

**Selection and installation of backflow preventers/Maintenance and field testing of backflow preventers**



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# ***Revision History***

**B64.10-17/B64.10.1-17, Selection and installation of backflow preventers/Maintenance and field testing of backflow preventers**

<b>Update No. 1 — September 2019</b>	<b>Revision symbol (in margin)</b>
<b><u>B64.10-17</u></b> Clauses <a href="#">1.2.1</a> , <a href="#">2</a> , and <a href="#">5.1.3.1</a> Table <a href="#">1</a>	①

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# ***Standards Update Service***

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***March 2017***

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backflow preventers/Maintenance  
and field testing of backflow  
preventers***



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*ISBN 978-1-4883-0796-6*

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***In Memoriam***

*This edition of CSA B64.10/B64.10.1 is dedicated to the memory of Michael Birks, whose passion towards backflow preventers and vacuum breakers will remain a valuable contribution to the standards community.*

# Preface

This volume contains the seventh edition of CSA B64.10, *Selection and installation of backflow preventers*, and the fourth edition of CSA B64.10.1, *Maintenance and field testing of backflow preventers*. CSA B64.10 supersedes the previous editions published in 2011, 2007, 2001, 1994, 1988 (as part of the CAN/CSA-B64 Series), and 1981. CSA B64.10.1 supersedes the previous editions published in 2011, 2007 and 2001.

This edition includes the following major changes:

- a) updates to zone protection piping identification;
- b) addition of emergency eye wash station for zone protection;
- c) clarification on field testing installation;
- d) addition of cross-connection control surveyor specifications;
- e) removal of DCVAF double check valve for fire protection systems; and
- f) addition of requirements for enclosures with no minimum thermal resistance (R) value.

The two Standards are intended as a guide for designers of potable water supply and plumbing systems in the selection of the proper type of device, for installers and owners in the installation and maintenance of the devices, and for inspection authorities in the testing of the devices after they have been installed. The Standards provide information on other methods of preventing contamination of potable water by backflow from back siphonage or back pressure.

CSA B64.10 and CSA B64.10.1 provide selection criteria, installation and maintenance procedures, and techniques that represent the general state of the art, but should not be construed as all-inclusive, especially where procedures and techniques are altered to meet special conditions. Where there are problems with a specific installation, it is suggested that the manufacturer of the backflow preventer be consulted.

These Standards were prepared by the Technical Committee on Backflow Preventers and Water Pressure Reducing Valves, under the jurisdiction of the Strategic Steering Committee on Construction and Civil Infrastructure, and have 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.*
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# B64.10-17

## ***Selection and installation of backflow preventers***

### **1 Scope**

#### **1.1 Application**

This Standard specifies requirements for the selection and installation of backflow preventers. Additional information on how backflow due to back siphonage and back pressure occurs, and how to select and apply specific devices, is included in Annexes [A](#), [B](#), and [C](#).

#### **1.2 Exclusions**

##### **① 1.2.1**

This Standard does not cover

- a) construction requirements or performance tests, which are covered by the CSA B64 Series;
- b) plumbing supply fittings, which are covered by ASME A112.18.1/CSA B125.1;
- c) plumbing fittings, which are covered by CSA B125.3; and
- d) manually operated valves for use in plumbing systems, which are covered by ASME A112.4.14/CSA B125.14.

##### **1.2.2**

This Standard does not specify requirements for maintenance or field testing after the initial installation. Such requirements are specified in CSA B64.10.1.

#### **1.3 Terminology**

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.

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.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

#### **1.4 Measurement**

This Standard is written in SI (metric) units. For conversion tables, see Annex [D](#). Vacuum is expressed in pressure below ambient.