



AVT[®] EZ VALVE[®]

16" to 24" data sheet



**Advanced Valve
Technologies**

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AVT EZ VALVE 16" TO 24"

The award-winning AVT EZ Valve is the best choice for emergency repairs and the smartest solution for planned and emergency pipeline maintenance on 16" to 24" 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 16" to 24" 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 16" to 24"

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, 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

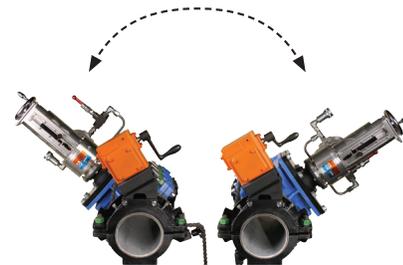
Assemble ductile iron castings with ductile iron fasteners to accept a pressure test and temporarily allow rotation for milling



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.)



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

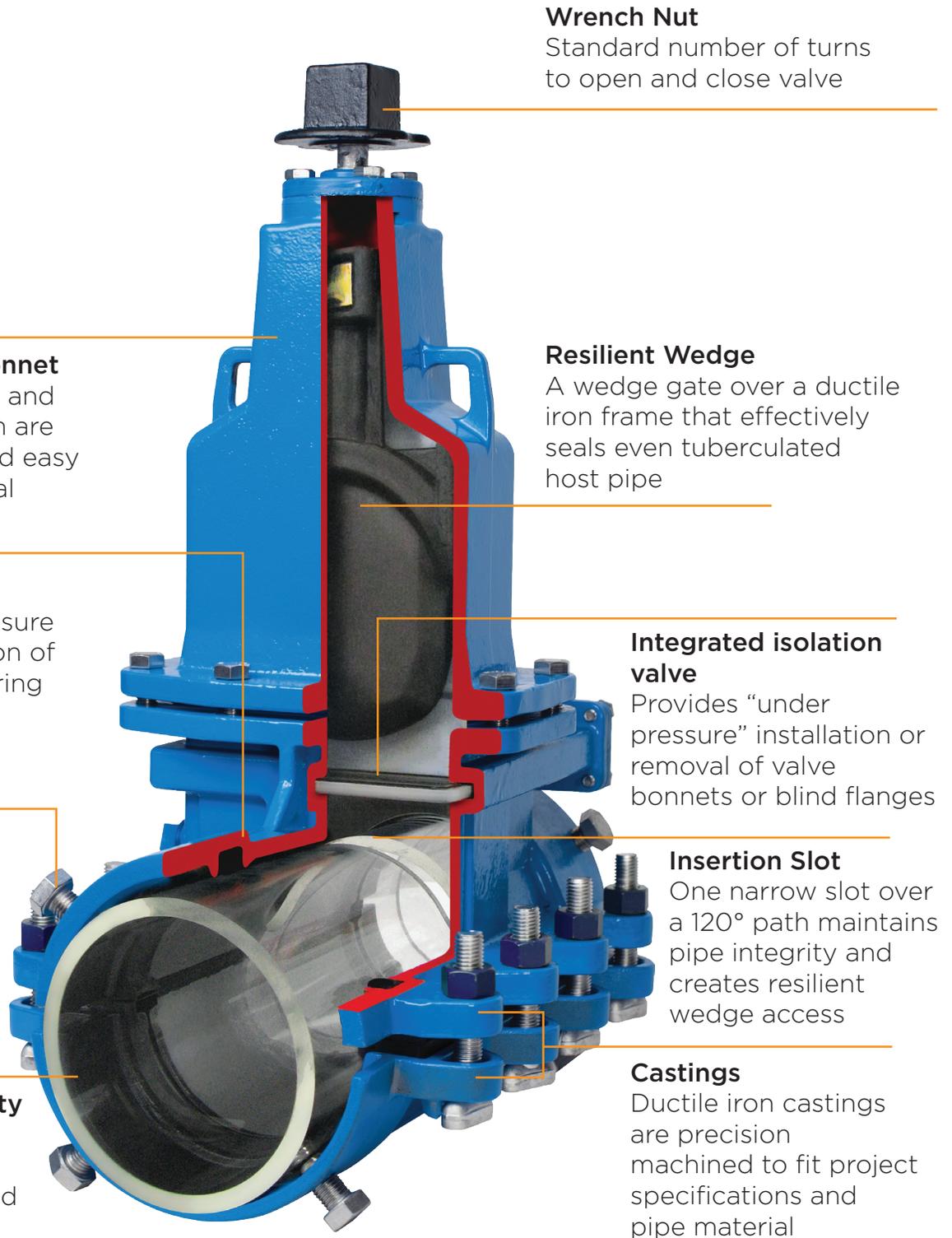


7

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

16" TO 24" EZ VALVE DIMENSIONS & DIAMETRICAL RANGE

DIMENSIONS

Pipe Size	Height (H1)	Height (H2)	EM Height off Pipe (H3)	Flush Port Clearance
16"	64.97"	39.62"	39.62"	+18"
18"	74.27"	44.56"	42.56"	+18"
20"	77.14"	45.94"	41.94"	+18"
24"	88.28"	52.87"	40.87"	+18"

