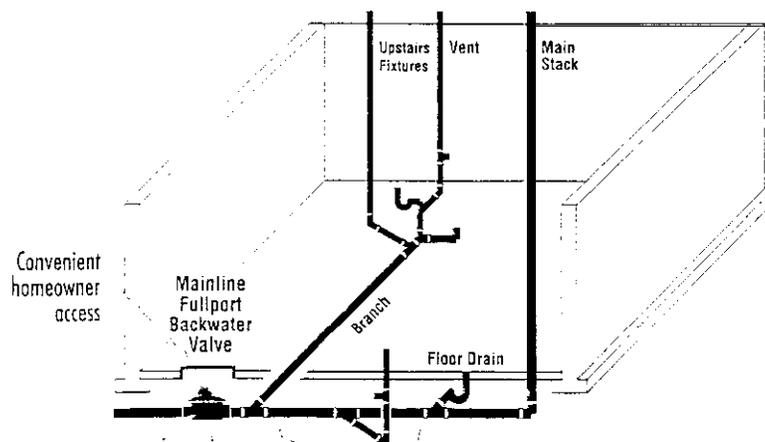


# Main-Building Drain Protection

The Mainline Fullport Backwater Valve is installed in the main-building drain, because its fullport design allows venting of the municipal sewer through the building. The design also allows unobstructed sewage flow and automatic closure of the gate upon reversal of flow (sewer backup) protecting the entire building from backflow.

## Advantages of Protecting the Main-Building Drain

- The entire plumbing system is protected from municipal sewer backup with just one conveniently located backwater valve at the point where the building drain-sewer exits the building. This offers **EASY HOMEOWNER ACCESS**
- The Mainline *Fullport Backwater Valve* has a **built-in main sewer cleanout** in the valve for the rodding of the sewer.
- Since the *Mainline Fullport backwater Valve* is a “normally open” backwater valve, it *allows unobstructed sewage flow*, which in turn *prevents sewage buildup in the valve’s body*.
- The “normally open” design allows cleaning tools to pass through the body without getting hooked on the gate when retrieving the cable (this prevents the gate from being destroyed).
- By installing the valve in the main-building drain it eliminates the need for branchline backwater valves, cleanout assemblies, and also saves in groundwork labor and extra piping when, trying to utilize one branchline bwv to protect extra fixture drains.
- Ensures that entire building is protected from backflow, where branches are often missed and left unprotected, when using branchline protection
- If additional fixtures or branches are added to the system they are automatically protected from backflow

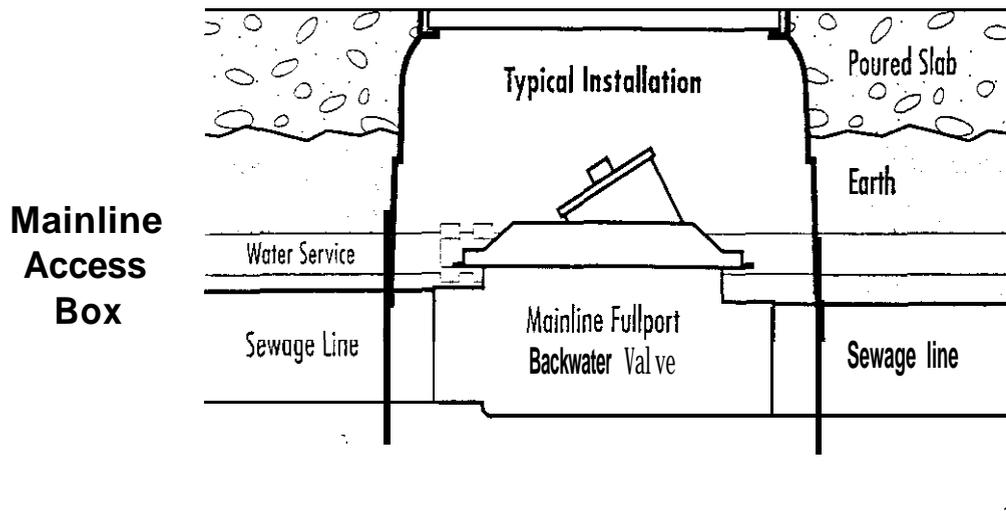


Allows a circulation of air through plumbing system

Has a built-in main sewer cleanout

All branches of plumbing system protected

# Mainline Backflow System



## Mainline Fullport Backwater Valve

### Mainline Backflow System Illustrated with

- Mainline Fullport Backwater Valve (Model #4963)
- Mainline Plastic Access Box (Model #PE2013)

