

Materials Specifications – 7 for SWING CHECK VALVES

4 through 24-Inch Nominal Diameter

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. VALVE DESCRIPTION

Valves shall be iron body. The disc shall be swing type.

4. INSTALLATION

Valves shall be installed in a horizontal position. Some operating conditions may dictate the need for an assisted closure feature such as a counterweight or spring to reduce check valve slam.

5. 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.

6. END CONNECTIONS

A. Flanges:

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.

B. Mechanical Joint:

Mechanical joint components shall be in accordance with AWWA C111 with tee-head bolts and hexagon nuts fabricated from a high-strength, low alloy steel known in the industry as Cor-Ten, Usalloy, or Durabolt.

Accessories for the mechanical joint shall consist of the gasket, gland, and fasteners and shall be furnished and packaged separately from valves. Each package shall be labeled in a manner that provides for proper identification, and the number of units listed per package or bundle.

7. TESTING

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

8. 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 thickness of 12 mils in accordance with AWWA C550.

9. CERTIFICATION

The manufacturer shall furnish a sworn statement that the inspection and all specified tests have been completed and that results comply with the requirements of these Standards. A copy of the Certification, including compliance with NSF/ANSI 61, shall be provided to Denver Water.

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