

ASSE Standard #1035-2008

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*American Society of Sanitary Engineering*

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Performance Requirements for

# Laboratory Faucet Backflow Preventers

*An American National Standard*



# General Information

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Westlake, Ohio  
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# Foreword

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

ASSE standards are developed in the interest of consumer safety.

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

Preventing potable water in plumbing systems from becoming contaminated or polluted is an important objective of ASSE's Standards Program. The program addresses the development and promulgation of standards embracing performance criteria for manufactured plumbing components designed to safeguard public health and safety.

Recognizing the probable sources or causes of contamination or pollution of a potable water system which can cause it to become unfit or undesirable for human consumption is vital to the maintenance of its continued potability.

Backflow prevention is essential for all laboratory water outlets because of the serious contamination potential existing there due to the real and/or potential cross connections present in laboratories. For this reason, this standard was developed to cover devices designed especially for this service.

This standard is one of a series of ASSE Backflow Preventer Standards, each of which covers a different type of backflow protection device, each tailored to the protective requirements essential to the specific system conditions in which it is installed and the degree of hazard involved.

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

The working group which developed this standard revision, was set up within the framework of the Product Standards Committee of the American Society of Sanitary Engineering.

Recognition is made of the time volunteered by members of this 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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# Performance Requirements for Laboratory Faucet Backflow Preventers

## Section I

### 1.0 General

#### 1.1 Application

Laboratory Faucet Backflow Preventers are designed to protect the potable water supply from pollutants or contaminants which enter the system by backflow due to back siphonage or back pressure.

#### 1.2 Scope

##### 1.2.1 Description

This standard applies only to those devices classified as backflow preventers that are designed for installation on laboratory faucets on the discharge side of the last shut-off valve. These devices are not for use under constant pressure conditions. These devices consist of two independently acting check valves, force loaded or biased to a normally closed position, and between the check valves a means for automatically venting to atmosphere, force loaded or biased to normally open position.

##### 1.2.2 Working Pressure

The devices shall be designed for a minimum working pressure of not less than 125.0 psi (861.9 kPa).

##### 1.2.3 Temperature Range

The devices shall be designed for flow temperatures between 33.0 °F to 180.0 °F (0.6 °C to 82.2 °C).

##### 1.2.4 Minimum Flow Capacity

The device shall have a minimum flow capacity of 4.0 GPM (15.0 L/min) with a maximum pressure loss through the device of 20.0 psi (137.9 kPa).

##### 1.2.5 Connections

Connections shall be suitable for laboratory faucets. (Inlet and/or outlet connections are permitted to be different when required for special installations.)

##### 1.2.6 Flow Way Open Area

The least total cross-sectional area of the air flow ways, including the seat area of the air vent valve, shall be not less than the least total cross-sectional area of the waterflow passage or passages upstream from the air vent valve. The minimum cross-sectional dimensions of any air port or flow way, not including the valve lift, shall not be less than 3/32" (2.4 mm). These requirements shall be verified by the testing agency.