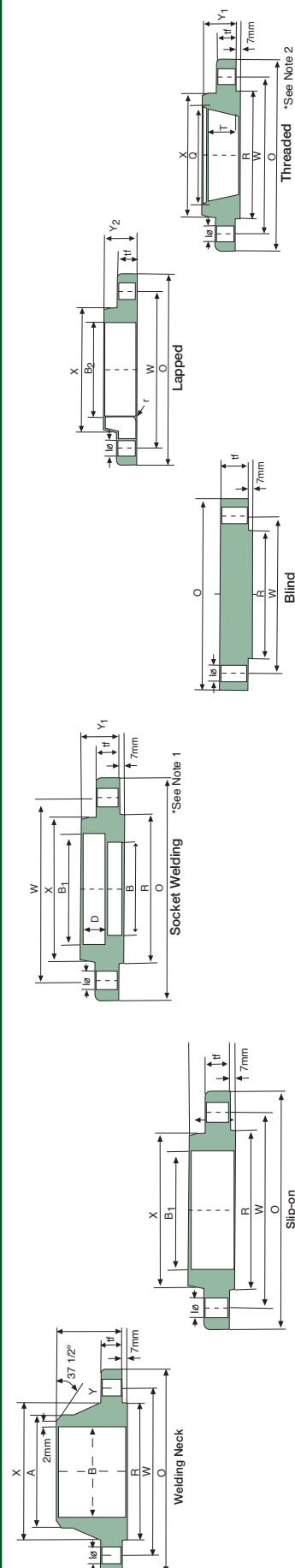
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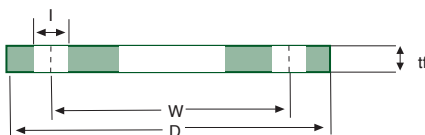
ASME B16.5

Pipe		Flanges										Hub		Raised Face	Drilling Template			Approx. Weight									
Nom. Size	O D (mm)	O (mm)	B (mm)	B ₁ (mm)	B ₂ (mm)	Q (mm)	D (mm)	r (mm)	tf (mm) *See note 2	Y (mm)	Y ₁ (mm)	Y ₂ (mm)	T (mm)	A (mm)	X (mm)	R (mm)	Number	le (mm)	W (mm)	W/N (kg)	S/O (kg)	Lapped (kg)	Blind (kg)	S/W (kg)	Thrd (kg)		
1/2"	21.3	95	Table specified by purchaser											16	21.3	38	35.1	4	15.7	66.7	0.87	0.74	0.72	0.76	0.76	0.76	0.74
3/4"	26.7	115	22.2	22.9	23.6	10	3	14.3	52	22	22	25	16	26.7	48	42.9	4	19.1	82.6	1.45	1.27	1.25	1.28	1.28	1.29	1.27	
1"	33.4	125	27.7	28.2	29.0	11	3	15.9	57	25	25	27	18	33.4	54	50.8	4	19.1	88.9	1.76	1.52	1.50	1.60	1.60	1.55	1.52	
1 1/4"	42.2	135	34.5	34.9	35.8	13	3	17.5	62	27	27	29	21	42.2	64	63.5	4	19.1	98.4	2.49	2.03	2.00	2.23	2.23	2.06	2.03	
1 1/2"	48.3	155	43.2	43.7	44.4	14	5	20.7	67	29	29	32	23	48.3	70	73.2	4	22.4	114.3	3.49	2.95	2.92	3.25	3.25	3.00	2.96	
2"	60.3	165	49.5	50.0	50.6	16	6	22.3	70	32	32	37	29	60.3	84	91.9	8	19.1	127.0	4.36	3.62	3.55	4.15	4.15	3.67	3.62	
2 1/2"	73.0	190	61.9	62.5	63.5	17	8	25.4	73	37	37	41	32	73.0	100	104.6	8	22.4	149.2	6.43	5.28	5.23	6.13	6.13	5.35	5.28	
3"	88.9	210	74.6	75.4	76.2	19	8	28.6	79	41	41	46	35	88.9	117	127.0	8	22.4	168.3	8.53	7.00	6.95	8.44	8.44	7.06	7.00	
3 1/2"	101.6	230	90.7	91.4	92.2	21	10	31.8	83	46	46	48	40	101.6	133	139.7	8	25.4	184.2	10.7	8.84	8.78	11.0	11.0		8.84	
4"	114.3	275	103.4	104.1	104.9		10	35.0	86	49	48	54	42	114.3	152	157.2	8	25.4	215.9	17.4	14.5	14.4	17.3	17.3		14.5	
5"	141.3	330	116.1	116.8	117.6	11	11	33.1	102	54	54	60	48	141.3	169	185.7	8	28.4	266.7	29.2	24.4	24.3	29.4	29.4		24.4	
6"	168.3	355	143.8	144.4	144.4	11	11	44.5	114	60	60	67	51	168.3	222	215.9	12	28.4	292.1	34.9	28.7	28.5	36.1	36.1		28.7	
8"	219.1	420	170.7	171.4	171.4	13	13	47.7	117	67	67	76	58	219.1	273	269.9	12	31.8	349.2	53.9	43.4	43.1	58.9	58.9		43.4	
10"	273	510	221.5	222.2	222.2	13	13	55.6	133	76	76	85	66	273.0	343	323.8	16	35.1	431.8	86.5	70.3	70.5	97.5	97.5		70.3	
12"	323.8	560	278.2	277.4	276.2	13	13	63.5	152	85	111	117	70	323.6	400	381.0	20	35.1	489.0	103	84.2	86.1	124	124		84.2	
14"	355.6	605	327.0	328.2	328.6	13	13	66.7	156	92	117	127	74	355.6	432	412.8	20	38.1	527.0	122	98.7	100	151	151		98.7	
16"	406.4	685	359.2	360.2	360.4	13	13	69.9	165	94	127	140	78	406.4	495	469.9	20	41.1	693.2	170	142	145	214	214		142	
18"	457.2	745	410.5	411.2	411.2	13	13	76.2	178	106	140	152	80	457.0	546	533.4	20	44.5	654.0	204	173	177	272	272		173	
20"	508.0	815	461.8	462.3	462.0	13	13	82.5	184	117	152	165	83	508.0	610	584.2	24	44.5	723.9	254	220	225	349	349		220	
24"	610	940	513.1	514.4	512.8	13	13	88.9	190	127	165	184	93	610.0	718	692.2	24	50.8	838.2	358	312	318	533	533		312	

Note 1: Socket weld flanges up to 3" in this pressure rating.

