1. **General Classification**

1.1 Mueller Lineseal XP 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 XP Butterfly Valves are suitable for providing bubble tight shutoff in either direction in ordinary non-shock water service.

1.3 Mueller Lineseal XP Butterfly Valves are rubber seated, 90° disc rotation (1/4 turn), short body with ANSI B16.1, Class 250 flanged ends.

2. **Size Range and Working Pressure**

2.1 3" through 48"

2.2 250 psig working pressure.

3. **Type of Valve**

3.1 Mueller Lineseal XP Butterfly Valves and actuators are suitable for buried service.

3.2 Mueller Lineseal XP Butterfly Valves incorporate a rubber seat in the valve body.

3.3 Mueller Lineseal XP 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 XP Butterfly Valves are bi-directional and are offered with actuators to either open left (standard) or open right (non-standard).

3.5 Mueller Lineseal XP 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 XP Butterfly Valves are offered with Flanged ends with flange dimensions and drilling complying to ANSI B16.1, Class 250.

4. **Material Specifications**

4.1 Valve sizes 3"– 48".

4.1.1 Body, Valves with 250 flange -- Ductile Iron ASTM A-536 Grade (65-45-12)

4.1.2 Disc, Valves 3" and 4" -- Cast Stainless Steel ASTM A-531 Grade CF8M; Valves 6"– 48" -- Ductile Iron ASTM A-536 Grade (65-45-12) with Stainless Steel edge.

4.1.3 Shaft (One- or Two-piece) -- Stainless Steel ASTM A-564 Type 630 Condition H-1150.

4.1.4 Seat -- Buna-N standard; EPDM optional.

4.1.5 Bearings, Valves 3" and 4" -- NYLATRON® GS; valves 6"– 48" -- PTFE with fiberglass backing.

4.1.6 Shaft Seals -- Chevron V-type, self-adjusting -- Buna-N standard; EPDM optional.

4.1.7 Paint -- Epoxy coating in accordance with AWWA C550.

4.1.8 Certification -- Valves are certified to NSF 61 and NSF 372.
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 4"** -- The seat shall be vulcanized and bonded into a recessed cavity in the valve body.

5.6.2 **6" 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.

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 ten (10) minutes for valves 24" – 48".