

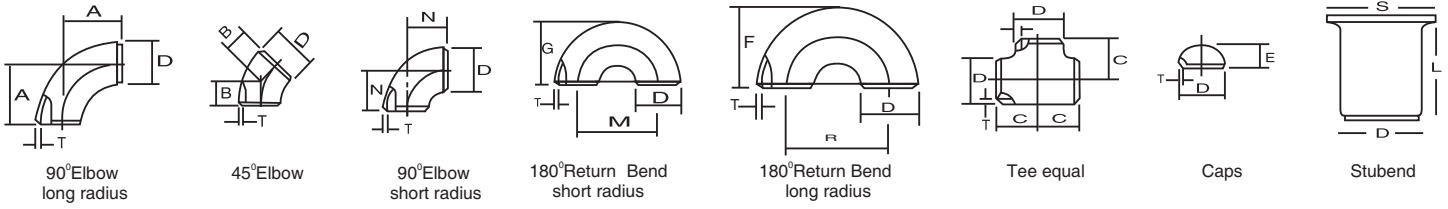
STAINLESS STEEL PIPE DIMENSION AS PER ASTM & WEIGHT-KG. PER MTR. (ANSI B36.19)

Nominal Bore		Outside Diameter	Sch-5S		Sch-10S		Sch-40S		Sch-80S		Sch-160S		Sch-XXS	
mm	INCH	mm	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)
3	1/8	10.3	1.24	0.276	1.24	0.28	1.73	0.37	2.41	0.47	-	-	-	-
6	1/4	13.7	1.24	0.390	1.65	0.49	2.24	0.631	3.02	0.80	-	-	-	-
10	3/8	17.1	1.24	0.490	1.65	0.63	2.31	0.845	3.20	1.10	-	-	-	-
15	1/2	21.3	1.65	0.800	2.11	1.00	2.77	1.27	3.75	1.62	4.75	1.94	7.47	2.55
20	3/4	26.7	1.65	1.03	2.11	1.28	2.87	1.68	3.91	2.20	5.54	2.89	7.82	3.63
25	1	33.4	1.65	1.30	2.77	2.09	3.38	2.50	4.55	3.24	6.35	4.24	9.09	5.45
32	1 1/4	42.2	1.65	1.65	2.77	2.70	3.56	3.38	4.85	4.47	6.35	5.61	9.70	7.77
40	1 1/2	48.3	1.65	1.91	2.77	3.11	3.68	4.05	5.08	5.41	7.14	7.25	10.16	9.54
50	2	60.3	1.65	2.40	2.77	3.93	3.91	5.44	5.54	7.48	8.74	11.1	11.07	13.44
65	2 1/2	73.0	2.11	3.69	3.05	5.26	5.16	8.63	7.01	11.4	9.53	14.9	14.2	20.39
80	3	88.9	2.11	4.51	3.05	6.45	5.49	11.30	7.62	15.2	11.1	21.3	15.24	27.65
100	4	114.3	2.11	5.84	3.05	8.36	6.02	16.07	8.56	22.3	13.49	33.54	17.12	41.03
125	5	141.3	2.77	9.47	3.40	11.57	6.55	21.8	9.53	31.97	15.88	49.11	19.05	57.43
150	6	168.3	2.77	11.32	3.40	13.84	7.11	28.3	10.97	42.7	18.2	67.56	21.95	79.22
200	8	219.1	2.77	14.79	3.76	19.96	8.18	42.6	12.7	64.6	23.0	111.2	22.23	107.8
250	10	273.1	3.40	22.63	4.19	27.78	9.27	60.5	12.7	96.0	28.6	172.4	25.40	155.15
300	12	323.9	3.96	31.25	4.57	36.00	9.52	73.88	12.7	132.0	33.32	238.76	25.40	186.97
350	14	355.6	3.96	34.36	4.78	41.3	11.13	94.59	19.05	158.08	35.71	281.70	-	-
400	16	406.4	4.19	41.56	4.78	47.29	12.7	123.30	21.41	203.33	40.46	365.11	-	-
450	18	457.2	4.19	46.80	4.78	53.42	14.27	155.80	23.8	254.36	45.71	466.40	-	-
500	20	508.0	4.78	59.25	5.54	68.71	15.09	183.42	26.19	311.2	49.99	564.68	-	-
600	24	609.6	5.54	82.47	6.35	94.45	17.48	255.41	30.96	442.08	59.54	808.22	-	-

