

Approval Standard for Backflow Preventers (Reduced Pressure Principle and Double Check Valve Types)

Class Number 1221

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I. INTRODUCTION

1.1 Purpose

This standard states FM Approval requirements for backflow preventers of the reduced pressure principle or double check valve types.

1.2 Scope

- 1.2.1 This standard sets performance requirements for backflow preventers which can be used in connections between public water supplies and fire protection systems to prevent reverse flow. Local health authorities usually recommend these devices to prevent contaminated water from entering public water supplies.
- 1.2.2 There are two varieties of backflow preventers, the reduced pressure principle type and the double check valve type. From a fire protection viewpoint, both have the same performance requirements as the standard check valves they would replace.
- 1.2.3 This standard does not attempt to prescribe performance requirements which will ensure the public health. This is best handled by recognized national agencies established for this purpose.
- 1.2.4 FM Approvals will consider for Approval only those backflow preventers which have been accepted by one of the following agencies:
 - ASSE (American Society of Sanitary Engineering)
 - AWWA (American Water Works Association)
 - USCF-MCCC (University of Southern California Foundation – Manual of Cross Connection Control)

1.3 Basis for FM Approval

FM Approval is based upon satisfactory evaluation of the product and the manufacturer in the following major areas:

- 1.3.1 Examination and tests on production samples shall be performed to evaluate
 - the suitability of the product;
 - the proper operation and performance of the product as specified by the manufacturer and required by FM Approvals and, as far as practical;
 - the durability and reliability of the product.
- 1.3.2 An examination of the manufacturing facilities and audit of quality control procedures shall be made to evaluate the manufacturer's ability to produce the product which is examined and tested, and the marking procedures used to identify the product. These examinations are repeated as part of FM Approvals' product follow-up program.