



AVT[®] EZ VALVE[®]

100mm to 350mm data sheet



**Advanced Valve
Technologies**

www.AVTFittings.com

Sales@AVTFittings.com

AVT EZ VALVE 100MM TO 350MM

The award-winning AVT EZ Valve is the best choice for emergency repairs and the smartest solution for planned and emergency pipeline maintenance on 100mm to 350mm diameter lines.

This inline insertion valve can be installed on horizontal or vertical lines and requires a single excavation; so fixing a line is fast, with fewer disruptions to businesses and residents and less cost and risk for owners and operators. Even on pipe diameters from 100mm to 350mm these valves normally can be installed in about four hours.

Ranked among the industry's most innovative solutions, the light and compact AVT EZ Valve is designed with a built-in isolation gate that allows the valve to be installed under pressure, a design feature that permits flow through the line while the repair is being made. It is durable, reliable, and certified to industry standards.



BENEFITS & VALUES:

- No water shutoff required during installation
- No service interruption
- No fines for water shutoff
- No boil orders
- No customer notices
- 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
- Only one excavation required for water line repair

APPLICATIONS:

- Municipal water networks
- Transmission and distribution lines
- Wastewater treatment plants
- Sewer force main
- Refining and petrochemical plants
- Offshore applications
- Commercial buildings / isolation
- High-rise buildings
- Multiple occupancy buildings
- Industrial process piping
- Ground storage tank isolation



FEATURES

DESIGN

- Unique, patented technology
- Low profile design
- Ductile iron castings
- Integrated isolation valve
- Patented gaskets which conform to irregular pipe geometries and sizes
- Size 100mm to 350mm

INSTALLATION

- Can be installed on all common pipe materials
- Installs at any angle
- Valve bonnet can be removed after a repair or remain in place as a permanent functioning valve

SAFETY

- Approved epoxy resin coated
- Stainless steel fasteners for secure positioning
- Working pressure of 250 PSI, (17 Bar) - Tested Pressure to 375 PSI (26 Bar)
- EZ Valve Components are WRAS Certified, meet AWWA C-509/C515 standards and UL Classified to NSF/ANSI Standard 61, Drinking Water System Components - Health Effects

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

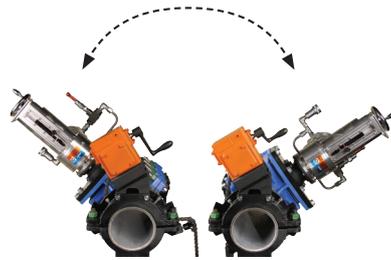
Attach EM Machine

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.)



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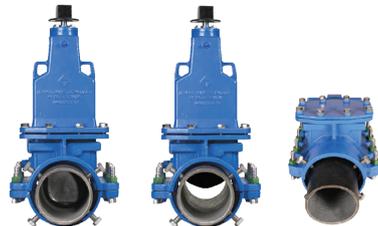
Retract The Milling Head

