BOLT SIZES FOR ANSI 150 TO 1500 CLASS FLANGES

Dimensions (inches) ANSI/ASME 150 - 600 lb

Flange Size	150 lb (1/16 Raised Face)				300 lb (1/16" Raised Face)				400 lb (1/4" Raised Face)				600 lb (19/4" Raised Face)			
Nominal Pipe Size (in)	Number of Bolts	Diameter of Bolts (in)	Length of Headed Bolts (in)	Length of Stud Bolts (in)	Number of Bolts	Diameter of Bolts (in)	Length of Headed Bolts (in)	Length of Stud Bolts (in)	Number of Bolts	Diameter of Bolts (in)	Length of Headed Bolts (in)	Length of Stud Bolts (in)	Number of Bolts	Diameter of Bolts (in)	Length of Headed Bolts (in)	Length of Stud Bolts (in)
1/2	4	1/2	1-3/4	2-1/4	4	1/2	2	2-1/2	For these sizes 600 lb Flanges are used				4	1/2	2-1/2	3
3/4	4	1/2	2	2-1/4	4	5/8	2-1/2	2-3/4					4	5/8	2-3/4	3-1/4
1	4	1/2	2	2-1/2	4	5/8	2-1/2	3					4	5/8	3	3-1/2
1-1/4	4	1/2	2-1/4	2-1/2	4	5/8	2-3/4	3					4	5/8	3-1/4	3-3/4
1-1/2	4	1/2	2-1/4	2-3/4	4	3/4	3	3-1/2					4	3/4	3-1/2	4
2	4	5/8	2-3/4	3	8	5/8	3	3-1/4					8	5/8	3-1/2	4
2-1/2	4	5/8	3	3-1/4	8	3/4	3-1/4	3-3/4					8	3/4	4	4-1/2
3	4	5/8	3	3-1/2	8	3/4	3-1/2	4					8	3/4	4-1/4	4-3/4
3-1/2	8	5/8	3	3-1/2	8	3/4	3-3/4	4-1/4					8	7/8	4-3/4	5-1/4
4	8	5/8	3	3-1/2	8	3/4	3-3/4	4-1/4	8	7/8	4-3/4	5-1/4	8	7/8	5	5-1/2
5	8	3/4	3-1/4	3-3/4	8	3/4	4	4-1/2	8	7/8	5	5-1/2	8	1	5-3/4	6-1/4
6	8	3/4	3-1/4	3-3/4	12	3/4	4-1/4	4-3/4	12	7/8	5-1/4	5-3/4	12	1	6	6-1/2
8	8	3/4	3-1/2	4	12	7/8	4-3/4	5-1/4	12	1	6	6-1/2	12	1-1/8	7	7-1/2
10	12	7/8	3-3/4	4-1/2	16	1	5-1/4	6	16	1-1/8	6-3/4	7-1/4	16	1-1/4	7-3/4	8-1/4
12	12	7/8	4	4-1/2	16	1-1/8	5-3/4	6-1/2	16	1-1/4	7-1/4	7-3/4	20	1-1/4	8	8-1/2
14	12	1	4-1/4	5	20	1-1/8	6	6-3/4	20	1-1/4	7-1/2	8	20	1-3/8	8-1/2	9
16	16	1	4-1/2	5-1/4	20	1-1/4	6-1/2	7-1/4	20	1-3/8	8	8-1/2	20	1-1/2	9-1/4	9-3/4
18	16	1-1/8	4-3/4	5-3/4	24	1-1/4	6-3/4	7-1/2	24	1-3/8	8-1/4	8-3/4	20	1-5/8	10	10-1/2
20	20	1-1/8	5-1/4	6	24	1-1/4	7	8	24	1-1/2	9	9-1/2	24	1-5/8	10-3/4	11-1/4
24	20	1-1/8	5-3/4	6-3/4	24	1-1/2	7-3/4	9	24	1-3/4	10	10-1/2	24	1-7/8	12-1/4	12-3/4

