

WARNING

- Read these instructions carefully and completely before attempting to unpack, install or service the rupture disc and holder.
- Do not vent a rupture disc assembly to an area where it would endanger personnel.
- Install the rupture disc assembly in such a way that equipment in the area will not prevent rupture disc from opening or be damaged by system discharge.
- A baffle plate on the outlet end of vent piping does NOT necessarily prevent potentially dangerous discharge.
- Piping should be braced to absorb shock when the rupture disc ruptures.
- Install the enclosed DANGER sign in a conspicuous location near the zone of potential danger.

INSPECTION/PREPARATION

WARNING: Always handle the rupture disc with extreme caution. Handle the rupture disc by its edges only. Damage to the functional area (center) or seat area of the rupture disc may adversely affect the performance of the rupture disc. Read the rupture disc tag completely before installing to confirm that the size and type are correct for your system.

1. Carefully remove the rupture disc from its packaging container.
2. Inspect the rupture disc for damage. Look for dents, scratches or dings on the rupture disc.
3. If foreign material is present, carefully clean the rupture disc with a solvent that is compatible with your media.

INSTALLATION

WARNING: Double check the orientation of the rupture disc. The rupture disc tag labeled “vent side” should be on the down stream flow side of the disc assembly. If the assembly is an AD-BI (with burst indicator), the disc should be installed so that the raised retaining tab is on the downstream side. (For rupture discs with burst indicator, refer to BI installation instructions.)

1. Gaskets are supplied attached; do not install additional gaskets if factory supplied.
2. Center the rupture disc between the pipe flanges, see Figure 1.
3. If necessary, clean threads on studs and nuts. Wire brushing is usually sufficient. Oil studs with a light oil; such as SAE grade 20 engine oil. Do not use studs & nuts that show evidence of galling.
4. Install the flange bolts and finger-tighten flange bolt nuts.
5. Using the crisscross pattern shown in Figure 2, apply torque in 4 steps of 25% increments. For example, if the torque required from Table 1 is 100 ft-lb, the torque should be applied in 25 ft/lb increments. Apply 25 ft-lb to each nut, then 50 ft-lb, then 75 ft-lb, etc.

NOTE: Follow the torque instructions in this document unless a specific torque requirement is stated on the Rupture Disc and/or Rupture Disc Holder Tag.

6. **CAUTION:** When installing a rupture disc with an integrated burst indicator, it is recommended the burst indicator be positioned between bolts at the end of the torque pattern as shown in Figure 3. This will put the burst indicator under the least amount of stress while torque is being applied.

7. After recommended torque has been achieved, perform a final tightening in a clockwise bolt-to-bolt fashion to ensure that all studs have equal loading.
8. Experience has shown that in some installation conditions, it may be necessary to re-torque the flange bolting after the system has operated through normal pressure and temperature cycles.

Under normal operating conditions, the rupture disc should be replaced yearly. Severe operating conditions may require that the rupture disc be replaced more often.

