

ICS 65.060.35

CCS B 91



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

GB/T 21402-2025

Replacing GB/T 21402-2008

Agricultural irrigation equipment - Irrigation control heads

农业灌溉设备 灌溉首部

(English Translation)

Issued on: October 31, 2025

Implemented on: May 1, 2026

Issued by: State Administration for Market Regulation

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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 21402-2008 "Water Head Controller for Agricultural Irrigation Equipment". Compared with GB/T 21402-2008, except for the following.

Aside 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 2008 edition);

b) Change the term "fertilizer spray tank" to "fertilizer injection tank" and "water-driven chemical spray pump" to "water-driven fertilizer-pesticide injection pump".

The terms "pump" and "irrigation head controller" have been changed to "irrigation head," and "automation" has been changed to "automatic," with their definitions modified (see 3.6~).

3.8, 3.21 (3.6~3.8, 3.21 in the 2008 edition);

c) The definitions of the terms "check valve," "irrigation water," "mesh filter," and "dispensing valve" have been changed (see 3.5, 3.10, 3.16, 3.17, 2008).

(3.5, 3.10, 3.16, and 3.17 of the 2017 edition)

d) The irrigation header classification has been changed (see Chapter 4, Chapter 4 of the 2008 edition);

e) Material requirements have been changed (see Chapter 6, Chapter 6 of the 2008 edition);

f) The component installation requirements have been changed (see Chapter 7, Chapter 7 of the 2008 edition).

This document is equivalent to ISO 11738:2021 "Irrigation heads for agricultural irrigation equipment".

The following minimal editorial changes have been made to this document.

---The printing error in Figure A.5 has been corrected, and redundant parts in the index number description of Figure A.6 have been removed.

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 component requirements and installation methods for the irrigation head in a pressure irrigation system (hereinafter referred to as the irrigation head), and its nominal dimensions...

The dimension shall not exceed 200mm (the nominal dimension of the irrigation head or the nominal dimension of its components).

This document applies only to ground-level components of irrigation heads for sprinkler and micro-irrigation (micro-sprinkler, drip irrigation, etc.). This document applies to the basic model.

The irrigation head may be fitted with other irrigation control and command components (electrical, electronic, and hydraulic components) on the basic irrigation head, but this document does not cover this.

Not applicable to these add-ons.

This document does not apply to systems and/or components for preventing icing at the irrigation head, such as dry-tube faucets or other types of faucets.

This document does not specify the structural and operational requirements for the individual components that make up the irrigation head. These requirements are made in their respective relevant standards.

Regulation.

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

3 Terms and Definitions

The following terms and definitions apply to this document.

activating valve

A valve used to open and close the water flow through the irrigation head (3.8).

Examples. manual valves, hydraulically driven valves, metering valves (3.17).

Automatic self-cleaning strainer-type filter the filter's automatic cleaning function is activated by differential pressure, filtration time, filtration volume, or other physical quantities or combinations thereof.