

Gas supply systems — Gas pressure regulating stations for transmission and distribution — Functional requirements

The European Standard EN 12186:2000, including amendment A1:2005, has the status of a British Standard

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National foreword

This British Standard is the official English language version of EN 12186:2000, including amendment A1:2005.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 16, an inside back cover and a back cover.

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English version

Gas supply systems — Gas pressure regulating stations for transmission and distribution — Functional requirements

(includes amendment A1:2005)

Systèmes d'alimentation en gaz — Postes de détente- régulation de pression de gaz pour le transport et la distribution — Prescriptions fonctionnelles
(inclut l'amendement A1:2005)

Gasversorgungssysteme — Gas-Druckregelanlagen für Transport und Verteilung — Funktionale Anforderungen
(enthält Änderung A1:2005)

This European Standard was approved by CEN on 16 August 1999. Amendment A1 was approved by CEN on 7 July 2005.

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CEN

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

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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of an identical text or by endorsement, at the latest by August 2000, and conflicting national standards shall be withdrawn at the latest by August 2000.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 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 recognized 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.

Foreword to amendment A1

This European Standard (EN 12186:2000/A1:2005) has been prepared by Technical Committee CEN/TC 234 “Gas supply”, the secretariat of which is held by DIN.

This Amendment to the European Standard EN 12186:2000 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

This amendment replaces 11.3 of EN 12186:2000.

This amendment is meant to give guidance to the manufacturers concerning maintenance aspects which have to be considered in their operating manuals in order to fulfil the PED requirements.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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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 m³/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, calorimetry, odorization 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 EN 437:1993, Table 1 for first and second family gases. Additional requirements in the case of gaseous fuels heavier than air 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.

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 ≤ 5 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)