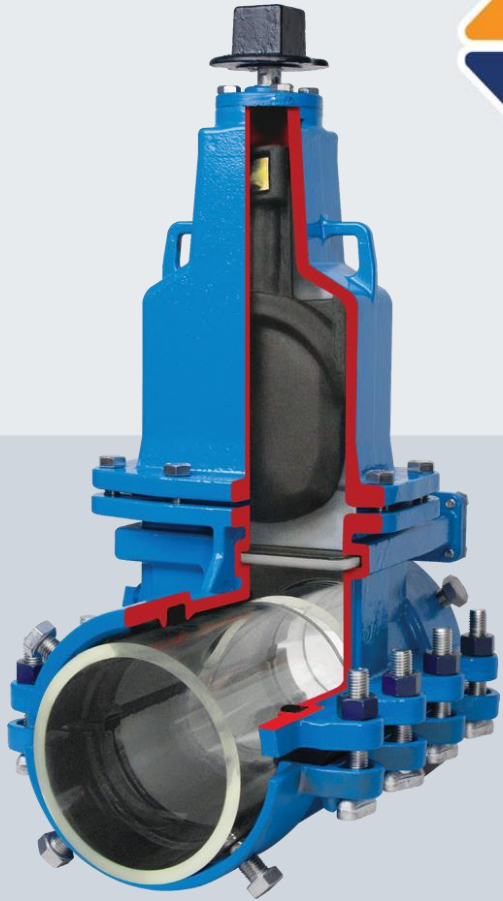




Advanced Valve Technologies



EZ VALVE™ OPERATION AND MAINTENANCE GUIDELINES - UK

GENERAL INFORMATION

Inspection | Testing | Storage | Moving

- Please ensure you inspect all valves at the time of delivery for shipping damage and to confirm compliance with specifications.
- Valves are tested per the appropriate standards and specifications by the manufacturer. Verify casting marks for dimensions and operating pressure information.
- The valves should be stored in such a manner to protect them from weather, dirt and debris. In cold climates, if water is allowed to freeze in the valve, severe damage to the valve components could result.
- Proper slinging and handling methods should be used when moving valves. Do not place slings or other devices around the operating stem or through the valve port opening.

INSTALLATION

A full training manual is available on request

- Check that valve fittings are clean. Check for damage to the valve components. Open and close the valve to insure proper operation.
- Handle valve fittings carefully. Do not drop into position. Do not sling through the port opening instead use the eye-bolts. Use fabric slings not chains when contacting fittings.
- Prepare pipe and fittings according to manufacturer's instructions. Install valve fittings per proper methods according to pipe type. All piping should be properly supported to avoid line stress on the pipe valve.
- A valve box or vault should be provided for each valve used in buried service application. These should be installed such that no load is transferred to the valve.
- Before pressurisation of the pipeline and valve, all pressure restraint bolting should be inspected for adequate tightness (usually 100 ft. lbs.).

INSTALLATION

A full training manual is available on request

- Pressurise EZ Valve before backfilling. Special pressure equalisation treatment is required for large diameter valves (greater than 300MM).
- Operate the AVT EZ Valve to verify proper operation and seal. Return gate to position authorised by owner/engineer.
- With the valve in open position, the entire system should be thoroughly flushed to clean the system.
- Upon completion of the installation, gate valve location, size, type, date of installation, number of turns to open, direction of opening, and any other special information should be entered on permanent records.

OPERATION

- Do not operate valves in systems that exceed the rated working pressure of the valve - 3"-24" (80mm – 600mm) 250 psi (17Bar)
- System should be completely flushed before valve is operated in normal cycle.
- The EZ Valve opens and closes by turning the main valve stem with an operating nut or handwheel. The valve closes by compressing the resilient material bonded to the wedge against the valve body. **Do not force the valve.**
- On initial install, work the valve four to six times.
- One person operation only. Do not use additional leverage to close the valve.
- If the valve should fail to seal after the necessary number of turns, open the valve multiple times while flushing and reseal.

NUMBER OF TURNS

- 2 x valve size plus 1 turn
 - 3" = 7 turns
 - 4" = 9 turns
 - 5" = 11 turns
 - 6" = 13 turns
 - 8" = 17 turns
 - 10" = 21 turns
 - 12" = 25 turns

INSPECTION AND MAINTENANCE

- Frequency of inspection should be based on frequency of operation. Semi-annual inspections are minimum recommended. Valves should not be disassembled unless a breakdown has occurred.
- During inspection the valve should be opened and closed with pressure in the pipeline. The valve should function freely with no binding or vibration. Count the number of turns to be fully closed. This will reveal an obstruction if the correct number of turns are not achieved.

Minimum number of turns to open

DN100= 9

DN150=13

DN200=17

DN250=21

DN300=25

DN350=29

DN400=33

DN500=41

DN600=49

INSPECTION AND MAINTENANCE

Continued

- All gaskets and joints should be checked for leakage and tightness.
- With the valve closed and pressure against the wedge a check for leakage is possible by listening to the valve flow. Use of a stethoscope or geophone will enhance this procedure.
- A permanent inspection record should be kept for each valve. (see next page).

RECORD KEEPING

- A printed or electronic record for each valve and hydrant in the system is a vital feature of asset management.
- Each valve must be identified and documented.
- A suggested record form is here:

Nearest address:

Location: ?? FT: ?? Of: ?? Prop.Line of: ??

And: ?? FT: ?? Of: ?? Prop.line of: ??

Size: ?? Make: ?? Type: ?? Gearing: ?? Bypass: ??

Opens: ??

Turns to Operate: ??

Dept to Nut: ??

Remarks: ??

Maintenance and Inspection Record

Date: ?? Work Done: ?? O.K.: ?? By: ??

Date: ?? Work Done: ?? O.K.: ?? By: ??

DISSASSEMBLY INSTRUCTIONS

A full training manual is available on request

- Retract the gate fully into bonnet.
- Close the isolation knife valve.
- Remove bonnet bolts.
- Repair or replace components as necessary and reverse order above to re-establish valve operation.

TROUBLESHOOTING

Possible Malfunction	Symptoms-Causes	Corrective Action
Gasket/Joint Leakage	Insufficient Torque or Bolt Tension Relaxing	Tighten Bolts to Specified Torque
Seat Leakage	Foreign Material caught in seat. Seats Damaged	Operate valve to Flush out debris. Inspect-repair or replace
Leak Past Stem	Bolts loose (NRS) O-rings worn or damaged	Tighten Bolts Inspect/replace



**Advanced Valve
Technologies**



Advanced Valve Technologies