



# ADVANCE

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## Torque Values for Flange Gaskets

ANSI 150# Flanges				ANSI 300# Flanges				ANSI 400# Flanges			
Size (inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.	Size (inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.	Size (inches)	Qty. Bolts	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.5	30	1	4	0.625	60	1	4	0.625	60
1 1/4	4	0.5	30	1 1/4	4	0.625	60	1 1/4	4	0.625	60
1 1/2	4	0.5	30	1 1/2	4	0.75	100	1 1/2	4	0.75	100
2	4	0.625	60	2	8	0.625	60	2	8	0.625	60
2 1/2	4	0.625	60	2 1/2	8	0.75	100	2 1/2	8	0.75	100
3	4	0.625	60	3	8	0.75	100	3	8	0.75	100
3 1/2	8	0.625	60	3 1/2	8	0.75	100	3 1/2	8	0.875	160
4	8	0.625	60	4	8	0.75	100	4	8	0.875	160
5	8	0.75	100	5	8	0.75	100	5	8	0.875	160
6	8	0.75	100	6	12	0.75	100	6	12	0.875	160
8	8	0.75	100	8	12	0.875	160	8	12	1	245
10	12	0.875	160	10	16	1	245	10	16	1.125	355
12	12	0.875	160	12	16	1.125	355	12	16	1.25	500
14	12	1	245	14	20	1.125	355	14	20	1.25	500
16	16	1	245	16	20	1.25	500	16	20	1.375	680
18	16	1.125	355	18	24	1.25	500	18	24	1.375	680
20	20	1.125	355	20	24	1.25	500	20	24	1.5	800
22	20	1.125	355	22	24	1.5	800	22	24	1.625	1100
24	20	1.25	500	24	24	1.5	800	24	24	1.75	1500
26	24	1.25	500	26	28	1.625	1100	26	28	1.75	1500
28	28	1.25	500	28	28	1.625	1100	28	28	1.875	2000
30	28	1.25	500	30	28	1.75	1500	30	28	2	2200
32	28	1.5	800	32	28	1.875	2000	32	28	2	2200
34	32	1.5	800	34	28	1.875	2000	34	28	2	2200
36	32	1.5	800	36	32	2	2200	36	32	2	2200
38	32	1.5	800	38	32	2	2200	38	32	2.5	4400
40	36	1.5	800	40	32	2	2200	40	32	2.5	4400
42	36	1.5	800	42	32	2	2200	42	32	2.5	4400
Working Hydro Test Pressure: 455 psi				Working Hydro Test Pressure: 1135 psi				Working Hydro Test Pressure: 1510 psi			
Advance Products & Systems, inc. does not take responsibility for any of these torque values, they're theoretical values. These bolt values are intended for use as <u>guidelines only</u> 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 APS Flange Sequence Procedure. Torque values are based on using weld-neck flanges and lubricated stud bolts with a 0.15 friction factor.											

## Torque Values for Flange Gaskets

ANSI 600# Flanges				ANSI 900# Flanges				ANSI 1500# Flanges			
Size (inche)	Qty	Bolt Dia.	Suggested Torque Ft. Lbs.	Size (inche)	Qty	Bolt Dia.	Suggested Torque Ft. Lbs.	Size (inche)	Qty	Bolt Dia.	Suggested Torque Ft. Lbs.
1	4	0.625	60	1	4	0.87	160	1	4	0.875	160
1 1/4	4	0.625	60	1 1/4	4	0.87	160	1 1/4	4	0.875	160
1 1/2	4	0.75	100	1 1/2	4	1	245	1 1/2	4	1	245
2	8	0.625	60	2	8	0.87	160	2	8	0.875	160
2 1/2	8	0.75	100	2 1/2	8	1	245	2 1/2	8	1	245
3	8	0.75	100	3	8	0.87	160	3	8	1.125	355
3 1/2	8	0.875	160	4	8	1.12	355	4	8	1.25	500
4	8	0.875	160	5	8	1.25	500	5	8	1.25	500
5	8	1	245	6	12	1.12	355	6	12	1.5	800
6	12	1	245	8	12	1.37	680	8	12	1.625	1100
8	12	1.125	355	10	16	1.37	680	10	12	1.875	2000
10	16	1.25	500	12	20	1.37	680	12	16	2	2200
12	20	1.25	500	14	20	1.5	800	14	16	2.25	3180
14	20	1.375	680	16	20	1.62	1100	16	16	2.5	4400
16	20	1.5	800	18	24	1.87	2000	18	16	2.75	5920
18	20	1.625	1100	20	24	2	2200	20	16	3	7720
20	24	1.625	1100	24	20	2.75	5920	24	16	3.5	9000
22	24	1.75	1500	26	20	3	7720	Working Hydro Test Pressure: 5585 psi			
24	24	1.875	2000	28	20	3	7720	ANSI 2500# Flanges			
26	28	1.875	2000	30	20	3.25	8400	1	4	0.875	160
28	28	2	2200	32	20	3.5	9000	1 1/4	4	1	245
30	28	2	2200	34	20	3.5	9000	1 1/2	4	1.125	355
32	28	2.25	3180	36	20	3.5	9000	2	8	1	245
34	28	2.25	3180	Working Hydro Test Pressure: 3355 psi				2 1/2	8	1.125	355
36	28	2.5	4400	<b>ALWAYS WEAR  SAFETY EQUIPMENT</b>				3	8	1.25	500
38	28	2.75	5920					4	8	1.25	500
40	32	2.75	5920					5	8	1.75	1500
42	28	2.75	5920					6	8	2	2200
Working Hydro Test Pressure: 2245 psi								8	12	2	2200
				10	12	2.5	4400				
				12	12	2.75	5920				
				Working Hydro Test Pressure: 9280 psi							

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