



SLOVENSKI STANDARD
SIST EN 1775:1998
01-oktober-1998

Gas supply - Gas pipework for buildings - Maximum operating pressure \leq 5 bar -
Functional recommendations

Gasversorgung - Gasleitungsanlagen für Gebäude - Maximal zulässiger Betriebsdruck
 \leq 5 bar - Funktionale Empfehlungen

Alimentation en gaz - Tuyauterie de gaz pour les bâtiments - Pression maximale de
service \leq 5 bar - Recommandations fonctionnelles

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Ta slovenski standard je istoveten z: EN 1775:1998

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ICS:

91.140.40 Sistemi za oskrbo s plinom Gas supply systems

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EUROPEAN STANDARD

EN 1775

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ICS 91.140.40

Descriptors: gas installation, buildings, junctions, recommendations, design, equipment specifications, safety, accident prevention, safety measures, tests, operating requirements, maintenance

English version

Gas supply - Gas pipework for buildings - Maximum operating pressure < 5 bar - Functional recommendations

Alimentation en gaz - Tuyauterie de gaz pour les bâtiments
- Pression maximale de service < 5 bar -
Recommandations fonctionnelles

Gasversorgung - Gasleitungsanlagen für Gebäude -
Maximal zulässiger Betriebsdruck < 5 bar - Funktionale
Empfehlungen

This European Standard was approved by CEN on 11 December 1997.

CEN members are bound to comply with the CEN/GENELEC 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.

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 Central Secretariat has the same status as the official versions.

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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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 July 1998, and conflicting national standards shall be withdrawn at the latest by July 1998.

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.

Introduction

This functional standard is to be taken into account as a reference standard in codes of practice in CEN member countries. These codes of practice also need to take account of regulations made by the municipal, regional or national authorities in each country in order to design and construct gas installations for buildings.

This standard contains general recommendations on the safety of persons, animals and property and the protection of their environment.

The recommendations in this standard are intended to be applied by competent persons who have suitable knowledge and experience.

This standard does not consider contractual agreements, qualifications or authorizations imposed by gas distributors or public authorities upon companies who design or otherwise work on gas installations.

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1 Scope

1.1 This standard specifies the general recommendations for the design, construction, testing, commissioning, operation and maintenance of installation pipework, that is the pipework between the point of delivery of the gas and the inlet connection to the gas appliance.

This standard specifies common basic principles for gas installation pipework. Users of this European standard should be aware that more detailed national standards and/or codes of practice may exist in the CEN member countries.

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

This standard is applicable to installation pipework having a maximum operating pressure (MOP) less than or equal to 5 bar.

This standard is applicable to new installation pipework as well as to replacements of, or extensions to, existing installation pipework.

This standard does not contain recommendations for the laying of buried pipework. For more information, reference should be made to prEN 12007-1, prEN 12007-2 and prEN 12007-3.

For more information on gas pressure regulating installations, reference should be made to prEN 12279.

For more information on gas metering systems, reference should be made to prEN 1776.

1.2 This standard is applicable to installation pipework supplied from gas distribution systems. LPG installations supplied directly from storage vessels are excluded.

1.3 In this standard the term 'gas' refers to combustible gases, which are gaseous at 15 °C and 1 013 mbar. These gases, generally odorized for safety reasons, are commonly referred to as manufactured gas, natural gas or liquefied petroleum gases (LPG). They are also referred to as first, second or third family gases (see table 1 of EN 437 : 1993).

In this standard, all pressures are gauge pressures.

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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 437:1993	Test gases - Test pressures - Appliances categories
EN 751-1	Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases, potable water, and hot water - Part 1 : Anaerobic jointing compounds

EN 751-2	Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases, potable water, and hot water - Part 2 : Non-hardening jointing compounds
EN 751-3	Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases, potable water, and hot water - Part 3 : Unsintered PTFE tapes
prEN 1555-3	Plastics piping systems for gaseous fuels supply - polyethylene (PE) - Part 3 : Fittings
prEN 1776	Functional requirements for gas metering systems for natural gas - Design, materials, construction, reliability, calibration, operation and maintenance
prEN 10226-1	Pipe threads where pressure tight joints are made on the threads - Part 1 : Designation dimensions and tolerances
prEN 10227-1	Pipe threads where pressure tight joints are not made on the threads - Part 1 : Designation dimensions and tolerances
prEN 12007-1	Gas supply systems - Pipelines - Maximum operating pressure ≤ 16 bar - Part 1: General functional recommendations
prEN 12007-2	Gas supply systems - Pipelines - Maximum operating pressure ≤ 16 bar - Part 2: Specific functional recommendations for polyethylene (MOP ≤ 10 bar)
prEN 12007-3	Gas supply systems - Pipelines - Maximum operating pressure ≤ 16 bar - Part 3: Specific functional recommendations for steel
prEN 12279	Gas supply systems - Gas pressure regulating installation service lines - Functional requirements

