ICS 23.040.01 SLOVENSKÁ TECHNICKÁ NORMA Marec 2020

STN	**Zariadenia a príslušenstvo na LPG Potrubné systémy a podpery LPG v kvapalnej fáze a plynnej tlakovej fáze**	**STN EN 16125 07 8631**

LPG Equipment and Accessories - Pipework systems and supports - LPG in liquid phase and vapour pressure phase

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/20

Obsahuje: EN 16125:2019

Oznámením tejto normy sa ruší
STN EN 16125 (07 8631) z mája 2016

130161

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16125

September 2019

ICS 23.040.01 Supersedes EN 16125:2015

English Version

LPG Equipment and Accessories - Pipework systems and supports - LPG in liquid phase and vapour pressure phase

Equipements pour GPL et leurs accessoires - Systèmes de canalisations et supports - Phase liquide et phase vapeur

Flüssiggas-Geräte und Ausrüstungsteile - Rohrleitungssysteme und -befestigungen - Flüssigphase und ungeregelte Gasphase von Flüssiggas (LPG)

This European Standard was approved by CEN on 28 July 2019.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

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

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Ref. No. EN 16125:2019 E

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European foreword

This document (EN 16125:2019) has been prepared by Technical Committee CEN/TC 286 “LPG Equipment and Accessories”, the secretariat of which is held by NSAI.

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of an identical text or by endorsement, at the latest by March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

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

This document supersedes EN 16125:2015.

The main technical changes include:

— the removal of the environmental annex and associated clauses in favour of a reference to CEN/TS 16765,

— the removal of Annex E (*Manufacturing and type testing of composite pipes*) with the intent of developing a dedicated composite pipe manufacturing standard within CEN/TC 155. At the time of this document going to formal vote, the proposed project within CEN/TC 155 is under consideration.

At all stages of building and operating pipework systems the use of materials and disposal of waste material may have an effect on the environment. CEN/TS 16765 [10] sets out environmental considerations for this document.

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

Introduction

This document calls for the use of substances and procedures that may be injurious to health and/or the environment if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations at any stage.

This document is intended for users who take on the responsibility for the assembly of the pipework on site.

Protection of the environment is a key political issue in Europe and elsewhere. Protection of the environment is taken in a very broad sense, as in the total life cycle aspects of, e.g. a product on the environment, including expenditure of energy and during all phases from mining of raw materials, fabrication, packaging, distribution, use, scrapping, recycling of materials, etc.

It is recommended that manufacturers develop an environmental management policy. For guidance see the ISO 14004 [6]. It has been assumed in the drafting of this document that the execution of its provisions is entrusted to appropriately qualified and experienced people.

All pressures are gauge unless otherwise stated.

NOTE This document uses measurement of material properties, dimensions and pressures. All such measurements are subject to a degree of uncertainty due to tolerances in measuring equipment, etc. It could be beneficial to refer to the leaflet “measurement uncertainty leaflet (SP INFO 2000 27 uncertainty.pdf)”[13].

1 Scope

This document specifies the requirements for the design, construction, testing, commissioning, operation and maintenance of LPG pipework in both the liquid phase and at full vapour pressure.

This document is applicable to LPG pipework having a maximum allowable pressure of less than or equal to 25 bar.

This document is applicable to new LPG pipework as well as to replacements of, or extensions to, existing LPG pipework.

This document is not applicable to:

— pipelines (as defined in 2014/68/EU, PED) and their accessories;

— pipework for the propulsion systems of road vehicles or boats; and

— pipework on ships.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 549, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*

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 837 (all parts), *Pressure gauges*

EN 1045, *Brazing – Fluxes for brazing – Classification and technical delivery conditions*

EN 1057, *Copper and copper alloys – Seamless, round copper tubes for water and gas in sanitary and heating applications*

EN 1092-1, *Flanges and their joints – Circular flanges for pipes, valves, fittings and accessories, PN designated – Part 1: Steel flanges*

EN 1254-1, *Copper and copper alloys - Plumbing fittings – Part 1: Fittings with ends for capillary soldering or capillary brazing to copper tubes*

EN 1254-2, *Copper and copper alloys – Plumbing fittings – Part 2: Fittings with compression ends for use with copper tubes*

EN 1254-5, *Copper and copper alloys – Plumbing fittings – Part 5: Fittings with short ends for capillary brazing to copper tubes*

EN 1515-1, *Flanges and their joints – Bolting – Part 1: Selection of bolting*

EN 10216-1, *Seamless steel tubes for pressure purposes – Technical delivery conditions – Part 1: Non-alloy steel tubes with specified room temperature properties*

