Veetavad tulekustutid. Osa 2: Nõuded konstruktsioonile, vastupidavusele siserõhule ja mehaanilised katsetused tulekustutitele maksimaalse lubatava rõhuga ≤ 30 bar, mis vastavad standardile EN 1866-1

Mobile fire extinguishers - Part 2: Requirements for the construction, pressure resistance and mechanical tests for extinguishers, with a maximum allowable pressure equal to or lower than 30 bar, which comply with the requirements of EN 1866-1



# **EESTI STANDARDI EESSÕNA**

# **NATIONAL FOREWORD**

Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.05.2014.	Date of Availability of the European standard is 07.05.2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	published in the official bulletin of the Estonian Centre for Standardisation.
See Eesti standard EVS-EN 1866-2:2014 sisaldab Euroopa standardi EN 1866-2:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 1866-2:2014 consists of the English text of the European standard EN 1866-2:2014.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 13.220.10

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# EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 1866-2

May 2014

ICS 13.220.10

Supersedes EN 1866:2005

#### **English Version**

Mobile fire extinguishers - Part 2: Requirements for the construction, pressure resistance and mechanical tests for extinguishers, with a maximum allowable pressure equal to or lower than 30 bar, which comply with the requirements of EN 1866-1

Extincteurs d'incendie mobiles - Partie 2: Exigences pour la construction, la résistance à la pression et les essais mécaniques des extincteurs conformes aux exigences de l'EN 1866-1, dont la pression maximale admissible est inférieure ou égale à 30 bar

Fahrbare Feuerlöscher - Teil 2: Anforderungen an die konstruktive Ausführung, Druckfestigkeit und mechanischen Prüfungen für Feuerlöscher mit einem Höchstdruck kleiner gleich 30 bar, die den Anforderungen von EN 1866-1 entsprechen

This European Standard was approved by CEN on 20 March 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 EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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# **Foreword**

This document (EN 1866-2:2014) has been prepared by Technical Committee CEN/TC 70 "Manual means of fire fighting equipment", the secretariat of which is held by AFNOR.

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 November 2014 and conflicting national standards shall be withdrawn at the latest by November 2014.

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, with EN 1866-1 and EN 1866-3, supersedes EN 1866:2005.

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 97/23/EC.

For relationship with EU Directive 97/23/EC, see informative Annex ZA, which is an integral part of this document.

This European Standard EN 1866 consists of the following parts under the general title "Mobile fire extinguishers":

- Part 1: Characteristics, performance and test methods;
- Part 2: Requirements for the construction, pressure resistance and mechanical tests for extinguishers with a maximum allowable pressure equal to or lower than 30 bar, which comply with the requirements of EN 1866-1;
- Part 3: Requirements for the assembly, construction and pressure resistance of CO₂ extinguishers which comply with the requirements of EN 1866-1.

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.

# 1 Scope

This European Standard specifies the rules of design, type testing, manufacturing and inspection during manufacturing of mobile fire extinguishers with metallic bodies, which comply with the requirements of EN 1866-1, as far as pressure resistance is concerned.

This part applies to mobile fire extinguishers of which the maximum allowable pressure PS is lower than or equal to 30 bar and containing non-explosive, non-flammable, non-toxic and non-oxidizing fluids or powder.

This European Standard does not apply to carbon dioxide fire extinguishers.

#### 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 3-7:2004+A1:2007, Portable fire extinguishers - Part 7: Characteristics, performance requirements and test methods

EN 1866-1:2007, Mobile fire extinguishers - Part 1: Characteristics, performance and test methods

EN 10204:2004, Metallic products - Types of inspection documents

EN 13134, Brazing - Procedure approval

EN 13445-1, Unfired pressure vessels - Part 1: General

EN 13445-2, Unfired pressure vessels - Part 2: Materials

EN 13445-3:2009, Unfired pressure vessels - Part 3: Design

EN 13445-4, Unfired pressure vessels - Part 4: Fabrication

EN 13445-5, Unfired pressure vessels - Part 5: Inspection and testing

EN ISO 9017, Destructive tests on welds in metallic materials - Fracture test (ISO 9017)

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

EN ISO 9606-2, Qualification test of welders - Fusion welding - Part 2: Aluminium and aluminium alloys (ISO 9606-2)

EN ISO 4892-2, Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps (ISO 4892-2)

EN ISO 10297, Transportable gas cylinders - Cylinder valves - Specification and type testing (ISO 10297)

EN ISO 13585, Brazing - Qualification test of brazers and brazing operators (ISO 13585)

EN ISO 14732, Welding personnel - Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials (ISO 14732)

EN ISO 15609-1, Specification and qualification of welding procedures for metallic materials - Welding procedure specification - Part 1: Arc welding (ISO 15609-1)

EN ISO 15614-1, Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys (ISO 15614-1)

EN ISO 15614-2, Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 2: Arc welding of aluminium and its alloys (ISO 15614-2)

EN ISO 4126-2. Safety devices for protection against excessive pressure - Part 2: Bursting disc safety devices (ISO 4126-2)

# Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1866-1:2007 and the following apply.

#### 3.1

## mobile fire extinguisher

portable fire extinguisher with a total mass > 20 kg, fitted with wheels to enable the user to manually move and operate the extinguisher

#### 3.2

# pressure at maximum operating temperature (pressure experimentally measured)

#### $P_{\mathsf{Tmax}}$

pressure measured in the extinguisher after stabilization during at least 24 h at maximum operating temperature  $T_{\text{max}}$  ( $\geq$  60 °C); for cartridge operated extinguishers, the maximum pressure is the maximum pressure recorded for 0,5 s during a period of 3 min, excluding the first 5 s after release of the propellant gas

# maximum allowable pressure (maximum declared pressure)

maximum pressure for which the equipment is designed, as specified by the manufacturer and which is in any case greater than or equal to  $P_{\mathsf{Tmax}}$ 

#### 3.4

# bursting pressure

maximum pressure measured during a bursting test

#### 3.5

# fittings

pressure accessories, including operating devices, filling caps, hose assemblies, pressure gauges and pressure indicators

#### 3.6

maximum operating temperature declared by the manufacturer

#### 3.7

minimum operating temperature declared by the manufacturer

# Symbols and abbreviations

-00 For the purposes of this standard, the following symbols and abbreviations apply:

PS maximum allowable pressure in bar

PTtest pressure in bar