



City of Plant City
List of Approved Pressure Vacuum Breakers (P.V.B.)
As of October 24, 2003

<u>MANUFACTURE</u>	<u>SERIES/MODEL</u>	<u>SIZES</u>
• Watts	800M4	½" - 2"
• Watts	800M4 F4	½" - 2"

CITY OF PLANT CITY



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Inspections: (813) 659-4254

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City of Plant City

Manual of Cross-Connection Control

4.7 PRIMARY BACKFLOW ASSEMBLY INSTALLATION REQUIREMENTS

1. All Primary Backflow Assemblies shall be the same size as the Service Connection meter when installed, approved from the City's list of approved Backflow Assemblies, and conform with the Standard Detail Drawings in Section 11 of this manual.
2. Shut-off valves 3" and larger shall be resilient wedge, OS&Y type. Valves 2" and smaller shall be ball type.
3. The piping shall be thoroughly flushed before installing the assembly.
4. The assembly shall be adequately supported per the Standard Detail Drawing in Section 11.
5. The assembly should be protected against freezing and shall not be installed in a pit or vault.
6. The assembly 3/4" to 2-1/2", except residential pressure vacuum breakers, shall be installed with galvanized pipe or a minimum type L copper pipe sleeved for necessary installations approved by the City and a minimum of one (1) union.
7. All residential Pressure Vacuum Breakers shall be installed with PVC SCH. 80, PVC SCH. 40, or galvanized pipe.
8. All assemblies 3" to 10" shall be installed with ductile iron pipe using only flange to flange fitting above ground.
9. All meters and Backflow Assemblies, except the Pressure Vacuum Breakers, shall be installed at least 18" above the ground surface with approved pipe supports.
10. All Pressure Vacuum Breakers shall be installed 6" to 12" above the highest outlet. **When height exceeds 48" a Reduced Pressure Backflow Assembly or a Double Check Valve Assembly shall be installed.**
11. All assemblies, except the residential Pressure Vacuum Breaker, shall be supported with a cement slab.
12. All Potable Water assemblies and pipe supports, except the residential **Pressure Vacuum Breaker, shall be painted safety blue.**
13. All Fire Sprinkler System assemblies and pipe supports shall be painted safety red.
14. All paint shall be approved by the City before applying.
15. All Assemblies shall be installed a minimum of 5" away from any structures or obstacles.
16. All test cocks on assemblies shall be kept free of any extensions or apparatuses. Test cocks are used for testing only.
17. All workmanship shall conform to generally accepted good practice.

Pressure Vacuum Breakers

Series 800M4QT

Size 1/2" - 2"

BACKFLOW PREVENTION FOR HIGH HAZARD CROSS-CONNECTIONS and CONTAINMENT — Installations with Continuous Pressure, No Backpressure

Designed to prevent back-siphonage of contaminated water into a safe drinking water supply. Ideally suitable for industrial process water systems and other continuous pressure piping system applications where the water enters the equipment at or below its flood rim. The disc float and check valve are suitable for temperatures up to 140°F. The durable silicone disc on the float and the check valve have high heat and shock resistance.

Applications

Pressure vacuum breakers must be installed utilizing good plumbing practice. Use of a check valve to damper out and shock arrestor where required is recommended. This valve is designed for installation in a continuous pressure potable water supply system 12" above the overflow level of the container being supplied. The valve must be installed with the supply connected to the bottom and in a vertical position where it is available for periodic inspection, servicing or testing.

IMPORTANT: This is a continuous pressure vacuum breaker. When there is less than 1 1/2 PSI water pressure on the vent disc, some spillage of water may occur.

Therefore, use Series 008QT valves in concealed areas or where spillage of water will cause damage.

Important Note: Vacuum breakers are not designed, tested or approved to protect against backpressure backflow or water hammer shock. For protection against backpressure backflow, install a Watts 909 or 009 Reduced Pressure Zone Backflow Preventer. For protection against water hammer shock, install Watts 05 or 15 Water Hammer Arrestor.

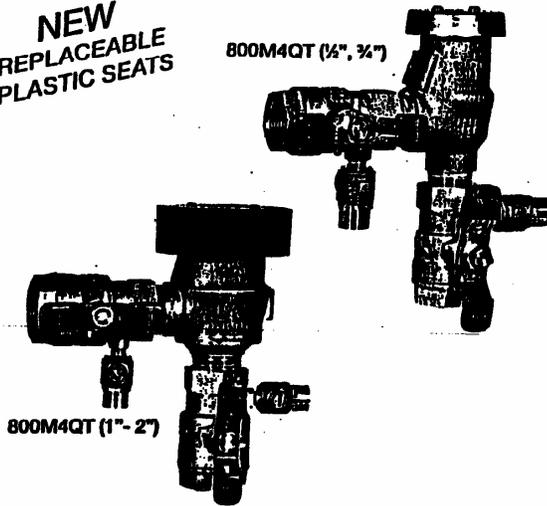
Materials

Vent Disc	-Silicone rubber
Disc Holder Float	-Polyethylene
Check Valve Disc	-Silicone rubber
Check Valve Seat	-Plastic - Noryl
Body	-Bronze
Shutoff Valves	-Quarter-turn ball type

