
**Agricultural irrigation equipment —
Water-driven chemical injector pumps**

*Matériel agricole d'irrigation — Pompes doseuses à moteur hydraulique
pour l'injection de produits chimiques*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 13457 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 18, *Irrigation and drainage equipment and systems*.

This second edition cancels and replaces the first edition (ISO 13457:2000), which has been technically revised.

Agricultural irrigation equipment — Water-driven chemical injector pumps

1 Scope

This International Standard specifies the construction, operational requirements and test methods for water-driven chemical injector pumps (hereinafter, water-driven injector pumps). These water-driven injector pumps are used to inject chemicals into irrigation systems. The chemicals include liquid fertilizers and solutions of fertilizers and other soluble agricultural chemicals such as acids and pesticides.

This International Standard is applicable to water-driven injector pumps intended to operate at water temperatures of up to 50 °C and with the types and concentrations of chemicals routinely applied in irrigation.

It does not cover the function of backflow prevention devices, nor is it applicable to water-driven devices for injecting chemicals into an irrigation system operating on the basis of the Venturi principle.

2 Normative references

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

ISO 7-1, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 7005-1, *Metallic flanges — Part 1: Steel flanges*¹⁾

ISO 7005-2, *Metallic flanges — Part 2: Cast iron flanges*

3 Terms and definitions

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

3.1

water-driven chemical injector pump

hydraulic pump intended to inject chemicals into an irrigation system, operated exclusively by the energy of irrigation water driving a hydraulic device such as a piston or turbine

3.2

nominal size

conventional numerical designation used to define the size of an in-line water-driven injector pump

NOTE This size is equal to the size of the connection to the irrigation system, by means of threads, flanges or other connecting devices.

1) Under revision.