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

GB/T 12226-2025

Replacing GB/T 12226-2005

**General purpose industrial valves - Technical specification for
gray iron castings**

通用阀门 灰铸铁件技术规范

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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 12226-2005 "Technical Conditions for General Valves - Gray Cast Iron Parts". Compared with GB/T 12226-2005, the following changes are made. Aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The requirement for "casting process" has been removed (see 3.1 in the 2005 edition);
- b) Requirements for "geometric shape and dimensional tolerances, machining allowances, and weight deviations" have been added (see 4.1~4.3);
- c) The requirements for "chemical composition" have been changed (see 4.4, 3.2 of the 2005 edition);
- d) The requirements for "mechanical properties" have been changed (see 4.5, 3.3 in the 2005 edition);
- e) The requirements for "Quality Requirements" and "Metallographic Inspection" have been removed (see 3.5 in the 2005 edition);
- f) A "stress test" requirement has been added (see 4.6);
- g) The requirements for "Surface quality, defects in castings, and repair and stress relief" have been revised (see 4.7-4.9, 3.4 of the 2005 edition);

1 Scope

GB/T 12226-2025 is the Chinese national standard on general purpose industrial valves - technical specification for gray iron 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, inspection rules, marking and labeling, accompanying documents, and packaging for general-purpose gray cast iron valve parts. Transportation and storage. This document applies to the design, production, and inspection of gray cast iron components for general-purpose valves.

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 191 Pictorial Symbols for Packaging and Storage

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 Technical Requirements

4.1 Geometric shape and dimensional tolerances The geometry and dimensions of castings shall conform to the specifications in the drawings. Dimensional tolerances for castings shall comply with GB/T 6414; otherwise, special tolerances may apply. Requirements may also be implemented according to the buyer's drawings and technical requirements.

4.2 Machining Allowance In accordance with the provisions of GB/T 6414 or the requirements of the casting drawings and patterns provided by the buyer, machining allowances shall be left in necessary parts of the casting.

4.3 Weight Deviation The weight deviation of castings shall comply with the provisions of GB/T 11351.

4.4 Chemical composition The chemical composition of gray cast iron parts is determined by the supplier. The chemical composition is not used as the basis for acceptance of the castings, but the selection of the chemical composition should meet the requirements of the castings.