WEIGHT & THICKNESS OF S.S GUAGE PIPES

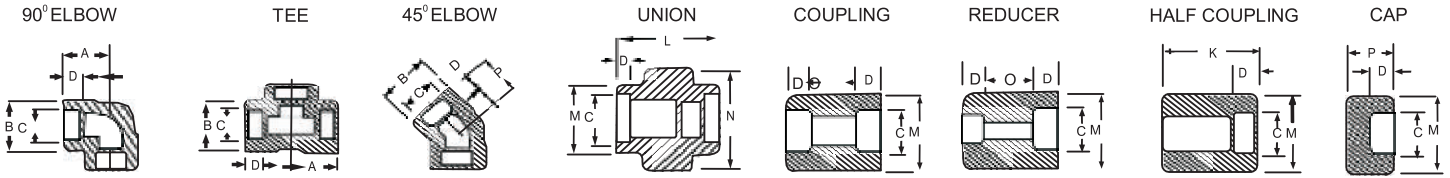
DIMENSION		10 SWG (3.2 MM)	12 SWG (2.6 MM)	14 SWG (2.1 MM)	16 SWG (1.65 MM)	18 SWG (1.2 MM)	19 SWG (1.0 MM)
Size	OD	Weight/MTR	Weight/MTR	Weight/MTR	Weight/MTR	Weight/MTR	Weight/MTR
1/2"	12.7	0.754	0.651	0.552	0.452	0.342	0.290
5/8"	15.875	1.006	0.856	0.718	0.582	0.437	0.369
3/4"	19.05	1.258	1.061	0.883	0.712	0.531	0.448
1"	25.4	1.762	1.470	1.214	0.972	0.720	0.605
1 1/4"	31.75	2.266	1.880	1.544	1.232	0.909	0.763
1 1/2"	38.1	2.770	2.289	1.875	1.492	1.098	0.920
2"	50.8	3.778	3.108	2.537	2.012	1.476	1.235
2 1/2"	63.5	4.786	3.928	3.198	2.531	1.854	1.550
3"	76.2	5.794	4.747	3.860	3.051	2.232	1.865
3 1/2"	88.9	6.802	5.566	4.521	3.571	2.610	2.180
4"	101.6	7.810	6.385	5.183	4.091	2.988	2.495

