ASME A112.3.1-2007
(Revision of ASME A112.3.1-1993)

Stainless Steel Drainage Systems for Sanitary DWV, Storm, and Vacuum Applications, Above- and Below-Ground

REAFFIRMED 2012

FOR CURRENT COMMITTEE PERSONNEL
PLEASE E-MAIL CS@asme.org

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

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Three Park Avenue • New York, NY 10016

Date of Issuance: May 7, 2008

This Standard will be revised when the Society approves the issuance of a new edition. There will be no addenda issued to this edition.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this document. Periodically certain actions of the ASME A112 Committee may be published as Cases. Cases and interpretations are published on the ASME Web site under the Committee Pages at http://cstools.asme.org as they are issued.

The American Society of Mechanical Engineers
Three Park Avenue, New York, NY 10016-5990

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FOREWORD

In the fall of 1990, The American Society of Mechanical Engineers was solicited by Blücher-Josam to develop a standard for stainless steel pipe, fittings, and drains. Additional modifications were made based upon solicited comments and the evaluation of test results.

The first edition of this Standard was approved by the American National Standards Institute (ANSI) in 1993. Comments that were received in the public review process and not addressed in the original edition form the basis of this revision.

Suggestions for improvement of this Standard will be welcomed. They should be sent to The American Society of Mechanical Engineers, Attn: Secretary, A112 Standards Committee, Three Park Avenue, New York, NY 10016-5990.

This revision was approved by the American National Standards Institute on July 11, 2007.

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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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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, and attending Committee meetings. Correspondence should be addressed to:

Secretary, A112 Standards Committee
The American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990

Proposing Revisions. Revisions are made periodically to this 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 edition, the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal including any pertinent documentation. When appropriate, proposals should be submitted using the A112 Project Initiation Request Form.

Proposing a Case. Cases may be issued for the purpose of providing 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, 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 Committee will render an interpretation of any requirement of their Standards. Interpretations can only be rendered in response to a written request sent to the Secretary of the A112 Standards Committee.

The request for 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.
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. 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 this format will be rewritten in this format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

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, which are open to the public. Persons wishing to attend any meeting should contact the Secretary of the A112 Standards Committee.

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STAINLESS STEEL DRAINAGE SYSTEMS FOR SANITARY DWV, STORM, AND VACUUM APPLICATIONS, ABOVE- AND BELOW-GROUND

1 GENERAL

1.1 Scope

This Standard establishes material, dimensions, mechanical, and physical (including marking) requirements for socket-type, seam-welded, stainless steel pipe, fittings, joints, and drains for use in plumbing sanitary and storm, drain, waste, and vent (DWV), and vacuum systems. It includes minimum requirements for workmanship, dimensions, weld strength, pressure testing, and marking that incorporates a push-fit joining method.

NOTE: Material suitability for specific chemical applications shall be determined by a qualified engineer or ascertained from the manufacturer.

1.2 Units of Measurement

Values are stated in the International System of units (SI) and in U.S. Customary (Inch) units. The SI units shall be considered as the standard.

1.3 Reference Standards

The following is a list of publications referenced in this Standard. The latest edition shall apply.

ASME B1.20.1, Pipe Threads, General Purpose (Inch)
ASME B16.5, Pipe Flanges and Flange Fittings
Publisher: The American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990; ASME Order Department.: 22 Law Drive, P.O. Box 2300, Fairfield, NJ 07007-2300

ASTM D 412, Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers — Tension
ASTM D 471, Test Methods for Rubber Property — Effect of Liquids
ASTM D 573, Test Method for Rubber Deterioration in an Air Oven
ASTM D 624, Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
ASTM D 1149, Test Method for Rubber Deterioration — Surface Ozone Cracking in a Chamber
ASTM D 2240, Test Method for Rubber Property — Durometer Hardness
ASTM E 8, Standard Test Methods for Tension Testing of Metallic Materials
ASTM E 10, Stand Test Method for Brinell Hardness of Metallic Materials
ASTM E 527, Standard Practice for Numbering Metals and Alloys (UNS)
Publisher: ASTM International (ASTM), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959

(ISS) UNS S30400, Type 304 Stainless Steel
(ISS) UNS S31603, Type 316L Stainless Steel
Publisher: The Iron and Steel Society (ISS), 186 Thorn Hill Road, Warrendale, PA 15086-7528

1.4 Definitions

adjustable floor drain: a floor drain designed for use in finished floor area, including showers, with an adjustable strainer and a seepage flange on the body.

anchor flange: a horizontal flange extending from the side of the drain body, which anchors the drain to a surface or subsurface.

area drain: a manufactured receptacle designed to receive and convey runoff water or other liquid from the area immediately adjacent to the building structure to the drainage system.

auxiliary inlet: a connection inside of a drain body sump, which receives discharge from another fixture, appliance, or drain.

backwater valve: a device that is used to prevent backflow of waste or storm water from a building drainage piping system into the building.

below-ground: direct burial of the drainage system under soil or concrete.

clamping device: a device to secure a waterproof membrane. Where a metallic or composition flashing is attached, the clamping device shall be secured with a ring or collar to the drain.

DWV: drain, waste, and vent.

EPDM: ethylene propylene diene monomer.

extension: a device used to raise a grate to floor level where necessary.