Gas infrastructure - Gas installation pipework with an operatingpressure greater than 0,5 bar for industrial installations andgreater than 5 bar for industrial and non-industrial installations -Part 2: Detailed functional requirements for commissioning,operation and maintenance

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15001-2:2008 sisaldab Euroopa standardi EN 15001-2:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 15001-2:2008 consists of the English text of the European standard EN 15001-2:2008.
Standard on kinnitatud Eesti Standardikeskuse 15.12.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 15.12.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.11.2008.	Date of Availability of the European standard text 12.11.2008.
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English Version

Gas infrastructure - Gas installation pipework with an operating pressure greater than 0,5 bar for industrial installations and greater than 5 bar for industrial and non-industrial installations - Part 2: Detailed functional requirements for commissioning, operation and maintenance

Systèmes d'alimentation en gaz - Canalisations d'installation de gaz avec une pression de service supérieure à 0,5 bar pour les installations industrielles et supérieure à 5 bar pour les installations industrielles et non industrielles - Partie 2: Exigences fonctionnelles détaillées pour la mise en service, l'exploitation et la maintenance

Gasversorgungssysteme - Gas-Leitungsanlagen mit einem Betriebsdruck größer 0.5 bar für industrielle Installationen und größer 5 bar für industrielle und nicht-industrielle Installationen - Teil 2: Detaillierte funktionale Anforderungen an Inbetriebnahme, Betrieb und Instandhaltung

This European Standard was approved by CEN on 11 October 2008.

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 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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 15001-2:2008) 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 May 2009, and conflicting national standards shall be withdrawn at the latest by May 2009.

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

There is a complete suite of functional standards prepared by CEN/TC 234 “Gas infrastructure” 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.

In the event of conflicts in terms of more restrictive requirements in national legislation/regulation with the requirements of this standard, national legislation/regulation takes precedence as illustrated in CEN /TR 13737.

NOTE CEN/TR 13737 contains:
- clarification of relevant legislation/regulations applicable in a country;
- if appropriate, more restrictive national requirements;
- national contact point for the latest information.

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, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies detailed functional requirements for the commissioning, operation and maintenance of

- industrial gas installations and assemblies with an operating pressure greater than 0,5 bar and of
- non-industrial gas installations (residential and commercial) with an operating pressure greater than 5 bar,

starting from the outlet of the network operator's point of delivery up to the inlet connection to the gas appliance; normally the inlet isolation valve. This European Standard also covers the inlet connection to the gas appliance comprising of the pipework that does not fall within the scope of the appliance standard.

This standard applies to gas installations operating at ambient temperatures between –20 °C and 40 °C and operating pressures up to and including 60 bar. For operating conditions outside these limitations, reference should additionally be made to EN 13480 for metallic pipework.

For industrial gas installations up to and including 0,5 bar and for non-industrial (residential and commercial) gas installations up to and including 5 bar EN 1775 applies.

For gas installations that do not fall within the scope of EN 1775 or other European Standards, this European Standard applies.

In this European Standard, the term "gas" refers to combustible gases, which are gaseous at 15 °C and 1 013 mbar absolute atmospheric pressure. These gases are commonly referred to as manufactured gas, natural gas or Liquefied Petroleum Gas (LPG). They are also referred to as first, second or third family gases (see table 1 of EN 437:2003).

LPG storage vessels (including all ancillaries fitted directly to storage vessels) are excluded. Also excluded are LPG installations and sections of LPG installations operating at vapour pressure (e.g. between the storage vessel and its pressure regulator).

In this European Standard, all pressures are gauge pressures unless otherwise stated.

For gas installations within the scope of this standard, national legislation and regulations have to be taken into account.

Functional requirements for design, selection of materials, construction, inspection and testing of industrial gas installations and assemblies with an operating pressure greater than 0,5 bar and of gas installations greater than 5 bar in buildings and areas intended for residential, commercial, public and mixed uses are described in prEN 15001-1.

2 Normative references

The following referenced documents are indispensable for the application 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 12954, *Cathodic protection of buried or immersed metallic structures — General principles and application for pipelines*

prEN 15001-1, *Gas installation pipework with an OP greater than 05 bar for industrial installations and greater than 5 bar for industrial and non-industrial installations — Part 1: Detailed functional requirements for design, materials, construction, inspection and testing*

EN 60079-10, *Electrical apparatus for explosive gas atmospheres — Part 10: Classification of hazardous areas (IEC 60079-10:2002)*

EN 60079-14, *Electrical apparatus for explosive gas atmospheres — Part 14: Electrical installations in hazardous areas (other than mines) (IEC 60079-14:2002)*

EN 60079-17, *Explosive atmospheres — Part 17: Electrical installations inspection and maintenance (IEC 60079-17:2007)*

EN 60079-29-1, *Explosive atmospheres — Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases (IEC 60079-21-1:2007, modified)*

3 Terms and definitions

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

3.1 Definitions relating to pressure

3.1.1
pressure
gauge pressure of the fluid inside the system, measured in static conditions

3.1.2
design pressure (DP)
pressure at which the design calculations are based; this is equivalent to the maximum allowable pressure (PS) as given in the PED

3.1.3
operating pressure (OP)
pressure which occurs within pipework under normal operating conditions

3.1.4
maximum incidental pressure (MIP)
maximum pressure which pipework can experience during a short time, limited by the safety devices

3.2 Definitions relating to the gas installation

3.2.1
pipework
assembly of pipes and fittings

3.2.2
components
any item from which a gas supply system or installation is constructed. A distinction is drawn between the following groups of components:

— ancillaries (for example pressure regulators, valves, safety devices, expansion joints, and insulating joints);

— pipes, including bends made from pipe;

— instrumentation pipework;

— fittings (for example reducers, tees, factory-made elbows, flanges, dome ends, welding stubs, and mechanical joints)