

Circulation system components and related materials for swimming pools, spas / hot tubs

**NSF International Standard/
American National Standard**



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for Swimming Pool and Spa Equipment –

**Circulation system components
and related materials for
swimming pools, spas/hot tubs**

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Foreword²

The purpose of this Standard is to establish minimum materials, design and construction, and performance requirements for equipment commonly included in the water circulation systems of residential and public swimming pools, spas, or hot tubs. It incorporates minimum requirements for equipment previously covered by the following individual NSF standards: Standard 9 – *Diatomite-type filters for swimming pools*; Standard 10 – *Sand-type filters for swimming pools*; Standard 11 – *Recessed automatic surface skimmers for swimming pools*; Standard 17 – *Centrifugal pumps for swimming pools*; Standard 19 – *Adjustable output rate chemical feeding equipment for swimming pools*; Standard 27 – *Multiport valves for swimming pools*; Standard 28 – *Cartridge-type filters for swimming pools*; and Standard 47 – *Flow through chemical feeding equipment*.

If a value for measurement is followed by a value in other units in parentheses, the second value may be only approximate. The first stated value is the requirement.

This edition of the Standard (NSF/ANSI 50 – 2007) includes the following revisions:

- Addition of evaluation criteria (and corresponding test protocols) for alternate to sand type filter media in Section 5 and Annex B.
- An update to Annex I (informative) providing information about sizing of chemical generators and feeders for use with pools and spas.

This Standard was developed by the NSF Joint Committee on Swimming Pool and Spa Equipment using the consensus process described by the American National Standards Institute.

Suggestions for improvement of this Standard are welcome. Comments should be sent to Chair, Joint Committee on Swimming Pools and Spa Equipment, c/o NSF International, Standards Department, P. O. Box 130140, Ann Arbor, MI 48113-0140, USA.

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NSF/ANSI Standard
for Swimming Pool and Spa Equipment

Circulation system components and
related materials for
swimming pools, spas/hot tubs

1 General

1.1 Scope

This Standard covers circulation system components, treatment devices, and related materials intended to be used specifically for swimming pool, spa / hot tub water circulation and treatment in public and residential applications. No attempt has been made to incorporate safety provisions. This Standard is not intended to cover components intended to treat water exceeding a total dissolved solids concentration of 3000 ppm.

1.2 Variations in design and operation

A component varying in design and/or operation may qualify under this Standard. Appropriate tests and investigations shall indicate that the component performs as well as components conforming to this Standard. Such components shall meet the requirements for materials, finishes, and construction in this Standard.

1.3 Alternate materials

If specific materials are mentioned, other materials equally satisfactory from the standpoint of public health may be permitted.

1.4 Standard review

A complete review of this Standard shall be conducted at least every five years. These reviews shall be conducted by representatives from the industry, public health, and user groups, or agencies of the NSF Joint Committee on Swimming Pool Equipment.

1.5 Normative references

The following documents contain provisions that, through reference in this text, constitute provisions of this Standard. At the time of publication, the indicated editions were valid. All standards are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the standards indicated below.

ASME, *Boiler and Pressure Vessel Code*, 2004³

³ ASME, 3 Park Avenue, New York, NY 10016-5990