



SLOVENSKI STANDARD
kSIST FprEN ISO 16122-4:2014
01-september-2014

Kmetijski in gozdarski stroji - Kontrola pršilnikov in škropilnikov tekočih gnojil v uporabi - 4. del: Nameščeni in polprenosni škropilniki (ISO/FDIS 16122-4:2014)

Agricultural and forestry machines - Inspection of sprayers and liquid fertilizer distributors in use - Part 4: Fixed and semi mobile sprayers (ISO/FDIS 16122-4:2014)

Land- und Forstmaschinen - Kontrolle von in Gebrauch befindlichen Pflanzenschutzgeräten zum Ausbringen von Pflanzenschutzmitteln und flüssigen Düngemitteln - Teil 4: Fest installierte und teilbewegliche Geräte (ISO/FDIS 16122-4:2014)

Matériel agricole et forestier - Contrôle des pulvérisateurs et distributeurs d'engrais liquides en service - Partie 4: Pulvérisateurs fixes et semi-mobiles (ISO/FDIS 16122-4:2014)

Ta slovenski standard je istoveten z: FprEN ISO 16122-4

ICS:

65.060.40 Oprema za nego rastlin Plant care equipment

kSIST FprEN ISO 16122-4:2014 **en**

FINAL
DRAFT

INTERNATIONAL
STANDARD

ISO/FDIS
16122-4

ISO/TC 23/SC 6

Secretariat: AFNOR

Voting begins on:

2014-07-03

Voting terminates on:

2014-09-03

Agricultural and forestry machines — Inspection of sprayers in use —

Part 4: Fixed and semi-mobile sprayers

*Matériel agricole et forestier — Contrôle des pulvérisateurs et
distributeurs d'engrais liquides en service —*

Partie 4: Pulvérisateurs fixes et semi-mobiles

Please see the administrative notes on page iii

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.



Reference number
ISO/FDIS 16122-4:2014(E)

© ISO 2014



COPYRIGHT PROTECTED DOCUMENT

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

ISO/CEN PARALLEL PROCESSING

This final draft has been developed within the European Committee for Standardization (CEN), and processed under the **CEN-lead** mode of collaboration as defined in the Vienna Agreement. The final draft was established on the basis of comments received during a parallel enquiry on the draft.

This final draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel two-month approval vote in ISO and two month formal vote in CEN.

Positive votes shall not be accompanied by comments.

Negative votes shall be accompanied by the relevant technical reasons.

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Requirements and method of verification	2
4.1	Leaks and dripping	2
4.2	Pump(s)	3
4.3	Spray mix agitation	3
4.4	Spray liquid tank	4
4.5	Measuring systems, controls and regulation systems	5
4.6	Lines (pipes and hoses)	6
4.7	Filters	7
4.8	Application unit	7
4.9	Blower	10
4.10	Distribution	10
4.11	Autonomous application units	11
4.12	Cleaning equipment	11
5	Test methods	12
5.1	Test facilities	12
5.2	Spray and agitation pump(s)	12
5.3	Sprayer pressure indicators	14
5.4	Flow meters for controlling the volume/hectare rate	15
5.5	System for controlling forward speed	15
5.6	Uniformity of the transverse volume distribution with a horizontal patternator	15
5.7	Flow rate of the spray nozzles	16
5.8	Pressure drop	17
5.9	Pressure variation when the sections are closed	17
5.10	Pressure variation when the spray is switched off	17
5.11	Accuracy of direct injection systems	17
5.12	Pressure distribution	18
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EC Directive 2009/128/EC, Annex II		19
Bibliography		20

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. www.iso.org/directives

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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](#)

ISO 16122-4 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 144, *Tractors and machinery for agriculture and forestry*, in collaboration with ISO Technical Committee TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 6, *Equipment for crop protection*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 16122 consists of the following parts, under the general title *Agricultural and forestry machinery — Inspection of sprayers in use*:

- *Part 1: General*
- *Part 2: Horizontal boom sprayers*
- *Part 3: Sprayers for bush and tree crops*
- *Part 4: Fixed and semi-mobile sprayers*

ISO/FDIS 16122-4:2014(E)

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.