

ÄRAVOOLU- JA KANALISATSIOONITORUSTIKE  
RENOVEERIMISE, REMONDI JA ASENDAMISE  
TEHNIKATE LIIGITAMINE JA OMADUSED

Classification and characteristics of techniques for  
renovation, repair and replacement of drains and  
sewers

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 15885:2018 sisaldab Euroopa standardi EN 15885:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 15885:2018 consists of the English text of the European standard EN 15885:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.11.2018.	Date of Availability of the European standard is 07.11.2018.
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ICS 93.030

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English Version

Classification and characteristics of techniques for  
renovation, repair and replacement of drains and sewers

Classification et caractéristiques des techniques de  
rénovation, de réparation et de remplacement des  
réseaux d'évacuation et d'assainissement

Klassifizierung und Eigenschaften von Techniken für  
die Renovierung, Reparatur und Erneuerung von  
Abwasserkanälen und -leitungen

This European Standard was approved by CEN on 25 June 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.

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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 15885:2018) 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 May 2019, and conflicting national standards shall be withdrawn at the latest by May 2019.

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

This document supersedes EN 15885:2010.

The main changes with respect to EN 15885:2010 are:

- a) new Clause 6 "Classification of trenchless replacement techniques for drains and sewers " added;
- b) definitions adapted to EN ISO 11295:2017;
- c) Table 1 to Table 9 supplemented by features "Installation equipment", "Surface area" and "Excavation";
- d) images partly adapted to EN ISO 11295:2017;
- e) sequence of sub-clauses 5.7 and 5.8 exchanged;
- f) technique family "Repair with trowelled material" (previous sub-clause 6.4) renamed "Repair with trowelled or moulded material", and distinction between these techniques and Repair by injection clarified by extended text in new 7.2 and 7.4;
- g) editorial changes.

This document refers to existing EN product standards to the extent available for the techniques and materials covered.

It provides an overview of trenchless methods used for renovation and repair of drains and sewers, and for their replacement on the same line, regardless of the material used. In respect of sewer renovation and replacement techniques using plastics materials only, it reproduces definitions and other information (but no requirements) contained in EN ISO 11295. Due to their continuous development the most up-to-date information on these particular techniques may be contained in either this document or EN ISO 11295, whichever is the latest edition.

For management and control of rehabilitation activities in drains and sewers a European Standard EN 14654-2, *Management and control of operational activities in drain and sewer systems outside buildings — Part 2: Rehabilitation* is available.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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.

## 1 Scope

This European Standard specifies a system for the classification of trenchless techniques for renovation, repair and replacement on the same line of drains and sewers outside buildings, operated under gravity or pressure, including pipes, connections and manholes. It defines and describes families of techniques and their different generic methods and materials used.

This European Standard does not apply for replacement by open trenching according to EN 1610 and trenchless construction and testing of drains and sewers as new construction off-the-line of the existing drain or sewer according to EN 12889.

This European Standard does not apply for the specification of requirements for specific products.

For each technique family it lists relevant existing standards, materials and applications and outlines characteristics including installation aspects, structural and hydraulic capabilities and site impact.

This standard does not apply to any work required on the existing pipe prior to renovation, repair or replacement.

This European Standard provides information needed to determine viable options and for identification of the optimal technique with regard to a given set of renovation, repair or replacement objectives.

**NOTE** It is the responsibility of the designer to choose and design the renovation, replacement and repair systems.

It does not specify the calculation methods to determine, for each viable technique, the required amount of material needed to secure the desired performance of the pipeline to be rehabilitated.

## 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, *Drain and sewer systems outside buildings — Sewer system management*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

### 3.1 rehabilitation

measures for restoring or upgrading the performance of existing pipeline systems, including *renovation* (3.2), *repair* (3.3) and *replacement* (3.4)

[SOURCE: EN ISO 11295:2017, 3.1.1, modified – term numbers adapted to numbering of EN 15885]