

Sealant Technologies

Torque Guidelines

Flange Type: Raised Face FRP Flange

Gasket Type: Ring Gasket

GORE® Universal Pipe Gasket (Style 800) **Product Name:**

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 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.

GORE® Universal Pipe Gasket (Style 800) **Bolt Torque: Ring Gasket on Raised Face FRP Flange**

DN (mm)	PN 10	
	Nm	Ft-lbs
20	11	8
25	15	10
32	25	20
40	30	20
50	40	30
65	50	40
80	30	20
100	35	25
125	45	35
150	60	45
200	85	65
250	65	50
300	75	55
350	100	70
400	140	100
450	120	90
500	140	100
600	190	140





Ring Gasket

Fiber-Reinforced Plastic (FRP) Raised Face Flange

TORQUE VALUES REQUIREMENTS

- Use of well lubricated bolts, Grade 24CrMo5 or better
- Use of 1.5 mm (1/16 in) or 3.0 mm (1/8 in) gasket thickness
- Installation practices according to ASME PCC-1

TORQUE ESTIMATION CONDITIONS

- Gasket dimensions according to EN1514-1 Form IBC
- Flange dimensions according to EN 1092-1 Type 11 Form B
- Calculated for 10 bar (145 psi) maximum. Please ensure suitability of the pipe class.
- Friction factor $\mu = 0.12$; Nut factor K = 0.15
- Suggested torque values are based on best practices. In general, 10 MPa average gasket stress is targeted.
- Calculation according to ASME PCC-1 Appendix J

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.

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