ASSE Standard #1004-2008
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American Society of Sanitary Engineering

Backflow Prevention Requirements for

Commercial Dishwashing Machines

An American National Standard

General Information

No product may be said to be ASSE approved unless the manufacturer has applied to ASSE, has had his product tested according to the applicable ASSE standard, and when the product has passed the test, displays the ASSE Seal on the product.

Instructions for receiving the authorization to display the Seal are available from ASSE's International Office. Organizations wishing to adopt or list any ASSE standard should print the ASSE standard number on the cover page first and in equal or larger type to that of the adopting or listing organization.

American Society of Sanitary Engineering
Westlake, Ohio

Foreword

The Foreword is not a part of this Standard; however, it is offered to provide background information.

This Standard was first adopted by ASSE in August 1967. The ASSE Product Standards Committee and several interested manufacturers developed the draft which began in April 1966. Due to changes in Commercial Dishwashing Machine technology, it was necessary for the standard to be updated.

Although many of the material specifications are detailed within this standard, it is the responsibility of the manufacturer to comply with the requirements of the Safe Drinking Water Act, United States Public Law 93-523.

Recognition is made of the time volunteered by members of the working group and of the support of the manufacturers who also participated in the meetings for this standard.

This standard does not imply ASSE's endorsement of a product which conforms to these requirements.

Compliance with this standard does not imply acceptance by any code body.

It is recommended that these devices be installed consistent with local codes by qualified and trained professionals.

This standard was promulgated in accordance with procedures developed by the American National Standards Institute (ANSI).

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Table of Contents

Backflow Prevention Requirements for Commercial Dishwashing Machines

Section I

1.0 General

1.1 Application

This standard applies to the backflow prevention device used on the potable water supply connected to a commercial dishwashing machine.

1.2 Scope

1.2.1 Description

The backflow prevention device shall be:

a) An air gap complying with ASME A112.1.3;
b) An atmospheric type vacuum breaker complying with ASSE 1001;
c) A hose connection vacuum breaker complying with ASSE 1011; or
d) A hose connection backflow preventer complying with ASSE 1052.

1.2.2 Air Gap Minimum

The minimum air gap shall be two (2) times the diameter of the supply orifice, or 1.0 inch (25.4 mm), whichever is larger.

1.3 Location of Backflow Prevention Devices

1.3.1 Air gaps shall be located on the outside of the machine, above the overflow rim, and shall be protected against suds, spray, splash and/or flooding.

1.3.2 Atmospheric type vacuum breakers (ones that are not deck-mounted/equipment-mounted) shall be installed a minimum of 6.0 inches (152.4 mm) above the highest point of use. Deck-mounted or equipment-mounted atmospheric type vacuum breakers shall be installed a minimum of 1.0 inches (25.4 mm) above the highest point of use. Atmospheric type vacuum breakers shall not be subjected to more than twelve (12) hours of continuous water pressure.

1.3.3 Hose connection vacuum breakers shall be installed downstream of the last shut-off valve. Hose connection vacuum breakers shall not be subjected to more than twelve (12) hours of continuous water pressure. This device shall only be used on systems where the only source of low head back pressure comes from an elevated hose equal to or less than 10.0 feet (3.0 meters) in height.

1.3.4 Hose connection backflow preventers shall be installed downstream of the last shut-off valve. Hose connection vacuum breakers shall not be subjected to more than twelve (12) hours of continuous water pressure. This device shall only be used on systems where the low-head backpressure does not exceed that generated by an elevated hose equal to or less than 10 feet (3.0 m) in height.