

Steel valves



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Preface

This is the tenth edition of CSA Z245.15, *Steel valves*. It supersedes the previous editions published in 2017, 2013, 2009, 2005, 2001, 1996, 1991, 1987, and 1981.

This Standard covers the requirements for steel valves intended to be used for transporting fluids as specified in CSA Z662. This Standard should not be used as a stand-alone reference document. It must always be used in conjunction with a listed valve reference standard(s) per Clause [1.1](#).

Some of the main changes to this edition include the following:

- a) removal of content that is addressed in the applicable valve reference standards with no detrimental impact to the principles of safety and the preservation of the environment per the governing installation code;
- b) addition of content to provide an improvement in quality of manufacturing;
- c) added clarity to the use of this Standard to expand the pressure ratings of valves deemed acceptable under the installation code; and
- d) addition of content to mitigate the risks of buried threaded connections and sealant injection fitting failures.

This Standard was prepared by the Subcommittee on Materials, under the jurisdiction of the Technical Committee on Petroleum and Natural Gas Industry Pipeline Systems and Materials and the Strategic Steering Committee on Petroleum and Natural Gas Industry Systems, 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 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.
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 - b) *relevant clause, table, and/or figure number;*
 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*

CSA Z245.15:22

Steel valves

1 Scope

1.1 General

This Standard covers steel valves primarily intended for use in oil or gas pipeline systems. The Scope as presented within the valve reference standard(s) takes precedence without restriction insofar as there is no conflict with the governing installation code and this Standard as agreed to with the purchaser. The valve reference standards, which have been adopted in their entirety, are as per the following except as noted within this Standard. This Standard provides modification or additional content as deemed applicable by the user:

- a) API 6D;
- b) API 599;
- c) API 600;
- d) API 602;
- e) API 608; and
- f) API 609.

Note: *Items a) to f) all default to ASME B16.34 for pressure/temperature ratings, materials, and other basic elements of valve design and construction.*

1.2 Size, nominal pressure class, and category

1.2.1 Size

This Standard covers valves in the sizes specified in the scope of the valve reference standards. (See Clause [5.3](#) and informative Table [A.1](#))

1.2.2 Nominal pressure class

This Standard covers valves in the scope of the valve reference standards. (See Clause [5.2](#) and informative Table [B.1](#)).

1.2.3 Category

This Standard covers valves in the following categories:

- a) Category I: valves without requirements for proven notch-toughness properties (for design temperatures at or above -29 °C); and
- b) Category II: valves with requirements for proven notch-toughness properties (for design temperatures at or above -45 °C).

Note: *This Standard is not applicable for temperatures below -45 °C .*

1.3 Terminology

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.