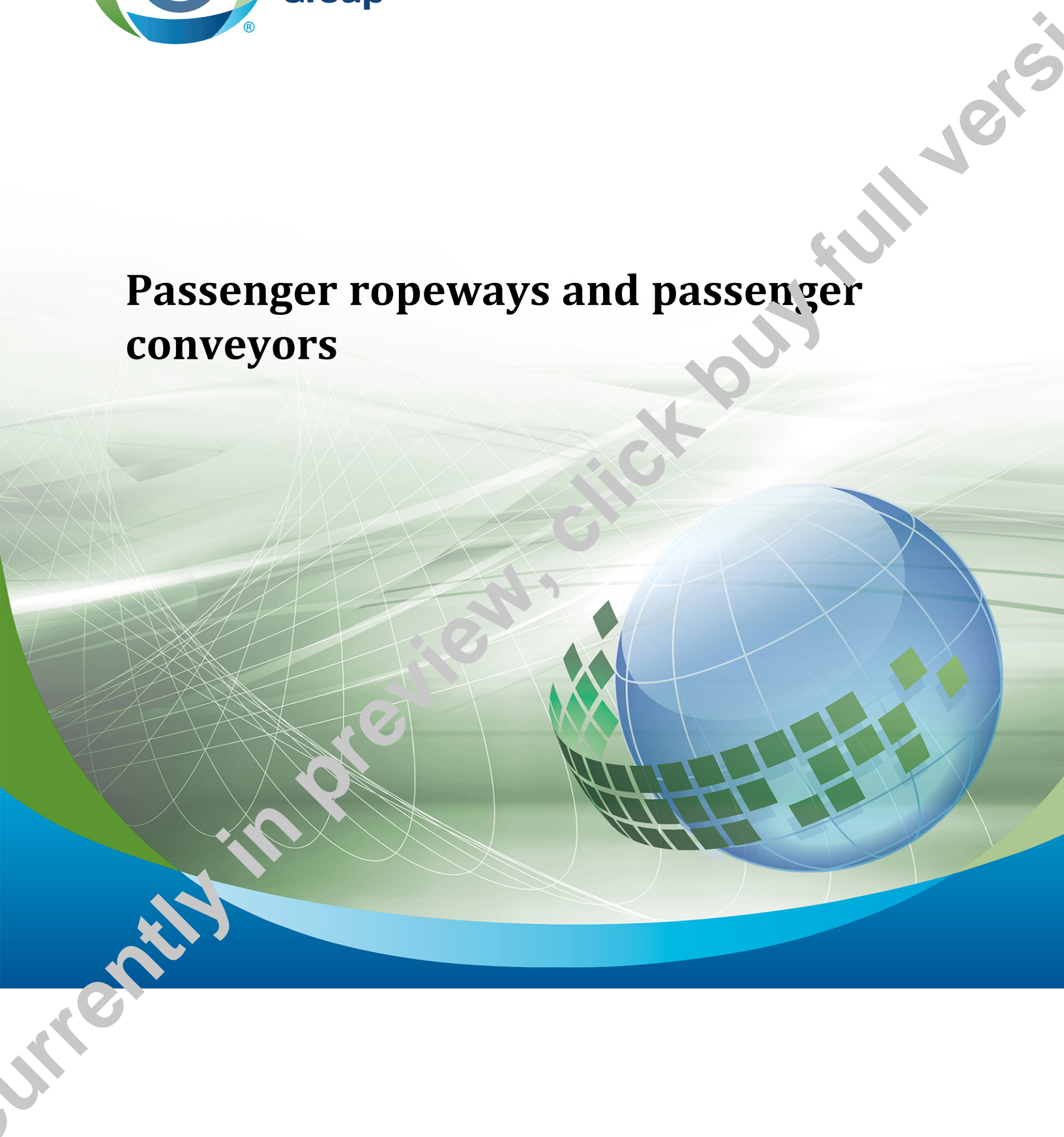




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**Z98-14**  
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# **Passenger ropeways and passenger conveyors**



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*In addition to the members listed above, the Technical Committee would like to recognize Gord Kanani of the Technical Standards & Safety Authority for his contribution to the development of this Standard.*

# Preface

This is the seventh edition of CSA Z98, *Passenger ropeways and passenger conveyors*. It supersedes the previous editions published in 2007, under the title *Passenger ropeways and passenger conveyors*, and in 2001, 1996, 1991, 1978, and 1968 under the title *Passenger Ropeways*.

