

*American National Standard for
Portable Spas*



**NATIONAL
SPA & POOL
INSTITUTE**

*Approved November 24, 1998 by the
American National Standards Institute*

ANSI/NSPI-6-1999

**ANSI/NSPI-6 1999
AMERICAN NATIONAL STANDARD
FOR
RESIDENTIAL PORTABLE SPAS**

SPONSOR:

**NATIONAL SPA AND POOL INSTITUTE
2111 Eisenhower Avenue
Alexandria, VA 22314**

**Approved November 24, 1998
by the
American National Standards Institute, Inc.**

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NSPI does not monitor or enforce compliance with the contents of this document, and any certification of products stating compliance with requirements of this document are at the sole responsibility of the certifier.

It is assumed and intended that spa users will exercise appropriate personal judgment and responsibility and that operators will create and enforce rules of behavior and warning appropriate for their spa.

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FOREWORD

(This Foreword is not part of the American National Standard ANSI/NSPI-6 1999)

The objective of this standard is to provide recommended minimum guidelines for the design, equipment, installation, and use of residential portable 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.

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 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 Spa Standards Writing Committee of the National Spa and Pool Institute (NSPI) in accordance with American National Standards Institute (ANSI) Procedures for the Development and Coordination of American National Standards utilizing the ANSI accredited canvass method. Consensus approval was achieved by ballot of the ANSI accredited canvass list.

The consensus committee that approved this standard was balanced to ensure that individuals from competent and concerned interests have had an opportunity to participate. The proposed standard was made available for public review and comment which provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

The following organizations, recognized as having an interest in the standardization of residential portable spas, were contacted prior to the approval of this standard. 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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Suggestions for improvement of this standard should be sent to the National Spa & Pool Institute, 2111 Eisenhower Avenue, Alexandria, VA 22314, Attention: Technical Department.

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

ANSI/NSPI-1 1991 Standard for Public Swimming Pools
ANSI/NSPI-2 1999 Standard for Public Spas
ANSI/NSPI-3 1999 Standard for Permanently Installed Residential Spas
ANSI/NSPI-4 1992 Standard for Aboveground/Onground Residential Swimming Pools
ANSI/NSPI-5 1995 Standard for Residential Inground Swimming Pools
ANSI/NSPI-6 1999 Standard for Residential Portable Spas
ANSI/NSPI-8 Model Barrier Code for Residential Swimming Pools, Spas and Hot Tubs
ANSI/NSPI-9 Standard for Aquatic Recreation Facilities (In Progress)
ANSI/NSPI-10 Standard for Public Swimspas (In Progress)
ANSI/NSPI-11 Standard for Residential Swimspas (In Progress)
NSPI Workmanship Standards for Swimming Pools and Spas
NSPI Pool Plaster Technology

Special thanks to the following whose contributions and dedication made this standard possible:

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Gary Burkitt, American Products
Rex Stephens, Beyond Waterworks Spas & Pools
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STANDARD FOR PORTABLE SPAS

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STANDARD FOR RESIDENTIAL PORTABLE SPAS

ARTICLE I

1.0 SCOPE

- 1.1 This standard is intended to cover residential portable spas that are used for bathing and are operated by an owner.
- 1.2 This standard is meant to cover certain aspects of the design, equipment, operation, installation, new construction and rehabilitation of spas. This standard shall be met notwithstanding certain variations in equipment, materials, and design.
- 1.3 This standard is not meant to cover public spas, permanently installed residential spas or other spas, such as those operated for medical treatment, physical therapy or other purposes.
- 1.4 Other standards are referenced in this standard for items not covered.

ARTICLE II

2.0 MATERIALS OF MANUFACTURE:

- 2.1 The materials of manufacture shall be capable of fulfilling the design, installation, and intended use requirements in this standard. The materials of manufacture, components and accessories used in residential spas shall comply with the following:

Plastic Spa Shells: ANSI Z124.7-97, Pre-fabricated Plastic Spa Shells.

Tile: IAPMO IS-2-90, Tile Lined Roman Bathtubs

Stainless Steel: ASTM-A240, Type 316 Stainless Steel

Piper Copper Tubing:

ASTM B 88-96: Specification for Seamless Copper Water Tube

ASTM B 88 447-84: Specification for Welded Copper Tube

Plastic Piping and Tubing:

ABS: ASTM D 1527-77 (1995), Specifications for Acrylonitrile Butadiene

Styrene (ABS) Plastic Pipe, Schedules 40 and 80

PVC: ASTM D 1785-95, Specification for Poly Vinyl Chloride (PVC) Plastic Pipe, Schedules 40, 80 and 120

PVC Hose: IAPMO PS-33-93, Specification for Flexible Hose for Pools, Hot Tubs, Spas and Jetted Bathtubs

CPVC: ASTM D2846-95, Specification for Chlorinated Poly Vinyl Chloride (CPVC) Plastic Hot and Cold Water Distribution Systems

PB: ASTM D3309-95-A, Specifications for Polybutylene (PB) Plastic Hot Water Distribution Systems

Steel Pipe Galvanized: ASTM A53-96a, Specification for Pipe, Steel Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

Plastic Fittings: ABS ASTM D2235-95, Specification for Solvent Cements for Acrylonitrile Butadiene Styrene (ABS) Plastic Pipe and Fittings

PVC: ASTM D 2564-95, Specification for Solvent Cements for Poly Vinyl Chloride (PVC) Plastic Pipe and Fittings

CPVC: ASTM F493-95, Specification for Solvent Cements for Chlorinated Poly Vinyl Chloride (CPVC) Plastic Pipe and Fittings

Soldered Joints:

IAPMO: IS 3-93, Installation Standard for Copper Plumbing Tube & Fittings

IAPMO: IS 21-89, Installation Standard for Copper and Copper Alloy Welded Water Tube Copper Tube Handbook, CDA

Threaded Joints: ANSI/ASME B1.20.1-1983, Pipe Treads, General Purpose (inch)

Accessories and Components:

Suction Fittings: ANSI/ASME A112.19.8-M-1987 Suction Fittings for use in Swimming Pools, Wading Pools, Spas, Hot Tubs and Whirlpool Bathtub Appliances.