



SLOVENSKI STANDARD

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Prenosni gasilniki - 10. del: Pravila za ugotavljanje skladnosti prenosnih gasilnikov z EN 3-7

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

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Tragbare Feuerlöscher - Teil 10: Festlegungen für die Bestätigung der Konformität tragbarer Feuerlöscher nach EN 3-7

SIST EN 3-10:2010

Extincteurs d'incendie portatifs - Partie 10 : Dispositions pour l'évaluation de la conformité d'un extincteur d'incendie portatif à l'EN 3 partie 7

Ta slovenski standard je istoveten z: EN 3-10:2009

ICS:

13.220.10 Gašenje požara Fire-fighting

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English Version

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

Extincteurs d'incendie portatifs - Partie 10: Dispositions
pour l'évaluation de la conformité d'un extincteur d'incendie
portatif à l'EN 3-7

Tragbare Feuerlöscher - Teil 10: Festlegungen für die
Bestätigung der Konformität tragbarer Feuerlöscher nach
EN 3-7

This European Standard was approved by CEN on 17 October 2009.

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 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 Management Centre has the same status as the official versions.

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

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

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Foreword

This document (EN 3-10:2009) 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 May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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 3-6:1995.

EN 3 consists of the following parts, under the general title *Portable fire extinguishers*:

- Part 7 ¹⁾: *Characteristics, performance requirements and test methods*;
- Part 8 ²⁾: *Additional requirements to EN 3-7 for the construction, resistance to pressure and mechanical tests for extinguishers with a maximum allowable pressure equal to or lower than 30 bar*;
- Part 9 ²⁾: *Additional requirements to EN 3-7 for pressure resistance of CO₂ extinguishers*;
- Part 10 ³⁾: *Provisions for evaluating the conformity of a portable fire extinguisher to EN 3-7*.

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

1) Superseded EN 3-1, EN 3-2, EN 3-4 and EN 3-5.

2) EN 3-8 and EN 3-9 superseded EN 3-3.

3) EN 3-10 supersedes EN 3-6.

EN 3-10:2009 (E)**1 Scope**

This European Standard specifies the minimum requirements for attesting the conformity of portable fire extinguishers to EN 3-7, as well as the requirements for the quality and production control of the fire extinguishers.

It specifies the documentation to be provided regarding:

- identification of the applicant;
- identification of the manufacturer, if not the applicant;
- identification of subcontractor(s), if applicable;
- identification of the extinguisher;
- documents provided with the extinguisher;
- CE marking;
- quality management system;
- extinguishing media toxicological information.

It specifies methods for:

- type testing;
- factory assessment;
- controls during production.

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NOTE 1 A test report and a satisfactory audit supporting documentation could form the basis for an applicant to request a certification of his product from an EA accredited certification body. Additional requirements can be made by national regulations and/or quality marks.

NOTE 2 Where appropriate, component family testing could be applied.

2 Normative references

The following referenced documents are indispensable for the application 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*

CEN/TR 15642, *Unified tests procedures for the tests of EN 3-7*

EN ISO 9001:2000, *Quality management systems — Requirements (ISO 9001:2000)*

ISO/TR 8550 (all parts), *Guidance on the selection and usage of acceptance sampling systems for inspection of discrete items in lots*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 3-7:2004+A1:2007 and the following apply.

3.1

surveillance body

inspection body third party, independent from the manufacturer

3.2

testing laboratory

third party independent from the manufacturer

3.3

manufacturer

legal entity that assembles and normally fills the fire extinguisher

3.4

sub contractor

legal entity that undertakes on behalf of the manufacturer specific operations formally described in a sub-contract agreement

3.5

applicant

legal entity, which assumes full product responsibility

NOTE The applicant may also be the manufacturer.

3.6

EA

accreditation of laboratories, inspection bodies and certification bodies by the European Co-operation for Accreditation

NOTE The European Co-operation for Accreditation (EA) is the European network of nationally recognised accreditation bodies based in the European geographical area and is acknowledged by the European Commission and EFTA by memorandum of understanding concerning co-operation (see www.european-accreditation.org).

3.7

certification body

impartial body, governmental or non-governmental, possessing the necessary competence and responsibility to carry out certification of conformity according to given rules of procedure and management

4 Symbols and abbreviations

For the purposes of this document, the following symbols and abbreviations apply.

