SLOVENSKI STANDARD
oSIST prEN ISO 8100-1:2024

01-januar-2024

Nadomešča:
SIST EN 81-20:2020

Dvigala za prevoz oseb in blaga - 1. del: Varnostna pravila za konstruiranje in vgradnjo dvigal (liftov) za osebna in tovorno-osebna dvigala (ISO/DIS 8100-1:2023)

Lifts for the transport of persons and goods - Part 1: Safety rules for the construction and installation of passenger and goods passenger lifts (ISO/DIS 8100-1:2023)

Aufzüge für den Personen- und Gütertransport - Teil 1: Sicherheitsregeln für die Konstruktion und den Einbau von Personen- und Lastenaufzügen (ISO/DIS 8100-1:2023)

Elévateurs pour le transport de personnes et d'objets - Partie 1: Règles de sécurité pour la construction et l'installation d'ascenseurs et d'ascenseurs de charge (ISO/DIS 8100-1:2023)

Ta slovenski standard je istoveten z: **prEN ISO 8100-1**

ICS:

91.140.90	Dvigala. Tekoče stopnice	Lifts. Escalators

oSIST prEN ISO 8100-1:2024 **en,fr,de**

DRAFT INTERNATIONAL STANDARD

ISO/DIS 8100-1

ISO/TC **178**

Secretariat: **AFNOR**

Voting begins on:
2023-11-27

Voting terminates on:
2024-02-19

Lifts for the transport of persons and goods —

Part 1: Safety rules for the construction and installation of passenger and goods passenger lifts

Elévateurs pour le transport de personnes et d'objets —

Partie 1: Règles de sécurité pour la construction et l'installation d'ascenseurs et d'ascenseurs de charge

ICS: 91.140.90

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

Reference number
ISO/DIS 8100-1:2023(E)

COPYRIGHT PROTECTED DOCUMENT

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

European Foreword

This document (prEN ISO 8100-1:2023) has been prepared by Technical Committee CEN/TC 10 “Lifts, escalators and moving walks”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 81-20:2020.

This document is part of the EN 81 series of standards. The structure of the EN 81 series is described in CEN/TR 81-10:2008.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

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, Republic of North 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.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO *[had/had not]* received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 178, *Lifts, escalators, passenger conveyors*

This second edition cancels and replaces the first edition (ISO 8100-1:2019), which has been technically revised.

The main changes are as follows:

— Editorial revision of the document structure according to the ISO/IEC Directives, part 2;

— Requirements for vertical sliding landing doors and car doors are added;

— Requirements for suspension means other than steel wire ropes are added;

— Requirements for automatic rescue operation are added;

— Requirements for traction lifts with increased available car area are added;

— Requirements for SIL-rated circuits (previously called PESSRAL) have been revised;

— Requirements for a working platform in the pit are added;

— Requirements to avoid the dragging of hands in doors are extended;

— Requirements for compensation means entering the refuge space in the pit are added;

— Requirements for the brake are aligned with overload limits;

— Performance and monitoring of the machine brake are revised;

— Requirements for pit access ladders are revised;

— Fire classification of electric cables is specified.

For relationship with this document and ISO 8100-20, see informative Annex D, which is an integral part of this document.

A list of all parts in the ISO 8100 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is a type C standard as stated in ISO 12100:2010.

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

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organizations, market surveillance etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e.g. for maintenance (small, medium and large enterprises);

— consumers (in case of machinery intended for use by consumers).

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

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

When requirements of this type-C standard are different from those which are stated in type-A or type-B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type-C standard.

The object of this document is to define safety rules related to passenger and goods passenger lifts.

Persons to be safeguarded:

— users, including passengers, maintenance and inspection personnel;

— persons at the landings and outside of the well, or any machinery space and pulley room, who can be effected by the lift.

