

# BOLTING DIMENSIONS FOR ANSI FLANGES

## ALL SIZES AS PER ANSI B16.5-1988

### ANSI 150 LB FLANGES

Nominal Pipe Size		Diameter Of Studs		No. of Studs	Stud Bolt Length				Ring Joint Gasket No.
Inches	MM	Inches	MM		Raised Face		Ring Joint		
					Inches	MM	Inches	MM	
1/2	12.70	1/2	12.70	4	2-1/4	57.15	-	-	-
3/4	19.05	1/2	12.70	4	2-1/2	63.50	-	-	-
1	25.40	1/2	12.70	4	2-1/2	63.50	3	76.20	R15
1-1/4	31.75	1/2	12.70	4	2-3/4	69.85	3-1/4	82.55	R17
1-1/2	38.10	1/2	12.70	4	2-3/4	69.85	3-1/4	82.55	R19
2	50.80	5/8	15.88	4	3-1/4	82.55	3-3/4	95.25	R22
2-1/2	63.50	5/8	15.88	4	3-1/2	88.90	4	101.60	R25
3	76.20	5/8	15.88	4	3-1/2	88.90	4-1/4	107.95	R29
3-1/2	88.90	5/8	15.88	8	3-1/2	88.90	4-1/4	107.95	R33
4	101.60	5/8	15.88	8	3-1/2	88.90	4-1/4	107.95	R36
5	127.00	3/4	19.05	8	3-3/4	95.25	4-1/2	114.30	R40
6	152.40	3/4	19.05	8	4	101.60	4-1/2	114.30	R43
8	203.20	3/4	19.05	8	4-1/4	107.95	4-3/4	120.65	R48
10	254.00	7/8	22.23	12	4-3/4	120.65	5-1/4	133.35	R52
12	304.80	7/8	22.23	12	4-3/4	120.65	5-1/2	139.70	R56
14	355.60	1	25.40	12	5-1/4	133.35	6	152.40	R59
16	406.40	1	25.40	16	5-1/2	139.70	6	152.40	R64
18	457.20	1-1/8	28.58	16	6	152.40	6-1/2	165.10	R68
20	508.00	1-1/8	28.58	20	6-1/4	158.75	7	177.80	R72
22	558.80	1-1/4	31.75	20	6-1/2	165.10	7-1/4	184.15	R80
24	609.60	1-1/4	31.75	20	7	177.80	7-3/4	196.85	R76

### ANSI 300 LB FLANGES

Nominal Pipe Size		Diameter Of Studs		No. of Studs	Stud Bolt Length				Ring Joint Gasket No.
Inches	MM	Inches	MM		Raised Face		Ring Joint		
					Inches	MM	Inches	MM	
1/2	12.70	1/2	12.70	4	2-1/2	63.50	3	76.20	R11
3/4	19.05	5/8	15.88	4	3	76.20	3-1/4	82.55	R13
1	25.40	5/8	15.88	4	3-1/4	82.55	3-1/4	82.55	R16
1-1/4	31.75	5/8	15.88	4	3-1/4	82.55	3-3/4	95.25	R18
1-1/2	38.10	3/4	19.05	4	3-1/2	88.90	4	101.60	R20
2	50.80	5/8	15.88	8	3-1/2	88.90	4-1/4	107.95	R23
2-1/2	63.50	3/4	19.05	8	4	101.60	4-1/2	114.30	R26
3	76.20	3/4	19.05	8	4-1/4	107.95	5	127.00	R31
3-1/2	88.90	3/4	19.05	8	4-1/4	107.95	5	127.00	R34
4	101.60	3/4	19.05	8	4-1/2	114.30	5-1/4	133.35	R37
5	127.00	3/4	19.05	8	4-3/4	120.65	5-1/4	133.35	R41
6	152.40	3/4	19.05	12	4-3/4	120.65	5-3/4	146.05	R45
8	203.20	AS7/8	22.23	12	5-1/2	139.70	6-1/4	158.75	R49
10	254.00	1	25.40	16	6-1/4	158.75	7-1/4	184.15	R53
12	304.80	1-1/8	28.58	16	6-3/4	171.45	7-1/2	190.50	R57
14	355.60	1-1/8	28.58	20	7	177.80	7-3/4	196.85	R61
16	406.40	1-1/4	31.75	20	7-1/2	190.50	8-1/4	209.55	R65
18	457.20	1-1/4	31.75	24	7-3/4	196.85	8-1/2	215.90	R69
20	508.00	1-1/4	31.75	24	8-1/4	209.55	9-1/4	234.95	R73
22	558.80	1-1/2	38.10	24	8-3/4	222.25	9-3/4	247.65	R81
24	609.60	1-1/2	38.10	24	9-1/4	234.95	10-1/4	260.35	R77