Dimensions (inches) ANSI/ASME 900 - 2500 lb

Flange Size	900 lb (1/4 Raised Face)				1500 lb (1/4" Raised Face)				2500 lb (1/4" Raised Face)			
Nominal Pipe Size (in)	Number of Bolts	Diameter of Bolts (in)	Length of Headed Bolts (in)	Length of Stud Bolts (in)	Number of Bolts	Diameter of Bolts (in)	Length of Headed Bolts (in)	Length of Stud Bolts (in)	Number of Bolts	Diameter of Bolts (in)	Length of Headed Bolts (in)	Length of Stud Bolts (in)
1/2	For these sizes 1500 lb Flanges are used				4	3/4	3-1/2	4	4	3/4	4-1/4	4-3/4
3/4					4	3/4	3-3/4	4-1/4	4	3/4	4-1/4	4-3/4
1					4	7/8	4-1/4	4-3/4	4	7/8	4-3/4	5-1/4
1-1/4					4	7/8	4-1/4	4-3/4	4	1	5-1/4	5-3/4
1-1/2					4	1	4-3/4	5-1/4	4	1-1/8	6	6-1/2
2					8	7/8	5	5-1/2	8	1	6-1/4	6-3/4
2-1/2					8	1	5-1/2	6	8	1-1/8	7	7-1/2
3	8	7/8	5	5-1/2	8	1-1/8	6-14/	6-1/4	8	1-1/4	8	8-1/2
3-1/2	-	-	-	-	-	-	-	-	-	-	-	-
4	8	1-1/8	6	6-1/2	8	1-1/4	7	7-1/2	8	1-1/2	9-1/4	9-3/4
5	8	1-1/4	6-3/4	7-1/4	8	1-1/2	9	9-1/2	8	1-3/4	11	11-1/2
6	12	1-1/8	7	7-1/2	12	1-3/8	9-1/2	10	8	2	13	13-1/2
8	12	1-/38	8	8-1/2	12	1-5/8	10-3/4	11-1/4	12	2	14-1/2	15
10	16	1-3/8	8-1/2	9	12	1-7/8	12-3/4	13-1/4	12	2-1/2	18-1/2	19
12	20	1-3/8	9-1/4	9-3/4	16	2	14-1/4	14-3/4	12	2-1/2	20-1/2	21
14	20	1-1/2	10	10-1/2	16	2-1/4	15-1/2	16				
16	20	1-5/8	10-1/2	11	16	2-1/2	17	17-1/2				
18	20	1-7/8	12-1/4	12-3/4	16	2-3/4	18-3/4	19-1/4				
20	20	2	13	13-1/2	16	3	20-1/2	21				
24	20	2-1/2	16-1/2	17	16	3-1/2	23-1/2	24				

Specifications to A193, B7, L7, B16 & B8M A194, 2H, G4 & G8M Stainless Steel SS316 and SS304 Grade 5 & Grade 8-8, A325 High Tensile & M.S.

Types: - Stud-Bolts, Hex Nut, HHMB.

