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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 12234-2019

Replacing GB/T 12234-2007

**Bolted bonnet steel gate valves for petroleum and natural gas
industries**

石油、天然气工业用螺柱连接阀盖的钢制闸阀

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 12234-2007 "Steel gate valve for connecting studs for oil and gas industry", and The main technical contents of GB/T 12234-2007 are as follows:

- Increased the nominal size of the DN650~DN1050 gate valve (see Chapter 1);
- Increased the post-weld heat treatment requirements for the welding of the valve body end flange to the valve body (see 4.4.3);
- Increased wall thickness and minimum stem size in the DN600~DN1050 size range (see 4.4.4, 4.10.2);
- Increased the Class level corresponding to the nominal pressure of PN20, PN50, PN100, PN150 (see 4.4.4, 4.5.6, 4.10.2);
- Modified the requirements for the valve body and bonnet connection studs (see 4.7, 4.7 of.2007 edition);
- Modified the requirements for strength calculation of valve body and bonnet studs (see 4.7.3, 4.7.2 of.2007 edition);
- Modified the minimum diameter of the stem (see 4.10.2,.2007 version 4.4.6);
- Increased the requirement to allow negative deviation size (see 4.10.2);

- Increased requirements for valve stem microleak test (see 4.11.6);
- Revised the requirements for packing and stuffing box letters (see 4.11, 4.11 of the 2007 edition);

1 Scope

GB/T 12234-2019 is the Chinese national standard on bolted bonnet steel gate valves for petroleum and natural gas industries, in the field of fluid systems and general-purpose components. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 18 October 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2020. Classification: ICS 23.060.30, CCS J16. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard stipulates the structural type and technical requirements of the steel gate valve (hereinafter referred to as the gate valve) for the stud connecting valve cover of the oil and natural gas industry. Requirements, materials, test methods, inspection rules, signs, protection, packaging, storage and transportation. This standard applies to the nominal pressure PN16 ~ PN420, nominal size DN25 ~ DN1050, pressure class Class150~Class2500, nominal size NPS1~NPS42, for flange or welded joint gate valves with temperature -46°C~550°C, including. open rod thread And bracket form (lifting stem, non-lifting handwheel), metal sealing pair, wedge single gate, wedge double gate, parallel double gate structure gate valve And the pressure valve seals the valve cover of the valve cover. A gate valve whose end is a threaded connection and a clamp connection can be referred to.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 150.3 Pressure Vessels Part 3. Design

GB/T 150.4 Pressure vessels - Part 4. Manufacture, inspection and acceptance

GB/T 152.4 fastener hex head bolt and hex nut countersink

GB/T 196 basic thread basic size

GB/T 197 ordinary thread tolerance

GB/T 228.1 tensile testing of metallic materials - Part 1 GB/T 798 joint bolt

GB/T 5796 (all parts) trapezoidal thread

GB/T 9113 integral steel pipe flange

GB/T 9124 steel pipe flange technical conditions

GB/T 12220 industrial valve sign

GB/T 12221 metal valve structure length

GB/T 12222 multi-turn valve drive connection

GB/T 12224 steel valve general requirements Inspection and test of