



Sealant Technologies

Torque Guidelines

ASME

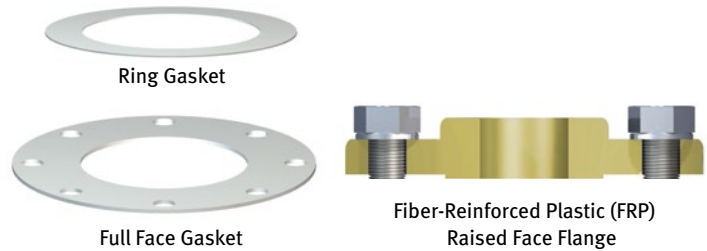
Flange Type: Raised Face FRP Flange
Gasket Type: Ring Gasket/Full Face Gasket
Product Name: GORE® Universal Pipe Gasket (Style 800)

To achieve a reliable seal, adequate gasket stress must be applied during installation. The tables provide an estimation of torque for use during assembly of standard face dimension FRP pipe flanges.

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

Due to the wide variation of FRP flange materials, designs, and manufacturing processes, the user must confirm that torque values do not exceed 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.



TORQUE VALUES REQUIREMENTS

- Use of well lubricated ASTM A193 Grade B7 Bolts
- Use of 1.5 mm (1/16 in) and 3.0 mm (1/8 in) gasket thickness
- Installation practices according to ASME PPC-1

TORQUE ESTIMATION CONDITIONS

- Gasket dimensions according to ASME B16.21
- Flange dimensions according to ASME B16.5
- Maximum working pressure 10 bar (145 psi)
- Nut factor $K = 0.15$; Friction factor $\mu = 0.12$
- Suggested torque values are based on best practices. In general, 10 MPa (1450 psi) average gasket stress is targeted.
- Calculation according ASME PCC-1 Appendix J

GORE® Universal Pipe Gasket (Style 800)

Bolt Torque: Ring or Full Face Gasket on Raised Face FRP Flange

NPS (in)	Class 150	
	Nm	Ft-lbs
1	10	4
1 ¼	10	8
1 ½	10	8
2	20	16
2 ½	30	20
3	40	30
3 ½	20	15
4	30	20
5	40	30
6	50	40
8	70	50
10	70	50
12	90	65
14	110	80
16	100	75
18	160	120
20	140	100
24	190	140

All technical information and advice given here is based on our previous experiences and/or test results. We give this information to the best of our knowledge, but assume no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. Specifications are subject to change without notice. Gore's terms and conditions of sale apply to the purchase and sale of the product.

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

North America/South America
W. L. Gore & Associates Inc. (USA)
 Tel.: +1 800 654 4229
 Email: sealants@wlgore.com



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