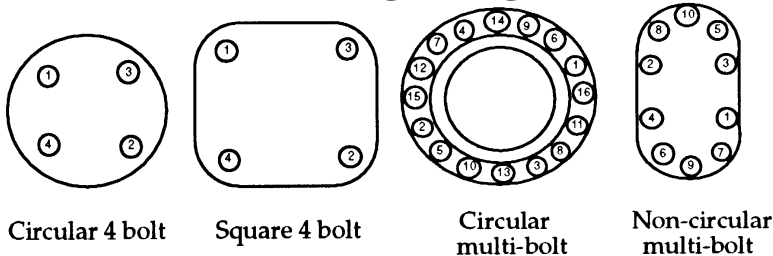


Installation

A few simple precautionary measures must be observed during installation to ensure the most satisfactory joint.

- Centre the gasket on the flange. This is extremely vital where raised faces are involved.
- Be sure surface finish and flatness are satisfactory.
- Tighten bolts to compress gasket uniformly. This means going from side to side around the joint. See figure below.
- Use a torque wrench and well-lubricated fasteners with flat washers to ensure correct initial loading.
- All bolts should be tightened in one-third increments, according to proper bolting patterns.
- Retorque 12 to 24 hours after coming on stream, whenever possible. The joint should stand as long as possible before retorquing. All applicable safety standards including lockout/tagout procedure should be observed.
- Never use anti-stick or lubricating compounds with the gaskets. Premature failure could occur as a result.

Correct Bolt Tightening Patterns



Bolt torque values for ANSI B 16.5 150# flanges

Nom. pipe size (in)	No. of bolts	Size of bolts (in)	Internal press (psig)	Max trq rec per bolt (ft-lbs)	Min trq rec per bolt (ft-lbs)
0	4	0.50	<300	9	28
0.75	4	0.50	<300	13	40
1	4	0.50	<300	17	53
1.25	4	0.50	<300	26	60
1.5	4	0.50	<300	35	60
2	4	0.63	<300	69	120
2.5	4	0.63	<300	81	120
3	4	0.63	<300	119	120
3.5	8	0.63	<300	66	120
4	8	0.63	<300	84	120
5	8	0.75	<300	117	200
6	8	0.75	<300	148	200
8	8	0.75	<300	200	200
10	12	0.88	<300	188	320
12	12	0.88	<300	250	320
14	12	1.00	<300	317	490
16	16	1.00	<300	301	490
18	16	1.13	<300	448	710
20	20	1.13	<300	395	710
24	20	1.25	<300	563	1,000

Bolt torque values for ANSI B 16.5 300# flanges

Nom. pipe size (in)	No. of bolts	Size of bolts (in)	Internal press (psig)	Max trq rec per bolt (ft-lbs)	Min trq rec per bolt (ft-lbs)
0	4	0.50	<800	12	28
0.75	4	0.63	<800	21	51
1	4	0.63	<800	28	67
1.25	4	0.63	<800	43	102
1.5	4	0.75	<800	64	151
2	8	0.63	<800	46	108
2.5	8	0.75	<800	60	141
3	8	0.75	<800	88	200
3.5	8	0.75	<800	99	200
4	8	0.75	<800	125	200
5	8	0.75	<800	156	200
6	12	0.75	<800	131	200
8	12	0.88	<800	205	320
10	16	1.00	<800	219	490
12	16	1.13	<800	319	710
14	20	1.13	<800	287	652
16	20	1.25	<800	401	912
18	24	1.25	<800	489	1,000
20	24	1.25	<800	484	1,000
24	24	1.50	<800	662	1,552