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3 Definitions

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

3.1 Definitions relating to pressures

3.1.1 pipework design pressure

Pressure for which the designer allows in specifying materials and construction methods in order that the pipework will withstand the maximum incidental pressure, tightness test pressure or strength test as applicable.

3.1.2 maximum incidental pressure (MIP)

Maximum pressure which pipework can experience during a short time, limited by the safety devices.

3.1.3 operating pressure (OP)

Pressure which occurs within pipework under normal operating conditions.

3.1.4 maximum operating pressure (MOP)

Maximum pressure at which pipework can be operated under normal operating conditions.

3.1.5 tightness test pressure

Pressure applied to pipework during tightness testing.

3.1.6 strength test pressure (STP)

Pressure applied to pipework during strength testing.

3.2 Definitions relating to the gas installation

3.2.1 pipework

Assembly of pipes and fittings.

NOTE : Fittings include, for example, means of isolation, valves, regulators, meters.

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3.2.2 point of delivery

Point of transfer of ownership of gas from the supplier to the customer.

NOTE : This may be at a means of isolation or at the meter outlet connection.

3.2.3 installation pipework

Pipework downstream of the point of delivery terminating at the appliance inlet connection.

NOTE: This pipework is normally the property of the customer.

3.2.4 service pipe

Pipework from the main to the point of delivery of the gas into the installation pipework.

3.2.5 riser

Section of vertical pipework supplying a building having several floors.

3.2.6 common lateral

Section of generally horizontal pipework supplying one or more riser.

3.2.7 main

Pipework in a gas distribution system to which service pipes are connected.

3.2.8 ventilated space

Space where the air is continuously changed by natural or mechanical means.

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3.2.9 equipotential bond (standards.iteh.ai)

Means of ensuring that metallic gas pipework and other metallic parts of the building are at the same potential. <https://standards.iteh.ai/catalog/standards/sist/44d650ca-dfd7-4a9c-8e2b-5aca24285750/sist-en-1775-1998>

NOTE : For safety reasons, this equipotential bonding is connected to earth.

3.3 Definitions relating to means of isolation

3.3.1 means of isolation

Device which is intended to interrupt the gas flow in pipework.

NOTE : This device may be for example a manually operable valve.

3.3.2 individual means of isolation

Means of isolation which is intended to isolate installation pipework.

3.3.3 appliance means of isolation

Means of isolation which is intended to isolate an appliance.

3.4 Definitions relating to jointing methods

3.4.1 joint

Means of joining elements of a gas installation.

3.4.2 flanged joint

Joint in which gas tightness is achieved by compression of a gasket between the faces of two flanges.

3.4.3 threaded joint

Joint in which gas tightness is achieved by metal to metal contact within threads with the assistance of a sealant.

3.4.4 mechanical joint

Joint in which gas tightness is achieved by compression with or without a seal.

NOTE : This joint can be easily disassembled and reassembled.
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3.5 Definitions relating to fittings

3.5.1 regulator

Device which reduces the gas pressure to a set value and maintains it within prescribed limits.

3.5.2 meter

Device for measuring a volume of gas or a quantity of energy.

3.5.3 appliance connection

Flexible pipe or length of rigid pipework connecting an appliance means of isolation with the appliance inlet connection.

3.5.4 flexible appliance connector

Fitting of flexible pipework to be fitted between the end of fixed pipework and the appliance inlet connection.

3.5.5 isolating joint

Device intended to interrupt the electrical continuity of the pipework.

3.5.6 sleeve

Protective pipe through which a gas pipe passes.

3.5.7 siphon

Receptacle connected to the lowest part of a section of pipework in which liquids are collected for removal.

3.5.8 reverse flow protection system

Security device which comes into action when reverse flow of gases occurs.

3.5.9 vent pipe

Pipe connected to a safety or control device to release gas at a safe position.

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3.6 Definitions relating to tests

3.6.1 strength test

Specific procedure intended to verify that the pipework meets the requirements for mechanical strength.