This Standard specifies requirements for the design, manufacture, installation, operation, maintenance, testing, and inspection of passenger ropeways and passenger conveyors.

The notable changes from the previous edition are as follows:

- a) The reference Standards have been updated.
- b) Replacements in Clause 4.2.2 are considered alterations.
- c) Clarification of considerations for site selection.
- d) Line protection in case of icing has been deleted from the location and alignment clause.
- e) Prevention of water entrapment has been added to the clause on design consideration.
- f) The requirement for luminaires has been deleted from station enclosures and machine rooms.
- g) The operation of the emergency brake on engine shutdown has been clarified.
- h) The addition of handrails to work platforms.

Funding to develop and maintain this Standard was generously provided by the Canada West Ski Areas Association (CWSAA), Ontario Ski Resorts Association (OSRA), Association des stations de ski du Québec (ASSQ), and Atlantic Ski Area Association (ASAA).

This Standard was prepared by the Technical Committee on Passenger Ropeways and Passenger Conveyors, under the jurisdiction of the Strategic Steering Committee on Mechanical Industrial Equipment Safety, and has been formally approved by the Technical Committee.

## Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
- 4) *To submit a request for interpretation of this Standard, please send the following information to [inquiries@csagroup.org](mailto:inquiries@csagroup.org) and include “Request for interpretation” in the subject line:*
  - a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
  - b) *provide an explanation of circumstances surrounding the actual field condition; and*
  - c) *where possible, phrase the request in such a way that a specific “yes” or “no” answer will address the issue.*

*Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at [standardsactivities.csa.ca](http://standardsactivities.csa.ca).*
- 5) *This Standard is subject to review five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to [inquiries@csagroup.org](mailto:inquiries@csagroup.org) and include “Proposal for change” in the subject line:*
  - a) *Standard designation (number);*
  - b) *relevant clause, table, and/or figure number;*
  - c) *wording of the proposed change; and*
  - d) *rationale for the change.*

*Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are published in CSA's periodical Info Update, which is available on the CSA Web site at [www.csa.ca](http://www.csa.ca).*

# Z98-14

## ***Passenger ropeways and passenger conveyors***

### **1 Scope**

#### **1.1 General**

This Standard specifies requirements for the design, manufacture, construction, modification, operation, inspection, testing, and maintenance of passenger ropeways and passenger conveyors.

Requirements for abnormal or unusual conditions are not specifically provided for, nor are all details of engineering and construction prescribed. It is intended that all work performed within the scope of this Standard meet or exceed the safety standards expressed or implied in this Standard.

This Standard does not purport to address all safety issues associated with passenger ropeways and passenger conveyors. It is the responsibility of the users of this Standard to establish appropriate safety practices and to determine the applicability of any regulatory requirements or limitations.

#### **1.2 Equipment covered**

For this Standard, passenger ropeways and passenger conveyors include

- a) reversible above-surface ropeways with single- or double-track ropes;
- b) fixed and detachable grip circulating above-surface monocable, bi-cable, and tri-cable ropeways, including cabin ropeways, chair ropeways, and similar devices;
- c) surface ropeways, including T-bar ropeways, J-bar ropeways, platter ropeways, and similar devices;
- d) tows, including wire and fibre rope tows;
- e) tows for secondary carriers; and
- f) devices with a moving flexible element that
  - i) transport persons uphill for recreational or sport activities; or
  - ii) are used as loading conveyors.

#### **1.3 Freight**

Freight may be carried on the equipment covered by this Standard, provided that allowance has been made in the design and appropriate precautions are taken.

#### **1.4 Existing installations**

Existing installations are expected to meet the operation, maintenance, and testing requirements of this edition of this Standard.

**Note:** *It is possible that equipment installed in compliance with previous editions of this Standard will not comply with new design requirements of this edition of this Standard.*

#### **1.5 Exceptions**

For novel designs, new configurations that cannot be precisely classified, and cases of reported non-conformance, exceptions from the requirements of this Standard may be made, provided that equivalent safety is provided.