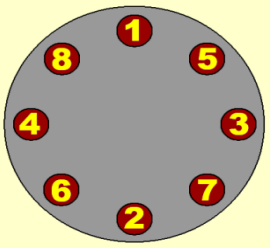
Spiral Wound Gasket CG

NPS (in.)	Class 150		Class 300		Class 400		Class 600	
	Min Torque	Max Torque	Min Torque	Max Torque	Min Torque	Max Torque	Min Torque	Max Torque
0.5	30	40	30	40	30	40	30	40
0.75	30	40	60	70	60	70	60	70
1	30	40	60	70	60	70	60	70
1.25	30	40	60	70	60	70	60	70
1.5	30	60	100	120	100	120	100	120
2	60	90	60	70	60	70	60	70
2.5	60	110	100	120	100	120	100	120
3	90	120	100	120	100	120	100	120
3.5	60	90	100	120	160	190	170	210
4	70	120	100	140	160	200	190	240
5	100	160	110	160	210	260	280	360
6	130	200	110	160	190	240	260	330
8	180	200	180	260	310	400	400	510
10	170	320	250	290	340	440	500	590
12	240	320	360	420	510	640	500	610
14	300	490	360	420	500	890	680	800
16	310	490	500	590	680	800	800	940
18	500	710	500	680	680	810	1100	1290
20	430	710	500	740	800	940	1100	1290
24	620	1000	800	1030	1500	1750	2000	2340

NPS	Class 900		Class 1500		Class 2500	
	Min Torque	Max Torque	Min Torque	Max Torque	Min Torque	Max Torque
0.5	70	120	70	100	50	100
0.75	70	120	70	100	70	100
1	110	190	110	160	110	160
1.25	110	190	135	170	210	250
1.5	170	290	200	250	310	360
2	110	190	130	170	220	250
2.5	170	290	190	250	300	360
3	140	230	265	360	460	500
4	255	420	415	520	Not Applicable Use CGI	
5	360	600	585	800		
6	300	500	530	680		
8	485	800	845	1100		
10	505	800	1565	2000		
12	570	850	Not Applicable Use CGI			
14	630	940				
16	910	1290				
18	1570	2340				
20	1745	2570				
24	Not Applicable Use CGI					

BOLTING RECOMMENDATIONS



- When utilizing Torque wrenches the use of suitable lubricants on the stud threads and nut bearing faces is recommended, e.g. Molybdenum di-sulphide or Nickel powder anti-seize compounds.
- We recommend a 4 stage tightening method as follows:
  1) Tighten the bolts at 30% of the final loading using the diametrical sequence.
  2) 60% of final load following diametrical sequence.
  3) 100% of final load following diametrical sequence.
  4) 100% of final torque on adjacent bolts.

Notes:

Torque Values are in ft.-lbs., and assume Alloy Steel Bolts (A193 B7 w/ 2H Nuts) with oil/graphite lubrication.

(Nut factors used on these charts are within .15 to .19)

Flexitallic does not generally recommend a bolt stress above 60,000 PSI

Torque values limit minimum and maximum gasket seating stresses based upon pressure class and certain operating conditions.(i.e: maximum pressure ratings for given pressure class,not hydrotest pressure), Extreme operating conditions such as high temperature may reduce bolt yield strength. Caution should be used in these applications. The above torque values are for general use only. For critical or extreme applications (high temperature/pressure) consult with Flexitallic engineering.

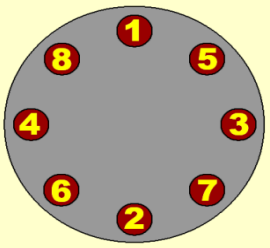
Flexitallic does not accept responsibility for the misuse of this information.

Spiral Wound Gasket CGI

NPS (in.)	Class 150		Class 300		Class 400		Class 600	
	Min Torque	Max Torque	Min Torque	Max Torque	Min Torque	Max Torque	Min Torque	Max Torque
0.5	30	50	30	40	30	40	30	40
0.75	30	50	60	80	60	80	60	80
1	30	60	60	80	60	80	60	80
1.25	30	60	60	80	60	80	60	80
1.5	30	60	100	140	100	140	100	140
2	60	120	60	80	60	80	60	80
2.5	60	120	100	140	100	140	100	140
3	90	120	100	150	100	150	100	150
3.5	60	120	100	170	160	290	170	290
4	70	120	100	200	160	320	190	320
5	100	200	110	200	210	320	280	490
6	130	200	110	200	190	320	260	460
8	180	200	180	320	310	490	400	700
10	170	320	250	460	360	710	500	800
12	240	320	360	700	510	1000	500	850
14	300	490	360	610	500	870	680	950
16	310	490	500	920	680	1250	800	1210
18	490	710	500	1000	680	1340	1100	1790
20	430	710	500	1000	800	1430	1100	1640
24	620	1000	800	1600	1500	2270	2000	2670

NPS	Class 900		Class 1500		Class 2500	
	Min Torque	Max Torque	Min Torque	Max Torque	Min Torque	Max Torque
0.5	70	120	70	100	50	100
0.75	70	120	70	100	63	100
1	110	190	110	160	110	160
1.25	110	190	140	164	210	250
1.5	170	290	200	250	310	360
2	110	190	130	170	220	250
2.5	170	290	190	250	300	360
3	140	230	270	360	460	500
4	260	420	420	520	710	800
5	360	600	590	800	1280	1500
6	300	500	530	680	1870	2200
8	485	800	850	1100	1780	2200
10	505	800	1570	2000	3040	4400
12	560	850	1500	2200	4610	5920
14	630	940	2120	3180		
16	910	1290	2940	4400		
18	1570	2340	3950	5920		
20	1745	2570	5150	7720		
24	2945	5140	8340	12500		

BOLTING RECOMMENDATIONS



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