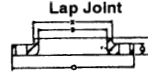
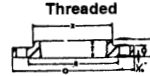
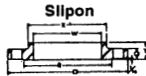
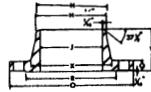


WELDING NECK

SLIP - ON

THREADED

LAP JOINT



150 LB. FLANGES

300 LB. FLANGES

Nominal Pipe Size	Outside Dia of flange	Minimum thickness of flange	Overall			Bolt Circle	No. and Size of Holes	O. D. of raised face	Nominal Pipe Size	Outside Dia of flange	Minimum thickness of flange	Overall			Bolt Circle	No. and Size of Holes	O. D. of raised face
			Welding neck	Slip-on & Socket welding	Lap Joint							Length	Welding neck	Slip-on & Socket welding			
	O	Q	Y			Dia	No. dia	R		O	Q	Y			Dia	No. dia	R
1/2"	89	11.2	47.6	15.9	15.9	60.5	4 15	35	1/2"	95	14.3	52.4	22.2	22.2	66.5	4 15	35
3/4"	98	12.7	52.4	15.9	15.9	70.0	4 15	43	3/4"	117	15.9	57.2	25.4	25.4	82.5	4 19	43
1"	108	14.3	55.6	17.5	17.5	79.5	4 15	51	1"	124	17.5	61.9	27.0	27.0	89.0	4 19	51
1.1/4"	117	15.9	57.2	20.6	20.6	89.0	4 15	64	1.1/4"	133	19.1	65.1	27.0	27.0	98.5	4 19	64
1.1/2"	127	17.5	61.9	22.2	22.2	98.5	4 15	73	1.1/2"	156	20.7	68.3	30.2	30.2	114.5	4 22	73
2"	152	19.1	63.5	25.4	25.4	120.5	4 19	92	2"	165	22.3	69.8	33.3	33.3	127.0	8 19	92
2.1/2"	178	22.3	69.8	28.6	28.6	139.5	4 19	105	2.1/2"	190	25.4	76.2	38.1	38.1	149.0	8 22	105
3"	190	23.9	69.8	30.2	30.2	152.5	4 19	127	3"	210	28.6	79.4	42.9	42.9	168.0	8 22	127
3.1/2"	216	23.9	71.4	31.8	31.8	178.0	8 19	140	3.1/2"	229	30.2	81.0	44.5	44.5	184.0	8 22	140
4"	229	23.9	76.2	33.3	33.3	190.5	8 19	157	4"	254	31.8	85.7	47.6	47.6	200.0	8 22	157
5"	254	23.9	89.9	36.5	36.5	216.0	8 22	186	5"	279	35.0	98.4	50.8	50.8	235.0	8 22	186
6"	279	25.4	88.9	39.7	39.7	241.5	8 22	216	6"	313	36.6	98.4	52.4	52.4	270.0	12 22	216
8"	343	28.6	101.6	44.4	44.4	298.5	8 22	270	8"	381	41.3	111.1	61.9	61.9	330.0	12 25	270
10"	406	30.2	101.6	49.2	49.2	362.0	12 25	324	10"	444	47.7	117.5	66.7	95.3	387.5	16 29	324
12"	483	31.8	114.3	55.6	55.6	432.0	12 25	381	12"	521	50.8	130.2	73.0	101.6	451.0	16 32	381
14"	533	35.0	127.0	57.2	79.4	476.0	12 29	413	14"	584	54.0	142.9	76.2	111.1	514.5	20 32	413
16"	597	36.6	127.0	63.5	87.3	539.5	16 29	470	16"	648	57.2	146.0	82.6	120.7	571.5	20 35	470
18"	635	39.7	139.7	68.3	96.8	578.0	16 32	533	18"	711	60.4	158.8	88.9	130.2	628.5	24 35	533
20"	698	42.9	144.5	73.0	103.2	635.0	20 32	584	20"	775	63.5	161.9	95.2	139.7	686.0	24 35	584
24"	813	47.7	152.4	82.6	111.1	749.5	20 35	692	24"	914	69.9	168.3	106.4	152.4	843.0	24 41	692

