

Maximum Torque Settings for Composite Flanges

Nom. Flange diameter	ROTEC COMPOSITE GROUP – MAX. TORQUE SETTINGS (Nm)					
Pressure Rating (Pmax)	3 / 6 bar		10 bar		16 bar	
Situation	FLAT FACE	RAISED FACE	FLAT FACE	RAISED FACE	FLAT FACE	RAISED FACE
Nom. Flange diameter						
15 – 25	20	12	20	12	20	12
32 – 40	35	16	35	16	35	16
50 – 80	45	24	45	24	45	24
100	55	30	55	30	60	35
125	65	30	65	30	80	35
150	80	40	80	40	100	50
200	80	40	100	50	100	65
250	80	40	100	60	130	80
300 – 350	100	50	130	80	160	100
400 – 500	130	65	160	100	210	130
600 – 700	160	100	210	130	260	160
800 – 900	190	120	240	150	300	190
1000 – 1100	220	140	290	180	350	220
1200 – 1350	250	160	320	200	400	250
1400 – 1500	280	180	350	220	420	260
1600 – 1800	300	200	400	250	460	290
2000 – 2200	350	230	440	280	500	320
2400 – 2600	400	260	500	320	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 2Nm for dimensions up to DN80 and 5Nm up to DN300 for all raised face situations. For all other situations use steps of 10Nm up to DN500 and 20Nm 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.