
SWING CHECK VALVES

PART 1 – GENERAL

1.01 SECTION COVERS

- A. The design, manufacture, and testing of 3” through 36” swing check valves of free-swinging disc style permitting a full-flow waterway through the valve equal to the nominal pipe diameter.

1.02 REFERENCES & STANDARDS

- A. AWWA C08 “Swing-Check Valves for Waterworks Service”
- B. ASTM A536 "Standard Specification for Ductile Iron Castings"
- C. ANSI B16.1 "Pipe Flanges and Flanged Fittings"
- D. NSF 61/372 “Drinking Water System Components – Health Effects”

1.03 QUALITY ASSURANCE

- A. Valves shall be warranted by the manufacturer for defects in materials and workmanship for a period of one year (12 months) from date of shipment.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. McWane Plant & Industrial (MPI)
- B. Kennedy Valve
- C. Clow Valve
- D. M&H Valve Company

2.02 SWING CHECK VALVES

- A. Body and cover shall be ductile iron per ASTM A536 65-45-12 or cast iron per ASTM A126, Class B. Aluminum bronze bodies or covers are not acceptable. Groove shall be provided in body to accommodate an O-ring type seal between body and cover. Gasket seals are not acceptable.
- B. Valve body shall permit a full-flow waterway through the valve equal to the nominal pipe diameter and shall be constructed to permit top entry for complete removal of internal components without removing the valve from the line.
- C. Body seat shall be slanted to promote fast closure and low-pressure sealing. Body seat ring shall be bronze.
- D. Disc shall be bronze for valve sizes 2”-3” and ASTM A536 ductile iron or ASTM A126, Class B for valve sizes 4”-36”.
- E. Hinge arm shall be bronze for valve sizes 2”-3” and ASTM A536 ductile iron for sizes 4”-36”.
- F. Discs for valve sizes 2”-12” shall be faced with either bronze or BUNA. Discs for valve sizes 14”-36” shall be faced with BUNA.
- G. Plain check valves 2” through 12” shall have O-ring sealed side plugs with the hinge pin fully enclosed within the valve body to reduce leakage pathways. When no lever arm is present it is unacceptable for the hinge pin to fully penetrate through the valve body.

**SWING CHECK VALVE
SUGGESTED SPECIFICATION**



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- H. Levered check valves in all sizes shall have conventional packing & packing gland design. All valves 14” and larger shall have extended hinge pins for future addition of levers and springs if required. Valves shall be suitable for installation in either horizontal or vertical position. Valves 30” and larger shall be equipped with dual lever arms.
- I. For valve design configurations equipped with lever arms the lever arm geometry shall be straight for increased strength. Lever arm designs with bends to accommodate shorter hinge pin designs are unacceptable.
- J. Hinge pin shall be stainless steel.
- K. Valve sizes 2” through 12” shall be rated at least 200 psi water working pressure and valves sizes 14” through 36” shall be rated 150 psi water working pressure. Valves shall be hydrostatically (shell) tested to 2 times the rated pressure per AWWA C508.
- L. All fasteners shall be stainless steel.
- M. The interior and exterior of the valve shall be coated with either an NSF-61 approved fusion-bonded epoxy or NSF-61 approved two-part epoxy.

PART 3 – INSTALLATION

- A. When specified for application in a vertical orientation, the swing check valve must be installed in the flow-up direction.