IAPMO IGC 396-20yy

PUBLIC REVIEW DRAFT

Industry Standard for

Water Closet Flange
**IAPMO Standard**

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Preface

This is the first edition of IAPMO IGC 396, Water Closet Flange.

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 yy, 2023.

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(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.
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(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.
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1 Scope

1.1 Scope
This Standard covers water closet flanges, including off set designs, intended for sanitary and waste applications and specifies requirements for materials, physical characteristics, performance testing, and markings.

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.

ASTM International
ASTM A48
Standard Specification for Gray Iron Castings
ASTM A888

ASTM B117
Standard Practice for Operating Salt Spray (Fog) Apparatus

ASTM D1654
Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments

ASTM D1784
Standard Classification System and Basis for Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds

ASTM D2661

ASTM D2665

ASTM D3965
Standard Classification System and Basis for Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds

CISPI (Cast Iron Coil Pipe Institute)

IAPMO (International Association of Plumbing and Mechanical Officials)
IAPMO PS 97
Mechanical Cast Iron Water Closet Flanges

3 Definitions and Abbreviations

3.1 Abbreviations
The following abbreviations apply in this Standard:

VOC — Volatile Organic Compounds
4 General Requirements

4.1 Water Closet Flange Materials
Water closet flanges and their components covered by this Standard shall be made of materials that are suitable for the intended end use.

4.1.1 Cast Iron (gray iron and ductile iron)
Cast iron shall meet the requirements of CISPI 301, Section 4 and Section 11.
or

4.1.2 Brass
Brass shall comply with ASTM B584 with a minimum rating of C85710 per ASTM D3965.

4.1.3 ABS
ABS water closet flanges shall comply with the requirements of ASTM D2661 with a minimum cell class rating of 42222 per ASTM D3965.

4.1.4 PVC
PVC water closet flanges shall comply with the requirements of ASTM D2665 with a minimum cell class rating of 12454 per ASTM D1784.

4.2 Coatings
Shall meet the requirements of CISPI 301, Section 6, or Sections 4.1.3.1, 4.1.3.2, and 4.1.3.3 of this Standard.

4.2.1 Lead content
Water closet flange coatings shall not exceed a lead content greater than 0.06%.

4.2.2 VOC content
Water closet flange coatings shall be testing in accordance with ASTM D3960 and shall not exceed 310 grams/liter (2.6 lbs/gallon).

4.2.3 Corrosion resistance

4.3 Fasteners
Fastenors shall be made of stainless steel alloys of the 300 series.

4.4 Gaskets
Gasket materials shall comply with ASTM C564 when provided.
4.5 **Design and Construction Dimensions**

4.5.1 The water closet flange shall sit flush with the mounting surface in accordance with the manufacturer’s installation instructions.

4.5.2 A water closet flange shall meet the dimensional requirements of Table 1.

4.6 **Mechanical Water Closet Flange**

Mechanical water closet flanges shall be tested to the hydrostatic joint tightness requirements of IAPMO PS 97 Section 5.

5 **Markings and Accompanying Literature**

5.1 **Markings**

Water closet flanges complying with this Standard shall be marked with the:

(a) manufacturer’s name or trademark;
(b) model number;
(c) IAPMO standard designation or certification mark (i.e., IAPMO IGC 396);
(d) country of origin
(e) foundry code
(f) date code

5.2 **Visibility**

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

5.3 **Installation Instructions**

Water closet flanges shall be accompanied by instructions for their installation or be provided with a means to acquire the instructions.
### Table 1

(See Section 4.5.2)

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