

This is a preview of "NSF/ANSI 177-2019". Click here to purchase the full version from the ANSI store.



*NSF International Standard /
American National Standard*

NSF/ANSI 177 - 2019

Shower Filtration Systems - Aesthetic Effects



NSF International, an independent, not-for-profit, nongovernmental organization, is dedicated to being the leading global provider of public health and safety-based risk management solutions while serving the interests of all stakeholders.

This Standard is subject to revision.
Contact NSF to confirm this revision is current.

Users of this Standard may request clarifications and interpretations, or propose revisions by contacting:

Chair, Joint Committee on Drinking Water Treatment Units
c/o NSF International
789 North Dixboro Road, PO Box 130140
Ann Arbor, Michigan 48113-0140 USA
Phone: (734) 769-8010 Fax: (734) 769-0109
Email: info@nsf.org
Web: www.nsf.org

NSF/ANSI 177 – 2019

NSF International Standard /
American National Standard
for Drinking Water Treatment Units –
**Shower Filtration Systems –
Aesthetic Effects**

Standard Developer
NSF International

Designated as an ANSI Standard
September 10, 2019
American National Standards Institute

Prepared by
The NSF Joint Committee on Drinking Water Treatment Units

Recommended for adoption by
The NSF Council of Public Health Consultants

Adopted by
NSF International
September 2004

Revised December 2014

Revised January 2020

Published by
NSF International
PO Box 130140, Ann Arbor, Michigan 48113-0140, USA

For ordering copies or for making inquiries with regard to this Standard, please reference the designation "NSF/ANSI 177 – 2019".

Copyright 2020 NSF International

Previous editions © 2019, 2014, 2004

Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from NSF International.

Printed in the United States of America.

Disclaimers¹

NSF International (NSF), in performing its functions in accordance with its objectives, does not assume or undertake to discharge any responsibility of the manufacturer or any other party. The opinions and findings of NSF represent its professional judgment. NSF shall not be responsible to anyone for the use of or reliance upon this Standard by anyone. NSF shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use, interpretation of, or reliance upon this Standard. It is the responsibility of the user of this standard to judge the suitability of the ANS for the user's purpose.

NSF Standards provide basic criteria to promote sanitation and protection of public health and the environment. Provisions for mechanical and electrical safety have not been included in this Standard because governmental agencies or other national standards-setting organizations provide safety requirements.

Participation in NSF Standards development activities by regulatory agency representatives (federal, state, or local) shall not constitute their agency's endorsement of NSF or any of its Standards.

Preference is given to the use of performance criteria measurable by examination or testing in NSF Standards development when such performance criteria may reasonably be used in lieu of design, materials, or construction criteria.

The illustrations, if provided, are intended to assist in understanding their adjacent standard requirements. However, the illustrations may not include all requirements for a specific product or unit, nor do they show the only method of fabricating such arrangements. Such partial drawings shall not be used to justify improper or incomplete design and construction.

At the time of this publication, examples of programs and processes were provided for general guidance. This information is given for the convenience of users of this standard and does not constitute an endorsement by NSF International. Equivalent programs and processes may be used.

Unless otherwise referenced, the annexes are not considered an integral part of NSF Standards. The annexes are provided as general guidelines to the manufacturer, regulatory agency, user, or certifying organization.

¹ The information contained in this Disclaimer is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. Therefore, this Disclaimer may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

This page is intentionally left blank.

Contents

1	General	1
1.1	Purpose	1
1.2	Scope	1
1.3	Minimum requirements.....	1
1.4	Alternate materials, designs, and construction	1
1.5	Free available chlorine (FAC) reduction performance claims.....	1
2	Normative references	2
3	Definitions	2
4	Materials	2
4.1	Materials in contact with shower water	2
5	Structural performance	3
5.1	Structural integrity	3
5.2	Acceptance.....	3
5.3	Working pressure	4
5.4	Structural integrity test methods.....	4
6	Minimum performance claims.....	6
6.1	Elements	6
6.2	Hazards	6
6.3	Operation temperature	6
6.4	Minimum service flow	6
6.5	Rated service flow.....	7
7	Elective performance claims – Test methods.....	7
7.1	General requirements	7
7.2	FAC reduction testing.....	9
8	Instruction and information	10
8.1	Installation, operation, and maintenance instruction.....	10
8.2	Data plate	11
8.3	Replacement components	11
8.4	Performance data sheet.....	11

This page is intentionally left blank.

Foreword²

The purpose of this Standard is to establish minimum requirements for materials, design, construction, and performance of shower filtration systems that are designed to reduce aesthetic free available chlorine in public or private water supplies. This Standard specifies the minimum product literature and labeling information that a manufacturer is required to supply authorized representatives and system owners. This Standard provides minimum service-related obligations that the manufacturer supplies to system owners.

This edition of the Standard contains the following revision:

Issue 8

This revision adds clarifying language to Section 4.1.1 to bring the standard up-to-date with other related DWTU standards.

This Standard was developed by the NSF Joint Committee on Drinking Water Treatment Units using the consensus process described by the American National Standards Institute.

This Standard and the accompanying text are intended for voluntary use by certifying organizations, regulatory agencies, and/or manufacturers as a basis of providing assurances that adequate health protection exists for covered products.

Suggestions for improvement of this Standard are welcome. This Standard is maintained on a continuous maintenance schedule and can be opened for comment at any time. Comments should be sent to: Chair, Joint Committee on Drinking Water Treatment Units at standards@nsf.org, or c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

² The information contained in this Foreword is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. As such, this Foreword may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance to the Standard.

This page is intentionally left blank.

NSF/ANSI Standard for Drinking Water Treatment Units – Shower Filtration Systems – Aesthetic Effects

1 General

1.1 Purpose

It is the purpose of this Standard to establish minimum performance requirements for shower filtration systems, including substance reduction performance, materials safety, and design, construction, and structural performance. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners.

1.2 Scope

The point-of-use shower filtration systems addressed by this Standard are designed to be used for the reduction of specific substances that may be present in potable water (public or private). Systems covered under this Standard are intended to reduce substances affecting the aesthetic quality of the water. Only whole systems shall be evaluated under this Standard. Systems with components or functions covered under other NSF or NSF/ANSI standards or criteria shall comply with those applicable requirements.

1.3 Minimum requirements

This Standard establishes minimum requirements. Some requirements may be waived if it is verified that the candidate system or component is sufficiently similar to a tested system or component as to provide equivalent or better operation and performance.

A system as defined in this Standard shall meet all requirements of this Standard.

A component as defined in this Standard shall meet the requirements of Section 4. If the component is pressure bearing, it shall also meet the applicable requirements of Section 5.

1.4 Alternate materials, designs, and construction

While specific materials, designs, and construction may be stipulated in this Standard, systems that incorporate alternate materials, designs, and construction may be acceptable when it is verified that such systems meet the applicable requirements stated herein.

1.5 Free available chlorine (FAC) reduction performance claims

1.5.1 All NSF/ANSI 177 performance claims shall be verified and substantiated by test data generated under the requirements of NSF/ANSI 177.

1.5.2 When making performance claims for substances not specifically addressed in the scope of this Standard or for those substances not specifically addressed but falling under the scope of NSF/ANSI 177, those claims not specifically addressed in the Standard shall be so identified.