



Gate, Globe, and Check Valves for Sizes DN 100 (NPS 4) and Smaller for the Petroleum and Natural Gas Industries

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Contents

	Page
1	Scope 1
2	Normative References 2
3	Terms and Definitions 3
4	Pressure/Temperature Ratings 3
4.1	Valve Ratings 3
4.2	Temperature Constraints 12
5	Design 12
5.1	Reference Design 12
5.2	Flow Passageway 12
5.3	Wall Thickness 12
5.4	Valve Body 14
5.5	Valve Bonnet or Cover 17
5.6	Closure Element 18
5.7	Stem 19
5.8	Stem Nut or Stem Bushing 21
5.9	Packing, Packing Chamber, and Gland 21
5.10	Packing Retention 22
5.11	Handwheel 22
6	Materials 22
6.1	Trim Materials 22
6.2	Materials Other Than Trim 25
6.3	Compliance 25
7	Marking 25
7.1	Legibility 25
7.2	Body Marking 25
7.3	Ring Joint Groove Marking 27
7.4	Identification Plate Marking 27
7.5	Weld Fabrication Marking 27
8	Testing and Inspection 28
8.1	Pressure Tests 28
8.2	Inspection 28
9	Preparation for Dispatch 28
10	Purchase Order Information 28
	Annex A (informative) Use of API Monogram by Licensees 29
	Annex B (normative) Requirements for Extended Body Valves 32
	Annex C (normative) Requirements for Valves with Bellows Stem Seals 37
	Annex D (normative) Type Testing of Bellows Stem Seals 41
	Annex E (informative) Identification of Valve Parts 44
	Annex F (normative) Information to be Specified by the Purchaser 52
	Annex G (informative) Valve Material Combinations 54

Contents

Page

Bibliography 57

Figures

B.1 Threaded End Extension for Class 800 33
B.2 Welding End Extension for Class 800 and Class 1500 33
B.3 Socket Welding End Preparation for Class 800 and Class 1500 34
E.1 Outside Screw and Yoke Bolted Bonnet Gate Valve 44
E.2 Inside Screw Gate Valve 45
E.3 Bellows Stem Seal Gate Valve 46
E.4 Welded Bonnet Gate Valve 47
E.5 Outside Screw and Yoke Globe Valve 48
E.6 Union Bonnet Globe Valve 49
E.7 Piston Check Valve 50
E.8 Ball Check Valve 50
E.9 Swing Check Valve 51

Tables

1a ASME B16.34 Material Group 1, Forging and Casting Descriptions 4
1b ASME B16.34 Material Group 2, Forging and Casting Descriptions 4
1c ASME B16.34 Material Group 3, Forging and Casting Descriptions 4
2a Class 800 Pressure/Temperature Ratings (SI Units) 6
2b Class 800 Pressure/Temperature Ratings (USC Units) 7
2c Class 800 Pressure/Temperature Ratings (SI Units) 8
2d Class 800 Pressure/Temperature Ratings (USC Units) 9
2e Class 800 Pressure/Temperature Ratings (SI Units) 10
2f Class 800 Pressure/Temperature Ratings (USC Units) 11
3 Minimum Diameter of Equivalent Flow Passageway for Standard(1), (2) Bore Valves 13
4 Minimum Diameter of Equivalent Flow Passageway for Full-bore(1), (2) Valves 13
5 Minimum Wall Thickness for Valve Bodies, Bonnets, and Check Valve Covers 14
6 Minimum Wall Thickness for Bonnet Extensions and Bellows Enclosures 15
7 Butt-welding End Diameters 17
8 Wear Travel for Gate Valves 19
9 Minimum Stem Diameter for Standard Bore Valves 20
10 Minimum Stem Diameter for Full-bore Valves 20
11 Minimum Uncompressed Packing Height 22
12 Nominal Seating Surfaces, Stem, or Weld-Deposited Materials and Hardness 23
13 Alternative CNs 25
14 Materials for Valve Parts Other Than Trim Items 26
B.1 Threaded End Extension for Class 800 33
B.2 Welding End Extension for Class 800 and Class 1500 34
B.3 Socket Welding End Preparation for Class 800 and Class 1500 34
B.4 Post weld Heat Treatment 35
C.1 Bellows Material Chart 39
D.1 Bellows Test Cycles 42
G.1 Material Combinations for Group 1 Body, Bonnet, and Cover Materials 54
G.2 Material Combinations for Group 2 Body to Bonnet Materials 55
G.3 Material Combinations for Group 3 Body to Bonnet Materials 56

Gate, Globe, and Check Valves for Sizes DN 100 (NPS 4) and Smaller for the Petroleum and Natural Gas Industries

1 Scope

This standard specifies the requirements for a series of compact gate, globe and check valves for petroleum and natural gas industry applications.

It is applicable to valves of:

- nominal diameter sizes DN 8, DN 10, DN 15, DN 20, DN 25, DN 32, DN 40, DN 50, DN 65, DN 80, and DN 100;
- corresponding to nominal pipe sizes NPS $\frac{1}{4}$, NPS $\frac{3}{8}$, NPS $\frac{1}{2}$, NPS $\frac{3}{4}$, NPS 1, NPS $1\frac{1}{4}$, NPS $1\frac{1}{2}$, NPS 2, NPS $2\frac{1}{2}$, NPS 3, and NPS 4.

It is also applicable to pressure designations of Class 150, Class 300, Class 600, Class 800, and Class 1500.

Class 800 is not a listed class designation, but is an intermediate class number widely used for socket welding and threaded end compact valves.

It includes provisions for the following valve characteristics:

- outside screw with rising stems (OS & Y), in sizes $8 \leq DN \leq 100$ ($\frac{1}{4} \leq NPS \leq 4$) and pressure designations including Class 800;
- inside screw with rising stems (ISRS), in sizes $8 \leq DN \leq 65$ ($\frac{1}{4} \leq NPS \leq 2\frac{1}{2}$) and pressure designations of classes ≤ 800 ;
- socket welding or threaded ends, in sizes $8 \leq DN \leq 65$ ($\frac{1}{4} \leq NPS \leq 2\frac{1}{2}$) and pressure designations of Class 800 and Class 1500;
- flanged or butt-welding ends, in sizes $15 \leq DN \leq 100$ ($\frac{1}{2} \leq NPS \leq 4$) and pressure designations of Class 150 through Class 1500, excluding flanged end Class 800;
- bonnet joint construction—bolted, welded, and threaded with seal weld for classes ≤ 1500 and union nut for classes ≤ 800 ;
- extended body, in sizes $15 \leq DN \leq 50$ ($\frac{1}{2} \leq NPS \leq 2$) and pressure designations of Class 800 and Class 1500;
- bellows stem seal, in sizes $8 \leq DN \leq 50$ ($\frac{1}{4} \leq NPS \leq 2$) and pressure designations of \leq Class 1500;
- bellows stem seal testing requirements;
- standard and full-bore body seat openings;
- materials, as specified;
- testing and inspection.

This standard is applicable to valve end flanges in accordance with ASME B16.5, valve body ends having tapered pipe threads to ASME B1.20.1, valve body ends having socket weld ends to ASME B16.11 and butt-weld connections per the requirements described within this standard.

If product is supplied bearing the API Monogram and manufactured at a facility licensed by API, the requirements of Annex A shall apply.