

**NOTE: FOR INFORMATIONAL PURPOSES ONLY – VALUES SHOWN ARE NOT RECOMMENDED TORQUE VALUES.**

## Available Gasket Stress vs. Bolt Stress - 300# Series B Flat Face Flanges

**NOTE: This table is for information purposes only. (see notes below)**

Nominal Pipe Size (in.)	Number of Bolts	Size of Bolts (in.)	Bolt Stress								Minimum Recommended Assembly Stress		
			25,000 psi		30,000 psi		60,000 psi		75,000 psi		1/32" thick (psi)	1/16" thick (psi)	1/8" thick (psi)
			Bolt Torque (ft.lbs.)	Gasket Stress (psi)	Bolt Torque (ft.lbs.)	Gasket Stress (psi)	Bolt Torque (ft.lbs.)	Gasket Stress (psi)	Bolt Torque (ft.lbs.)	Gasket Stress (psi)			
0.5	4	0.50	25	1360	30	1632	60	3264	75	4081	4800	5400	6400
0.75	4	0.63	50	1428	60	1714	120	3427	150	4284	4800	5400	6400
1	4	0.63	50	1299	60	1559	120	3119	150	3898	4800	5400	6400
1.25	4	0.63	50	1140	60	1368	120	2736	150	3421	4800	5400	6400
1.5	4	0.75	83	1248	100	1498	200	2996	250	3745	4800	5400	6400
2	8	0.63	83	1602	100	1922	200	3845	250	4806	4800	5400	6400
2.5	8	0.75	83	1837	100	2205	200	4409	250	5512	4800	5400	6400
3	8	0.75	83	1548	100	1857	200	3715	250	4643	4800	5400	6400
3.5	8	0.75	83	1306	100	1567	200	3135	250	3919	4800	5400	6400
4	8	0.75	83	1045	100	1253	200	2507	250	3134	4800	5400	6400
5	8	0.75	83	916	100	1099	200	2199	250	2749	4800	5400	6400
6	12	0.75	83	1118	100	1342	200	2683	250	3354	4800	5400	6400
8	12	0.88	133	1155	160	1386	320	2771	400	3464	4800	5400	6400
10	16	1.00	204	1646	245	1976	490	3952	613	4939	4800	5400	6400
12	16	1.13	296	1593	355	1912	710	3824	888	4780	4800	5400	6400
14	20	1.13	296	1536	355	1843	710	3686	888	4608	4800	5400	6400
16	20	1.25	417	1659	500	1991	1000	3982	1250	4978	4800	5400	6400
18	24	1.25	417	1712	500	2054	1000	4108	1250	5135	4800	5400	6400
20	24	1.25	417	1464	500	1756	1000	3513	1250	4391	4800	5400	6400
24	24	1.50	667	1635	800	1962	1600	3923	2000	4904	5000	5600	6400
26	32	1.25	417	2213	500	2655	1000	5310	1250	6638	---	6665	7665
28	36	1.25	417	2304	500	2765	1000	5530	1250	6913	---	6758	7758
30	36	1.38	567	2451	680	2941	1360	5882	1700	7353	---	6733	7733
32	32	1.50	667	2332	800	2798	1600	5596	2000	6995	---	6735	7735
34	36	1.50	667	2469	800	2963	1600	5926	2000	7407	---	6818	7818
36	32	1.63	917	2333	1100	2800	2200	5599	2750	6999	---	6813	7813
38	36	1.63	917	2527	1100	3033	2200	6065	2750	7582	---	6916	7916
40	40	1.63	917	2708	1100	3249	2200	6498	2750	8123	---	7020	8020
42	36	1.75	1250	2621	1500	3145	3000	6290	3750	7863	---	7030	8030
44	40	1.75	1250	2821	1500	3385	3000	6771	3750	8463	---	7133	8133
46	36	1.88	1667	2523	2000	3028	4000	6056	5000	7570	---	7018	8018
48	40	1.88	1667	2726	2000	3271	4000	6542	5000	8177	---	7113	8113
50	44	1.88	1667	2917	2000	3500	4000	7001	5000	8751	---	7208	8208
52	48	1.88	1667	3098	2000	3718	4000	7436	5000	9294	---	7304	8304
54	48	1.88	1667	2858	2000	3430	4000	6860	5000	8575	---	7294	8294
56	36	2.25	2650	2630	3180	3157	6360	6313	7950	7891	---	7082	8082
58	40	2.25	2650	2748	3180	3298	6360	6596	7950	8245	---	7097	8097
60	40	2.25	2650	2655	3180	3186	6360	6372	7950	7965	---	7154	8154

The values shown are not recommended values. The intent of this table is to illustrate the relationship between bolt torque, bolt stress, gasket stress, and how these three factors relate to the contact area of ASME B16.5 & B16.47 Series B flat face flanges.

Full face gaskets will typically seal at stresses well below the minimum recommended values shown.

Contact Garlock Applications Engineering at 800-448-6688 for further discussions regarding the use of compressed non-asbestos, GYLON® or GRAPH-LOCK® products in flat face flanges.

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