

**Torque Values for LineBacker®, GasketSea®, LineSeal™ and Rubber Faced Phenolic (NP) Gaskets**

**ANSI 150# Flanges**

Size (Inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.5	40
1-1/4	4	0.5	40
1-1/2	4	0.5	40
2	4	0.625	80
2-1/2	4	0.625	80
3	4	0.625	110
3-1/2	8	0.625	80
4	8	0.625	100
5	8	0.75	120
6	8	0.75	130
8	8	0.75	130
10	12	0.875	215
12	12	0.875	220
14	12	1	320
16	16	1	320
18	16	1.125	450
20	20	1.125	450
22	20	1.125	460
24	20	1.25	650
26	24	1.25	650
28	28	1.25	650
30	28	1.25	650
32	28	1.5	1000
34	32	1.5	1000
36	32	1.5	1100
38			
40	36	1.5	1100
42	36	1.5	1150
<b>Working Pressure: 285 psi</b>			
<b>Hydro Test Pressure: 455 psi</b>			

**ANSI 300# Flanges**

Size (Inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.625	80
1-1/4	4	0.625	80
1-1/2	4	0.75	110
2	8	0.625	110
2-1/2	8	0.75	150
3	8	0.75	150
3-1/2	8	0.75	150
4	8	0.75	180
5	8	0.75	180
6	12	0.75	170
8	12	0.875	265
10	16	1	320
12	16	1.125	450
14	20	1.125	450
16	20	1.25	650
18	24	1.25	650
20	24	1.25	650
22	24	1.5	1125
24	24	1.5	1200
26	28	1.625	1400
28	28	1.625	1500
30	28	1.75	1700
32	28	1.875	2000
34	28	1.875	2250
36	32	2	2300
38	32	2	2300
40	32	2	2400
42	32	2	2400
<b>Working Pressure: 740 psi</b>			
<b>Hydro Test Pressure: 1135 psi</b>			

**ANSI 400# Flanges**

Size (Inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.625	80
1-1/4	4	0.625	110
1-1/2	4	0.75	110
2	8	0.625	110
2-1/2	8	0.75	150
3	8	0.75	150
3-1/2	8	0.875	180
4	8	0.875	180
5	8	0.875	215
6	12	0.875	215
8	12	1	320
10	16	1.125	450
12	16	1.25	650
14	20	1.25	625
16	20	1.375	820
18	24	1.375	820
20	24	1.5	1100
22	24	1.625	1425
24	24	1.75	1775
26	28	1.75	1750
28	28	1.875	2200
30	28	2	2300
32	28	2	2300
34	28	2	2350
36	32	2	2350
38	32	2.5	4800
40	32	2.5	5200
42	32	2.5	5500
<b>Working Pressure: 990 psi</b>			
<b>Hydro Test Pressure: 1510 psi</b>			

Pipeline Seal & Insulator, Inc. does not take responsibility for any of these torque values, they're theoretical values. These bolt torque values are intended for use as guidelines only and are based on ideal conditions, perfect flanges, flange alignment & new well lubricated bolts/nuts according to the national boiler code, installed in accordance with the PSI Flange Makeup Procedure. Torque values are based on using weld-neck flanges and lubricated stud bolts with a 0.20 friction factor.

**ANSI 600# Flanges**

Size (Inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.625	80
1-1/4	4	0.625	110
1-1/2	4	0.75	110
2	8	0.625	110
2-1/2	8	0.75	150
3	8	0.75	150
3-1/2	8	0.875	200
4	8	0.875	225
5	8	1	350
6	12	1	320
8	12	1.125	450
10	16	1.25	650
12	20	1.25	675
14	20	1.375	820
16	20	1.5	1125
18	20	1.625	1430
20	24	1.625	1400
22	24	1.75	1775
24	24	1.875	2230
26	28	1.875	2200
28	28	2	2300
30	28	2	2360
32	28	2.25	3900
34	28	2.25	3950
36	28	2.5	5500
38	28	2.75	7000
40	28	2.75	7200
42	28	2.75	7400
<b>Working Pressure: 1480 psi</b>			
<b>Hydro Test Pressure: 2245 psi</b>			

**ANSI 900# Flanges**

Size (Inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.875	110
1-1/4	4	0.875	170
1/1/2	4	1	240
2	8	0.875	170
2-1/2	8	1	240
3	8	0.875	215
4	8	1.125	450
5	8	1.25	650
6	12	1.125	455
8	12	1.375	820
10	16	1.375	850
12	20	1.375	870
14	20	1.5	1125
16	20	1.625	1430
18	20	1.875	2230
20	20	2	2300
24	20	2.5	5500
26	20	2.75	7400
28	20	3	8400
30	20	3	9500
32	20	3.25	10500
34	20	3.5	12400
36	20	3.5	13800
<b>Working Pressure: 2220 psi</b>			
<b>Hydro Test Pressure: 3355 psi</b>			

**ANSI 1500# Flanges**

Size (Inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.875	110
1-1/4	4	0.875	170
1-1/2	4	1	240
2	8	0.875	170
2-1/2	8	1	240
3	8	1.125	370
4	8	1.25	650
5	8	1.5	1000
6	12	1.375	820
8	12	1.625	1400
10	12	1.875	2100
12	16	2	2300
14	16	2.25	3400
16	16	2.5	4300
18	16	2.75	6200
20	16	3	7800
24	16	3.5	13000
<b>Working Pressure: 3705 psi</b>			
<b>Hydro Test Pressure: 5585 psi</b>			

**ANSI 2500# Flanges**

Size (Inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.875	170
1-1/4	4	1	300
1-1/2	4	1.125	400
2	8	1	300
2-1/2	8	1.125	400
3	8	1.25	600
4	8	1.25	650
5	8	1.75	1500
6	8	2	2300
8	12	2	2400
10	12	2.5	4900
12	12	2.75	7900
<b>Working Pressure: 6170 psi</b>			
<b>Hydro Test Pressure: 9280 psi</b>			

**ACTUAL TORQUE VALUES TO BE DETERMINED BY USER!**

**ALWAYS WEAR SAFETY EQUIPMENT!**



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