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

GB/T 12229-2025

Replacing GB/T 12229-2005

**General purpose Industrial valves - Technical specification for
carbon steel castings**

通用阀门 碳素钢铸件技术条件

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 12229-2005 "Technical Conditions for Carbon Steel Castings for General Valves". Compared with GB/T 12229-2005, Apart from structural adjustments and editorial changes, the main technical changes are as follows:

a) The scope of application has been changed (see Chapter 1, Chapter 1 of the.2005 edition);

- b) Added casting process and evaluation requirements (see 4.1);
- c) The chemical composition, mechanical properties, and heat treatment requirements have been changed (see 4.2-4.4, 3.1-3.3 of the.2005 edition);
- d) Size and weight requirements have been changed (see 4.5, 3.4.1 of the.2005 edition);
- e) Added requirements for visual inspection (see 4.6);
- f) Added requirements for shell testing (see 4.7);
- g) The welding repair requirements have been changed (see 4.8, 3.4.5 of the.2005 edition);
- h) The requirements for test methods and inspection rules have been changed (see Chapter 5, Chapter 4 of the.2005 edition);
- i) The labeling requirements have been changed (see 6.1, Chapter 5 of the.2005 edition), and a certificate of quality requirement has been added (see 6.2);

1 Scope

GB/T 12229-2025 is the Chinese national standard on general purpose industrial valves - technical specification for carbon steel castings, 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 31 October 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2026. Classification: ICS 23.060.01, 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 document specifies the technical requirements, test methods, marking and quality certificates, and additional requirements for carbon steel castings used in general valves. This document applies to the design, production, and inspection of pressure-bearing carbon steel castings for general-purpose valves; it can be used as a reference for non-pressure-bearing carbon steel castings.

2 Normative references

The contents of the following documents, through normative references within the text,

constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 222 Permissible deviations in the chemical composition of finished steel

GB/T 223 (all parts) Chemical Analysis Methods for Iron and Steel and Alloys

GB/T 228.1 Metallic materials - Tensile testing - Part

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4.1 Casting process and evaluation

4.1.1 Casting process The casting process should be evaluated and approved before it can be used for mass production of castings.