Note 2: Threaded Flanges shall have a taper pipe thread conforming to ASME B1.20.1





FLANGES

B.S 10/ 1962

TABLES D & E

Temperature: Pressure rating for Carbon Steel Flanges													
°C	- 17.8 To 232.2	260.0	287.8	315.6	343.3	371.1	399.0	427.0	441.0	454.0	468.0	482.0	Max Hyd. Test Press
kPA 'D' 'E'	689.7 1379.4	655.20 1275.95	586.2 1172.5	551.7 1069.0	482.8 965.6	448.3 896.6	379.3 793.2	344.85 689.7	- -	- -	- -	- -	1034.6 2069.5
Pipe		Diam. of Flange (D)		Bolt Circle Diameter (W)		Diam. of Bolts (I Ø)		Number of Bolt Holes		Thickness of flanges (tf)		Approx. Weight in Kilos	
Nom. Size	O.D. in mm	D	E	D	E	D	E	D	E	D	E	D	E
1/2	21.3	95.2	95.2	66.7	66.7	12	12	4	4	4.76	6.35	0.2	0.4
3/4	26.9	101.6	101.6	73.0	73.0	12	12	4	4	4.76	6.35	0.2	0.5
1	33.7	114.3	114.3	82.6	82.6	12	12	4	4	4.76	7.14	0.5	0.6
1 1/4	42.2	120.6	120.6	87.3	87.3	12	12	4	4	6.35	7.94	0.6	0.8
1 1/2	48.3	133.4	133.4	98.4	98.4	12	12	4	4	6.35	8.73	0.7	0.9
2	60.3	152.4	152.4	114.3	114.3	16	16	4	4	7.94	9.53	1.0	1.4
2 1/2	76.1	165.1	165.1	127.0	127.0	16	16	4	4	7.94	10.32	1.1	1.6
3	88.9	184.2	184.2	146.0	146.0	16	16	4	4	9.53	11.1	1.6	1.8
3 1/2	101.6	203.2	203.2	165.1	165.1	16	16	4	8	9.53	11.91	1.8	2.0
4	114.3	215.9	215.9	177.8	177.8	16	16	4	8	9.53	12.7	2.0	2.5
5	139.7	254.0	254.0	209.6	209.6	16	16	8	8	12.7	14.3	3.5	4.0
6	165.1	279.4	279.4	235.0	235.0	16	20	8	8	12.7	17.5	4.0	5.5
8	219.1	336.6	336.6	292.1	292.1	16	20	8	8	12.7	19.0	5.0	8.0
10	273.0	406.4	406.4	355.6	355.6	20	20	8	12	15.9	22.2	9.0	12.0
12	323.8	457.2	457.2	406.4	406.4	20	22	12	12	14.0	25.4	11.0	16.0
14	355.6	527.0	527.0	469.9	469.9	22	22	12	12	22.2	28.6	15.0	21.0
16	406.4	577.85	577.85	520.7	520.7	22	22	12	12	22.2	31.75	17.0	23.0
18	457.2	641.3	641.3	584.2	584.2	22	22	12	16	25.4	34.9	25.0	39.0
20	508.0	704.8	704.8	641.3	641.3	22	22	16	16	28.6	38.1	33.0	42.0
24	609.6	825.5	825.5	755.6	755.6	24	30	16	16	31.75	47.6	45.0	66.0

