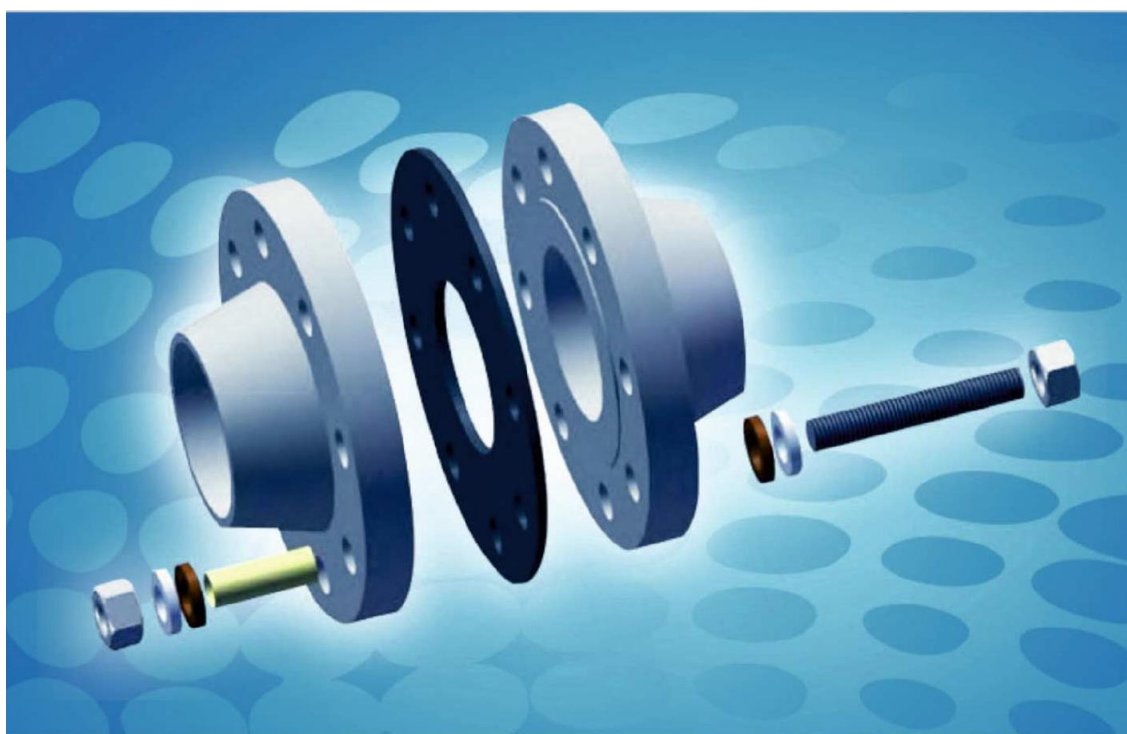
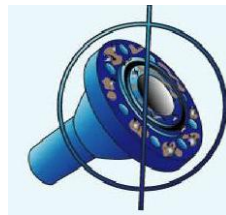


FLANGE INSULATION KIT INSTALLATION GUIDE



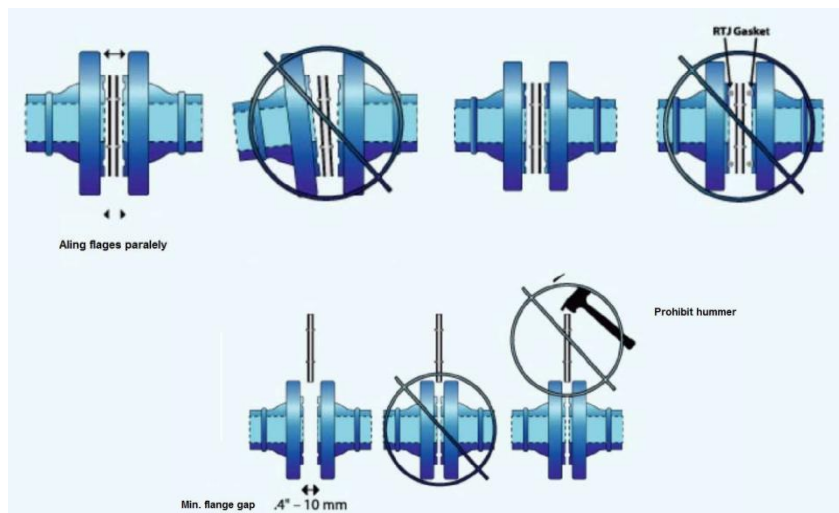
1 Check and clean

- 1.1 Remove all the impurities and debris from gasket, fasteners (bolts, studs, nuts) and washers.
- 1.2 Check all fasteners (bolts, studs, nuts) and washers, make sure they are free of defects like burrs and cracks.
- 1.3 Check the flange surfaces, make sure they are free of defects which will impact the seal function of gasket like warpage, radial scratches and hit marks.
- 1.4 Any defects components should be replaced.



