

ASME A112.6.2-2000 EDITION

FRAMING-AFFIXED SUPPORTS FOR OFF-THE-FLOOR WATER CLOSETS WITH CONCEALED TANKS

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**



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Mechanical Engineers

A N A M E R I C A N N A T I O N A L S T A N D A R D

FRAMING-AFFIXED SUPPORTS FOR OFF-THE-FLOOR WATER CLOSETS WITH CONCEALED TANKS

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FOREWORD

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

Suggestions for improvement of this Standard are welcome. They should be sent to The American Society of Mechanical Engineers; Attn: Secretary, A112 Main Committee; Three Park Avenue; New York, NY 10016.

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FRAMING-AFFIXED SUPPORTS FOR OFF-THE-FLOOR WATER CLOSETS WITH CONCEALED TANKS

1 GENERAL

1.1 Scope

This Standard establishes minimum performance requirements for framing-affixed supports for off-the-floor water closets with concealed tanks. It is not intended to limit the use of other materials, finishes, and designs that equal or exceed the requirements of this Standard.

1.2 Units of Measurement

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

1.3 References

The following documents form a part of this Standard to the extent specified herein. The latest issue shall apply.

ASME A112.6.1M, Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use
ASME A112.19.2M, Vitreous China Plumbing Fixtures
Publisher: The American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990

ANSI/ASSE 1002, Water Closet Flush Tank Fill Valve
Publisher: American Society of Sanitary Engineering (ASSE), 28901 Clemens Road, Westlake, OH 44145

1.4 Definitions

A number of special terms, which are specific to the supports described by this Standard, are defined herein. For additional terms pertinent to support and carrier nomenclature, see ASME A112.6.1M.

carrier: a concealed support for an off-the-floor fixture.

combination water closet support and fitting: an assembly for supporting off-the-floor water closets, which

includes both support- and waste-fitting components and a concealed flush tank. See Fig. 1.

fitting(s): the sanitary waste-fitting component(s) of a combination water closet support and fitting.

fixture bolts: the bolts on which the fixture is mounted, and which connect directly to the carrier.

foot: a member of a carrier, designed to rest on the floor in a concealed location to anchor and support the assembly.

gasket, fixture: the scaling element between fixture and fittings.

integral tank: a flush tank that is provided as an option to the support assembly for the purpose of flushing the wall-hung fixture, which is usually concealed behind the finished wall.

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

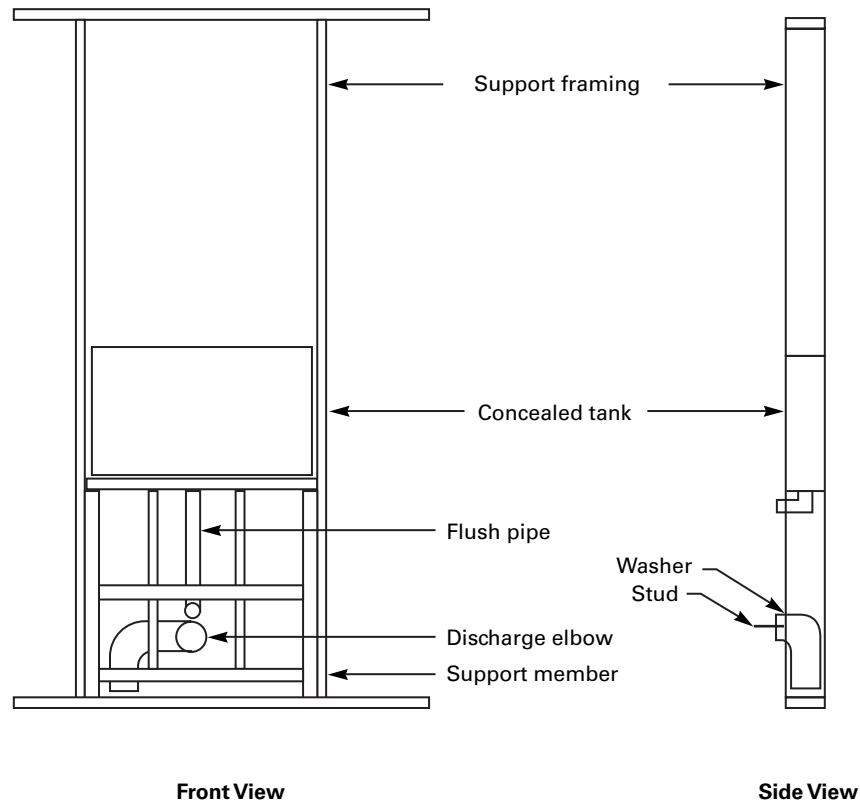
2 MATERIALS AND FINISHES

Materials and finishes used in supports and carrier assemblies shall conform to the material requirements as cited in ASME A112.6.1M. Waste fittings shall be of cast iron, bronze, plastic, or other materials capable of withstanding the pressure testing in section 4.

3 REQUIREMENTS

3.1 General

Off-the-floor framing-affixed supports for water closets shall consist of an integral tank, a supply pipe to the water closet, a waste fitting from the water closet, and support assembly. The support assembly shall incorporate as a minimum a support structure complete with fasteners to mount and connect the fixture, fitting, and piping to carry the waste from the fixture into the waste line, means to affix the assembly to the structural floor or wall, and any necessary gaskets to connect

**FIG. 1 FRAMING-AFFIXED SUPPORT WITH CONCEALED TANK**

assembly components. Materials and finishes shall be in accordance with the applicable requirements of section 2.

3.2 Strength and Deflection

The carrier shall be designed so that the complete installed assembly shall be rigid and of sufficient strength to accept a load of 500 lb (225 kg) located at the front edge of the fixture. The assembly shall withstand this loading without failure, permanent distortion, or excessive deflection when the system assembly is rigidly secured, when tested in accordance with section 4.

