

ANSI/APSP/ICC-6 2013

# American National Standard for Residential Portable Spas and Swim Spas

Approved January 9, 2013



*The Association of  
Pool & Spa Professionals®*



**INTERNATIONAL  
CODE COUNCIL®**



ANSI/APSP/ICC-6 2013

**American National Standard for  
Residential Portable Spas  
and Swim Spas**

**SECRETARIAT:**

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Approved January 9, 2013  
American National Standards Institute

## American National Standard

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## Foreword

This Foreword is not part of the American National Standard ANSI/APSP/ICC-6 2013. It is included for information only.

The *ANSI/APSP/ICC-6 2013, Standard for Residential Portable Spas and Swim Spas*, was approved by ANSI on January 9, 2013.

*This standard is a revision of ANSI/APSP-6 1999, American National Standard for Portable Spas.*

The objective of this standard is to provide recommended minimum guidelines for the design, equipment, installation, and use of residential portable spas and swim spas. It is also intended to assist local jurisdictions and other regulatory bodies, where necessary, in the development and promulgation of criteria for residential portable spas and swim spas.

The design requirements and construction practices in this standard are based upon sound engineering principles, research and field experience which, when applied properly, contribute to the delivery and installation of a safe product.

The words “safe” and “safety” are not absolutes. While the goal of this standard is to design and construct a safe, enjoyable product, it is recognized that risk factors cannot, as a practical matter, be reduced to zero in any human activity. This standard does not replace good judgment and personal responsibility. In permitting use of the spa or swim spa by others, owners must consider the skill, attitude, training and experience of the expected user.

As with any product, the specific recommendations for installation and use provided by the manufacturer should be carefully observed.

This standard was prepared by the APSP-6 Portable Spa and Swim Spa Writing Committee of the Association of Pool and Spa Professionals (APSP) in accordance with American National Standards Institute (ANSI) Essential Requirements: Due process requirements for American National Standards.

Consensus approval was achieved by a ballot of the balanced APSP Standards Consensus Committee and through an ANSI Public Review process. The ANSI Public Review provided an opportunity for additional input from industry, academia, regulatory agencies, safety experts, state code and health officials, and the public at large.

Suggestions for improvement of this standard should be sent to The Association of Pool and Spa Professionals, 2111 Eisenhower Avenue, Alexandria, VA 22314.

This standard is published in partnership with the International Code Council (ICC). ICC develops and publishes the *International Building Code (IBC)* and *International Residential Code (IRC)*, which are adopted as the basis for the building codes used in most states and jurisdictions within the United States. Additionally, APSP and ICC have collaborated to develop the first comprehensive model swimming pool and spa code, known as the *International Swimming Pool and Spa Code*. This landmark document incorporates and references material from ANSI/APSP standards and ICC's model codes, to create a stand-alone code that is consistent with codes and standards from both organizations.

These codes and standards are the result of a joint effort between ICC and APSP as a service to both the swimming pool and spa community, and building code professionals. It is the hope of both organizations that they will lead to enhanced safety for pool and spa users around the world.

## Organizations Represented

Consensus approval in accordance with ANSI procedures was achieved by ballot of the following APSP Standards Consensus Committee. Inclusion in this list does not necessarily imply that the organization concurred with the submittal of the proposed standard to ANSI.

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 American Red Cross . . . . . Connie Harvey  
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 Con-Serv Associates Inc. . . . . Wally James  
 Conroe Independent School District, TX . . . Louis Sam Fruia  
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\*non-voting

In accordance with American National Standards Institute (ANSI) procedures, this document will be reviewed periodically. The Association of Pool & Spa Professionals welcomes your comments and suggestions, and continues to review all APSP standards, which include:

ANSI/APSP-1 2003 Standard for Public Swimming Pools  
 ANSI/APSP-2 1999 Standard for Public Spas  
 ANSI/APSP-3 1999 Standard for Permanently Installed  
 Residential Spas  
 ANSI/APSP/ICC-4 2012 Standard for Aboveground/Onground  
 Residential Swimming Pools  
 ANSI/APSP/ICC-5 2011 Standard for Residential Inground  
 Swimming Pools  
 ANSI/APSP/ICC-6 2013 Standard for Residential Portable Spas  
 and Swim Spas  
 ANSI/APSP-7 2006 Standard for Suction Entrapment Avoidance in  
 Swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins  
 ANSI/APSP/ICC-8 2005 (R 2013) Model Barrier Code for Residential  
 Swimming Pools, Spas and Hot Tubs  
 ANSI/APSP-9 Standard for Aquatic Recreation Facilities (in progress)  
 ANSI/APSP-11 2009 Standard for Water Quality in Public Pools  
 and Spas  
 ANSI/APSP/ICC-14 2011 Standard for Portable Electric Spa  
 Energy Efficiency  
 ANSI/APSP/ICC-15-a 2013 Standard for Residential Pool and Spa  
 Energy Efficiency  
 ANSI/APSP-16 2011 Suction Fittings for Use in Swimming Pools,  
 Wading Pools, Spas, and Hot Tubs  
 APSP-17 Manufactured Safety Vacuum Release Systems (SVRS) for  
 Residential and Commercial Swimming Pool, Spa, Hot Tub, and  
 Wading Pool Suction Systems  
 APSP 2005 Workmanship Standards for Swimming Pools and Spas

