



# SLOVENSKI STANDARD

## SIST EN 1253-1:2000

01-november-2000

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Gullies for buildings - Part 1: Requirements

Abläufe für Gebäude - Teil 1: Anforderungen

Avaloirs et siphons pour bâtiments - Partie 1: Spécifications

Ta slovenski standard je istoveten z: EN 1253-1:1999

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**ICS:**

91.140.80      Drenažni sistemi      Drainage systems

**SIST EN 1253-1:2000**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN 1253-1

April 1999

ICS 91.140.80

English version

## Gullies for buildings - Part 1: Requirements

Avaloirs et siphons pour bâtiments - Partie 1: Spécifications

Abläufe für Gebäude - Teil 1: Anforderungen

This European Standard was approved by CEN on 3 May 1998.

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 Central Secretariat 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 Central Secretariat 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  
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## Contents

	Page
Foreword .....	3
<b>1 Scope</b> .....	<b>3</b>
<b>2 Normative references</b> .....	<b>3</b>
<b>3 Definitions</b> .....	<b>3</b>
<b>4 Loading strength</b> .....	<b>7</b>
<b>5 Places of installation</b> .....	<b>7</b>
5.1 General .....	7
5.2 Exceptions .....	7
<b>6 Nominal sizes</b> .....	<b>7</b>
<b>7 Materials</b> .....	<b>7</b>
<b>8 Design and construction</b> .....	<b>8</b>
8.1 General .....	8
8.2 Appearance .....	8
8.3 Depth of water seal .....	8
8.4 Resistance of water seal to pressure .....	8
8.5 Apertures in gratings .....	8
8.6 Blockage prevention: trapped gullies .....	9
8.6.1 Access for cleaning .....	9
8.6.2 Self-cleansing capacity .....	9
8.6.3 Anti-blockage .....	9
8.7 Side inlets .....	9
8.8 Thermal behaviour .....	9
8.8.1 Temperature cycling for floor gullies .....	9
8.8.2 Additional mounting conditions and test conditions for gullies for use with sheet floor covering .....	9
8.8.3 Roof outlets .....	9
8.8.4 Behaviour when exposed to hot bitumen or asphalt .....	9
8.9 Tightness .....	9
8.9.1 Odourtightness: trapped gullies .....	9
8.9.2 Watertightness for gully bodies .....	10
8.9.3 Gullies for use with a membrane .....	10
8.9.4 Gullies for use with a sheet floor covering .....	10
8.9.5 Gullies with factory affixed skirt membrane .....	10
8.9.6 Watertightness for extensions .....	10
8.10 Mechanical strength .....	10
8.10.1 Extensions for gullies with sheet floor covering .....	10
8.10.2 Membrane clamping ring .....	10
8.10.3 Gullies with factory affixed skirt membrane .....	10
8.11 Flow rates .....	11
8.11.1 Water through the grating .....	11
8.11.2 Water through the grating and side inlets .....	11
8.11.3 Water through the side inlet .....	11
8.12 Roof outlets for siphonic drainage systems .....	11
8.12.1 Fitness for the purpose .....	11
8.12.2 Coefficient of hydraulic loss .....	12
<b>9 Marking</b> .....	<b>12</b>
<b>10 Quality control</b> .....	<b>12</b>

## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 165 "Waste water engineering", the secretariat of which is held by DIN.

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 October 1999, and conflicting national standards shall be withdrawn at the latest by October 1999.

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.

## 1 Scope

This standard classifies gullies, gives guidance for places of installation and specifies requirements for the construction, design, performance and marking of factory made gullies for buildings, irrespective of material, for use in drainage systems operating under gravity including siphonic systems.

NOTE: Although normally used to convey domestic waste water, industrial waste water and rainwater, gullies can convey other waste water provided there is no risk of damage to components or of injury to health.

This standard does not apply to gully tops and manhole tops which are specified in EN 124.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 124 : 1994

Gully tops and manhole tops for vehicular and pedestrian areas - Design requirements, testing, marking, quality control

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EN 476

General requirements for components used in discharge pipes, drains and sewers for gravity systems

EN 1253-2 : 1998

Gullies for buildings - Part 2: Test methods

EN 1253-3

Gullies for buildings - Part 3: Quality control

## 3 Definitions

For the purpose of this standard, the following definitions apply:

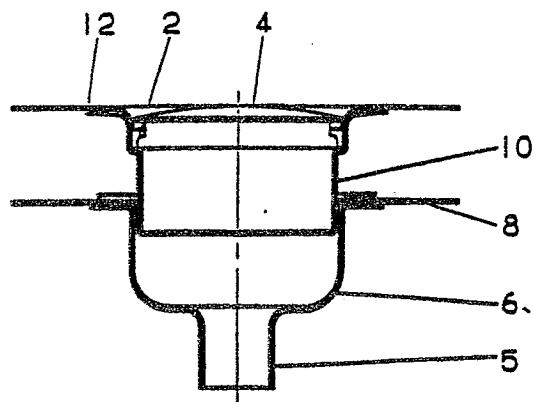
**3.1 gully:** Discharge fitting the top of which is a grating or cover capable of installation at ground, floor or roof level, intended to receive waste water either through apertures in a grating and/or from pipes connected to the body of the gully (see figure 1).