Butt Welding Pipe Fittings Dimensional Standard ANSI B-16.9, B-16.28



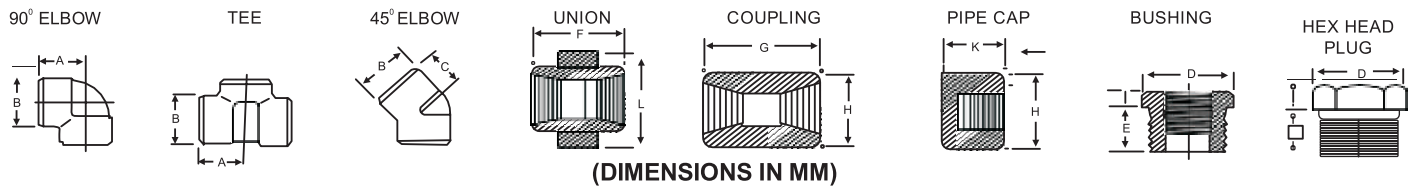
Nominal Pipe Size		Outside Diameter D	Center to Face				Back to Face			Center to Center			Length 'L'	
Inch.	mm		A	B	C	N	E	F	G	R	M	S	MSS SP43	ANSI B 16.9
1/2	15	21.3	38	16	25	—	25	48	—	76	—	34.9	50.8	76.2
3/4	20	26.7	38	11	29	—	25	43	—	57	—	42.8	50.8	76.2
1	25	33.4	38	22	38	25	38	56	41	76	51	50.8	50.8	101.6
1 1/4	32	42.2	48	25	48	32	38	70	52	95	64	63.5	50.8	101.6
1 1/2	40	48.3	57	29	57	38	38	83	62	114	76	73.0	50.8	101.6
2	50	60.3	76	35	64	51	38	106	81	152	102	92.0	63.5	152.4
2 1/2	65	73.0	95	44	76	64	38	132	100	191	127	104.8	63.5	152.4
3	80	88.9	114	51	86	76	51	159	121	229	152	127.0	63.5	152.4
3 1/2	90	101.6	133	57	95	89	64	184	140	267	178	139.7	76.2	152.4
4	100	114.3	152	64	105	102	64	210	159	305	203	157.2	76.2	152.4
5	125	141.3	190	79	124	127	76	262	197	381	254	185.7	76.2	203.2
6	150	168.3	229	95	143	152	89	313	237	457	305	215.9	88.9	203.2
8	200	219.1	305	127	178	203	102	414	313	610	406	270.0	101.6	203.2
10	250	273.1	381	159	216	254	127	518	391	762	508	324.0	127.0	254.0
12	300	323.9	457	190	254	305	152	619	467	914	610	381.0	152.4	254.0
14	350	355.6	533	222	279	356	165	711	533	1067	711	412.8	152.4	305.0
16	400	406.4	610	254	305	406	178	813	610	1219	813	470.0	152.4	305.0
18	450	457.2	686	286	343	457	203	914	686	1372	914	533.4	152.4	305.0
20	500	508.0	762	318	381	508	229	1016	762	1524	1016	584.2	152.4	305.0
22	550	559.0	838	343	419	559	254	1118	838	1676	1118	614.4	152.4	305.0
24	600	610.0	914	381	432	610	267	1219	914	1829	1219	692.2	152.4	305.0
26	650	660.0	991	406	495	660	267	—	—	—	—	—	—	—
28	700	711.0	1067	438	521	711	267	—	—	—	—	—	—	—
30	750	762.0	1143	470	559	762	267	—	—	—	—	—	—	—
32	800	813.0	1219	502	597	813	267	—	—	—	—	—	—	—
34	850	864.0	1295	533	635	864	267	—	—	—	—	—	—	—
36	900	914.0	1372	565	673	914	267							
38	950	965.0	1448	600	711	965	305							
40	1000	1016.0	1524	632	749	1016	305							
42	1050	1067.0	1600	660	762	1067	305							
44	1100	1118.0	1676	695	813	1118	343							
46	1150	1168.0	1753	727	851	1168	343							
48	1200	1219.0	1829	759	889	1219	343							

