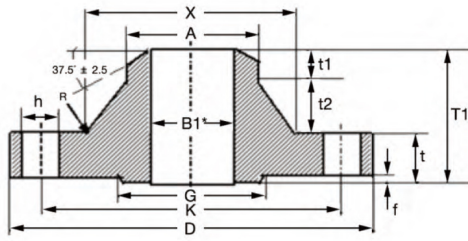
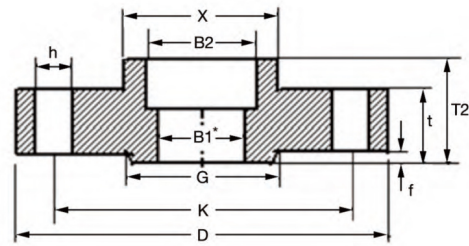




ANSI B16.5 CLASS 300 FLANGES



Welding Neck RF



Socket Welding RF

WELDING NECK RF STD* DIMENSIONS (mm)

Size		Outside Diam.	Bore Diam. STD	Thick-ness	Total Thick-ness	Neck		Hub		Radius	Holes			Raised Face		Net Weight
mm	inch					D	BI*	t	T1		X	t2	t1	A	R	
15	½	95.25	15.75	14.22	52.32	38.10	30.48	7.62	21.34	3.05	15.75	4.00	66.55	35.05	1.60	0.76
20	¾	117.35	20.83	15.75	57.15	47.75	33.12	8.28	26.67	3.05	19.05	4.00	82.55	42.93	1.60	1.27
25	1	123.95	26.67	17.53	61.98	53.85	35.56	8.89	33.53	3.05	19.05	4.00	88.90	50.80	1.60	1.61
32	1¼	133.35	35.05	19.05	65.02	63.50	36.78	9.19	42.16	4.83	19.05	4.00	98.55	63.50	1.60	2.05
40	1½	155.45	40.89	20.57	68.33	69.85	38.20	9.55	48.26	6.35	22.35	4.00	114.30	73.15	1.60	2.92
50	2	165.10	52.58	22.35	69.85	84.07	38.00	9.50	60.45	7.87	19.05	8.00	127.00	91.95	1.60	3.46
65	2½	190.50	62.74	25.40	76.20	100.08	40.64	10.16	73.15	7.87	22.35	8.00	149.35	104.65	1.60	5.24
80	3	209.55	77.98	28.45	79.25	117.35	40.64	10.16	88.90	9.65	22.35	8.00	168.15	127.00	1.60	6.98
90	3½	228.60	90.17	30.23	81.03	133.35	40.64	10.16	101.60	9.65	22.35	8.00	184.15	139.70	1.60	8.79
100	4	254.00	102.36	31.75	85.85	146.05	43.28	10.82	114.30	11.18	22.35	8.00	200.15	157.53	1.60	11.38
125	5	279.40	128.27	35.05	98.55	177.80	50.80	12.70	141.22	11.18	22.35	8.00	234.95	185.67	1.60	15.20
150	6	317.50	154.18	36.58	98.55	206.25	49.58	12.40	168.40	12.70	22.35	12.00	269.75	215.90	1.60	19.42
200	8	381.00	202.69	41.15	111.25	260.35	56.08	14.02	219.20	12.70	25.40	12.00	330.20	269.75	1.60	30.16
250	10	444.50	254.51	47.75	117.35	320.55	55.68	13.92	273.05	12.70	28.45	16.00	387.35	323.85	1.60	43.45
300	12	520.70	304.80	50.80	130.05	374.65	63.40	15.85	323.85	12.70	31.75	16.00	450.85	381.00	1.60	62.36
350	14	584.20	336.55	53.85	142.75	425.45	71.12	17.78	355.60	12.70	31.75	20.00	514.35	412.75	1.60	86.43
400	16	647.70	387.35	57.15	146.05	482.60	71.12	17.78	406.40	12.70	35.05	20.00	571.50	469.90	1.60	107.38
450	18	711.20	438.15	60.45	158.75	533.40	78.64	19.66	457.20	12.70	35.05	24.00	628.65	533.40	1.60	132.34
500	20	774.70	488.95	63.50	162.05	587.25	78.64	19.71	508.00	12.70	35.05	24.00	685.80	584.20	1.60	159.80
600	24	914.40	590.55	69.85	168.15	701.55	78.64	19.66	609.60	12.70	41.15	24.00	812.80	692.15	1.60	231.82