EN 10216-2, *Seamless steel tubes for pressure purposes – Technical delivery conditions – Part 2: Non-alloy and alloy steel tubes with specified elevated temperature properties*

EN 10216-3, *Seamless steel tubes for pressure purposes – Technical delivery conditions – Part 3: Alloy fine grain steel tubes*

EN 10216-4, *Seamless steel tubes for pressure purposes – Technical delivery conditions – Part 4: Non-alloy and alloy steel tubes with specified low temperature properties*

EN 10216-5, *Seamless steel tubes for pressure purposes – Technical delivery conditions – Part 5: Stainless steel tubes*

EN 10217-1, *Welded steel tubes for pressure purposes – Technical delivery conditions – Part 1: Non-alloy steel tubes with specified room temperature properties*

EN 10217-2, *Welded steel tubes for pressure purposes – Technical delivery conditions – Part 2: Electric welded non-alloy and alloy steel tubes with specified elevated temperature properties*

EN 10217-3, *Welded steel tubes for pressure purposes – Technical delivery conditions – Part 3: Alloy fine grain steel tubes*

EN 10217-4, *Welded steel tubes for pressure purposes - Technical delivery conditions – Part 4: Electric welded non-alloy steel tubes with specified low temperature properties*

EN 10217-6, *Welded steel tubes for pressure purposes - Technical delivery conditions – Part 6: Submerged arc welded non-alloy steel tubes with specified low temperature properties*

EN 10217-7, *Welded steel tubes for pressure purposes – Technical delivery conditions – Part 7: Stainless steel tubes*

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 10253-2, *Butt-welding pipe fittings – Part 2: Non alloy and ferritic alloy steels with specific inspection requirements*

EN 12068, *Cathodic protection – External organic coatings for the corrosion protection of burried or immersed steel pipelines used in conjunction with cathodic protection – Tapes and shrinkable materials*

EN 12266-1, *Industrial valves – Testing of metallic valves – Part 1: Pressure tests, test procedures and acceptance criteria – Mandatory requirements*

EN 12266-2, *Industrial valves – Testing of metallic valves – Part 2: Tests, test procedures and acceptance criteria – Supplementary requirements*

EN 12799, *Brazing – Non-destructive examination of brazed joints*

EN 13175, *LPG Equipment and accessories – Specification and testing for Liquefied Petroleum Gas (LPG) pressure vessel valves and fittings*

EN 14291, *Foam producing solutions for leak detection on gas installations*

EN 14324, *Brazing – Guidance on the application of brazed joints*

EN 15001-1, *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 1: Detailed functional requirements for design, materials, construction, inspection and testing*

EN ISO 3183, *Petroleum and natural gas industries – Steel pipe for pipeline transportation systems (ISO 3183)*

EN ISO 3452-1, *Non-destructive testing – Penetrant testing – Part 1: General principles*

EN ISO 5817, *Welding – Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) – Quality levels for imperfections* (ISO 5817)

EN ISO 9454-2, *Soft soldering fluxes – Classification and requirements – Part 2: Performance requirements (ISO 9454-2)*

EN ISO 9606-1, *Qualification testing of welders – Fusion welding – Part 1: Steels (ISO 9606-1)*

EN ISO 9712, *Non-destructive testing – Qualification and certification of NDT personnel (ISO 9712)*

EN ISO 10380, *Pipework – Corrugated metal hoses and hose assemblies (ISO 10380)*

EN ISO 10497, *Testing of valves – Fire type-testing requirements (ISO 10497)*

EN ISO 16810, *Non-destructive testing – Ultrasonic testing – General principles (ISO 16810)*

EN ISO 17636-1, *Non-destructive testing of welds – Radiographic testing – Part 1: X- and gamma-ray techniques with film (ISO 17636-1)*

EN ISO 17637, *Non-destructive testing of welds - Visual testing of fusion-welded joints (ISO 17637)*

EN ISO 17638, *Non-destructive testing of welds – Magnetic particle testing (ISO 17638)*

EN ISO 17640, *Non-destructive testing of welds - Ultrasonic testing – Techniques, testing levels, and assessment (ISO 17640)*

EN ISO 17672, *Brazing – Filler metals (ISO 17672)*

EN ISO 17292, *Metal ball valves for petroleum, petrochemical and allied industries (ISO 17292)*

ASME B31.3, *Process piping*

ASME B31.4, *Pipeline transportation systems for liquids and slurries*

ASME B16.5, *Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24 Metric/Inch Standard*