SOCKET WELD FITTING TO ANSI B-16.11



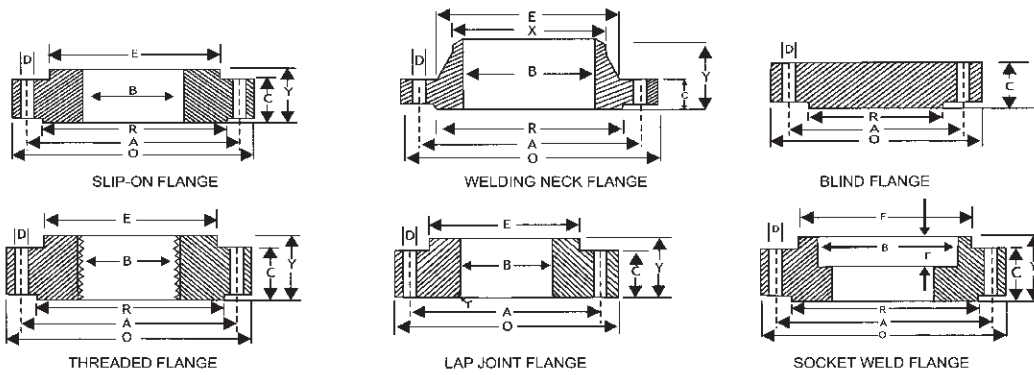
NOM BORE	PIPE O.D.	3000 LBS.									COMMON FACTORS				6000 LBS.				
		A max.	B max.	K	J	L	M	N	P	Q	C min.	D min.	O min.	O max.	A	B	M	K	N
1/8"	10.3	22	18.5	26	16	40	17.3	32	15	10	10.7	10	5	8	22	22	20	25	46
1/4"	13.7	22	22	26	18	43	21.2	32	15	10	14.1	10	5	8	27	25	24	25	51
3/8"	17.2	25	25	26	19	48	25.4	36	16.5	10	17.6	10	3	9	27	28	28	26	60
1/2"	21.3	27	32	30	21	51	31	41	16.5	10	21.7	10	6	13	31	34	34	31	72
3/4"	26.7	34	38	36	24	57	37	50	19.5	13	27	13	6	13	37	42	41	35	80
1"	33.4	37	46	40	25	64	45.2	60	22.5	13	33.8	13	9	17	42	50	50	40	94
1 1/4"	42.2	42	56	40	29	70	55	70	22.5	13	42.6	13	9	17	47	59	58	41	100
1 1/2"	48.3	47	62	40	30	79	61.4	78	24	13	48.7	13	9	17	53	67	66	43	122
2"	60.3	56	75	52	37	89	75	95	29	13	61.2	16	15	23	59	84	83	55	
2 1/2"	73.02	60	92	52	48	114	91.3	125	32	16	73.8	16	14	24		102		56	
3"	89.00	76	110	52	51	127	108.8	140	35	16	89.8	16	14	24		121		58	
4"	114.50	88	137	58		150	136.9		42	19	115.5	19	14	24		152		64	

FORGED SCREWED FITTING TO ANSI B-16.11 3000/6000 LBS. THREADED TO ASA B 2.1



NOM BORE	PIPE O.D.	3000 LBS					COMMON FACTORS							6000 LBS					
		A	B	C	G	H	K	D	E	F	I	J	L	A	B	C	G	H	K
1/8"	10.3	21	22	17	32	16	19	11	10	40	-	6	-	25	25	19	32	22	-
1/4"	13.7	25	25	19	35	19	25	16	11	43	3	6	32	29	33	22	35	25	27
3/8"	17.2	29	33	22	38	22	25	17.5	13	48	4	8	38	33	38	25	38	32	27
1/2"	21.3	33	38	25	48	29	32	22	15	51	5	8	46	38	46	29	48	38	33
3/4"	26.7	38	46	29	51	35	37	27	16	57	6	10	51	44	56	33	51	44	38
1"	33.4	44	56	33	60	44	41	35	19	64	6	10	60	51	62	35	60	57	43
1 1/4"	42.2	51	62	35	67	57	44	44.5	21	70	7	14	72	60	75	43	67	64	46
1 1/2"	48.3	60	75	43	79	64	44	51	21	79	8	16	80	64	84	44	79	76	48
2"	60.3	64	84	45	86	76	48	63.5	22	88	9	17	94	83	102	52	86	92	51
2 1/2"	73.02	83	102	52	92	92	60	76	27	118	10	21	122	95	121	64	92	108	64
3"	89.0	95	121	64	108	108	65	89	29	121	10	25	140	106	146	79	108	127	68
4"	114.5	114	152	79	121	140	68	117.5	32	150	13	25	180	114	152	79	121	159	75

