Hydra-Stop Insta-Valve 20-24

Insertion Valve Specification

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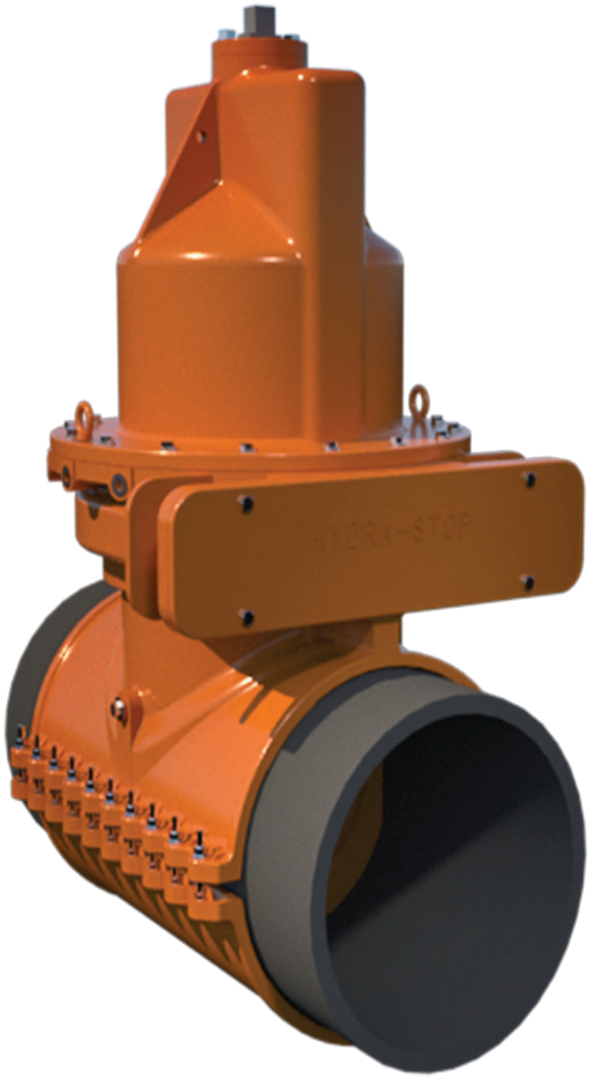

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Specifications subject to change without notice.

Hydra-Stop Insta-Valve 20-24
Insertion Valve Specification

All Insertion Valves shall conform to the following:

Insertion valve shall be a 10 mill Epoxy coated Ductile Iron body Resilient Wedge Gate Valve designed for permanent use in potable water, sewage, raw water, reclaimed water, irrigation and backflow control systems. The design will allow the valve to be installed into an existing pressurized Cast or Ductile iron pipeline while maintaining constant pressure and service without system shutdown.

Installation Method:

- Traditional line tapping methods shall be used for the Installation of all insertion valves to allow removal of a single coupon for system evaluation. Reaming the pipe, complete removal of a section of pipe (top & bottom) or milling a slot in the pipe shall be prohibited.

Trained & Authorized Installer:

- All insertion valves must be installed by companies trained and authorized by the approved valve manufacturer. This will ensure high quality installation and guarantee the warranty of the product.

Valve Body and Bonnet Construction:

- All insertion valves shall have a Epoxy coated Ductile Iron body, Epoxy coated Ductile Iron bonnet and Epoxy coated Ductile Iron valve cartridge to provide superior corrosion resistance, strength and a pressure rating that meets the requirements of resilient seated gate valves. The insertion valve shall be constructed in such a manner to assure corrosion resistance, maximum toughness, and strength.

- All insertion valves must be capable of working on Cast/Grey Iron or Ductile Iron Class A, B, C and D, diameters without altering or changing out either top or bottom portion of split valve body or using any type of transition gasket.

- All insertion valves must provide a solid support of the host pipe through the entire laying length of the valve body.

- All insertion valves shall be rated for 150 psig working pressure and shall be bi-directional

- All insertion valves must be hydrostatically pressure tested to 1.25 times of the system operating pressure (minimum) or 1.5 times of the Insertion valve rated pressure.

- The test shall be sustained for a minimum of 15 minutes. Once the pressure test is affectively achieved the insertion valve body must not be moved in accordance with AWWA Standards. If the insertion valve body is moved the pressure test must be completed again. Any movement, repositioning, loosening and/or re-tightening must be retested before the pipe is tapped.

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Resilient Wedge Gate Assembly:

- Insertion valves shall have a molded resilient wedge seal. The resilient wedge seal will be affixed into the Ductile Iron valve cartridge. The valve seat shall implement an actuated spreading mechanism to assure a low operating torque, positive seal and eliminate the need of an external valve bypass.
- The expanding valve cartridge shall be engineered to achieve a positive seal on the interior of a clean or tuberculated host pipe.
- Pressure equalization on the down or upstream side of the closed wedge shall not be necessary to open the valve.
- The wedge shall be symmetrical and seal equally well with flow in either direction.
- The resilient wedge must maintain wedge alignment throughout its travel and achieve maximum fluid control regardless of high or low flow pressure or velocity.
- Insertion valves shall have a full size, full port flow way that is unobstructed, and free of depressions to provide optimum flow and sealing and not trap tuberculation or debris.

Valve Dimensions and Weight:

- Maximum height of the valve from the **center** of the host pipe to the top of the operating nut shall not exceed the following dimensions:
  - 20” = 53”
  - 24” = 61”
- Maximum laying length of the valve body shall not exceed the following dimensions:
  - 20” = 35.5”
  - 24” = 39.5”
- Maximum weight of the valve shall not exceed the following weight:
  - 20” = 2250 lbs.
  - 24” = 3150 lbs.

Fusion- Bonded Epoxy / E Coating:

- All exterior Iron surfaces of the valve body and bonnet shall be protected with a 10 mill Epoxy Coating.

Gaskets and Stem Seals:

- Insertion valves shall utilize O-Ring pressure seals between valve body to valve bonnet and valve stem. These O-rings shall be located in such a fashion as to ensure pressure worthiness and prevent ground water and/or foreign materials from entering the valve.

Valve Stem:

- Insertion valves shall be NRS (non-rising stem)
- Insertion valves shall be operated by a 2” square wrench nut – open left (Black) or open right (Red).
- The gate valve stem shall be made of stainless steel.
- The NRS stem must have an integral stem collar. Two-piece stem collars are not acceptable. The stem shall be affixed into the valve cartridge spreading mechanism to maintain stem alignment, low torque and continuous operation of the valve.

Hardware:

- All bonnet and valve body fastener hardware shall be stainless steel.
- Valve cartridge locking pins shall be made of stainless steel

Split Restraint Devices & Fasteners:

- Insertion valves that require the use of point loading fasteners is prohibited. The use of split restraint devices may be used as an option.

Value Added Features and Benefits:

- All moving and operating parts must be removable, repairable and or replaceable under pressure to ensure easy repair of broken or damaged parts.

The 20” and 24” Insertion Valve shall be a Hydra-Stop Insta-Valve 20-24 or written preapproved equal.

APPROVED BY

Name:_____

Title:_____

Date:____/____/____

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