# Gaasivarustussüsteemid. Gaasi ülekande- ja jaotustorustike rõhureleerjaamad. Talituslikud nõuded KONSOLIDEERITUD TEKST

Gas supply systems - Gas pressure regulating stations for transmission and distribution - Functional requirements CONSOLIDATED TEXT



# FESTI STANDARDI FESSÕNA

## **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 12186:2007 sisaldab Euroopa standardi EN 12186:2000+A1:2005 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 13.12.2007 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 16.02.2000.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12186:2007 consists of the English text of the European standard EN 12186:2000+A1:2005.

This standard is ratified with the order of Estonian Centre for Standardisation dated 13.12.2007 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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**ICS** 23.060.40, 27.060.20, 75.200

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# EN 12186

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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# **English version**

Gas supply systems

# Gas pressure regulating stations for transmission and distribution

Functional requirements

Systèmes d'alimentation en gaz – Postes de détente-régulation de pression de gaz pour le transport et la distribution – Prescriptions fonctionnelles Gasversorgungssysteme – Gas-Druckregelanlagen für Transport und Verteilung – Funktionale Anforderungen

This European Standard was approved by CEN on 1999-08-16.

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

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# Page 2 EN 12186 : 2000

# Contents

Page	ļ
Foreword 4	Ļ
1 Scope 4	ļ
2 Normative references 5	i
3 Definitions, symbols and abreviations 5	j
3.1 General 5   3.2 Station 6   3.3 Pressure, design and testing 7   3.4 Pessure control 7	7
4 Quality system	ļ
5 Layout of the gas pressure regulating station 8	ı
5.1 General 8   5.2 Layout of the site 9   5.3 Site security 9	}
6 Housings 9	
6.1 General 9   6.2 Requirements for housings 10   6.3 Underground stations 11	) 
7 Design of the station	
7.1 General 12   7.2 Gas pre-heating 12   7.3 Filters, separators, scrubbers 12   7.4 Noise control 12   7.5 Apertures and vent lines 13   7.6 Electrical installation 13   7.7 Lightning and earthing 13   7.8 Cathodic protection and electrical isolation 14   7.9 Ancillaries 14   7.10 Pipework 14   7.11 Welding 14   7.12 Instrumentation pipework 14   7.13 Stress analysis 15   7.14 Isolating valves 16	2 2 3 3 3 4 4 4 5 6
8 Pressure control	,
8.1 General 17   8.2 Pressure regulating system 17   8.3 Pressure safety system 17   8.4 Non-venting pressure safety devices 18   8.5 Venting pressure safety devices 19   8.6 Pressure warning system 19   8.7 Instrumentation 19   8.8 Bypasses 19	7 7 8 9 9
9 Testing 20	)
9.1 General 20   9.2 Strength test 20   9.3 Tightness test 20   9.4 Reporting 20	0

10 Commissioning
11 Operation and maintenance
11.1 General
11.2 Data
11.4 Training
11.5 Work undertaken
Annex A (informative) Bibliography
Ochment is a preview senerated by the

Page 4 EN 12186 : 2000

#### **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 August 2000, and conflicting national standards shall be withdrawn at the latest by August 2000.

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 tor 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 recognised standards of gas engineering and the specific requirements imposed by the legal structures of the member countries.

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.

### 1 Scope

This European Standard contains the relevant functional requirements for gas pressure regulating stations, which form part of gas transmission or distribution systems. It is applicable to the design, materials, construction, testing, operation and maintenance of gas pressure regulating stations.

This European Standard does not apply to gas pressure regulating stations commissioned prior to the publication of this standard.

The stations covered by this European Standard have a maximum upstream operating pressure which does not exceed 100 bar. For higher maximum upstream operating pressures this standard should be used as a guideline.

If the inlet pipework of the station is a service line and the maximum upstream operating pressure does not exceed 16 bar and the design flowrate is equal to or less than 200 m<sup>3</sup>/h under normal conditions, EN 12279 applies.

Basic system requirements for gas pressure regulating stations are contained in this European Standard. Requirements for individual components (valves, regulators, safety devices, pipes, etc.) or installation of the components are contained in the appropriate European Standards.

For combined regulating and measuring stations, the additional requirements of EN 1776 can apply.

The requirements in this European standard do not apply to the design and construction of auxiliary facilities such as sampling, calorimetering, odorisation systems and density measuring. These facilities are covered by the appropriate European Standards, where existing, or other relevant standards.

The requirements of this European standard are based on good gas engineering practice under conditions normally encountered in the gas industry. Requirements for unusual conditions cannot be specifically provided for, nor are all engineering and construction details prescribed.

The requirements in this European standard are based on the physical and chemical data of gaseous fuels in accordance with table 1 of EN 437:1993 for first and second family gases. Additional requirements in the case of gaseous fuels heavier than air are and/or sour gases are not covered by this European Standard.

The objective of this European standard is to ensure the safe operation of such stations. This does not, however, relieve all concerned of the responsibility for taking the necessary care and applying effective quality management during the design, construction and operation.

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 principles.

In the event of conflicts in terms of more restrictive requirements in national legislation/regulation with the requirements of this standard, the national legislation/regulation shall take precedence.

#### 2 Normative references

This European Standard incorporates by dated or undated references, 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 standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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EN 334	Gas pressure regulators for inlet pressures up to 100 bar
EN 437:1993	Test gases - Test pressures - Appliance categories
EN 1594	Gas supply systems - Pipelines - Maximum operating pressure over 16 bar - Functional requirements
EN 1775	Gas supply systems - Gas pipework for buildings - Maximum operating pressure $\leq 5~\text{bar}$ - Functional recommendations
EN 1776	Gas supply - Natural gas measuring stations - Functional requirements
EN 10204	Metallic products - Types of inspection documents
EN 12007-1	Gas supply systems - Pipelines for maximum operating pressure up to and including 16 bar - Part 1: General functional recommendations
EN 12279	Gas supply systems - Gas pressure regulating installations on service lines - Functional requirements
EN 12327	Gas supply systems - Pressure testing, commissioning and decommissioning procedures - Functional requirements
EN 12732	Gas supply systems - Welding steel pipework - Functional requirements
prEN 50154	Electrical installations in potentially explosive gas atmospheres (other than mines)
EN 60079-10	Electrical apparatus for explosive gas atmospheres - Part 10: Classification of hazardous areas (IEC 60079-10:1995)

### 3 Definitions, symbols and abbreviations

For the purpose of this standard, the following definitions, symbols and abbreviations apply:

#### 3.1 General

**3.1.1 authorized person:** A competent person who is appointed to fulfill a given task on gas supply systems or installation pipework.

NOTE: The appointment procedure is defined in each member country.