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

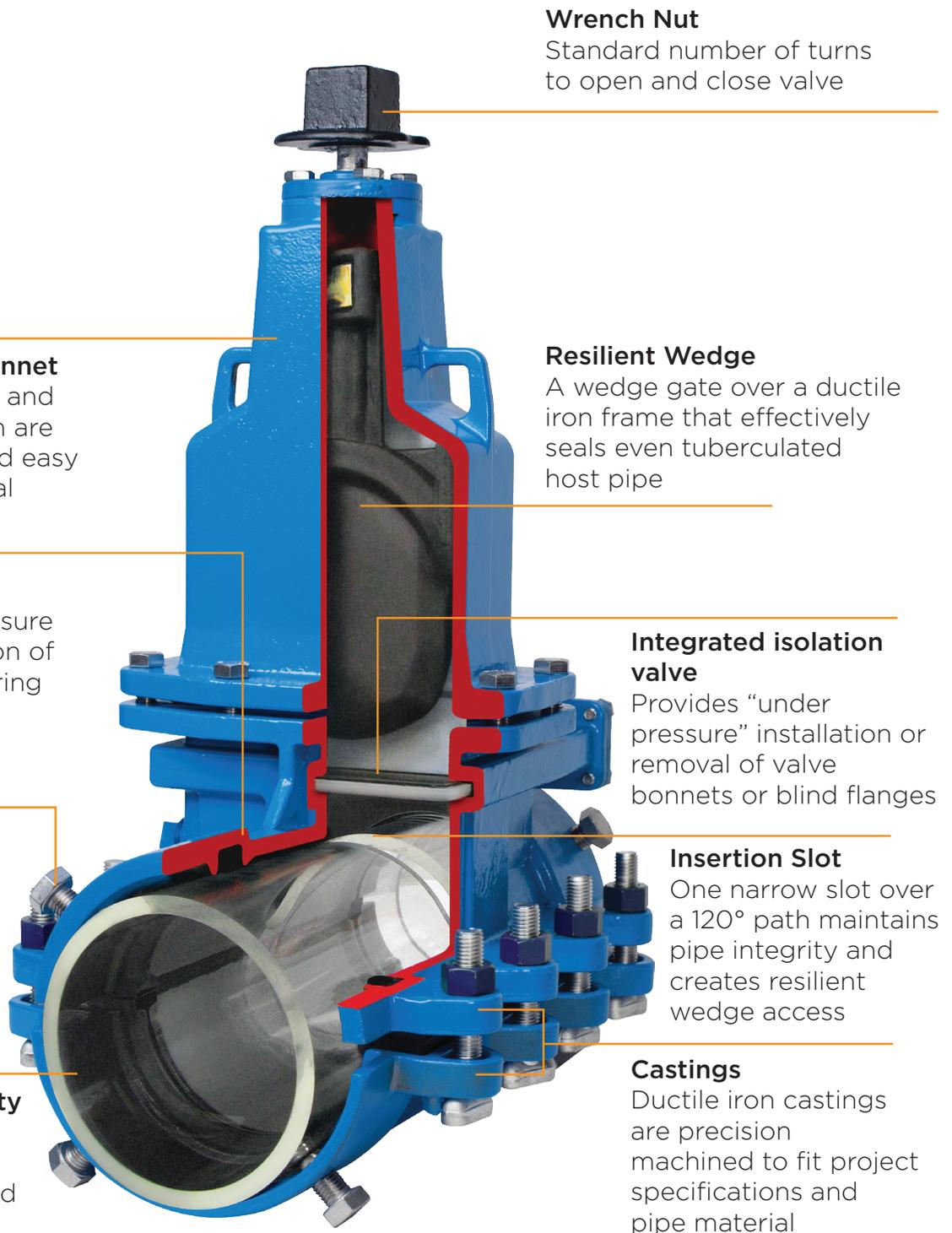
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Open and Operate

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

100MM TO 350MM EZ VALVE DIMENSIONS & DIAMETRICAL RANGE

DIMENSIONS

| Pipe Size | Height (H1) | Height (H2) | EM Height off Pipe (H3) | Flush Port Clearance |
|-----------|-------------|-------------|-------------------------|----------------------|
| 100mm | 601.9mm | 453.5mm | 726.44mm | 457mm |
| 150mm | 726.5mm | 521.6mm | 718.31mm | 457mm |
| 200mm | 887.75mm | 608.12mm | 716.03mm | 457mm |
| 250mm | 997.71mm | 679.7mm | 736.60mm | 457mm |
| 300mm | 1112.01mm | 735mm | 741.17mm | 457mm |
| 350mm | 1366mm | 951mm | 646.18mm | 457mm |

| Pipe Size | Length | Width | Weight |
|-----------|---------|---------|--------|
| 100mm | 450.3mm | 298mm | 61kg |
| 150mm | 450.3mm | 354mm | 79kg |
| 200mm | 450.3mm | 416.3mm | 110kg |
| 250mm | 500.3mm | 480.3mm | 159kg |
| 300mm | 500.3mm | 540.5mm | 201kg |
| 350mm | 650mm | 590mm | 362kg |

| Pipe Size | Actuator (A1) | Actuator (A2) | Actuator (A3) |
|-----------|---------------|---------------|---------------|
| 100mm | 285.75mm | 300mm | 887.65mm |
| 150mm | 285.75mm | 300mm | 1012.25mm |
| 200mm | 285.75mm | 300mm | 1173.5mm |
| 250mm | 285.75mm | 300mm | 1283.46mm |
| 300mm | 285.75mm | 300mm | 1397.76mm |
| 350mm | 285.75mm | 300mm | 1651.75mm |

