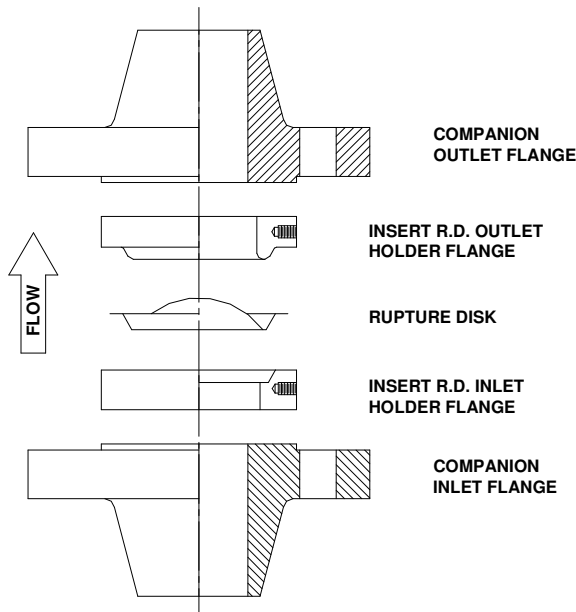


# Installation Instructions for Angular Seat STD and Composite Family Rupture Disks in Flanged, Insert, Union and Threaded Assemblies

## TYPICAL RUPTURE DISK INSTALLATION SHOWN



### CAUTION

All new installations should be located to allow full unrestricted discharge when disk rupture occurs. Never place where people or equipment could ever possibly be impacted by the discharge of the rupture disk.

### IMPORTANT

A rupture disk is a precision piece of equipment. Handle it with extreme care avoiding scratching, bending, or denting of the seat and dome.

### RUPTURE DISK HOLDER PREPARATION

- A. Bolted Type Assemblies (RDH)
  1. Remove bolting and pre-assembly cap screws.
  2. Separate flanges and remove rupture disk.
  3. Thoroughly clean all seating surfaces. Do not scrape, or scratch surfaces. If wiping does not clean surface, fine emery cloth or steel wool may be used.
- B. Insert Type (RDI)
  1. Remove bolting from companion flanges and slip out insert.
  2. Loosen side bar pre-assembly capscrews.
  3. Separate flanges and remove old rupture disk.
  4. Thoroughly clean all seating surfaces. Use emery cloth or steel wool if necessary.
- C. Union Type (UT)
  1. Remove union nut.
  2. Separate inlet and outlet and remove old rupture disk.
  3. Thoroughly clean all seating surfaces. Use emery cloth or steel wool if necessary.
- D. Threaded Type (TDH)
  1. While holding inlet part of assembly firm with wrench, remove outlet.
  2. Separate parts, removing hold down ring and old rupture disk.

3. Thoroughly clean all seating surfaces.

### INSTALLING THE RUPTURE DISK

- A. Bolted Type Assembly (RDH)
  1. Position rupture disk with concave side towards pressure. The domed portion of the rupture disk should always fit into outlet flange.
  2. Lower outlet flange over dome of rupture disk. Keep flange surface parallel with inlet flange.
  3. Reinstall studs and nuts tightening uniformly to keep flanges from becoming uneven.
  4. The torque values listed in the tables are suitable for many of the gasket and flange bolting materials currently in use. Please consult the factory when gasket sealing or a leak free rupture disk holder installation cannot be achieved or maintained. Excessive torque is not necessary and may cause damage.
- B. Insert Type (RDI)
  1. Position rupture disk with concave side toward pressure and place on seating surface of inlet flange.
  2. Place outlet flange over dome portion of rupture disk.
  3. Install pre-assembly side bars using cap screws. Tighten until snug only.
  4. Slip assembly inside bolt circle of companion flanges and install clean or new studs and nuts.
  5. Place new ring gaskets between inlet and outlet flange face of rupture disk assembly and the faces of the companion flanges.
  6. The torque values listed in the tables are suitable for many of the gasket and flange bolting materials currently in use. Please consult the factory when gasket sealing or a leak free rupture disk holder installation cannot be achieved or maintained. Tighten nuts to achieve a seal with the gaskets. Excessive torque may result in permanent damage to the rupture disk flanges or the disk.
- C. Union Type Assembly (UT)
  1. Position rupture disk so pressure is on concave side.
  2. Tighten union nut to achieve seal.
- D. Threaded Type (TDH)
  1. Position rupture disk inside inlet with concave side toward pressure.
  2. Place hold down ring over dome of rupture disk.
  3. Tighten outlet securely to obtain a seal.

Required Torque Values for Union Holders*					
NOMINAL SIZE, in.	1/2	3/4	1	1-1/2	2
DISK TYPE	TORQUE, FT-LBS				
STD, CO (Metal Seal)	100	200	280	780	1600
CO (Polymer Seal)	50	100	140	390	800

\*The torque values listed above are not absolute requirements but rather general guidelines. The general requirement is that assemblies be tightened until no leakage is detected. The required torque will generally be higher for higher-pressure disks.

## Installation Instructions for Angular Seat STD and Composite Family Rupture Disks in Flanged, Insert, Union and Threaded Assemblies

Size Inches	Companion Flange Torque Requirements for STD-STDV Rupture Disks						
	ANSI Rating						
	150	300	300/600	600	900	1500	2500
1	17	--	21	--	29	29	29
1.5	34	--	51	--	68	68	77
2	59	--	30	--	41	41	47
3	93	--	56	--	65	83	93
4	62	74	--	86	111	123	148
6	111	74	--	98	111	135	--
8	146	113	--	146	178	--	--
10	139	119	--	149	--	--	--
12	174	168	--	149	--	--	--
14	283	191	--	233	--	--	--
16	283	283	--	339	--	--	--
18	415	307	--	479	--	--	--
20	415	384	--	499	--	--	--
24	583	583	--	729	--	--	--

Torque values are based on nuts and studs being lightly lubricated and maintained in a "free running" condition. Torque values in excess of those listed can deform the holder.

Size Inches	Companion Flange Torque Requirements for CO-COV Rupture Disks with Polymer Seals and STD Rupture Disks with Polymer Liners			
	ANSI Rating			
	150	300	300/600	600
1	8	--	10	--
1.5	17	--	26	--
2	30	--	15	--
3	46	--	28	--
4	31	37	--	--
6	55	37	--	--
8	73	57	--	--
10	70	--	--	--
12	87	--	--	--
14	141	--	--	--
16	141	--	--	--
18	207	--	--	--
20	207	--	--	--
24	292	--	--	--

Torque values are based on nuts and studs being lightly lubricated and maintained in a "free running" condition. Torque values in excess of those listed can deform the holder and/or pinch the seal, creating a leak path.

Size Inches	Companion Flange Torque Requirements for CO-COV Rupture Disks w/ Metal Seals						
	ANSI Rating						
	150	300	300/600	600	900	1500	2500
1	17	--	21	--	29	29	29
1.5	34	--	51	--	68	68	77
2	59	--	30	--	41	41	47
3	93	--	56	--	65	83	93
4	62	74	--	86	111	123	148
6	111	74	--	98	111	135	--
8	146	113	--	146	178	--	--
10	139	119	--	149	--	--	--
12	174	168	--	149	--	--	--
14	283	191	--	233	--	--	--
16	283	283	--	339	--	--	--
18	415	307	--	479	--	--	--
20	415	384	--	499	--	--	--
24	583	583	--	729	--	--	--

Torque values are based on nuts and studs being lightly lubricated and maintained in a "free running" condition. Torque values in excess of those listed can deform the holder and/or pinch the seal, creating a leak path.