



4" - 12" Insta-Valve 250 Patriot Valve Body Installation Instructions



Figure 1



Figure 2



Figure 3



Figure 4

IMPORTANT: Read installation instructions COMPLETELY before installing the Insta-Valve 250 Patriot valve body. Failure to follow installation instructions will void product warranty. Follow local safety regulations and use personal protection equipment (PPE) as required by national, state and local regulations.

INSTALLATION INSTRUCTION STEPS

1. Inspect the valve body to ensure no damage has occurred during shipment or storage. (See Figure 1).
2. Locate valve cartridge and box containing stainless steel mounting hardware. Store in a clean, safe location.
3. Measure pipe outside diameter where the Insta-Valve 250 Patriot is being installed to ensure the correct insertion valve is being used.
4. Thoroughly clean the pipe surface with a wire brush where the valve body will be installed to ensure all loose debris and material is removed. Inspect for flaws, i.e., gouges, protrusions, excessive corrosion, etc. Irregular surfaces should be avoided to assure maximum gasket sealing.
5. Liberally lubricate top and bottom of pipe and mat and throat gaskets with a soap/water solution. Ensure branch gasket is adequately lubricated.
6. Mount the top half of the valve body on the pipe in the position required for permanent installation (See Figure 2). Do not rotate the top half of the valve body after it is positioned on the pipe.
7. Install the bottom half of the valve body over the tapered ends of the mat gasket ensuring they are flat and smooth against the pipe surface. Visually inspect gasket to ensure tapered ends are not folded or rolled under themselves.
8. Install stainless steel carriage bolts, washers, and nuts (See Figure 3). Finger tighten nuts, ensuring gaps between top half and bottom half of the valve body are the same front to back and side to side within 1/8". (See Figure 4)
9. Using a torque wrench, tighten nuts in proper pattern. Tightening patterns (Figures 5-7) for each size valve are on the reverse side of this document. **Repeat tightening pattern in no more than 25 ft. lb. increments until recommended torque is reached.**
10. Wait 10 minutes to allow the gasket to fully seat then re-tighten bolts to recommended torque three additional times following the tightening pattern.

RECOMMENDED TORQUE:

4" - 8" Insta-Valve 250 Patriot

CI / DI Pipe: 115 ft-lbs.

PVC Pipe: 55 ft-lbs.

AC Pipe: 75 ft-lbs.

10" - 12" Insta-Valve 250 Patriot

CI / DI Pipe: 65 ft-lbs.

PVC Pipe: 55 ft-lbs.

AC Pipe: 60 ft-lbs.

Installation instructions and best practices continued on reverse

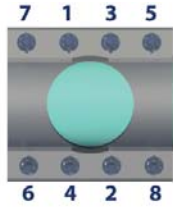


Figure 5
4" - 6" Bolt Tightening Pattern

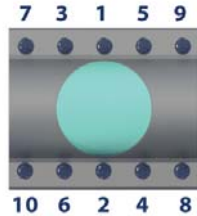


Figure 6
8" Bolt Tightening Pattern

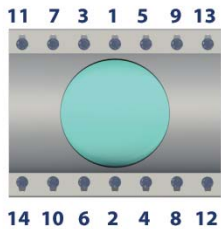


Figure 7
10" and 12" Bolt Tightening Pattern



Figure 8
Completion pins NOT flush with inner valve flange. DO NOT ATTEMPT VALVE INSTALLATION WITH PINS IN THIS POSITION.

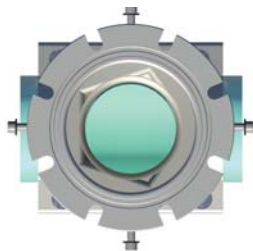


Figure 9
Completion pins flush with I.D. of flange. This is correct position to begin pressure test and continue with installation procedure.

11. Check inside of valve body outlet to ensure gasket is properly seated. Completion pins are shipped in the fully installed position. **Backout and ensure completion pins are flush with I.D. of the flange (See Figure 8 and 9).**

12. Fill valve body with water. Install Quick Pressure Test Plug (from Hydra-Q.I.K. kit) or test flange. Perform pressure test to ensure a complete seal between the valve body and pipe. DO NOT use a compressible medium such as air.

Minimum Test Pressure: 1.5 times the system working pressure
Maximum Test Pressure: 375 psi

13. Remove the Quick Pressure Test Plug or test flange.

14. Following the tightening pattern, re-torque carriage bolts to recommended torque before continuing.

15. Properly block (support) Insta-Valve 250 Patriot valve body and ensure pipe joints are properly restrained. Proceed with valve insertion operation.

INSTALLATION BEST PRACTICES:

- Keep nuts and bolts clean and free of debris.
- Adequately lubricate pipe and Insta-Valve 250 Patriot gaskets with soap/water solution paying special attention to AC pipe. Ensure branch gasket is adequately lubricated. Do not use grease or pipe lubricant.
- Avoid rotating top half of Insta-Valve 250 Patriot once placed on pipe.
- Do not use a powered wrench to tighten nuts. You will gall the bolts and damage the valve.
- Block / support the pipe before installing the tapping machine.
- Ensure all pipe joints are restrained prior to proceeding to valve insertion operation.
- Label valve body with a paint pen or permanent marker with the tightening pattern as a visual reminder of the tightening pattern.



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