

AWWA C504 BUTTERFLY VALVES

SIZES 3”-54”

SUGGESTED SPECIFICATIONS

GENERAL

All butterfly valves shall be of rubber-seated, tight-closing type. All valves shall be style 4500/1450. The butterfly valve shall be ANSI A21.11 mechanical joint or per flanged ANSI B16.1 (or as otherwise noted on plans and specs).

Handcrank, Handwheel or Chainwheel – All manual operators for service other than underground shall have a position indicator and shall be totally enclosed and permanently lubricated. Actuators shall be designed to produce the required operating torque with a maximum rim pull of 80 lb. on handwheel or chainwheel and a maximum input of 150 ft. lb. on operating nuts.

REFERENCE STANDARDS

Butterfly valves shall meet or exceed AWWA Standard C504, latest edition, Class 150 or 250. Valves used in portable water service shall be certified to NSF/ANSI 61 “Drinking Water System Components- Health Effects” and certified to be lead free in accordance with NSF/ANSI 372.

VALVE BODY

The valve interior and exterior surfaces shall be coated in accordance with the latest revisions of AWWA C504 and must be NSF 61 Certified. The valve body and vane shall be high-strength ductile iron to ASTM A-536 with ASTM A-276 Type 316 stainless steel body seats.

VALVE SHAFT

Valve shafts shall be ASTM A276 Type 304 stainless steel for C1150 or ASTM A564 Type 630 stainless steel for C1250. Each valve shaft shall be of a one-piece design for valves 12” and smaller and a two-piece design for valves 14” and larger. Valve shafts shall have a minimum diameter extending through the valve bearings and into the valve disc as specified in AWWA C504. All valve shafts must meet or exceed the minimum connection torque requirement set forth in AWWA C504.

Valve shaft seals shall be of the chevron-type for 3” – 24” and O-ring type for 30” and larger utilizing the same elastomer as specified for the valve seats and the intended service. All valve shaft seals must be easily field replaceable.

VALVE SEAT

Valve seat shall be EPDM. Rubber valve seats shall be a full-circle 360-degree seat not penetrated by the valve shaft. The valve seat will be attached to the valve vane by 18-8 Type 304 stainless steel self-locking fasteners. The valve seat must be easily field adjustable and replaceable without any special tools or lengthy curing time.

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VALVE ACTUATOR

Valve actuator shall be of the traveling nut type, sealed and lubricated for underground or in-plant service. Operator shall be capable of withstanding an overload input torque of 450 ft-lbs. at full-open or full-closed position without damage to the valve operator. Operators for valves 14" and larger must have a 304 stainless steel external stop limiting device and travel adjustment. The travel adjustments must be able to be operated without removing the valve from the line. All valve actuators must be sized per AWWA C504. Certification of proof of design and torque requirements shall be submitted to the owner upon request.

TESTING

All butterfly valves shall be tested in accordance with AWWA C504 requirements. Manufacturers shall provide written confirmation of testing when requested by customer.