



ADDITION OF CONTROL POINTS

AVT® EZ VALVE®



**Advanced Valve
Technologies**

www.AVTFittings.com

Sales@AVTFittings.com

AVT EZ VALVE - INSERTION VALVE

There are currently more than 1.6 million miles of water lines, with an average age of 45 years, running beneath the streets of the U.S. with cast iron pipes in more than 600 counties more than a century old.

When these water systems were designed, little consideration was made for the future requirements of the communities they serve and many were created with no designed-in control points. This shortfall has led to issues when it comes to extending water systems or carrying out repairs and maintenance.

Traditionally, water system operators are forced to shut off the water to larger communities using line stops in order to install new valves and create needed control points. Insertion valves offer a real alternative.

The valve uses an integrated isolation gate, which when operated after a slot has been milled across the pipe, allows the EM (end milling) machine to be removed and the bonnet with a resilient wedge to be installed.

Available in sizes 1.5" to 24" the AVT EZ Valve is durable and reliable.

BENEFITS & VALUES:

- No high-profile tapping equipment required
- No system shutoff required during installation
- No service interruption
- No risk of plugging the line with a cut coupon
- No loss of pipe integrity
- Four times quicker to install than other valves on the market - just 1 to 2 hours depending on size
- Only one excavation required for water line repair
- No concerns regarding ice plugs not holding when freezing pipes



FEATURES

DESIGN

- Unique, patented technology
- Low profile design
- Ductile iron castings
- Patented gaskets which conform to irregular pipe geometries and sizes
- Size 1.5" to 24"

INSTALLATION

- Can be installed on all common pipe materials
- Installs at any angle
- Integrated isolation valve means the valve bonnet can be removed after a repair or remain in place as a permanent functioning valve
- Customizable for special applications

SAFETY

- Approved Epoxy Resin Coating
- Stainless Steel Restraining Bolts for secure positioning
- 1.5 and 2": Working pressure of 100 PSI, (7 Bar)
- 3" and above: Working pressure of 250 PSI, (17 Bar) - Tested Pressure to 375 PSI (26 Bar)
- For non-water applications all sizes rated to 30 PSI (2 Bar)
- EZ Valve Components are WRAS Certified, meet UL Classified to NSF/ANSI Standard 61, Drinking Water System Components -Health Effects and AWWA C-509-01/C515-15 standards

INSTALL PROCESS



1

Prepare Insertion Site

Prepare insertion site by lubricating the gasket and contact areas



2

Lubricate Gasket Sets & Channels

Lubricate gasket sets and gasket channels in casting bodies



3

Assemble Ductile Iron Castings

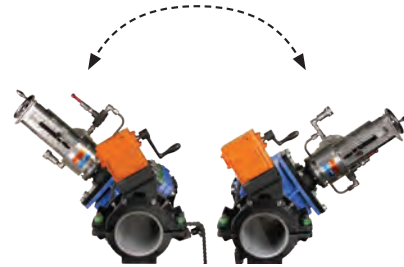
Assemble ductile iron castings with ductile iron fasteners to accept a pressure test and temporarily allow rotation for milling



4

Attach EM Machine

Check integral isolation gate is fully open, fit rotation assembly, attach EM machine and apply pressure tests



5

Mill A Slot Over a 120° Path

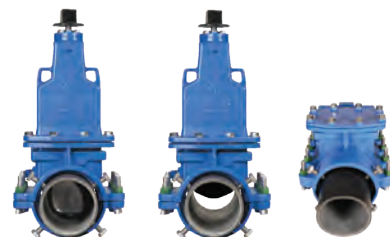
Maintaining system line pressure, mill a slot over a 120° path (Note: The slot normally is cut to provide for vertical valve alignment, but the installer can select any position.)



6

Retract The Milling Head

Retract the milling head, close the integral isolation gate. Replace the EM Machine with the resilient wedge bonnet, remove the rotation assembly and tighten casting fasteners to specified torque values



7

Open and Operate

Open the integral isolation gate and operate the AVT EZ Valve. For line stop applications, replace the valve bonnet with a blind flange using the integral isolation gate

CUT AWAY VALVE WITH KEY

Wrench Nut

Standard number of turns to open and close valve

Removable Valve Bonnet

Resilient wedge gate and actuation mechanism are contained for fast and easy installation or removal

Resilient Wedge

A wedge gate over a ductile iron frame that effectively seals even tuberculated host pipe

Gasket & Channel

Maintain system pressure while allowing rotation of casting assembly during slot-milling

Integrated isolation valve

Provides "under pressure" installation or removal of valve bonnets or blind flanges