DIMENSIONS AND OTHERS SPECIFICATIONS AS PER CUSTOMERS REQUIREMENTS ARE AVAILABLE ON REQUEST



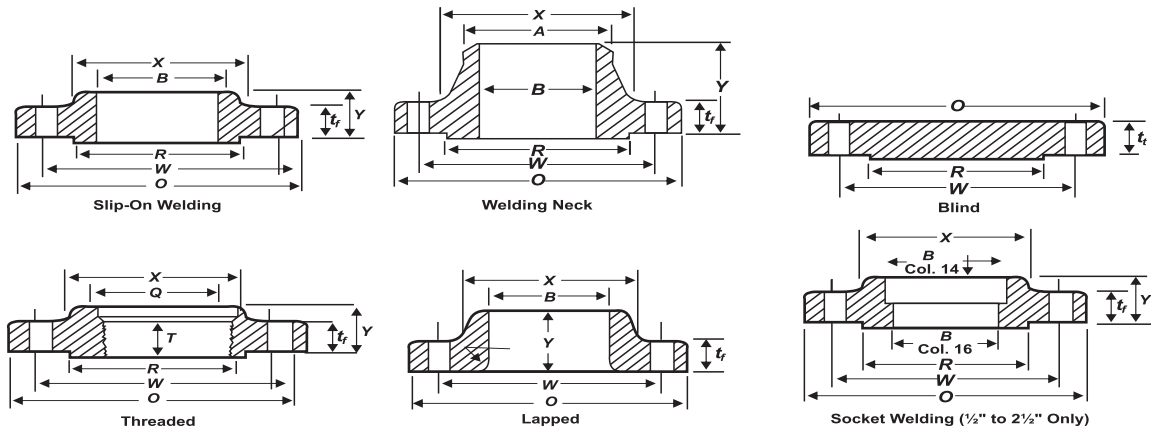
Dimensions of Class 150 Flanges as per ANSI B 16.5

Nominal Pipe Size (MM) (INCH.)	Flange Dia O	Dia of Bolt Circle A	Dia of Bolt Holes D	No. of Holes	Thk. of Flange C	Dia of Hub E	Length through Hub			Dia of Bore		Dia of R/F R	Depth of Socket F	
							S/O & SW	W/N	L/J	S/O & SW	L/J			
							Y	Y	Y	B	B			
15	1/2	88.9	60.3	15.9	4	11.1	30.2	15.9	47.6	15.9	22.3	22.9	34.9	9.5
20	3/4	98.4	69.8	15.9	4	12.7	38.1	15.9	52.4	15.9	27.7	28.2	42.9	11.1
25	1	107.9	79.4	15.9	4	14.3	49.2	17.5	55.6	17.5	34.5	35.0	50.8	12.7
32	1 1/4	117.5	88.9	15.9	4	15.9	58.7	20.6	57.1	20.6	43.2	43.7	63.5	14.3
40	1 1/2	127.0	98.4	15.9	4	17.5	65.1	22.2	61.9	22.2	49.5	50.0	73.0	15.9
50	2	152.4	120.6	19.0	4	19.0	77.8	25.4	63.5	25.4	62.0	62.5	92.1	17.5
65	2 1/2	177.8	139.7	19.0	4	22.2	90.5	28.6	69.8	28.6	74.7	75.4	104.8	19.0
80	3	190.5	152.4	19.0	4	23.8	107.9	30.2	69.8	30.2	90.7	91.4	127.0	20.6
100	4	228.6	190.5	19.0	8	23.8	134.9	33.3	76.2	33.3	116.1	116.8	157.2	23.8
125	5	254.0	215.9	22.2	8	23.8	163.5	36.5	88.9	36.5	143.8	144.5	185.7	23.8
150	6	279.4	241.3	22.2	8	25.4	192.1	39.7	88.9	39.7	170.7	171.4	215.9	27.0
200	8	342.9	298.4	22.2	8	28.6	246.1	44.4	101.6	44.4	221.5	222.2	269.9	31.7
250	10	406.4	361.9	25.4	12	30.2	304.8	49.2	101.6	49.2	276.3	277.4	323.8	33.3
300	12	482.6	431.8	25.4	12	31.8	365.1	55.6	114.3	55.6	327.1	328.2	381.0	39.7
350	14	533.4	476.2	28.6	12	34.9	400.0	57.1	127.0	79.4	359.1	360.2	412.7	41.3
400	16	596.9	539.7	28.6	16	36.5	457.2	63.5	127.0	87.3	410.5	411.2	469.9	44.4
450	18	635.0	577.8	31.7	16	39.7	504.8	68.3	139.7	96.8	461.8	462.3	533.4	49.2
500	20	698.5	635.0	31.7	20	42.9	558.8	73.0	144.5	103.2	513.1	514.3	584.2	54.0
600	24	812.8	749.3	34.9	20	47.6	663.6	82.5	152.4	111.1	615.9	615.9	692.1	63.5

