

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

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# 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 covers valves of the nominal pipe sizes DN:

— 8, 10, 15, 20, 25, 32, 40, 50, 65, 80, and 100;

corresponding to nominal pipe sizes NPS:

—  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{4}$ ,  $1\frac{1}{2}$ , 2,  $2\frac{1}{2}$ , 3, and 4;

and applies to pressure class designations:

— 150, 300, 600, 800, and 1500.

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

It includes provisions for the following valve characteristics:

- outside screw with rising stems (OS and 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  $\leq 800$ ;
- 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  $\leq 1500$  and union nut for classes  $\leq 800$ ;
- 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;