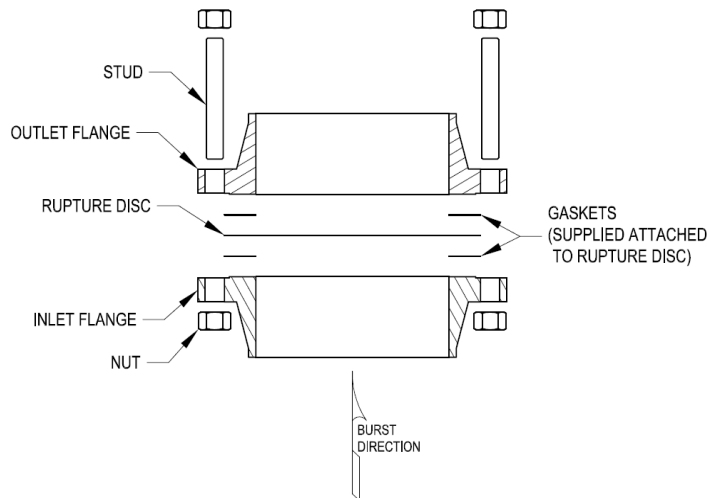


Figure 1 - Rupture Disc Installation

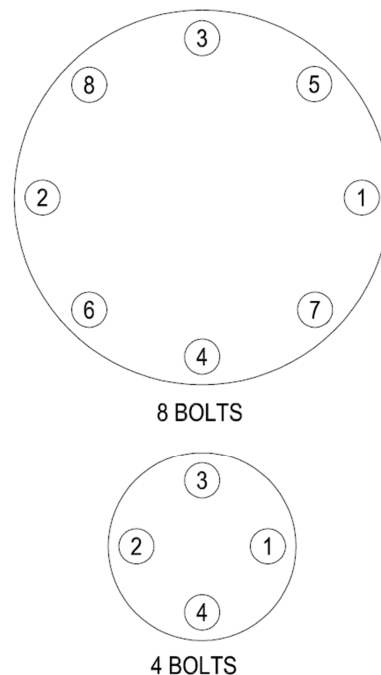


Figure 2 - Bolt Tightening Sequence

Note: Rupture disc specifications can be found on the rupture disc tag.

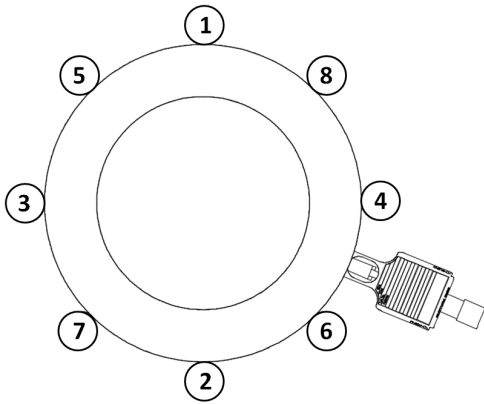
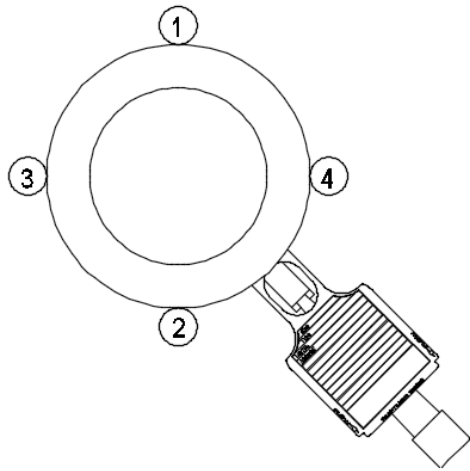


Figure 3: Recommended Torque Pattern with Integrated Burst Indicator

**TABLE 1:
TORQUE VALUES FOR AD & AD-BI RUPTURE DISCS**

ANSI 150		
Size	Torque (ft-lbs)	Torque (N-m)
2	45	61
2 1/2	45	61
3	61	83
4	30	41
6	46	62
8	107	145
10	105	142
12	120	163
14	158	214
16	135	183
18	145	197
20	127	172
24	168	228
ANSI 300		
2	30	41
2 1/2	50	68
3	50	68
4	50	68
6	50	68
8	80	108
10	123	166
12	178	241
14	178	241
16	250	339
18	250	339
20	250	339
24	400	542
ANSI 600		
2	30	41
2 1/2	50	68
3	50	68
4	80	108
6	123	166
8	178	241
10	250	339
12	250	339
14	340	461
16	400	542
18	550	746
20	550	746
24	1000	1356

ANSI 900		
Size	Torque (ft-lbs)	Torque (N-m)
2	80	108
2 1/2	123	166
3	80	108
4	178	241
6	178	241
8	340	461
10	340	461
12	340	461
14	400	542
16	550	746
18	1000	1356
20	1100	1491
24	2200	2983
ANSI 1500		
2	80	108
2 1/2	123	166
3	178	241
4	250	339
6	340	461
8	550	746
10	1000	1356
12	1100	1491
14	1590	2156
16	2200	2983
18	2960	4013
20	3860	5233
24	5826	7898
ANSI 2500		
2	123	166
2 1/2	178	241
3	250	339
4	400	542
6	1100	1491
8	1100	1491
10	2200	2983
12	2960	4013

NOTE: Torque values in Table 1 are based on a nut factor K= 0.2. Adjustment to the torque should be considered if the installation utilizes bolting/lubrication with a nut factor other than K= 0.2. The following expression may be used for correction:

Equation 1: $T_2 = (T_1/K_1)*K_2$ where T1 and K1 are the Fike default torque and nut factor values.