PRESSURE VACUUM BREAKER DRAINING PROCEDURES

Inside:

- Turn sprinklers water valve off (Usually in basement or crawl space)
- Loosen inside cap by hand (*Careful not to loose cap or seal*)

Outside:

- Turn both blue valves to 45 degrees
- Turn both test cocks screws to 45 degrees (Side of vacuum breaker)
- Loosen outside cap by hand (*Careful not to loose cap or seal*)

PRESSURE VACUUM BREAKER START-UP PROCEDURES

Outside:

- Turn both blue valves off perpendicular to pipe
- Turn both test cocks screws to vertical position perpendicular to ground
- Tighten outside cap by hand

Inside:

- Tighten inside cap by hand
- Turn on sprinkler water valve slowly 15 seconds to full on

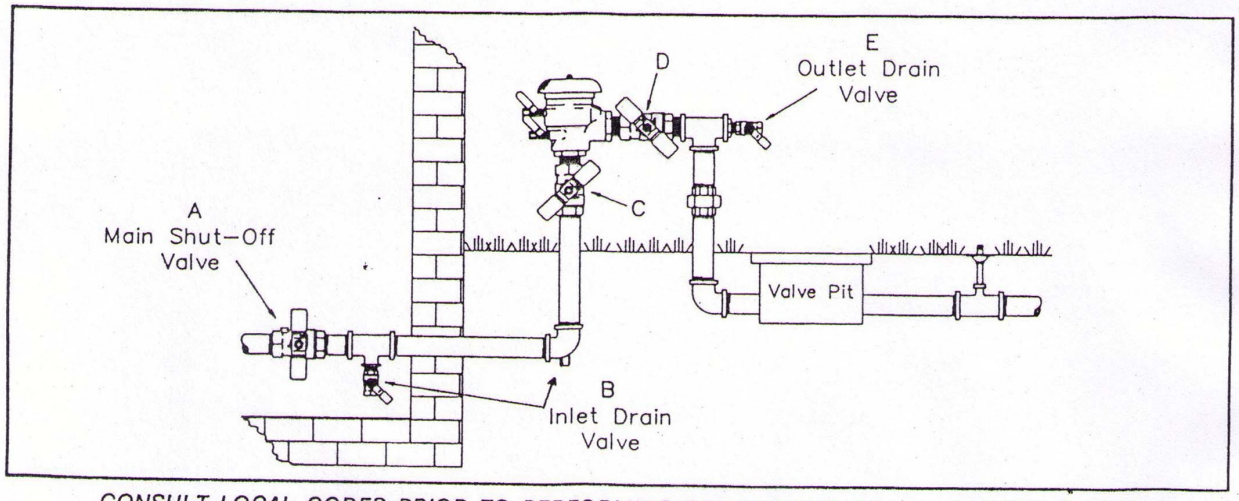
Outside:

- Turn on bottom blue valve slowly perpendicular to ground
- Turn on top blue valve slowly parallel to ground

FEBCO®

FREEZE PROTECTION 765

Febco Model 765 Pressure Vacuum Breaker Draining Procedure for Freeze Protection



CONSULT LOCAL CODES PRIOR TO PERFORMING SERVICE AND DRAINING PROCEDURES

SERVICE INSTRUCTIONS:

Backflow prevention assemblies must be drained for the winter in areas where freezing temperatures may occur. If water inside the assembly should freeze, damage to the assembly and the system may occur. Proper draining procedures, insulation from freezing using heat tape, and heated protective enclosures are all methods of freeze protection.

In order to drain an assembly to prevent freezing, several important points must be remembered:

1. The assembly can not be adequately drained through the testcocks.

2. Drain valves must be added on the inlet side and outlet side of the assembly below the assembly (preferably below the freeze line if the remainder of the system is to be drained).

3. Compressed air of adequate volume may be used to "blowout" the system after the backflow preventer is drained.

4. After removing water from the system and assembly, the assembly shut-off valves, drain valves and testcocks should remain in a half open / half closed (45° degree) position to allow for full drainage of the ball valve shut-offs. If the assembly is installed with ball valve shut-offs, see draining procedure for ball valves on the reverse side of this sheet. The main shut-off to the system must remain closed during the winter period.

