



# SLOVENSKI STANDARD

## SIST EN 13635:2001

01-december-2001

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**Namakalna tehnika - Sistemi za lokalizirano namakanje - Terminologija in podatki, ki jih mora podati proizvajalec**

Irrigation techniques - Localised irrigation systems - Terminology and data to be supplied by the manufacturer

Bewässerungsverfahren - Lokale Bewässerungssysteme - Terminologie und Angaben des Herstellers

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Techniques d'irrigation - Installations avec irrigation localisée - Terminologie et informations à fournir par le fabricant

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**SIST EN 13635:2001**

**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 13635**

August 2001

ICS 01.040.65; 65.060.35

English version

## Irrigation techniques - Localised irrigation systems - Terminology and data to be supplied by the manufacturer

Techniques d'irrigation - Installations avec irrigation  
localisée - Terminologie et informations à fournir par le  
fabricant

Bewässerungsverfahren - Lokale Bewässerungssysteme -  
Terminologie und Angaben des Herstellers

This European Standard was approved by CEN on 29 June 2001.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 334 "Irrigation techniques", the secretariat of which is held by AFNOR.

Within its programme of work CEN/TC 334 charged CEN/TC 334/WG 5 "Localised irrigation" to prepare the following standard :

EN 13635, *Irrigation techniques – Localised irrigation systems – Terminology and data to be supplied by the manufacturer.*

This standard is related to others that will be drawn up for each system component (technical characteristics and test methods).

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 February 2002, and conflicting national standards shall be withdrawn at the latest by February 2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## Introduction

The growing use of localised irrigation systems in farming and gardening has drawn attention to the need for a model on which to base the characteristics of these systems.

This document is intended to enhance understanding between localised irrigation users and facility assemblers.

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## 1 Scope

This European Standard specifies the technical and functional characteristics that shall be indicated by manufacturers of localised irrigation systems for user information to aid them in their choice of facilities and materials.

This standard is related to others that will be drawn up for each system component (technical characteristics and test methods).

This European standard defines localised irrigation systems, characterising the various components which comprise them.

## 2 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply:

### 2.1

#### **localized irrigation**

method of irrigation whereby plants are watered by small amounts of water at low pressure applied to the soil, below or at the ground surface, without wetting the entire soil surface. It embraces several methods such as drip and microsprinkler irrigation

#### 2.1.1

##### **drip irrigation**

the application of water as drips or tiny streams through outlets

#### 2.1.2

##### **microsprinkler irrigation**

method of irrigation whereby water is applied in the form of a spray, mist or stream

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### 2.2

#### **chemigation**

application of chemicals together with irrigation water through an inducing system usually located in the head control

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### 2.3

#### **localised irrigation system**

unit generally comprised of components required for microirrigation, including:

- a) irrigation control head formed by:
  - main filters ;
  - devices for inducing chemicals ;
  - measuring equipment ;
  - controller.
- b) distribution and application networks ;
- c) sector valves and filters, pressure and flow regulators ;
- d) emitting devices.

**EN 13635:2001 (E)****2.4****control head**

series of devices, usually located upstream of the installation, which perform one or several of the following operations: control and measure the water applied, add chemicals to the irrigation water, filter irrigation water, regulate pressure and volume, implement the established irrigation programme

**2.5****lateral**

pipeline to which emitters are connected or integrated (when exuding systems are used, emitters are connected to the porous tube or the tape itself).

**2.6****submain**

pipeline that supplies water to the laterals

**2.7****irrigation subunit or irrigation block**

unit composed of a submain and its laterals, which operate simultaneously and have independent flow control

**2.8****distribution network**

the water delivery pipelines that supply water from the head control to the subunits

**2.9****irrigation sector**

a group of subunits that always operate simultaneously

**2.10****irrigation area**

the total surface which is watered by a single control head

**2.11****emitting device**

device which emits water in a localized area on or below the soil surface

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Depending on the sensitivity of their flow to pressure variation, emitting devices are classified as:

**2.11.1****regulated emitting device**

emitting device of relatively constant emission rate at varying water pressures at the device inlet, within the limits specified by the manufacturer

**2.11.2****unregulated emitting device**

emitting device whose emission rate varies according to the variation in water pressure at the inlet of the device

Depending on the type of emitting device and the type of connection, emitters may be classed as:

**2.11.3****in-line emitter**

emitter is inserted for installation between two lengths of pipe (irrigation lateral)

**2.11.4****on-line emitter**

emitter is fixed directly or indirectly (e.g., by means of tubing) in the wall of the irrigation lateral

**2.11.5****integrated emitter**

emitter which is inserted into the pipe during the manufacturing process



**2.11.6****emitting pipe**

continuous pipe, hose or tubing with perforations or other hydraulic devices formed or integrated into the pipe during production and intended to emit water in the form of drops or continuous flow

**2.11.7****drip tape**

collapsible emitting pipe

**2.11.8****porous tube and porous tape**

flexible and porous lateral which emits a continuous flow of water all along its length

**2.11.9****microsprinkler**

emitter which applies water in the form of a jet and has rotating arms

**2.11.10****sprayer or jet**

emitter which applies water in the form of spray, mist or stream and has no rotational movement

Depending on the number of outlets, emitting devices may be classed as:

**2.11.11****single emitter**

emitter which has one or more outlets, but only one flow regulating device, and which therefore has only one nominal emission rate for all of its outlets

**2.11.12****multiple emitter**

emitter in which the output flow is divided and directed to several distinctly different locations each one with its own flow regulating device and therefore its own nominal emission rate

Depending on their self-cleaning capability, emitting devices may be distinguished as:

**2.11.13****self-cleaning emitter**

emitter which is able to clean unfiltered particles from its body without clogging it

**2.12****nominal emission rate,  $q_n$ , unregulated emitting devices**

emission rate, in litres per hour, of the emitter at nominal pressure and at a water temperature of 23 °C, as specified by the manufacturer

**2.13****nominal emission rate,  $q_n$ , regulated emitting devices**

emission rate, in litres per hour, of the emitter operating in the range of regulation and at a water temperature of 23 °C, as specified by the manufacturer

**2.14****nominal emission rate,  $q_n$ , multiple emitter**

emission rate of each outlet

**2.15****nominal emission rate,  $q_n$ , porous tube and porous tape**

emission rate, in litres per hour and per metre, of the emitting device at nominal pressure and at a water temperature of 23 °C, as specified by the manufacturer

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