Pipe Size	Length	Width	Weight
16"	27.58"	30.79"	1335lbs
18"	32.51"	34.83"	1722lbs
20"	33.49"	35.86"	2210lbs
24"	43.34"	40.9"	3230lbs

Pipe Size	Actuator (A1)	Actuator (A2)	Actuator (A3)
16"	11.25"	12"	76.22"
18"	11.25"	12"	85.52"
20"	11.25"	12"	88.39"
24"	11.25"	12"	99.53"

DIAMETRICAL RANGE

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

Pipe Size	Diametrical Range
16"	17.40" - 17.80"
18"	18.75" - 18.87"
20"	21.60" - 22.06"
24"	25.60" - 26.00"

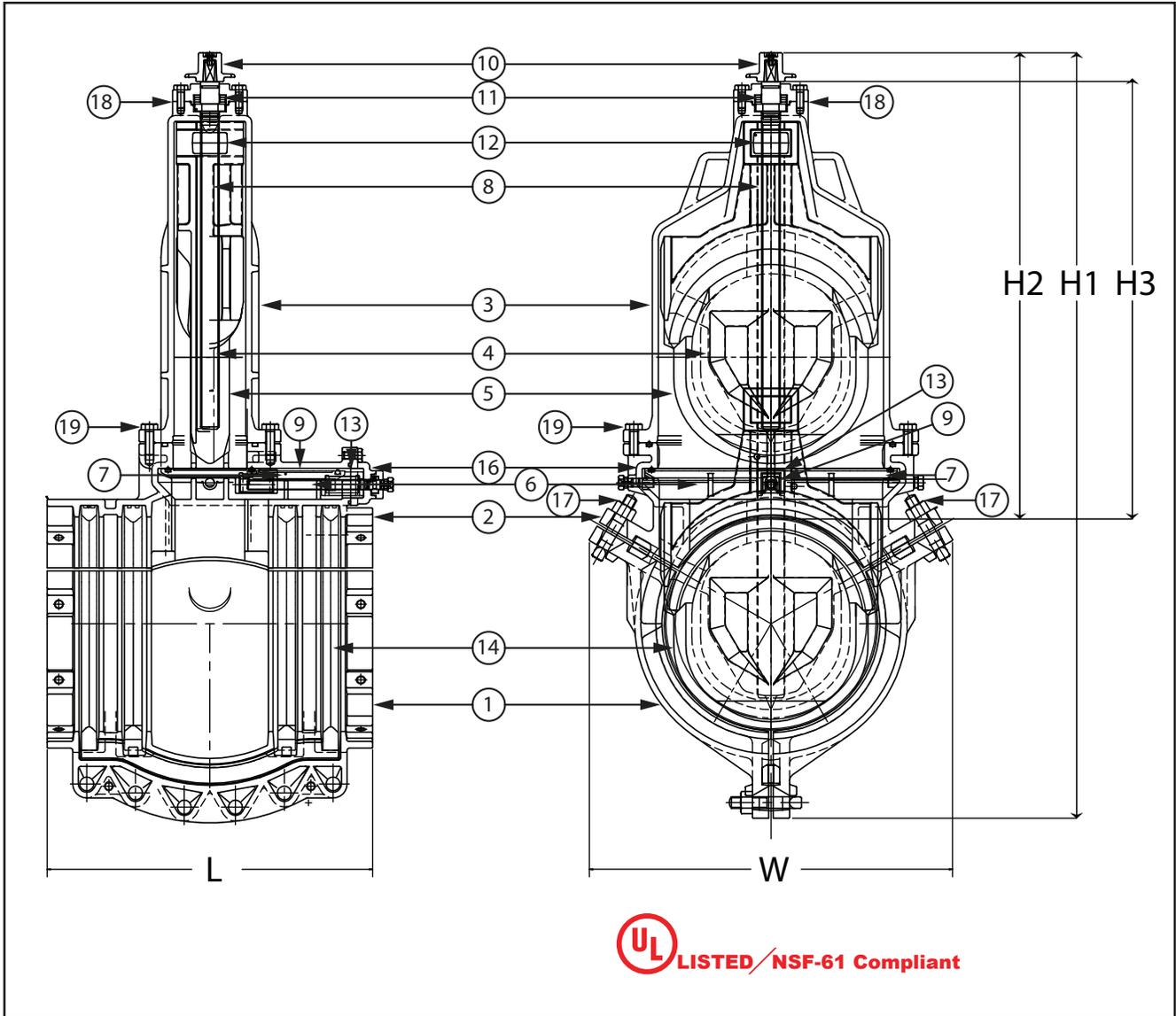
INSTALLATION

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

Size	Clean Pipe
16"	72"
18"	72"
20"	72"
24"	82"

