

SVENSK STANDARD

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**Brand och räddning – Brandpumpar – Centrifugalpumpar utan evakueringsanordning –
Del 1: Klassificering, allmänna krav och säkerhetskrav**

**Fire-fighting pumps – Fire-fighting centrifugal pumps without primer –
Part 1: Classification, general and safety requirements**

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Denna standard ersätter SS-EN 14710-1:2005+A1:2008, utgåva 1.

The European Standard EN 14710-1:2005+A2:2008 has the status of a Swedish Standard. This document contains the official English version of EN 14710-1:2005+A2:2008.

This standard supersedes the Swedish Standard SS-EN 14710-1:2005+A1:2008, edition 1.

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 14710-1:2005+A2

December 2008

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Supersedes EN 14710-1:2005+A1:2008

English Version

Fire-fighting pumps - Fire-fighting centrifugal pumps without primer - Part 1: Classification, general and safety requirements

Pompes à usage incendie - Pompes centrifuges à usage incendie sans dispositif d'amorçage - Partie 1: Classification, prescriptions générales et de sécurité

Feuerlöschpumpen - Feuerlöschkreiselpumpen ohne Entlüftungseinrichtung - Teil 1: Klassifizierung, allgemeine Anforderungen und Sicherheitsanforderungen

This European Standard was approved by CEN on 17 December 2004 and includes Amendment 1 approved by CEN on 6 June 2008 and Amendment 2 approved by CEN on 16 November 2008.

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 14710-1:2005+A2:2008) has been prepared by Technical Committee CEN/TC 192 “Fire service equipment”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by June 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document supersedes A2 EN 14710-1:2005+A1:2008 A2.

This document includes Amendment 1, approved by CEN on 2008-06-06 and Amendment 2, approved by CEN on 2008-11-16.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1 and A2 A2.

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).

A1 For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. A1

This document is intended to be used in conjunction with part 2 of EN 14710 “*Verification of general and safety requirements*”.

EN 14710 “*Fire-fighting pumps – Fire-fighting centrifugal pumps without primer*” comprises two parts:

- *Part 1: Classification, general and safety requirements;*
- *Part 2: Verification of general and safety requirements.*

For relationship with EN 1028 see EN 14710-2:2005, 4.1.

This document includes a Bibliography.

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.

SS-EN 14710-1:2005+A2:2008 (E)

0 Introduction

This document is a type C standard as stated in EN ISO 12100-1.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

Where provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of the other standards, for machines that have been designed and built in accordance with the provisions of this type C standard.

While producing this document it was assumed that:

- a) only trained persons operate the machine;
- b) the original characteristics are maintained provided components are kept in good repair and working order.

1 Scope

This document applies to centrifugal pumps without priming devices for fire-fighting use designed as

- floating pumps (FPN-F),
- submersible pumps (FPN-S) or
- boosted pumps (FPN-B).

Fire-fighting centrifugal pumps without primer are defined as terminated by their inlet and outlet connections as well as by their shaft ends.

This document applies for fire-fighting centrifugal pumps without priming devices for use under ambient temperatures between -15 °C and 40 °C.

NOTE 1 For special conditions, -30 °C; see 6.11.

This document does not apply to fire-fighting centrifugal pumps without primer of which the only power source is directly applied manual effort.

This document does not apply to fire-fighting centrifugal pumps without primer, intended to be used as interchangeable equipment (i.e. combined by the user with another machine or vehicle acting as a driver).

This document does not apply to fire-fighting centrifugal pumps without primer with a nominal delivery pressure p_N above 15 bar.

NOTE 2 High pressure pumps with primer are dealt with in EN 1028-1 and EN 1028-2.

A2 This document specifies the classification and general requirements for fire-fighting centrifugal pumps without priming devices with a nominal delivery rate of up to 10 000 l/min. **A2**

This document deals with significant hazards listed in Clause 4, hazardous situations and events during the commissioning, operation and maintenance of fire-fighting centrifugal pumps without priming devices, used as intended and under the conditions foreseen by the manufacturer.

This document does not deal with the detailed verification of general and safety requirements and/or protective measures. These are covered in EN 14710-2 "*Verification of general and safety requirements*".

This document does not deal with noise.

This document does not deal with the technical safety requirements for the design or manufacture of drivers or of additional equipment intended to be fitted to inlet and outlet connections. It does not cover risks directly arising from means provided for the portability, transportability, and mobility of pump units during or between periods of operation, or requirements for power transmission devices. In addition, this document does not cover:

- hazards occurring due to decommissioning;
- hazards during use due to a specific environment (e.g. traffic during use on public roads, potentially explosive atmospheres).

This document does not apply to fire-fighting centrifugal pumps without primer that are manufactured before the date of publication by CEN of this document.

SS-EN 14710-1:2005+A2:2008 (E)

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.

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EN 349, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

EN 547-2, *Safety of machinery — Human body measurements — Part 2: Principles for determining the dimensions required for access openings*

EN 547-3, *Safety of machinery — Human body measurements — Part 3: Anthropometric data*

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EN 842, *Safety of machinery — Visual danger signals — General requirements, design and testing*

EN 894-1, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 1: General principles for human interactions with displays and control actuators*

EN 894-2, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 2: Displays*



EN 894-3, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 3: Control actuators*

EN 953, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*



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EN 14710-2:2005, *Fire-fighting pumps — Fire-fighting centrifugal pumps without primer — Part 2: Verification of general and safety requirements*

 EN 60204-1:2006, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified)* 

EN 60529, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN 61310-1,  *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, acoustic and tactile signals (IEC 61310-1:2007)* 

EN 61310-2,  *Safety of machinery — Indication, marking and actuation — Part 2: Requirements for marking (IEC 61310-2:2007)* 

EN 62079, *Preparation of instructions — Structuring, content and presentation (IEC 62079:2001)*

EN ISO 5199, *Technical specifications for centrifugal pumps — Class II (ISO 5199:2002)*

EN ISO 9905, *Technical specifications for centrifugal pumps — Class I (ISO 9905:1994)*

EN ISO 9908, *Technical specifications for centrifugal pumps — Class III (ISO 9908:1993)*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

^{A2} EN ISO 13732-1, *Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces (ISO 13732-1:2006)* ^{A2}

^{A2} EN ISO 13857, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)* ^{A2}

^{A2} EN ISO 14121-1, *Safety of machinery — Risk assessment — Part 1: Principles (ISO 14121-1:2007)* ^{A2}.

ISO 7010, *Graphical symbols — Safety colours and safety signs — Safety signs used in workplaces and public areas*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100-1:2003 and the following apply.

3.1 Pumps and their applications

3.1.1

fire-fighting centrifugal pump

FP

mechanically or hydraulically driven fluid flow machine intended for delivery of fluids for fire-fighting purposes

NOTE 1 Adapted from EN 1028-1.

NOTE 2 Fire-fighting centrifugal pumps without primer are specially designed for use by fire brigades and can be suitable for installation in fire-fighting vehicles as specified in EN 1846-1 and motor pumps.

NOTE 3 Fire-fighting centrifugal pumps without primer generally consist of:

- pump unit;
- connections for inlet ports;
- shut off devices and connections for outlet ports;
- connections between pump, shut off devices and connection couplings;
- sieves and dirt traps;
- measuring instruments;
- safety devices (if provided);
- additional equipment.

3.1.2

vehicle mounted pump

pump permanently installed on a vehicle and driven by the motive power of the vehicle

[EN 1028-1:2002]