DIAMETRICAL RANGE

Our standard casting cater for all pipe materials from IPS steel to oversized cast iron, our A/C casting (100mm to 350mm) cater for: A/C 100, A/C 150, and A/C 200 size ranges.

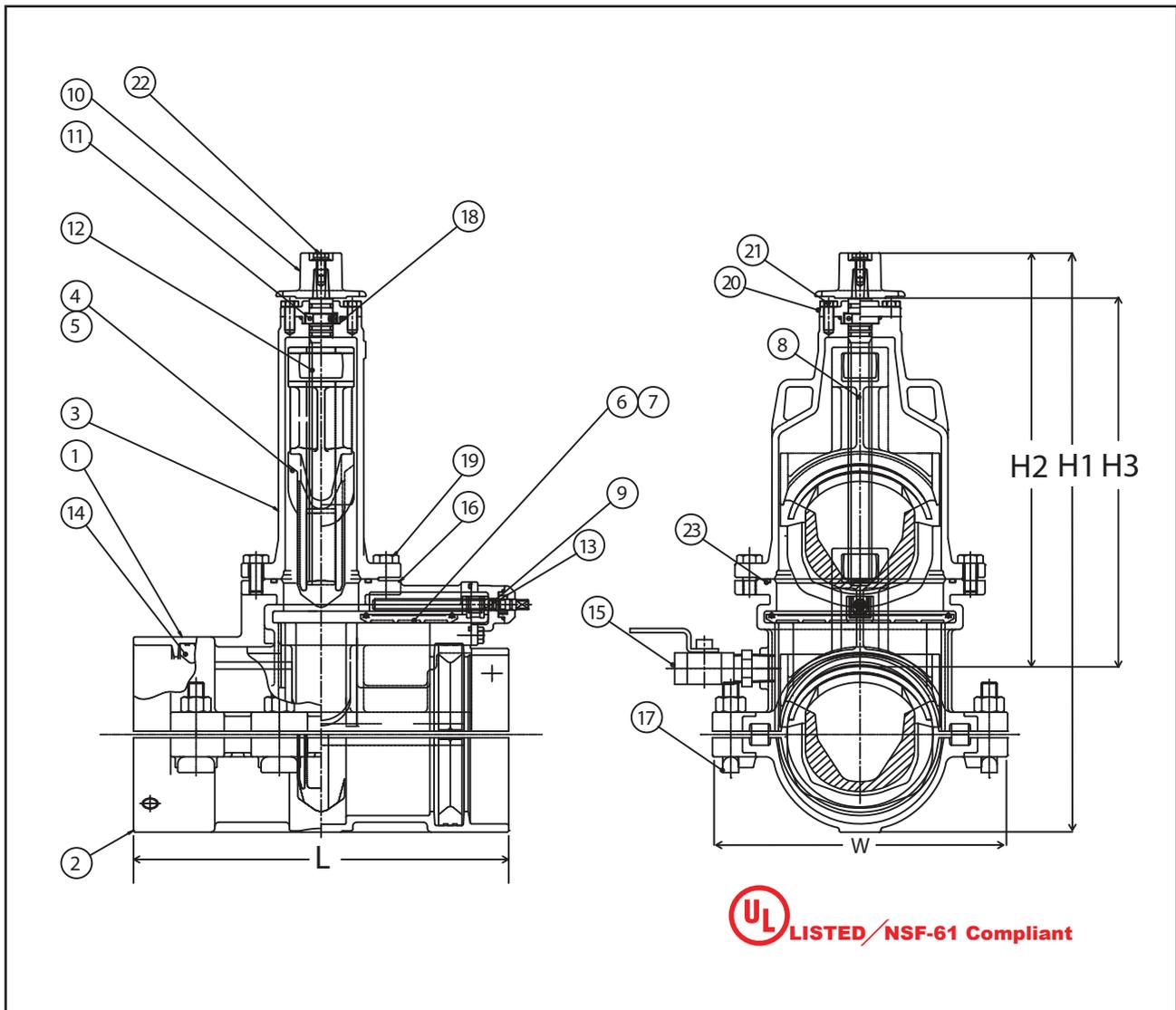
| Pipe Size | Diametrical Range |
|-----------|-------------------|
| 100mm | 122mm to 134mm |
| 150mm | 169mm to 191mm |
| 200mm | 219mm to 246mm |
| 250mm | 273mm to 307mm |
| 300mm | 324mm to 365mm |
| 350mm | 383mm to 390mm |

