

**ROGERS WATER UTILITIES WATER SYSTEM**  
**ROGERS, ARKANSAS**

**SPECIFICATIONS FOR**  
**RUBBER-SEATED BUTTERFLY VALVES**  
**12 IN., 18 IN., 24 IN. AND 36 IN. THROUGH 54 INCHES**  
**REVISED DECEMBER 2004**

1. **SCOPE**

This product specification covers class 150 rubber-seated butterfly valves, 12 in., 18 in., 24 in. and 36 in. through 54 in. All products furnished shall be in conformance with the American National Standards Institute and American Water Works Association C504 (ANSI/AWWA C504) or latest revision thereof. All coatings in contact with potable water shall be certified to N.S.F. 61. A proof of design certification shall be provided upon request.

2. **GENERAL REQUIREMENT**

- a. Except as otherwise modified or supplemented herein, AWWA C504 or the latest revision thereof, shall govern the design, component material construction, manufacture and testing of all butterfly valves.
- b. Valves shall be Class 150 of the short-body type with a 150 psig bi-directional shut-off rating, a 300 psig hydrostatic body shell test and a maximum upstream line velocity rating according to the table listed below unless specified otherwise.
- c. Valve shall be in the same alignment as a horizontal pipe and shall be for buried service, unless otherwise specified. Valve shall be configured with a horizontal valve shaft and a vertical actuator shaft with standard 2" AWWA operating nut. The actuator shall be side mounted with a counter clockwise rotation of the operating nut.
- d. Valve body shall be of cast iron conforming to ASTM Specification A126, Class B, or Ductile Iron ASTM A536, grade 65-45-12.
- e. Valve shall be of such design that the disc will seat at 90 degrees with the pipe axis.
- f. Valves disc shall be of Cast Iron A-48, class 40 Cast Iron A126, class B or Ductile Iron ASTM A536, grade 65-45-12 and shall be of disc design to provide 360 degree uninterrupted seating.

**RUBBER-SEATED BUTTERFLY**  
**VALVE CLASS 150**  
**02-04 SPECIFICATIONS**

- g. The valve seat shall be natural or synthetic rubber applied integrally to the body or disc. For valves 24 inches or larger, the rubber seat shall be capable of mechanical adjustment in the field and shall be field replaceable. The mating seat surface shall be type 304 or type 316 stainless steel, ni-chrome or model. Sprayed or plate mating seat surfaces are not acceptable.
- h. Valve shafts shall be type 630 stainless steel conforming to ASTM A-564 condition H-1100 and shall have a diameter equal to or greater than that shown for Class 150B in Table 3 of AWWA C504.
- i. The valve assembly shall be furnished with a factory-set, non-adjustable disc shaft thrust bearing that insures the valve disc is centered within the valve body seat at all times.
- j. Valve shaft bearings shall be permanent, self-lubricated, bearings which continuous, low-friction maintenance-free operation. Shaft bearing shall be contained in integral hubs of the valve body.
- k. Valve shaft seal shall consist of O-ring or V-type type packing where the shaft projects through the valve body for the actuator connection.
- l. The valves shall be provided with a fully enclosed, permanently lubricated actuator of the traveling nut or worm gear design. The actuator shall be connected to the valve shaft by means of a key and keyway connection.
- m. Valves for non-buried installations shall be provided with a handwheel. The handwheel shall have an arrow thereon, indicating the direction of the opening. The handwheel shall be suitably fastened to the actuator input shaft. Actuators equipped with handwheels shall be designed to produce the specified torque with a maximum pull of 80 pounds of the handwheel rim.
- n. Flanged ends (non-buried installation): Flanged fittings have 150 lb. flanges and shall be faced and drilled in accordance with ANSI Specification B16.1., Class 125.
- o. Mechanical Joint Ends (buried installation): Mechanical joint bell dimensions shall conform to ANSI A21.11/AWWA C111.

**RUBBER-SEATED BUTTERFLY  
VALVE CLASS 150  
02-04 SPECIFICATIONS**

**3. PAINTING**

All interior and exterior ferrous surfaces of the valve, including the disc, shall be coated with epoxy, N.S.F. 61 certified. The epoxy shall have a nominal thickness of 8 mils, and shall be in accordance with AWWA C550, latest revision.

**4. QUALITY ASSURANCE**

- a. The Rogers Water Utilities may, at no cost to the manufacturer, subject random butterfly valves to testing by an independent laboratory for compliance with these standards. Any visible defect or failure to meet the quality standards herein will be grounds for rejecting.
- b. All butterfly valves shall be domestically manufactured.

The following manufactures are approved for butterfly valves.

**APPROVED MANUFACTURERS LIST**

Mueller Company  
Henry Pratt Co.  
Val-Matic Mfg. Co.

Linesal III  
Groundhog  
Series 2000

**Previous Specification**

April 16,1997