Restraining Bolts

Stainless steel components secure casting assembly and provide final positioning on pipe

Insertion Slot

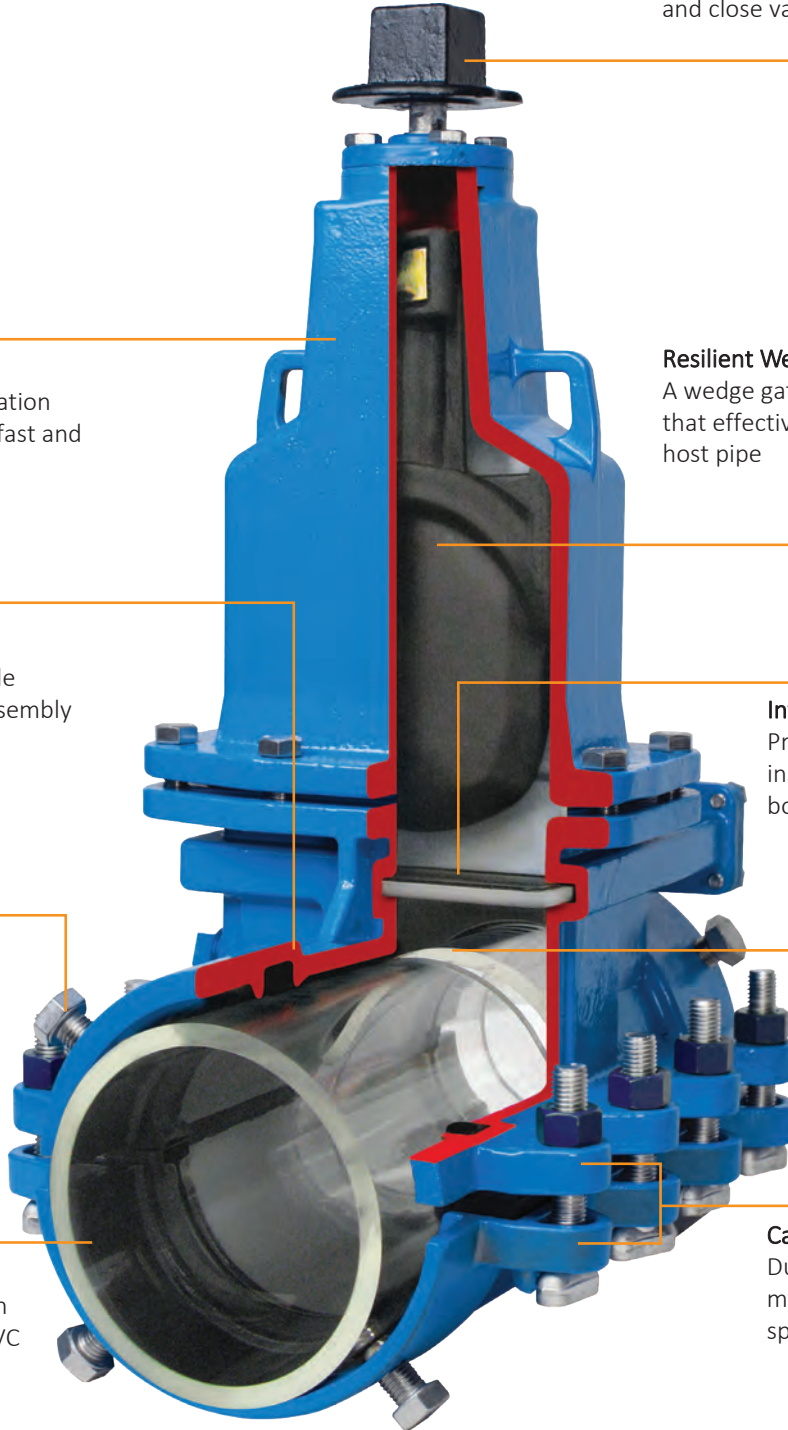
One narrow slot over a 120° path maintains pipe integrity and creates resilient wedge access

Pipeline Compatibility

The EZ Valve design works with most metallic pipes, AC and PVC materials

Castings

Ductile iron castings are precision machined to fit project specifications and pipe material



ILLINOIS

800 Busse Road
Elk Grove Village, IL 60007
P: +1 847 364 3700
F: +1 847 364 8883



Advanced Valve Technologies

Advanced Valve Technologies (AVT) is part of ClockSpring|NRI, the high-performance critical infrastructure solutions company. AVT's advanced solutions are based on simple designs that minimize risk to the environment and reduce costly downtime. Our primary focus is on disruptions in water service that cost providers money and leave end users without service.

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