For Ring Groove face dimensions see below. *See below for bore diameter all schedules (S10 to XXS)

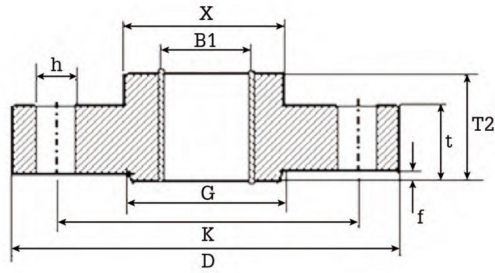
SOCKET WELDING RF (STD* and XS*) DIMENSIONS (mm)

Size		Outside Diam.	Bore Diameter STD		Bore Diameter XS		Thick-ness	Socket Depth	Total Thick-ness	Diam. at Base of Hub	Holes			Raised Face		Net Weight
mm	inch		D	B2	BI	B2					BI	t	Y	T2	X	
15	½	95.25	22.35	15.75	22.35	13.87	14.22	9.65	22.35	38.10	15.75	4.00	66.55	35.05	1.60	0.67
20	¾	117.35	27.69	20.83	27.69	18.85	15.75	11.18	25.40	47.75	19.05	4.00	82.55	42.93	1.60	1.14
25	1	123.95	34.54	26.67	34.54	24.31	17.53	12.70	26.92	53.85	19.05	4.00	88.90	50.80	1.60	1.41
32	1¼	133.35	43.18	35.05	43.18	32.46	19.05	14.22	26.92	63.50	19.05	4.00	98.55	63.50	1.60	1.74
40	1½	155.45	49.53	40.89	49.53	38.10	20.57	15.75	30.23	69.85	22.35	4.00	114.30	73.15	1.60	2.56
50	2	165.10	61.98	52.58	61.98	49.25	22.35	17.53	33.27	84.07	19.05	8.00	127.00	91.95	1.60	3.00
65	2½	190.50	74.68	62.74	74.68	59.00	25.40	19.05	38.10	100.08	22.35	8.00	149.35	104.65	1.60	4.52
80	3	209.55	90.68	77.98	90.68	73.66	28.45	20.57	42.93	117.35	22.35	8.00	168.15	127.00	1.60	6.13
90	3½	228.60	103.38	90.17	103.38	85.45	30.23	22.35	44.45	133.35	22.35	8.00	184.15	139.70	1.60	7.70
100	4	254.00	116.08	102.36	116.08	97.18	31.75	23.88	47.75	146.05	22.35	8.00	200.15	157.53	1.60	10.09
125	5	279.40	143.76	128.27	143.76	122.25	35.05	23.88	50.80	177.80	22.35	8.00	234.95	185.67	1.60	12.93
150	6	317.50	170.69	154.18	170.69	146.33	36.58	26.92	52.32	206.25	22.35	12.00	269.75	215.90	1.60	16.50
200	8	381.00	221.49	202.69	221.49	193.68	41.15	31.75	61.98	260.35	25.40	12.00	330.20	269.75	1.60	25.70
250	10	444.50	276.35	254.51	276.35	247.65	47.75	33.27	66.55	320.55	28.45	16.00	387.35	323.85	1.60	36.56
300	12	520.70	327.15	304.80	327.15	298.45	50.80	39.62	73.15	374.65	31.75	16.00	450.85	381.00	1.60	52.83
350	14	584.20	359.16	336.55	359.16	330.20	53.85	41.40	76.20	425.45	31.75	20.00	514.35	412.75	1.60	72.92
400	16	647.70	410.46	387.35	410.46	381.00	57.15	44.45	82.55	482.60	35.05	20.00	571.50	469.90	1.60	92.58
450	18	711.20	461.77	438.15	461.77	431.80	60.45	49.28	88.90	533.40	35.05	24.00	628.65	533.40	1.60	113.95
500	20	774.70	513.08	489.95	513.08	482.60	63.50	54.10	95.25	587.25	35.05	24.00	685.80	584.20	1.60	140.32
600	24	914.40	615.95	590.55	615.95	584.20	69.85	63.50	106.43	701.55	41.15	24.00	812.80	692.15	1.60	209.77