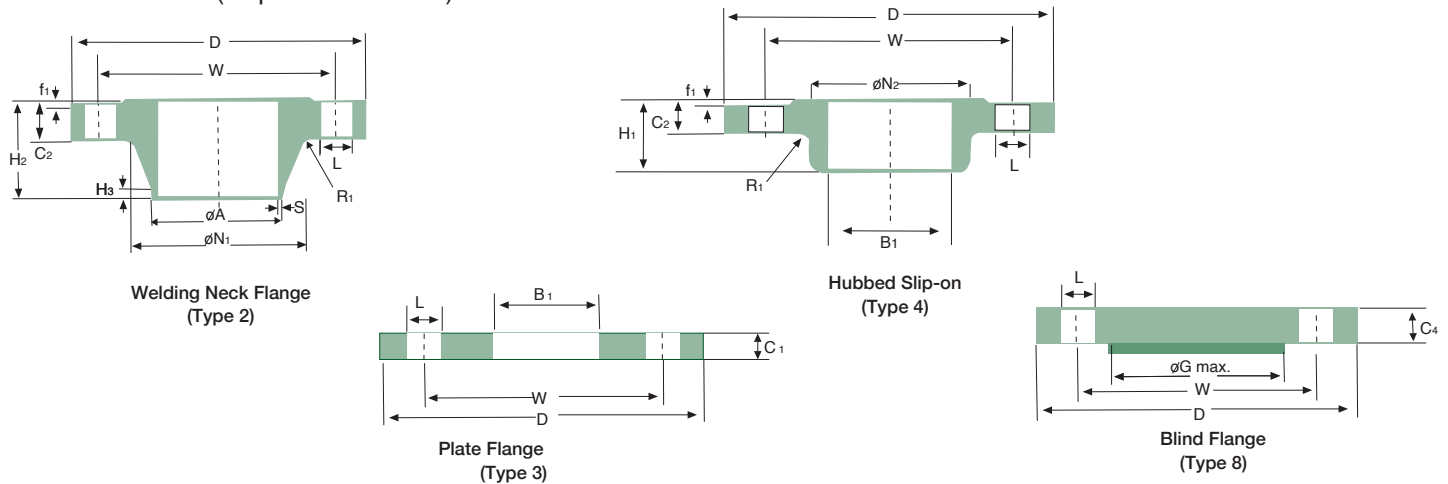
TABLES F & H

Temperature: Pressure rating for Carbon Steel Flanges													
°C	- 17.8 To 232.2	260.0	287.8	315.6	343.3	371.1	399.0	427.0	441.0	454.0	468.0	482.0	Max Hyd. Test Press
kPA "F" "H"	2069.1 3448.5	1931.16 3207.1	1758.74 2965.7	1620.80 2724.3	1482.86 2448.4	1344.92 2207.0	1172.49 1965.6	1034.55 1724.2	- 1482.9	- 1241.5	- 1034.55	- 793.16	3103.65 5172.75
Pipe	Ø Diam. of Flange (D)		Bolt Circle Diameter (W)		Diam. of Bolts (I Ø)		Raised Face Ø	Number of Bolt Holes		Thickness of flanges (tf)		Approx. Weight in Kilos	
Nom. Size	F	H	F	H	F	H	H	F	H	F	H	F	H
1/2	95.2	114.3	66.7	82.6	12	16	57.15	4	4	9.53	12.7	0.5	0.7
3/4	101.6	114.3	73.0	82.6	12	16	57.15	4	4	9.53	12.7	0.6	0.9
1	120.6	120.6	87.3	87.3	16	16	63.5	4	4	9.53	14.3	0.8	1.1
1 1/4	133.4	133.4	98.4	98.4	16	16	76.2	4	4	12.7	17.5	1.0	1.5
1 1/2	139.7	139.7	104.8	104.8	16	16	82.6	4	4	12.7	17.5	1.4	1.8
2	165.1	165.1	127.0	127.0	16	16	101.6	4	4	15.9	19.0	2.3	2.5
2 1/2	184.2	184.2	146.0	146.0	16	16	114.3	8	8	15.9	19.0	2.7	3.5
3	203.2	203.2	165.1	165.1	16	16	127.0	8	8	15.9	22.2	3.2	4.5
3 1/2	215.9	215.9	177.8	177.8	16	16	139.7	8	8	19.0	22.2	4.0	5.5
4	228.6	228.6	190.5	190.5	16	16	152.4	8	8	19.0	25.4	4.5	6.0
5	279.4	279.4	235.0	235.0	20	20	177.8	8	8	22.2	28.6	8.0	10.0
6	304.8	304.8	260.4	260.4	20	20	209.6	12	12	22.2	28.6	8.5	11.0
8	368.3	368.3	323.8	323.8	20	20	260.4	12	12	25.4	31.8	13.5	17.0
10	431.8	431.8	381.0	381.0	22	22	311.2	12	12	28.6	34.9	18.0	24.5
12	489.0	489.0	438.2	438.2	22	22	362.0	16	16	31.8	41.3	24.0	31.0
14	552.5	552.5	495.3	495.3	24	24	419.1	16	16	34.9	47.6	31.0	
16	609.6	609.6	552.5	552.5	24	24	482.6	20	20	41.3	54.0	35.0	
18	673.1	673.1	609.6	609.6	30	30	533.4	20	20	44.5	60.3	41.0	
20	736.6	736.6	673.1	673.1	30	30	596.9	24	24	50.8	66.7		
24	850.9	850.9	781.0	781.0	30	30	698.5	24	24	57.15	76.2		

To convert psi to kPa x 6.803

FLANGES

BS EN 1092 - 1 (Replaces BS 4504)



DIMENSIONS FOR PN6 FLANGES

NP = Nominal Pressure 6, 10, 16, 25 & 40

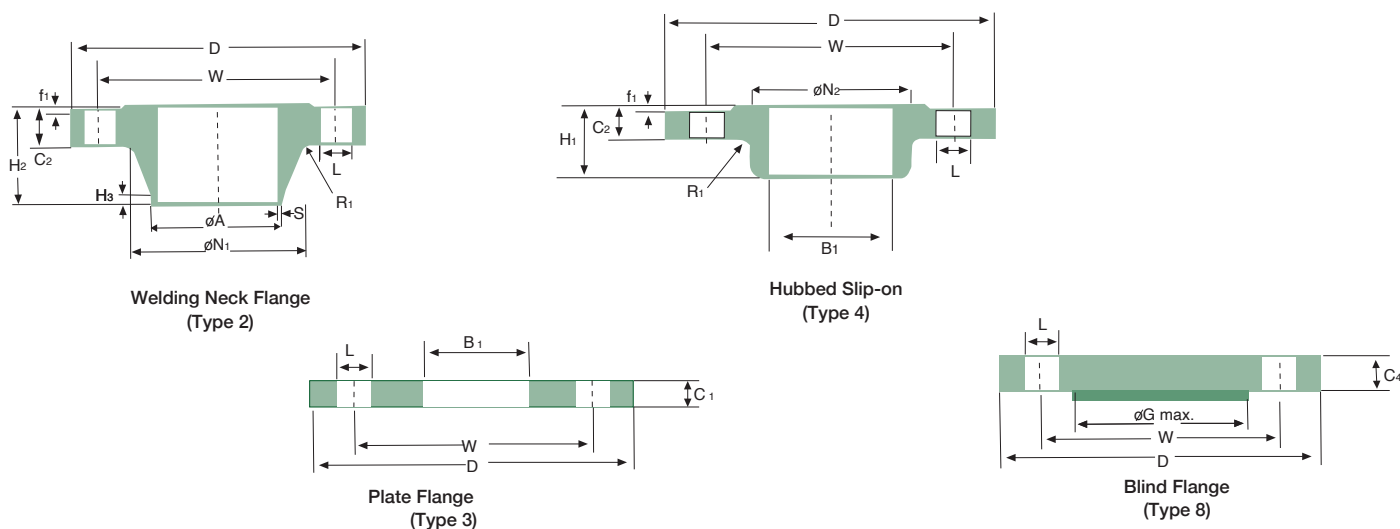
• Nominal pressure 6 bar (1bar = 10 ⁵ N/m ² = 100kPa)											Description								
Nom. Size	Pipe O.D.	Flange O.D. D	Flange Thickness			Length			Bolting No.		R ₁	Drilling		Neck Diameter		Spigot G max.	Bore Diameter B ₁	O.D./ Neck A	Raised Face f ₁
			C ₁	C ₂	C ₄	H ₁	H ₂	H ₃				L	W	N ₁	N ₂				
10	17.2	75	12	12	12	20	28	6	4	M10	4	11	50	26	25	-	18.0	17.2	2
15	21.3	80	12	12	12	20	30	6	4	M10	4	11	55	30	30	-	22.0	21.3	2
20	26.9	90	14	14	14	24	32	6	4	M10	4	11	65	38	40	-	27.5	26.9	2
25	33.7	100	14	14	14	24	35	6	4	M10	4	11	75	42	50	-	34.5	33.7	2
32	42.4	120	16	14	14	26	35	6	4	M12	6	14	90	55	60	-	43.5	42.5	2
40	48.3	130	16	14	14	26	38	7	4	M12	6	14	100	62	70	-	49.5	48.3	3
50	60.3	140	16	14	14	28	38	8	4	M12	6	14	110	74	80	-	61.5	60.3	3
65	76.1	160	16	14	14	32	38	9	4	M12	6	14	130	88	100	55	77.5	76.1	3
80	88.9	190	18	16	16	34	42	10	4	M16	8	18	150	102	110	70	90.5	88.9	3
100	114.3	210	18	16	16	40	45	10	4	M16	8	18	170	130	130	90	116.0	114.3	3
125	139.7	240	20	18	18	44	48	10	8	M16	8	18	200	155	160	115	141.5	139.7	3
150	168.3	265	20	18	18	44	48	12	8	M16	10	18	225	184	185	140	170.5	168.3	3
200	219.1	320	22	20	20	44	55	15	8	M16	10	18	280	236	240	190	221.5	219.1	3
250	273.0	375	24	22	22	44	60	15	12	M16	12	18	335	290	295	235	276.5	273.0	3
300	323.9	440	24	22	22	44	62	15	12	M20	12	22	395	342	355	285	327.5	323.9	4
350	355.6	490	26	22	24	-	62	15	12	M20	12	22	445	385	-	325	359.5	355.6	4
400	406.4	540	28	22	28	-	65	15	16	M20	12	22	495	438	-	375	411.0	406.4	4
450	457.2	595	30	22	24	-	65	15	16	M20	12	22	550	492	-	425	462.0	457.0	4
500	508.0	645	30	24	24	-	68	15	20	M20	12	22	600	538	-	475	-	508.0	4
600	609.6	755	32	30	30	-	70	16	20	M24	12	26	705	640	-	575	-	609.6	5