EA	European Accreditation
PED	Pressure Equipment Directive (97/23/EC)
QMS	Quality Management System
FPC	Factory Production Control
TDS	Technical Data Sheet

EN 3-10:2009 (E)**5 Documentation for type testing and audits****5.1 Identification of the applicant**

The identification of the applicant shall be provided.

5.2 Identification of the manufacturer

All locations directly controlled by the manufacturer and involved in the extinguisher's manufacture shall be identified.

5.3 Identification of the extinguisher

Identification of the extinguisher shall contain:

- complete set of drawings in accordance clearly characterising the model; drawing shall enable each piece of pressure equipment and component to be identified;
- Technical Data Sheet (TDS) (see model in Annex B).

5.4 Documents provided with the extinguisher

Documents on storage, installation, use and maintenance instructions shall be provided.

5.5 Pressure Safety

PED EC approval certificate(s) for fire extinguisher's assembly covering both, type and production, from a PED notified body shall be provided.

Clear link shall be made between EC type approval and the model of extinguisher.

5.6 Quality Management System

The Quality Management System documentation, if any, shall be provided

NOTE Users of this document are advised to consider the desirability of accreditation in accordance with EN ISO 9001 delivered by an EA certification body or other Quality Management System (QMS) documentation giving an equivalent quality confidence. Equivalency is subjected to certification body's appreciation.

5.7 Extinguishing media toxicological information

Safety data sheet in accordance with European Directive 1907/2006/EC including its modifications shall be provided.

6 Initial type testing

The applicant shall make available to a testing laboratory for assessment to EN 3-7:

- a batch of 50 extinguishers from which the number of extinguishers necessary for the verification shall be taken; the extinguishers selected shall be regarded as prototypes;
- full documentation (drawings, technical file, etc.) of the extinguisher to be tested;
- a documentation relating to the extinguishing media;

— a technical data sheet of the extinguisher to be tested in accordance with Annex B.

NOTE Applicants are advised to consider the desirability of using a EA accredited laboratory, which is a third party independent from the manufacturer to perform tests in accordance with EN 3-7 and EA accredited in accordance with EN ISO/IEC 17025.

The testing laboratory shall issue a laboratory test report in accordance with Annex C. For this, it shall carry out the complete listed tests and checks programme.

Where unified test procedures exist according to CEN/TR 15642, they shall be used in the testing of the extinguisher.

The laboratory's accreditation shall take these procedures into consideration.

7 Factory Production Control (FPC)

7.1 Requirements

The FPC system shall fulfil the requirements described in the following clauses, where applicable, which are taken from EN ISO 9001:2000.

- **4.2** (Documentation requirements), except 4.2.1 a).
- **5.1 e)** (Ensuring the availability of resources).
- **5.5.1** (Responsibility and authority).
- **5.5.2** (Management representative).
- **6** (Resource management).
- **7.1** (Planning of product realisation) except 7.1 a).
- **7.2.3 c)** (Customer communication, information coming back from customers and customer complaints).
- **7.4** (Purchasing).
- **7.5** (Production and service provision).
- **7.6** (Control of monitoring and measuring devices).
- **8.2.3** (Monitoring and measurement of processes).
- **8.2.4** (Monitoring and measurement of product).
- **8.3** (Control of non conforming product).
- **8.5.2** (Corrective action).

The above requirements cover amongst others: calibration, training, records, complaints and requirements of Clause 9.

NOTE The FPC system can be part of a Quality Management System, e.g. in accordance with EN ISO 9001.

Where a current EN ISO 9001 certified QMS is existing, it may be taken into consideration.

EN 3-10:2009 (E)**7.2 Additional requirements**

- a) Means for manufacturing extinguishers and/or extinguisher's components shall be available;
- b) Means for performing the required controls shall be available and regularly calibrated;
- c) Product traceability records shall be available.

8 Reference numbering and marking

Upon successful completion of all tests and controls, a reference number can be issued by an EA accredited certification body or a national ministry. This reference number shall be marked on the extinguisher as described in EN 3-7:2004+A1:2007, 16.2.

