Bolting Torque Specifications

The Primary concern in determining pressure ratings is the clamp load of the bolts and nuts. Conoflow offers carbon steel, stainless steel, and high-strength stainless steel bolts/nuts.

Using Carbon Steel Grade 5 bolts and Grade 8 nuts will maintain the maximum pressure rating of the seal.

The use of 300 Series Stainless Steel bolts and nuts will reduce the pressure rating by 50 %.

When 300 Series Stainless Steel bolts and nuts are required and the maximum pressure rating must be maintained, then stainless steel high-strength bolts are necessary.

When bolt through mounting is not feasible, then flange studs are provided.

The following torque values are for SAE Grade 5 Steel shank bolts, dry lubricated, using SAE Grade 5 Nuts or high-strength stainless steel bolts and nuts or internally threaded mating parts.

Bolt Size	Torque FT-LB	Torque IN-LB
1/4-20	8	96
1/4-28	10	120
5/16-18	17	204
5/16-24	19	228
3/8-16	29	348
3/8-24	35	420
7/16-14	47	564
7/16-20	55	660
1/2-13	72	864
1/2-20	85	1020
9/16-12	103	1236
9/16-18	121	1452
5/8-11	142	1704
5/8-18	168	2016

The following torque values are for 304 Stainless Steel shank bolts, dry lubricated, using 304 Stainless Steel nuts or internally threaded mating parts.

Bolt Size	Torque FT-LB	Torque IN-LB
1/4-20	5	60
1/4-28	6	72
5/16-18	10	120
5/16-24	12	144
3/8-16	18	216
3/8-24	22	264
7/16-14	29	348
7/16-20	34	408
1/2-13	45	540
1/2-20	53	636
9/16-12	64	768
9/16-18	75	900
5/8-11	88	1056
5/8-18	104	1248