

Bolt Torque Values - TUFLON® (Sheet Ring Gaskets / Raised Face Flanges)

Sheet Ring Gaskets on ASME B16.5 Raised Face Flanges with ASTM A193 Gr. B7 Bolts / A194 Gr. 2H Nuts

Applicable Products: Tufion 7100, 7200 & 7300

Sheet Ring Gaskets on ASME B16.5 Raised Face Flange - Class 150						
Flange Size (in.)	1/16" THK		1/8" THK		No. of Bolts	Bolt Size (in.)
	MIN Torque. (ft.-lbs.)	MAX Torque (ft.-lbs.)	MIN Torque (ft.-lbs.)	MAX Torque (ft.-lbs.)		
	Tufion 7100, 7200 & 7300		Tufion 7100, 7200 & 7300			
1/2	7	29	9	29	4	1/2
3/4	10	43	14	43	4	1/2
1	13	56	18	56	4	1/2
1-1/4	21	66	27	66	4	1/2
1-1/2	27	66	36	66	4	1/2
2	55	132	73	132	4	5/8
2-1/2	64	132	85	132	4	5/8
3	94	132	125	132	4	5/8
3-1/2	52	132	70	132	8	5/8
4	67	132	89	132	8	5/8
5	100	238	133	238	8	3/4
6	126	238	167	238	8	3/4
8	170	238	227	238	8	3/4
10	161	385	215	385	12	7/8
12	215	385	286	385	12	7/8
14	267	578	356	578	12	1
16	254	578	339	578	16	1
18	388	859	517	859	16	1-1/8
20	342	859	456	859	20	1-1/8
24	491	1219	654	1219	20	1-1/4

NOTES: 1) The design bolt stress used for calculation is based on 60% of bolt yield at room temperature. 2) Assuming new, non-coated and well lubricated bolts and nuts are used with through-hardened washers. K factor of 0.20 was used in the calculation per ASME PCC-1. Multiply torque values by a factor of "K / 0.20" if using a lubricant with a different K factor. 3) Assuming maximum internal pressure follows ASME B16.5 Pressure-Temperature rating tables. 4) Assuming ASME PCC-1 bolting pattern is followed. 5) Flange imperfections, rotation and deflection are ignored. 6) Bolt torque values in above Tables are for reference only. User is responsible for applying appropriate bolt loads to properly seat the gasket.

Bolt Torque Values - TUFLON® (Sheet Ring Gaskets / Raised Face Flanges)

Sheet Ring Gaskets on ASME B16.5 Raised Face Flanges with ASTM A193 Gr. B7 Bolts / A194 Gr. 2H Nuts

Applicable Products: Tufion 7100, 7200 & 7300

Sheet Ring Gaskets on ASME B16.5 Raised Face Flange - Class 300						
Flange Size (in.)	1/16" THK		1/8" THK		No. of Bolts	Bolt Size (in.)
	MIN Torque. (ft.-lbs.)	MAX Torque. (ft.-lbs.)	MIN Torque. (ft.-lbs.)	MAX Torque. (ft.-lbs.)		
	Tufion 7100, 7200 & 7300		Tufion 7100, 7200 & 7300			
1/2	11	29	13	29	4	1/2
3/4	19	53	23	53	4	5/8
1	25	70	30	70	4	5/8
1-1/4	39	107	46	107	4	5/8
1-1/2	62	171	73	171	4	3/4
2	41	114	49	114	8	5/8
2-1/2	58	160	68	160	8	3/4
3	84	235	100	235	8	3/4
3-1/2	94	238	112	238	8	3/4
4	120	238	142	238	8	3/4
5	149	238	177	238	8	3/4
6	126	238	149	238	12	3/4
8	198	385	235	385	12	7/8
10	208	577	246	577	16	1
12	310	859	368	859	16	1-1/8
14	271	752	321	752	20	1-1/8
16	381	1058	452	1058	20	1-1/4
18	431	1197	511	1197	24	1-1/4
20	475	1219	563	1219	24	1-1/4
24	736	2044	872	2044	24	1-1/2

NOTES: 1) The design bolt stress used for calculation is based on 60% of bolt yield at room temperature. 2) Assuming new, non-coated and well lubricated bolts and nuts are used with through-hardened washers. K factor of 0.20 was used in the calculation per ASME PCC-1. Multiply torque values by a factor of "K / 0.20" if using a lubricant with a different K factor. 3) Assuming maximum internal pressure follows ASME B16.5 Pressure-Temperature rating tables. 4) Assuming ASME PCC-1 bolting pattern is followed. 5) Flange imperfections, rotation and deflection are ignored. 6) Bolt torque values in above Tables are for reference only. User is responsible for applying appropriate bolt loads to properly seat the gasket.

