

ASSE 1016-2017/

ASME A112.1016-2017/

CSA B125.16-17

ANSI Approved: January 2017

Performance Requirements for

Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations



An American National Standard

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ASSE 1016-2017/

ASME A112.1016-2017/

CSA B125.16-17

February 2017

Title: *Performance requirements for automatic compensating valves for individual showers and tub/shower combinations*

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***Performance requirements for automatic
compensating valves for individual showers and
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Published in February 2017 by ASSE International
18927 Hickory Creek Drive, Suite 220, Mokena, Illinois 60447
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The American Society of Mechanical Engineers
(ASME) Two Park Avenue
New York, NY 10016-5990
USA
www.asme.org

ISBN 978-0-7918-7012-9
© 2017

The 2017 edition of this Standard is being issued with an automatic addenda subscription service. The use of addenda allows revisions made in response to public review comments or committee actions to be published as necessary.

Published in January 2017 by
CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard
Toronto, Ontario, Canada
M9W 1R3
1-800-463-6727 or 416-747-4744
Visit the CSA Group Online Store at
shop.csa.ca

ISBN 978-1-4883-0440-8
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Preface

This is the second edition of ASSE 1016/ASME A112.1016/CSA B125.16, *Performance requirements for automatic compensating valves for individual showers and tub/shower combinations*. It supersedes the previous edition published in 2011.

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

This Standard was prepared by the ASSE/ASME/CSA Harmonization Task Group on Plumbing Fittings, under the jurisdiction of the ASME A112 Main Committee, the ASSE Product Standards Committee, and the CSA Technical Committee on Plumbing Fittings. The CSA Technical Committee operates under the jurisdiction of the CSA Strategic Steering Committee on Construction and Civil Infrastructure.

This Standard will be submitted for formal approval by the ASME Standards Committee on Plumbing Materials and Equipment, the ASSE Product Standards Committee and the CSA Technical Committee. This Standard was approved as an American National Standard by the American National Standards Institute on January 6, 2017.

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ASSE Foreword

This Foreword is not part of the Standard; however, it is offered to provide background information.

Several suggestions received from persons having had a disturbing experience with shower valves which were potentially hazardous allowing sudden surges of high temperature water to flow from the shower head prompted the initiation of the ASSE 1016 standard in 1973. Documents and field experiences relating to the behavioural characteristics of different classes of devices were studied and evaluated, and from this, the standard text was developed. Since that time, extensive research has been conducted toward the development of this standard in its current form.

This harmonized Standard was developed in response to an industry request for a harmonized set of requirements between ASSE 1016-2005 and Clause 5.10 of ASME A112.18.1-2005/CSA B125.1-05. In recognition of energy and water efficiency requirements, which have further reduced the maximum flow rate requirements in certain areas, testing requirements to address the performance of shower valves rated for shower heads and body sprays rated at less than 9.5 L/min (2.5 GPM) flow rates were needed to be addressed.

In 2005 the CSA/ASME Joint Harmonization Task Group formed a task force FT-05-24 to accomplish this end. The TF was joined by members of ASSE and their historical 1016 Working Group. The first meeting was held on August 30, 2007.

The shower control valves covered by this Standard are only those which will, in cases of changes to the incoming water supply pressure or temperature, reduce the risk of scalding and thermal shock by protecting the bather from exposure to such changes in water temperature that produce these effects.

These devices generally have one cold water inlet connection, one hot water inlet connection, and a mixed water outlet connection(s).

This Standard provides engineers, designers, manufacturers, health authorities, inspection agencies and others with a set of minimum performance requirements for such individual automatic compensating valves.

Recognition is made of the time volunteered by members of the Joint Harmonization Task Group and Task Force, the ASME members, ASSE members and CSA members and of the support of the manufacturers who also participated in the meetings for this standard.

The Standard does not imply ASME, ASSE, or CSA's endorsement of a product which conforms with these requirements.

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

It is recommended that these devices be installed consistent with local codes.

ASSE 1016-2017/ ASME A112.1016-2017/ CSA B125.16-17

Performance requirements for automatic compensating valves for individual showers and tub/shower combinations

Section I

1 Scope

1.1

This Standard applies to automatic compensating valves intended to be installed at the point of use, where the user has access to flow or final temperature controls, and where no further mixing occurs downstream of the device.

Note: *In this Standard, automatic compensating valves are also referred to as devices.*

1.2

This Standard covers automatic compensating valves intended to control the water temperature to wall or ceiling mounted

- a) hand-held showers;
- b) shower heads;
- c) body sprays either in individual shower or tub/shower combination fittings; and
- d) tub spouts when part of tub/shower combination fittings.

1.3

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.

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 (non-mandatory) to define their application.