AS ISO 8100.20:2026
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Australian STANDARD®

STANDARDS Australia

Lifts for the transport of persons and goods

Part 20: Global essential safety requirements (GESRs)



AS ISO 8100.20:2026

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- Association of Consultants in Access Australia
- Australasian Fire and Emergency Service Authorities Council
- Australian Chamber of Commerce and Industry
- Australian Elevator Association
- Australian Industry Group
- Australian Institute of Building Surveyors
- Communications, Electrical and Plumbing Union - Electrical Division
- Engineers Australia
- Lift Engineering Society of Australia
- SafeWork NSW

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To conform to a Standard, all requirements in the Standard need to be met.

A requirement is any statement in the Standard which uses the word "shall".

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The following words are commonly used in Standards, but statements using them do not have to be followed to conform to the Standard:

(a) "should" means that something is recommended.

(b) "may" means that something is permitted.

(c) "can" means that something is possible.

Structure of Standards

A Standard always has the following parts:

(i) The Preface states who developed the Standard, what the Standard is aiming to do, and how it relates to other documents.

(ii) The Scope states what the Standard is about, what it covers and what it does not cover.

(iii) The Normative references clause lists other documents that are referenced in the Standard as part of requirements.

(iv) The Terms and definitions clause defines important terms to help with understanding the Standard.

A Standard may also include other parts, such as the following:

(1) A normative appendix sets additional requirements that need to be conformed to.

(2) An informative appendix provides additional information or guidance. They usually do not contain requirements. If an informative appendix does contain requirements, the Standard will explain when those requirements apply.

(3) A Bibliography lists documents referenced in the Standard but not as part of requirements.

Many Standards include notes. Notes provide recommendations and/or guidance only. They never contain requirements.

Preface

This Standard was prepared by the Standards Australia Committee ME-004, Lift Installations.

The objective of this document is to specify GESRs for lifts (elevators), their components and functions, and establish a system and provides methods for minimizing safety risks that can arise in the course of, the operation and use of, or work on, lifts (elevators).

This document is applicable to lifts that are intended to carry persons or persons and goods that can:

(a) Be located in any permanent and fixed structure or building, except lifts located in means of transport, (e.g. ships).

(b) Have any —

  (i) rated load, size of load carrying unit and speed; and

  (ii) travel distance and number of landings.

(c) Be affected by fire in the load-carrying unit (LCU), earthquake, weather, or flood.

(d) Be foreseeably misused (e.g. overloaded) but not vandalized.

This document does not cover —

(A) all needs of users with disabilities; or

(B) risks arising from —

  (1) work on lifts under construction, testing, or during alterations and dismantling;

  (2) use of lifts for fire fighting and emergency evacuation;

  (3) vandalism; and

  (4) fire outside the LCU.

This document is identical with, and has been reproduced from, ISO 8100-20:2018, L*ifts for the transport of persons and goods — Part 20: Global essential safety requirements (GESRs).*

As this document has been reproduced from an international document, a full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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 and moving walks*.

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.

This first edition of ISO 8100-20 cancels and replaces ISO 22559-1:2014.

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

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Introduction

0.1 After the publication of ISO/TR 11071-1 and ISO/TR 11071-2, discrepancies were noted in the lift safety standards, and it was agreed that there was a need for an ISO publication that would set global essential safety requirements for lifts (elevators). The work, however, could start only after ISO 14798 was completed. This methodology was a critical tool in the development of this document on safety requirements for lifts.

0.2 The objective of the ISO 8100-2X series of documents is to:

a) define a common global level of safety for all people using, or associated with, lifts (elevators);

b) facilitate innovation of lifts (elevators) not designed according to existing safety standards, while maintaining equivalent levels of safety; and

c) help remove trade barriers.

NOTE ISO/TS 8100-21 contains global safety parameters (GSPs) for lifts (elevators) that further assist in the use and implementation of the global essential safety requirements (GESRs) specified in this document.

0.3 Clause 4 describes the approach and methodology used in the development of this document. Clause 5 gives instructions for the use and implementation of GESRs. The GESRs are presented in Clause 6. Each GESR specifies a safety objective, i.e. what is to be achieved, not how to do it. This allows innovation and development of future technologies. Annex A gives an overview of GESRs in relation to lift subsystems.

0.4 The hazards associated with lifts are similar worldwide. For achieving an appropriate uniform safety level, the requirements in this document are considered in any safety assessment of new lifts.

0.5 This document's GESRs or the EU Lifts Directive 2014/33/EU essential health and safety requirements (EHSRs), as well as those EHSRs of the Machinery Directive 2006/42/EC applicable to lifts, when complied with, give an appropriate level of safety for lifts. See Annex B for application of European legislation.

0.6 The ISO 8100-2X series provides a process for assessment of conformity of lift systems, lift components or lift functions with the safety requirements specified in this document. It includes a structured methodology for establishing, documenting and demonstrating that necessary and appropriate protective measures are taken to eliminate hazards or sufficiently mitigate risks. This process is particularly useful for establishing safety of lift systems, lift components or lift functions involving innovative design or new technologies.

NOTE If one is using the process, ISO 8100-20 to 23 are used.

0.7 ISO/IEC Guide 51 has been taken into account as far as practicable at the time of drafting of this document. The process of risk reduction described in ISO/IEC Guide 51 is accomplished using ISO 14798.

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Lifts for the transport of persons and goods

Part 20: Global essential safety requirements (GESRs)

1 Scope

This document

— specifies GESRs for lifts (elevators), their components and functions, and

— establishes a system and provides methods for minimizing safety risks that can arise in the course of, the operation and use of, or work on, lifts (elevators).

NOTE 1 Hereinafter, the term “lift” is used instead of the term “elevator”.

NOTE 2 See Clause 5 regarding the use and application of this document.

This document is applicable to lifts that are intended to carry persons or persons and goods that can:

a) be located in any permanent and fixed structure or building, except lifts located in means of transport, (e.g. ships);

b) have any

   1) rated load, size of load carrying unit and speed, and

   2) travel distance and number of landings;

c) be affected by fire in the load-carrying unit (LCU), earthquake, weather, or flood;

d) be foreseeably misused (e.g. overloaded) but not vandalized.

This document does not cover

a) all needs of users with disabilities;[1] or

b) risks arising from

   1) work on lifts under construction, testing, or during alterations and dismantling;

   2) use of lifts for fire fighting and emergency evacuation;

   3) vandalism; and

   4) fire outside the LCU.

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 14798, *Lifts (elevators), escalators and moving walks — Risk assessment and reduction methodology*

[1] Although the GESRs specified in this document have been identified and evaluated by risk assessment, not all disabilities or combinations of such disabilities of users have necessarily been addressed.

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