# 2300 Series Flo-Flex® Swing Check Valve Model 745 2" Through 24"

## Flomatic® Valve Written Specification

**Scope**

1.1 This specification covers the design, manufacture, and testing of 2 in. (25 mm) through 24 in. (600 mm) Flo-Flex® Check Valve suitable for pressures up to 250 psig (4,137 kPa) for water, wastewater, abrasive and slurry service.

1.2 The Swing Check Valve shall be a full flow body type, with domed cover and the one moving part, the Flo-Flex ® disc.

**Standards and Approvals**

2.1 Certified to be Lead-Free in accordance with NSF/ANSI 372.

2.2 Manufacturer shall have a quality management system that is certified to ISO 9001 and ISO 14001 by an accredited certifying body.

**Connections**

3.1 The Swing Check Valve shall be flanged and drilled to ANSI B16.42, Class 150#

**Design**

4.1 The valve body shall be full flow equal to the nominal pipe diameter at all points through the valve. The seating surface shall have a 45º angle to reduce disc travel and provide for higher flow rates. A threaded port with pipe plug shall be provided on the bottom of the valve to allow for field installation of a backflush device without any special tools or having to remove the valve from the line.

4.2 The cover shall be full sized to allow the Flo-Flex® disc to be removed while the valve is still in line. The cover shall be domed to provide a flushing action over the disc during operation. A threaded port with pipe plug shall be provided to allow for field installation of a position indicator.

4.3 The flapper shall be a one-piece construction, molded with an O-ring type sealing surface and reinforced with a steel disc. The flexible portion of the flapper is reinforced with nylon and shall be warranted for 25 years.

4.4 Operating Pressure Max: 250 PSI (1734 kPa).

4.5 Temp Max: 140°F (60°C).

**Materials**

5.1 The valve body and cover material shall be Ductile Iron ASTM A536 (65-45-12).

5.2 The flapper shall be precision molded Buna-N (NBR). Optional disc materials are EPDM and Viton.

**Options**

6.1 A screw type backflush shall be provided (when specified) to allow opening of the valve during no-flow conditions. A stainless-steel stem, bronze bushing and Buna-N seals shall be used for the rising stem type device that indicates the position. A stainless-steel t-handle shall be provided for ease of use.

6.2 A position indicator shall be provided (when specified) to provide the disc position on valves 3" (80 mm) and larger. The position indicator shall be in continuous contact with the flapper during all operating conditions to assure accurate disc position.

6.3 A limit switch shall be provided (when specified) to indicate the open/close position to a remote location. The limit switch shall be activated by the mechanical lever. The switch shall be rated NEMA 4 and shall be UL rated 5-amp, 125 VAC contacts.

**Approved Manufacturer**

7.1 The manufacturer shall demonstrate a minimum of five years' experience in the manufacturing of Flo-Flex® Swing check valves.

7.2 All valves shall be hydrostatically tested, and seal tested to provide zero leakage. The manufacturer shall provide dimensional drawings, parts list, and operational manuals. When requested (for a fee) the manufacturer shall provide test certifications.

7.3 The exterior and interior of the valve shall be fusion epoxy coated with NSF/ANSI 61 approved powder.

7.4 The valve shall have a cast-in, engraved or metal tag showing direction of flow arrow and manufacturer name, size, model, and year of manufacturer.

7.5 The valve shall have a date coded quality control (Q.C.) tag or water-resistant label.

7.6 The valve shall be equal in all respect to the Flo-Flex® Swing Check Valve as manufactured by Flomatic® Corporation, Glens Falls, NY.