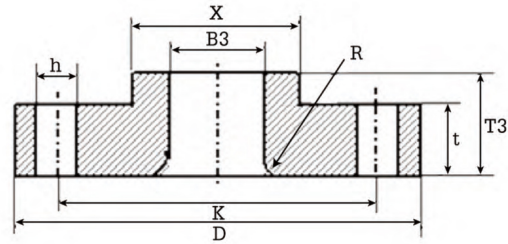
For Ring Groove face dimensions see below. *See below for bore diameter all schedules (S10 to XXS)



ANSI B16.5 CLASS 300 FLANGES



Threaded RF



Lap Joint RF

THREADED RF DIMENSIONS (mm)

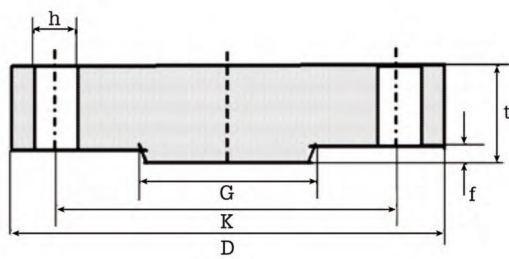
Size		Outside Diam.	Bore Diam.	Thick-ness	Total Thick-ness	Diam. at Base of Hub	Thread Length	Holes			Raised Face		Net Weight
mm	inch							Diam.	No.	P.C.D	Outside Diam.	Thick-ness	
mm	inch	D	B2	t	T2	X	Q	h	n	K	G	f	kg
15	½	95.25	22.35	14.22	22.35	38.10	15.75	15.75	4.00	66.55	35.05	1.60	0.65
20	¾	117.35	27.69	15.75	25.40	47.75	15.75	19.05	4.00	82.55	42.93	1.60	1.11
25	1	123.95	34.54	17.53	26.92	53.85	17.53	19.05	4.00	88.90	50.80	1.60	1.37
32	1¼	133.35	43.18	19.05	26.92	63.50	20.57	19.05	4.00	98.55	63.50	1.60	1.69
40	1½	155.45	49.53	20.57	30.23	69.85	22.35	22.35	4.00	114.30	73.15	1.60	2.49
50	2	165.10	61.98	22.35	33.27	84.07	28.45	19.05	8.00	127.00	91.95	1.60	2.89
65	2½	190.50	74.68	25.40	38.10	100.08	31.75	22.35	8.00	149.35	104.65	1.60	4.33
80	3	209.55	90.68	28.45	42.93	117.35	31.75	22.35	8.00	168.15	127.00	1.60	5.83
90	3¾	228.60	103.38	30.23	44.45	133.35	36.58	22.35	8.00	184.15	139.70	1.60	7.36
100	4	254.00	116.08	31.75	47.75	146.05	36.58	22.35	8.00	200.15	157.53	1.60	9.65
125	5	279.40	143.76	35.05	50.80	177.80	42.93	22.35	8.00	234.95	185.67	1.60	12.23
150	6	317.50	170.69	36.58	52.32	206.25	45.97	22.35	12.00	269.75	215.90	1.60	15.66
200	8	381.00	221.49	41.15	61.98	260.35	50.80	25.40	12.00	330.20	269.75	1.60	24.22
250	10	444.50	276.35	47.75	66.55	320.55	55.63	28.45	16.00	387.35	323.85	1.60	34.18
300	12	520.70	327.15	50.80	73.15	374.65	60.45	31.75	16.00	450.85	381.00	1.60	49.91
350	14	584.20	359.16	53.85	76.20	425.45	63.50	31.75	20.00	514.35	412.75	1.60	69.54
400	16	647.70	410.46	57.15	82.55	482.60	68.33	35.05	20.00	571.50	469.90	1.60	88.25
450	18	711.20	461.77	60.45	88.90	533.40	69.85	35.05	24.00	628.65	533.40	1.60	108.76
500	20	774.70	513.08	63.50	95.25	587.25	73.15	35.05	24.00	685.80	584.20	1.60	134.18
600	24	914.40	615.95	69.85	106.43	701.55	82.55	41.15	24.00	812.80	692.15	1.60	201.66

