

**ASME A112.6.3-2019**  
(Revision of ASME A112.6.3-2016)

# Floor and Trench Drains

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**AN AMERICAN NATIONAL STANDARD**



**The American Society of  
Mechanical Engineers**

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# Floor and Trench Drains

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**The American Society of  
Mechanical Engineers**

Two Park Avenue • New York, NY • 10016 USA

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## FOREWORD

The American National Standards Committee A112 was established on July 27, 1955 for the purpose of standardizing plumbing materials and equipment. Its first organizational meeting was held on July 22, 1958, and Panel No. 21 was created on May 1, 1964 to establish standards for roof drains, floor drains, backwater valves, and other drainage specialties. Its scope was the recommendation of suitable existing standards in cooperation with interested sponsors or the development of adequate new standards as needed for roof drains, floor drains, and other drains as used or installed in plumbing systems. The Committee has since been reorganized as an ASME Standards Committee.

The ASME A112 Committee was restructured in 1998 in accordance with the ASME Redesign Process, and Panel 21 Working Group 1 became Project Team 6.3. The revision now includes criteria from the International Association of Plumbing and Mechanical Officials (IAPMO), PS 4 and PS 16.

This revision is the result of a request for interpretation. The requirements for determining the area of the grate openings are revised in ASME A112.6.3-2018. In addition, requirements for perimeter drains and aluminum sand castings have been added, and the requirements for coatings have been harmonized with CSA B79. Final body thicknesses have been specified for each drain material of manufacture.

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

ASME A112.6.3-2018 was approved as an American National Standard on January 31, 2019.

# ASME A112 COMMITTEE

## Standardization of Plumbing Materials and Equipment

(The following is the roster of the Committee at the time of approval of this Standard.)

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<b>G. W. Harrison</b> , Consultant	

# CORRESPONDENCE WITH THE A112 COMMITTEE

**General.** ASME Standards are developed and maintained with the intent to represent the consensus of concerned interests. As such, users of this Standard may interact with the Committee by requesting interpretations, proposing revisions or a case, and attending Committee meetings. Correspondence should be addressed to:

Secretary, A112 Standards Committee  
The American Society of Mechanical Engineers  
Two Park Avenue  
New York, NY 10016-5990  
<http://go.asme.org/Inquiry>

**Proposing Revisions.** Revisions are made periodically to the Standard to incorporate changes that appear necessary or desirable, as demonstrated by the experience gained from the application of the Standard. Approved revisions will be published periodically.

The Committee welcomes proposals for revisions to this Standard. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent documentation.

**Proposing a Case.** Cases may be issued to provide alternative rules when justified, to permit early implementation of an approved revision when the need is urgent, or to provide rules not covered by existing provisions. Cases are effective immediately upon ASME approval and shall be posted on the ASME Committee web page.

Requests for Cases shall provide a Statement of Need and Background information. The request should identify the Standard and the paragraph, figure, or table number(s), and be written as a Question and Reply in the same format as existing Cases. Requests for Cases should also indicate the applicable edition(s) of the Standard to which the proposed Case applies.

**Interpretations.** Upon request, the A112 Standards Committee will render an interpretation of any requirement of the Standard. Interpretations can only be rendered in response to a written request sent to the Secretary of the A112 Standards Committee.

Requests for interpretation should preferably be submitted through the online Interpretation Submittal Form. The form is accessible at <http://go.asme.org/InterpretationRequest>. Upon submittal of the form, the Inquirer will receive an automatic e-mail confirming receipt.

If the Inquirer is unable to use the online form, he/she may mail the request to the Secretary of the A112 Standards Committee at the above address. The request for an interpretation should be clear and unambiguous. It is further recommended that the Inquirer submit his/her request in the following format:

Subject: Cite the applicable paragraph number(s) and the topic of the inquiry in one or two words.  
Edition: Cite the applicable edition of the Standard for which the interpretation is being requested.  
Question: Phrase the question as a request for an interpretation of a specific requirement suitable for general understanding and use, not as a request for an approval of a proprietary design or situation. Please provide a condensed and precise question, composed in such a way that a "yes" or "no" reply is acceptable.  
Proposed Reply(ies): Provide a proposed reply(ies) in the form of "Yes" or "No," with explanation as needed. If entering replies to more than one question, please number the questions and replies.  
Background Information: Provide the Committee with any background information that will assist the Committee in understanding the inquiry. The Inquirer may also include any plans or drawings that are necessary to explain the question; however, they should not contain proprietary names or information.

Requests that are not in the format described above may be rewritten in the appropriate format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

Moreover, ASME does not act as a consultant for specific engineering problems or for the general application or understanding of the Standard requirements. If, based on the inquiry information submitted, it is the opinion of the Committee that the Inquirer should seek assistance, the inquiry will be returned with the recommendation that such assistance be obtained.

ASME procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ASME Committee or Subcommittee. ASME does not “approve,” “certify,” “rate,” or “endorse” any item, construction, proprietary device, or activity.

**Attending Committee Meetings.** The A112 Standards Committee regularly holds meetings and/or telephone conferences that are open to the public. Persons wishing to attend any meeting and/or telephone conference should contact the Secretary of the A112 Standards Committee. Future Committee meeting dates and locations can be found on the Committee Page at <http://go.asme.org/A112committee>.

# FLOOR AND TRENCH DRAINS

## 1 GENERAL

### 1.1 Scope

This Standard covers floor, area, adjustable floor, and trench drains that are used inside of, or outside and immediately adjacent to, building structures. This Standard specifies design requirements, definitions, nomenclature, outlet types and connections, grate-opening areas, top-loading classifications, materials, and finishes.

### 1.2 Stainless Steel Fabricated Drains

Seam-welded, socket-type, stainless steel fabricated drains are covered in ASME A112.3.1. All other stainless steel fabricated drains are covered by this Standard.

### 1.3 Alternatives

The requirements of this Standard are not intended to prevent the use of alternative designs, materials, or methods of construction, provided such alternatives meet the intent and requirements of this Standard.

### 1.4 Units of Measure

The values stated in either SI (metric) or U.S. Customary units of measurement are equivalent in application; however, each system is to be used independently of the other. In this Standard, U.S. Customary units are shown in parentheses. Combining values from the two systems can result in nonconformance with the Standard.

### 1.5 Illustrations

The illustrations included in this Standard are intended only to describe and portray typical drains and are not intended to restrict design or to specify requirements.

### 1.6 Reference Standards

This Standard refers to the following publications, and where such reference is made, it shall be to the latest edition of the publication, including all amendments published thereto:

- ASME A112.3.1, Stainless Steel Drainage Systems for Sanitary DWV, Storm, and Vacuum Applications, Above- and Below-Ground
- ASME A112.14.1, Backwater Valves
- ASME A112.18.1/CSA B125.1, Plumbing Supply Fittings
- ASME B16.25, Butt-welding Ends
- Publisher: The American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990 (www.asme.org)
- ASTM A48, Standard Specification for Gray Iron Castings
- ASTM A53, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
- ASTM A74, Standard Specification for Cast Iron Soil Pipe and Fittings
- ASTM A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- ASTM A153/A153M, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- ASTM A307, Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength
- ASTM A312/A312M, Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipe
- ASTM A536, Standard Specification for Ductile Iron Castings
- ASTM A563, Standard Specification for Carbon and Alloy Steel Nuts
- ASTM A888, Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications
- ASTM B26, Standard Specification for Aluminum-Alloy Sand Castings
- ASTM B85, Standard Specification for Aluminum-Alloy Die Castings