Butterfly Valves: Double-flanged, Lug- and Wafer-type, and Butt-welding Ends

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1 Scope

1.1 This standard covers design, materials, face-to-face dimensions, pressure-temperature ratings, and examination, inspection, and test requirements for gray iron, ductile iron, bronze, steel, nickel-based alloy, or special alloy butterfly valves.

1.2 The following two categories of butterfly valves are included:

a) Category A—Manufacturer's rated cold working pressure (CWP) butterfly valves, usually with a concentric disc and seat configuration. Sizes covered are NPS 2 to NPS 60 for valves having ASME class 125 or class 150 flange bolting patterns.

b) Category B—ASME class and pressure-temperature-rated butterfly valves that have an offset seat and either an eccentric or a concentric disc configuration. Sizes covered are listed below:

   — for lug and wafer, class 150 and 300: NPS 2 to NPS 60;

   — for lug and wafer, class 600: NPS 3 to NPS 60;

   — for double-flanged short and long pattern, class 150, 300, and 600: NPS 3 to NPS 60;

   — for butt-welding ends, class 150, 300 and 600: NPS 3 to 60;

Information to be specified by the purchaser is shown in Annex B.

1.3 Valve configurations include double-flanged, lug- and wafer type with facings that permit installation between ASME and MSS flanges and butt-welding ends. Configurations conform to the standards and specifications listed in Section 2. Typical valve construction and nomenclature for valve parts are shown in Annex C.

2 Normative References

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any addenda) applies.

API Standard 598, *Valve Inspection and Testing*

API Standard 607, *Fire Test for Quarter-turn Valves and Valves Equipped with Nonmetallic Seats*

API Standard 641, *Type Testing of Quarter-turn Valves for Fugitive Emissions*

ASME B1.1[1], *Unified Inch Screw Threads (UN, UNR, and UNJ Thread Forms)*

ASME B16.5, *Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24, Metric/Inch Standard*

ASME B16.24, *Cast Copper Alloy Pipe Flanges, Flanged Fittings, and Valves: Classes 150, 300, 600, 900, 1500 and 2500*

ASME B16.25, *Buttwelding Ends*

ASME B16.34, *Valves—Flanged, Threaded, and Welding End*

[1] ASME International, Two Park Avenue, New York, New York 10016-5990, www.asme.org.