LAP JOINT RF DIMENSIONS (mm)

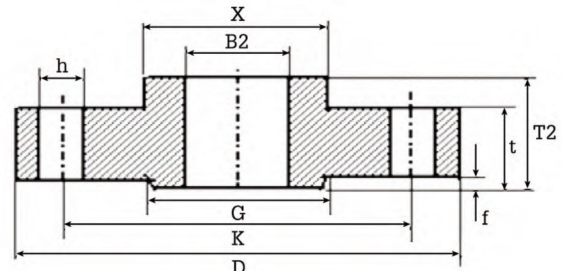
Size		Outside Diam.	Bore Diam.	Thick-ness	Lenght thru Hub	Diam. at Base of Hub	Holes			Radius of Fillet	Raised Face		Net Weight
mm	inch						Diam.	No.	P.C.D		Outside Diam.	Thick-ness	
mm	inch	D	B3	t	T3	X	h	n	K	R	G	f	kg
15	½	95.25	22.86	14.22	22.35	38.10	15.75	4.00	66.55	3.05	35.05	1.60	0.64
20	¾	117.35	28.19	15.75	25.40	47.75	19.05	4.00	82.55	3.05	42.93	1.60	1.11
25	1	123.95	35.05	17.53	26.92	53.85	19.05	4.00	88.90	3.05	50.80	1.60	1.36
32	1¼	133.35	43.69	19.05	26.92	63.50	19.05	4.00	98.55	4.83	63.50	1.60	1.68
40	1½	155.45	50.04	20.57	30.23	69.85	22.35	4.00	114.30	6.35	73.15	1.60	2.48
50	2	165.10	62.48	22.35	33.27	84.07	19.05	8.00	127.00	7.87	91.95	1.60	2.88
65	2½	190.50	75.44	25.40	38.10	100.08	22.35	8.00	149.35	7.87	104.65	1.60	4.30
80	3	209.55	91.44	28.45	42.93	117.35	22.35	8.00	168.15	9.65	127.00	1.60	5.79
90	3¾	228.60	104.14	30.23	44.45	133.35	22.35	8.00	184.15	9.65	139.70	1.60	7.31
100	4	254.00	116.84	31.75	47.75	146.05	22.35	8.00	200.15	11.18	157.53	1.60	9.60
125	5	279.40	144.53	35.05	50.80	177.80	22.35	8.00	234.95	11.18	185.67	1.60	12.16
150	6	317.50	171.45	36.58	52.32	206.25	22.35	12.00	269.75	12.70	215.90	1.60	15.58
200	8	381.00	222.25	41.15	61.98	260.35	25.40	12.00	330.20	12.70	269.75	1.60	24.09
250	10	444.50	277.37	47.75	66.55	320.55	28.45	16.00	387.35	12.70	323.85	1.60	38.52
300	12	520.70	328.17	50.80	73.15	374.65	31.75	16.00	450.85	12.70	381.00	1.60	55.34
350	14	584.20	360.17	53.85	76.20	425.45	31.75	20.00	514.35	12.70	412.75	1.60	80.28
400	16	647.70	411.23	57.15	82.55	482.60	35.05	20.00	571.50	12.70	469.90	1.60	102.92
450	18	711.20	462.28	60.45	88.90	533.40	35.05	24.00	628.65	12.70	533.40	1.60	126.47
500	20	774.70	514.35	63.50	95.25	587.25	35.05	24.00	685.80	12.70	584.20	1.60	155.43



ANSI B16.5 CLASS 300 FLANGES



Blind RF



Slip On

BLIND RF DIMENSIONS (mm)

