IAPMO IGC 393-20yy

Industry Standard for

Bathroom Vanity Assemblies with Plumbing Products

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IAPMO Standard

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Preface

This is the first edition of IAPMO IGC 393, Bathroom Vanity Assemblies with Plumbing Products.

This Standard was developed by the IAPMO Standards Review Committee (SRC) in accordance with the policies and procedures regulating IAPMO industry standards development, Policy S-001, Standards Development Process. This Standard was approved as an IAPMO Industry Standard on Month DD, YYYY.

Notes:

(1) The use of the singular does not exclude the plural (and vice versa) when the sense allows.

(2) The use of IAPMO Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

(3) This standard was developed using an open process and in accordance with IAPMO Standards Policy S-001, Standards Development Process*, which is available on the IAPMO Standards website (www.IAPMOstandards.org).*

(4) During its development, this Standard was made available for public review, thus providing an opportunity for additional input from stakeholders from industry, academia, regulatory agencies, and the public at large. Upon closing of public review, all comments received were duly considered and resolved by the IAPMO Standards Review Committee.

(5) This Standard was developed in accordance with the principles of consensus, which is defined as substantial agreement; consensus implies much more than a simple majority, but not necessarily unanimity. It is consistent with this definition that a member of the IAPMO Standards Review Committee might not be in full agreement with all sections of this Standard.

(6) Although the intended primary application of this Standard is stated in its scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.

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- *(a) standard designation (number);*
- *(b) relevant section, table, or figure number, as applicable;*
- *(c) wording of the proposed change, tracking the changes between the original and the proposed wording; and*
- *(d) rationale for the change.*

(8) Requests for interpretation should be clear and unambiguous. To submit a request for interpretation of this Standard, you may send the following information to the International Association of Plumbing and Mechanical Officials, Attention Standards Department, at standards@IAPMOstandards.org or, alternatively, at 4755 East Philadelphia Street, Ontario, California, 91761, and include "Request for interpretation" in the subject line:

- *(a) the edition of the standard for which the interpretation is being requested;*
- *(b) the definition of the problem, making reference to the specific section and, when appropriate, an illustrative sketch explaining the question;*
- *(c) an explanation of circumstances surrounding the actual field conditions; and*
- *(d) the request for interpretation phrased in such a way that a "yes" or "no" answer will address the issue.*

(9) IAPMO does not "approve", "rate", or endorse any item, construction, proprietary device, or activity.

(10) IAPMO does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this Standard and does not undertake to insure anyone utilizing this Standard against liability for infringement of any applicable patents, nor assumes any such liability. Users of this Standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their responsibility.

(11) Participation by federal or state agency representative(s) or person(s) affiliated with industry is not to be interpreted as government or industry endorsement of this Standard.

(12) Proposals for amendments to this Standard will be processed in accordance with the standards-writing procedures of IAPMO industry standards development, Policy S-001, Standards Development Process.

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IAPMO IGC 393-20yy
Bathroom Vanity Assemblies with Plumbing Products

1 Scope

1.1 Scope

1.1.1 This Standard covers bathroom vanity assemblies intended for both residential and commercial applications and specifies requirements for materials, physical characteristics, performance testing, and markings.

1.1.2 A bathroom vanity assembly shall include but not limited to:
(a) vanity sink cabinet;
(b) countertop;
(c) sink;
(d) faucets;
(e) drains;
(f) drainage fittings and/or traps;
(g) supply hoses; and
(h) supply stops.

1.2 Alternative Materials

The requirements of this Standard are not intended to prevent the use of alternative materials or methods of construction provided such alternatives meet the intent and requirements of this Standard.

1.3 Terminology

In this Standard,
(a) “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy to comply with the Standard;
(b) “should” is used to express a recommendation, but not a requirement;
(c) “may” is used to express an option or something permissible within the scope of the Standard; and
(d) “can” is used to express a possibility or a capability.

Notes accompanying sections of the Standard do not specify requirements or alternative requirements; their purpose is to separate explanatory or informative material from the text. Notes to tables and figures are considered part of the table or figure and can be written as requirements.

1.4 Units of Measurement

SI units are the primary units of record in global commerce. In this Standard, the inch/pound units are shown in parentheses. The values stated in each measurement system are equivalent in application, but each unit system is to be used independently. All references to gallons are to U.S. gallons.

2 Reference Publications

This Standard refers to the following publications and, where such reference is made, it shall be to the current edition of those publications, including all amendments published thereto.

