

Torque Table for VCS, VCFS (use max value), VCSID, PGE, LineBacker, and GasketSeal - ASME B16.5 1/2" - 24" NPS

NPS	150#			300#			400#			600#			900#			1500#			2500#			NPS
	Minimum [ft-lb]	Recommended [ft-lb]	Max [ft-lb]	Minimum [ft-lb]	Recommended [ft-lb]	Max [ft-lb]	Minimum [ft-lb]	Recommended [ft-lb]	Max [ft-lb]	Minimum [ft-lb]	Recommended [ft-lb]	Max [ft-lb]	Minimum [ft-lb]	Recommended [ft-lb]	Max [ft-lb]	Minimum [ft-lb]	Recommended [ft-lb]	Max [ft-lb]	Minimum [ft-lb]	Recommended [ft-lb]	Max [ft-lb]	
1/2	15	30	45	15	30	45	15	30	45	15	30	45	45	95	120	45	95	120	50	95	120	1/2
3/4	15	30	45	30	55	90	30	55	90	30	55	90	50	95	140	50	95	140	50	95	140	3/4
1	15	30	45	30	55	90	30	55	90	30	55	90	80	155	220	80	155	220	80	155	220	1
1 1/4	20	30	45	35	55	90	35	55	90	35	55	90	85	155	255	85	155	255	130	230	350	1 1/4
1 1/2	25	30	45	60	95	160	60	95	160	60	95	160	125	230	380	125	230	380	185	335	530	1 1/2
2	45	55	90	35	55	90	35	55	90	35	55	90	80	155	255	80	150	245	125	230	380	2
2 1/2	50	55	90	55	95	160	55	95	160	55	95	160	120	230	380	125	230	380	190	335	530	2 1/2
3	55	60	90	60	95	160	60	95	160	60	95	160	90	155	255	185	335	560	275	470	785	3
3 1/2	40	55	90	65	95	160	95	155	255	95	155	255	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3 1/2
4	45	55	90	65	95	160	95	155	255	95	155	255	190	335	560	280	470	785	515	840	1400	4
5	75	95	160	75	95	160	105	155	255	145	230	380	265	470	785	485	840	1400	825	1370	2170	5
6	80	95	160	65	95	160	95	155	255	135	230	380	200	335	560	390	640	1065	1245	2080	2995	6
8	90	95	160	105	155	255	145	230	380	205	335	560	390	640	1065	685	1085	1805	1295	2080	3155	8
10	115	155	255	140	230	380	195	335	560	285	470	785	405	640	1065	1115	1700	2830	2545	4165	6005	10
12	125	155	255	205	335	560	280	470	785	290	470	785	420	640	1065	1320	2080	3465	3560	5595	8090	12
14	160	230	380	200	335	560	280	470	785	405	640	1065	570	840	1400	1915	3005	4390	N/A	N/A	N/A	14
16	155	230	380	280	470	785	385	640	1065	540	840	1400	750	1085	1805	2670	4165	6105	N/A	N/A	N/A	16
18	225	335	560	285	470	785	390	640	1065	710	1085	1805	1140	1700	2830	3630	5595	8900	N/A	N/A	N/A	18
20	215	335	560	300	470	785	515	840	1400	710	1085	1805	1420	2080	3465	4745	7320	10730	N/A	N/A	N/A	20
22	315	470	785	515	840	1400	690	1085	1805	920	1370	2280	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22
24	330	470	785	565	840	1400	865	1370	2280	1190	1700	2830	2700	4165	6945	7650	11765	18060	N/A	N/A	N/A	24
26	445	625	1045	870	1445	2405	1060	1825	3040	1520	2265	3775	4865	7460	12435	N/A	N/A	N/A	N/A	N/A	N/A	26
28	430	625	1045	900	1445	2405	1305	2265	3775	1850	2775	4620	6245	9760	16270	N/A	N/A	N/A	N/A	N/A	N/A	28
30	445	625	1045	1130	1825	3040	1600	2775	4620	1950	2775	4620	6555	9760	16270	N/A	N/A	N/A	N/A	N/A	N/A	30
32	720	1120	1865	1395	2265	3775	1650	2775	4620	2695	4005	6670	8270	12490	20820	N/A	N/A	N/A	N/A	N/A	N/A	32
34	705	1120	1865	1445	2265	3775	1700	2775	4620	2805	4005	6670	10255	15690	26145	N/A	N/A	N/A	N/A	N/A	N/A	34
36	720	1120	1865	1690	2775	4620	1690	2775	4620	3735	5555	9255	10635	15690	26145	N/A	N/A	N/A	N/A	N/A	N/A	36
38	730	1120	1865	875	1120	1865	1250	1825	3040	3045	4005	6670	11035	15690	26145	N/A	N/A	N/A	N/A	N/A	N/A	38
40	715	1120	1865	1090	1445	2405	1525	2265	3775	3005	4005	6670	10715	15690	26145	N/A	N/A	N/A	N/A	N/A	N/A	40
42	745	1120	1865	1135	1445	2405	1575	2265	3775	4170	5555	9255	11085	15690	26145	N/A	N/A	N/A	N/A	N/A	N/A	42
44	730	1120	1865	1390	1825	3040	1895	2775	4620	4100	5555	9255	13430	19390	32310	N/A	N/A	N/A	N/A	N/A	N/A	44
46	740	1120	1865	1780	2265	3775	1875	2775	4620	4245	5555	9255	16085	23630	39380	N/A	N/A	N/A	N/A	N/A	N/A	46
48	740	1120	1865	1740	2265	3775	2780	4005	6670	5430	7460	12435	16565	23630	39380	N/A	N/A	N/A	N/A	N/A	N/A	48
50	1105	1825	3040	2080	2775	4620	2730	4005	6670	7185	9760	16270	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	50
52	1115	1825	3040	2145	2775	4620	2805	4005	6670	7030	9760	16270	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	52
54	1125	1825	3040	3035	4005	6670	3865	5555	9255	7230	9760	16270	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	54
56	1120	1825	3040	3125	4005	6670	3780	5555	9255	8910	12490	20820	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	56
58	1130	1825	3040	3045	4005	6670	3870	5555	9255	9145	12490	20820	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	58
60	1115	1825	3040	3130	4005	6670	4960	7460	12435	11685	15690	26145	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60

Torque Table for VCS, VCFS (use max value), VCSID, PGE, LineBacker, and GasketSeal - ASME B16.47A 26" - 60" NPS

Notes:

- 1) The max recommended values is not an absolute max values for the products relevant to this table. The absolute max value for these products could exceed the maximum allowable limits of the other components in bolted flange assemblies therefore GPT has chosen not to display this information.(Please contact the factory for additional information)
- 2) All values have been calculated assuming a 0.16 Coefficient of Friction and new nuts and bolt. If using non-lubricated, dry, bolts increase torque by 15%. If using PTFE or Xylon coated studs use Recommended values.
- 3) "M" - Maintenance Factor = 0, "Y" - Minimum Design Seating Stress = 7500 [psi]
isolating gasket including: VCS, VCFS, VCSID, PGE, LineBacker, and Gasket Seal
- 4) The above "Max" torque value is based on the use of bolts with a yield strength of 100,000 [psi]
- 5) The minimum values are based on flange design codes calling for minimum seating stress(Y value). Sometimes minimum seating stress is inadequate to seat the gasket because the bolting and flange rigidity are insufficient to effect a proper seal. Care should be taken to ensure that flange conditions provide a suitable seating surface.

M&Y values are specific to GPT