Bolt Torque Values - TUFLON® (Full Face Gaskets / Flat Face Flanges)

Full Face Gaskets on ASME B16.5 Flat Face Flanges with ASTM A193 Gr. B7 Bolts / A194 Gr. 2H Nuts

Applicable Products: Teflon 7100, 7200 & 7300

Full Face Gaskets on ASME B16.5 Flat Face Flange - Class 150										
Flange Size (in.)	1/16" THK				1/8" THK				No. of Bolts	Bolt Size (in.)
	MIN Torque. (ft.-lbs.)			MAX Torque (ft.-lbs.)	MIN Torque (ft.-lbs.)			MAX Torque (ft.-lbs.)		
	Tuflon 7100	Tuflon 7200	Tuflon 7300	All Styles	Tuflon 7100	Tuflon 7200	Tuflon 7300	All Styles		
1/2	21	17	17	66	39	17	17	66	4	1/2
3/4	25	19	19	66	46	19	19	66	4	1/2
1	29	22	22	66	52	22	22	66	4	1/2
1-1/4	32	25	25	66	58	25	25	66	4	1/2
1-1/2	36	27	27	66	65	27	27	66	4	1/2
2	59	46	46	132	108	46	46	132	4	5/8
2-1/2	75	58	58	132	132	58	58	132	4	5/8
3	80	62	62	132	132	62	62	132	4	5/8
3-1/2	48	37	37	132	89	37	37	132	8	5/8
4	52	40	40	132	95	40	40	132	8	5/8
5	69	54	54	238	127	54	54	238	8	3/4
6	77	59	59	238	141	59	59	238	8	3/4
8	101	81	81	238	185	81	81	238	8	3/4
10	97	86	86	385	179	86	86	385	12	7/8
12	129	119	119	385	233	119	119	385	12	7/8
14	179	166	166	578	312	166	166	578	12	1
16	165	154	154	578	281	154	154	578	16	1
18	206	193	193	859	341	193	193	859	16	1-1/8
20	197	185	185	859	320	185	185	859	20	1-1/8
24	291	274	274	1219	456	274	274	1219	20	1-1/4

NOTES: 1) The design bolt stress used for calculation is based on 60% of bolt yield at room temperature. 2) Assuming new, non-coated and well lubricated bolts and nuts are used with through-hardened washers. K factor of 0.20 was used in the calculation per ASME PCC-1. Multiply torque values by a factor of "K / 0.20" if using a lubricant with a different K factor. 3) Assuming maximum internal pressure follows ASME B16.5 Pressure-Temperature rating tables. 4) Assuming ASME PCC-1 bolting pattern is followed. 5) Flange imperfections, rotation and deflection are ignored. 6) Bolt torque values in above Tables are for reference only. User is responsible for applying appropriate bolt loads to properly seat the gasket.

Bolt Torque Values - TUFLON® (Full Face Gaskets / Flat Face Flanges)

Full Face Gaskets on ASME B16.5 Flat Face Flanges with ASTM A193 Gr. B7 Bolts / A194 Gr. 2H Nuts

Applicable Products: Teflon 7100, 7200 & 7300

Full Face Gaskets on ASME B16.5 Flat Face Flange - Class 300										
Flange Size (in.)	1/16" THK				1/8" THK				No. of Bolts	Bolt Size (in.)
	MIN Torque. (ft-lbs.)			MAX Torque (ft-lbs.)	MIN Torque (ft-lbs.)			MAX Torque (ft-lbs.)		
	Tuflon 7100	Tuflon 7200	Tuflon 7300	All Styles	Tuflon 7100	Tuflon 7200	Tuflon 7300	All Styles		
1/2	32	27	27	66	66	27	27	66	4	1/2
3/4	58	50	50	132	132	50	50	132	4	5/8
1	64	55	55	132	132	55	55	132	4	5/8
1-1/4	72	63	63	132	132	63	63	132	4	5/8
1-1/2	115	100	100	238	238	100	100	238	4	3/4
2	53	46	46	132	122	46	46	132	8	5/8
2-1/2	83	73	73	238	185	73	73	238	8	3/4
3	98	86	86	238	214	86	86	238	8	3/4
3-1/2	114	101	101	238	238	101	101	238	8	3/4
4	138	123	123	238	238	123	123	238	8	3/4
5	163	146	146	238	238	146	146	238	8	3/4
6	137	123	123	238	238	123	123	238	12	3/4
8	221	202	202	385	385	202	202	385	12	7/8
10	251	230	230	578	459	230	230	578	16	1
12	379	350	350	859	676	350	350	859	16	1-1/8
14	378	350	350	859	666	350	350	859	20	1-1/8
16	508	472	472	1219	875	472	472	1219	20	1-1/4
18	504	470	470	1219	849	470	470	1219	24	1-1/4
20	590	553	553	1219	977	553	553	1219	24	1-1/4
24	969	912	912	2213	1558	912	912	2213	24	1-1/2

NOTES: 1) The design bolt stress used for calculation is based on 60% of bolt yield at room temperature. 2) Assuming new, non-coated and well lubricated bolts and nuts are used with through-hardened washers. K factor of 0.20 was used in the calculation per ASME PCC-1. Multiply torque values by a factor of "K / 0.20" if using a lubricant with a different K factor. 3) Assuming maximum internal pressure follows ASME B16.5 Pressure-Temperature rating tables. 4) Assuming ASME PCC-1 bolting pattern is followed. 5) Flange imperfections, rotation and deflection are ignored. 6) Bolt torque values in above Tables are for reference only. User is responsible for applying appropriate bolt loads to properly seat the gasket.