
GATE VALVES

PART 1 – GENERAL

1.01 SECTION COVERS

- A. The design, manufacture, and testing of 3” through 48” gate valves of the metal seated design, for the purpose of providing isolation as indicated.

1.02 REFERENCES & STANDARDS

- A. AWWA C500 “Metal-Seated Gate Valves for Water Supply Service”
- B. ASTM A536 “Standard Specification for Ductile Iron Castings”
- C. ANSI B16.1 “Pipe Flanges and Flanged Fittings”
- D. AWWA C111 “Rubber-Gasketed Joints for Ductile-Iron Pressure Pipe and Fittings”
- E. 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.
- B. Each valve and actuator shall be assembled, adjusted and tested as a unit by the valve manufacturer.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

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

2.02 ROTATING DISC GATE VALVES

- A. Valve body and bonnet shall be ductile iron per ASTM A536.
- B. Valve wedge shall be a single piece cast of ductile iron per ASTM A536. Wedge shall be free of any pockets, linkages, or pins.
- C. Valve disc and body seat rings shall be bronze.
- D. Valve stems shall be stainless steel with integral collar in full compliance with AWWA.
- E. Valve shall be either non-rising stem (NRS) or rising stem (OS&Y), open by turning left or right, and provided with a 2” operating nut or handwheel.
- F. NRS valves shall be provided with conventional packing or double O-rings. OS&Y valves shall be provided with conventional packing. Stem packing shall be field replaceable, such that the valve can be packed under pressure when in the fully open position.
- G. When specified, valves 14” and larger installed in a horizontal orientation shall be provided with a roller, track, and scraper system. The roller, track, and scraper system shall consist of a bronze scraper and two bronze rollers affixed to a modified wedge which travel along a bronze body guide to remove sediment buildup during operation.

- H. When specified, valves 14" and larger installed in a vertical orientation shall be provided with two integrally cast flushing ports. Drain plugs used as flushing ports will not be accepted.
- I. When specified, valves 16" and larger shall be provided with a bypass valve. Bypass type and materials provided as specified.
- J. Pressure ratings shall be 250 psi for class 125 valves and 300 psi for class 250. Valves shall be hydrostatically shell tested to 2 times the rated pressure per AWWA C500.
- K. Valves 14" and larger shall be provided with a bevel gear for horizontal valve orientations or spur gear for vertical orientations.
- L. All valve fasteners shall be stainless steel.
- M. The interior and exterior of the valve shall be coated with an NSF-61 approved two-part epoxy.
- N. Each valve shall have manufacturer's name, pressure rating, and year in which it was manufactured cast in the body.

PART 3 – INSTALLATION

- A. Vertical installation orientations are preferred whenever possible, allowing gravity to assist with valve closure, resulting in lower operating torque requirements.