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

GB/T 18692-2025

Replacing GB/T 18692-2002

**Agricultural irrigation equipment - Direct-acting
pressure-regulating valves**

农业灌溉设备 直动式压力调节器

(English Translation)

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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 supersedes GB/T 18692-2002 "Direct-acting pressure regulators for agricultural irrigation equipment" and is consistent with GB/T 18692-2002.

Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope of application of the standard has been changed (see Chapter 1, Chapter 1 of the 2002 edition);
- b) The definitions of the terms "direct-acting pressure regulating valve," "general-purpose pressure regulator," "regulation range," and "reference flow rate" have been changed (see 3.1).
- 3.2, 3.8, 3.16 (and 3.1, 3.2, 3.8, 3.17 in the 2002 edition)
- c) The term "nominal size" has been changed to "nominal diameter," and its definition has been revised (see 3.10, 3.11 in the 2002 edition);
- d) Change the term "precision" to "accuracy" (see 3.17, 3.19 in the 2002 edition);
- e) The terms and definitions of "generalized adjustment range" and "reference cross-sectional area" have been removed (see 3.9 and 3.18 of the 2002 edition);
- f) The chapter on "Sampling and Acceptance Rules" has been deleted (see Chapter 6 of the 2002 edition);
- g) The "Tests for Mechanical Properties and Functional Characteristics" have been amended (see Chapter 7, Chapter 8 in the 2002 edition).

This document is equivalent to ISO 10522:2021 "Direct-acting pressure regulators for agricultural irrigation equipment".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Agricultural Machinery (SAC/TC201).

1 Scope

This document specifies the structure, technical requirements, and test methods for direct-acting pressure regulators (hereinafter referred to as pressure regulators).

The regulator is used for water containing temperatures not exceeding 60°C, and where the water may contain fertilizers and other chemicals of types and concentrations commonly used in agricultural irrigation.

Agricultural irrigation systems.

This document applies to pressure regulators with a nominal diameter not exceeding 100 mm.

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.

Note: GB/T 7306.1-2000 55° Sealing Pipe Threads Part 1: Cylindrical Internal Threads and Tapered External Threads (eqv ISO 7-1:1994) GB/T 7306.2-2000 55° Sealing Pipe Threads - Part 2: Tapered Internal and External Threads (eqv ISO 7-1:1994) ISO 7005-1 Pipe flanges - Part 1: Steel flanges for industrial and general purpose piping systems Note. GB/T 9124.1-2019 Steel pipe flanges - Part 1: PN series (ISO 7005-1:2011, NEQ) GB/T 9124.2-2019 Steel pipe flanges - Part 2: Class series (ISO 7005-1:2011, NEQ) GB/T 13402-2019 Large-diameter steel pipe flanges (ISO 7005-1:2011, NEQ) ISO 7005-2 Metal flanges - Part 2: Cast iron flanges Note. GB/T 18688-2023 Test method for pressure loss of irrigation valves in agricultural irrigation equipment (ISO 9644:2018, IDT)

3 Terms and Definitions

The following terms and definitions apply to this document.

direct-acting pressure-regulating valve pressure regulator when the inlet pressure or flow rate changes, the water flow channel automatically expands or contracts without the need

for external devices, maintaining the outlet pressure close to the preset value.

The regulating valve.

Note: Direct-acting pressure regulating valves are also known as direct-acting pressure regulators.