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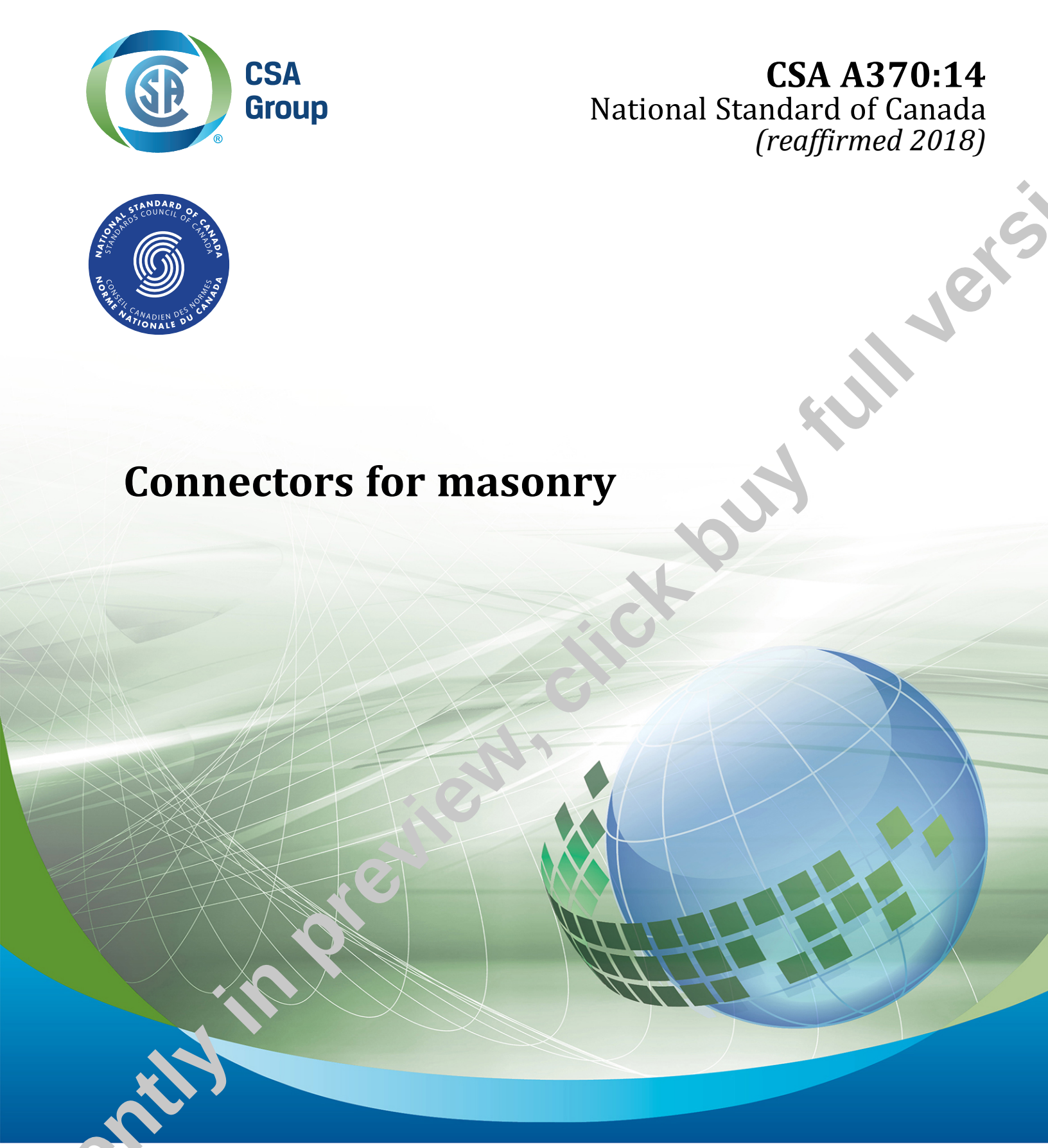
CSA A370:14

National Standard of Canada

(reaffirmed 2018)

Connectors for masonry



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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 to judge its suitability for their particular purpose.

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Connectors for masonry

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Preface

This is the fourth edition of CSA A370, *Connectors for masonry.* It supersedes the previous editions published in 2004, 1994, and 1984.

Significant changes in this edition include the following:

a) New requirements on fastener materials (Clause 4.1.2) have been added.
b) References to typical designs have been removed as requirements and moved into notes regarding wall anchors with reference to CSA S304 (Clause 7.2).
c) Significance of misalignment on ultimate strength has been recognized in a new note (Clause 9.2.2.3, Note 2).
d) Application of free play to typical load-deformation curve has been demonstrated by added content to Figure 9.1.
e) Editorial changes in the terminology within this Standard address concerns that previous use of "embedment" may be interpreted to require the suspension of the connector within the mortar between masonry units (i.e., mortar placed below and above the connector), whereas standard construction practice often results in the connector being placed directly on the masonry unit and then covered in mortar.
f) Harmonization of terminology related to the use of "Tie" and "Connector" throughout standard
g) New requirements for fasteners (Clause 10.7) have been added.
h) Updated Figures in the Annexes.
i) Expanded guidance has been added on Connectors in Annex A in regards to the Standard now recognizing connectors and prescriptive connectors.
j) Additional information has been provided in Annex C on contact between different metals (Clause C.6).
k) Annex E has been updated for current Annual driving rain indices.

This Standard should be read in conjunction with CSA S304, *Design of masonry structures*, and CSA A371, *Masonry construction for buildings*.

This Standard was prepared by the Technical Committee on Masonry Connectors, under the jurisdiction of the Strategic Steering Committee on Masonry, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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.*
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d) *rationale for the change.*

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CSA A370:14
Connectors for masonry

1 Scope

Notes:

1) *For requirements pertaining to loads acting on connectors, see CSA S304.*
2) *For requirements pertaining to installation of masonry connectors, see CSA A371.*

1.1

This Standard specifies minimum requirements for designing the following masonry connectors:

a) ties used to
   i) interconnect the wythes of a masonry wall; or
   ii) attach masonry veneer to its structural backing;
b) anchors used to
   i) connect masonry walls to intersecting walls or to other structural members;
   ii) attach stone to its structural backing; or
   iii) interconnect stone;
c) fasteners used to secure a masonry tie or anchor to a structural member, or to interconnect components of a multi-component tie or anchor; and
d) repair connectors used to restore or improve masonry construction.

1.2

This Standard does not apply to

a) connectors for
   i) precast concrete; and
   ii) prefabricated masonry panels; and
b) fasteners used to attach equipment or fixtures to buildings.

1.3

This Standard recognizes two types of masonry connectors:

a) connectors, including repair connectors, designed in accordance with the performance requirements of this Standard; and
b) prescriptive connectors, which offer a simple prescriptive solution (or deemed-to-comply solution) to the performance requirements of this Standard when complying with the stated limiting conditions for use.

1.4

In this Standard, “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.

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.

