

SURE SEAL FOOT VALVE

Val-Matic® Specification

1 Scope

1.1 This specification covers the design, manufacture, and testing of 2 in. (50 mm) through 42 in. (1067 mm) Sure Seal Foot Valves suitable for pressures up to 200 psig (1375 kPa) water service.

1.2 The Foot Valve shall be of the full flow globe style designed to provide silent operation, positive seating, and full flow area.

2 Standards, Approvals and Verification

2.1 The valves shall be certified to be Lead-Free in accordance with NSF/ANSI 61, Annex G.

2.2 Manufacturer shall have a quality management system that is certified to ISO 9001 by an accredited, certifying body.

3 Connections

3.1 The Foot Valves shall be provided with flanges in accordance with ANSI B16.1 for Class 125 iron flanges.

4 Design

4.1 The valve design shall incorporate a center guided disc, guided at opposite ends and having a short linear stroke that generates a flow area equal to the pipe size.

4.2 All component parts shall be field replaceable without the need of special tools. A replaceable guide bushing shall be provided and held in position by threaded bushing retainer.

4.3 The valve disc shall be concave to the flow direction providing for disc stabilization, maximum strength, and a minimum flow velocity to open the valve.

4.4 The valve disc and seat shall have a seating surface finish of 32 micro-inch or better to ensure positive seating at all pressures. A Buna-N seal shall be provided on the seat to provide for zero leakage at both high and low pressures without overloading or damaging the seal. The seal design shall provide both a metal to metal and a metal to Buna-N seal.

4.5 A heavy duty basket type screen shall be bolted to the inlet flange outside diameter and provide 3-4 times the pipe area.

5 Materials

5.1 The valve body shall be constructed of ASTM A536, Grade 65-45-12 ductile iron.

5.2 The seat and plug shall be ASTM B584 Alloy C87600 cast bronze. Optional trim material include ASTM A351 Grade CF8M stainless steel.

5.3 The basket screen shall be stainless steel, Type 304.

6 Manufacture

6.1 The valves shall be hydrostatically tested at 1.5 times their rated cold working pressure. Additional tests shall be conducted per AWWA, ANSI, MSS or API standards when specified. When requested, the manufacturer shall provide test certificates, dimensional drawings, parts list drawings, and operation and maintenance manuals.

6.2 The exterior of the valve shall be coated with a universal alkyd primer.

6.3 Foot Valves shall be Series #1900 as manufactured by Val-Matic® Valve & Mfg. Corporation, Elmhurst, IL. USA or approved equal.

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VAL-MATIC® VALVE AND MANUFACTURING CORP.

DRWG. NO.

VM-1900-S