Keep Your Water Supply Safe

Important information for do-it-yourself irrigation system installers

Some laws and regulations regarding backflow protection and approval of type of pipe used may vary depending upon local requirements.

For more specific information we advise you to contact your local water supplier at:

City of Seattle

Robert Eastwood
Senior Utility Service Inspector
Seattle Public Utilities
Cross Connection Control Program

Mail: Customer Service Branch
700 5th Ave., Suite 4900
PO Box 34018
Seattle, WA 98124-4018
www.seattle.gov/util

Office: 810 3rd Ave., Ste 600
Seattle, WA 98104
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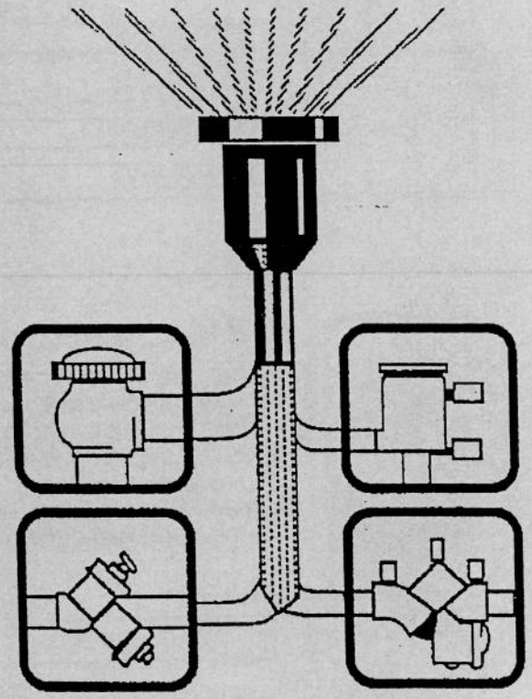
This pamphlet has been prepared and edited by:

Pacific Northwest Section
American Water Works Association
Cross Connection Control Committee

Important information for do-it-yourself irrigation system installers

HOME

Irrigation Safety



DON'T LET YOUR IRRIGATION SYSTEM CONTAMINATE THE WATER YOU DRINK

BACKFLOW PREVENTION ALTERNATIVES FOR HOME IRRIGATION SYSTEMS

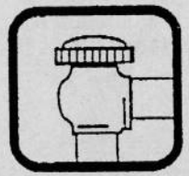
Irrigation systems make watering lawns and gardens easier and save time, BUT, water that may be contaminated by weed killers and/or fertilizers can be back-siphoned (backflow) into your drinking water. Irrigation systems not protected by approved backflow prevention assemblies could endanger the health of a household, neighborhood or community.

ALL IRRIGATION SYSTEMS...new or existing...MUST BE EQUIPPED with an approved backflow prevention assembly. Only properly installed, state-approved backflow prevention assemblies meet the plumbing code and provide health protection for your family and neighbors. Your local water utility can give you a free list of state-approved assemblies and certified testers.

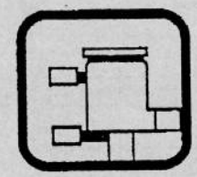
Freeze Protection
All backflow prevention assemblies installed above ground need to be protected from freezing. Recommendations are to install a drip tight shut-off valve (ball valve) below ground on the inlet side of the assembly. Install a shut-off valve with drain (stop and waste valve) just above ground level so piping ahead of the assembly can be drained. Open all testcocks , and shut off valves on the backflow prevention assembly half way and leave open. A low point drain should also be installed on your irrigation system.

Please Note:
ALL IRRIGATION SYSTEMS supplied by public water systems REQUIRE A PLUMBING PERMIT before installation. All piping and materials upstream of (before) the backflow prevention assembly must be of a type which is approved by the International Association of Plumbing and Mechanical Officials.

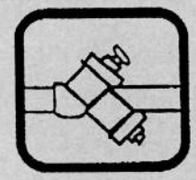
FOUR TYPES of Backflow Prevention Assemblies



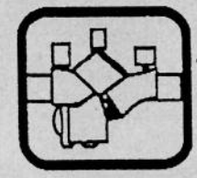
ATMOSPHERIC VACUUM BREAKER (AVB)
...the least expensive
...often the easiest to install



PRESSURE VACUUM BREAKER (PVB)
...more sophisticated
...more versatile
...requires annual testing by certified tester

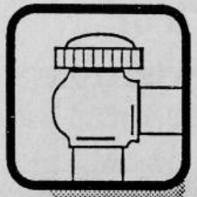


DOUBLE CHECK VALVE ASSEMBLY (DCVA)
...highly versatile
...requires annual testing by certified tester



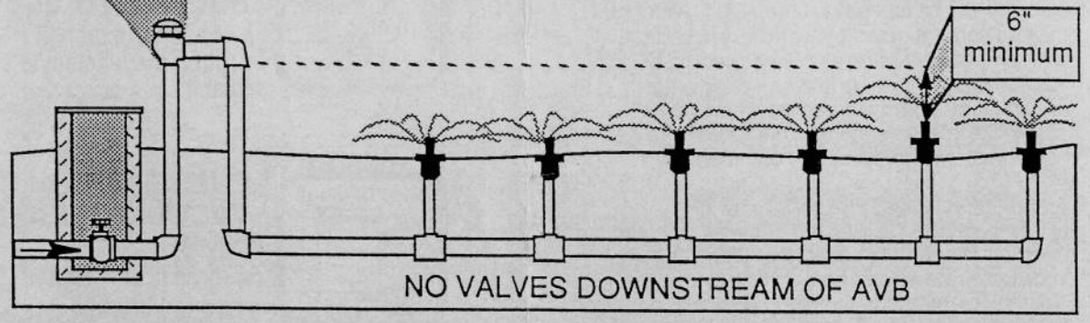
REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA)
...usually most expensive
...most complex
...allows for application of fertilizer or other chemicals into irrigation system (No other type has this approval).
...requires annual testing by certified tester.

