

# AVT™ EZ VALVE®

400mm to 600mm data sheet



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# AVT EZ VALVE 400MM TO 600MM

The award-winning AVT EZ Valve is the best choice for emergency repairs and the smartest solution for planned and emergency pipeline maintenance on 400mm to 600mm 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 400mm to 600mm 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
- Ground storage tank isolation



# **FEATURES**

#### DESIGN

Unique, patented technology

Low profile design

Ductile iron castings

Integrated isolation valve

Patented multichannel double-seal gaskets conform to irregular pipe geometries and sizes

Size 400mm to 600mm

#### INSTALLATION

Can be installed on all common pipe materials

Customizable for special applications (sleeves to meet steel pipe ODs)

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

Rated at 250 PSI, (17 Bar)

EZ Valve Components are WRAS Certified, meets AWWA C509 & C515 standards (latest versions) and UL Classified to NSF/ANSI Standard 61, Drinking Water System Components - Health Effects

# **INSTALL PROCESS**



### Prepare Insertion Site

Prepare insertion site by lubricating the gasket and contact areas



## Lubricate Gasket Sets & Channels

Lubricate gasket sets and gasket channels in casting bodies



## 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



# 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



# 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.)



# 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 a

mechanism are contained for fast and easy installation or removal

#### Gasket & Channel

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

#### **Restraining Bolts**

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

#### **Pipeline Compatibility**

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

#### **Resilient Wedge** A wedge gate over a ductile iron frame that effectively seals even tuberculated host pipe

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

#### Insertion Slot

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

#### Castings

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

## 400MM TO 600MM EZ VALVE DIMENSIONS & DIAMETRICAL RANGE

#### DIMENSIONS

Size	Height (H1)	Height (H2)	Length	Width	Weight
400mm	1650.23mm	4006.48mm	700.53mm	782.06mm	605kg
450mm	1886.6mm	1132mm	800.6mm	884.68mm	781kg
500mm	1959.5mm	1167mm	850.64mm	910.84mm	1002kg
600mm	2242.31mm	1343mm	1100.86mm	1038.86mm	1465kg

Pipe Size	Actuator (A1)	Actuator (A2)	Actuator (A3)
400mm	285.75mm	300mm	1935.98mm
450mm	285.75mm	300mm	2172.35mm
500mm	285.75mm	300mm	2245.25mm
600mm	285.75mm	300mm	2528.06mm

#### DIMETRICAL RANGE

Our standard castings cater for all pipe materials from IPS steel, ductile iron to oversized cast iron

Pipe Size	Diametrical Range
400mm	442mm – 452mm
450mm	476.5mm – 479.5mm
500mm	549mm – 560mm
600mm	650mm – 660mm

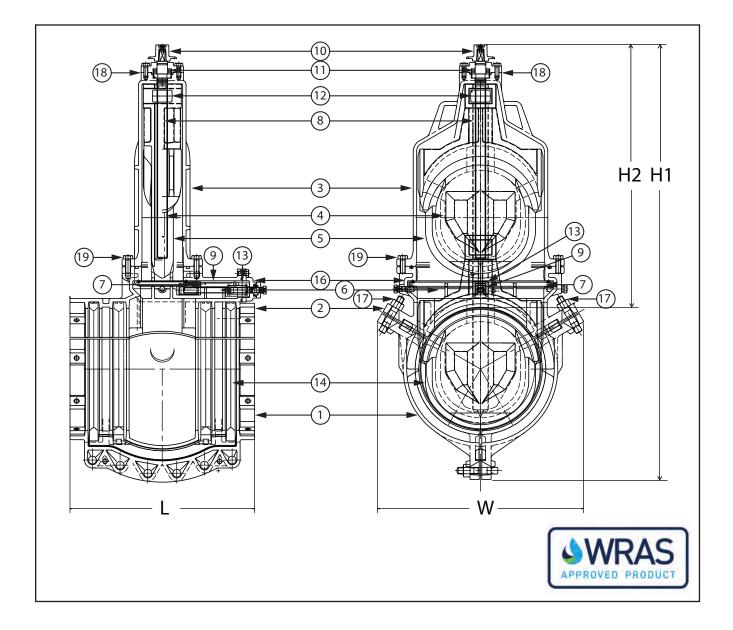
#### **INSTALLATION**

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

Size	Clean pipe	
400mm	1830mm	
450mm	1830mm	
500mm	1830mm	
600mm	2080mm	

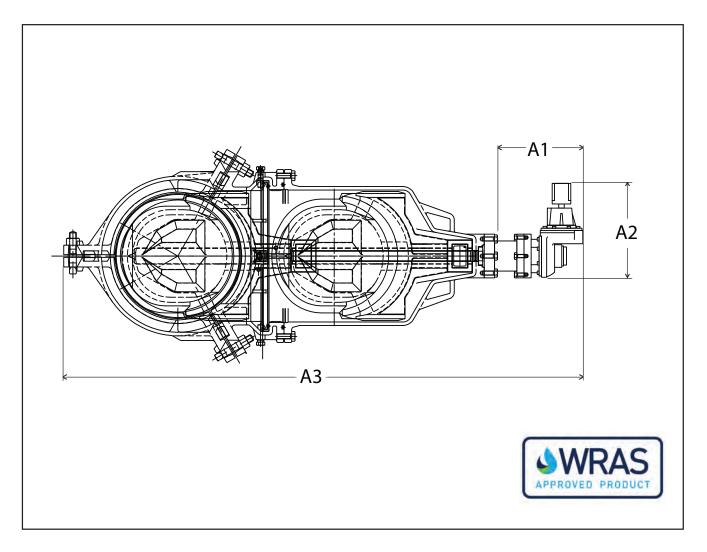


## 400MM TO 600MM EZ VALVE SPECIFICATIONS



Item No 1		Material
	Description Bottom Half of Body	DUCTILE IRON
2	Upper 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	BRONZE
12	Stem Nut	BRONZE
13	Isolation Gate Stem Nut	BRONZE
14	Gasket	EPDM
15	Chip Flushing Port	N/A
16	EM Cutting Port	N/A
17	Fasteners & Nuts	DUCTILE IRON
18	O-Rings	EPDM
19	Bonnet Bolts	STAINLESS STEEL

### **EZ VALVE WITH OPTIONAL ACTUATOR SUPPLIED**



#### SPECIFICATIONS

- 1. Bottom Half Body: DI. ASTM A536 65-45-12
- 2. Upper Half Body: DI. ASTM A536 65-45-12
- 3. Bonnet: DI. ASTM A536 65-45-12
- 4. Gate: DI. ASTM A536 65-45-12
- 5. Gate Rubber Coated: EPDM ISO 4097:2014

- 6. Stem: Stainless Steel 17-4PH
- 7. Gasket: EPDM ISO 4097:2014
- 8. Set Collar: Bronze C954 (AWWA C-509-01)
- 9. Stem Nut: Bronze C954 (AWWA C-509-01)
- 10. Wrench Nut: DI. ASTM A536 65-45-12

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

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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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