Features

- Replaceable plastic seal
- Easy maintenance of internal parts
- Serves as an anti-siphon valve
- Ball valve test cocks for easy testing to insure proper operation
- Quarter-turn ball valve shutoffs
- "T" handles on 1/2" - 1"

**NEW
REPLACEABLE
PLASTIC SEATS**



How it Operates

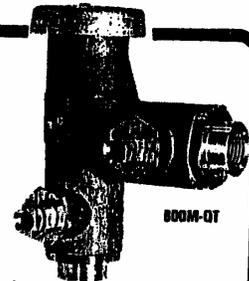
When the line pressure drops to 1 PSI or below, the spring loaded disc float opens the atmospheric vent and the spring loaded check valve closes the inlet. This prevents the creation of a vacuum in the discharge line and prevents back-siphonage. As water flows through the valve, it pushes the check valve open and lifts the disc float which closes the atmospheric vent thus preventing leakage. The disc float is free floating without close fitting guides which assures freedom from sticking.

COMPACT MODEL

800MQT, 800MCQT

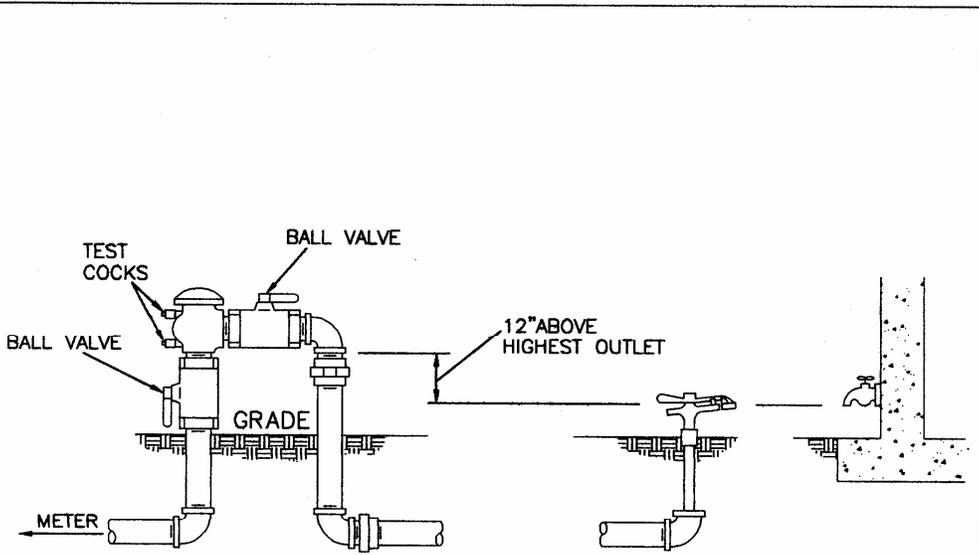
Compact design model, ideal for institutional, OEM and other applications requiring minimum space. Features built-in ball valve shut-offs. Sizes 1/2", 3/4".

800MQT - bronze body
800MCQT - chrome finish



DIMENSIONS (Inches)

Size	A	B	C	D	E	F	Weight
1/2, 3/4	4 1/2	5 1/4	1 1/4	3 1/4	2 3/4	—	2 1/2 lbs.



NOTES:

1. THE PRESSURE VACUUM BREAKER (P.V.B.) CANNOT BE INSTALLED WHERE IT WILL BE SUBJECT TO BACK-PRESSURE. IT PROVIDES PROTECTION AGAINST BACK-SIPHONAGE OF BOTH POLLUTANTS AND CONTAMINANTS.
2. EACH P.V.B. SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION TO FACILITATE INSPECTION AND SERVICING.
3. EACH P.V.B. SHALL BE INSTALLED ON THE MAIN LINE TO THE IRRIGATION SYSTEM AND AT LEAST 12" ABOVE THE HIGHEST SPRINKLER HEAD OR OUTLET. (VALVES MAY BE LOCATED DOWNSTREAM FROM THE DEVICE).

REV.

PRESSURE - TYPE VACUUM BREAKER (P.V.B.)		CITY OF PLANT CITY STANDARDS		
DRAWN ED	SCALE NTS	CITY OF PLANT CITY ENGINEERING DIVISION PLANT CITY, FLORIDA	FILE NO.	DWG. NO.
CHECKED	DATE 01/23/95		BF-03	95-W1