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BS EN 13175:2014



BSI Standards Publication

LPG Equipment and accessories — Specification and testing for Liquefied Petroleum Gas (LPG) pressure vessel valves and fittings

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This British Standard is the UK implementation of EN 13175:2014. It supersedes BS EN 13175:2003 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PVE/19, LPG containers and their associated fittings.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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LPG Equipment and accessories - Specification and testing for Liquefied Petroleum Gas (LPG) pressure vessel valves and fittings

Équipements pour GPL et leurs accessoires - Spécifications et essais des équipements et accessoires des réservoirs pour gaz de pétrole liquéfié (GPL)

Flüssiggas-Geräte und Ausrüstungsteile - Spezifikation und Prüfung für Ventile und Fittinge an Druckbehältern für Flüssiggas (LPG)

This European Standard was approved by CEN on 14 September 2014.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 13175:2014) has been prepared by Technical Committee CEN/TC 286 "LPG Equipment and accessories - Specification and testing for Liquefied Petroleum Gas (LPG) pressure vessel valves and fittings", 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 May 2015 and conflicting national standards shall be withdrawn at the latest by May 2015.

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.

This document supersedes EN 13175:2003+A2:2007.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This European Standard has been submitted for reference into:

- the technical annexes of the ADR [4].

NOTE These regulations take precedence over any clause of this European Standard. It is emphasized that ADR is being revised regularly at intervals of two years which may lead to temporary non-compliances with the clauses of this European Standard.

The major changes to this revision include:

- reference to the RID and ADN has been removed;
- the addition of aluminium alloys and zinc alloys;
- additional requirements for brass materials;
- change in requirements for non-metallic components, lubricants, sealants and adhesives;
- the insertion of filler valve with overfill protection device, dry disconnect coupling requirements and the deletion of plug and cap requirements;
- the introduction of Annex C (informative), Inspection of 3 ¼ inch x 6 ACME coupling;
- the introduction of Annex D (normative), Dry disconnect couplings.

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

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Introduction

This European Standard 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; it does not absolve the user from their legal obligations at any stage.

It has been assumed in the drafting of this European Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

All pressures are gauge pressures unless otherwise stated.

NOTE This European Standard requires 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 may be beneficial to refer to the leaflet "measurement uncertainty leaflet" SP INFO 2000 27 [8].

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1 Scope

This European Standard specifies minimum requirements for the design, testing and production testing of valves, including appropriate fittings, which are connected to mobile or static LPG pressure vessels above 150 l water capacity. Pressure relief valves and their ancillary equipment, contents gauges and automotive LPG components are outside the scope of this European Standard.

This European Standard does not apply to refineries or other process plants.

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 549:1994, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*

EN 751-1:1996, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 1: Anaerobic jointing compounds*

EN 751-2:1996, *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 751-3:1996, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 3: Unsintered PTFE tapes*

EN 837-1, *Pressure gauges - Part 1: Bourdon tube pressure gauges - Dimensions, metrology, requirements and testing*

EN 1092-1:2007+A1:2013, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges*

EN 1267:2012, *Industrial valves - Test of flow resistance using water as test fluid*

EN 1503-1:2000, *Valves - Materials for bodies, bonnets and covers - Part 1: Steels specified in European Standards*

EN 1503-2:2000, *Valves - Materials for bodies, bonnets and covers - Part 2: Steels other than those specified in European Standards*

EN 1503-4:2002, *Valves - Materials for bodies, bonnets and covers - Part 4: Copper alloys specified in European Standards*

EN 1563:2011, *Founding - Spheroidal graphite cast irons*

EN 1759-1:2004, *Flanges and their joint - Circular flanges for pipes, valves, fittings and accessories, Class designated - Part 1: Steel flanges, NPS 1/2 to 24*

EN 1774:1997, *Zinc and zinc alloys - Alloys for foundry purposes - Ingot and liquid*

EN 1983, *Industrial valves - Steel ball valves*

EN 10270-3:2011, *Steel wire for mechanical springs - Part 3: Stainless spring steel wire*

EN 12164:2011, *Copper and copper alloys - Rod for free machining purposes*