Dimensions of Class 300 Flanges as per ANSI B 16.5

Nominal Pipe Size (MM) (INCH.)	Flange Dia O	Dia of Bolt Circle A	Dia of Bolt Holes D	No. of Holes	Thk. of Flange C	Dia of Hub E	Length through Hub			Dia of Bore		Dia of R/F R	Depth of Socket F	
							S/O & SW	W/N	L/J	S/O & SW	L/J			
							Y	Y	Y	B	B			
15	1/2	95.2	66.7	15.9	4	14.3	38.1	22.2	52.4	22.2	22.3	22.9	34.9	9.5
20	3/4	117.5	82.5	19.0	4	15.9	47.6	25.4	57.1	25.4	27.7	28.2	42.9	11.1
25	1	123.8	88.9	19.0	4	17.5	54.0	27.0	61.9	27.0	34.5	35.0	50.8	12.7
32	1 1/4	133.3	98.4	19.0	4	19.0	63.5	27.0	65.1	27.0	43.2	43.7	63.5	14.3
40	1 1/2	155.6	114.3	22.2	4	20.6	69.8	30.2	68.3	30.2	49.5	50.0	73.0	15.9
50	2	165.1	127.0	19.0	8	22.2	84.1	33.3	69.8	33.3	62.0	62.5	92.1	17.5
65	2 1/2	190.5	149.2	22.2	8	25.4	100.0	38.1	76.2	38.1	74.7	75.4	104.8	19.0
80	3	209.5	168.3	22.2	8	28.6	117.5	42.9	79.4	42.9	90.7	91.4	127.0	20.6
100	4	254.0	200.0	22.2	8	31.8	146.0	47.6	85.7	47.6	116.1	116.8	157.2	23.8
125	5	279.4	234.9	22.2	8	34.9	177.8	50.8	98.4	50.8	143.8	144.5	185.7	-
150	6	317.5	269.9	22.2	12	36.5	206.4	52.4	98.4	52.4	170.7	171.4	215.9	-
200	8	381.0	330.2	25.4	12	41.3	260.3	61.9	111.1	61.9	221.5	222.2	269.9	-
250	10	444.5	387.3	28.6	16	47.6	320.7	66.7	117.5	95.2	276.3	277.4	323.8	-
300	12	520.7	450.8	31.7	16	50.8	374.6	73.0	130.2	101.6	327.1	328.2	381.0	-
350	14	584.2	514.3	31.7	20	54.0	425.4	76.2	142.9	111.1	359.1	360.2	412.7	-
400	16	647.7	571.5	34.9	20	57.2	482.6	82.5	146.0	120.6	410.5	411.2	469.9	-
450	18	711.2	628.5	34.9	24	60.3	533.4	88.9	158.7	130.2	461.8	462.3	533.4	-
500	20	774.7	685.8	34.9	24	63.5	587.4	95.2	161.9	139.7	513.1	514.3	584.2	-
600	24	914.4	812.8	41.3	24	69.8	701.7	106.4	168.3	152.4	615.9	615.9	692.1	-