9 Items to be regularly checked and recorded during production

Items listed in Table 1 and Table 2 shall be regularly checked and recorded as a minimum:

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Table 1 — Controls, tests and frequency

Item nr as per test report (see Annex C)	EN 3-7 Clause	Title	Frequency during manufacture
1	4.2	Control of discharge	N/R
2	4.3	Operation position	N/R
3	4.4	Hose assembly	Periodically ^a
4	4.5	Propellants	Based on documentation
5	4.6	Means of checking pressure for stored pressure extinguishers	N/R
6	6.1	Nominal charges	N/R
7	6.2	Filling tolerances	Periodically ^a
8	6.3	Design of filling opening	N/R
9	7.1.1	Duration of operation, minimum duration	Periodically ^a Manufacturer shall define acceptable limits
10	7.1.2	Duration of operation, spread of measurements	N/R
11	7.2	Residual charge	Periodically ^a
12	7.3	Commencement of discharge	Periodically ^a
13	7.4	Temperature cycling	N/R
14	8.1	Retention of propellant	N/R
15	8.2	Leakage acceptance level	see 8.3 of EN 3-7:2004+A1:2007
16	9.2	Dielectric test, for water based extinguishers	N/R
17	10.1	General requirement for use of extinguishers	N/R
18a	10.2	Operating force for CO ₂ extinguishers	Periodically ^a
18b	10.2	Operating force for other extinguishers – 1 st device	Periodically ^a
18c	10.2	Operating force for other extinguishers – 2 nd device	Periodically ^a
19	10.3	Safety devices	Periodically ^a
20	10.4	Filter for water based extinguishers	N/R
21a	10.5	Hose and coupling systems, for CO ₂ extinguishers	Periodically ^a
21 b	10.5	Hose and coupling systems, for other extinguishers	Periodically ^a
22a	10.6	Control valve, for CO ₂ extinguishers	N/R
22b	10.6	Control valve, for 1 and 2 kg powder extinguishers	N/R
22c	10.6	Control valve, for other extinguishers	N/R
23	11.1.1	Pressure gauge	N/R

to be continued

Table 1 (continued)

Item nr as per test report (see Annex C)	EN 3-7 Clause	Title	Frequency during manufacture
24	11.1.2	Pressure gauge scale	N/R
25	11.1.3	Pressure gauge error after cycling	N/R
26	11.1.4	Capability of pressure gauge materials	N/R
27	11.2	Pressure indicator	N/R
28	12.1	Horn / hose for CO ₂ extinguishers	N/R
29	12.2	Horn resistance to static load	N/R
30	12.3	Security of horn / hose fixing	Periodically ^a
31	12.4	Horn resistance to temperature	N/R
32	13	Mounting bracket	N/R
33	14.1	Resistance to external corrosion	N/R
34	14.2	Resistance to internal corrosion	N/R
35	15.2	Class A fire rating	N/R
36	15.3	Class B fire rating	N/R
37	15.3	Suitability for polar solvents	N/R
38	15.4	Class F fire rating	N/R
39	16.1	Extinguisher identification, colour	Periodically ^a
40	16.2	Marking	Periodically ^a

N/R: not required (but listed to follow EN 3-7 requirements).

^a Frequency shall be established by the manufacturer and shall be relevant with the checked item and quantity produced. Requirements of ISO/TR 8550 (all parts) shall be taken into consideration.

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 Table 2

A	Conformity to TDS	Periodically ^a
B	Conformity to documents for components used including extinguishing media	Periodically ^a
C	Percentage of principal components of powder	Periodically ^a
D	Physical and chemical characteristics for additives used in water based extinguishers according to manufacturer's specification	Periodically ^a
E	Internal volume	Periodically ^a
F	External painting: adhesion / thickness (compared to the minimum declared)	Periodically ^a
G	Internal lining (where applicable): controlled according to manufacturer's specification	Periodically ^a
H	Torque (Body/valve)	Periodically ^a
I	Propellant pressure or weight where appropriate	Periodically ^a

^a Frequency shall be established by the manufacturer and shall be relevant with the checked item and quantity produced. Requirements of ISO/TR 8550 (all parts) shall be taken into consideration.

10 Surveillance

The points to be checked by a surveillance body are given in Annex A.

NOTE The manufacturer, or the sub contractors where they fill or assemble the fire extinguisher, should be subjected to the surveillance described in Annex A. A surveillance body EA is accredited in accordance with EN ISO/IEC 17020.

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