NOTE: For nominal sizes 10 to 175 use Table 16 on the next page Description

DIMENSIONS FOR PN10 FLANGES

• Nominal pressure 10 bar (1bar = 10 ⁵ N/m ² = 100kPa)											Description.								
Nom. Size	Pipe O.D.	Flange O.D. D	Flange Thickness			Length			Bolting No.		R ₁	Drilling		Neck Diameter		Spigot G max.	Bore Diameter B ₁	O.D./ Neck A	Raised Face f ₁
			C ₁	C ₂	C ₄	H ₁	H ₂	H ₃				L	W	N ₁	N ₂				
200	219.1	340	24	24	24	44	62	16	8	M20	10	22	295	234	246	190	221.5	219.1	3
250	273.0	395	26	26	26	46	68	16	12	M20	12	22	350	292	298	235	276.5	273.0	3
300	323.9	445	26	26	26	46	68	16	12	M20	12	22	400	342	350	285	327.5	323.9	4
350	355.6	505	28	26	26	53	68	16	16	M20	12	22	460	385	400	325	359.5	355.6	4
400	406.4	565	32	26	26	57	72	16	16	M24	12	26	515	440	456	375	411	406.4	4
450	457.2	615	36	28	28	63	72	16	20	M24	12	26	565	488	502	425	462	457.2	4
500	508.0	670	38	28	28	67	75	16	20	M24	12	26	620	542	559	475	513.5	508.0	4
600	609.6	780	42	30	34	75	80	18	20	M27	12	30	725	642	658	575	616.5	609.6	5

• Note: "S" - to be specified by purchaser



DIMENSIONS FOR PN16 FLANGES

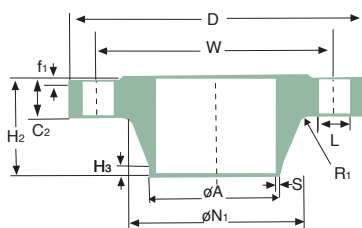
• Nominal pressure 16 bar (1bar = 105 N/m2 = 100kPa)												Description							
Nom. Size	Pipe O.D.	Flange O.D. D	Flange Thickness			Length			Bolting		R ₁	Drilling		Neck Diameter		Spigot G max.	Bore Diameter B ₁	O.D/ Neck A	Raised Face f ₁
			C ₁	C ₂	C ₄	H ₁	H ₂	H ₃	No.	L		W	N ₁	N ₂					
10	17.2	90	14	16	16	22	35	6	4	M12	4	14	60	28	30	-	18.0	17.2	2
15	21.3	95	14	16	16	22	38	6	4	M12	4	14	65	32	35	-	22.0	21.3	2
20	26.9	105	16	18	18	26	40	6	4	M12	4	14	75	40	45	-	27.5	26.9	2
25	33.7	115	16	18	18	28	40	6	4	M12	4	14	85	46	52	-	34.5	33.7	2
32	42.4	140	18	18	18	30	42	6	4	M16	6	18	100	56	60	-	43.5	42.4	2
40	48.3	150	18	18	18	32	45	7	4	M16	6	18	110	64	70	-	49.5	48.36	3
50	60.3	165	20	20	18	28	45	8	4	M16	6	18	125	74	84	-	61.5	0.3	3
65	76.1	185	20	20	18	32	45	10	8	M16	6	18	145	92	104	55	77.5	76.1	3
80	88.9	200	20	20	20	34	50	10	8	M16	8	18	160	105	118	70	90.5	88.9	3
100	114.3	220	22	20	20	40	52	12	8	M16	8	18	180	131	140	90	116.0	114.3	3
125	139.7	250	22	22	22	44	55	12	8	M16	8	18	210	156	168	115	141.5	139.7	3
150	168.3	285	24	22	22	44	55	12	8	M20	10	22	240	184	195	140	170.5	168.3	3
200	219.1	340	26	24	24	44	62	16	12	M20	10	22	295	235	246	190	221.5	219.1	3
250	273.0	405	29	26	26	46	70	16	12	M24	12	26	355	292	298	235	276.5	273.0	3
300	323.9	460	32	28	28	46	78	16	12	M24	12	26	410	344	350	285	327.5	323.9	4
350	355.6	520	35	30	30	57	82	16	16	M24	12	26	470	390	400	330	359.5	355.6	4
400	406.4	480	38	32	32	63	83	16	16	M27	12	30	525	445	456	380	411.0	406.4	4
450	457.0	640	42	34	40	68	83	16	20	M27	12	30	585	490	502	425	462.0	457.0	4
500	508.0	715	46	36	44	73	84	16	20	M30	12	33	650	548	559	475	613.5	508.0	4
600	610.0	840	55	40	54	83	88	18	20	M33	12	36	770	670	658	575	616.5	610.0	

