FLOODSAFE® INFLOW PREVENTER
Val-Matic® Specification

1 Scope

1.1 This specification covers the design, manufacture, and testing of 1" through 16" FloodSafe® Inflow Preventers suitable for use with clean water air valves in vault service and reservoir vents with submergence pressure up to 25 psi.
1.2 The FloodSafe® Inflow Preventers shall be fully automatic, float operated, and designed to close in the event of a flooded vault or J-pipe preventing contaminated water from reaching the air valve outlet, to which the FloodSafe® is piped. The FloodSafe® Inflow Preventer shall be designed to allow the air valve to perform its normal function of admitting and discharging air under normal operating conditions.

2 Standards Approvals and Verification

2.1 The Inflow Preventer shall be designed, manufactured and tested in accordance with American Society of Sanitary Engineers Standard ASSE-1063 and American Water Works Association Standard ANSI/AWWA C514.
2.2 An independent, third party testing lab shall certify performance of the inflow preventer.
2.3 The Inflow Preventer shall be certified to be Lead-Free in accordance with NSF/ANSI 61, Annex G.
2.4 Manufacturer shall have a quality management system that is certified to ISO 9001 by an accredited, certifying body.

3 Connections

3.1 For sizes 1" to 4", the upper chamber shall include a full size NPT connection equal to the nominal size for the connection to the air valve or vent outlet piping.
3.2 Sizes larger than 4", shall have bolted flange connections. Flanges shall be flat faced and drilled in accordance with ANSI B16.1 for Class 125 iron flanges and have sufficient thickness to withstand the submergence pressure.

4 Design

4.1 The Inflow Preventer shall consist of a lower chamber with a float actuated closure member. An upper chamber shall be provided for redundancy and shall include an independent closure member that closes in the event the lower chamber closure member fails to seal. The device shall provide greater flow area than an equivalent sized air valve resulting in minimal flow restriction. A heavy duty basket type screen shall be provided on the lower chamber inlet. The screen shall utilize a quick-disconnect joint for easy removal and inspection and have a full flow area greater than three (3) times the nominal pipe size area.
4.2 Float checks shall be unconditionally guaranteed against failure.
4.3 The resilient seat shall be precision molded with raised o-ring surfaces or ridges to provide tight shutoff at a test pressure of 12" water column.

5 Materials

5.1 The upper and lower chambers shall be constructed of ASTM A536, Grade 65-45-12 ductile iron.
5.2 The float checks and trim shall be constructed of Type 316 stainless steel. Resilient seats shall be EPDM with fiberglass reinforcement.
5.3 The basket screen shall be stainless steel, Type 304.

6 Options

6.1 A U-shaped pipe manifold shall be provided to connect the FloodSafe® to the air valve when specified. The manifold shall consist of galvanized elbows and schedule 40 pipe. Larger sizes shall include flanged elbows and fittings.
6.2 An FBE coated wall bracket shall be provided to mount the FloodSafe® when specified.
6.3 A field test kit shall be provided to allow regular safety testing (see drawing VM-1301FT).

7 Manufacture

7.1 Manufacturer shall demonstrate a minimum of five (5) years experience in the manufacture of air valves. When requested, the manufacturer shall provide test certificates, dimensional drawings, parts list drawings, and operation and maintenance manuals.
7.2 All interior and exterior cast surfaces shall be coated with an NSF/ANSI 61 certified fusion bonded epoxy.
7.3 FloodSafe® Inflow Preventers shall be series #1300 as manufactured by Val-Matic® Valve & Mfg. Corporation, Elmhurst, IL. USA or approved equal.

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