API6A 2000 ~ 15000 PSI (6B/6BX) FLANGES

Chart showing stud sizes & ring gasket size

API SPECS FOR RING-JOINT FLANGES	NEW API NOMINAL SIZE	FLANGE							API RING NO	STUDS WITH NUTS			
		A OD	B THICKNESS	C TOTAL THICKNESS	D DIAM. OF HUB	E DIAM. OF BOLT CIRCLE	F PCD RING GROOVE	APPROX WT LBS		NO	SIZE	APPROX WT LBS PER SET	"OLD" NOMINAL SIZE
2000 PSI WP	2 1/16"	6 1/2"	1 5/16"	1 3/4"	3 5/16"	5"	3 1/4"	9 lb	R23/RX23	8	5/8 x 4 1/2	5	2"
	2 9/16"	7 1/2"	1 7/16"	1 15/16"	3 15/16"	5 7/8"	4"	13 lb	R26/RX26	8	3/4 x 5	8	2 1/2"
	3 1/8"	8 1/4"	1 9/16"	2 1/8"	4 5/8"	6 5/8"	4 7/8"	16 lb	R31/RX31	8	3/4 x 5 1/4	8	3"
	4 1/16"	10 3/4"	1 13/16"	2 7/16"	6"	8 1/2"	5 7/8"	37 lb	R37/RX37	8	7/8 x 6	12	4"
	7 1/16"	14"	2 3/16"	2 15/16"	8 3/4"	11 1/2"	8 5/16"	80 lb	R45/RX45	12	1 x 7	29	6"
	9"	16 1/2"	2 1/2"	3 5/16"	10 3/4"	13 3/4"	10 5/8"	115 lb	R49/RX49	12	1 1/8 x 8	38	8"
	11"	20"	2 13/16"	3 11/16"	13 1/2"	17"	12 3/4"	177 lb	R53/RX53	16	1 1/8 x 8 3/4	73	10"
	13 5/8"	22"	2 15/16"	3 15/16"	15 3/4"	19 1/4"	15"	215 lb	R57/RX57	20	1 1/4 x 9	91	12"
3000 PSI WP	2 1/16"	8 1/2"	1 13/16"	2 9/16"	4 1/8"	6 1/2"	3 3/4"	25 lb	R24/RX24	8	7/8 x 6	12	2"
	2 9/16"	9 5/8"	1 15/16"	2 13/16"	4 7/8"	7 1/2"	4 1/4"	36 lb	R27/RX27	8	1 x 6 1/2	17	2 1/2"
	3 1/16"	9 1/2"	1 13/16"	2 7/16"	5"	7 1/2"	4 7/8"	31 lb	R31/RX31	8	7/8 x 6	12	3"
	4 1/16"	11 1/2"	2 1/16"	3 1/16"	6 1/4"	9 1/4"	5 7/8"	53 lb	R37/RX37	8	1 1/8 x 7	24	4"
	7 1/16"	15"	2 1/2"	3 11/16"	9 1/4"	12 1/2"	8 6/18"	106 lb	R45/RX45	12	1 1/8 x 8	40	6"
	9"	18 1/2"	2 13/16"	4 5/16'	11 3/4"	15 1/2"	10 5/8"	172 lb	R49/RX49	12	1 1/8 x 9	69	8"
	11"	21 1/2"	3 1/16"	4 9/16"	14 1/2"	18 1/2"	12 3/4"	245 lb	R53/RX53	16	1 3/8 x 9 1/2	95	10"
	13 5/8"	24"	3 7/16"	4 15/16"	16 1/2"	21"	15"	326	R57/RX57	20	1 3/8 x 10 1/4	125	12"
5000 PSI WP	2 1/16"	8 1/2"	1 13/16"	2 9/16"	4 1/8"	6 21/2"	3 3/4"	25 lb	R24/RX24	8	7/8 x 6	12	2"
	2 9/16"	9 5/8"	15/16"	2 13/16"	4 7/8"	7 1/2"	4 1/4"	36 lb	R27/RX27	8	1 x 6 1/2	17	2 1/2"
	3 1/16"	10 1/2"	2 3/16"	3 3/16"	5 1/4"	8"	5 3/8"	48 lb	R35/RX35	8	1 1/8 x 7 1/4	24	3"
	4 1/16"	12 1/4"	2 7/16"	3 7/8"	6 3/8"	9 1/2"	6 3/8"	73 lb	R39/RX39	8	1 1/4 x 8	35	4"
