

Rotec Maximum Torque Settings for Composite Flanges & Rings

Before applying the torque settings listed below, please ensure you thoroughly read the guidelines provided on the following page of this document.

Flat Face Configuration – Maximum Torque Settings [Nm]						
Pressure Rating [Pmax]	3 bars / 6 bars	10 bars	16 bars	20 bars	25 bars	32 bars
DN [mm]						
15	20	20	20	30	30	30
20	20	20	20	30	30	30
25	20	20	20	30	30	30
32	35	35	35	45	45	45
40	35	35	35	45	45	45
50	45	45	45	60	60	60
65	45	45	45	60	60	60
80	45	45	45	60	60	60
100	55	55	60	75	75	75
125	65	65	80	80	100	100
150	80	80	100	100	110	110
200	80	100	100	110	130	130
250	80	100	130	130	160	160
300	100	130	160	160	190	190
350	100	130	160	160	190	190
400	130	160	210	210	260	260
450	130	160	210	210	260	260
500	130	160	210	210	260	260
600	160	210	260	260	300	300
630	160	210	260	260	300	300
650	160	210	260	260	300	300
700	160	210	260	260	300	300
800	190	240	300	300	350	350
900	190	240	300	300	350	350
1000	220	290	350	350	400	420
1100	220	290	350	350	400	420
1200	250	320	400	420	450	480
1350	250	320	400	420	450	480
1400	280	350	420	450	500	-
1500	280	350	420	450	500	-
1600	300	400	460	480	-	-
1800	300	400	460	480	-	-
2000	350	440	500	-	-	-
2100	350	440	500	-	-	-
2200	350	440	500	-	-	-
2400	400	500	-	-	-	-
2600	400	500	-	-	-	-

1. Flat Face Configuration

- Flat face configuration involves connections where both flanges have a flat face.
- Rotec **composite flanges (Fixed & Blind Flanges)** have a flat face. If these flanges are mounted against a raised face flange, support rings must be used outside the bolt circle to prevent damage to the Rotec composite flange due to bending caused by the torque settings.
- For Rotec **Stub Flange (Collar Flange) and Backing Ring (Loose Flange)**, we do not permit the use of support rings outside the bolt circle, as this is not efficient. When the Stub Flange and Backing Ring are combined with a support ring, the entire setup functions similarly to a Fixed Flange. This approach is inefficient and unnecessary. Instead, it is more practical and effective to use a **Rotec Fixed Flange with a support ring** when mounting against a **Raised Face Flange**.

2. Application Method

- To achieve the maximum torque settings, refer to the "Bolted Connections/Tightening Sequences" file on our website.
- Use increments of 15Nm for dimensions up to DN150 mm and for all raised face situations. For all other situations, use increments of 20Nm for dimensions up to DN600 mm and 30Nm for dimensions above DN600 mm.

3. Be Aware

- The torque ratings for composite flanges are typically determined by the gasket used. Please consult your gasket supplier for the recommended torque rating. If the gasket requires a higher torque than the maximum allowable torque of the flange, you should change the type of gasket.
- The indicated torque ratings for composite flanges are maximum ratings designed to prevent flange damage. These torque ratings are based on new, un-greased bolts.

4. Products Suitable for Given Torque Settings

- Rotec Standard Fixed Flanges (FF Series),
- Rotec Tubulated Fixed Flanges (TFS Series),
- Blind Flanges (BFS, BFC & BFE Series),

for more information visit www.rotecgrp.com