600 LB. FLANGES

900 LB. FLANGES

Nominal Pipe Size	Outside Dia of flange	Minimum thickness of flange	Overall			Bolt Circle	No. and Size of Holes	O. D. of raised face	Nominal Pipe Size	Outside Dia of flange	Minimum thickness of flange	Overall			Bolt Circle	No. and Size of Holes	O. D. of raised face
			Welding neck	Slip-on & Socket welding	Lap Joint							Length	Welding neck	Slip-on & Socket welding			
	O	Q	Y			Dia	No. dia	R		O	Q	Y			Dia	No. dia	R
1/2"	95	14.3	52.4	22.2	22.2	66.5	4 15	35	1/2"	121	22.3	60.3	31.8	31.8	82.5	4 22	35
3/4"	117	15.9	57.2	25.4	25.4	82.5	4 19	43	3/4"	130	25.4	69.8	34.9	34.9	89.0	4 22	43
1"	124	17.5	61.9	27.0	27.0	89.0	4 19	51	1"	149	28.6	78.0	41.3	41.3	101.5	4 25	51
1.1/4"	133	20.7	66.7	28.6	28.6	98.5	4 19	64	1.1/4"	159	28.6	78.0	41.3	41.3	111.0	4 25	64
1.1/2"	156	22.3	69.8	31.8	31.8	114.5	4 22	73	1.1/2"	178	31.8	82.6	44.4	44.4	124.0	4 29	78
2"	165	25.4	73.0	36.5	36.5	127.0	8 19	92	2"	216	38.1	101.6	57.2	57.2	165.0	8 25	92
2.1/2"	190	28.6	79.4	41.3	41.3	149.0	8 22	105	2.1/2"	241	38.1	101.6	54.0	54.0	190.5	8 25	105
3"	210	31.8	82.6	46.0	46.0	168.0	8 22	127	3"	244	41.3	104.8	63.5	63.5	190.5	8 29	127
3.1/2"	229	35.0	85.7	49.2	49.2	184.0	8 25	140	4"	292	44.5	114.3	69.8	69.8	235.0	8 32	157
4"	273	38.1	101.6	54.0	54.0	216.0	8 29	157	5"	349	50.8	127.0	79.4	79.4	279.5	8 35	186
5"	330	44.5	114.3	60.3	60.3	266.5	8 29	186	6"	381	55.6	138.7	85.7	85.7	317.5	12 32	216
6"	356	47.7	117.5	66.7	66.7	292.0	12 29	216	8"	470	68.5	161.5	101.8	114.3	393.5	12 38	270
8"	419	55.6	133.4	76.2	76.2	349.0	12 35	270	10"	546	69.9	184.2	108.0	127.0	470.0	16 38	324
10"	508	63.5	152.4	85.7	115.1	432.0	16 35	324	12"	610	79.4	200.0	117.5	142.9	533.5	20 38	381
12"	559	66.7	155.6	92.1	111.1	489.0	20 38	381	14"	641	85.8	212.7	130.2	165.6	559.0	20 41	413
14"	603	69.9	165.1	93.7	117.5	527.0	20 41	413	16"	705	88.9	215.8	133.4	185.1	616.0	20 45	470
16"	686	76.2	177.8	106.4	127.0	603.0	20 45	470	18"	787	101.6	228.6	152.4	190.5	686.0	20 51	533
18"	743	82.6	184.2	117.6	139.7	654.0	22 45	533	20"	857	108.0	247.6	158.8	209.6	749.5	20 54	584
20"	813	88.9	190.5	127.0	165.1	724.0	24 51	584	24"	1041	139.7	292.1	203.2	266.7	901.5	20 67	692