2 Align flanges

- 2.1 Make sure the flanges and bolts' holes coaxial coincide.
- 2.2 Min flange gap is 10 mm.
- 2.3 Insert the gasket parallel and carefully.
- 2.4 Do not use jointing compounds, grease or lubricants with gasket and flange surface. These compounds can affect the friction between the gasket and the flange and can lead to premature joint failure.

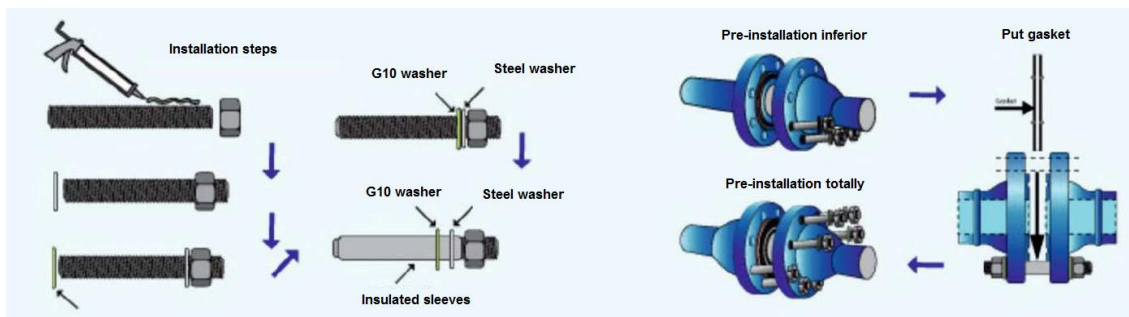


3 Install flange kits

3.1 Apply bolt lubricant to the bolt and nut threads and to the face of nut to be tightened, assembly the steel washer, insulation washer and insulation sleeve to the bolts by turn (make sure the steel washer always close to the nut)

3.2 Insert the bolts holes. No force used (like hammer), it will damage the sleeves. Please check the alignment of flange surface and size of sleeve if installation it's difficult.

3.3 Put insulator washer, steel washer and nut into bolts on another side of flange. Tighten all the bolts until the flange meet the gasket.



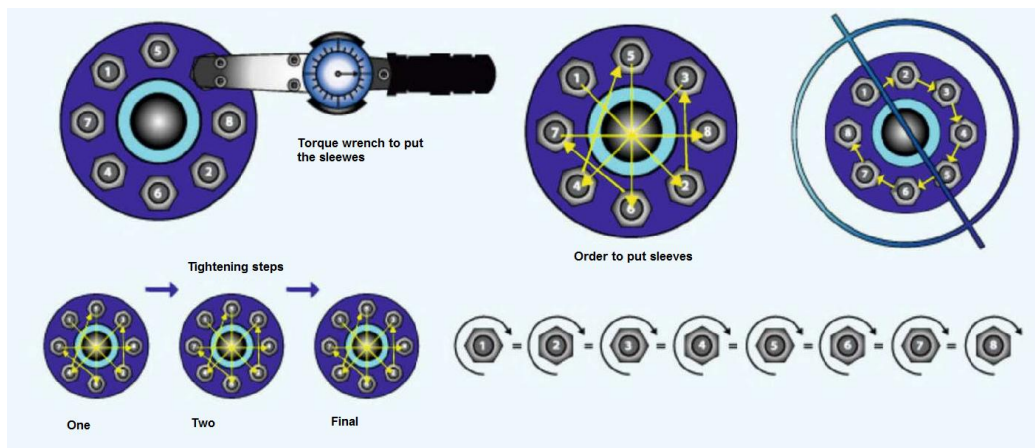
4 Install flange kits

4.1 Please use calibrated torque wrench or other tool which have control functions.

4.2 Be installed in accordance with the recommended torque.

4.3 Tighten the nut always in accordance with the symmetrical cross drawing. There are 5 steps should be followed:

- Initial tighten all nuts by hand, the big nut can us small wrench.
- Tighten each nuts by 30% of recommended torque.
- Tighten each nuts by 60% of recommended torque.
- Tighten each nuts by 100% of recommended torque.
- Tighten all nuts in clockwise direction to make sure all the nuts reach required torque.



Recommended Bolt Torque Values		
Nominal Diameter of bolt	Torque value	
(Inch)	(Ft.lbs)	(N.m)
½	30	41
5/8	60	82
¾	100	135
7/8	160	217
1	245	332
1 1/8	355	481
1 ¼	500	678
1 3/8	680	922
1 ½	800	1085
1 5/8	1100	1491
1 ¾	1500	2034
1 7/8	2000	2712
2	2200	2983
2 ¼	3180	4312
2 ½	4400	5966
2 3/4	5920	8026
3	7720	10565
3 1/4	8400	11389
3 ½	9000	12202
3 3/4	9600	13016
4	10000	13558

Notes:

- Recommended bolt torque is based on deriving a minimum gasket seating stress of 7,500 psi.
- Bolt torque values listed assume a lubricated stud bolt resulting in a 0.16 friction factor.
- Recommended torque values are based on using weld-neck (integral) flanges.
- Different sealing loads.
- 30 ksi bolt stress may exceed the design allowable stress levels for certain stud bolt materials.