



# SLOVENSKI STANDARD

## SIST EN ISO 9261:2011

01-november-2011

---

### Namakalna oprema v kmetijstvu - Razpršilniki in razpršilne cevi - Zahteve in preskusne metode (ISO 9261:2004)

Agricultural irrigation equipment - Emitters and emitting pipe - Specification and test methods (ISO 9261:2004)

Landwirtschaftliche Bewässerungsausrüstung - Tropfer und Tropfrohre - Anforderungen und Prüfmethode (ISO 9261:2004)

Matériel agricole d'irrigation - Distributeurs et tuyaux-distributeurs - Spécifications et méthodes d'essai (ISO 9261:2004)

[SIST EN ISO 9261:2011](https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011)  
<https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011>

Ta slovenski standard je istoveten z: **EN ISO 9261:2010**

---

#### **ICS:**

65.060.35	Namakalna in drenažna oprema	Irrigation and drainage equipment
-----------	------------------------------	-----------------------------------

**SIST EN ISO 9261:2011**

**en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 9261:2011](#)

<https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 9261**

January 2010

ICS 65.060.35

English Version

**Agricultural irrigation equipment - Emitters and emitting pipe -  
Specification and test methods (ISO 9261:2004)**

Matériel agricole d'irrigation - Distributeurs et tuyaux-  
distributeurs - Spécifications et méthodes d'essai (ISO  
9261:2004)

Landwirtschaftliche Bewässerungsausrüstung - Tropfer und  
Tropfrohre - Anforderungen und Prüfmethoden (ISO  
9261:2004)

This European Standard was approved by CEN on 4 January 2010.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN ISO 9261:2011](https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011)

<https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011>



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

**Contents**

Page

Foreword.....3

**iTeh STANDARD PREVIEW  
(standards.iteh.ai)**

[SIST EN ISO 9261:2011](https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011)

<https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011>

## Foreword

The text of ISO 9261:2004 has been prepared by Technical Committee ISO/TC 23 “Tractors and machinery for agriculture and forestry” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 9261:2010 by Technical Committee CEN/TC 334 “Irrigation techniques” the secretariat of which is held by AENOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2010, and conflicting national standards shall be withdrawn at the latest by July 2010.

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

**iTeh STANDARD PREVIEW**  
Endorsement notice  
**(standards.iteh.ai)**

The text of ISO 9261:2004 has been approved by CEN as a EN ISO 9261:2010 without any modification.

[SIST EN ISO 9261:2011](https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011)  
<https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 9261:2011](#)

<https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011>

INTERNATIONAL  
STANDARD

ISO  
9261

Second edition  
2004-01-15

---

---

**Agricultural irrigation equipment —  
Emitters and emitting pipe —  
Specification and test methods**

*Matériel agricole d'irrigation — Distributeurs et tuyaux-distributeurs —  
Spécifications et méthodes d'essai*

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 9261:2011](https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011)

[https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-  
f71af5413eb7/sist-en-iso-9261-2011](https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011)



Reference number  
ISO 9261:2004(E)

© ISO 2004

## ISO 9261:2004(E)

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 9261:2011](https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011)

<https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011>

© ISO 2004

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing 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](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland



## Contents

Page

Foreword.....	iv
<b>1</b> Scope.....	<b>1</b>
<b>2</b> Normative references .....	<b>1</b>
<b>3</b> Terms and definitions.....	<b>1</b>
<b>4</b> Classification.....	<b>4</b>
4.1 Reusability (emitting pipes).....	4
4.2 Type of pressure regulation.....	4
4.3 Type of operation at low pressure .....	5
4.4 Type of emitter connection to the pipe.....	5
4.5 Type of multiple-outlet emitter .....	5
<b>5</b> Designation (emitting pipes).....	<b>5</b>
<b>6</b> Marking.....	<b>5</b>
6.1 Emitting pipe .....	5
6.2 Emitter.....	6
6.3 Fittings .....	6
6.4 Packaging of emitting pipes.....	6
6.5 Packaging of fittings.....	7
<b>7</b> Construction and materials.....	<b>7</b>
7.1 General .....	7
7.2 Dimensions (emitting pipe).....	7
7.3 Materials.....	7
7.4 Fittings (emitting pipe).....	7
7.5 Connection to irrigation lateral (in-line emitter).....	8
<b>8</b> Test specimens and conditions .....	<b>8</b>
8.1 Test specimens .....	8
8.2 Order of tests.....	8
8.3 Test conditions.....	8
8.4 Accuracy of measuring devices .....	8
<b>9</b> Test methods and requirements .....	<b>8</b>
9.1 Uniformity of flow rate .....	8
9.2 Flow rate as a function of inlet pressure .....	9
9.3 Determination of emitter/emitting unit exponent.....	10
9.4 Dimensions .....	11
9.5 Resistance to hydraulic pressure .....	12
9.6 Resistance to tension (emitting pipe).....	12
9.7 Resistance to pull-out of joints between fittings and polyethylene reusable emitting pipes.....	13
9.8 Emitter pull-out.....	13
9.9 Watertightness of the emitter-pipe assembly .....	14
9.10 Resistance of polyethylene (PE) emitting pipe to environmental stress-cracking .....	15
<b>10</b> Data supplied by manufacturer .....	<b>15</b>
<b>Bibliography .....</b>	<b>16</b>

**ISO 9261:2004(E)****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 9261 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 of ISO 9261 cancels and replaces ISO 9261:1991 and ISO 9260:1991, of which it constitutes a technical revision.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**  
SIST EN ISO 9261:2011  
<https://standards.iteh.ai/catalog/standards/sist/87232993-d240-4c18-ac51-f71af5413eb7/sist-en-iso-9261-2011>

# Agricultural irrigation equipment — Emitters and emitting pipe — Specification and test methods

## 1 Scope

This International Standard gives mechanical and functional requirements for agricultural irrigation emitters and emitting pipes, and, where applicable, their fittings, and provides methods for testing conformity with such requirements. It also specifies the data to be supplied by the manufacturer to permit correct information, installation and operation in the field.

It is applicable to emitters, emitting and dripping (trickling) pipes, hoses, including collapsible hoses (“tapes”) and tubing of which the emitting units form an integral part, to emitters and emitting units with or without pressure regulation and with flow rates not exceeding 24 l/h per outlet (except during flushing), and to fittings dedicated to the connection of emitting pipes, hoses and tubing. It is not applicable to porous pipe (pipe that is porous along its entire length), nor does it cover the performance of pipes as regards clogging.

## 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 3501, *Assembled joints between fittings and polyethylene (PE) pressure pipes — Test of resistance to pull out*<sup>1)</sup>

ISO 8796:—<sup>2)</sup>, *Polyethylene PE 32 and PE 40 pipes for irrigation laterals — Susceptibility to environmental stress cracking induced by insert-type fittings — Test method and specification*

## 3 Terms and definitions

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

### 3.1

#### **emitter**

dripper

device fitted to an irrigation lateral and intended to discharge water in the form of drops or continuous flow at flow rates not exceeding 24 l/h except during flushing

### 3.2

#### **in-line emitter**

emitter intended for installation between two lengths of pipe in an irrigation lateral

1) Requirements for connections of insert-type fittings are to be included in a future edition.

2) To be published. (Revision of ISO 8796:1989)