Size		Outside Diameter	Thickness	Holes			Raised Face		Net Weight
mm	inch			Diameter	Number	P.C.D	Outside Diameter	Thickness	
mm	inch	D	t	h	n	K	G	f	kg
15	½	95.25	14.22	15.75	4.00	66.55	35.05	1.60	0.64
20	¾	117.35	15.75	19.05	4.00	82.55	42.93	1.60	1.10
25	1	123.95	17.53	19.05	4.00	88.90	50.80	1.60	1.40
32	1¼	133.35	19.05	19.05	4.00	98.55	63.50	1.60	1.80
40	1½	165.45	20.57	22.35	4.00	114.30	73.15	1.60	2.65
50	2	165.10	22.35	19.05	8.00	127.00	91.95	1.60	3.21
65	2½	190.50	25.40	22.35	8.00	149.35	104.65	1.60	4.86
80	3	209.55	28.45	22.35	8.00	168.15	127.00	1.60	6.78
90	3½	228.60	30.23	22.35	8.00	184.15	139.70	1.60	8.73
100	4	254.00	31.75	22.35	8.00	200.15	157.23	1.60	11.51
125	5	279.40	35.05	22.35	8.00	234.95	185.67	1.60	15.63
150	6	317.50	38.58	22.35	12.00	269.75	215.90	1.60	20.93
200	8	381.00	41.15	25.40	12.00	330.20	269.75	1.60	34.26
250	10	444.50	47.75	28.45	16.00	387.35	323.85	1.60	53.61
300	12	520.70	50.80	31.75	16.00	450.85	381.00	1.60	78.84
350	14	584.20	53.85	31.75	20.00	514.35	412.75	1.60	105.20
400	16	647.70	57.15	35.05	20.00	571.50	469.90	1.60	137.53
450	18	711.20	60.45	35.05	24.00	628.65	533.40	1.60	175.73
500	20	774.70	63.50	35.05	24.00	685.80	584.20	1.60	221.27
600	24	914.40	69.85	41.15	24.00	812.80	692.15	1.60	339.61

For Ring Groove face dimensions see below.

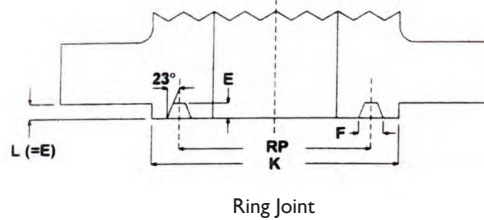
SLIP ON RF DIMENSIONS (mm)

Size		Outside Diam.	Bore Diam.	Thickness	Total Thickness	Diam. of Base of Hub	Holes			Raised Face		Net Weight
mm	inch						Diam.	No.	P.C.D	Outside Diam.	Thickness	
mm	inch	D	B2	t	T2	X	h	n	K	G	f	kg
15	½	95.25	22.35	14.22	22.35	38.10	15.75	4.00	66.55	35.05	1.60	0.65
20	¾	117.35	27.69	15.75	25.40	47.75	19.05	4.00	82.55	42.93	1.60	1.11
25	1	123.95	34.54	17.53	26.92	53.85	19.05	4.00	88.90	50.80	1.60	1.37
32	1¼	133.35	43.18	19.05	26.92	63.50	19.05	4.00	98.55	63.50	1.60	1.69
40	1½	165.45	49.53	20.57	30.23	69.85	22.35	4.00	114.30	73.15	1.60	2.49
50	2	165.10	61.98	22.35	33.27	84.07	19.05	8.00	127.00	91.95	1.60	2.89
65	2½	190.50	74.68	25.40	38.10	100.08	22.35	8.00	149.35	104.65	1.60	4.33
80	3	209.55	90.68	28.45	42.93	117.35	22.35	8.00	168.15	127.00	1.60	5.83
90	3½	228.60	103.38	30.23	44.45	133.35	22.35	8.00	184.15	139.70	1.60	7.36
100	4	254.00	116.08	31.75	47.75	146.05	22.35	8.00	200.15	157.23	1.60	9.65
125	5	279.40	143.76	35.05	50.80	177.80	22.35	8.00	234.95	185.67	1.60	12.23
150	6	317.50	170.69	38.58	52.32	206.25	22.35	12.00	269.75	215.90	1.60	15.66
200	8	381.00	221.49	41.15	61.98	260.35	25.40	12.00	330.20	269.75	1.60	24.22
250	10	444.50	276.35	47.75	66.55	320.55	28.45	16.00	387.35	323.85	1.60	34.18
300	12	520.70	327.15	50.80	73.15	374.65	31.75	16.00	450.85	381.00	1.60	49.91
350	14	584.20	359.16	53.85	76.20	425.45	31.75	20.00	514.35	412.75	1.60	69.54
400	16	647.70	410.46	57.15	82.55	482.60	35.05	20.00	571.50	469.90	1.60	88.25
450	18	711.20	461.77	60.45	88.90	533.40	35.05	24.00	628.65	533.40	1.60	108.76
500	20	774.70	513.08	63.50	95.25	587.25	35.05	24.00	685.80	584.20	1.60	134.18
600	24	914.40	615.95	69.85	106.43	701.55	41.15	24.00	812.80	692.15	1.60	201.66

