

Survelised kanalisatsioonisüsteemid väljaspool hooneid

Pressure sewerage systems outside buildings

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1671:2000 sisaldab Euroopa standardi EN 1671:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1671:2000 consists of the English text of the European standard EN 1671:1997.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>Käesolev Euroopa standard määrab kindlaks töomadused, konstruktsiooni, funktsioneerimise, korrashoiu ja paigaldamise koos asjakohase heakskiiduga ning testimismeetodi survelestele kanalisatsioonisüsteemidele, mis asuvad väljaspool hooneid ja milles voolab heitvesi. See Euroopa standard ei paku hinnangut süsteemide kokkusobivuse kohta. Standard ei määra detailset projekteerimist või ehitusmaterjale süsteemi üksikute komponentide kohta.</p>	<p>Scope:</p>
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Võtmesõnad: heitvesi, kanalisatsioon, komponendid, konstrueerimine, korrashoid, kvaliteedikontroll, lekkekatsed, mõõtmed, paigaldamine, survevõrk, tehnilised andmed, töomaduste hindamine, vee äravool

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English version

Pressure sewerage systems outside buildings

Réseaux d'assainissement sous
pression à l'extérieur des bâtiments

Druckentwässerungssysteme außer-
halb von Gebäuden

This European Standard was approved by CEN on 1997-04-11.

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.

The European Standards exist 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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
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FOREWORD

This European Standard has been prepared by Technical Committee CEN/TC 165 "Waste Water Engineering" through WG 23 "Positive and negative pressure Systems" and Tg 2 "Pressure Sewerage Systems", 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 December 1997, and conflicting national standards shall be withdrawn at the latest by December 1997.

There are four 'informative' annexes; annex A gives some useful information additional to this standard, annex B has the figures, annex C contains the Bibliography and national regulations, and annex D contains A-deviations.

In drafting this European Standard account has been taken of other available draft Standards.

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.

INTRODUCTION

This European Standard covers positive Pressure Sewerage Systems (PSS) and has been prepared for use by the designer, manufacturers, consultants, customers and operators.

A PSS is designed to transport domestic wastewater arising from dwellings and commercial properties and shall not be used for the disposal of stormwater or rainwater. The PSS comprises a single pressure pipe or a branched network of pressure pipes. The pressure generating equipment is always located at the upstream end of the pressure pipe(s). The downstream boundary of the system is defined as the point at which the total flow from the system discharges from a single pipe at atmospheric pressure into a recipient e.g. manhole, gravity sewer or sump.

The use of compressed air as the only means of generating pressure is not covered in this standard.

This standard covers the control of flow to the pumping main by random operation of pumps using i.e. level control and use of logic real-time control to manage pump output. However the annex A is mainly concerned with random operations.

The use of small bore pressure pipes in conjunction with PSS may result in reduced environmental impact and consequential reduction in site construction leading to lower installation costs.

1 SCOPE

1.1 General

This European Standard specifies the performance, design, operation, maintenance and installation with related verification and test method for positive pressure driven sewerage systems outside buildings carrying wastewater.

It does not provide for the evaluation of conformity of systems to this European Standard. It does not specify the detail design or materials of construction of individual components within the system.

This European Standard covers positive pressure sewerage systems designed for transporting wastewater, defined as: Domestic sewage arising from dwellings and commercial properties but excluding stormwater and rainwater.

This European Standards covers the design of a PSS and some requirements of products used together with the PSS in order to ensure the performance of a PSS.

The components of the system and in conjunction with the system should be evaluated by reference to the appropriate product standard. In the absence of a product standard, this standard may be used as a reference for drawing up a specification for that product.

1.2 Limit of Design

Intermediate pressure booster equipment is not covered in this standard.

The use of compressed air as the only means of generating pressure is not covered in this standard.

The design requirements of this standard are minimum requirements and do not constitute in themselves a comprehensive design sufficient to ensure a correctly functioning system. Every system must be individually designed. Where proprietary components are employed, account should be taken of the advice of the component supplier.

1.3 Application of Pressure Sewerage Systems (PSS)

Information on the use of Pressure Sewerage Systems is given in A.1.

1.4 Sources of Additional Information

Documents which, whilst relating to specific systems, contain details which can be used within the framework of this standard are listed in informative annex C.

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.

prEN 476	General requirements for components used in discharge pipes, drains and sewers for gravity systems.
prEN 805	Water supply - Requirements for external systems and components.
EN 60204-1	Safety of machinery - electrical equipment of machines; Part 1: General requirements.

3 DEFINITIONS

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

3.1 Collecting Chamber

Chamber into which the wastewater flows by gravity. This chamber may take the form of either a collecting tank or a collecting sump.

3.2 Pressure Generating Equipment

Pump(s) installed at the collecting chamber which provides the pressure for transporting the wastewater within the pipe system. Compressed air system may be connected at strategic points for the purpose of airflushing the pipe system.

3.3 Pressure Sewerage System (PSS)

The PSS is a system for transporting domestic wastewater comprising a single pressure pipe or a branched network of pressure pipes where the pressure generating equipment is always located at the upstream end of the pressure pipe(s). The disposal point is the point the total flow from a pressure system discharges at atmospheric pressure, e.g. a manhole, gravity sewer or sump.

4 SYSTEM DESCRIPTION

4.1 General

A PSS consists of collecting chambers, pressure generating equipment and pipes forming a branched network.

4.2 Main components

The Pressure Sewerage System consists of the following main components:

- the collecting chamber (4.3),
- the pressure generating equipment (4.4):
 - pump unit (4.4.1);
 - compressed air unit, if required (4.4.2);
- pipework (4.5);
- pipe-joints (4.5.2);
- valves (4.5.3).

Fig. B.1 shows an example of a pressure sewerage system.