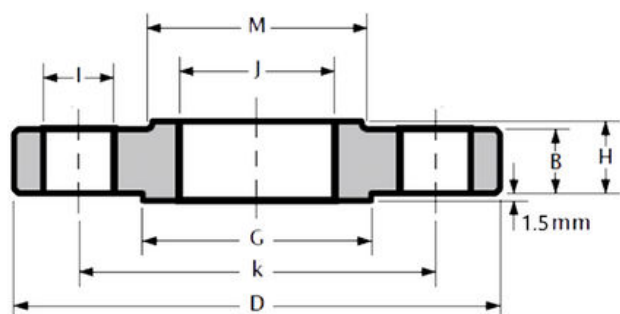


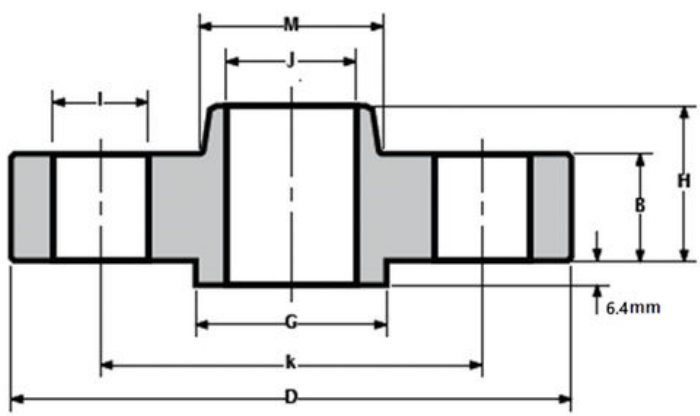
> Weights are approximate

PIPE		FLANGE DATA			HUB DATA	RAISED DATA	DRILLING DATA			WEIGHT
Nominal pipe size	Outside diameter	Thickness min.	Length through hub	Inside diameter	Diameter of hub	Face diameter	Number of holes	Bolt hole diameter	Diameter of bolt circle	Kg / piece
NPS	D	B	H	J	M	G		I	k	
1/2"	89	9.6	14	22.2	30	34.9	4	15.88	60.3	0.47
3/4"	99	11.2	14	27.7	38	42.9	4	15.88	69.9	0.58
1"	108	12.7	16	34.5	49	50.8	4	15.88	79.4	0.86
1 1/4"	117	14.3	19	43.2	59	63.5	4	15.88	88.9	1.08
1 1/2"	127	15.9	21	49.5	65	73.0	4	15.88	98.4	1.41
2"	152	17.5	24	61.9	78	92.1	4	19.05	120.7	2.26
2 1/2"	178	20.7	27	74.6	90	104.8	4	19.05	139.7	3.43
3"	190	22.3	28	90.7	108	127.0	4	19.05	152.4	3.87
3 1/2"	216	22.3	30	103.4	122	139.7	8	19.05	177.8	4.99
4"	229	22.3	32	116.1	135	157.2	8	19.05	190.5	5.75
5"	254	22.3	35	143.8	164	185.7	8	22.23	215.9	6.22
6"	279	23.9	38	170.7	192	215.9	8	22.23	241.3	7.38
8"	343	27.0	43	221.5	246	269.9	8	22.23	298.5	12.36
10"	406	28.6	48	276.2	305	323.8	12	25.40	362.0	17.10
12"	483	30.2	54	327.0	365	381.0	12	25.40	431.8	27.68
14"	533	33.4	56	359.2	400	412.8	12	28.58	476.3	35.20
16"	597	35.0	62	410.5	457	469.9	16	28.58	539.8	42.18
18"	635	38.1	67	461.8	505	533.4	16	31.75	577.9	49.71
20"	698	41.3	71	513.1	559	584.2	20	31.75	635.0	65.50
24"	813	46.1	81	616.0	663	692.2	20	34.93	749.3	90.50



