

# Backflow Prevention Devices

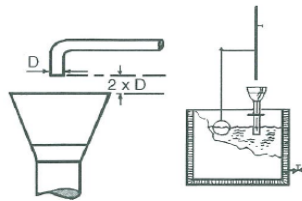
## What are the five basic products used for protection of cross connection?

The Five basic products are:

1. Air Gap
2. Atmospheric Vacuum Breakers – which also includes hose connection vacuum breakers
3. Pressure Vacuum Breakers – which also includes backflow preventer with intermediate atmospheric vent for ½” and ¾” lines.
4. Double Check Valve Assembly
5. Reduced Pressure Zone Assembly.

## What is an Air Gap?

Air Gap is the physical separation of the potable and non-potable system by an air space. The vertical distance between the supply pipe and the flood level rim should be two times the diameter of the supply pipe, but never less than 1”. The air gap can be used on a direct or inlet connection and for all toxic substances.



## Where is an Atmospheric Vacuum Breaker used?

Atmospheric Vacuum Breakers may be used only on connections to a non-potable system where the vacuum breaker is never subjected to backpressure and is installed on the discharge side of the last control valve. It must be installed above the usage point. It cannot be used under continuous pressure.



Watts 288A

## Where is a Hose Bibb Vacuum Breaker used?

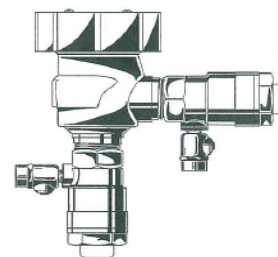
Hose Bibb Vacuum Breakers are small inexpensive devices with hose connections which are simply attached to sill cocks and threaded faucets or wherever there is a possibility of a hose being attached which could be introduced to a contaminant. However, like the atmospheric Vacuum Breaker they should not be used under continuous pressure.



Watts 8

## Where is a Pressure Vacuum Breaker used?

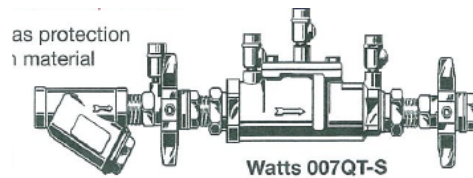
Pressure Vacuum Breakers may be used as protection for connections to all types of non-potable systems where the vacuum breakers are not subject to backpressure. They must be installed above the usage point. (spill resistant models for indoor use are also available).



Watts 800M4QT

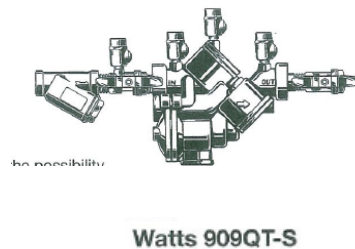
## Where is a Double Check Valve Assembly used?

A double check valve assembly may be used as protection of all direct connections through which foreign material might enter the potable system in concentration which would constitute a nuisance or be aesthetically objectionable, such as air, steam, food or other material which does not constitute a health hazard.



## Where is a Reduced Pressure Zone Assembly used?

Reduced Pressure Zone Assemblies may be used on all direct connections which may be subject to backpressure or back-siphonage, and where there is the possibility of contamination by the material that does constitute a potential health hazard.



[PAGE\_DESCRIPTION: This section of the website contains information backflow prevention topics of interest to Penetanguishene residents.]