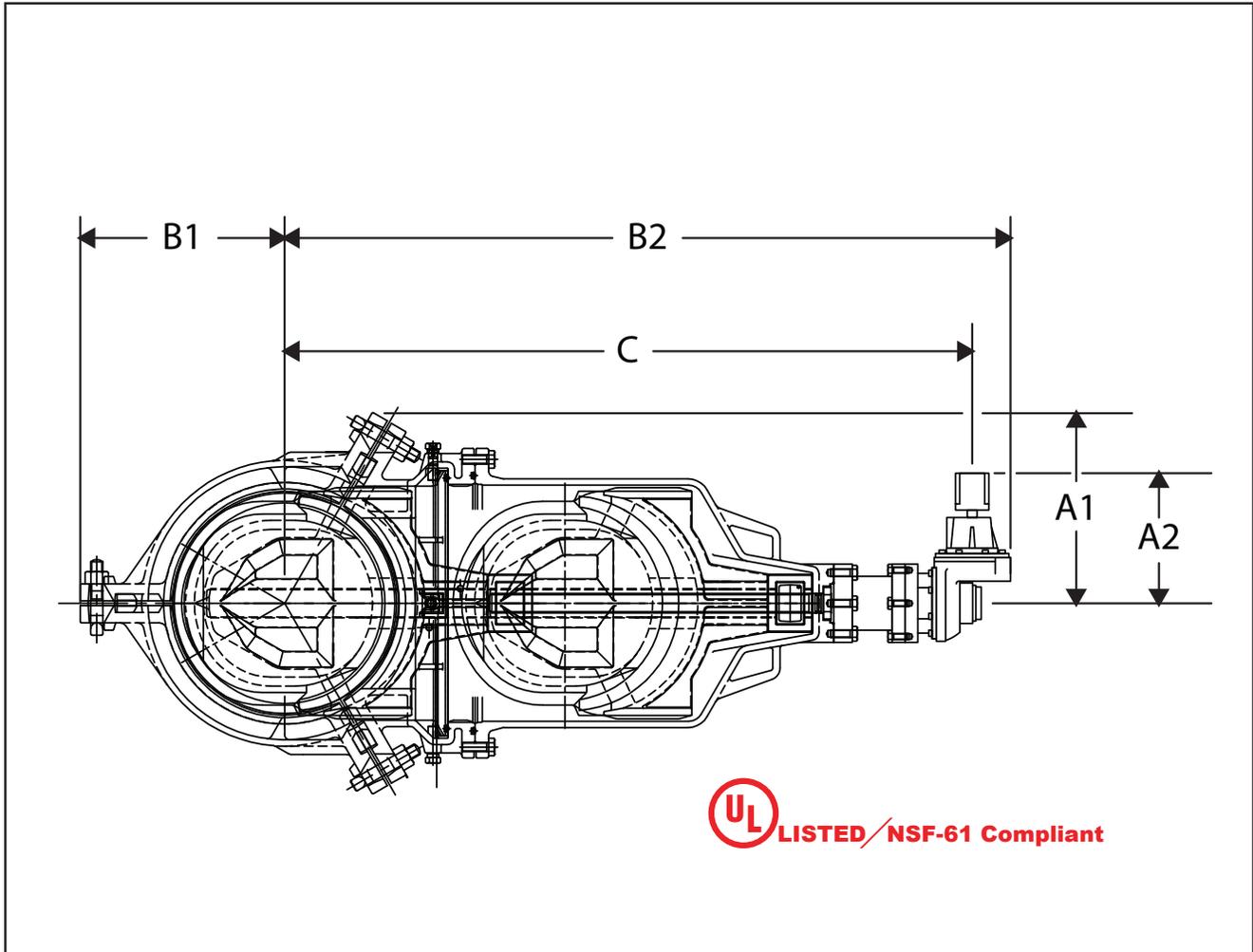


16" TO 24" EZ VALVE SPECIFICATIONS



Item No	Description	Material
1	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	BRASS
12	Stem Nut	BRONZE
13	Isolation Gate Stem Nut	BRONZE
14	Gasket	EPDM
15	Chip Flushing Port	
16	EM Cutting Port	
17	Bolts/Nuts	DUCTILE IRON
17a	Sacrificial Anodes	ZINC
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 (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.



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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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