DIMENSIONS FOR PN25 FLANGES

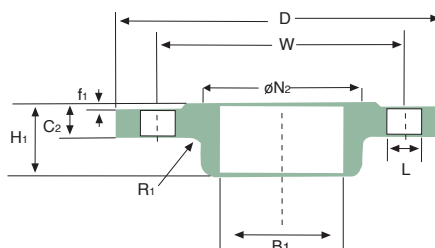
• Nominal pressure 25 bar (1bar = 105 N/m2 = 100kPa)												Description							
Nom. Size	Pipe O.D.	Flange O.D. D	Flange Thickness			Length			Bolting		 R ₁	Drilling		Neck Diameter		Spigot G max.	Bore Diameter B ₁	O.D/ Neck A	Raised Face f ₁
			C ₁	C ₂	C ₄	H ₁	H ₂	H ₃	No.			L	W	N ₁	N ₂				
200	219.1	360	32	30	30	52	80	16	12	M24	10	26	310	244	256	190	221.5	219.1	3
250	273.0	425	35	32	32	60	88	18	12	M27	12	30	370	298	310	235	276.5	273.0	3
300	323.9	485	38	34	34	67	92	18	16	M27	12	30	430	352	364	285	327.5	323.9	4
350	355.6	555	42	38	38	72	100	20	16	M30	12	33	490	398	418	332	359.5	355.6	4
400	406.4	620	48	40	40	78	110	20	16	M33	12	36	550	452	472	380	411.0	406.4	4
450	457.2	670	54	46	50	84	110	20	20	M33	12	36	600	500	520	425	462.0	457.2	4
500	508.0	730	58	48	51	90	125	20	20	M33	12	36	660	558	580	475	513.5	508.0	4
600	610.0	845	68	48	60	100	125	20	20	M36	12	39	770	660	684	575	616.5	610.0	5

FLANGES

BS EN 1092 - 1 (Replaces BS 4504)



Welding Neck Flange
(Type 2)



Hubbed Slip-on
(Type 4)

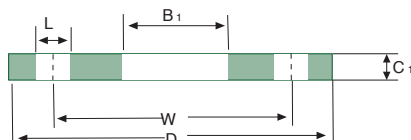
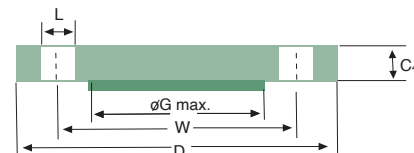


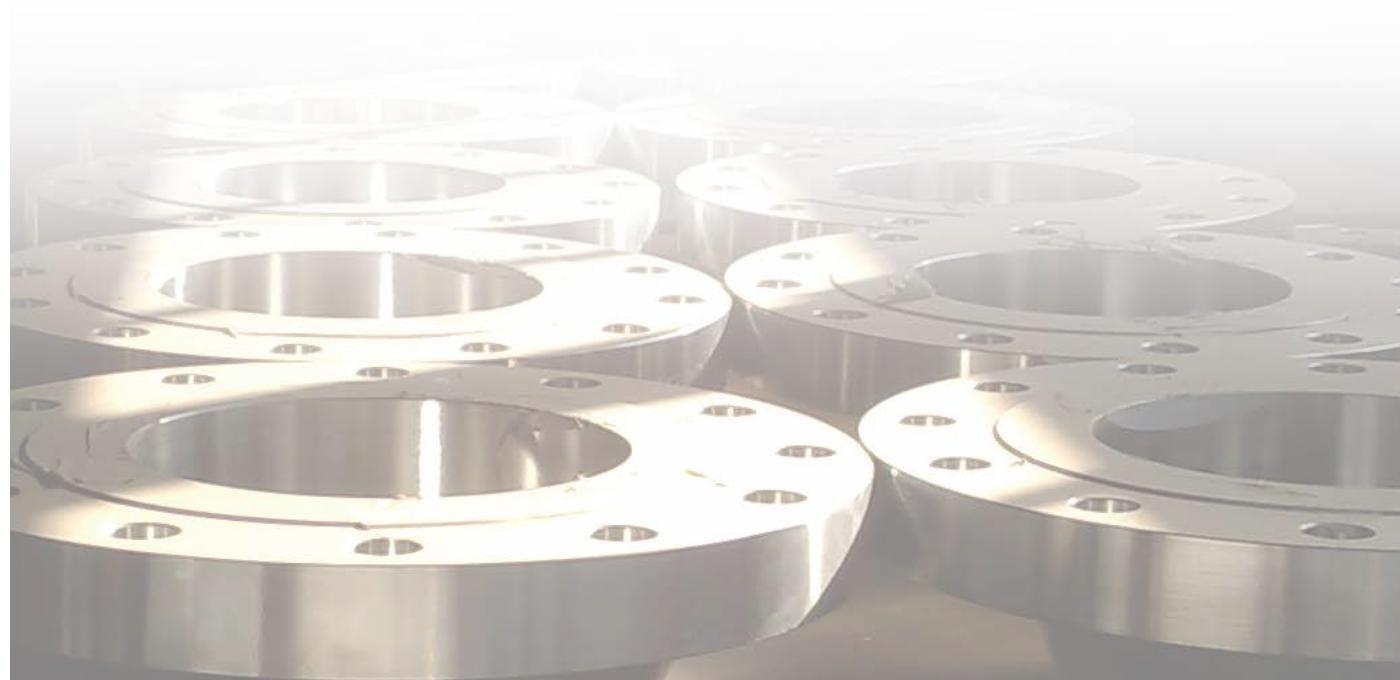
Plate Flange
(Type 3)



