CSA STANDARDS

ASME A112.19.5-2011/ CSA B45.15-11

(reaffirmed 2016)

Flush valves and spuds for water closets, urinals, and tanks

The American Society of Mechanical Engineers

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Update No. 1

ASME A112.19.5-2011/CSA B45.15-11

May 2012

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Title: *Flush valves and spuds for water closets, urinals, and tanks* — originally published October 2011

The following revisions have been formally approved and are marked by the symbol delta (Δ) in the margin on the attached replacement pages:

Revised	Preface and Clause 2
New	None
Deleted	None

- Update your copy by inserting these revised pages.
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Δ Preface

This is the first edition of ASME A112.19.5/CSA B45.15, *Flush valves and spuds for water closets, urinals, and tanks*.

This Standard replaces ASME A112.19.5-2005, *Trim for Water-Closet Bowls, Tanks, and Urinals* and the requirements in Clauses 4.18.1, 4.18.3, and 5.8.7 of CSA B125.3-11.

This Standard is considered suitable for use with conformity assessment within its stated scope.

This Standard was prepared by the ASME/CSA Joint Harmonization Task Group on Plumbing Fixtures, under the jurisdiction of the ASME Standards Committee on Plumbing Materials and Equipment and the CSA Technical Committee on Plumbing Fixtures. The CSA Technical Committee operates under the jurisdiction of the CSA Strategic Steering Committee on Water Management Products, Materials, and Systems. This Standard has been formally approved by the ASME Standards Committee and the CSA Technical Committee. This Standard was approved as an American National Standard by the American National Standards Institute on September 1, 2011.

October 2011

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ASME A112.19.5-2011/CSA B45.15-11
Flush valves and spuds for water closets, urinals, and tanks

1 Scope

1.1
This Standard covers spuds and flush valves for water closet bowls, tanks, and urinals.

1.2
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.

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1.3
SI units are the units of record in Canada. In this Standard, the inch/pound units are shown in parentheses.

The values stated in each measurement system are equivalent in application; however, each system is to be used independently. Combining values from the two measurement systems can result in non-conformance with this Standard.

All references to gallons are to U.S. gallons.

For information on the conversion criteria used in this Standard, see Annex A.

Δ 2 Reference publications
This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

ASME/CSA (The American Society of Mechanical Engineers/Canadian Standards Association)
ASME A112.19.2-2008/CSA B45.1-08
Ceramic plumbing fixtures

ASME (The American Society of Mechanical Engineers)
B1.20.1-1983 (R2006)
Pipe Threads, General Purpose, Inch

CSA (Canadian Standards Association)
B125.3-11
Plumbing fittings

3 Definitions and abbreviations

3.1 Definitions

The following definitions shall apply in this Standard:

Flush valve — a valve located in a flush tank and used to flush a fixture by discharging water into the fixture.

> **Early closure flush valve** — a valve in which the flush valve seal is adjustable to control the water level.
> **Note:** *Usually, early closure flush valves are dependent on either a time delay or the distance that the water level drops to control the level at which the flush valve closes.*

Flush valve body — a fitting that contains a flush valve seat and a means of mounting to a fixture
Note: *The means for mounting the body can be threaded or non-threaded, and can be with or without an overflow.*

Flush valve seal — a component of the flush valve that mates against the flush valve seat to prevent leakage when the flush valve is closed.
Note: *Flappers are a type of flush valve seal.*

Flush valve seat — the sealing surface of the flush valve body which, when mated with the flush valve seal, prevents leakage through the flush valve into the fixture.

Mounting seal — a seal between the flush valve body and the fixture.

Spud — a fitting used to connect a flushometer valve to a water closet or urinal.
Note: *Spuds are illustrated in Tables 1 and 2.*

3.2 Abbreviations

The following abbreviations shall apply in this Standard:

NPS — nominal pipe size
NPSM — National Pipe Straight Mechanical
PVC — polyvinylchloride

4 Design requirements

4.1 Rated temperatures

Flush valves and spuds shall be designed for rated supply temperatures between 5 and 43 °C (40 and 110°F).

4.2 Threads

Pipe threads shall comply with ASME B1.20.1.

4.3 Overflow tubes

The inside diameter of the overflow tube for flush valves intended to be sold as replacement parts shall be a minimum of 23.4 mm (0.92 in).

4.4 Spud dimensions

Threaded spuds shall comply with the dimensions specified in Tables 1 and 2.

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ASME/CSA Standard

ASME A112.19.5-2011/CSA B45.15-11
Flush valves and spuds for water closets, urinals, and tanks

The American Society of Mechanical Engineers

CANADIAN STANDARDS ASSOCIATION

Commitment for Amendments

This Standard is issued jointly by The American Society of Mechanical Engineers (ASME) and the Canadian Standards Association (CSA). Amendments to this Standard will be made only after processing according to the Standards writing procedures of both ASME and CSA.

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For information on the conversion criteria used in this Standard, see Annex A.

2 Reference publications
This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

ASME/CSA (The American Society of Mechanical Engineers/Canadian Standards Association)
ASME A112.19.2-2008/CSA B45.1-08
Ceramic plumbing fixtures

ASME (The American Society of Mechanical Engineers)
B1.20.1-1983 (R2006)
Pipe Threads, General Purpose, Inch