






KIT ITEM # _____

IMPORTANT! After maintenance or reassembly, use new fasteners and torque fasteners as follows:

_____ FT LBS _____ IN LBS _____ Nm

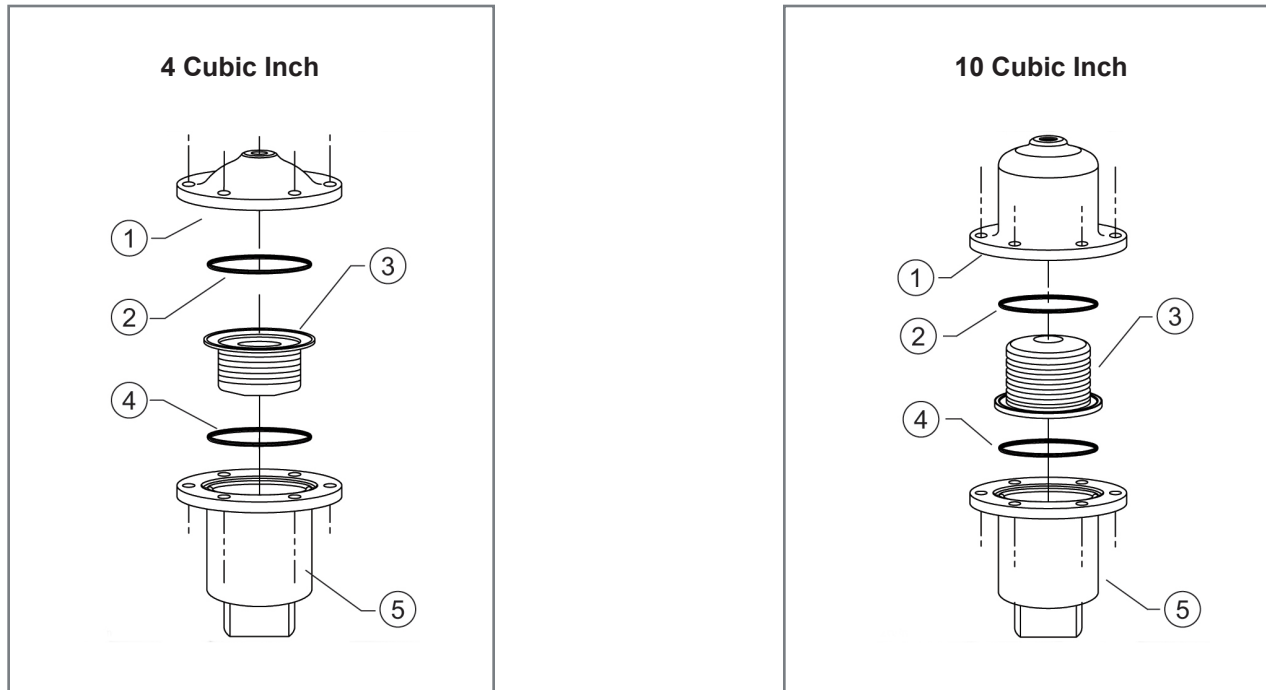
Torque specifications are based on the replacement kit ordered. Check torque specifications to dampener tag. Consult factory if specifications do not match dampener tag or tag is missing.

-  **Read and observe all safety warnings and instructions in the Installation and Operation Manual before dampener installation, operation or repair.**
-  **Remove all pressure from dampener AND pumping system before disassembly, removal or maintenance.**
-  Always wear safety glasses and other appropriate safety equipment when installing, charging or repairing dampener.
-  **IMPORTANT! Replace nut and bolt fasteners at each reassembly with fasteners of equal grade/strength value. DO NOT reuse old nuts and bolts. Fasteners may lose strength when re-torqued. Warranty voided for failure to replace both nuts and bolts when reassembling.**
-  To avoid possible damage to bellows from a system pressure test:
 - Adjustable and Chargeable models** — charge dampener to 80% of the system test pressure prior to test.
 - Automatic model** — prior to test, dampener must be equipped with a constant source of compressed air with pressure equal to or greater than system test pressure.
 - Inlet Stabilizer model** — maximum pressure test 30 psi (2.0 bar), charge to 20 psi (1.3 bar) for system pressure test.

Bellows Replacement

1. Disassemble dampener by removing fasteners securing wetted and non-wetted housings. Remove and discard old bellows, O-rings, gasket and/or PTFE tape. Make sure all components are clean and free of corrosion. Order replacement parts as needed. (Figure 1)
2. Place the new PTFE encapsulated O-ring ④ into the sealing groove of the wetted housing ⑤ centering as much as possible.
 - PVDF (Kynar) and Acetal models:** Use 1/8" wide PTFE tape in place of a PTFE encapsulated O-ring ④ on the wetted housing sealing groove ⑤. The 1/8" PTFE tape has a tacky section on the back side covered by a protective film strip. Remove the protective strip and place the PTFE tape into the wetted housing sealing groove. Start at one point and carefully install the tape around the bead, keeping the tape centered in the groove. Overlap the ends of the PTFE tape 1/4" to 1/2" and cut off any excess.
3. Place the PTFE bellows ③ into the groove ensuring the O-ring seats in the O-ring groove on the bellows. A short, back and forth, circular twist of the bellows onto the O-ring will help seat it into the bellows O-ring groove.
 - 4 cu in (Flat Top):** PTFE bellows must be pointed down into the wetted housing ⑤ with open end facing up.
 - 10 cu in (Dome Top):** PTFE bellows must be pointed up into the non-wetted housing ① with open end facing down.
4. Apply a solution of soap and water as a lubricant to both the PTFE bellows ③ and the Viton O-ring ②. The Viton O-ring is used to seal the wetted and non-wetted dampener housings together. Lubrication is critical so that the O-ring groove in each of the dampener housings will seat against the bellows sealing O-ring smoothly and without distortion. Place the Viton O-ring ② into the O-ring groove on the non-wetted side of the bellows sealing bead. The O-ring may require a slight stretching to fit into the sealing bead groove.
 - PVDF (Kynar) and Acetal models:** Place the Viton gasket ② into the groove in the non-wetted housing ①. Install two bolts in the non-wetted housing and place the PTFE bellows ③ onto the gasket; the bolts will help to hold the gasket centered.
5. Reassemble dampener by placing the non-wetted housing ① onto the bellows assembly aligning the bolt holes. A short circular twist of the housing will help to seat the O-ring. Secure dampener assembly with new bolts, nuts and washers. The gap between the non-wetted and wetted housings must remain even all around the unit. Ensure all components align concentrically while fastening.
6. Tighten bolts in a criss-cross pattern as shown in Figure 2, and torque to specifications on dampener tag. **DO NOT reuse old nuts and bolts. New nuts and bolts must be of equal grade/strength value.**
7. Due to the nature of PTFE, dampeners should set for 24 hours as the PTFE will *cold flow*. After 24 hours, tighten bolts again to torque specifications on dampener tag.
8. To reinstall dampener, refer to the appropriate Installation and Operation Manual for complete instructions.

Figure 1 Exploded Views



- ① Non-wetted Housing
- ② Viton O-Ring (Viton Gasket on PVDF and ACETAL models)
- ③ PTFE Bellows
- ④ PTFE Encapsulated Viton O-Ring (PTFE Tape on PVDF and ACETAL models)
- ⑤ Wetted Housing

Figure 2 Bolt Tightening Pattern

