



SLOVENSKI STANDARD
oSIST prEN ISO 16122-2:2023

01-marec-2023

Kmetijski in gozdarski stroji - Kontrola škropilnikov v uporabi - 2. del: Vodoravni jamborni škropilniki (ISO/DIS 16122-2:2022)

Agricultural and forestry machinery - Inspection of sprayers in use - Part 2: Horizontal boom sprayers (ISO/DIS 16122-2:2022)

Land- und Forstmaschinen - Kontrolle von in Gebrauch befindlichen Pflanzenschutzgeräten - Teil 2: Geräte mit horizontalem Gestänge (ISO/DIS 16122-2:2022)

Matériel agricole et forestier - Contrôle des pulvérisateurs en service - Partie 2: Pulvérisateurs à rampe horizontale (ISO/DIS 16122-2:2022)

Ta slovenski standard je istoveten z: prEN ISO 16122-2

ICS:

65.060.40 Oprema za nego rastlin Plant care equipment

oSIST prEN ISO 16122-2:2023 **en,fr,de**

DRAFT INTERNATIONAL STANDARD

ISO/DIS 16122-2

ISO/TC 23/SC 6

Secretariat: AFNOR

Voting begins on:
2022-12-26Voting terminates on:
2023-03-20

Agricultural and forestry machinery — Inspection of sprayers in use —

Part 2: Horizontal boom sprayers

*Matériel agricole et forestier — Contrôle des pulvérisateurs en service —
Partie 2: Pulvérisateurs à rampe horizontale*

ICS: 65.060.40

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Reference number
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Published in Switzerland

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 6, *Equipment for crop protection*.

This second edition cancels and replaces the first edition ISO 16122-2:2015, which has been technically revised.

The main purpose of this second edition was to remove errors and resolve contradictions to the ISO 16119 series which specifies environmental requirements for new sprayers.

The main changes compared to the previous edition are as follows:

- Normative references (updated)
- Terms and definitions (modified)
- Filling high-capacity spray-tanks during leak test (modified)
- Testing the capacity of the spraying pump (modified)
- Tank filling strainer/filling hole (modified)
- Tank emptying (modified)
- Controls (modified)
- Diameter analogue pressure indicators (modified)
- Maximum error flow-meters for controlling the volume/hectare rate (modified)
- [Figure 1](#) (modified)
- Similarity nozzles (modified)
- Dripping (modified)

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- Blower (modified)
- Spray guns and lances (modified)
- Capacity test (modified)

A list of all parts in the ISO 16122 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

There are two main reasons for the inspection:

- less potential risk of environmental contamination by plant protection products;
- good control of the pest with the minimum possible input of plant protection product.

In order to use plant protection products in agricultural production safely, it is necessary to define the requirements and test methods for sprayers in use. This is a relevant step after having standardized minimum requirements for new sprayers, in respect of safety hazards (see ISO 4254-6) and potential risks of environmental contamination (see ISO 16119 series).

Standardising the requirements and methods for inspection of sprayers in use takes into consideration not only the original performance of the sprayer but also its use, care and maintenance. This is a logical link to ensure the continued benefit arising from the supply of new sprayers of good quality.

The inspection of sprayers in use can be a mandatory requirement or adopted on a voluntary basis. In both cases further requirements, outside the scope of this standard, are necessary for the management of inspections. These include, for example, requirements for the competence of persons carrying out inspections and the frequency of inspections.

NOTE National or local regulations may also apply concerning the qualifications and competence of inspectors.

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Agricultural and forestry machinery — Inspection of sprayers in use —

Part 2: Horizontal boom sprayers

1 Scope

This part of ISO 16122, when used together with ISO 16122-1: 2015, specifies the requirements and test methods for the inspection of horizontal boom sprayers, when in use.

The requirements relate mainly to the condition of the sprayer with respect to its potential risk for the environment and its performance to achieve good application.

NOTE Requirements for the protection of inspectors during an inspection are given in ISO 16122-1:2015.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 5681:2020, *Equipment for crop protection — Vocabulary*

ISO 5682-2:2017, *Equipment for crop protection — Spraying equipment — Part 2: Test methods to assess the horizontal transverse distribution for hydraulic sprayers*

ISO 12809:2020, *Crop protection equipment — Reciprocating positive displacement pumps and centrifugal pumps — Test method*

ISO 16122-1:2015¹⁾, *Agricultural and forestry machinery — Inspection of sprayers in use — Part 1: General*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5681:2020 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Requirements and method of verification

4.1 General

Before starting the inspection, the Pre-inspection requirements of ISO 16122-1:2015, 5, shall be met.

1) A new edition of ISO 16122-1 will be published simultaneously with this 2nd edition of ISO 16122-2.