3.3 Waste Fittings

Waste fittings shall be of sanitary design with no obstructions, protuberances, or other irregularities in the flow passageways that can cause a build-up of solids or a stoppage, or restrict the flow of waste material. Changes in direction shall be designed to deflect flow into the waste line with as little turbulence as possible and generally in accord with plumbing waste and vent fitting practice. All flow passages shall

pass solids at least as large as those that can pass through the connected fixture. See ASME A112.19.2M for water closet trap dimensions. Venting size shall be in accordance with accepted engineering practice as defined in the model plumbing codes for water closets. The inlet to the waste fitting shall accommodate the outlet of a two-bolt-mounted water closet outlet.

3.4 Special Fixtures

Water closet supports shall be permitted to be equipped with an optional integral flush tank. The flush tank shall be equipped with a ball cock complying with ANSI/ASSE 1002.

3.5 Faceplates

When provided, faceplates shall be of material designed to provide the necessary strength and rigidity as outlined in paras. 3.1 and 3.2. On vertically adjustable units, the faceplate shall provide a watertight seal at its joint with the fitting to withstand a hydrostatic test pressure of 30 psig (207 kPa gauge).

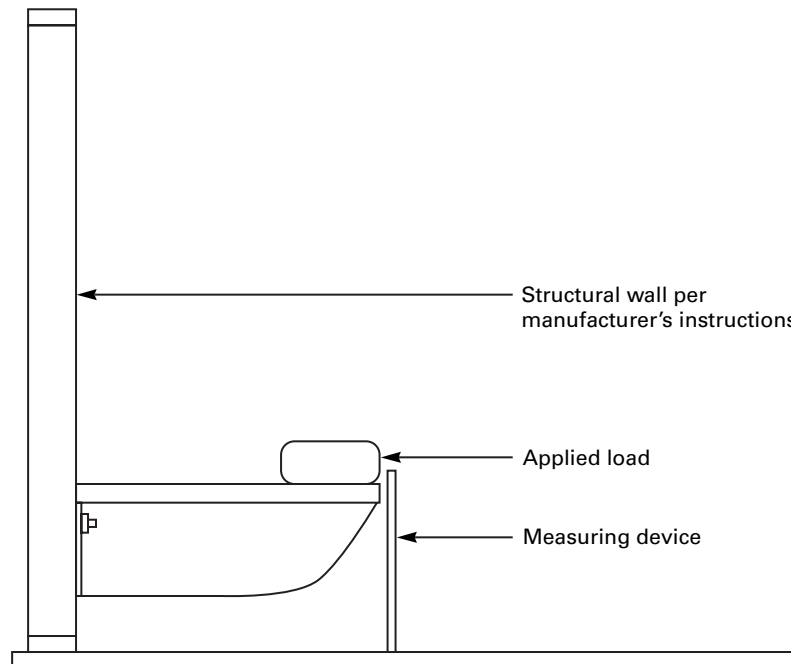


FIG. 2 LOAD TEST ON WALL-HUNG WATER CLOSET

3.6 Foot Supports

When provided, foot support members shall be capable of extending downward from the support to contact the floor or other framing structure to provide added support.

3.7 Installation Instructions

Manufacturers shall provide complete installation requirements necessary to support the fixture consistent with the performance requirements of this Standard.

4 TEST REQUIREMENTS

4.1 Waste Fittings

4.1.1 Test Method. The waste fittings shall be assembled and all but one end capped. One end of the assembly shall be assembled to an air pressure device capable of achieving pressures from 0–10 psig (0–69 kPa gauge).

4.1.2 Performance Requirements. Waste fittings shall withstand an air pressure of 5 psig (35 kPa gauge) for one minute without leakage.

4.2 Load Test (See Fig. 2)

4.2.1 Test Method. The support shall be affixed to framing members in accordance with manufacturer's instructions. The fixture shall be assembled to the support. The elevation of the top edge of the fixture at its outermost edge shall be recorded. A 500 lb (225 kg) load shall be placed on the front edge of the fixture for a period of 5 minutes. After placement of the load, the top edge shall be measured again. After removal of the load, the elevation shall be measured again.

4.2.2 Performance Requirements. The support shall not deflect greater than 0.250 in. (6.3 mm) during the application of the load. The fixture shall return to within 0.125 in. (3.1 mm) of the first measurement upon removal of the load.

5 MARKING

Supports shall be marked with the manufacturer's name or trademark and ASME A112.6.2.

ASME STANDARDS RELATED TO PLUMBING

Air Gaps in Plumbing Systems.....	A112.1.2-1991(R1998)
Air Gap Fittings for Use With Plumbing Fixtures, Appliances, and Appurtenances.....	A112.1.3-2000
Performance Standard and Installation Procedures for Stainless Steel Drainage Systems for Sanitary, Storm, and Chemical Applications, Above and Below Ground.....	A112.3.1-1993
Water Heater Relief Valve Drain Tubes	A112.4.1-1993(R1998)
Plastic Fittings for Connecting Water Closets to the Sanitary Drainage System	A112.4.3-1999
Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use.....	A112.6.1M-1997
Framing-Affixed Supports for Off-the-Floor Water Closets With Concealed Tanks	A112.6.2-2000
Backwater Valves	A112.14.1-1975(R1998)
Plumbing Fixture Fittings	A112.18.1-2000
Performance Requirements for Backflow Protection Devices and Systems in Plumbing Fixture Fittings	A112.18.3M-1996
Flexible Water Connectors	A112.18.6M-1999
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Vitreous China Plumbing Fixtures	A112.19.2M-1998
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