ANSI (American National Standards Institute)
ANSI/KCMA A161.1
Performance and Construction Standard for Kitchen and Vanity Cabinets

ASME (The American Society of Mechanical Engineers)/CSA Group
ASME A112.18.1/CSA B125.1
Plumbing supply fittings

ASME A112.18.2/CSA B125.2
Plumbing waste fittings

ASME A112.18.6/CSA B125.6
Flexible water connectors

ASME A112.19.1/CSA B45.2
Enamelled cast iron and enamelled steel plumbing fixtures

ASME A112.19.2/CSA B45.1
Ceramic plumbing fixtures

ASME A112.19.3/CSA B45.4
Stainless steel plumbing fixtures

CSA Group (Canadian Standards Association)/IAPMO
CSA B45.5/IAPMO Z124
Plastic plumbing fixtures

CSA B45.8/IAPMO Z403
Terrazzo, concrete, composite stone, and natural stone plumbing fixtures

CSA B45.11/IAPMO 401
Glass plumbing fixtures

CSA B45.12/IAPMO Z402
Aluminum and copper plumbing fixtures

KCMA (Kitchen Cabinet Manufacturers Association)
ANSI / KCMA A161.1
Performance and Construction Standard for Kitchen and Vanity Cabinets

NSF International
NSF/ANSI/CAN 61
Drinking Water System Components - Health Effects

NSF/ANSI 372
Drinking Water System Components — Lead content

3 Definitions and Abbreviations

3.1 Definitions

The following definitions shall apply in this Standard:

Bathroom Vanity Assembly Product — an end product that incorporates at least a bathroom vanity sink cabinet (either factory assembled or ready to assemble) and a sink, packaged together, for use as a single product. Other plumbing products may also be included in the packaged product, including, but not limited to faucets, drains, drainage fittings and/or traps, supply hoses, and supply stops.

Vanity Sink Cabinet — a floor supported base cabinet used in a bathroom to support the installation of a sink, countertop, or sink/countertop combined.

Wall Hung Vanity Sink Cabinet – a wall mounted base cabinet used in a bathroom to support the installation of a sink, countertop, or sink/countertop combined.

3.2 Abbreviations

The following abbreviations apply in this Standard:

RTA — Ready to Assemble

4 General Requirements

4.1 General

Products covered by this Standard shall consist of at least a vanity sink cabinet and a sink or countertop or sink/counter combined, that when assembled and installed in accordance with the manufacturer's instructions in the field shall result in a functional bathroom vanity. Other plumbing products may be supplied with and included as part of the complete product including, but not limited to, faucets, drains, drainage fittings and/or traps, supply hoses, and supply stops.

4.2 Construction

Most of the products covered by this standard should be packaged as separate, fully assembled products that will be integrated into final assembly in the field. Any individual products that require assembly in the field (commonly known as ready to assemble) shall be provided with all hardware necessary to complete the assembly required in the field.

4.3 Materials

4.3.1 General

All materials used shall be of sufficient composition and construction to provide sound structural integrity of the end product, including any strength requirements outlined in individual product standards applicable to the products contained in the finished product.

4.3.2 Toxicity and lead content

Any plumbing fittings supplied as part of this product that are intended to dispense water for human consumption shall not contain a weighted average lead content in excess of 0.25% when evaluated in accordance with the test method specified in NSF/ANSI 372, and shall comply with the requirements of NSF/ANSI/CAN 61.

4.3.3 Toxicity and formaldehyde emission requirements

Any vanity products supplied as part of this product that are manufactured from composite wood products shall comply with the formaldehyde emission limits outlined in the USEPA's TSCA Title VI and shall be labeled accordingly.

4.4 Vanity Sink Cabinet

Vanity sink cabinets supplied as part of this product shall comply with the requirements outlined in ANSI/KCMA A161.1.

4.5 Sinks or Sink Tops

Sink products supplied as part of this product shall comply with the requirements outlined in the applicable sink standard as shown below.
Enamelled Sinks – ASME A112.19.1/CSA B45.2
Ceramic Sinks – ASME A112.19.2/CSA B45.1
Stainless Steel Sinks – ASME A112.19.3/CSA B45.4
Plastic Sinks – CSA B45.5/IAPMO Z124
Terrazzo/Stone Sinks – CSA B45.8/IAPMO Z403
Glass Sinks – CSA B45.11/IAPMO 401
Aluminum/Copper Sinks – CSA B45.12/IAPMO Z402

4.6 Faucets

Faucet products supplied with this product shall comply with the requirements outlined in ASME A112.18.1/CSA B125.1.

