

Material Specification – 7

SWING CHECK VALVES

1. GENERAL

Swing check valves shall be designed and manufactured in accordance with AWWA C508 with the following additional requirements or exceptions.

2. SERVICE

Valves shall be suitable for frequent operation and for long periods of inactivity. The working pressure shall be 150 psi. Components shall be suitable for exposure to chloraminated water.

3. SIZES

This Specification covers swing check valves in 4-inch through 20-inch nominal diameters.

4. VALVE DESCRIPTION

- A. The valve body and cover shall be constructed of DI in accordance with ASTM A 536. The valve body shall have a full pipe size flow area with an integral seat at 45 degrees to minimize disc travel to 35 degrees. The valve body shall include a threaded port and plug to accept a threaded back flow plunger. The body shall have a top access port allowing the removal of the disc without removing the valve from the service line.
- B. The disc shall be one-piece steel construction with a molded nylon reinforced EPDM rubber flapper. The disc shall be drop tight in the closed position.

5. INSTALLATION

Valves shall be installed in a horizontal position. Some operating conditions may dictate the need for accessories such as a valve position indicator, a backflow plunger, or cushion devices for added surge protection.

6. BOLTING MATERIAL

The bonnet, gland bolts, and nuts shall be in accordance with ASTM F 593, Type 304 stainless steel or electro-plated with zinc or cadmium. The hot-dip galvanized process is not acceptable.

7. END CONNECTIONS

Flanges shall be sized and drilled in accordance with ANSI B16.1, Class 125. Flanges shall be machined to a flat surface with a serrated finish in accordance with AWWA C207.

8. TESTING

Each valve, after shop assembly, shall be operated and hydrostatic tested in accordance with AWWA C508.

9. COATINGS

Ferrous surfaces, except machined or bearing surfaces, shall be prepared in accordance with SSPC SP10. These surfaces shall then be coated with liquid epoxy in two or more uniform coats or with fusion-bonded epoxy to a minimum DFT of 10-mils in accordance with AWWA C550. Machined flange faces shall be shop-coated

with a rust-preventive compound; they shall not be painted or coated with the same coating as the body.

10. QUALITY CONTROL

The Manufacturer shall submit a written statement that the inspection and all specified tests have been completed and that results comply with the requirements of these Standards. Components in contact with potable water shall be certified to comply with NSF/ANSI 61, and a copy of the NSF/ANSI 61 certification shall be provided to Denver Water, if requested.

11. APPROVED MANUFACTURERS AND MODELS

Manufacturers	Models	Size (Inch)
Cla-Val	584 Flex-Check	4 to 20
Val-Matic	500A Swing-Flex	4 to 20

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