

VACUUM PRIMING VALVE
Val-Matic Specification

1 Scope

1.1 This specification is intended to cover the design, manufacture, and testing of 2 in. (50 mm) Vacuum Priming Valves suitable for pressures up to 150 psig (1000 kPa).

1.2 Vacuum Priming Valves shall be automatic float operated valves connected to a vacuum line and designed to draw air from a suction piping system. When the water reaches the valve, the float shall close the valve and prevent fluid from flowing to the vacuum line. The capacity and pressure rating of the valve is dependent on the diameter of the precision orifice in the cover. A large inlet connection is required for proper air and water exchange.

2 Standards, Approvals and Verification

2.1 The valves shall be manufactured and tested in accordance with American Water Works Association Standard (AWWA) C512.

2.2 Valves used in potable water service shall be certified to NSF/ANSI 61 Drinking Water System Components - Health Effects.

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

3 Design

3.1 The valves shall have full size NPT inlets equal to the nominal valve size. The body inlet connection shall be hexagonal for a wrench connection. The body shall have 2" NPT cleanout and 1" NPT drain connections on the sides of the casting. The cover shall be bolted to the valve body and sealed with a flat gasket. A threaded adjustable orifice button shall provide drop tight shut off to the full valve pressure rating.

3.2 Floats shall be unconditionally guaranteed against failure including pressure surges. Extended mechanical linkage shall provide suitable mechanical advantage so that the valve will open under full operating pressure.

4 Materials

4.1 The valve body and cover shall be constructed of ASTM A126 Class B cast iron.

4.2 The orifice, float and linkage mechanism shall be constructed of Type 316 stainless steel. Non-metallic floats or linkage mechanisms are not acceptable. The orifice button shall be Buna-N.

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

5 Options

5.1 An optional water level control switch shall be provided when specified to signal when the water level has reached the pump or provide a warning that the pump has lost its prime. The switch shall have SPDT contacts rated 5A @ 125/250 vac, 3A inductive @ 30 VDC, UL and CSA listed.

5.2 Optional body materials include ASTM A536 Grade 65-45-12 ductile iron.

5.3 Valve interiors and exteriors shall be coated with an NSF/ANSI 61 certified fusion bonded epoxy in accordance with AWWA C550 when specified.

6 Manufacture

6.1 The 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.

6.2 Vacuum Priming Valves shall be Series 38P or 45P as manufactured by Val-Matic Valve & Manufacturing Corporation, Elmhurst, IL, USA. or approved equal.

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 VAL-MATIC[®] VALVE AND MANUFACTURING CORP.

DRWG. NO.
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