NOTE: A gully can include an integral trap and a sediment bucket (see figure 2).

**3.2 side inlet gully:** Gully with one or more integral inlets for underfloor or underground connections (see figure 2).

**3.3 roof outlet:** A non-trapped gully, used in a roof (see figure 3).

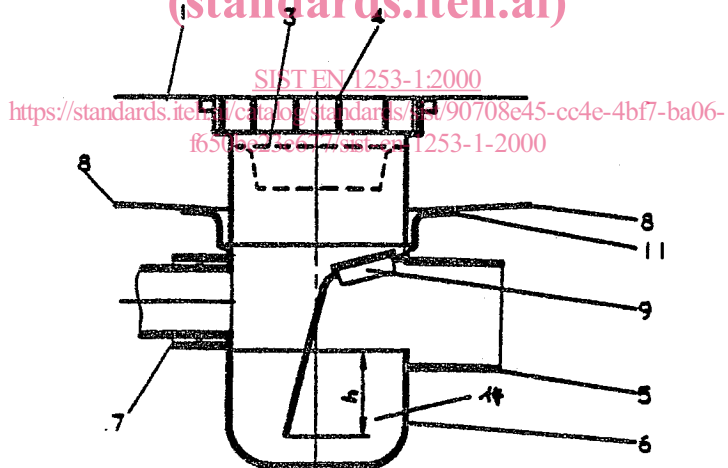
NOTE: A roof outlet can include an anti-vortex device.



- 2 Membrane clamping ring
- 4 Grating/cover and frame
- 5 Spigot
- 6 Body
- 8 Membrane
- 10 Extension
- 12 Sheet floor covering

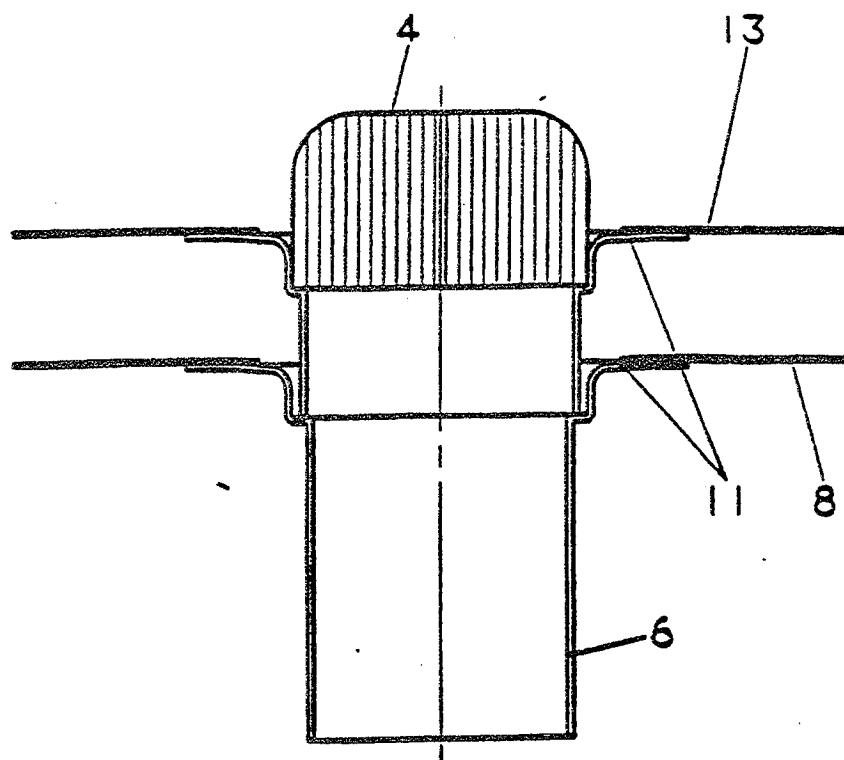
Figure 1: Gully, non-trapped (typical example)

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- 1 Finished floor
- 3 Sediment bucket
- 4 Grating/cover and frame
- 5 Spigot
- 6 Body
- 7 Side inlet
- 8 Membrane
- 9 Access for cleaning
- 11 Connecting flange
- 14 Depth of water seal

Figure 2: Side inlet gully, trapped (typical example)



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- 4 Grating/cover and frame
- 6 Body
- 8 Membrane
- 11 Connecting flange
- 13 Roof layer

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Figure 3: Roof outlet (typical example)