Blind Flange
(Type 8)

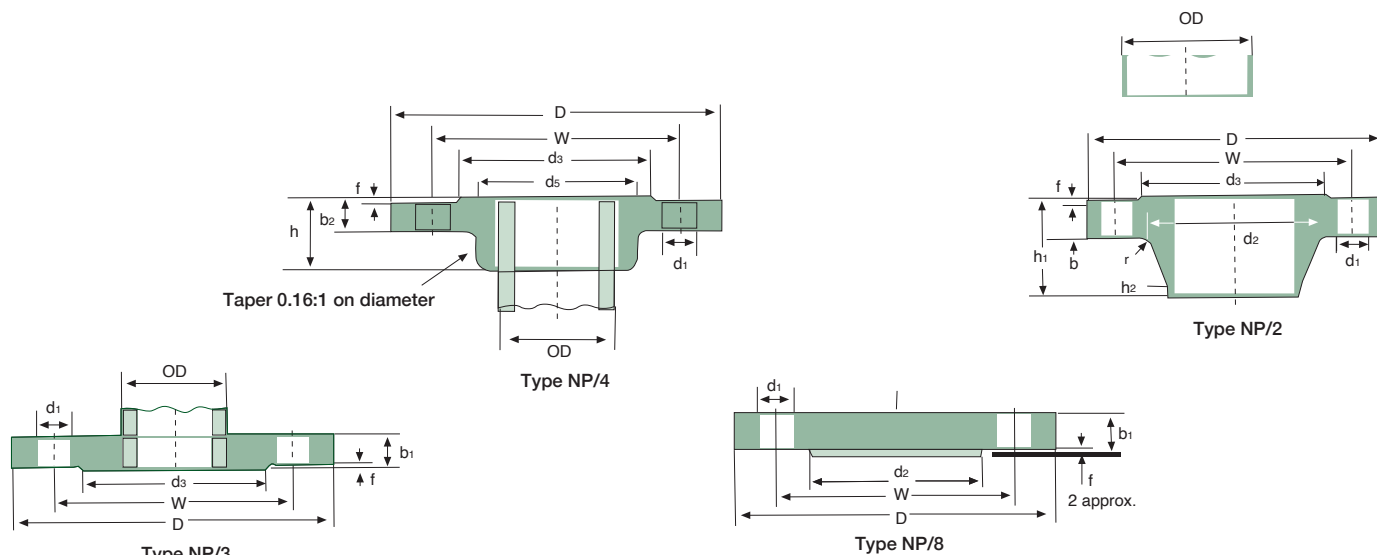
DIMENSIONS FOR PN40 FLANGES

• Nominal pressure 40 bar (1bar = 10 ⁵ N/m ² = 100kPa)										• Note: “S” - to be specified by purchaser					Description				
Nom. Size	Pipe O.D.	Flange O.D. D	Flange Thickness		Length			Bolting		R ₁	Drilling		Neck Diameter		Spigot G max.	Bore Diameter B ₁	O.D/ Neck A	Raised Face f ₁	
			C ₁	C ₂	H ₁	H ₂	H ₃	No.	L		W	N ₁	N ₂						
10	17.2	90	14	16	22	35	6	4	M12	4	14	60	28	30	-	18.0	17.2	2	
15	21.3	95	14	16	22	38	6	4	M12	4	14	65	32	35	-	22.0	21.3	2	
20	26.9	105	16	18	26	40	6	4	M12	4	14	75	40	45	-	27.5	26.9	2	
25	33.7	115	16	18	28	40	6	4	M12	4	14	85	46	52	-	34.5	33.7	2	
32	42.4	140	18	18	30	42	6	4	M16	6	18	100	56	60	-	43.5	42.4	2	
40	48.3	150	18	18	32	45	7	4	M16	6	18	110	64	70	-	49.5	48.3	3	
50	60.3	165	20	20	34	48	8	4	M16	6	18	125	75	84	-	61.5	60.3	3	
65	76.1	185	22	22	38	52	10	8	M16	6	18	145	90	104	55	77.5	76.1	3	
80	88.9	200	24	24	40	58	12	8	M16	8	18	160	105	118	70	90.5	88.9	3	
100	114.3	235	26	24	44	65	12	8	M20	8	22	190	134	145	90	116.0	114.3	3	
125	139.7	270	28	26	48	68	12	8	M24	8	26	220	162	170	115	141.5	139.7	3	
150	168.3	300	30	28	52	75	12	8	M24	10	26	250	192	200	140	170.5	168.3	3	
200	219.1	375	36	36	52	88	16	12	M27	10	30	320	244	260	190	221.5	219.1	3	
250	273.0	450	42	38	60	105	18	12	M30	12	33	385	306	312	235	276.5	273.0	3	
300	323.9	515	52	42	67	115	18	16	M30	12	33	450	362	380	285	327.5	323.9	4	
350	355.6	580	58	46	72	125	20	16	M33	12	36	510	408	424	325	359.5	355.6	4	
400	406.4	660	65	50	78	135	20	16	M36	12	39	585	462	478	375	411.0	406.4	4	
450	457.2	685	“S”	57	84	135	20	20	M36	12	39	610	500	522	425	462.0	457.2	4	
500	508.0	755	“S”	57	90	140	20	20	M39	12	42	670	562	576	475	513.5	508.0	4	
600	610.0	890	“S”	72	100	150	20	20	M45	12	48	795	666	686	575	616.5	610.0	5	



SANS 1123 (Replaces S.A.B.S. 1123)

For weld preparation see BS
2633 and BS 2971 or BS 1821
and BS 2640 as appropriate



