ASME A112.6.2-2017

[Revision of ASME A112.6.2-2000 (R2010)]

Framing-Affixed Supports (Carriers) for Off-the-Floor Plumbing Fixtures

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

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The American Society of Mechanical Engineers
Two Park Avenue • New York, NY • 10016 USA

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The American Society of Mechanical Engineers
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FOREWORD

In 1990, The American Society of Mechanical Engineers (ASME) was solicited to develop a standard for carriers that are used in frame construction. At the time, a standard existed for the evaluation of floor-affixed carriers and supports that are typically installed in commercial, industrial, and institutional buildings with concrete floors. The standard for floor-affixed carriers and supports is ASME A112.6.1M.

This Standard complements ASME A112.6.1M. Some of the specifications and tests are similar and appropriately referenced in this Standard. However, due to differences in assembly of these framing-affixed products from the floor-affixed products, some criteria are different.

The basis for this Standard was an Interim Guide Criteria document prepared by the International Association of Plumbing and Mechanical Officials (IAPMO).

ASME A112.6.2-2017 was approved as an American National Standard on November 1, 2017.

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Standardization of Plumbing Materials and Equipment

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Secretary, A112 Standards Committee
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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.

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FRAMING-AFFIXED SUPPORTS (CARRIERS) FOR OFF-THE-FLOOR PLUMBING FIXTURES

1 GENERAL

1.1 Scope

This Standard covers framing-affixed supports (i.e., carriers), with or without concealed tanks, including combination carriers and fittings, for off-the-floor plumbing fixtures (i.e., water closets, urinals, bidets, lavatories, and sinks). This Standard specifies definitions, materials, general requirements, strength and deflection requirements, and marking requirements. It is not intended to limit the use of other materials and designs that comply with the requirements of this Standard.

1.2 Units of Measurement

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 nonconformance with this Standard. All references to gallons are in U.S. gallons.

1.3 References

The following documents form a part of this Standard to the extent specified herein. Unless otherwise specified, the latest edition shall apply.

ASME A112.6.1M, Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use
ASME A112.19.2/CSA B45.1, Ceramic plumbing fixtures
ASME A112.19.5/CSA B45.15, Flush valves and spuds for water closets, urinals, and tanks
ASSE 1002/ASME A112.1002/CSA B125.12, Anti-siphon fill valves for water closet tanks
ASSE 1037/ASME A112.1037/CSA B125.37, Performance requirements for pressurized flushing devices for plumbing fixtures
Publisher: The American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990 (www.asme.org)

CSA B45.5/IAPMO Z124, Plastic plumbing fixtures
Publisher: Canadian Standards Association (CSA), 178 Rexdale Boulevard, Toronto, Ontario M9W 1R3, Canada (www.csagroup.org)

IAPMO PS 50, Flush Valves with Dual Flush Device for Water Closets or Water Closet Tank with an Integral Flush Valves with a Dual Flush Device
Publisher: International Association of Plumbing and Mechanical Officials (IAPMO), 4755 East Philadelphia Street, Ontario, CA 91761 (www.iapmo.org)

1.4 Definitions

A number of special terms that are specific to the carriers covered by this Standard are defined in this section. For additional terms pertinent to support and carrier nomenclature, see ASME A112.6.1M.

carrier: a concealed structural support.

combination carrier and fitting: an assembly for supporting off-the-floor fixtures, which includes a structural support, waste-fitting components, and a flushing device. See Figure 1.

off-the-floor fixture: a plumbing fixture, located adjacent to a wall, which has no visible contact with the floor in front of the wall.

structural support: a concealed support for an off-the-floor fixture, intended to be affixed to the structural portion of a wall.

NOTE: Structural portion of a wall includes wood and steel wall framing, concrete blocks, and poured concrete.

2 MATERIALS

2.1 Carriers

Materials used in supports and carrier assemblies shall be made of materials that comply with the material requirements specified in ASME A112.6.1M.

2.2 Waste Fittings

Waste fittings shall be made of cast iron, bronze, plastic, or other materials suitable for the intended applications and comply with the requirements of this Standard.

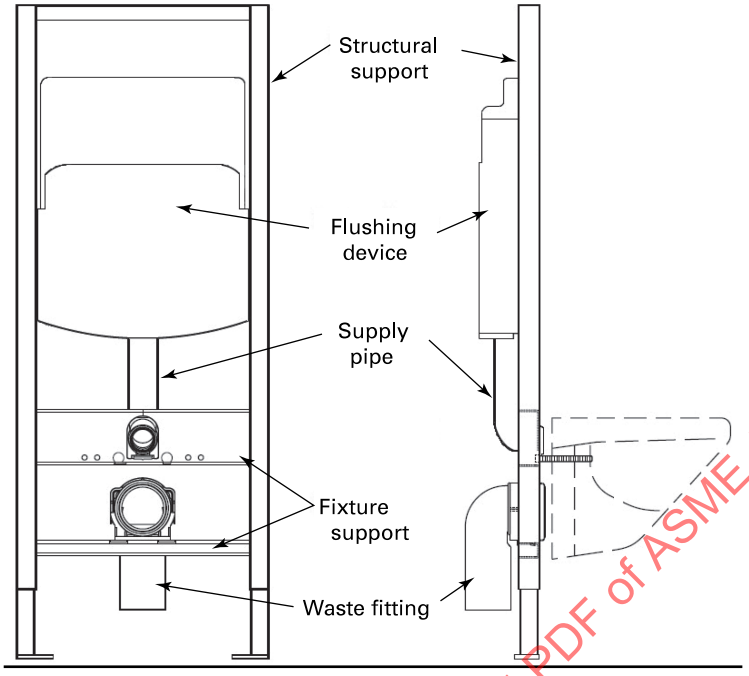
3 REQUIREMENTS

3.1 General

3.1.1 Carriers. Carriers for off-the-floor plumbing fixtures shall consist of, at a minimum, the following:

(a) the (plumbing) fixture support

Figure 1 Combination Carrier and Fittings



(b) means to affix the support to the structural framing wall

(c) fixture bolts and hardware on which the plumbing fixture is mounted and that connect directly to the support

