

**IAPMO IGC 411-2025**



**PUBLIC REVIEW DRAFT**

*Industry Standard for*  
**Water Treatment Devices for Use at  
Elevated, Ambient Temperatures**



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**PUBLIC REVIEW DRAFT**

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# Preface

This is the first edition of IAPMO IGC 411, Water Treatment Devices for Use at Elevated, Ambient Temperatures.

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](http://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.*
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- (7) *IAPMO Standards are subject to periodic review and suggestions for their improvement will be referred to the IAPMO Standards Review Committee. To submit a proposal for change to this Standard, you may send the following information to the International Association of Plumbing and Mechanical Officials, Attention Standards Department, at [standards@IAPMOstandards.org](mailto:standards@IAPMOstandards.org) or, alternatively, at 4755 East Philadelphia Street, Ontario, California, 91761, and include "Proposal for change" in the subject line:*
  - (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](mailto: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.*
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- (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.*

# ***IAPMO Standards Review Committee***

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J. Higdon	IAPMO Matthews, North Carolina, USA	<i>Staff Liaison</i>
H. Aguilar	IAPMO Ontario, California, USA	<i>Secretary</i>

# IAPMO IGC 411-2025

## Water Treatment Devices for Use at Elevated, Ambient Temperatures

### 1 Scope

#### 1.1 Scope

This Standard covers water treatment devices for use at elevated, ambient temperatures and specify requirements for materials, physical characteristics, performance testing, and markings. This standard shall be used to ensure the health and safety of products that are used in installations where the internal and external environment are subject to increased ambient temperatures (i.e. outdoors, utility rooms).

#### 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.

**NSF International**

NSF/ANSI/CAN 42 (2023)

Drinking Water Treatment Units – Aesthetic Effects

NSF/ANSI/CAN 53 (2023)

Drinking Water Treatment Units – Health Effects

**3 Definitions and Abbreviations****3.1 Definitions**

This section is reserved for later use.

**3.2 Abbreviations**

This section is reserved for later use.

**4 General Requirements****4.1 General**

Product shall comply with the requirements of NSF/ANSI/CAN 42 and/or NSF/ANSI/CAN 53.

**4.2 Maximum Operating Temperature**

The maximum operating temperature shall be specified by the manufacturer.

**4.3 Maximum Operating Pressure**

The maximum operating pressure shall be at least 100 psig (690 kPa) or the maximum working pressure, whichever is greater.

**5 Testing Requirements****5.1 Extraction Testing to Elevated Ambient Temperature****5.1.1 Test Procedure**

Water treatment devices intended for use at elevated, ambient temperatures shall be subjected to an environmental chamber set to the manufacturer's maximum rated ambient temperature throughout the duration of exposure protocol specified in NSF 53, Section 4. The exposure protocol

- (a) shall be conducted using the exposure water specified in NSF 53, Section 4.2.2 and maintained for 24 hours at the manufacturer's maximum rated ambient temperature throughout the exposure sequence protocol in NSF 53, Section 4.2.3.2.

**5.1.2 Test Criteria**

Samples shall be analyzed and reported as specified in NSF 53, Section 4.



## **6 Markings and Accompanying Literature**

### **6.1 Markings**

Outdoor water treatment devices complying with this Standard shall be marked with the:

- (a) manufacturer's name or trademark; and
- (b) model number, if applicable
- (c) IAPMO standard designation (i.e., "IAPMO IGC 411")

### **6.2 Visibility**

Markings shall be permanent, legible, and visible after installation. Adhesive labels that comply with CSA C22.2 No. 0.15 or UL 969 shall be considered permanent.

### **6.3 Installation Instructions**

Water treatment devices for use at elevated, ambient temperatures complying with this Standard shall be accompanied by instructions for their installation.

### **6.4 Maximum Operating Temperature**

Products that comply with this Standard may be marked with the manufacturer's maximum operating temperature.



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**Devices for Detection, Monitoring or**