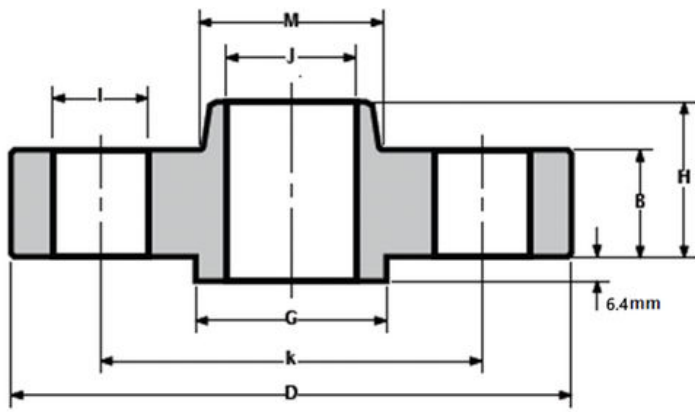
> Weights are approximate

PIPE		FLANGE DATA			HUB DATA	RAISED DATA	DRILLING DATA			WEIGHT
Nominal pipe size	Outside diameter	Thickness min.	Length through hub	Inside diameter	Diameter of hub	Face diameter	Number of holes	Bolt hole diameter	Diameter of bolt circle	Kg / piece
NPS	D	B	H	J	M	G		I	k	
½"	95	12.7	21	22.2	38	34.9	4	15.88	66.7	0.62
¾"	117	14.3	24	27.7	48	42.9	4	19.05	82.6	1.15
1"	124	15.9	25	34.5	54	50.8	4	19.05	88.9	1.39
1 ¼"	133	17.5	25	43.2	64	63.5	4	19.05	98.4	1.67
1 ½"	155	19.1	29	49.5	70	73.0	4	22.23	114.3	2.53
2"	165	20.7	32	61.9	84	92.1	8	19.05	127.0	2.80
2 ½"	190	23.9	37	74.6	100	104.8	8	22.23	149.2	4.25
3"	210	27.0	41	90.7	117	127.0	8	22.23	168.3	5.81
3 ½"	229	28.6	43	103.4	133	139.7	8	22.23	184.2	7.72
4"	254	30.2	46	116.1	146	157.2	8	22.23	200.0	10.13
5"	279	33.4	49	143.8	178	185.7	8	22.23	235.0	12.58
6"	318	35.0	51	170.7	206	215.9	12	22.23	269.9	16.04
8"	381	39.7	60	221.5	260	269.9	12	25.40	330.2	24.50
10"	444	46.1	65	276.2	321	323.8	16	28.58	387.4	34.16
12"	521	49.3	72	327.0	375	381.0	16	31.75	450.8	51.26
14"	584	52.4	75	359.2	425	412.8	20	31.75	514.4	72.12
16"	648	55.6	81	410.5	483	469.9	20	34.93	571.5	90.40
18"	711	58.8	87	461.8	533	533.4	24	34.93	628.6	109.00
20"	775	62.0	94	513.1	587	584.2	24	34.93	685.8	136.00
24"	914	68.3	105	616.0	702	692.2	24	41.28	812.8	204.00



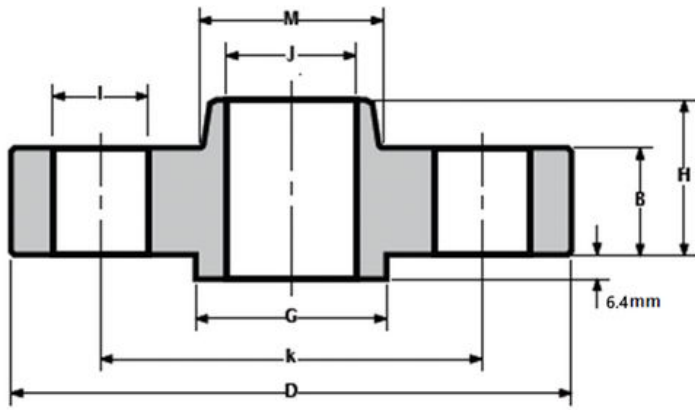
> Weights are approximate  
> 1/2" - 3 1/2" = 600LBS

