

Gas supply systems - Pipelines for maximum operating pressure up to and including 16 bar - Part 4: Specific functional recommendations for renovation

Gas supply systems - Pipelines for maximum operating pressure up to and including 16 bar - Part 4: Specific functional recommendations for renovation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12007-4:2000 sisaldab Euroopa standardi EN 12007-4:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 17.07.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12007-4:2000 consists of the English text of the European standard EN 12007-4:2000.</p> <p>This document is endorsed on 17.07.2000 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>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>Käsitlusala: This European Standard describes specific functional recommendations for the renovation of pipeworks existing in gas supply systems and includes some requirements for materials other than plastics covered by CEN/TC 155 "Plastics piping and ducting systems". This European standard is intended to be applied in association with EN 12007-1. This European standard does not apply to pipework in above ground installations.</p>	<p>Scope: This European Standard describes specific functional recommendations for the renovation of pipeworks existing in gas supply systems and includes some requirements for materials other than plastics covered by CEN/TC 155 "Plastics piping and ducting systems". This European standard is intended to be applied in association with EN 12007-1. This European standard does not apply to pipework in above ground installations.</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

ICS 23.040.01

Võtmesõnad:

ICS 23.040.01

English version

Gas supply systems – Pipelines for maximum
operating pressure up to and including 16 bar

Part 4: Specific functional recommendations for renovation

Systèmes d'alimentation en gaz –
Canalisations pour pression maximale
de service inférieure ou égale à
16 bar – Partie 4: Recommandations
fonctionnelles spécifiques pour la
renovation

Gasversorgungssysteme – Rohrlei-
tungen mit einem maximal zulässigen
Betriebsdruck bis einschließlich
16 bar – Teil 4: Besondere funktionale
Empfehlungen für die Sanierung

This European Standard was approved by CEN on 1999-04-09.

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.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Contents

	Page
Foreword	3
1 Scope	4
2 Normative references	4
3 Definitions	4
4 Design	5
4.1 General	5
4.2 Pressure uprating	5
4.3 Selection of renovation technique	5
4.4 Consultation with third parties	6
5 Construction	6
5.1 General	6
5.2 Disconnection/Reconnection of sections of the gas supply system	6
5.3 Excavation/No dig techniques	7
5.4 Laying	7
6 Pressure testing	8
7 Service line transfer	8
8 Commissioning and decommissioning	8
9 Record system	8
Annex A (informative) Chart of renovation techniques	9
Annex B (informative) Advantages and disadvantages of renovation techniques	10
Annex C (informative) Renovation with continuous or discrete pipe	13
Annex D (informative) Lining with close-fit pipe	16
Annex E (informative) Lining with cured-in-place pipe	19
Annex F (informative) Renovation by bursting or splitting existing pipe	21
Annex G (informative) Renovation by the pulling or pushing of the existing pipe	23
Annex H (informative) Joint repairs	25
Annex J (informative) Resin lining	28

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 234 "Gas supply", 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 July 2000, and conflicting national standards shall be withdrawn at the latest by July 2000.

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.

There is a complete suite of functional standards prepared by CEN/TC 234 "Gas supply" to cover all parts of the gas supply system from the input of gas to the transmission system up to the inlet connection of the gas appliances, whether for domestic, commercial or industrial purposes.

In preparing this standard, a basic understanding of gas supply by the user has been assumed.

Gas supply systems are complex and the importance on safety of their construction and use has led to the development of very detailed codes of practice and operating manuals in the member countries. These detailed statements embrace high standards of gas engineering and the specific requirements imposed by the legal structures of the member countries.

For the materials used in association with this standard, reference shall be made to the standards of CEN/TC 155 "Plastics piping and ducting systems" for plastic materials and to relevant EN standards for other materials.

1 Scope

This European standard describes specific functional recommendations for the renovation of pipeworks existing in gas supply systems and includes some requirements for materials other than plastics covered by CEN/TC 155 "Plastics piping and ducting systems". This European standard is intended to be applied in association with EN 12007-1.

This European Standard does not apply to pipework in above ground installations.

This European Standard specifies common basic principles for gas supply systems. Users of this European Standard should be aware that more detailed national standards and/or codes of practice can exist in the CEN member countries.

This European Standard is intended to be applied in association with these national standards and/or codes of practice setting out the above-mentioned basic principles.

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 12007-1	Gas supply systems - Pipelines for maximum operating pressure up to and including 16 bar - Part 1: General functional recommendations
EN 12007-2	Gas supply systems - Pipelines for maximum operating pressure up to and including 16 bar - Part 2: Specific functional recommendations for polyethylene (MOP up to and including 10 bar)
EN 12007-3	Gas supply systems - Pipelines for maximum operating pressure up to and including 16 bar - Part 3: Specific functional recommendations for steel
EN 12327	Gas supply systems - Pressure testing, commissioning and decommissioning procedures - Functional requirements

3 Definitions

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

3.1 gas supply system: The pipeline systems including pipework and their associated stations or plants for the transmission and distribution of gas.

3.2 pipeline operator: The private or public organisation authorised to design, construct and/or operate and maintain the gas supply system.

3.3 competent person: A person who is trained, experienced and approved to perform activities relating to gas supply systems.

NOTE : Means of approval, if any, will be determined within each country.

3.4 main: A pipework in a gas supply system to which service lines are connected.

3.5 pipework: An assembly of pipes and fittings.

3.6 station: A plant or facility for the operation and/or processing of gas supply systems.

3.7 service line transfer: The act of switching over the service pipe connection from the old pipe to the new one.

3.8 pressure uprating: activities pertaining to the increase of the operating pressure beyond the existing maximum operating pressure level of a gas supply system.