For Ring Groove face dimensions see below.



ANSI B16.5 RING JOINT FACE DIMENSIONS



RING JOINT FACE DIMENSIONS (mm)

Size	ANSI 150					ANSI 300/600					ANSI 900				
	Ring No.	Pitch Diam.	Width Groove	Depth Groove	RF Diam.	Ring No.	Pitch Diam.	Width Groove	Depth Groove	RF Diam.	Ring No.	Pitch Diam.	Width Groove	Depth Groove	RF Diam.
mm	RN	RP	F	E	K	RN	RP	F	E	K	RN	RP	F	E	K
15						11	34.1	7.1	5.5	50.8	12	39.6	8.7	6.3	60.3
20						13	42.8	8.7	6.3	63.5	14	44.4	8.7	6.3	66.6
25	15	47.6	8.7	6.3	63.5	16	50.8	8.7	6.3	69.8	16	50.8	8.7	6.3	71.4
32	17	57.1	8.7	6.3	73.0	18	60.3	8.7	6.3	79.3	18	60.3	8.7	6.3	80.9
40	19	65.0	8.7	6.3	82.5	20	68.2	8.7	6.3	90.4	20	68.2	8.7	6.3	92.0
50	22	82.5	8.7	6.3	101.6	23	82.5	11.9	7.9	107.9	24	95.2	11.9	7.9	123.8
65	25	101.6	8.7	6.3	120.6	26	101.6	11.9	7.9	127.0	27	107.9	11.9	7.9	136.5
80	29	114.3	8.7	6.3	133.3	31	123.8	11.9	7.9	146.0	31	123.8	11.9	7.9	155.5
90	33	131.7	8.7	6.3	153.9	34	131.7	11.9	7.9	158.7					
100	36	149.2	8.7	6.3	171.4	37	149.2	11.9	7.9	174.6	37	149.2	11.9	7.9	180.9
125	40	171.4	8.7	6.3	193.6	41	180.9	11.9	7.9	209.5	41	180.9	11.9	7.9	215.9
150	43	193.6	8.7	6.3	219.0	45	211.1	11.9	7.9	241.3	45	211.1	11.9	7.9	241.3
200	48	247.6	8.7	6.3	273.0	49	269.8	11.9	7.9	301.6	49	269.8	11.9	7.9	307.9
250	52	304.8	8.7	6.3	330.2	53	323.8	11.9	7.9	355.6	53	323.8	11.9	7.9	361.9
300	56	381.0	8.7	6.3	406.4	57	381.0	11.9	7.9	412.7	57	381.0	11.9	7.9	419.1
350	59	396.8	8.7	6.3	425.4	61	419.1	11.9	7.9	457.2	62	419.1	16.6	11.1	466.7
400	64	454.0	8.7	6.3	482.6	65	469.9	11.9	7.9	508.0	66	469.9	16.6	11.1	523.8
450	68	517.5	8.7	6.3	546.1	69	533.4	11.9	7.9	574.6	70	533.4	19.8	12.7	593.7
500	72	558.8	8.7	6.3	596.9	73	584.2	13.4	9.5	635.0	74	584.2	19.8	12.7	647.7
600	76	673.1	8.7	6.3	711.2	77	692.1	16.6	11.1	749.3	78	692.1	26.9	15.8	771.5