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# Standard for Residential Portable Spas and Swim Spas

## 1 Scope

**1.1** This standard is intended to cover factory built residential portable (self contained) spas or swim spas that are used for bathing and are operated by an owner. This standard does not cover Non-Self-Contained Spas, public spas, public swim spas, or permanently installed residential spas, or swim spas.

**1.2** Residential Portable Spa: Self-Contained and Non-Self-Contained.

**1.2.1** Self-contained spa: A factory-built spa in which all control, water heating and water circulating equipment is an integral part of the product. Self-contained spas may be permanently wired or cord connected.

**1.2.2** Non-self-contained spa (Not covered by this standard): A factory built spa in which the water heating and circulating equipment is not an integral part of the product. Non-self-contained spas may employ separate components such as an individual filter, pump, heater, and controls, or they may employ assembled combinations of various components that are to be installed in accordance with manufacturer's specifications.

**1.3** Residential Exercise Spa (Also known as a residential swim spa): Variant of a Residential Portable Spa in which the design and construction includes specific features and equipment to produce a water flow intended to allow recreational physical activity including, but not limited to, swimming in place. Exercise spas may include peripheral jetted seats intended for water therapy, heater, circulation and filtration system, or may be a separate distinct portion of a combination spa/exercise spa and may have separate controls. These aquatic vessels are of a design and size such that it has an unobstructed volume of water large enough to allow the 99th Percentile Man, as specified in the latest published revision of ANSI/APSP-16, to swim or exercise in place.

**1.4** This standard does not apply to public spas or swim spas, permanently installed residential spas or swim spas, or other spas, such as those operated for medical treatment, physical therapy or other purposes.

**1.5** Other standards are referenced in this standard for items not covered.

## 2. Normative references

The following standards contain provisions that, through reference in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the latest published editions of the standards indicated in **Section 2.1**.

**2.1** The materials of manufacture shall be capable of fulfilling the design, installation, and intended use guidelines where referenced in this standard. If the materials of manufacture, components, and accessories used in residential portable spas or swim spas consist of the following, and specifically referenced in this standard, these referenced standards shall be applicable.

### Accessories and Components

**Suction outlet testing and certification:** Spa or swim spa suction outlets shall be tested and certified to ANSI/APSP-16 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas/Hot Tubs and Whirlpool Bathtub Appliances<sup>1</sup>

**Couplings or Hose:** ASTM C564 -97 or equivalent SAE J20e Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings<sup>2</sup>

**Air Induction Systems:** UL 1563 2009, Standard for Electric Spas, Equipment Assemblies, and Associated Equipment<sup>3</sup>

**Circulation Systems – Equipment:** UL 1563 2009, Standard for Electric Spas, Equipment Assemblies, and Associated Equipment<sup>4</sup>

**Energy Efficiency for Portable Spas:** ANSI/APSP/ICC-14 2011, Standard Portable Electric Spa Energy Efficiency<sup>5</sup>

### Entrapment Avoidance

ANSI/APSP-16 2011, Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs<sup>6</sup>

UL 1563 2009, Standard for Electric Spas, Equipment Assemblies, and Associated Equipment<sup>7</sup>

ANSI/ASME – A112.19.17 2010, Manufactured Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub, and Wading Pool Suction Systems<sup>8</sup>

**Electrical Supply:** UL 1563 2009, Electric Spas, Equipment Assemblies, and Associated Equipment<sup>9</sup>

**Foam:** ANSI/UL 94 2011, Test for Flammability of Plastic Materials for Parts in Devices and Appliances<sup>10</sup> (*continued*)

1, 5, 6. APSP, 2111 Eisenhower Ave, Alexandria, VA 22314, 703 838-0083 [www.apsp.org](http://www.apsp.org)

2. ASTM International, 100 Barr Harbor Dr, West Conshohocken, PA 19428, (610) 832-9585, [www.astm.org](http://www.astm.org)

3, 4, 7, 9, 10. Underwriters Laboratories (UL), 333 Pfingsten Road, Northbrook, IL 60062, (847) 272-8800, [www.ul.com](http://www.ul.com)

8. American Society of Mechanical Engineers (ASME), 3 Park Avenue, 20th Floor, New York, NY 10016, (212) 591-8562, [www.asme.org](http://www.asme.org) (*continued*)