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Vacuum Breaker Wall Hydrants, Freeze Resistant, Automatic Draining Type

Section I

1.0 General

1.1 Application

The purpose of these devices is to supply potable water without damage to the device due to freezing and to provide protection of the potable water supply from contamination due to backsiphonage or backpressure.

1.2 Scope

1.2.1 Description

This standard establishes design and performance requirements for water-supply system, wall hydrant devices. These devices shall supply potable water to hose connections without danger of freezing, and shall have a permanent means, including atmospheric vent(s) by to prevent backflow due to backsiphonage, backpressure, or both.

The device shall only be used on systems where the only source of low head backpressure comes from an elevated hose equal to or less than 10.0 feet (3.0 meters) in height. This device shall not be subjected to more than twelve (12) hours of continuous water pressure.

The devices shall be classified as follows:

- (a) Type A devices protect against backsiphonage and backpressure, and contain not less than two mechanisms (at least one mechanism shall a check) to protect against and relieve backpressure. The hose shall be removed to prevent damage from freezing.
- (b) Type B devices protect against backsiphonage and backpressure, and contain not less than two mechanisms (at least one mechanism shall a check) to protect against and relieve backpressure. The hose need not be removed to protect against damage from freezing.
- (c) Type C devices protect against backsiphonage and backpressure, and contain not less than one mechanism to protect against backpressure. The hose shall be removed to protect against damage from freezing.

1.2.2 Size Range

Sizes shall include 1/2 NPHS, 3/4 NPHS and 1 NPHS male hose threaded outlets.

1.2.3 Pressure

The devices shall be designed for a minimum working pressure of 125.0 psi (861.9 kPa).

1.2.4 Temperature Range

The devices shall be designed for flow temperatures of 33.0 °F to 140.0 °F (0.6 °C to 60.0 °C).

1.2.5 Connections

1.2.5.1 Outlet

Garden hose connection threads shall be hose couplings per ANSI/ASME B1.20.7.

1.2.5.2 Inlet

Sizes shall include but not be limited to 1/2 NPS, 3/4 NPS and 1 NPS.

1.2.6 Repairability

Devices shall be designed and constructed such that after installation, repair or replacement of the elastomeric parts shall be accomplished using standard tools. Construction shall permit field service without damaging or marring the surface of the device.

1.2.7 Atmospheric Vent

Atmospheric vent(s) shall be of a nonstandard plumbing connection.

1.3 Reference Standards

Reference to industry standards shall be the latest edition of the standards.