INSTALLATION

Clean, joint-free length of pipe required to allow for standard EZ Valve installation.

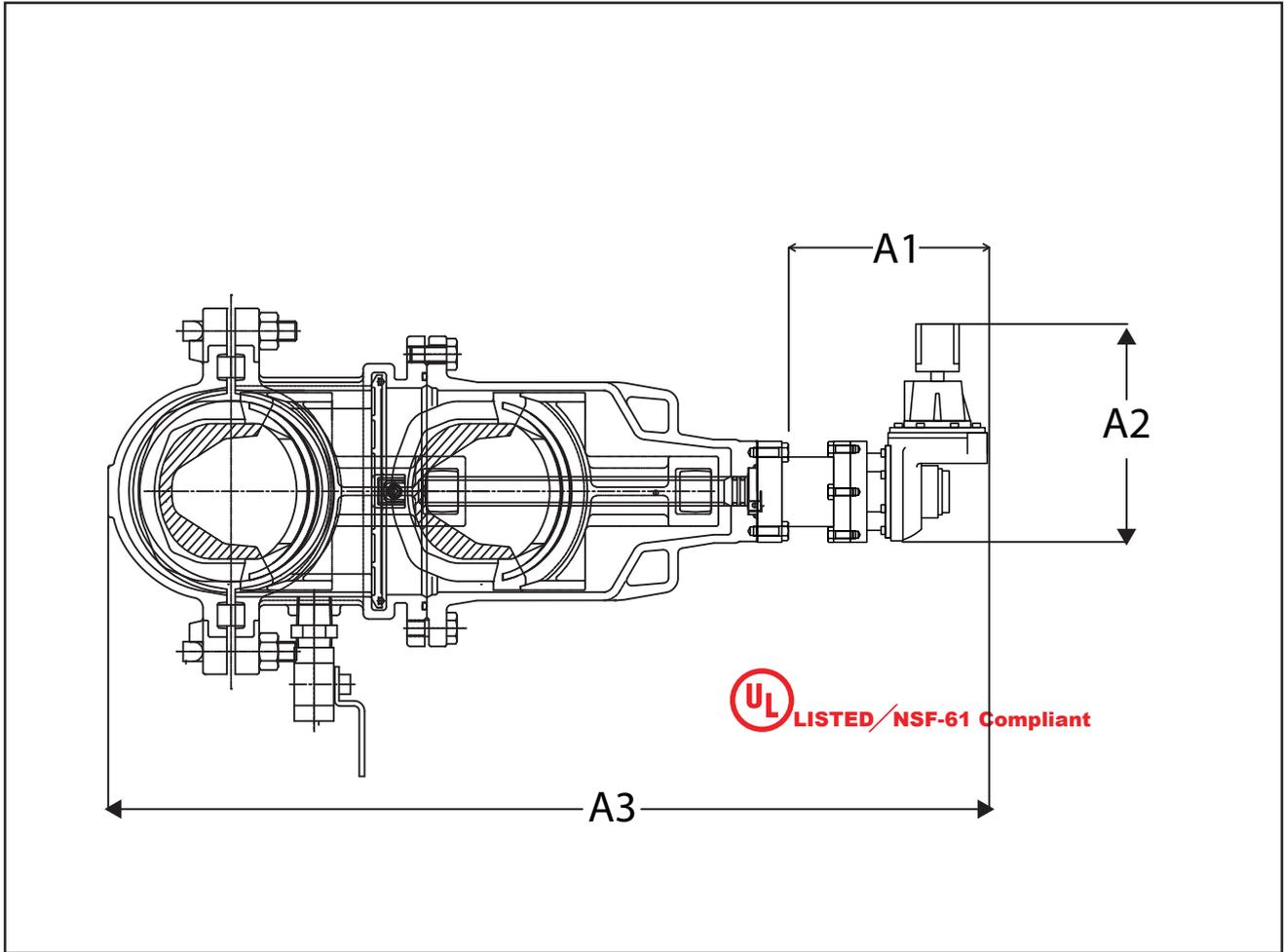
| Size | Clean Pipe |
|-------|------------|
| 100mm | 1150mm |
| 150mm | 1150mm |
| 200mm | 1150mm |
| 250mm | 1400mm |
| 300mm | 1400mm |
| 350mm | 1400mm |