**MAINLINE BACKFLOW PRODUCTS INC.**

# INSTALLATION

## MAINLINE FULLPORT BACKWATER VALVE

*The Mainline Fullport Backwater Valve's "normally open" design allows unrestricted sewage flow. Because of its Fullport design, it requires minimal homeowner maintenance when installed properly, and provides the best in backflow protection.*

CSA CERTIFIED

### PRIOR TO INSTALLATION

- Inspect unit through cleanout
- Check o-rings
- Make sure flotation devices are in place (one on each side of gate)
- Check the gate and ensure it moves freely.

### INSTALLATION

- Allow maximum grade when possible – 4% or higher  
**NOTE: min. grade must be at least 2% - 1/4 inch per foot**
- Check grade with level by placing it on the bolts
- See arrows for direction of flow
- Do not install any fittings within 2 feet of inlet side of valve. This will ensure laminar flow through valve body (as there is no control of fitting layouts, in retrofit installations this rule may be waived by the enforcing authority)
- Care should be taken when solvent welding pipe into valve. Ensure solvent does not enter the body as it will affect the valve's function
- Re-inspection of unit-remove sand, gravel, dirt or any other debris which may have entered the body and and hinge area upon installation
- Tighten cleanout
- Install Mainline Access Box

### Precaution:

#### RETROFIT INSTALLATION

- \* Failures may occur due to back grade on valves, In order to achieve grade in retrofit installations, an installer must expose approx. 4-5 feet of piping. Often sewers are at a minimum, flat, or back grading. Since there is  $\frac{3}{4}$  of an inch difference in height from inlet to outlet on your Mainline valve, it may be necessary to adjust the grade on the piping leading up to the valve, to achieve required grade on the backwater valve
- \* In retrofit installations, always run and test all fixtures to ensure each one runs through the backwater valve, and nothing remains unprotected
- \* Check that the sewer is unrestricted (roots, blockages, etc.) downstream of valve.
- \* Ensure weeping tiles (French drains) tie in downstream of valve

### Warning

- Improper installation may result in valve failure

*Continued on next page*

- Follow installation procedures carefully, with special care and attention to be taken when retrofitting valve into existing systems
- Do not install if proper grade cannot be achieved

### **Testing the Unit**

All backwater valves are factory tested through our certified quality control program.

If you wish to test the backwater valves, follow these instructions.

- Place a “Test Ball” through the cleanout plug on the body, downstream of the valve into the outlet drainage piping leading away from the valve.
- Inflate the test ball.
- Through the cleanout opening, stretch a garden hose down to the “Test Ball” and begin filling the pipe with water.
- Watching through the cleanout opening, you should see the gate rise into the closed position. This means the valve is closing properly. During a sewer backsurge, back pressure will increase downstream of the valve, and the gate will seat onto the valves o-ring, protecting the building from backflow.
- Deflate the “Test Ball” to release the water. This will allow the gate to fall back into the open position.

For further assistance call our toll free number at 1-877-734-8691

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# MAINTENANCE

## **BUILDING OWNER:**

Mainline Backwater Valves are designed to be virtually maintenance free. However, they are mechanical devices sitting in a sewage environment, and periodic inspections are required. To ensure the satisfactory performance of the backwater valve follow the procedures listed below.

### **Periodic Inspection and Maintenance**

- Remove the cleanout plug on the top of the valve and do a visual inspection.
- Take a flashlight or trouble light to properly see inside the valve body.
- Inspect for debris build-up on the body, gate and beneath the gate.
- if debris build-up is found flush clean.
- The valve's gate seals against an o-ring on the body ( in the closed position). Inspect o-ring and replace if necessary.
- On models fitted with closed cell polyethylene floats, check the condition of floats and replace as necessary. \* Note: these floats are located on both sides of the gate and are protected from sewage contamination by the sidewalls of the gate and body (long life cycle, impervious to sewage). CSA certified floats.
- Ensure gate freely moves up and down.
- Reinstall cleanout plug.

### **Bolted Cover**

If damage is found on the gate, or a more thorough cleaning of the valve is required, remove the bolted cover.

**Important:** if you have difficulty maintaining these backflow devices, contact your plumber.

If you wish to test the unit under a backflow condition refer to **Installation** for instructions.

For more information call our toll free number 1-877-734-8691

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