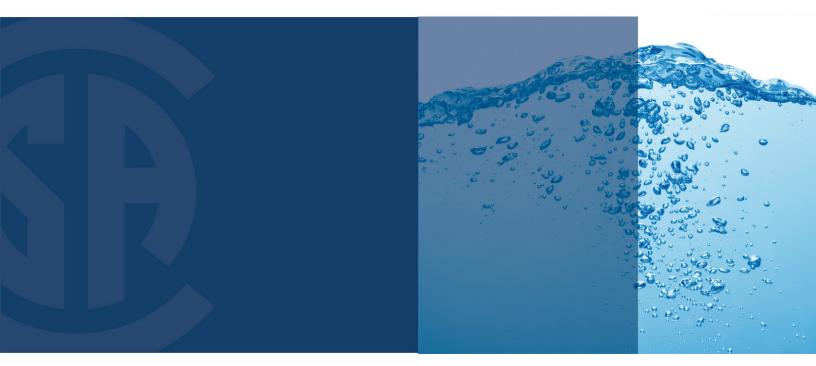




ASME A112.6.8-2022/ CSA B79.8:22 National Standard of Canada

American National Standard









Legal Notice for Harmonized Standard Jointly Developed by ASME and CSA Group

Intellectual property rights and ownership

As between American Society of Mechanical Engineers ("ASME") and Canadian Standards Association (Operating as "CSA Group") (collectively "ASME and CSA Group") and the users of this document (whether it be in printed or electronic form), ASME and CSA Group are the joint owners of all works contained herein that are protected by copyright, all trade-marks (except as otherwise noted to the contrary), and all inventions and trade secrets that may be contained in this document, whether or not such inventions and trade secrets are protected by patents and applications for patents. The unauthorized use, modification, copying, or disclosure of this document may violate laws that protect the intellectual property of ASME and CSA Group and may give rise to a right in ASME and CSA Group to seek legal redress for such use, modification, copying, or disclosure all intellectual property rights in this document.

Disclaimer and exclusion of liability

This document is provided without any representations, warranties, or conditions of any kind, express or implied, including, without limitation, implied warranties or conditions concerning this document's fitness for a particular purpose or use, its merchantability, or its non-infringement of any third party's intellectual property rights. ASME and CSA Group do not warrant the accuracy, completeness, or currency of any of the information published in this document. ASME and CSA Group make no representations or warranties regarding this document's compliance with any applicable statute, rule, or regulation.

IN NO EVENT SHALL ASME AND CSA GROUP, THEIR RESPECTIVE VOLUNTEERS, MEMBERS, SUBSIDIARIES, OR AFFILIATED COMPANIES, OR THEIR EMPLOYEES, DIRECTORS, OR OFFICERS, BE LIABLE FOR ANY DIRECT, INDIRECT, OR INCIDENTAL DAMAGES, INJURY, LOSS, COSTS, OR EXPENSES, HOWSOEVER CAUSED, INCLUDING BUT NOT LIMITED TO SPECIAL OR CONSEQUENTIAL DAMAGES, LOST REVENUE, BUSINESS INTERRUPTION, LOST OR DAMAGED DATA, OR ANY OTHER COMMERCIAL OR ECONOMIC LOSS, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR ANY OTHER THEORY OF LIABILITY, ARISING OUT OF OR RESULTING FROM ACCESS TO OR POSSESSION OR USE OF THIS DOCUMENT, EVEN IF ASME OR CSA GROUP HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INJURY, LOSS, COSTS, OR EXPENSES.

In publishing and making this document available, ASME and CSA Group are not undertaking to render professional or other services for or on behalf of any person or entity or to perform any duty owed by any person or entity to another person or entity. The information in this document is directed to those who have the appropriate degree of experience to use and apply its contents, and ASME and CSA Group accept no responsibility whatsoever arising in any way from any and all use of or reliance on the information contained in this document.

ASME and CSA Group have no power, nor do they undertake, to enforce compliance with the contents of the standards or other documents they jointly publish.

Authorized use of this document

This document is being provided by ASME and CSA Group for informational and non-commercial use only. The user of this document is authorized to do only the following:

If this document is in electronic form:

- load this document onto a computer for the sole purpose of reviewing it;
- search and browse this document; and
- print this document if it is in PDF format.

Limited copies of this document in print or paper form may be distributed only to persons who are authorized by ASME and CSA Group to have such copies, and only if this Legal Notice appears on each such copy.

- In addition, users may not and may not permit others to
- alter this document in any way or remove this Legal Notice from the attached standard;
- sell this document without authorization from ASME and CSA Group; or
- make an electronic copy of this document.

If you do not agree with any of the terms and conditions contained in this Legal Notice, you may not load or use this document or make any copies of the contents hereof, and if you do make such copies, you are required to destroy them immediately. Use of this document constitutes your acceptance of the terms and conditions of this Legal Notice.





