

Maximum Torque Settings for Composite Flanges

Nom. Flange diameter	ROTEC COMPOSITE GROUP – MAX. TORQUE SETTINGS (NM)					
Pressure Rating (Pmax)	20 bar		25 bar		32 bar	
Situation	FLAT FACE	RAISED FACE	FLAT FACE	RAISED FACE	FLAT FACE	RAISED FACE
Nom. Flange diameter						
15 – 25	30	15	30	15	30	15
32 – 40	45	25	45	25	45	25
50	60	35	60	35	60	35
65 – 100	75	45	75	45	75	45
125	80	50	100	60	100	60
150	100	60	110	70	110	70
200	110	70	130	80	130	80
250	130	80	160	100	160	100
300 – 350	160	100	190	120	190	120
400 – 500	210	130	260	160	260	160
600 – 700	260	160	300	190	300	190
800 – 900	300	190	350	220	350	220
1000 – 1100	350	220	400	250	420	260
1200 – 1350	420	260	450	280	480	300
1400 – 1500	450	280	500	320	n/a	n/a
1600 – 1800	480	300	n/a	n/a	n/a	n/a
2000 – 2200	n/a	n/a	n/a	n/a	n/a	n/a
2400 – 2600	n/a	n/a	n/a	n/a	n/a	n/a

Note: For all Backing Rings the Raised Face values are applicable

Connections with two Fixed Flanges or one Fixed Flange and one Blind Flange (with full face gaskets) are flat face situations. All other connections (e.g. with at least one Backing Ring) are raised face situations.

The composite Fixed 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 avoid damage of the composite flange as a result of bending, caused by the torque settings. If this is not possible, the torque setting must be reduced, according to the raised face values indicated above.

In order to reach the maximum torque settings, use the file bolted connections/tightening sequences as indicated at our website (tab engineering guide), and steps of 15Nm for dimensions up to DN150 mm and for all raised face situations. For all other situations use steps of 20Nm up to DN600 and 30Nm above.

The torque ratings, to be used for composite flanges are normally determined by the gasket which is used. Please consult your gasket supplier which torque rating is recommended. In case the gasket requires a higher torque than the maximum allowable torque of the flange, please change type of gasket.

The indicated torque ratings for composite flanges are maximum ratings to prevent flange damage. These torque ratings are based on new un-greased bolts.