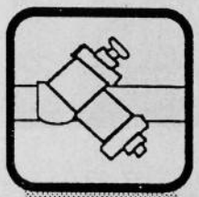
Installation requirements for each type of backflow prevention assembly



AVB...ATMOSPHERIC VACUUM BREAKER

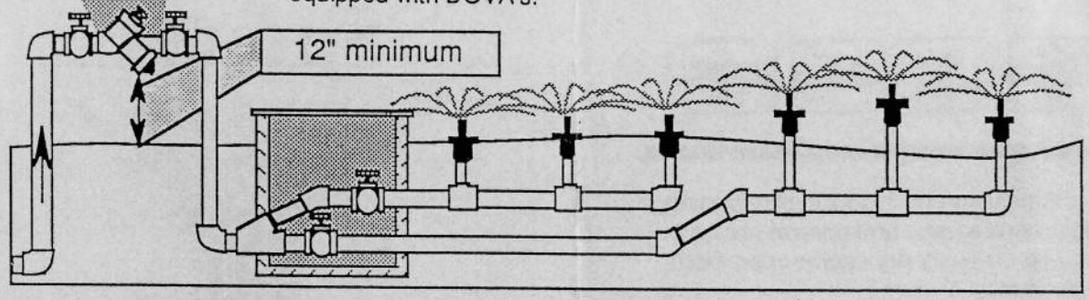
- One AVB required for each irrigation zone; no control valves (on/off valves) allowed downstream of (after) an AVB.
- Each AVB must be installed a minimum of six inches (6") above the highest point of water in the zone it serves.
- No chemical or fertilizer may be introduced into an irrigation system equipped with AVB's.
- No pumps or back pressure source on downstream side of (after) an AVB.

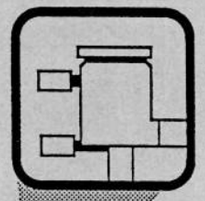




DCVA...DOUBLE CHECK VALVE ASSEMBLY

- Only one DCVA required to serve the whole system; control valves can be located downstream of the DCVA.
- DCVA should be installed a minimum of one foot (12") above ground level.
- Some water suppliers may allow the DCVA to be installed below ground, check for proper clearance on all sides of the assembly.
- DCVA must be tested by a State-certified Backflow Assembly Tester...when installed ...annually ...when moved or repaired.
- No chemical or fertilizer may be introduced into an irrigation system equipped with DCVA's.

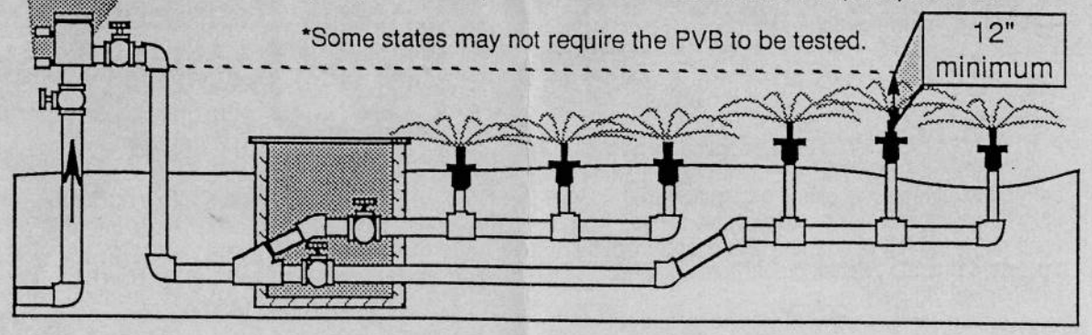


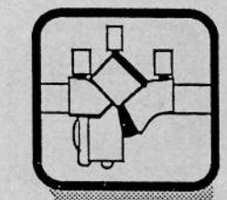


PVB...PRESSURE VACUUM BREAKER ASSEMBLY

- Only one PVB required to serve the whole system; control valves can be located downstream of (after) the PVB.
- PVB's must be installed a minimum of 1 foot (12") above the highest point of water they serve.
- PVB's must be tested by a State-certified Backflow Assembly Tester*...at the time of installation ...annually ...when moved or repaired.
- No chemical or fertilizer may be introduced into an irrigation system equipped with PVB's.
- No pumps or back pressure on downstream side of (after) an PVB.

*Some states may not require the PVB to be tested.





RPBA...REDUCED PRESSURE BACKFLOW ASSEMBLY

- Only one RPBA required to serve the whole system; control valves can be located downstream of the RPBA.
- RPBA's must be installed a minimum of one foot (12") above ground level.
- RPBA's must be tested by a State-certified Backflow Assembly Tester ...when installed ...annually ...when moved or repaired.
- In an RPBA equipped system, fertilizer and other agricultural chemicals may be introduced downstream of (after) the RPBA.