All Dimensions are in Millimeters Flanges except Lap Joint will be furnished with (1.6) Raised Face, which is included in "Thickness(C)" and "Length through Hub(Y)"



DIMENSIONS OF CLASS 600 FLANGES

1	2	3	4	Drilling			8	Length Thru Hub			12	Bore			16	17	18	19
				5	6	7		9	10	11		13	14	15				
Nominal Pipe Size NPS	Outside Diameter of Flange, O	Thickness of Flange, Min., t _f	Diameter of Hub, X	Diameter of Bolt Circle W	Diameter of Bolt Holes, in.	Number of Bolts	Hub Diameter Beginning of Chamfer Welding Neck, A	Threaded/ Slip-On/ Socket Welding, Y	Lapped, Y	Welding Neck, Y	Threaded/ Length Threaded, Min., T	Slip-On/ Socket Welding, Min., B	Lapped, Min., B	Welding Neck/ Socket Welding, B	Corner Radius of Bore of Lapped Flange and Pipe, r	Counter-bore Threaded FLANGE, Min., Q	Depth of Socket, D	Diameter of RF R
1/2	95.5	14.3	38	66.7	15.9	4	21.3	22	22	52	16	22.2	22.9		3	23.6	10	34.9
3/4	117.5	15.9	48	82.6	19.1	4	26.7	25	25	57	16	27.7	28.2		3	29.0	11	42.9
1	124.0	17.5	54	88.9	19.1	4	33.4	27	27	62	18	34.5	34.9		3	35.8	13	50.8
1 1/4	133.5	20.7	64	98.4	19.1	4	42.2	29	29	67	21	43.2	43.7		5	44.4	14	63.5
1 1/2	155.5	22.3	70	114.3	22.3	4	48.3	32	32	70	23	49.5	50.0		6	50.6	16	73.0
2	165.0	25.4	84	127.0	19.1	8	60.3	37	37	73	29	61.9	62.5		8	63.5	17	92.1
2 1/2	190.5	28.6	100	149.2	22.3	8	73.0	41	41	79	32	74.6	75.4		8	76.2	19	104.8
3	209.5	31.8	117	168.3	22.3	8	88.9	46	46	83	35	90.7	91.4		10	92.2	21	127.0
3 1/2	228.5	35.0	133	184.2	25.4	8	101.6	49	49	86	40	103.4	104.1		10	104.9	....	139.7
4	273.0	38.1	152	215.9	25.4	8	114.3	54	51	102	42	116.1	116.8		11	117.6	....	157.2
5	330.0	44.5	189	266.7	28.6	8	141.3	60	54	114	48	143.8	144.4	To be Specified by Purchaser	11	144.4	....	185.7
6	355.5	47.7	222	292.1	28.6	12	168.3	67	57	117	51	170.7	171.4		13	171.4	....	215.9
8	419.0	55.6	273	349.2	31.8	12	219.1	76	68	133	58	221.5	222.2		13	222.2	....	269.9
10	508.0	63.5	343	431.8	35.0	16	273.0	86	102	152	66	276.2	277.4		13	276.2	....	323.8
12	559.0	66.7	400	489.0	35.0	20	323.8	92	108	156	70	327.0	328.2		13	328.6	....	381.0
14	603.5	69.9	432	527.0	38.1	20	355.6	94	117	165	74	359.2	360.2		13	360.4	....	412.8
16	686.0	76.2	495	603.2	41.3	20	406.4	106	127	178	78	410.5	411.2		13	411.2	....	469.9
18	743.0	82.6	546	654.0	44.5	20	457.0	117	137	184	80	461.8	462.3		13	462.0	....	533.4
20	813.0	88.9	610	723.9	44.5	24	508.0	127	146	190	83	513.1	514.4	13	512.8	....	584.2	
24	940.0	101.6	718	838.2	50.8	24	610.0	140	159	203	93	616.0	616.0	13	614.4	....	692.2	

