ASSE Standard #1055-2009
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American Society of Sanitary Engineering

Performance Requirements for

Chemical Dispensing Systems

An American National Standard

General Information

No product may be said to be ASSE approved unless the manufacturer has applied to the ASSE, has had the product tested by an official ASSE recognized independent laboratory, according to the applicable ASSE Standard, passed the test, and has been reviewed and approved by the consensus ASSE Seal Control Board. Having completed the aforementioned, the manufacturer may then display the ASSE Seal on the product.

Instructions for receiving the authorization to display the Seal are available from the ASSE 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

This foreword is not part of the standard, however , it is offered to provide background information.

The American Society of Sanitary Engineering is dedicated to the preservation of public health and safety through "Prevention Rather then Cure."

Prevention of contamination or pollution of potable water in plumbing systems is one of the major objectives of the Society's Standards Program, which is addressed to the development and promulgation of Standards embracing performance criteria.

In industrial and institutional cleaning operations it is desirable and convenient to dispense cleaning solutions derived from potable water and concentrated products. A dispensing device connected to potable supply constitutes a cross connection which could be a source of contamination to the potable water. Devices providing this function often contain features which are intended to prevent this contamination. This standard identifies accepted methods of backflow protection as well as test methods for evaluating backflow systems incorporated into a chemical dispensing system.

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

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

This addition of the standard was approved by the ASSE Board of Directors on April 13, 2009 as an ASSE Standard.

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Performance Requirements for Chemical Dispensing Systems

Section I

1.0 General

1.1 Application

Chemical dispensing systems (herein referred to as the “device”) provide a means of mixing potable water with chemicals to provide the user with a chemical solution which is ready for use. The amount of dilution shall be fixed or adjustable.

1.2 Scope

1.2.1 Description

This standard applies to those devices classified as chemical dispensing systems having a self-contained means of backflow protection. The devices shall be classified as follows:

(a) Type A: These devices have the chemical(s) pressurized above atmospheric pressure.

(b) Type B: These devices do not pressurize the chemical(s) above atmospheric pressure. The only source of back pressure comes from an elevated hose.

1.2.2 Pressure Range

Devices shall be designed to withstand a supply pressure of at least 125.0 psig (861.9 kPag). The device shall operate within the full pressure range as indicated by the manufacturer.

1.2.3 Temperature Range

Cold water devices shall withstand temperatures up to 120.0 °F (48.9 °C) and shall operate within the full temperature range as indicated by the manufacturer.

Hot water devices shall withstand temperatures up to 180.0 °F (82.2 °C) and shall operate within the full temperature range as indicated by the manufacturer.

1.2.4 Means of Backflow Protection

Devices shall have an integral means of backflow protection or shall include a backflow protection device that conforms with one of the following standards, current edition:

(a) ANSI/ASME A112.1.3, Air Gaps Fittings for Use with Plumbing Fixtures, Appliances and Appurtenances;

(b) ASSE 1001, Atmospheric Type Vacuum Breaker;

(c) ASSE 1013, Reduced Pressure Principle Backflow Preventer and Reduced Pressure Principle Fire Protection Backflow Preventer;

(d) ASSE 1020, Pressure Vacuum Breaker; or

(e) ASSE 1056, Spill Resistant Vacuum Breaker.

1.2.4.1 The form of backflow protection shall be located downstream of shut-off valves or include a pressure bleeding device which conforms to section 3.1 of this standard.