SLOVENSKI STANDARD
oSIST prEN 12007-5:2013

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Infrastruktura za plin - Cevovodni sistemi za najvišji delovni tlak do vključno 16 bar - 5. del: Priključni cevovodi - Posebne funkcionalne zahteve

Gas infrastructure - Pipelines for maximum operating pressure up to and including 16 bar - Part 5: Service lines - Specific functional requirements

Gasinfrastruktur - Rohrleitungen mit einem maximal zulässigen Betriebsdruck bis einschließlich 16 bar - Teil 5: Hausanschlussleitungen - Spezifische funktionale Anforderungen

Infrastructures gazières - Canalisations pour pression maximale de service inférieure ou égale à 16 - Partie 5: Branchements - Recommandations fonctionnelles spécifiques

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ICS:

23.040.01	Deli cevovodov in cevovodi na splošno	Pipeline components and pipelines in general

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Gas infrastructure - Pipelines for maximum operating pressure up to and including 16 bar - Part 5: Service lines - Specific functional requirements

Infrastructures gazières - Canalisations pour pression maximale de service inférieure ou égale à 16 - Partie 5: Branchements - Recommandations fonctionnelles spécifiques

Gasinfrastruktur - Rohrleitungen mit einem maximal zulässigen Betriebsdruck bis einschließlich 16 bar - Teil 5: Hausanschlussleitungen - Spezifische funktionale Anforderungen

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (prEN 12007-5:2012) has been prepared by Technical Committee CEN/TC 234 “Gas infrastructure”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This draft European Standard is part of the series EN 12007 "Gas infrastructure — Pipelines for maximum operating pressure up to and including 16 bar" which comprises the following:

— *Part 1 General functional requirements*

— *Part 2 Specific functional requirements for polyethylene (MOP up to and including 10 bar)*

— *Part 3 Specific functional recommendations for steel*

— *Part 4 Specific functional requirements for renovation*

Introduction

This European Standard describes the general functional requirements for gas supply through service line pipe systems and covers the pressure range up to and including 16 bar maximum operating pressure (MOP). It gives normative and informative references for safe and secure gas infrastructures. It applies to their design, construction, operation and the related aspects of safety, environment and public health, all in order to provide a safe and secure supply of gas.

This European Standard is intended to be used in addition to the EN 12007 series of European Standards.

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

Existing industrial safety regulations applying to work areas, safety devices and safe work practices are not intended to be supplanted by this European Standard.

Managers with responsibilities for the design, construction and operation of gas infrastructures should have regard to the guidance given in this European Standard, the EN 12007 series of European Standards and to other relevant standards. It is the responsibility of these managers and engineers to apply these functional requirements, supplemented with other proven good practice to the particular circumstances of each gas infrastructure.

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

The designer, constructor or operator of service line and pipeline systems is cautioned that this European Standard is not a design handbook or code of practice. Additional national or company standards describing the details are needed. These detailed standards should be in line with the basic principles of this European Standard.

This European Standard specifies common basic principles for gas infrastructure. Users of this European Standard should be aware that more detailed national standards and/or code of practice may 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.

In the event of conflicts in terms of more restrictive requirements in national legislation/regulation with the requirements of this European Standard, the national legislation/regulation takes precedence as illustrated in CEN/TR 13737 (all parts).

CEN/TR 13737 (all parts) give:

— clarification of all legislations/regulations applicable in a member state;

— if appropriate, more restrictive national requirements;

— a national contact point for the latest information.

All pressures are gauge pressure unless stated otherwise.

In preparing this European Standard it was recognized that the suite of relevant European Standards is incomplete. Reference may be made where appropriate to international, national or other standards until relevant European Standards are available.

This European Standard represents the recommendations at the time of its preparation. It shall not be applied retrospectively to installations before the publication date unless specifically stated.

1 Scope

This European Standard describes the specific functional requirements for service lines in addition to the general functional requirements of EN 12007-1 for:

a) a maximum operating pressure (MOP) up to and including 16 bar;

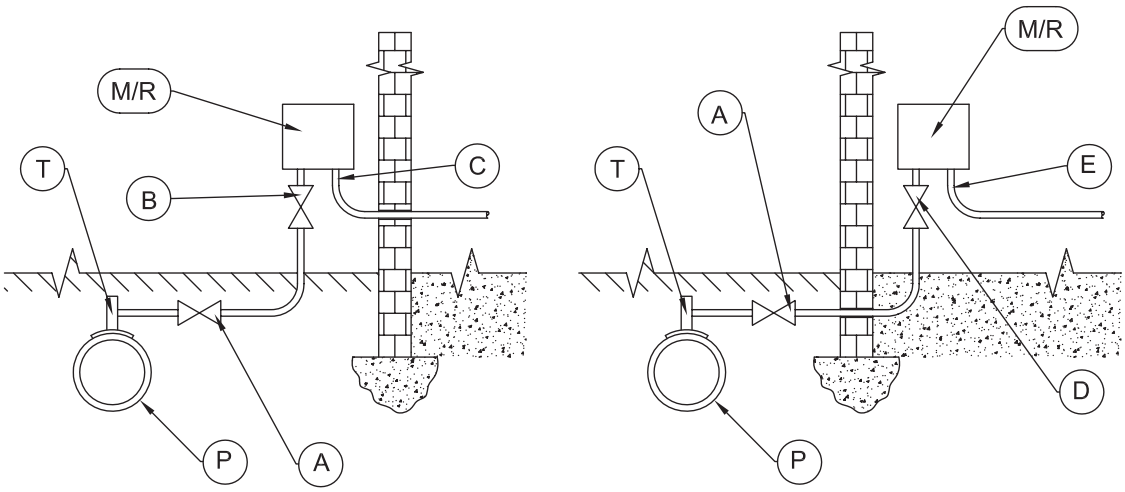
b) an operating temperature between -20 °C and +40 °C.