(d) means to adjust the elevation of the fixture to desired height

3.1.2 Foot Supports. Carriers may have members (i.e., foot supports) designed to rest on the floor in a concealed location for anchoring and supporting purposes. When provided, foot supports shall be capable of extending downward from the carrier to contact the floor or other framing structure to provide added support.

3.2 Combination Carriers for Water Closet and Urinals

In addition to the components of a carrier defined in para. 3.1.1, a combination carrier (see Figure 1) for water closets and urinals shall include the following:

(a) flushing device

(b) supply piping to fixture

(c) waste fitting from the fixture piping to carry the waste from the fixture into the waste line

(d) gaskets and hardware necessary to connect all components (e.g., inlet and outlet pipes)

3.3 Carriers for Water Closets and Urinals

When provided

(a) flush tanks shall comply with para. 4.5.2 of CSA B45.5/IAPMO Z124

(b) flush valves shall comply with ASME A112.19.5/CSA B45.15 or IAPMO PS 50

(c) fill valves shall comply with ASSE 1002/ASME A112.1002/CSA B125.12

(d) pressurized flushing devices shall comply with ASSE 1037/ASME A112.1037/CSA B125.37

3.4 Waste Fittings

3.4.1 When provided, waste fittings shall have the following:

(a) watertight seal at their joints

(b) means of withstanding the pressure specified in para. 4.1.2

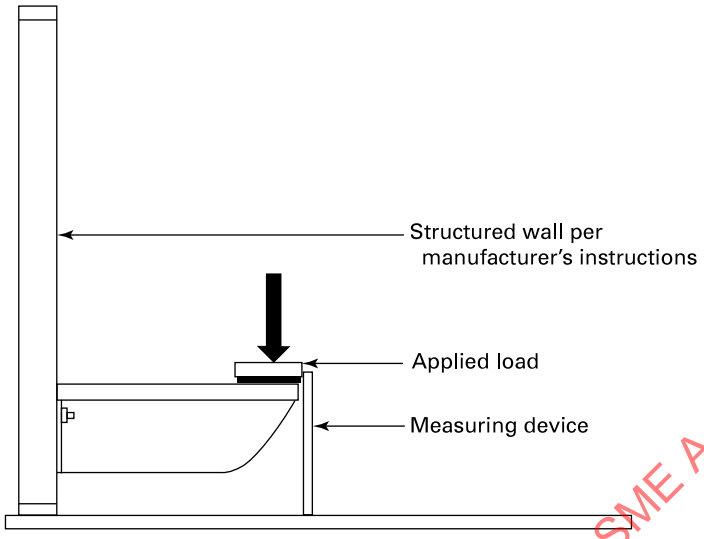
3.4.2 Waste fittings for

(a) water closet carriers shall be capable of passing a ball with a 54 mm (2.13 in.) diameter

(b) urinal carriers shall be capable of passing a ball with a 23 mm (0.88 in.) diameter

(c) lavatory and bidet carriers shall have an outlet with a minimum 31.75 mm ($1\frac{1}{4}$ in.) nominal outside diameter (O.D.)

Figure 2 Load Test on Off-the-Floor Plumbing Fixtures



3.5 Installation Instructions

Manufacturers shall provide installation instructions.

4 TEST REQUIREMENTS

4.1 Waste Fittings

4.1.1 Performance Requirements. The drainage envelope parts of waste fittings shall show no signs of leakage, cracking, or permanent deformation when tested in accordance with para. 4.1.2.

4.1.2 Test Method. Joints shall be made in accordance with the manufacturer's instructions and subjected to air pressure of 35 kPa ± 4 kPa (5.0 psi ± 0.5 psi) for 1 min.

4.2 Load Test

See Figure 2.

4.2.1 Test Method. The carrier shall be affixed to framing members in accordance with the manufacturer's installation instructions, and the plumbing fixture shall be assembled to the carrier. The elevation of the top edge of the plumbing fixture at its outermost edge shall be measured and recorded. A load as specified in para. 4.2.2 shall be applied to the center of the front edge of the fixture for 5 min. The load shall be applied using a 76 mm (3 in.) diameter by 6 mm (0.25 in.) minimum thick, metal load-distribution disk resting on a 13 mm (0.5 in.) thick sponge rubber or equivalent pad. With the load in place, the top edge elevation of the fixture shall be measured and recorded. Ten minutes after removal of the load, the elevation shall be measured and recorded again.

4.2.2 Loads. Test loads shall be as follows:
(a) 2 225 N (500 lbf) for water closets and bidets
(b) 1 112 N (250 lbf) for lavatories and sinks
(c) 222 N (50 lbf) for urinals

4.2.3 Performance Requirements. The maximum deflection, while the load is in place, shall not exceed 6.3 mm (0.25 in.) and the residual deflection after removal of the load shall not exceed 3.2 mm (0.125 in.).

5 MARKING

Carriers complying with this Standard shall be marked with the manufacturer's name or trademark. Markings shall be permanent, legible, and visible after installation, but made before installing the finished wall.

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