100MM TO 350MM EZ VALVE SPECIFICATIONS



| Item No | Description | Material |
|---------|-------------------------|-----------------|
| 1 | Upper Half of Body | DUCTILE IRON |
| 2 | Bottom Half of Body | DUCTILE IRON |
| 3 | Bonnet Body | DUCTILE IRON |
| 4 | Gate | DUCTILE IRON |
| 5 | Gate Rubber | EPDM |
| 6 | Isolation Gate | DUCTILE IRON |
| 7 | Isolation Gate Rubber | EPDM |
| 8 | Stem (Feed Screw) | STAINLESS STEEL |
| 9 | Isolation Gate Stem | STAINLESS STEEL |
| 10 | Wrench Nut | DUCTILE IRON |
| 11 | Set Collar | BRASS |
| 12 | Stem Nut | BRONZE |
| 13 | Isolation Gate Stem Nut | BRONZE |
| 14 | Gasket | EPDM |
| 15 | Chip Flushing Port | |
| 16 | EM Cutting Port | |
| 17 | Body Fasteners | DUCTILE IRON |
| 18 | O-Rings | BUNA-N |
| 19 | Bonnet Bolts | STAINLESS STEEL |
| 20 | Packing Gland | DUCTILE IRON |
| 21 | Packing Gland Bolts | STAINLESS STEEL |
| 22 | Bolt for Wrench Nut | STAINLESS STEEL |
| 23 | Bonnet O-Ring | EPDM |

EZ VALVE WITH OPTIONAL ACTUATOR SUPPLIED



SPECIFICATIONS

1. Bottom Half Body: DI. ASTM A536 65-45-12 (AWWA C-509-01)
2. Upper Half Body: DI. ASTM A536 65-45-12 (AWWA C-509-01)
3. Bonnet: DI. ASTM A536 65-45-12 (AWWA C-509-01)
4. Gate: DI. ASTM A536 65-45-12 (AWWA C-509-01)
5. Gate Rubber Coated: ASTM 10429 (AWWA C-509-01)
6. Stem: Stainless Steel 1 CR 12 (AWWA C-509-01)
7. Gasket: EPDM (AWWA C-509-01)
8. Set Collar: Brass ASTM C519100 (AWWA C-509-01)
9. Stem Nut: Bronze ASTM C90300 (AWWA C-509-01)
10. Wrench Nut: DI. ASTM A536 65-45-12 (AWWA C-509-01)

Warranty: A One Year warranty covers parts and labor for Equipment and Valves (Excluding Perishable Tooling and O-Rings) barring misuse or lack of routine maintenance.



Advanced Valve Technologies

www.AVTFittings.com

Sales@AVTFittings.com

ILLINOIS

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

ILLINOIS

12601 South Homan Ave
Blue Island, IL 60406
P: +1 708 489 4901

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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