PIPE	FLANGE DATA				HUB DATA	RAISED DATA	DRILLING DATA			WEIGHT
Nominal pipe size	Outside diameter	Thickness min.	Length through hub	Inside diameter	Diameter of hub	Face diameter	Number of holes	Bolt hole diameter	Diameter of bolt circle	Kg / piece
NPS	D	B	H	J	M	G		I	k	
1/2"	95	14.3	22	22.2	38	34.9	4	15.88	66.7	0.91
3/4"	117	15.9	25	27.7	48	42.9	4	19.05	82.6	1.40
1"	124	17.5	27	34.5	54	50.8	4	19.05	88.9	1.70
1 1/4"	133	20.7	29	43.2	64	63.5	4	19.05	98.4	2.27
1 1/2"	155	22.3	32	49.5	70	73.0	4	22.23	114.3	3.10
2"	165	25.4	37	61.9	84	92.1	8	19.05	127.0	3.63
2 1/2"	190	28.6	41	74.6	100	104.8	8	22.23	149.2	5.44
3"	210	31.8	46	90.7	117	127.0	8	22.23	168.3	7.26
3 1/2"	229	35.0	49	103.4	133	139.7	8	25.40	184.2	9.53
4"	254	35.0	51	116.1	146	157.2	8	25.40	200.0	10.89
5"	279	38.1	54	143.8	178	185.7	8	25.40	235.0	14.07
6"	318	41.3	57	170.7	206	215.9	12	25.40	269.9	19.98
8"	381	47.7	68	221.5	260	269.9	12	28.58	330.0	30.40
10"	444	54.0	73	276.2	321	323.8	16	31.75	387.4	41.28
12"	521	57.2	79	327.0	375	381.0	16	34.93	450.8	59.02
14"	584	60.4	84	359.2	425	412.8	20	34.93	514.4	81.72
16"	648	63.5	94	410.5	483	469.9	20	38.10	571.5	106.69
18"	711	66.7	99	461.8	533	533.4	24	38.10	628.6	129.39
20"	775	69.9	102	513.1	587	584.2	24	41.28	685.8	152.00
24"	914	76.2	114	616.0	702	692.2	24	47.63	812.8	231.54



> Weights are approximate

PIPE	FLANGE DATA				HUB DATA	RAISED DATA	DRILLING DATA			WEIGHT
Nominal pipe size	Outside diameter	Thickness min.	Length through hub	Inside diameter	Diameter of hub	Face diameter	Number of holes	Bolt hole diameter	Diameter of bolt circle	Kg / piece
NPS	D	B	H	J	M	G		I	k	
1/2"	95	14.3	22	22.2	38	34.9	4	15.88	66.7	0.91
3/4"	117	15.9	25	27.7	48	42.9	4	19.05	82.6	1.40
1"	124	17.5	27	34.5	54	50.8	4	19.05	88.9	1.70
1 1/4"	133	20.7	28	43.2	64	63.5	4	19.05	98.4	2.27
1 1/2"	155	22.3	32	49.5	70	73.0	4	22.23	114.3	3.10
2"	165	25.4	37	61.9	84	92.1	8	19.05	127.0	3.63
2 1/2"	190	28.6	41	74.6	100	104.8	8	22.23	149.2	5.44
3"	210	31.8	46	90.7	117	127.0	8	22.23	168.3	7.26
3 1/2"	229	35.0	49	103.4	133	139.7	8	25.40	184.2	9.53
4"	273	38.1	54	116.1	152	157.2	8	25.40	215.9	14.97
5"	330	44.5	60	143.8	189	185.7	8	28.58	266.7	28.50
6"	356	47.7	67	170.7	222	215.9	12	28.58	292.1	36.32
8"	419	55.6	76	221.5	273	269.9	12	31.75	349.2	44.00
10"	508	63.5	86	276.2	343	323.8	16	34.93	431.8	76.20
12"	559	66.7	92	327.0	400	381.0	20	34.93	489.0	97.52
14"	603	69.9	94	359.2	432	412.8	20	38.10	527.0	102.00
16"	686	76.2	106	410.5	495	469.9	20	41.28	603.2	149.82
18"	743	82.6	117	461.8	546	533.4	20	44.45	654.0	180.10
20"	813	88.9	127	513.1	610	584.2	24	44.45	723.9	231.54
24"	940	101.6	140	616.0	718	692.2	24	50.80	838.2	330.00



