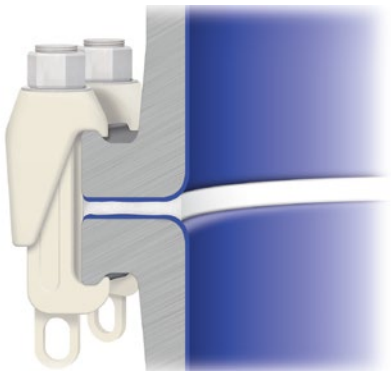
Sealant Technologies

Torque Guidelines ASME

Flange Type: Glass-Lined Steel Flange
Gasket Type: Gasket
Product Name: GORE® Universal Pipe Gasket (Style 800)



Glass-Lined Steel Flange

To achieve a reliable seal, adequate gasket stress must be applied during installation. This table provides an estimation of torque for use during assembly of standard pipe flanges.

The user must verify these conditions, as outlined, are appropriate for the specific application.

Due to the variation of the glass-lined steel sealing surface by flange manufacturer, the user must confirm that torque values do not exceed the pipe manufacturer's maximum torque recommendation. Consult Gore when selecting a lower torque value.

Caution should be used when using this documentation as proof of flange design. It is the user's responsibility to meet all applicable local laws and requirements. This estimation does not account for the influence of flange rotation, flange strength, external forces, temperature expansion, pressure peaks and installation error.

GORE® Universal Pipe Gasket (Style 800)
Bolt Torque: Gasket on Glass-Lined Steel Flange

NPS (in)	Class 150		
	Bolts Number x Size (in)	Nm	Ft-lbs
½	4 x ½	10	7
¾	4 x ½	15	11
1	4 x ½	20	13
1 ¼	4 x ½	20	17
1 ½	4 x ½	30	22
2	4 x ⅝	55	40
3	4 x ⅝	85	60
4	8 x ⅝	55	40
6	8 x ¾	90	65
8	8 x ¾	130	95
10	12 x ⅞	120	85
12	12 x ⅞	170	125
14	12 x 1	190	140
16	16 x 1	190	140
18	16 x 1 ⅛	270	200
20	20 x 1 ⅛	250	185

Torque Values Requirements

- Use of well lubricated ASTM A193 Grade B7 Bolts
- Use of 6 mm (1/4 in) gasket thickness is recommended
- Installation practices according to ASME PCC-1

Torque Estimation Conditions

- Gasket dimensions per ASME B16.21 with reduced inner diameter according to Gore specification
- Flange dimensions (sealing surface) according to DIN 2873 PN 10
  Flange backing ring dimensions according to ASME B16.5
- Maximum working pressure 10 bar (145 psi)
- Friction factor μ = 0.12; Nut factor K = 0.15
- Suggested torque values are based on best practices. In general, 20 MPa (2900 psi) average gasket stress is targeted.
- Calculation according to ASME PCC-1 Appendix J

For detailed selection criteria, technical information, installation guidelines and the complete listing of local sales offices, please visit **gore.com/sealants.**

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