

SINGAPORE STANDARD

Portable fire extinguishers

– Part 8: 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 SS EN 3-7

The national standard is the identical implementation of EN 3-8:2021 and is adopted with permission of CEN, Rue de la Science 23 B - 1040 Brussels

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(ICS 13.220.20)

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National Foreword

This Singapore Standard was prepared by the Working Group on Portable Fire Extinguishers set up by the Technical Committee on Building Maintenance and Management under the purview of the Building and Construction Standards Committee.

This standard is a revision of SS EN 3-8:2012. The revised standard is an identical adoption of EN 3-8:2021, 'Portable fire extinguishers – Part 8: 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 3-7', published by European Committee for Standardization, CEN, Rue de la Science 23 B - 1040 Brussels.

Annex ZA of EN 3-8 is not applicable in the local context.

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

NOTE

- 1. Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "mature standards". Mature standards will not be subject to further review, unless there are requests to review such standards.*
- 2. An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*
- 3. Compliance with a SS or TR does not exempt users from any legal obligations.*

EUROPEAN STANDARD

EN 3-8

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2021

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Supersedes EN 3-8:2006

English Version

Portable fire extinguishers - Part 8: 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 3-7

Extincteurs d'incendie portatifs - Partie 8 : Exigences pour la construction, la résistance à la pression et les essais mécaniques pour extincteurs dont la pression maximale admissible est inférieure ou égale à 30 bar et qui sont conformes aux exigences de l'EN 3-7

Tragbare Feuerlöscher - Teil 8: Anforderungen an die konstruktive Ausführung, Druckfestigkeit und mechanischen Prüfungen für tragbare Feuerlöscher mit einem Höchstdruck kleiner gleich 30 bar, welche die Anforderungen aus EN 3-7 erfüllen

This European Standard was approved by CEN on 11 July 2021.

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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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 3-8:2021) 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 February 2022, and conflicting national standards shall be withdrawn at the latest by February 2022.

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 3-8:2006.

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 2014/68/EU, see informative Annex ZA, which is an integral part of this document.

This document is included in a series of documents covering:

- a) classification of fires (EN 2).
- b) mobile fire extinguishers (series EN 1866).

EN 3 consists of the following parts, under the general title “Portable fire extinguishers”.

- Part 7: Characteristics, performance requirements and test methods;
- Part 8: 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 3-7.
- Part 9: Additional requirements to EN 3-7 for pressure resistance of CO₂ extinguishers.

NOTE The title of EN3-9 will upon revision be amended to read: “Part 9 - Requirements for the Assembly, Construction and Pressure Resistance of CO₂ extinguishers which comply with the requirements of EN3-7.”

- Part 10: Provisions for evaluating the conformity of a portable fire extinguisher to EN 3-7.

List of major changes:

The following sections have been revised:

- title;
- scope;
- materials;
- design;
- permanent joining;

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- relationship with the ESR's;
- relationship and titles to EN 3 series.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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 is a product standard.

This document is of relevance, in particular, to the following stakeholder groups representing the market players with regard to pressure equipment safety:

- pressure equipment manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organizations, market surveillance, etc.)
- pressure equipment users/employers (small, medium and large enterprises);
- service providers, e.g., for maintenance (small, medium and large enterprises);

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

1 Scope

This document specifies, as far as the pressure risk is concerned, the rules of design, type testing, fabrication and inspection control of portable fire extinguishers with a metallic body which comply with the requirements of EN 3-7:2004+A1:2007.

This part of EN 3 applies to portable fire extinguishers of which the maximum allowable pressure P_S is lower than or equal to 30 bar and containing non-explosive, non-flammable, non-toxic and non-oxidising fluids.

This document also applies to the marking of metallic propellant gas cartridges (see Annex E).

This document does not apply to carbon dioxide fire extinguishers.

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

EN 10204:2004,¹⁾ *Metallic products — Types of inspection documents*

EN 13134:2000, *Brazing — Procedure approval*

EN ISO 4892-2:2013, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps (ISO 4892-2:2013)*

EN ISO 9017:2018, *Destructive tests on welds in metallic materials — Fracture test (ISO 9017:2017)*

EN ISO 13585:2012, *Brazing — Qualification test of brazers and brazing operators (ISO 13585:2012)*

EN ISO 14555:2017, *Welding — Arc stud welding of metallic materials (ISO 14555:2017)*

EN ISO 14732:2013, *Welding personnel — Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials (ISO 14732:2013)*

EN ISO 15614-1:2017,²⁾ *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 15614-1:2017)*

EN ISO 15614-2:2005, *Specification and qualification of welding procedures for metallic materials - Welding procedure test — Part 2: Arc welding of aluminium and its alloys (ISO 15614-2:2005)*

EN ISO 15614-11:2002, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 11: Electron and laser beam welding (ISO 15614-11:2002)*

EN ISO 15614-12:2014, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 12: Spot, seam and projection welding (ISO 15614-12:2014)*

1) This standard is also applicable to non-metallic products (see EN 10204:2004, 1.2).

2) As impacted by EN ISO 15614-1:2017/A1:2019.