Standards Update Service

ASME A112.6.8-2022/CSA B79.8:22 July 2022

Title: Trench drains

To register for e-mail notification about any updates to this publication

- go to www.csagroup.org/store/
- click on **Product Updates**

The List ID that you will need to register for updates to this publication is 2429846.

If you require assistance, please e-mail techsupport@csagroup.org or call 416-747-2233.

Visit CSA Group's policy on privacy at <u>www.csagroup.org/legal</u> to find out how we protect your personal information.

Canadian Standards Association (operating as "CSA Group"), under whose auspices this National Standard has been produced, was chartered in 1919 and accredited by the Standards Council of Canada to the National Standards system in 1973. It is a not-forprofit, nonstatutory, voluntary membership association engaged in standards development and certification activities.

CSA Group standards reflect a national consensus of producers and users — including manufacturers, consumers, retailers, unions and professional organizations, and governmental agencies. The standards are used widely by industry and commerce and often adopted by municipal, provincial, and federal governments in their regulations, particularly in the fields of health, safety, building and construction, and the environment.

More than 10 000 members indicate their support for CSA Group's standards development by volunteering their time and skills to Committee work.

CSA Group offers certification and testing services in support of and as an extension to its standards development activities. To ensure the integrity of its certification process, CSA Group regularly and continually audits and inspects products that bear the CSA Group Mark.

In addition to its head office and laboratory complex in Toronto, CSA Group has regional branch offices in major centres across Canada and inspection and testing agencies in fourteen countries. Since 1919, CSA Group has developed the necessary expertise to meet its corporate mission: CSA Group is an independent service organization whose mission is to provide an open and effective forum for activities facilitating the exchange of goods and services through the use of standards, certification and related services to meet national and international needs.

For further information on CSA Group services, write to CSA Group 178 Rexdale Boulevard Toronto, Ontario, M9W 1R3 Canada A National Standard of Canada is a standard developed by a Standards Council of Canada (SCC) accredited Standards Development Organization, in compliance with requirements and guidance set out by SCC. More information on National Standards of Canada can be found at <u>www.scc.ca</u>.

SCC is a Crown corporation within the portfolio of Innovation, Science and Economic Development (ISED) Canada. With the goal of enhancing Canada's economic competitiveness and social wellbeing, SCC leads and facilitates the development and use of national and international standards. SCC also coordinates Canadian participation in standards development, and identifies strategies to advance Canadian standardization efforts.

Accreditation services are provided by SCC to various customers, including product certifiers, testing laboratories, and standards development organizations. A list of SCC programs and accredited bodies is publicly available at <u>www.scc.ca</u>.

Standards Council of Canada 600-55 Metcalfe Street Ottawa, Ontario, K1P 6L5 Canada





Cette Norme Nationale du Canada n'est disponible qu'en anglais.

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. [®]A trademark of the Canadian Standards Association, operating as "CSA Group"

CSA Group

The Canadian Standards Association (operating as "CSA Group"), under whose auspices this National Standard has been produced, was chartered in 1919 and accredited by the Standards Council of Canada to the National Standards system in 1973. It is a not-for-profit, nonstatutory, voluntary membership association engaged in standards development and certification activities.

CSA Group standards reflect a national consensus of producers and users including manufacturers, consumers, retailers, unions and professional organizations, and governmental agencies. The standards are used widely by industry and commerce and often adopted by municipal, provincial, and federal governments in their regulations, particularly in the fields of health, safety, building and construction, and the environment.

More than 10 000 members indicate their support for CSA Group's standards development by volunteering their time and skills to Committee work.

CSA Group offers certification and testing services in support of and as an extension to its standards development activities. To ensure the integrity of its certification process, CSA Group regularly and continually audits and inspects products that bear the CSA Group Mark.

In addition to its head office and laboratory complex in Toronto, CSA Group has regional branch offices in major centres across Canada and inspection and testing agencies in fourteen countries. Since 1919, CSA Group has developed the necessary expertise to meet its corporate mission: CSA Group is an independent service organization whose mission is to provide an open and effective forum for activities facilitating the exchange of goods and services through the use of standards, certification and related services to meet national and international needs.

American National Standards Institute

The American National Standards Institute (ANSI), Inc. is the nationally recognized coordinator of voluntary standards development in the United States through which voluntary organizations, representing virtually every technical discipline and every facet of trade and commerce, organized labor and consumer interests, establish and improve the some 10 000 national consensus standards currently approved as American National Standards.

ANSI provides that the interests of the public may have appropriate participation and representation in standardization activity, and cooperates with departments and agencies of U.S. Federal, state and local governments in achieving compatibility between government codes and standards and the voluntary standards of industry and commerce.