DRAINING PROCEDURE:

To drain the backflow prevention assembly for protection against freezing, use the following procedures:

1. Turn off the main shut-off valve (A) which provides water to the system.

2. Open all inlet and outlet drain valves on the system (B and E). Open inlet and outlet shut-off valves on backflow prevention assembly (C and D) and all testcocks. Leave in half open / half closed (45° degree) position to allow for full drainage of ball valve shut-offs. See ball valve draining procedure on reverse side of this sheet.

3. Should you "blowout" the piping sytem downstream of the backflow prevention assembly, make sure the outlet drain valve (E) is open and the backflow prevention outlet shut-off valve (D) is closed.

4. Connect an air line to the outlet drain valve (E) and introduce air of adequate volume to clear downstream system of water.

5. IMPORTANT: Open outlet shut-off valves to the backflow preventer assembly (C and D) to a half open/half closed (45° degree) position after "blowout" procedure is complete.

6. Leave all drain valves (B and E), testcocks and ball or gate valves to backflow preventer (C and D) in a half open / half closed position for the winter to prevent freezing. IMPORTANT: *When finished, make sure main shut-off valve (A) remains closed to prevent accidental refilling of the system. Also, the main shut-off valve should be resilient seated to prevent seepage of water into the system.*

FREEZE PROTECTION INSTRUCTIONS FOR BALL VALVES

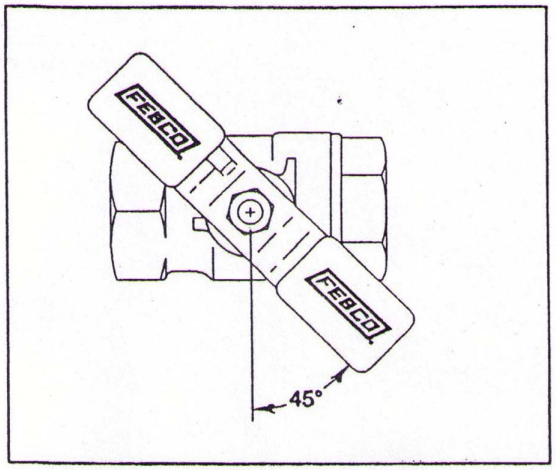


Figure A: Ball valve in half open, half closed (45 degree) position.

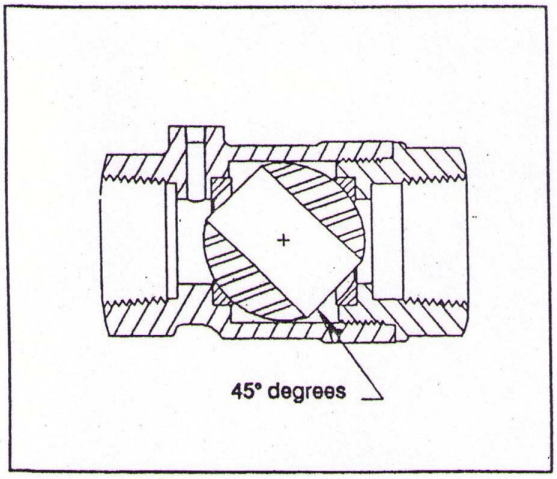


Figure B: Cutaway drawing displaying ball valve in half open, half closed position.

DRAIN PROCEDURE

Ball valves should be drained for the winter in areas where freezing temperatures may occur. Water will become trapped between the ball and valve body if the valve is left in either the full open or full closed position. If water should freeze between the ball and valve body, damage to the ball valve will occur.

1. Open the ball valves approximately 45 degrees (as shown in Figures A & B) while draining the pipeline and backflow prevention assembly to allow water between the ball and valve body to drain.
2. After draining procedures on the backflow prevention device have been completed, the ball valves must be left in the half open, half closed position.
3. Leave the ball valves in this position for the winter to prevent freeze damage.
4. When there is no more chance of freezing, follow the "Start-up Procedure" on the reverse side of this sheet.

NOTE: Open and close ball valves slowly at all times to prevent damage to the system.