ASME A112.6.1M-1997
(Revision of ASME A112.6.1M-1988)

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FLOOR-AFFIXED SUPPORTS FOR OFF-THE-FLOOR PLUMBING FIXTURES FOR PUBLIC USE

AN AMERICAN NATIONAL STANDARD

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FOREWORD

(This Foreword is not part of ASME A112.6.1M-1997.)

Much of the design evolution of sanitary plumbingware has occurred during this century as water supply and waste systems gained universal acceptance as a basic necessity. About midway through this period, the desirability of off-the-floor water closets and their inherent advantages in improving toilet-room sanitation was recognized. Wide use of this new concept, however, was delayed for many years. When the first off-the-floor closets were designed, the problems of supporting and connecting them to waste systems had not been anticipated; and as a result there were damaged walls and partitions and leaking waste systems. Slowly, a few supporting methods were developed and marketed, but in many instances, installations of off-the-floor fixtures still presented problems. Then, subsequent to World War II, with the introduction of the combination waste fitting and supporting system for off-the-floor water closets, installation was simplified and problems were eliminated to the extent that now this sanitary approach to modern toilet room design has become commonplace.

After such a long development period, the manufacturers of fixture supports were keenly aware of the need for sound design and engineering practices. Accordingly, the benefits of basic design standards were apparent to them and a study was initiated as an industry effort in 1961. Prior to the completion of this work, ASA Sectional Committee A112 (subsequently designated the American National Standards Committee A112, and currently the ASME Standards Committee A112, Standardization of Plumbing Materials and Equipment) was organized and Panel No. 6 of this Committee was assigned the responsibility of developing standards for fixture chair carriers and other supports for off-the-floor fixtures. The original standard resulting from this assignment was granted approval by the American National Standards Institute on March 2, 1972, and issued as ANSI A112.6.1-1972.

Engineering members of the Plumbing & Drainage Institute were appointed to the Task Forces of Panel No. 6 on October 18, 1976 to prepare a revision. The first meeting was held on July 27, 1977, following which a rough draft of the revision was submitted to the task force members. Changes were made and the proposal was approved by Panel No. 6 and subsequently by the A112 Main Committee. That revision was approved by the American National Standards Institute (ANSI) on November 15, 1979. The standard was reviewed again in 1986, resulting in a new format and an expanded scope. This revision of the 1979 edition was approved by ANSI on November 17, 1988.

This current revision includes minor improvements, including the expansion of mandatory language. Suggestions for improvements to this Standard should be sent to The American Society of Mechanical Engineers, Attn: Secretary, A112 Main Committee, 345 East 47th Street, New York, NY 10017.

This revision was approved as an American National Standard on September 8, 1997.

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FLOOR-AFFIXED SUPPORTS FOR OFF-THE-FLOOR PLUMBING FIXTURES FOR PUBLIC USE

1 SCOPE

This Standard applies to floor-affixed supports for off-the-floor plumbing fixtures, including combination carriers and waste fittings for water closets, and carriers for urinals, lavatories, sinks, and water coolers.

This Standard covers definitions, materials and finishes, general requirements, strength and deflection requirements, and details of the various types of supports included herein.

2 PURPOSE

The purpose of this Standard is to provide all interested persons, including manufacturers, plumbing code authorities, and others with the minimum design and quality criteria for floor-affixed supports (carriers) for off-the-floor plumbing fixtures. This Standard is not intended as a specification guide. Figures used herein are intended only to describe and portray typical carrier types and are not intended to restrict design or to be used for specification purposes.

3 REFERENCE STANDARDS

The following standards are referenced in this document. Unless otherwise specified, the latest edition of each standard shall apply.

ASTM A 48, Specification for Gray Iron Castings
ASTM A 307, Specification for Carbon Steel Bolts and Studs
ASTM A 563, Specification for Carbon and Alloy Steel Nuts
ASTM B 85, Specification for Aluminum-Alloy Die Castings
ASTM B 86, Specification for Zinc-Alloy Die Castings
ASTM B 584, Specification for Copper-Alloy Sand Castings for General Applications

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4 DEFINITIONS

4.1 Fixture Support (Carrier) — General Description

As covered in this Standard, a fixture support (carrier) is a device that is anchored to the floor and concealed in the building construction (i.e., pipe chase), designed to support off-the-floor plumbing fixtures (any sanitary plumbing fixture, located adjacent to the wall, which has no visible contact with the floor in front of the wall) independent of the wall or partition. In addition, combination carriers for off-the-floor water closets include waste fittings to convey fixture discharge to the sanitary drainage system.

4.2 Fixture Support (Carrier) — Specific Components

alignment truss: the structural member of a carrier designed to maintain proper spacing of other carrier components, usually the uprights. Sometimes called "tie rod."

anchor studs: the studs attached to the bearing plate for bottom anchoring of some types of fixtures.

bearing plate: a plate attached to the uprights with provisions for bearing or anchor studs.

bearing studs: the studs attached to the bearing plate to hold the fixture off the wall.

concealed arm: the fixture support member that extends horizontally from the upper end of a lavatory carrier upright and is concealed in the fixture.

coupling: the component that compresses the fixture gasket and provides the conduit for waste between the fixture and carrier faceplate. Sometimes called "extension."

exposed arm: the fixture support member that extends horizontally from the upper end of a lavatory (or sink) carrier upright, on which the fixture rests, and is fully or partially exposed to view.