### ANSI 400 LB FLANGES

Nominal Pipe Size		Diameter Of Studs		No. of Studs	Stud Bolt Length				Ring Joint Gasket No.
Inches	MM	Inches	MM		Raised Face		Ring Joint		
					Inches	MM	Inches	MM	
1/2	12.70	1/2	12.70	4	3	76.20	3	76.20	R11
3/4	19.05	5/8	15.88	4	3-1/2	88.90	3-1/2	88.90	R13
1	25.40	5/8	15.88	4	3-1/2	88.90	3-1/2	88.90	R16
1-1/4	31.75	5/8	15.88	4	3-3/4	95.25	3-3/4	95.25	R18
1-1/2	38.10	3/4	19.05	4	4-1/4	107.95	4-1/4	107.95	R20
2	50.80	5/8	15.88	8	4-1/4	107.95	4-1/4	107.95	R23
2-1/2	63.50	3/4	19.05	8	4-3/4	120.65	4-3/4	120.65	R26
3	76.20	3/4	19.05	8	5	127.00	5	127.00	R31
3-1/2	88.90	7/8	22.23	8	5-1/2	139.70	5-1/2	139.70	R34
4	101.60	7/8	22.23	8	5-1/2	139.70	5-1/2	139.70	R37
5	127.00	7/8	22.23	8	5-3/4	146.05	5-3/4	146.05	R41
6	152.40	7/8	22.23	12	6	152.40	6	152.40	R45
8	203.20	1	25.40	12	6-3/4	171.45	6-3/4	171.45	R49
10	254.00	1-1/8	28.58	16	7-1/2	190.50	7-1/2	190.50	R53
12	304.80	1-1/4	31.75	16	8	203.20	8	203.20	R57
14	355.60	1-1/4	31.75	20	8-1/4	209.55	8-1/4	209.55	R61
16	406.40	1-3/8	34.93	20	8-3/4	222.25	8-3/4	222.25	R65
18	457.20	1-3/8	34.93	24	9	228.60	9	228.60	R69
20	508.00	1-1/2	38.10	24	9-1/2	241.30	9-1/2	247.65	R73
22	558.80	1-5/8	41.28	24	10	254.00	10-1/2	266.70	R81
24	609.60	1-3/4	44.45	24	10-1/2	266.70	11	279.40	R77

### ANSI 600 LB FLANGES

Nominal Pipe Size		Diameter Of Studs		No. of Studs	Stud Bolt Length				Ring Joint Gasket No.
Inches	MM	Inches	MM		Raised Face		Ring Joint		
					Inches	MM	Inches	MM	
1/2	12.70	1/2	12.70	4	3	76.20	3	76.20	R11
3/4	19.05	5/8	15.88	4	3-1/4	82.55	3-1/4	82.55	R13
1	25.40	5/8	15.88	4	3-1/2	88.90	3-1/2	88.90	R16
1-1/4	31.75	5/8	15.88	4	3-3/4	95.25	3-3/4	95.25	R18
1-1/2	38.10	3/4	19.05	4	4-1/4	107.95	4-1/4	107.95	R20
2	50.80	5/8	15.88	8	4-1/4	107.95	4-1/2	114.30	R23
2-1/2	63.50	3/4	19.05	8	5	127.00	5-1/4	133.35	R26
3	76.20	3/4	19.05	8	5	127.00	5-1/4	133.35	R31
3-1/2	88.90	7/8	22.23	8	5-1/2	139.70	5-1/2	139.70	R34
4	101.60	7/8	22.23	8	5-3/4	146.05	6	152.40	R37
5	127.00	1	25.40	8	6-1/2	165.10	6-1/2	165.10	R41
6	152.40	1	25.40	12	6-3/4	171.45	7	177.80	R45
8	203.20	1-1/8	28.58	12	7-3/4	196.85	8	203.20	R49
10	254.00	1-1/4	31.75	16	8-1/2	215.90	8-3/4	222.25	R53
12	304.80	1-1/4	31.75	20	8-3/4	222.25	9	228.60	R57
14	355.60	1-3/8	34.93	20	9-1/4	234.95	9-1/2	241.30	R61
16	406.40	1-1/2	38.10	20	10	254.00	10-1/4	260.35	R65
18	457.20	1-5/8	41.28	20	10-3/4	273.05	11	279.40	R69
20	508.00	1-5/8	41.28	24	11-1/2	292.10	11-3/4	298.45	R73
22	558.80	1-3/4	44.45	24	12	304.80	12-1/2	317.50	R81
24	609.60	1-7/8	47.63	24	13	330.20	13-1/2	342.90	R77