	7 1/16"	15 1/2"	3 5/8"	5 1/16"	9"	12 1/2"	8 5/16"	164 lb	R46/RX46	12	1 3/8 x 10 3/4	75	6"
	9"	19"	4 1/16"	6 1/16"	11 1/2"	15 1/2"	10 5/8"	258 lb	R50/RX50	12	1 3/8 x 12	124	8"
	11"	23"	4 11/16"	6 11/16"	14 1/2"	19"	12 3/4"	436 lb	R54/RX54	12	1 7/8 x 13 3/4	187	10"
10000 PSI WP (SERIES 2900) (Obsolete)	2"	7 3/4"	2 3/8"	4 3/4"	3 1/8"	5 3/4"	3 1/8"	28 lb	R85/RX85	8	7/8 x 7	10	2"
	2 1/2"	8 7/8"	2 3/4"	5 1/16"	3 3/4"	6 5/8"	3 9/16"	45 lb	R86/RX86	8	1 x 8	14	2 1/2"
	3"	10"	3 1/16"	5 11/16"	4 3/8"	7 1/2"	3 15/16"	57 lb	R87/RX87	8	1 1/8 x 9	20	3"
	3 1/2"	11 1/2"	3 3/8"	5 1/2"	5"	8 1/2"	4 1/2"	100 lb	R89/RX89	8	1 1/4 x 9 3/4	28	3 1/2"
	4"	12 1/2"	3 5/8"	6 1/4"	5 9/16"	9 1/2"	4 7/8"	104 lb	R88/RX88	8	1 3/8 x 10 1/2	36	4"
	10"	20 3/4"	5 11/16"	11"	11 3/4"	16 3/4"	10 1/4"	600 lb	R91/R91	12	2 x 16 1/2	177	10"
1000 PSI WP (6BX)	1 13/16"	7 3/8"	1 21/32"	-	3 1/2"	5 3/4"	† 3.062"	-	BX-151	8	3/4 x 5	8	1 13/16"
	2 1/16"	7 7/8"	1 47/64"	-	3 15/16"	6 1/4"	† 3.395"	-	BX-152	8	3/4 x 5 1/4	8	2 1/16"
	2 9/16"	9 1/2"	2 1/64"	-	4 3/4"	7 1/4"	† 4.046"	-	BX-153	8	7/8 x 6	11	2 9/16"
	3 1/16"	10 5/8"	2 19/64"	-	5 18/32"	8 1/2"	† 4.685"	-	BX-154	8	1 x 6 3/4	17	3 1/8"
	4 1/16"	12 7/16"	2 48/64"	-	7 3/16"	10 3/16"	† 5.930"	-	BX-155	8	1 1/8 x 8	26	4 1/16"
	7 1/16"	18 7/8"	4 1/16"	-	11 7/8"	15 7/8"	† 9.521"	-	BX-156	12	1 1/2 x 11 1/4	95	7 1/16"
	9"	21 3/4"	4 7/8"	-	14 3/4"	18 3/4"	†11.774"	-	BX-157	16	1 1/2 x 13	112	9"
	11"	25 3/4"	5 9/16"	-	17 3/4"	22 1/4"	† 14.064"	-	BX-158	16	1 3/4 x 15	160	11"
15000 PSI WP (6BX)	1 13/16"	8 3/16"	1 25/32"	-	3 27/32"	6 5/16"	† 3.062"	-	BX-151	8	7/8 x 5 1/2	9	1 13/16"
	1 1/16"	8 3/4"	2"	-	4 3/8"	6 7/8"	† 3.395"	-	BX-152	8	7/8 x 6	11	2 1/16"
	2 9/16"	10"	2 1/4"	-	5 1/16"	7 7/8"	† 4.046"	-	BX-153	8	1 x 6 3/4	16	2 9/16"
	3 1/16"	11 5/16"	2 17/32"	-	6 1/16"	9 1/16"	† 4.685"	-	BX-154	8	1 1/8 x 7 1/2	24	3 1/16"
	4 1/16"	14 3/16"	3 3/32"	-	7 11/16"	117/16"	† 5.930"	-	BX-155	8	1 3/8 x 9 1/4	29	4 1/16"
	7 1/16"	19 7/8"	4 11/16"	-	12 13/16"	16 7/8"	† 9.521"	-	BX-156	16	1 1/2 x 12 3/4	112	7 1/16"
	9"	25 1/2"	5 3/4"	-	17"	21 3/4"	† 11.774"	-	BX-157	16	1 7/8 x 15 3/4	129	9"
	11"	32"	7 3/8"	-	23"	28"	† 14.064"	-	BX-158	20	2 x 19 1/4	228	11"