NP = Nominal Pressure 6, 10, 16

NP = Nominal Pressure 600kPa, 1000kPa, 1600kPa, 2500kPa, 4000kPa

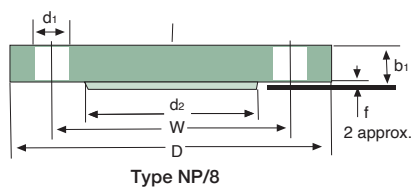
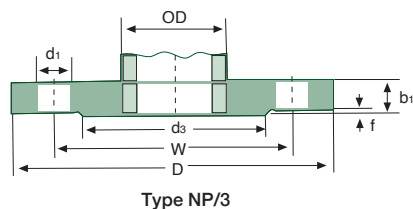
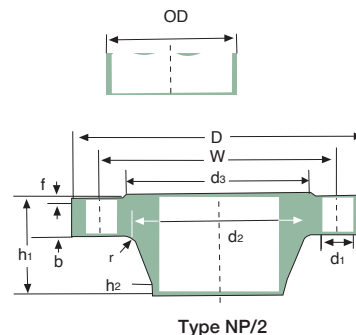
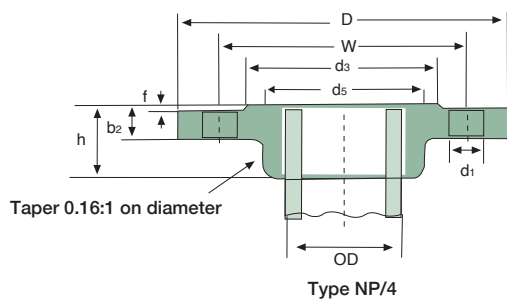
Nominal Pressure 600 kPa																	
Nom. Size	Pipe O.D.	D	Flange					Raised Face		Bolting	Drilling			Neck			Boss
			b	b ₁	b ₂	h	h ₁	d ₃	f		No of Holes	d ₁	W	d ₂	h ₂	r	
10	17.2	75	8	10	8	16	28	35	2	M10	4	11	50	26	6	4	25
15	21.3	80	8	10	8	16	30	40	2	M10	4	11	55	30	6	4	30
20	26.9	90	8	10	8	18	32	50	2	M10	4	11	65	38	6	4	40
25	33.7	100	8	10	8	18	35	60	2	M10	4	11	75	42	6	4	50
32	42.4	120	8	10	8	20	35	70	2	M12	4	14	90	55	6	6	60
40	48.3	130	8	10	8	20	38	80	3	M12	4	14	100	62	7	6	70
50	60.3	140	8	10	8	22	38	90	3	M12	4	14	110	74	8	6	80
65	76.1	160	8	10	8	26	38	110	3	M12	4	14	130	88	9	6	100
80	88.9	190	10	10	10	28	42	128	3	M16	4	18	150	102	10	8	110
100	114.3	210	10	10	10	34	45	148	3	M16	4	18	170	130	10	8	130
*125	139.7	240	13	12	13	39	48	178	3	M16	8	18	200	155	10	8	160
150	168.3	265	13	12	13	39	48	202	3	M16	8	18	225	184	12	10	185
*175	193.7	295	13	14	-	-	52	230	3	M16	8	18	255	210	12	10	-
200	219.1	320	13	14	-	-	55	258	3	M16	8	18	280	236	15	10	-
*225	244.5	345	16	16	-	-	58	285	3	M16	8	18	305	264	15	12	-
250	273.0	375	16	16	-	-	60	312	3	M16	12	18	335	290	15	12	-
300	323.9	440	20	20	-	-	62	365	4	M20	12	22	395	342	15	12	-
350	355.6	490	22	22	-	-	62	415	4	M20	12	22	445	385	15	12	-
400	406.4	540	22	22	-	-	65	465	4	M20	16	22	495	438	15	12	-
450	457.2	595	24	25	-	-	65	520	4	M20	16	22	550	492	15	12	-
500	508.0	645	24	25	-	-	68	570	4	M20	20	22	600	538	15	12	-
550	559.0	705	24	28	-	-	68	620	5	M24	20	26	655	590	16	12	-
600	609.6	755	24	30	-	-	70	670	5	M24	20	26	705	640	16	12	-

Stock availability and service varies from branch to branch. Information provided as a guide only and is subject to our normal disclaimer on our website

FLANGES

SANS 1123 (Replaces S.A.B.S. 1123)

For weld preparation see BS 2633 and BS 2971 or BS 1821 and BS 2640 as appropriate



