

STN	Stokové siete a systémy kanalizačných potrubí mimo budov Čerpacie systémy Časť 1: Všeobecné požiadavky	STN EN 16932-1 75 6112
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Drain and sewer systems outside buildings - Pumping systems - Part 1: General requirements

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/18

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Oznámením tejto normy sa ruší
STN EN 1091 (75 6120) z augusta 2000

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EUROPEAN STANDARD
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EN 16932-1

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ICS 93.030

Supersedes EN 1091:1996, EN 1671:1997

English Version

**Drain and sewer systems outside buildings - Pumping
systems - Part 1: General requirements**

Réseaux d'évacuation et d'assainissement à l'extérieur
des bâtiments - Systèmes de pompage - Partie 1:
Exigences générales

Entwässerungssysteme außerhalb von Gebäuden -
Pumpsysteme - Teil 1: Allgemeine Anforderungen

This European Standard was approved by CEN on 22 January 2018.

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-CENELEC Management Centre or to any CEN member.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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EN 16932-1:2018 (E)**European foreword**

This document (EN 16932-1:2018) 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of an identical text or by endorsement, at the latest by October 2018, and conflicting national standards shall be withdrawn at the latest by October 2018.

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

Together with EN 16932-2:2018 and EN 16932-3:2018, this document supersedes EN 1091:1996 and EN 1671:1997.

EN 16932, *Drain and sewer systems outside buildings — Pumping systems*, contains the following parts:

- *Part 1: General requirements;*
- *Part 2: Positive pressure systems;*
- *Part 3: Vacuum systems.*

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Drain and sewer systems are part of the overall wastewater system that provides a service to the community. This can be briefly described as:

- removal of wastewater from premises for public health and hygienic reasons;
- prevention of flooding in urbanised areas;
- protection of the environment.

The overall wastewater system has four successive functions:

- collection;
- transport;
- treatment;
- discharge.

Collection and transport of wastewater is provided by drain and sewer systems.

EN 752 provides a framework for the design, construction, maintenance, operation and rehabilitation of drain and sewer systems outside buildings. This is illustrated in the upper part of the diagram in Figure 1. EN 752 is supported by more detailed standards for the investigation, design, construction, organization and control of drain and sewer systems.

Investigation and assessment standards include:

- EN 13508 (all parts), *Investigation and assessment of drain and sewer systems outside buildings*.

Design and construction standards include:

- EN 16932 (all parts), *Drain and sewer systems outside buildings — Pumping systems*;
- EN 16933-2, *Drain and sewer systems outside buildings — Design — Part 2: Hydraulic design*;
- EN 1295-1, *Structural design of buried pipelines under various conditions of loading - Part 1: General requirements*;
- EN 1610, *Construction and testing of drains and sewers*;
- EN 12889, *Trenchless construction and testing of drains and sewers*;
- EN 15885, *Classification and characteristics of techniques for renovation and repair of drains and sewers*.

Management and control standards include:

- EN 14654 (all parts), *Management and control of operational activities in drain and sewer systems outside buildings*.

To support these detailed standards information can come from specifications produced by individual organisations for their own use. Product standards take also into account the functional requirements in EN 752 through EN 476, EN 13380 and EN 14457.

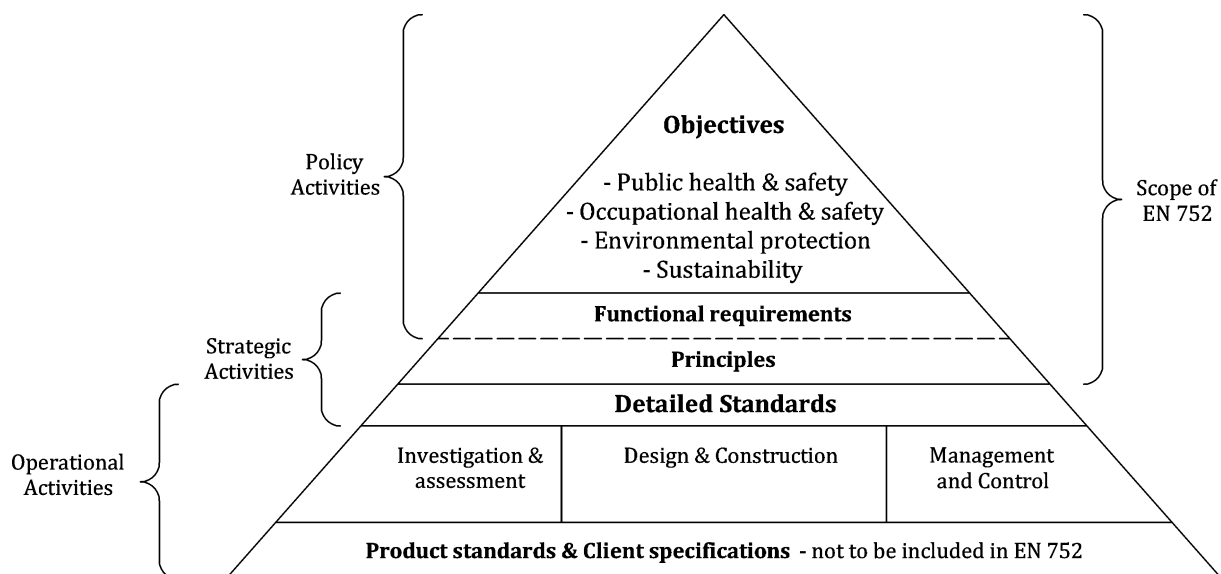
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Figure 1 —Relationship to EN 752:2017 and other drain and sewer standards
[Source: EN 752:2017]

Wastewater lifting installations in buildings and on private properties are in the scope of EN 12050 (all parts).

1 Scope

This European Standard specifies requirements for design, construction and acceptance testing of wastewater pumping systems in drain and sewer systems outside the buildings they are intended to serve. It includes pumping systems in drain and sewer systems that operate essentially under gravity as well as systems using either positive pressure or partial vacuum.

This document gives general requirements applicable to all wastewater pumping systems in drain and sewer systems.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 752:2017, *Drain and sewer systems outside buildings — Sewer system management*

EN 1127-1, *Explosive atmospheres — Explosion prevention and protection — Part 1: Basic concepts and methodology*

EN 1295-1, *Structural design of buried pipelines under various conditions of loading — Part 1: General requirements*

EN 1610, *Construction and testing of drains and sewers*

EN 1990, *Eurocode — Basis of structural design*

EN 1991 (all parts), *Eurocode 1: Actions on structures*

EN 12889, *Trenchless construction and testing of drains and sewers*

EN 13463 (all parts), *Non-electrical equipment for use in potentially explosive atmospheres*

EN 14654 (all parts), *Management and control of operational activities in drain and sewer systems outside buildings*

EN 16323:2014, *Glossary of wastewater engineering terms*

EN 16932-2, *Drain and sewer systems outside buildings — Pumping systems — Part 2: Positive pressure systems*

EN 16932-3, *Drain and sewer systems outside buildings — Pumping systems — Part 3: Vacuum systems*

EN 60079 (all parts), *Explosive atmospheres — Part 0: Equipment — General requirements (IEC 60076 series)*

EN 60204-1, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1)*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

EN 61439-1, *Low-voltage switchgear and controlgear assemblies — Part 1: General rules (IEC 61439-1)*

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EN 61439-2, *Low-voltage switchgear and controlgear assemblies — Part 2: Power switchgear and controlgear assemblies (IEC 61439-2)*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN