

**Liftide valmistamise ja paigaldamise
ohutuseeskirjad. Inimeste ja kauba transpordi liftid.
Osa 72: Tuletõrjujate lift**

Safety rules for the construction and installation of lifts -
Particular applications for passenger and goods
passenger lifts - Part 72: Firefighters lifts

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 81-72:2007 sisaldab Euroopa standardi EN 81-72:2003 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 26.11.2003 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 09.07.2003.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 81-72:2007 consists of the English text of the European standard EN 81-72:2003.

This standard is ratified with the order of Estonian Centre for Standardisation dated 26.11.2003 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 09.07.2003.

The standard is available from Estonian standardisation organisation.

ICS 91.140.90

Võtmesõnad: evakuatsioonitasandid, kontrollsüsteem, tuletõrjajate lift

Standardite reprodutseerimis- ja levitamisoigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

ICS 91.140.90

English version

**Safety rules for the construction and installation of lifts -
Particular applications for passenger and goods passenger lifts -
Part 72: Firefighters lifts**

Règles de sécurité pour la construction et l'installation des
élévateurs - Applications particulières pour les ascenseurs
et ascenseurs de charge - Partie 72: Ascenseurs pompiers

Sicherheitsregeln für die Konstruktion und den Einbau von
Aufzügen - Besondere Anwendungen für Personen und
Lastenaufzüge - Teil 72: Feuerwehraufzüge

This European Standard was approved by CEN on 21 November 2002.

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 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 Management Centre has the same status as the official versions.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions, symbols and abbreviated terms	6
4 List of significant hazards	7
5 Safety requirements and/or protective measures	8
6 Verification of the safety requirements and/or protective measures	14
7 Information for use	15
Annex A (informative) Firefighting concept for high rise buildings	16
Annex B (informative) Basic layouts for firefighters lift	20
Annex C (informative) Power supplies for firefighters lifts	23
Annex D (normative) Water protection in the lift well	24
Annex E (informative) Concepts of fire compartments	25
Annex F (normative) Pictogram for a firefighters lift	26
Annex G (informative) Examples of rescue concept for firefighters	27
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives	30

Foreword

This document EN 81-72:2003 has been prepared by Technical Committee CEN/TC 10 “Lifts, escalators and moving walks”, 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 January 2004, and conflicting national standards shall be withdrawn at the latest by January 2004.

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 standard is part of the EN 81 series of standards: “*Safety rules for the construction and installation of lifts*” and is complementary to the introduction of EN 81-1 and 2 and prEN 81-5, 6 and 7.

NOTE Regulations concerned with safety in the event of fire in buildings vary from country to country and have not to-date been standardised at either an international or European level.

Annexes D and F are normative. Annexes A, B, C, E and G are informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Standard is a Type C-type Standard as stated in EN 1070.

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

When provisions of this 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 lifts that have been designed and built according to the provisions of this type C standard.

The following assumptions were made whilst writing this standard:

- 0.1** the fire protected lobby and lift well are designed to restrict the ingress of smoke;
- 0.2** the building design limits the flow of water into the lift well;
- 0.3** firefighters lifts are not escape routes, such as staircases etc.;
- 0.4** a firefighters lift accesses at each level to a fire protected lobby. This standard covers only those requirements which relate to the lift installation. It does not prescribe requirements for the fire resisting structure of the building essential to provide the fire protected lobby;
- 0.5** negotiations have been made between the owner/customer and installer concerning:
 - a) the intended use of the lift;
 - b) environmental conditions;
 - c) civil engineering problems; and
 - d) other aspects related to the place of the installation and the rescue of persons from within the car.

NOTE Developers and Architects will need to take account of National Building Regulations in providing a suitable fire resistant structure of the building, fire protected lobbies, fire detection and extinguisher systems. Examples are shown in annex B and annex E.