NP = Nominal Pressure 6, 10, 16

NP = Nominal Pressure 600kPa, 1000kPa, 1600kPa, 2500kPa, 4000kPa

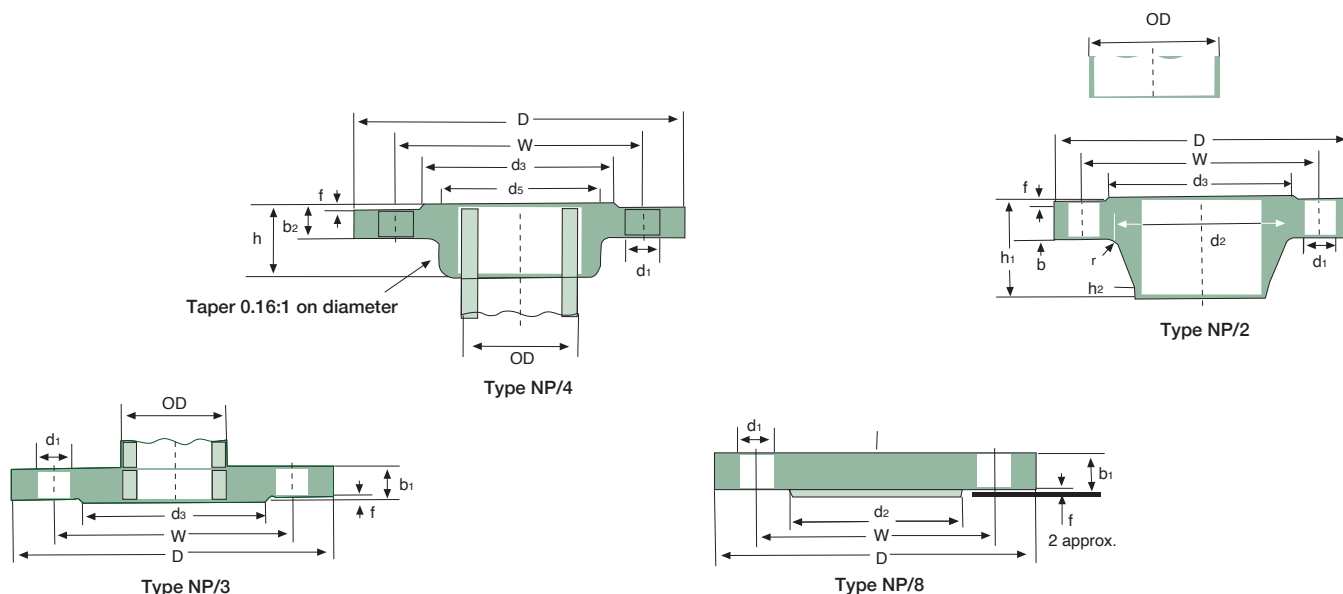
Nominal Pressure 1000 kPa																		
Nom. Size	Pipe O.D.	D	Flange						Raised Face		Bolting	Drilling			Neck			Boss
			b	b ₁	b ₂	b ₃	h	h ₁	d ₄	f		No of Holes	d ₁	k	d ₃	h ₂	r	d ₅
10	17.2	90	8	10	8	10	14	35	40	2	M12	4	14	60	28	6	4	30
15	21.3	95	8	10	8	10	14	35	45	2	M12	4	14	65	32	6	4	35
20	26.9	105	8	10	8	10	16	38	58	2	M12	4	14	75	40	6	4	45
25	33.7	115	8	10	8	10	16	38	68	2	M12	4	14	85	46	6	4	52
32	42.4	140	10	10	10	10	20	40	78	2	M16	4	18	100	56	6	6	60
40	48.3	150	10	10	10	10	20	42	88	3	M16	4	18	110	64	7	6	70
50	60.3	165	12	10	10	12	20	45	102	3	M16	4	18	125	75	8	6	85
65	76.1	185	12	12	12	12	26	45	122	3	M16	4	18	145	90	10	6	105
80	88.9	200	14	12	12	14	26	50	138	3	M16	8	18	160	105	10	8	118
100	114.3	220	14	12	12	14	32	52	158	3	M16	8	18	180	131	12	8	140
*125	139.7	250	16	14	14	16	36	55	188	3	M16	8	18	210	156	12	8	168
150	168.3	285	18	16	16	18	38	55	212	3	M20	8	22	240	184	12	10	195
*175	193.7	315	20	16	-	20	-	60	242	3	M20	8	22	270	210	12	10	-
200	219.1	340	18	18	-	18	-	52	268	3	M20	8	22	295	235	16	10	-
*225	244.5	370	18	18	-	18	-	52	290	3	M20	8	22	325	265	16	10	-
250	273.0	395	20	20	-	20	-	68	320	3	M20	12	22	350	292	16	12	-
300	323.9	445	22	22	-	22	-	68	370	4	M20	12	22	400	344	16	12	-
350	355.6	505	26	25	-	25	-	68	430	4	M20	16	22	460	385	16	12	-
400	406.4	565	26	25	-	25	-	72	482	4	M24	16	26	515	400	16	12	-
450	457.2	615	28	30	-	30	-	72	532	4	M24	20	26	565	492	16	12	-
500	508.0	670	28	32	-	32	-	75	585	4	M24	20	26	620	542	16	12	-
550	559.0	730	28	35	-	35	-	80	635	5	M24	20	26	675	592	18	12	-
600	609.6	780	28	38	-	38	-	80	685	5	M24	20	26	725	642	18	12	-

Stock availability and service varies from branch to branch.

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SANS 1123 (Replaces S.A.B.S. 1123)

For weld preparation see BS 2633 and BS 2971 or BS 1821 and BS 2640 as appropriate



NP = Nominal Pressure 6, 10, 16

NP = Nominal Pressure 600kPa, 1000kPa, 1600kPa, 2500kPa, 4000kPa

* Non-preferred size

Nominal Pressure 1600 kPa																		
Nom. Size	Pipe O.D.	D	Flange						Raised Face		Bolting	Drilling			Neck			Boss
			b	b ₁	b ₂	b ₃	h	h ₁	d ₄	f		No of Holes	d ₁	k	d ₃	h ₂	r	d ₅
10	17.2	90	8	10	8	10	14	35	40	2	M12	4	14	60	28	6	4	30
15	21.3	95	8	10	8	10	14	35	45	2	M12	4	14	65	32	6	4	35
20	26.9	105	8	10	8	10	16	38	58	2	M12	4	14	75	40	6	4	45
25	33.7	115	8	10	8	10	16	38	65	2	M12	4	14	85	46	6	4	52
32	42.5	140	10	10	10	10	20	40	78	2	M16	4	18	100	56	6	6	60
40	48.3	150	10	10	10	10	20	42	88	3	M16	4	18	110	64	7	6	70
50	60.3	165	12	12	12	12	22	45	102	3	M16	4	18	125	75	8	6	85
65	76.1	185	12	12	12	12	26	45	122	3	M16	4	18	145	90	10	6	105
80	88.9	200	14	14	14	14	28	50	138	3	M16	8	18	160	105	10	8	118
100	114.3	220	14	14	14	14	34	52	158	3	M16	8	18	180	131	12	8	140
*125	139.7	250	16	16	16	16	38	55	188	3	M16	8	18	210	156	12	8	168
150	168.3	285	18	18	18	18	40	55	212	3	M20	8	22	240	184	12	10	195
*175	193.7	315	20	20	-	20	-	60	242	3	M20	8	22	270	210	12	10	-
200	219.1	340	22	22	-	22	-	62	268	3	M20	12	22	295	235	16	10	-
*225	244.5	370	24	22	-	22	-	66	294	3	M20	12	22	325	265	16	10	-
250	273.0	405	24	25	-	25	-	70	320	3	M24	12	26	355	292	16	12	-
300	323.9	460	28	28	-	28	-	78	378	4	M24	12	26	410	344	16	12	-
350	355.6	520	30	30	-	30	-	82	438	4	M24	16	26	470	390	16	12	-
400	406.4	580	32	35	-	35	-	85	490	4	M24	16	26	525	445	16	12	-
450	457.2	640	34	40	-	40	-	87	550	4	M24	20	26	585	496	16	12	-
500	508.0	715	34	40	-	40	-	90	610	4	M30	20	33	650	548	16	12	-
550	559.0	775	36	-	-	-	-	95	670	5	M30	20	33	710	600	18	12	-
600	609.6	840	36	50	-	-	-	95	725	5	M30	20	33	770	652	18	12	-

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