

THREADED VACUUM BREAKER VALVE
Val-Matic® Specification

1 Scope

1.1 This specification covers the design, manufacture, and testing of 1/2 in. (13 mm) through 3 in. (80 mm) Vacuum Breakers suitable for pressures up to 300 psig (2070 kPa) water service.

1.2 The Vacuum Breaker shall be of the threaded style high flow type with rapid opening to automatically admit large quantities of air to enter a system on negative pressure. An optional Air Release Valve can be directly piped to relieve air under positive pressures.

2 Standards, Approvals and Verification

2.1 The valves used in potable water service shall be certified to NSF/ANSI 61 Drinking Water System Components - Health Effects, and 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 valves shall have full size NPT inlets and outlets equal to the nominal valve size. The body inlet connection shall be hexagonal for a wrench connection.

3.2 The valve shall have two additional NPT connections for the addition of Air Release Valves, gauges, testing, and draining.

4 Design

4.1 The valve body shall provide a through flow area equal to the nominal valve size. A bolted cover with alloy screws and flat gasket shall be provided to allow for maintenance and repair.

4.2 The floats shall be unconditionally guaranteed against failure including pressure surges. The float shall have a hexagonal guide shaft supported in the body by circular bushings to prevent binding from debris. The float shall be protected against direct water impact by an internal baffle.

4.3 The resilient seat shall provide drop tight shut off to the full valve pressure rating. The seat shall be a minimum of .5 in. (12 mm) thick on 2 in. (50 mm) and larger valves and secured in such a manner as to prevent distortion.

5 Materials

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

5.2 The float, guide shafts, and bushings shall be constructed of Type 316 stainless steel. Non-metallic guides and bushings are not acceptable. Resilient seats shall be Buna-N.

6 Options

6.1 A stainless steel screened hood shall be provided when specified for outdoor installations.

6.2 Optional body materials include ASTM A536 Grade 65-45-12 ductile iron and ASTM A351 Grade CF8M stainless steel.

6.3 An optional threaded hood with screen shall be furnished when specified.

6.4 An optional isolation valve shall be furnished when specified. The isolation valve shall be a fully-ported brass ball valve.

6.5 Low Durometer seat shall be provided for low pressure application.

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

7.3 The Vacuum Breakers shall be Series #100VB as manufactured by Val-Matic® Valve & Mfg. Corporation, Elmhurst, IL, USA or approved equal.

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 VAL-MATIC® VALVE AND MANUFACTURING CORP.

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