> Weights are approximate  
> 1/2" - 2 1/2" = 1500LBS

PIPE	FLANGE DATA				HUB DATA	RAISED DATA	DRILLING DATA			WEIGHT
Nominal pipe size	Outside diameter	Thickness min.	Length through hub	Inside diameter	Diameter of hub	Face diameter	Number of holes	Bolt hole diameter	Diameter of bolt circle	Kg / piece
NPS	D	B	H	J	M	G		I	k	
1/2"	121	22.3	32	22.2	38	34.9	4	22.23	82.6	1.80
3/4"	130	25.4	35	27.7	44	42.9	4	22.23	88.9	2.27
1"	149	28.6	41	34.5	52	50.8	4	25.40	101.6	3.40
1 1/4"	159	28.6	41	43.2	64	63.5	4	25.40	111.1	4.10
1 1/2"	178	31.8	44	49.5	70	73.0	4	28.58	123.8	5.45
2"	216	38.1	57	61.9	105	92.1	8	25.40	165.1	10.50
2 1/2"	244	41.3	64	74.6	124	104.8	8	28.58	190.5	15.80
3"	241	38.1	54	90.7	127	127.0	8	25.40	190.5	11.80
4"	292	44.5	70	116.1	159	157.2	8	31.75	235.0	23.20
5"	349	50.8	79	143.8	190	185.7	8	34.93	279.4	37.65
6"	381	55.6	86	170.7	235	215.9	12	31.75	317.5	48.30
8"	470	63.5	102	221.5	298	269.9	12	38.10	393.7	75.00
10"	546	69.9	108	276.2	368	323.8	16	38.10	469.9	111.13
12"	610	79.4	117	327.0	419	381.0	20	38.10	533.4	146.00
14"	641	85.8	130	359.2	451	412.8	20	41.28	558.8	172.36
16"	705	88.9	133	410.5	508	469.9	20	44.45	616.0	192.95
18"	787	101.6	152	461.8	565	533.4	20	50.80	685.8	272.40
20"	857	108.0	159	513.1	622	584.2	20	53.98	749.3	331.42
24"	1041	139.7	203	616.0	749	692.2	20	66.68	901.7	632.00

