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North America

Suggested Torque Values for Use with Teadit 905 Metalbest Gaskets / Standard ASME B16.5 Raised Face Pipe Flanges

For Use with ASTM A193 B7 Bolting or equal yield strength bolt material.

Use Correct size, New, bolts/studs, nuts, washers. Lubricate on bolt threads and nut faces with compatible antiseize*. (Multiply torques by 0.70 for PTFE coated bolting and use additional compatible lubricant on threads/nut faces). This Chart gives the torque value for the final pass. After hand tightening, torquing must follow a cross bolting sequence as exemplified in Annex 12.1 of Teadit's "Industrial Gaskets" 3rd edition by Jose Veiga. There shall be 3 complete passes (30%, 60%,100% of final pass torque). Once final torque is achieved, a minimum of 2 clockwise passes to be applied until there is no further nut rotation.

Class 150

Nominal Pipe Size	Torque FT. LB.
1/2	60
3/4	60
1	60
1 1/4	60
1 1/2	80
2	120
2 1/2	120
3	160
3 1/2	120
4	115
5	230
6	260
8	260
10	420
12	420
14	650
16	405
18	650
20	595
24	835

Class 300

Nominal Pipe Size	Torque FT. LB.
1/2	60
3/4	120
1	120
1 1/4	120
1 1/2	200
2	90
2 1/2	130
3	160
3 1/2	200
4	200
5	260
6	210
8	320
10	500
12	710
14	535
16	835
18	835
20	835
24	1300

*Charts based on nut factor approximately 0.17

Flange stress limitations were considered per Warren Brown and David Reeves, An Update on Selecting the Optimum Bolt Assembly Stress for Piping Flanges, (Advanced Draft for presentation at 2007 ASME PVP Conference), Table 2. This assumes A-105 or stainless steel weld necks or slip on with pipe walls as listed by the document. Other arrangements may require further evaluation. Spiral wound gasket dimensions were used for the flange stress analysis. Not suitable for flange materials with elongation at failure less than 20%.

Properties and application parameters shown throughout this sheet are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult TEADIT. Failure to select proper sealing products could result in property damage and/or serious personal injury. Specifications are subject to change without notice. This edition supersedes all previous issues.