

Mechanical refrigeration code



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Mechanical refrigeration code



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Preface

This is the tenth edition of CSA B52, *Mechanical refrigeration code*. It supersedes the previous editions published in 1999, 1995, 1992, 1991, 1983, 1977, 1965, 1951, and 1939.

This Standard contains recommendations only and does not have the force of law until adopted officially by a jurisdiction. The regulatory authorities having jurisdiction, including those that have adopted this Standard, should be consulted on the extent of such adoption, as the Standard could have been adopted with exemptions or with additional requirements.

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

February 2005

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 publication 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 publication.
- (4) CSA Standards are subject to periodic review, and suggestions for their improvement will be referred to the appropriate committee.
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 - (a) define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;
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 - (c) be phrased where possible to permit a specific “yes” or “no” answer.

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.

B52-05

Mechanical refrigeration code

1 Scope

1.1 Purpose

The purpose of this Standard is to minimize the risk of personal injury by providing minimum requirements for the design, construction, installation, inspection, and maintenance of the mechanical refrigeration systems specified in [Clauses 1.2.1](#) and [1.2.2](#).

Note: *This Standard does not directly address protection of property and preservation of the environment.*

1.2 Application

1.2.1

Except as specified in [Clause 1.2.3](#), this Standard applies to the design, construction, installation, inspection, and maintenance of every refrigeration system as provided for by the Act (as defined in [Clause 3](#)) and identified in this Standard.

1.2.2

This Standard applies to

- (a) all refrigeration systems installed subsequent to its adoption. This includes refrigeration systems installed in a new or existing premises. It also applies to all premises, including the machinery room if required, in which a refrigeration system is to be installed;
- (b) refrigeration systems that undergo a substitution of refrigerant in a premises defined in Item (a) above; and
- (c) those parts of a refrigeration system that are replaced in, or added to, systems installed prior to its adoption.

Note: *When adding or replacing parts (see Item (c)), consideration should be given to the premises requirements of Item (a).*

1.2.3

This Standard does not apply to the following:

- (a) the use of water or air as a refrigerant;
- (b) bulk-storage gas tanks not permanently connected to a refrigeration system;
- (c) refrigeration systems installed on railroad cars, motor vehicles, motor-drawn vehicles, aircraft, or ships; and
- (d) refrigeration systems used for air conditioning in private residences.

1.3 Mandatory language

In CSA Standards, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the standard; and “can” is used to express possibility or capability. Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material. Notes to tables and figures are considered part of the table or figure and may be written as requirements. Legends to equations and figures are considered requirements. Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.