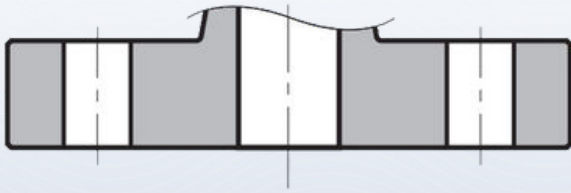
ASTM/ASME A/SA182 - 1500LBS

> Weights are approximate

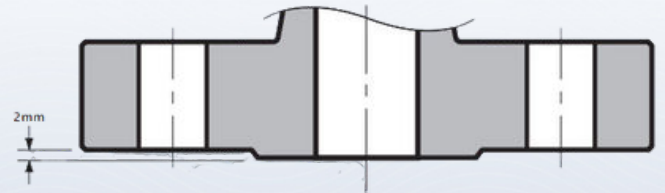
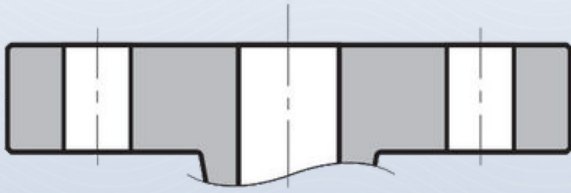
PIPE	FLANGE DATA				HUB DATA	RAISED DATA	DRILLING DATA			WEIGHT
Nominal pipe size	Outside diameter	Thickness min.	Length through hub	Inside diameter	Diameter of hub	Face diameter	Number of holes	Bolt hole diameter	Diameter of bolt circle	Kg / piece
NPS	D	B	H	J	M	G		I	k	
1/2"	121	22.3	32	22.2	38	34.9	4	22.23	82.6	1.80
3/4"	130	25.4	35	27.7	44	42.9	4	22.23	88.9	2.27
1"	149	28.6	41	34.5	52	50.8	4	25.40	101.6	3.40
1 1/4"	159	28.6	41	43.2	64	63.5	4	25.40	111.1	4.10
1 1/2"	178	31.8	44	49.5	70	73.0	4	28.58	123.8	5.45
2"	216	38.1	57	61.9	105	92.1	8	25.40	165.1	10.50
2 1/2"	244	41.3	64	74.6	124	104.8	8	28.58	190.5	15.80

# FLANGE FACING TYPES

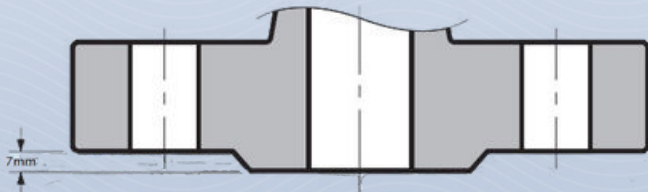
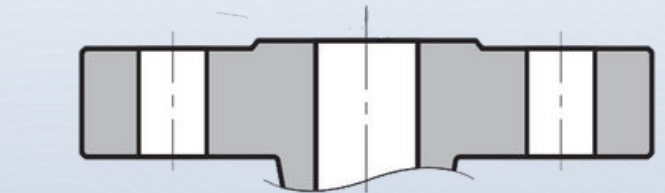
## ASTM A182 ASME B16.5



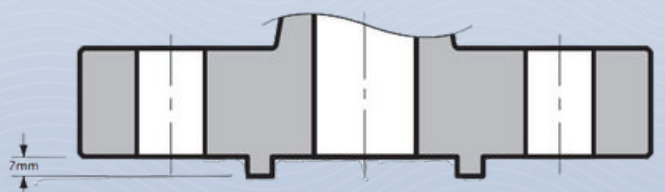
**FLAT FACE**



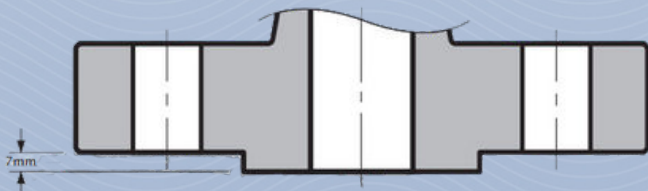
**RAISED FACE (150 - 300LBS)**



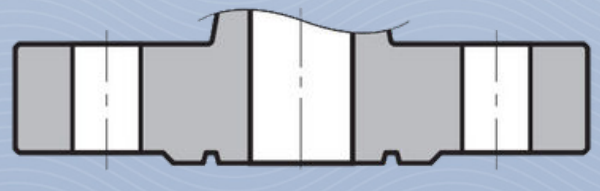
**RAISED FACE (400LBS AND UP)**



**TONGUE AND GROOVE FACE**



**MALE AND FEMALE FACE**



**RING TYPE JOINT FACE**

