

Pressure sewerage systems outside buildings

The European Standard EN 1671:1997 has the status of a
British Standard

ICS 13.060.30

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National foreword

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 17 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

This British Standard, having been prepared under the direction of the Electrotechnical Sector Board, was published under the authority of the Standards Board and comes into effect on 15 November 1997

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English version

Pressure sewerage systems outside buildings

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

Druckentwässerungssysteme außerhalb 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.

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European Committee for Standardization
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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of an identical text or by endorsement, at the latest by December 1997, and conflicting national standards shall be withdrawn at the latest by December 1997.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.

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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 Standard 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*.