4.7 Drain, Drain Fittings, and Traps

Drains, drain fittings, and traps supplied with this product shall comply with the requirements outlined in ASME A112.18.2/CSA B125.2.

4.8 Supply Stops

Supply stops supplied with this product shall comply with the requirements outlined in ASME A112.18.1/CSA B125.1.

4.9 Flexible Water Connectors

Flexible water connectors supplied with this product shall comply with the requirements outlined in ASME A112.18.6/CSA B125.6.

5 Testing Requirements

5.1 Load Test for Wall Hung Drop-in Sink Vanity Assemblies

5.1.1 Test procedure

The load test for wall hung drop-in sink vanity assemblies shall be conducted as follows:

(a) Install the bathroom vanity assembly in accordance with the manufacturer's installation instructions;

(b) Apply a gradual load of 600 lbf in increments of 50 lbf every minute at point A using a 200 mm (8 in) diameter load-distribution disk resting on a 13 mm (0.5 in) thick sponge rubber or equivalent pad. The load shall be placed on the front edge of the vanity at the furthest point between mounting brackets, as allowed by the sink to maintain complete contact of the disk; and

(c) Hold the load in place for 5 min then release.

5.1.2 Performance Requirements

There shall be no visible cracks or failure of any component or connection points in any part of the assembly.

5.2 Load Test for Wall Hung Under-Mount Sink Vanity Assemblies

5.2.1 Test procedure

The load test for wall hung under-mount sink vanity assemblies shall be conducted as follows:

(a) Install the bathroom vanity assembly in accordance with the manufacturer's installation instructions;

(b) Apply a gradual load of 600 lbf in increments of 50 lbf every minute at point A using a 200 mm (8 in) diameter load-distribution disk resting on a 13 mm (0.5 in) thick sponge rubber or equivalent pad. The load shall be placed on the front edge of the vanity at the furthest point between mounting brackets, as allowed by the sink to maintain complete contact of the disk;

(c) Hold the load in place for 5 min;

(d) Release the load and wait for 10 min;

(e) Apply a gradual vertical load of 250 lbf in increments of 50 lbf every minute at point B using a 200 mm (8 in) diameter load-distribution disk resting on a 13 mm (0.5 in) thick sponge rubber or equivalent pad; and

(f) Hold the load in place for 5 min then release.

5.2.2 Performance Requirements

There shall be no visible cracks or failure of any component or connection points at all pressure points.

5.3 Load Test for Wall Hung Vessel-Mount Sink Vanity Assemblies

5.3.1 Test procedure

The load test for wall hung vessel-mount sink vanity assemblies shall be conducted as follows:

(a) Install the bathroom vanity assembly in accordance with the manufacturer's installation instructions;

(b) Apply a gradual horizontal load to the side of the bowl equivalent to 150 lbf in increments of 50 lbf every minute on the top vertical edge of the bowl, using a 200 mm (8 in) diameter load-distribution disk resting on a 13 mm (0.5 in) thick sponge rubber or equivalent pad; and

(c) Hold the load in place for 5 min then release.

5.3.2 Performance Requirements

There shall be no visible cracks or failure of any component or connection points in any part of the assembly.

5.4 Countertop Separation Test

5.4.1 Test procedure

The Countertop Separation Test shall be conducted as follows:

(a) Install the bathroom vanity product in accordance with the manufacturer's installation instructions;

(b) Apply an upward vertical load to the underside of the countertop equivalent to 50 lbf towards the front center of the countertop, using a 200 mm (8 in) diameter load-distribution disk resting on a 13 mm (0.5 in) thick sponge rubber or equivalent pad;

(c) Hold the load in place for 5 min then release.

5.4.2 Performance Requirements

There shall be no visible cracks or failure of any component or connection points at the pressure point, and no signs of separation between the countertop and the cabinet.

6 Markings and Accompanying Literature

6.1 Markings

Bathroom vanity products complying with this Standard shall be marked with the:

(a) manufacturer's name or trademark;

(b) model name or number;

6.2 Visibility

Markings shall be permanent, legible, and visible after installation.

6.3 Installation Instructions

Bathroom vanity products shall be accompanied by instructions for their installation, care and maintenance, and repair. If the vanity sink cabinet is not completely assembled, the installation instructions shall include details about how to assemble the vanity sink cabinet prior to installation.

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