The service line is the physical asset comprising of the pipeline from the gas main branch saddle or top tee to the outlet of the distribution system operator's nominated point(s) of delivery (for example: isolation valve, regulator, meter connection or combination of regulator and isolation valve).

The ownership and operation responsibility can vary between member states. The extent of the service line can differ in each member state. To illustrate this, the various points of deliveries are indicated in Figure 1. Consult Figure 1 (A/B/C/D/E) and member state regulations and standards.

NOTE 1 The valve at point A is not necessarily utilised by each member state.

NOTE 2 National preference for points of deliveries should be stated in the national foreword.



Key:

— denotes gas main

— denotes Top Tee / Branch Saddle

— denotes Meter and/or Regulator

Distribution system operator nominated Point(s) of Delivery:

— denotes outlet of below ground service line valve outside the building

— denotes outlet of above ground service line valve outside the building

— denotes outlet of meter/regulator outside the building

— denotes outlet of above ground service line valve inside the building

— denotes outlet of meter/regulator inside the building

Figure 1 — Distribution system operator nominated point of delivery

This European Standard includes technical requirements for the design, construction, operation, maintenance and abandonment of the service line asset.

Specific functional requirements for polyethylene pipelines are given in EN 12007-2.

Specific functional requirements for steel pipelines are given in EN 12007-3.

Functional recommendations for pipework for buildings are given in EN 1775.

Functional requirements for pressure regulating installations are given in EN 12279.

Functional requirements for measuring systems are given in EN 1776.

Functional requirements for pressure testing, commissioning and decommissioning are given in EN 12327.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 751-1, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases 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 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 and hot water — Part 3: Unsintered PTFE tapes.*

EN 1254-4, *Copper and copper alloys — Plumbing fittings — Part 4: Fittings combining other end connections with capillary or compression ends*

EN 1775:2008, *Gas supply — Gas pipework for buildings — Maximum operating pressure less than or equal to 5 bar — Functional recommendations*

EN 1776, *Gas supply systems — Natural gas measuring stations — Functional requirements*

EN 10226-1, *Pipe threads where pressure tight joints are made on the threads — Part 1: Taper external threads and parallel internal threads — Dimensions, tolerances and designation*

EN 10226-2, *Pipe threads where pressure tight joints are made on the threads — Part 2: Taper external threads and taper internal threads — Dimensions, tolerances and designation*

EN 10241, *Steel threaded pipe fittings*

EN 10242, *Threaded pipe fitting in malleable cast iron*

EN 12007-1:2012, *Gas infrastructure — Pipelines for maximum operating pressure up to and including 16 bar — Part 1: General functional recommendations*

EN 12007-2:2012, *Gas infrastructure — 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)*

FprEN 12007-3, *Gas infrastructure — Pipelines for maximum operating pressure up to and including 16 bar — Part 3: Specific functional requirements for steel*

EN 12007-4, *Gas infrastructure — Pipelines for maximum operating pressure up to and including 16 bar — Part 4: Specific functional recommendations for renovation*

EN 12186, *Gas supply systems — Gas pressure regulating stations for transmission and distribution — Functional requirements*

EN 12279, *Gas supply systems — Gas pressure regulating installations on service lines — Functional requirements*

EN 12327, *Gas infrastructure — Pressure testing, commissioning and decommissioning procedures — Functional requirements*

CEN/TR 13737, *Implementation Guide for functional standards prepared by CEN/TC 234 Gas infrastructure*

3 Terms and definitions

3.1 General terminology

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

3.1.1
gas infrastructure
pipeline systems including pipework and their associated stations or plants for the transmission and distribution of gas

3.1.2
gas main
pipework in a gas infrastructure to which service lines are connected

3.1.3
service line
pipework from the gas main to the point of delivery of the gas into the installation pipework

3.1.4
point of delivery
point of a gas network where the gas is transferred to the user

Note 1 to entry: This can be at a means of isolation (e.g. at the outlet of a LPG storage vessel) or at a meter connection.

Note 2 to entry: For this European Standard, the point of delivery is typically nominated by the distribution system operator and can be defined in National Regulations or Codes of Practice, see Figure 1.

3.1.5
competent person
person who is trained, experienced and approved to perform activities relating to gas infrastructures or installation pipework.

Note 1 to entry: Means of approval, if any, will be determined within each member country.

3.1.6
flow limiting device
purpose manufactured self-actuating device which can limit uncontrolled excess flow of gas.

3.1.7
installation pipework
pipework downstream of the point of delivery terminating at the appliance inlet connection.

Note 1 to entry: This pipework is normally the property of the customer.

3.1.8
purge
operation of safely removing gas (normally air or inert gas) from pipework and replacing it with distributed gas, or the reverse process.

Note 1 to entry: Means of approval are determined within each country

3.1.9
pipeline components
elements from which the pipeline is constructed

Note 1 to entry: The following are distinct pipeline elements: