

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

## Available Gasket Stress vs. Bolt Stress - 150# Series A 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	1607	30	1929	60	3857	75	4822	2500	3600	4800
0.75	4	0.50	25	1301	30	1561	60	3123	75	3904	2500	3600	4800
1	4	0.50	25	1085	30	1302	60	2604	75	3255	2500	3600	4800
1.25	4	0.50	25	940	30	1128	60	2255	75	2819	2500	3600	4800
1.5	4	0.50	25	811	30	973	60	1946	75	2432	2500	3600	4800
2	4	0.63	50	916	60	1099	120	2198	150	2747	2500	3600	4800
2.5	4	0.63	50	669	60	803	120	1605	150	2006	2500	3600	4800
3	4	0.63	50	616	60	739	120	1478	150	1848	2500	3600	4800
3.5	8	0.63	50	994	60	1193	120	2386	150	2982	2500	3600	4800
4	8	0.63	50	914	60	1097	120	2195	150	2743	2500	3600	4800
5	8	0.75	83	1221	100	1466	200	2931	250	3664	2500	3600	4800
6	8	0.75	83	1082	100	1299	200	2598	250	3247	2500	3600	4800
8	8	0.75	83	755	100	906	200	1813	250	2266	2500	3600	4800
10	12	0.88	133	1246	160	1495	320	2991	400	3738	2500	3600	4800
12	12	0.88	133	858	160	1030	320	2060	400	2575	2500	3600	4800
14	12	1.00	204	916	245	1099	490	2198	613	2747	2500	3600	4800
16	16	1.00	204	1017	245	1220	490	2440	613	3050	2500	3600	4800
18	16	1.13	296	1343	355	1612	710	3224	888	4030	2500	3600	4800
20	20	1.13	296	1426	355	1711	710	3422	888	4278	2500	3600	4800
24	20	1.25	417	1442	500	1730	1000	3460	1250	4325	2500	3600	4800
26	24	1.25	417	1571	500	1885	1000	3771	1250	4714	---	4049	5249
28	28	1.25	417	1672	500	2006	1000	4012	1250	5015	---	4075	5275
30	28	1.25	417	1509	500	1811	1000	3622	1250	4528	---	4092	5292
32	28	1.50	667	1941	800	2329	1600	4659	2000	5823	---	4076	5276
34	32	1.50	667	2125	800	2550	1600	5099	2000	6374	---	4115	5315
36	32	1.50	667	1946	800	2335	1600	4670	2000	5837	---	4129	5329
38	32	1.50	667	1688	800	2025	1600	4050	2000	5063	---	4111	5311
40	36	1.50	667	1829	800	2194	1600	4388	2000	5486	---	4145	5345
42	36	1.50	667	1695	800	2034	1600	4068	2000	5085	---	4157	5357
44	40	1.50	667	1770	800	2123	1600	4247	2000	5309	---	4175	5375
46	40	1.50	667	1694	800	2033	1600	4066	2000	5082	---	4201	5401
48	44	1.50	667	1757	800	2108	1600	4216	2000	5271	---	4217	5417
50	44	1.75	1250	2394	1500	2873	3000	5746	3750	7182	---	4247	5447
52	44	1.75	1250	2241	1500	2689	3000	5379	3750	6724	---	4256	5456
54	44	1.75	1250	2103	1500	2524	3000	5048	3750	6310	---	4264	5464
56	48	1.75	1250	2128	1500	2553	3000	5107	3750	6383	---	4262	5462
58	48	1.75	1250	2006	1500	2407	3000	4814	3750	6017	---	4269	5469
60	52	1.75	1250	2120	1500	2544	3000	5087	3750	6359	---	4298	5498

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 A 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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