#### PRODUCT SPECIFICATIONS

# MUELLER® LINESEAL XPII® BUTTERFLY VALVES



#### 1. GENERAL CLASSIFICATION

- **1.1** Mueller Lineseal XPII Butterfly Valves comply with the applicable requirements of the latest revision of AWWA Standard C504 and are available in pressure class 250B.
- **1.2** Mueller Lineseal XPII Butterfly Valves are suitable for providing bubble tight shutoff in either direction in ordinary non-shock water service.
- **1.3** Mueller Lineseal XPII Butterfly Valves are rubber seated, 90° disc rotation (1/4 turn), short body with flanged, mechanical joint, or flanged x mechanical joint ends.

### 2. SIZE RANGE AND WORKING PRESSURE

- 2.1 Sizes: 3" through 48"
- **2.2 Pressure**: 250 psig working pressure (larger valve sizes available upon request).

# 3. Type of Valve

- 3.1 Mueller Lineseal XPII Butterfly Valves and actuators are suitable for buried service.
- **3.2** Mueller Lineseal XPII Butterfly Valves incorporate a rubber seat in the valve body.
- 3.3 Mueller Lineseal XPII Butterfly Valves 3"-20" have a streamlined lens-shaped symmetrical disc with a one-piece through-shaft; 24"-48" valves have a streamlined non-symmetrical disc with a two-piece shaft offset from the valve centerline in order to provide complete 360° sealing with the valve seat. In addition, valves 30" and larger have a flow-through disc design to minimize pressure drop across the valve.
- 3.4 Mueller Lineseal XPII Butterfly Valves are bi-directional and are offered with actuators to either open left (standard) or open right (non-standard).
- 3.5 Mueller Lineseal XPII Butterfly Valves are furnished with a traveling nut actuator. They are complete with a 2" square operating nut and are suitable for buried service. If required the valves can be furnished with a handwheel and position indication for non-buried service. Cylinder driven or electric motor actuators are also available.
- 3.6 Mueller Lineseal XPII Butterfly Valves are offered with the following end connections:
  - **3.6.1** 3"-48" Flanged ends with flange dimensions and drilling complying to ANSI B16.1 for Class 125.
  - 3.6.2 4"-48" Standard mechanical joint ends, with dimensions complying to AWWA C111 and ANSI A21.11.
  - 3.6.3 6"-36" Flange x mechanical joint ends. Flanged ends with flange dimensions and drilling complying to ANSI B16.1 for Class 125. Standard mechanical joint ends for cast iron pipe, with end dimensions complying to AWWA C111 and ANSI A21.11.

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### 4. MATERIAL SPECIFICATIONS

- **4.1 Valve sizes -- 3"-48"**.
- **4.2 Body** -- Ductile Iron ASTM A-536 (65-45-12)
- 4.3 Disc --
  - **4.3.1** Valves 3" and 4" -- Cast Stainless Steel ASTM A-531 Grade CF8M:
  - 4.3.2 Valves 6" 48" -- Ductile Iron ASTM A-536 Grade (65-45-12) with Stainless Steel edge.
- **4.4 Shaft** (One- or Two-piece) -- Stainless Steel ASTM A-564 Type 630 Condition H-1150.
- **4.5 Seat** -- Buna-N standard; EPDM optional.
- 4.6 Bearings --
  - 4.6.1 Valves 3" and 4" -- NYLATRON GS
  - **4.6.2 Valves 6"-20"** -- PTFE with stainless steel backing
  - 4.6.3 Valves 24"-48" -- PTFE with fiberglass backing
- **4.7 Shaft Seals** -- Chevron V-type, self-adjusting -- Buna-N standard; EPDM optional.
- **4.8** Paint -- Epoxy coating in accordance with AWWA C550 standard.
- 4.9 Certification -- Valves are certified to NSF 61.

#### 5. Design Features

#### 5.1 Body Shell Thickness:

Valve body shell thickness shall be in strict accordance with AWWA C504.

#### 5.2 Seat Retention:

Seat shall be mechanically retained in the valve body without the use of retaining rings, segments, screws or hardware in the flow stream.

#### 5.3 Valve Discs:

Disc shall be furnished with a 316 stainless steel seating edge to mate with the rubber seat. Disc shall be a flow-through design on valves 30" and larger. Discs utilizing ribs transverse to the flow stream are not acceptable.

#### 5.4 Shaft Size:

Valves shall have shaft dimensions in accordance with AWWA C504.

#### 5.5 Self-Lubricating Bearings:

Valves shall be furnished with self-lubricating bearings to provide continuous low-friction, maintenance-free operation.

#### 5.6 Valve Seat:

- **5.6.1 3" through 20"** -- The seat shall be vulcanized and bonded into a recessed cavity in the valve body.
- **5.6.2 24" through 48"** -- The seat shall be mechanically retained in the body without screws or segments in the flow stream. Seats shall be adjustable from both sides of the disc and shall be field replaceable.

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# 6. TEST PROCEDURE

6.1 All valves shall be hydrostatic and leak tested. The leak test shall be performed at a differential pressure of 250 psig with the disc in the closed position. With the disc in a slightly open position, internal hydrostatic pressure equal to 500 psig shall be applied to the inside of the valve body for five (5) minutes for valves 3"-20" and (10) minutes for valves 24"-48".



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