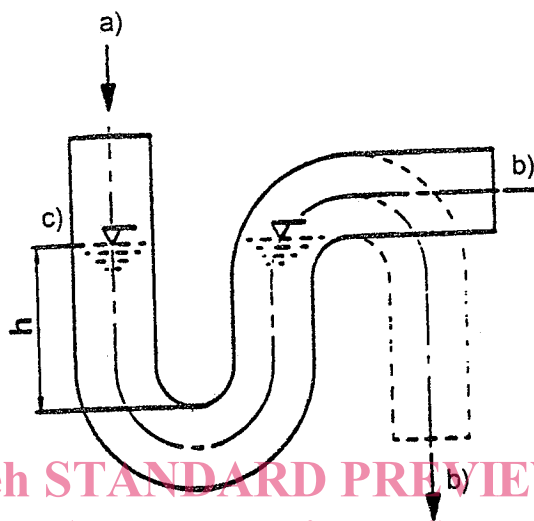
- 3.4 grating:** Removable component with apertures which permit the discharge of waste water.
- 3.5 frame:** Support for a grating or cover which is connected to a body either directly or by means of a membrane clamping collar or an extension.
- 3.6 cover:** Removable part of an access cover which covers the opening.
- 3.7 body:** Part of a gully below or in the floor, ground or roof on which the grating/frame/extension is mounted, and to which pipework is connected.
- 3.8 extension:** Component used to adjust the height of a grating or cover above a body.
- 3.9 membrane clamping ring:** Component used to clamp a membrane or a sheet floor covering to a body or extension.
- 3.10 joint:** Connection between the adjacent ends of two components including the means of sealing.
- 3.11 connecting flange:** Separate or an integral part of a body or of an extension which receives a membrane or sheet floor covering.
- 3.12 nominal size (DN):** Numerical indication of size which is a convenient integer approximately equal to the internal diameter (DN/ID) or the external diameter (DN/OD) in millimetres.
- 3.13 external diameter:** Mean external diameter of the pipe barrel at any cross section. .

**3.14 internal diameter:** Mean internal diameter of the pipe barrel at any cross section.

**3.15 gravity drainage system:** System where flow is caused by gravity and where the pipe normally operates partially full.

**3.16 trap:** Removable or integral part of the body which prevents by means of water seal the passage of foul air from the outlet to the inlet.

**3.17 depth of water seal:** Effective height of water in the trap ( $h$ ) which prevents the passage of foul air (see figure 4).



- a) Inlet  
b) Outlet (examples)  
c) Water level

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Figure 4: Depth of water seal

**3.18 domestic waste water:** Non-faecal waste water discharged from appliances in kitchens, laundry rooms, lavatories, bathrooms, toilets, and similar facilities.

**3.19 industrial waste water:** Waste water resulting wholly or partially from any industrial or commercial activity.

**3.20 sheet floor covering:** Flexible watertight finished layer for floors affixed to the flange by bonding and/or by means of a clamping ring.

**3.21 membrane:** Watertight and/or damp proof layer attached to the gully either in the floor or on the floor or roof.

**3.22 head of water:** Distance  $a$  as shown in figure 5.



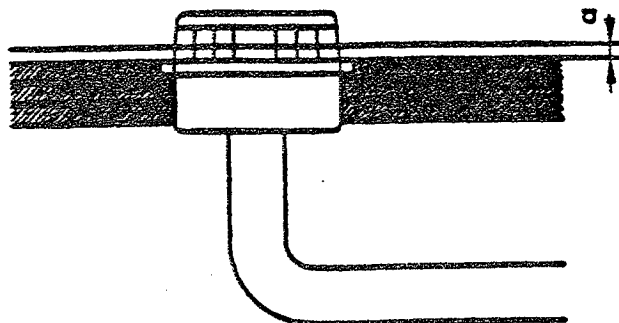


Figure 5: Head of water

**3.23 siphonic drainage system:** System for drainage of rainwater in which the outlets and pipework enable the system to flow completely full under design conditions and make use of the total height available between the outlets and the point of change to partially filled flow.

## 4 Loading strength

Gullies are classified by loading strength, when tested in accordance with clause 4 of EN 1253-2 : 1998 into following classes: H 1,5, K 3, L 15, M 125.

Gullies not accessible to either vehicular or foot traffic or not required to withstand external loads are not classified.

## 5 Places of installation

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### 5.1 General

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A guide for selecting the class of gully appropriate to the place of installation is given below. The selection of the appropriate class is the responsibility of the specifier.

#### Class H 1,5

Unused flat roofs such as felt-and-gravel roofs, gravel fill roofs and similar.

#### Class K 3

Areas without vehicular traffic, such as bathrooms in dwellings, old peoples' homes, hotels, schools, swimming baths, public wash and shower facilities, balconies, loggias, terraces and roofs with greenery.

Non-load bearing gullies in bathrooms shall fulfill the requirements of class H 1,5.

#### Class L 15

Areas with light vehicular traffic, excluding fork-lift trucks, in commercially used premises.

#### Class M 125

Areas with vehicular traffic, such as car parks, factories and workshops.

Class C 250 to F 900 gullies and tops conforming to EN 124 shall be used for all areas subject to special stresses, such as exhibition halls, market halls, factory sheds and aircraft hangars.

### 5.2 Exceptions

Non-load bearing gratings for places of installation which are not accessible to vehicles and pedestrians (protected by suitable masonry surroundings) and which are not covered by the places of installation listed above nor by EN 124 shall at least conform to the test requirements given in clause 4 of EN 1253-2 : 1998.