NOTE : (1) Height of RF 7mm

DIMENSIONS OF CLASS 900 FLANGES

1	2	3	4	Drilling			8	Length Thru Hub			12	Bore			16	17	18	19
				5	6	7		9	10	11		13	14	15				
Nominal Pipe Size NPS	Outside Diameter of Flange, O	Thickness of Flange, Min., t _f	Diameter of Hub, X	Diameter of Bolt Circle W	Diameter of Bolt Holes, in.	Number of Bolts	Hub Diameter Beginning of Chamfer Welding Neck, A	Threaded/ Slip-On/ Y	Lapped, Y	Welding Neck, Y	Threaded/ Length Threaded Flange, Min., T	Slip-On/ Min., B	Lapped, Min., B	Welding Neck/ B	Corner Radius of Bore of Lapped Flange and Pipe, r	Counter-bore Threaded FLANGE, Min., Q	Diameter of RF R	Socket, Weld D
1/2	120.7	22.3	38	82.6	22.3	4	21.3	32	32	60	23	22.2	22.9		3	23.6	34.9	10
3/4	130.0	25.4	44	88.9	22.3	4	26.7	35	35	70	26	27.7	28.2		3	29.0	42.9	11
1	149.4	28.6	52	101.6	25.4	4	33.4	41	41	73	29	34.5	34.9		3	35.8	50.8	13
1 1/4	158.8	28.6	64	111.1	25.4	4	42.2	41	41	73	31	43.2	43.7		5	44.4	63.5	14
1 1/2	177.8	31.8	70	123.8	28.6	4	48.3	44	44	83	32	49.5	50.0		6	50.6	73.0	16
2	215.9	38.1	105	165.1	25.4	8	60.3	57	57	102	39	61.9	62.5		8	63.5	92.1	17
2 1/2	244.3	41.3	124	190.5	28.6	8	73.0	64	64	105	48	74.6	75.4		8	76.2	104.8	19
3	241.3	38.1	127	190.5	25.4	8	88.9	54	54	102	42	90.7	91.4		10	92.2	127.0	
4	292.1	44.5	159	235.0	31.8	8	114.3	70	70	114	48	116.1	116.8		11	117.6	139.7	
5	349.3	50.8	190	279.4	35.0	8	141.3	79	79	127	54	143.8	144.4	To be Specified by Purchaser	11	144.4	....	185.7
6	381.0	55.6	235	317.5	31.8	12	168.3	86	86	140	58	170.7	171.4		13	171.4	....	215.9
8	469.9	63.5	298	393.7	38.1	12	219.1	102	114	162	64	221.5	222.2		13	222.2	....	269.9
10	546.1	69.9	368	469.9	38.1	16	273.0	108	127	184	72	276.2	277.4		13	276.2	....	323.8
12	609.5	79.4	419	533.4	38.1	20	323.8	117	143	200	77	327.0	328.2		13	328.6	....	381.0
14	641.4	85.8	451	558.8	41.3	20	355.6	130	156	213	83	359.2	360.2		13	360.4	....	412.8
16	704.9	88.9	508	616.0	44.5	20	406.4	133	165	216	86	410.5	411.2		13	411.2	....	469.9
18	787.4	101.6	565	685.8	50.8	20	457.0	152	190	229	89	461.8	462.3		13	462.0	....	533.4
20	857.3	108.0	622	749.3	54.0	20	508.0	159	210	248	93	513.1	514.4	13	512.8	....	584.2	
24	1041.4	139.7	749	901.7	66.7	20	610.0	203	267	292	102	616.0	616.0	13	614.4	....	692.2	

NOTE : (1) Height of RF 7mm