Property to be safeguarded:

a) loads in car;

b) components of the lift installation;

c) building in which the lift is installed;

Lifts for the transport of persons and goods —

Part 1:
Safety rules for the construction and installation of passenger and goods passenger lifts

1 Scope

This document specifies the safety rules for lifts permanently installed in buildings, which are intended for the transport of passengers or passengers and goods . This document applies to:

— lifts, with traction drive, positive drive or hydraulic drive;

— lifts serving specific levels

— lifts having a closed car;

— lifts moving along guide rails inclined not more than 15° to the vertical.

— lifts installed in buildings with boundary conditions in accordance with Annex B;

— the electrical equipment of the lift, including lighting and socket outlets in the well.

This document does not specify additional requirements for:

— lifts installed in buildings with requirements for seismic conditions;

— lifts installed in buildings with requirements for accessibility;

— lifts exposed to vandalism;

— lifts to be used for firefighting;

— lifts intended for the transport of goods alone where the carrier is accessible, and fitted with controls situated inside the carrier or within reach of a person inside the carrier;

— the behavior of the lift when the control system of the lift receives a recall signal(s) in the event of fire in a building.

This document is not applicable to passenger and goods passenger lifts, which are installed before the date of its publication.

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.

ISO 1219-1:2012, *Fluid power systems and components — Graphical symbols and circuit diagrams — Part 1: Graphical symbols for conventional use and data-processing applications*

ISO 3008-2:2017, *Fire-resistance tests — Part 2: Lift landing door assemblies*

ISO 4344:2022, *Steel wire ropes for lifts — Minimum requirements*

ISO 4190-5:2006, *Lift (Elevator) installation — Part 5: Control devices, signals and additional fittings*

ISO 4413:2010, *Hydraulic fluid power — General rules and safety requirements for systems and their components*

ISO 6743-4:2015, *Lubricants, industrial oils and related products (class L) — Classification — Part 4: Family H (Hydraulic systems)*

ISO 7010:2019, *Graphical symbols — Safety colours and safety signs — Registered safety signs*

ISO 8100-2:2023, *Lifts for the transport of persons and goods —Part 2: Design rules, calculations, examinations and tests of lift components*

ISO 8102-1:2020, *Electrical requirements for lifts, escalators and moving walks — Part 1: Electromagnetic compatibility with regard to emission*

ISO 8102-2:2021, *Electrical requirements for lifts, escalators and moving walks — Part 2: Electromagnetic compatibility with regard to immunity*

ISO 8102-20:2022, *Electrical requirements for lifts, escalators and moving walks — Part 20: Cybersecurity*

ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

ISO 12543-2:2021, *Glass in building — Laminated glass and laminated safety glass — Part 2: Laminated safety glass*

ISO 12543-3:2021, *Glass in building — Laminated glass and laminated safety glass — Part 3: Laminated glass*

ISO 13857:2019, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs*

ISO 14122-3:2016, *Safety of machinery — Permanent means of access to machinery — Part 3: Stairs, stepladders and guard-rails*

ISO 14122-4:2016, *Safety of machinery — Permanent means of access to machinery — Part 4: Fixed ladders*

ISO 29584:2015, *Glass in building — Pendulum impact testing and classification of safety glass*

IEC 60204-1:2016+A1:2021, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements*

IEC 60227-6:2001, *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V — Part 6: Lift cables and cables for flexible connections*

IEC 60332-1-2:2004+AMD1:2015, *Tests on electric and optical fibre cables under fire conditions — Part 1-2: Test for vertical flame propagation for a single insulated wire or cable — Procedure for 1 kW pre-mixed flame*

IEC 60332-3-24:2018, *Tests on electric and optical fibre cables under fire conditions – Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category C*

IEC 60364-4-41:2005+AMD1:2017, *Low voltage electrical installations — Part 4-41: Protection for safety — Protection against electric shock*

IEC 60364-6:2016, *Low voltage electrical installations — Part 6: Verification*

IEC 60417:2002, *Database — Graphical symbols for use on equipment*

IEC 60529:1989+AMD1:1999, *Degrees of protection provided by enclosures (IP Code)*

IEC 60598-1:2020, *Luminaires — Part 1: General requirements and tests*

IEC 60617:2012, *Database — Graphical symbols for diagrams*