ANSI represents the interests of the United States in international nontreaty organizations such as the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). The Institute maintains close ties with regional organizations such as the Pacific Area Standards Congress (PASC) and the Pan American Standards Commission (COPANT). As such, ANSI coordinates the activities involved in the U.S. participation in these groups.

ANSI approval of standards is intended to verify that the principles of openness and due process have been followed in the approval procedure and that a consensus of those directly and materially affected by the standards has been achieved. ANSI coordination is intended to assist the voluntary system to ensure that national standards needs are identified and met with a set of standards that are without conflict or unnecessary duplication in their requirements.

For further information on CSA Group services, write to CSA Group 178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3 Responsibility of approving American standards rests with the American National Standards Institute, Inc. 25 West 43rd Street, Fourth floor New York, NY 10036

ASME/CSA Standard

ASME A112.6.8-2022/CSA B79.8:22 Trench drains





"A trademark of the Canadian Standards Association and CSA America Inc., operating as "CSA Group"

Published in July 2022 by CSA Group A not-for-profit private sector organization 178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3 1-800-463-6727 • 416-747-4044

Visit the CSA Group Online Store at <u>www.csagroup.org/store/</u>

The American Society of Mechanical Engineers (ASME) Two Park Avenue New York, NY 10016-5990, USA 1-800-843-2763

Visit the ASME Online Store at <u>www.asme.org</u>

Commitment for Amendments

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

The American Society of Mechanical Engineers (ASME) Two Park Avenue New York, NY 10016-5990 USA 1-800-843-2763 Visit the ASME Online Store at www.asme.org

ISBN 978-0-7918-7522-3 Copyright © 2022 by The American Society of Mechanical Engineers (ASME)

This Standard is available for public review on a continuous basis. This provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public at large.

Published in July 2022 by CSA Group A not-for-profit private sector organization 178 Rexdale Boulevard Toronto, Ontario, Canada M9W 1R3 1-800-463-6727 or 416-747-4044 Visit the CSA Group Online Store at www.csagroup.org/store/

ISBN 978-1-4883-4103-8 ICS 91.140.80 © 2022 Canadian Standards Association

All rights reserved. No part of this publication may be reproduced in any form whatsoever without the prior permission of the publisher.

Contents

ASME A112 Standards Committee on Plumbing Materials and Equipment 3

ASME A112.6.8 Project Team on Trench Drains 7

CSA Technical Committee on Drains and Interceptors 9

ASME/CSA Harmonization Task Group on Drains 13

Preface 16

- **1 Scope** 18
- 1.1 Inclusions 18
- 1.2 Linear shower drains 18
- 1.3 Illustrations 18
- 1.4 Terminology 18
- 1.5 Units of measure 18
- 1.6 Alternatives 18

2 Reference publications 19

3 Definitions and abbreviations 20

- 3.1 Definitions 20
- 3.2 Abbreviations 21

4 Material 21

- 4.1 General 21
- 4.2 Other materials 22
- 4.2.1 Polymer concrete 22
- 4.2.2 Precast concrete 22
- 4.2.3 Fiberglass 22
- 4.2.4 Thermoplastic compounds 22
- 4.2.5 Steel 23
- 4.3 Fastener materials 23
- 4.3.1 Carbon steel fasteners 23
- 4.3.2 Removable fasteners 23

5 Design requirements 23

- 5.1 Outlets 23
- 5.2 Top dimensions Areas of grate openings 23
- 5.2.1 Area calculations 23
- 5.2.2 Area per unit length 23
- 5.2.3 Heel-resistant grates 23
- 5.2.4 Grate opening blocking 23
- 5.3 Channel flow area determination 23

6 Load test procedures 24

6.1 General 24

- 6.1.1 Channel testing options 24
- 6.1.2 Grate and cover testing options 24
- 6.1.3 Slot drain testing options 24
- 6.2 Channel load test options 24
- 6.2.1 AASHTO M306 load test option 24
- 6.2.2 EN 1433 load test option 24
- 6.2.3 ASME A112.6.3/CSA B79.3 load test option 24
- 6.2.4 Encapsulation concrete strength test 25
- 6.3 Grate and cover load test options 25
- 6.3.1 AASHTO M306 load test option 25
- 6.3.2 EN 1433 load test option 25
- 6.3.3 ASME A112.6.3/CSA B79.3 load test option 25
- 6.4 Slot drain test 26
- 6.4.1 Installation of test specimens 26
- 6.4.2 AASHTO M306 load test option 26
- 6.4.3 EN1433 load test option 26
- 6.4.4 ASME A112.6.3/CSA B79.3 load test option 26
- 7 Markings 26
- 7.1 General 26
- 7.2 Permanent markings 26
- 8 Literature 26