



**Summary of Substantive Changes  
between the 2000 (R2010) and the 2017 editions of  
ASME A112.6.2, “Framing-Affixed Supports (Carriers) for Off-The-Floor  
Plumbing Fixtures”**

**Presented to the IAPMO Standards Review Committee on March 12, 2018**

**General:** The changes to this standard might have an impact on currently listed products. The substantive changes are:

- The scope was expanded to include water closets without concealed tanks, urinals, bidets, lavatories and sinks (see Section 1).
- Added general requirements for urinals, bidets, lavatories, sinks, and combination carriers, included a requirement to provide a means to adjust the elevation of the fixture and clarified the requirements for flush and fill valves (see Section 3.)
- Clarified the air pressure test for waste fittings (see Section 4.1).
- Added load tests for bidets, lavatories, sinks and urinals, and included a description of and a requirement to use a loading disk for the application of the load (see Section 4.2).

Section 1, General: The scope was expanded to include water closets without concealed tanks, urinals, bidets, lavatories and sinks as follows:

**1.1 Scope**

*This Standard ~~covers~~ ~~establishes minimum performance requirements for~~ 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, ~~with concealed tanks~~ 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, finishes, and designs that ~~equal or exceed~~ comply with the requirements of this Standard.*

Section 2, References: Referenced standards were added, deleted, or updated as follows:

**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 A112.19.2M, Vitreous China Plumbing Fixtures*~~

~~*ANSI/ASSE 1002, Water Closet Flush Tank Fill Valve*~~

*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*

*CSA B45.5/IAPMO Z124, Plastic plumbing fixtures*



Section 1.4, Definitions: Definitions were added, deleted or revised as follows:

#### **1.4 Definitions**

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

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

~~combination~~ water-closet support carrier and fitting: an assembly for supporting off-the-floor water closets fixtures, which includes ~~both~~ a structural support-, waste-fitting components, and a ~~concealed flush tank flushing device~~. See Figure 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 sealing 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 a plumbing fixture, located adjacent to a wall (partition), 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.

Section 3, Requirements: Added general requirements for urinals, bidets, lavatories, sinks, and combination carriers, included a requirement to provide a means to adjust the elevation of the fixture and clarified the requirements for flush and fill valves as follows:

#### **3.1 General**

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

(a) the (plumbing) fixture support

(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

#### **3.6 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.~~



**3.1.2 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 ~~Waste-Fittings~~ Carriers for Water Closets and Urinals**

*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.*

*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 ~~Special-Fixtures~~ Waste Fittings**

*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.*

**3.4.1** *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 1/4 in.) nominal outside diameter (O.D.)*

### **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).*



### **3.7 3.5 Installation Instructions**

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

Section 4.1, Waste Fittings: Clarified the air pressure test for waste fittings as follows:

**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.

~~**4.1.1 4.1.2 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). 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.~~

Section 4.2, Load Test: Added load tests for bidets, lavatories, sinks and urinals, and included a description of and a requirement to use a loading disk for the application of the load as follows:

**4.2.1 Test Method.** ~~The support carrier shall be affixed to framing members in accordance with the manufacturer’s installation instructions, and the plumbing fixture shall be assembled to the support carrier. The elevation of the top edge of the plumbing fixture at its outermost edge shall be measured and recorded. A 500-lb (225-kg) load as specified in para. 4.2.2 shall be placed on applied to the center of the front edge of the fixture for a period of 5 minutes mins. 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. After placement of With the load in place, the top edge elevation of the fixture shall be measured again 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

~~**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.~~

**4.2.3 Performance Requirements.** ~~The support maximum deflection, while the load is in place, shall not deflect greater than 0.250 in. (exceed 6.3 mm) (0.25 in.) during the application of the load. The and the fixture shall return to within 0.125 in. (3.1 mm) of the first measurement upon residual deflection after removal of the load shall not exceed 3.2 mm (0.125 in.).~~

Figure 1, Combination Carrier and Fittings: The figure was replaced with a new figure as follows:

**FIG. 1 FRAMING-AFFIXED SUPPORT WITH CONCEALED TANK** Figure 1 Combination Carrier and Fittings

Figure 2, Load Test on Off-the Floor Plumbing Fixtures: The figure was revised and renamed as follows:

**FIG. 2 LOAD TEST ON WALL-HUNG WATER-CLOSET** Off-the-Floor Plumbing Fixtures