IAPMO SPS 3-2019

Skimmers (Spas, Hot Tubs and Swimming Pools)

IAPMO STANDARDS
AVA Documents®
Document Sharing Hub

Full document details: IAPMO SPS 3-2019

IAPMO Standard

Approval of an IAPMO Industry Standard requires verification by the Standards Review Committee that the standard has been developed in accordance with the policies and procedures for standards development (S-001, *Standards Development Process*, S-008, *Appeals* and S-011, *Operation of the IAPMO Standards Review Committee*). Although IAPMO administers the process and establishes rules to promote fairness in achieving consensus, it does not independently test, evaluate, or verify the content of standards.

Consensus is established when substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

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

The Standards Review Committee has final authority on interpretation of any IAPMO Industry Standard. Moreover, no person save IAPMO designated staff shall have the right or authority to issue an interpretation of an IAPMO Industry Standard in the name of IAPMO. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

CAUTION NOTICE: This IAPMO Industry Standard may be revised or withdrawn at any time. The policies and procedures require that action be taken periodically to reaffirm, revise, or withdraw this standard. Interested stakeholders of IAPMO Industry Standards may receive current information on all standards by signing up to receive updates and notices at the IAPMO Standards website www.IAPMOstandards.org.

Published by
International Association of Plumbing and Mechanical Officials (IAPMO)
4755 East Philadelphia Street, Ontario, California, 91761, USA
1-800-854-2766 • 1-909-472-4100

Visit the IAPMO Online Store at: www.IAPMOstore.org
Visit the IAPMO Standards website at: www.IAPMOstandards.org

Copyright © 1989-2019 by International Association of Plumbing and Mechanical Officials (IAPMO)
All rights reserved.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior written permission of the publisher.

Printed in the United States of America

Documents
Document Sharing Hub

Full document details: IAPMO SPS 3-2019

Contents

Preface

IAPMO Standards Review Committee

1 Scope
- 1.1 Scope
- 1.2 Alternative Materials
- 1.3 Terminology
- 1.4 Units of Measurement

2 Reference Publications

3 Definitions

4 General Requirements
- 4.1 Body Entrapment
- 4.2 Housing
- 4.3 Weir
- 4.4 Strainer Basket
- 4.5 Air Lock Protector and/or Equalizer Valve for Commercial Use
- 4.6 Cover and Mounting Ring
- 4.7 Trimmer Valves
- 4.8 Vacuum Cleaner Connections
- 4.9 Skimmers With Air Lock Protectors

5 Testing Requirements
- 5.1 Point Loading and Deflection Test
- 5.2 Point Impact Test

6 Markings and Accompanying Literature
- 6.1 Markings
- 6.2 Visibility
- 6.3 Installation Instructions

Documents
Document Sharing Hub
Full document details: IAPMO SPS 3-2019

Preface

This is the third edition of IAPMO SPS 3, Skimmers (Spas, Hot Tubs and Swimming Pools). This Standard supersedes IAPMO SPS 3-1993, Skimmers (Spas, Hot Tubs and Swimming Pools). The previous editions of this standard are: 1989, 1993

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 December 16, 2019.

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.

(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 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 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.

Documents
Document Sharing Hub
Full document details: IAPMO SPS 3-2019

(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.

Documents
Document Sharing Hub
Full document details: IAPMO SPS 3-2019

IAPMO Standards Review Committee

T. Collings	Building Services & Licensing - Retired Salt Lake City, Utah, USA	*Chair*
M. Durfee	Chief Building Official Saratoga Springs, Utah, USA	*Vice-Chair*
M. Antonacci	Plumbing and HVAC Inspector, City of Toronto Toronto, Ontario, CAN	
R. Coffman	Mechanical Inspector, City of Cedar Falls - Retired Cedar Falls, Iowa, USA	
C. Crimmins	MN State Pipe Trades - Retired Champlin, Minnesota, USA	
J. Krahenbuhl	Plumbing and Mechanical Plans Check Specialist, Clark County - Retired Las Vegas, Nevada, USA	
B. Olinger	William Myers & Sons Inc. - Semi-Retired East Hanover, New Jersey, USA	
B. Pfieffer	Plumbing Inspector Development Services, City of Topeka Topeka, Kansas, USA	
R. Rice	Sr. Mechanical Inspector - Retired Maplewood, Minnesota, USA	
G. Snider	Plumbing Section Supervisor, City of Surrey Surrey, British Columbia, CAN	
K. Thompson	IAPMO Ontario, California, USA	*Staff Liaison*
G. Istefan	IAPMO Ontario, California, USA	*Staff Liaison*
H. Aguilar	IAPMO Ontario, California, USA	*Secretary*

Documents
Document Sharing Hub
Full document details: IAPMO SPS 3-2019

IAPMO SPS 3-2019
Skimmers (Spas, Hot Tubs and Swimming Pools)

1 Scope

1.1 Scope
This Standard covers skimmers for public and residential pools, spas and hot tubs 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 D2444
Standard Practice for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)

Documents
Document Sharing Hub
Full document details: IAPMO SPS 3-2019

3 Definitions

The following definitions shall apply in this Standard:

Housing — An external body fabricated to resist deformation during installation and to withstand water pressure developed by the weight of water.

Strainer Basket — A readily removable and easily cleanable basket or screen.

Air Lock Protector and/or Equalizer Valve for Commercial Use — To prevent cavitation and loss of prime

Cover and Mounting Ring — A removable cover with mounting ring.

Trimmer Valves — Trimmer valves are designed to control the proportion of water drawn from the skimmer throat and main drain.

4 General Requirements

4.1 Body Entrapment

Skimmers shall be designed and installed so as to prevent body entrapment as follows:

(a) Plate skimmers shall have covers with openings both on the front and sides of the covers for anti-body entrapment purpose and shall require tool for removal.

(b) Built-in slot skimmers shall be provided with vented access covers to prevent body entrapment.

4.2 Housing

The housing strength and rigidity shall be sufficient to withstand deformation during shipping, handling, placement, or installation. Units that may be closed during part of the operating cycle shall withstand the pressure developed by a vacuum of 635 mm (25 in) of mercury with a safety factor of 1:1.5. The housing shall insure a smooth flow over the effective weir length. An effective weir horizontal opening of at least 190.5 mm (7.5 in) for public swimming pools and spas and 101.6 mm (4 in) in residential pools, spas or hot tubs at the entrance throat shall be provided. If a circular weir is used, the housing shall have a minimum 101.6 mm (4 in) diameter weir with a clearance of at least 50.8 mm (2 in) between weir lip and housing side.

Documents
Document Sharing Hub
Full document details: IAPMO SPS 3-2019