Size	ANSI 1500					ANSI 2500				
	Ring No.	Pitch Diam.	Width Groove	Depth Groove	RF Diam.	Ring No.	Pitch Diam.	Width Groove	Depth Groove	RF Diam.
mm	RN	RP	F	E	K	RN	RP	F	E	K
15						13	42.8	8.7	6.3	65.0
20						16	50.8	8.7	6.3	73.0
25						18	60.3	8.7	6.3	82.5
32						21	72.2	11.9	7.9	101.6
40						23	82.5	11.9	7.9	114.3
50						26	101.6	11.9	7.9	133.3
65						28	111.1	13.4	9.5	149.2
80	35	136.5	11.9	7.9	168.2	32	127.0	13.4	9.5	168.2
100	39	161.9	11.9	7.9	193.6	38	157.1	16.6	11.1	203.2
125	44	193.6	11.9	7.9	228.6	42	190.5	19.8	12.7	241.3
150	46	211.1	13.4	9.5	247.6	47	228.6	19.8	12.7	279.4
200	50	269.8	16.6	11.1	317.5	51	279.4	23.0	14.2	339.7
250	54	323.8	16.6	11.1	371.4	55	342.9	30.1	17.4	425.4
300	58	381.0	23.0	14.2	438.1	60	406.4	33.3	17.4	495.3
350	63	419.1	26.9	15.8	488.9					
400	67	469.9	30.1	17.4	546.1					
450	71	533.4	30.1	17.4	612.7					
500	75	584.2	33.3	17.4	673.1					
600	79	692.1	36.5	20.6	793.7					



BORE DIAMETER FOR ANSI B16.5 FOR WELD NECK & SOCKET WELD FLANGES S10 TO XXS (ALL CLASSES 150 TO 2500)

WELD NECK RF DIMENSIONS (mm)

Size		Bore Diameter BI											
mm	inch	Sch 10	Sch 20	Sch 30	Sch 40	Sch 60	Sch 80	XS	Sch 100	Sch 120	Sch 140	Sch 160	XXS
15	½	---	---	---	15.80	---	13.87	13.87	---	---	---	11.84	6.40
20	¾	---	---	---	20.93	---	18.85	18.85	---	---	---	15.60	11.02
25	1	---	---	---	26.64	---	24.31	24.31	---	---	---	20.70	15.21
32	1¼	---	---	---	35.05	---	32.46	32.46	---	---	---	29.46	22.76
40	1½	---	---	---	40.89	---	38.10	38.10	---	---	---	33.99	27.94
50	2	---	---	---	52.50	---	49.25	49.25	---	---	---	42.90	38.18
65	2½	---	---	---	62.71	---	59.00	59.00	---	---	---	53.98	44.98
80	3	---	---	---	77.93	---	73.66	73.66	---	---	---	66.65	58.42
90	3½	---	---	---	90.12	---	85.45	85.45	---	---	---	76.20	69.29
100	4	---	---	---	102.26	---	97.18	97.18	---	92.05	---	87.33	80.06
125	5	---	---	---	128.19	---	122.25	122.25	---	115.90	---	109.55	103.20
150	6	---	---	---	154.05	---	146.33	146.33	---	139.73	---	131.80	124.38
200	8	---	206.38	205.00	202.72	198.45	193.68	193.68	188.95	182.60	177.83	173.05	174.63
250	10	---	260.35	257.45	254.51	247.65	242.93	247.65	236.58	230.23	222.25	215.90	---
300	12	---	311.15	307.09	303.23	295.30	288.95	298.45	281.03	273.05	266.70	257.20	---
350	14	342.90	339.73	336.55	333.35	325.48	317.50	330.20	308.00	300.08	292.10	284.18	---
400	16	393.70	390.53	387.35	381.00	373.08	363.58	381.00	354.03	344.53	333.35	325.48	---
450	18	444.50	441.33	434.95	428.65	419.10	409.60	431.80	398.48	387.35	377.85	366.73	---
500	20	495.30	488.95	482.60	477.88	466.75	455.63	482.60	442.93	431.80	419.10	408.03	---
600	24	596.90	590.55	581.03	574.70	560.43	547.73	584.20	531.83	517.55	504.85	490.58	---