1 Scope

1.1 This standard applies to firefighters lifts as defined in clause 3.5 equipped with a fire protected lobby.

1.2 This standard is not applicable to:

- double-deck lifts;
- lifts installed in existing buildings;
- important modification to existing lift installed before the publication of this standard;
- dual entry lifts, where the protected firefighters lift protected lobbies are not located on the same side as that of the fire service access level.

However, this standard may usefully be used as a basis.

1.3 This standard deals with the significant hazards, hazardous situations and events relevant to firefighters lifts (as listed in clause 4) when they are used as intended and under the conditions as foreseen by the installer.

1.4 This document is applicable to new firefighters lifts in new buildings which are installed after the date of publication of this document by CEN.

1.5 This standard gives the additional or deviating requirements to EN 81-1 and 2 and prEN 81-5, 6 and 7 which shall be available for lifts which may be used for firefighting and evacuation purposes under firefighters control. In all other respects such lifts are designed in accordance with EN 81-1 and 2 and prEN 81-5, 6 and 7 where applicable.

1.6 This standard does not consider the use of lifts with partially enclosed wells for use as firefighters lifts.

1.7 This standard ceases to apply if the fire eventually breaks into a fire protected lobby (see annex A, Figure A.2).

NOTE A firefighting concept is given in annex A.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 81-1:1998, *Safety rules for the construction and installation of lifts – Part 1: Electric lifts.*

EN 81-2:1998, *Safety rules for the construction and installation of lifts – Part 2: Hydraulic lifts.*

prEN 81-5:1999, *Safety rules for the construction and installation of lifts and service lifts - Part 5: Screw lifts.*

prEN 81-6:1999, *Safety rules for the construction and installation of lifts and service lifts – Part 6: Guided chain lifts.*

prEN 81-7:1999, *Safety rules for the construction and installation of lifts and service lifts - Part 7: Rack and pinion lifts.*

EN 81-70:2003, *Safety rules for the construction and installations of lifts – Part 70: Accessibility to lifts for persons including persons with disability.*

prEN 81-71:2002, *Safety rules for the construction and installation of lifts – Part 71: Vandal resistant lifts.*

prEN 81-73:2002, *Safety rules for the construction and installation of lifts – Particular applications for passenger and goods passenger lifts - Part 73: Behaviour of lifts in the event of fire.*

EN 131-1:1993, *Ladders – Terms, types, functional sizes.*

EN 1050:1996, *Safety of machinery – Principles for risk assessment.*

EN 1070:1998, *Safety of machinery – Terminology.*

EN 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989 + A1 1999).*

ISO 4190-1:1999, *Lift installation – Part 1: Class I, II, III and VI lifts.*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions stated in EN 1070:1998, EN 81-1:1998 and EN 81-2:1998 apply.

Additional definitions specifically needed for this document are added below:

3.1

control system

a system which responds to input signals and generates output signals causing the equipment under control to operate in the desired manner

3.2

evacuation

evacuation is the organised and controlled movement of persons in a building from a dangerous area to a safe area. Evacuation can be from floor to floor and not necessarily to outside the building

3.3

evacuation level(s)

the level(s) at which final exits of the building for the evacuation of people are located. This is not necessarily the fire service access level

3.4

fire compartment

a fire compartment is a sub-division of a building by walls and/or floors for the purpose of limiting the spread of fire and hot gases within the premises

3.5

firefighters lift

a lift installed primarily intended for passengers use which has additional protection, controls and signals which enable it to be used under the direct control of the fire service

3.6

fire protection

fire protection covers measures to prevent the outbreak of fire and fire spread in all cases to safeguard escape routes and create the assumption of effective firefighting including the determination of the fire resistance, fire load and behaviour of building materials and structures during a fire

3.7

firefighters lift switch

a switch located at the fire service access level, outside of the well, that is intended to be used to give priority service for firefighters

3.8

fire service access level

the entry level in the building intended to be used by firefighters to gain access to the firefighters lift