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# Agricultural irrigation equipment — Filters — Verification of filtration grade

*Matériel agricole d'irrigation — Filtres — Vérification du grade de filtration*



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# Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 18, *Irrigation and drainage equipment and systems*.

# Agricultural irrigation equipment — Filters — Verification of filtration grade

## 1 Scope

This International Standard specifies a test method for the verification of filtration grade of filters intended for operation in agricultural irrigation systems. It is intended to be used for verifying the filter manufacturer's declaration about the filtration grade of a specific filter.

This test method uses a Clogging Capacity Meter (CCM) device to compare the filtration grade of the filter under test against the filtration grade of a test filtration screen.

NOTE This test method may also be used by a filter manufacturer to determine the filtration grade.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9644, *Agricultural irrigation equipment — Pressure losses in irrigation valves — Test method*



## 3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

**3.1**
**filtration grade**
number, declared by the manufacturer, that represents the size of water passages in a filter and is related to its ability to stop particles

Note 1 to entry: The filtration grade is expressed in micrometres (μm, microns).

**3.2**
**clogging capacity meter**
**CCM**
device used for measuring the time to reach a specified pressure loss across a standard filter screen, at a constant flow rate

**3.3**
**aperture width**
distance between two adjacent parallel wires in a square-mesh wire cloth screen plain-weave

**3.4**
**mesh count**
number of apertures per unit of linear measure in a woven wire cloth or wire screen

[SOURCE: ISO 9045:1990, 3.2.8]

**3.5**
**flow rate**
volume of water flowing through a device per unit time