

## **Basically.....**

Backflow Prevention is Required in all Irrigation Systems.

A Plumbing Permit and inspection is required to make the connection.

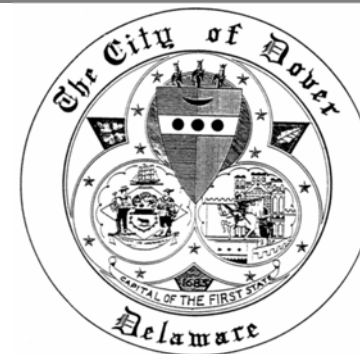
The minimum type of protection is an atmospheric-type vacuum breaker.

If a valve is installed downstream, or chemicals are introduced into the system, a reduced pressure principle backflow preventer is to be used.

**Any Questions  
or Concerns about  
Irrigation Systems?  
Please contact:**

**City of Dover  
Public Services  
15 Loockerman Plaza  
Dover, DE 19901  
(302) 736-7010  
[www.cityofdover.com](http://www.cityofdover.com)**

# **Irrigation Systems Backflow Prevention**



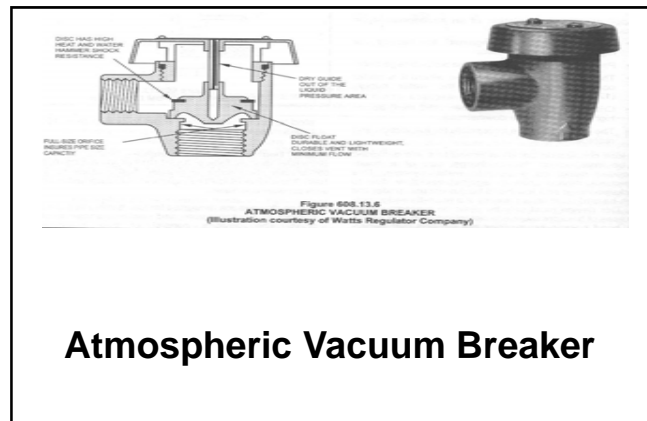
**City of Dover**  
  
**Public  
Services**

## Irrigation Systems and Backflow Prevention

Lawn irrigation systems are not considered plumbing systems so the system is not subject to inspection. The System begins at the point of connection to the potable water distribution (the point of connection being the backflow preventer interface). It is this connection that requires a permit and approval. Irrigation system outlets can be below grade level, exposing them to contamination. For these reasons, the connection to the regulated system must be approved and the minimum form of backflow prevention is an atmospheric vacuum breaker.

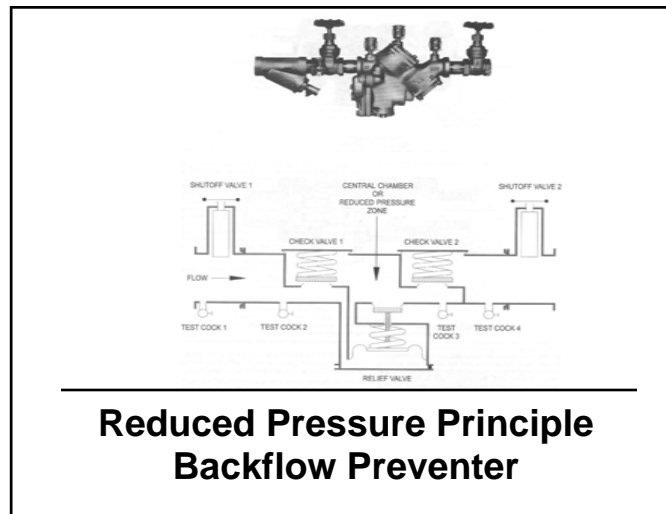
Many irrigation systems employ valved sprinklers and zone control valves that could render atmospheric vacuum breakers inoperative: so in these cases an atmospheric vacuum breaker will not be permitted. Pressure-type vacuum breakers are designed to operate under pressure at the outlet. These are permitted for all irrigation systems except those having chemical injection. Where fertilizers, herbicides, pesticides or any other chemicals can be introduced into an irrigation system, the potable water supply must be protected by a reduced pressure principle backflow preventer.

Because it is not uncommon for lawn maintenance personnel to pump chemicals directly into an irrigation system, a hazardous cross connection subject to backpressure can be created. It is also common for pumps, connections for pumping equipment and auxiliary air tanks to be installed on irrigation systems to improve pressure. These type of systems produce backpressure within the system. Under these circumstances, the only acceptable means of backflow prevention is a reduced pressure principle backflow preventer.



Because of the varying nature and unpredictable usage of irrigation systems, most installations are provided with pressure-type vacuum breakers or reduced pressure principle backflow preventers.

Pressure type vacuum breakers shall conform to ASSE 1020 and spill proof vacuum breakers shall comply with ASSE 1056. Pressure type vacuum breakers shall not be installed in locations where spillage could cause damage to the structure.



## The Fine Print (regulations)

**This is what the plumbing code requires:**

# 2003 INTERNATIONAL PLUMBING CODE

## CHAPTER 6

# WATER SUPPLY AND DISTRIBUTION

## SECTION 608 PROTECTION OF THE POTABLE WATER SUPPLY

**608.1 General.** A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from non-potable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system.

**608.16.5 Connections to lawn irrigation systems.** The potable water

supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.