

ASSE Standard #1015-2009

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*American Society of Sanitary Engineering*

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Performance Requirements for

**Double Check  
Backflow Prevention  
Assemblies and  
Double Check  
Fire Protection  
Backflow Prevention  
Assemblies**

*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 recognition of probable sources or causes of pollution of a potable water supply system and the application of essential devices, or means, to prevent the entrance of pollutants to the potable water system whereby it becomes unfit for human consumption, is vital to the maintenance of its continued potability.

There are two basic and practiced methods for the protection of the potable water supplies:

a) Protection by Containment

The isolation, by suitable devices or means, of the system within the premises supplied, wherein may lie the source or sources of contamination, from the vendor's or public water supply system.

b) Protection of Each Individual Outlet

The protection of each individual outlet by suitable devices or means, which within the premises served, may be a source of contamination.

Protection by containment protects the vendor's or public water supply only. It does not provide protection within the premises supplied.

In modern plumbing systems, there are many situations where backflow could occur due to back pressure conditions. In some, the pollutants that would get into the water supply would be undesirable, yet not be a hazard to the health of persons consuming the water.

This standard covers two (2) types of devices which are identified as Double Check Backflow Prevention Assemblies (DC) and Double Check Fire Protection Backflow Prevention Assemblies (DCF). The DC and the DCF are identical in their backflow protection. The DCF, which was added to this standard in 1999, has specific performance requirements relating to their use on fire protection systems.

The devices described are suitable for either protection by containment or protection of individual outlets where pollutants, which could be caused to enter the potable water, are low hazard.

These devices are suitable for either hot or cold water service under continuous or intermittent pressure conditions.

Although many of the material specifications are detailed within Section IV of the 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.

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).

This edition of the standard was approved by the ASSE Board of Directors on July 24, 2009, as an ASSE standard.

# 2008-2009 Product Standards Committee

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**Edward J. Lyczko**

*Product Standards Committee Chairman  
Cleveland Clinic  
Cleveland, Ohio*

**John F. Higdon, P.E.**

*Apollo Valves/Conbraco Industries, Inc.  
Pageland, South Carolina*

**Rand H. Ackroyd**

*Rand Technical Consulting, LLC  
Newburyport, Massachusetts*

**Chuck Lott**

*Precision Plumbing Products, Inc.  
Portland, Oregon*

**William Briggs, Jr.**

*MGJ Associates  
New York, New York*

**Peter Marzec**

*United Association of  
Plumbers and Pipefitters  
Pearl River, New York*

**Judson W. Collins**

*JULYCO Professionals  
Mannford, Oklahoma*

**Hamid Naderi**

*International Code Council  
Austin, Texas*

**A. Richard Emmerson**

*General Interest  
Buffalo Grove, Illinois*

**Brad Noll**

*Wilkins, A Division of Zurn Industries, Inc.  
Paso Robles, California*

**Ron George**

*Ron George Design & Consulting  
Newport, Michigan*

**Thomas C. Pitcherello**

*State of New Jersey  
Bordentown, New Jersey*

**Charles Gross**

*International Association of Plumbing  
and Mechanical Officials  
Ontario, California*

**Shabbir Rawalpindiwala**

*Kohler Company  
Kohler, Wisconsin*

**Steven Hazzard**

*ASSE Staff Engineer/ Standards Coordinator  
Westlake, Ohio*

**Tsan-Liang Su, Ph.D.**

*Center for Environmental Systems  
Stevens Institute of Technology  
Hoboken, New Jersey*

# RP / DC Working Group

---

**Rand H. Ackroyd**

*Working Group Chairman  
Rand Engineering  
Newburyport, Massachusetts*

**Paul Bladdick**

*LPB Company, Inc., Inc.  
White Lake, Michigan*

**William Chapin**

*Cash Acme/Reliance Worldwide  
Cullman, Alabama*

**Sean Cleary**

*IAPMO  
Scranton, Pennsylvania*

**Robert Cross**

*Houston Area Plumbing JAC  
Houston, Texas*

**John Higdon, P.E.**

*Apollo / Conbraco Industries, Inc  
Pageland, South Carolina*

**Steven Hazzard**

*ASSE Staff Engineer/ Standards Coordinator  
Westlake, Ohio*

**Brad Noll**

*Wilkins, a Division of Zurn Industries  
Paso Robles, California*

**Robert Purzycki**

*BAVCO Mechanical Services  
Long Beach, California*

**Paul Schwartz**

*University of Southern California FCCCHR  
Los Angeles, California*

**Stanley Ziobro**

*Factory Mutual Approvals  
Norwood, Massachusetts*

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# Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies

## Section I

### 1.0 General

#### 1.1 Application

The purpose of Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies (herein referred to as the "assembly") is to keep polluted water from flowing into a potable water distribution system when some abnormality in the system causes the pressure to be temporarily higher in the polluted part of the system than in the potable water supply piping.

#### 1.2 Scope

##### 1.2.1 Description

This standard applies to two types of backflow prevention assemblies identified as:

- (a) Double Check Backflow Prevention Assembly (DC); and
- (b) Double Check Fire Protection Backflow Prevention Assembly (DCF).

These assemblies consist of two (2) independently acting check valves, internally force loaded to a normally closed position, two (2) properly located tightly closing shut-off valves per Section 1.3.2.6 and properly located test cocks per Section 1.3.2.4. These assemblies are designed and constructed to operate under intermittent or continuous pressure conditions.

This standard also applies to Manifold Double Check Backflow Prevention Assemblies consisting of two or more complete Double Check Backflow Prevention Assemblies in parallel. The assemblies do not need to be of the same pipe size. The manifold size shall be identified by the single inlet and outlet of the manifold assembly. Manifold Double Check Backflow Prevention Assemblies shall include line-sized shut-off valves on each inlet and outlet of the assemblies making up the manifold.

##### 1.2.2 Size Range

Connection pipe sizes shall be in accordance with Table 1.