

Special purpose food equipment and devices

**NSF International Standard/
American National Standard**



NSF International, an independent, not-for-profit, non-governmental 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 Food Equipment
c/o NSF International
789 North Dixboro Road, P. O. Box 130140
Ann Arbor, Michigan 48113-0140 USA
Phone: (734) 769-8010 Telex: 753215 NSF INTL
FAX: (734) 769-0109
E-mail: info@nsf.org
Web: <http://www.nsf.org>

NSF International Standard/
American National Standard
for Food Equipment —

**Special purpose food equipment
and devices**

Standard Developer

NSF International

Adopted April 3, 2007

NSF International

Designated as an ANSI Standard

April 3, 2007

American National Standards Institute

Prepared by
The NSF Joint Committee on Food Equipment

Recommended for adoption by
The NSF Council of Public Health Consultants

Adopted by
The NSF Board of Directors
October 2005

Revised April 2007

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 169 – 2007.”

Copyright 2007 NSF International
Previous edition © 2005

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, 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.

NSF Standards provide basic criteria to promote sanitation and protection of the public health. 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, local, state) 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.

Unless otherwise referenced, the "normative" 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	Alternate materials, design, and construction	1
1.4	Measurement	1
2	Normative references	1
3	Definitions	3
4	Materials	3
4.1	Conformance with NSF/ANSI 51	3
4.2	Solder	3
4.3	Sound dampening materials	3
5	Design and construction	3
5.1	General sanitation	3
5.2	Internal angles and corners, food zone	4
5.3	External angles and corners	4
5.4	Joints and seams	4
5.5	Fasteners	4
5.6	Insulation	5
5.7	Reinforcing and framing	5
5.8	Inspection and maintenance panels	5
5.9	Doors	5
5.10	Door tracks and guides	5
5.11	Cutting boards	6
5.12	Hinges	6
5.13	Covers	6
5.14	Edges and nosings	7
5.15	Openings to food zones	7
5.16	Louvers	7
5.17	Equipment mounting	7
5.18	Legs and feet	8
5.19	Shelving	8
5.20	Gaskets	9
5.21	Breakable glass components	9
5.22	Thermometers	9
5.23	Plumbing connections	9
6	Performance	10
7	Food equipment provided with a security package	11
7.1	General	11
7.2	Special tools	11
7.3	Fastening methods (splash zone)	11
7.4	Fastening methods (nonfood zone)	11
7.5	Hinges	11
7.6	Hardware	11
7.7	Shelf brackets, pilasters, slides, or cleats	11
7.8	Kick plate	11
7.9	Drawers	11
7.10	Conveyor units	11
7.11	Labeling	12

8	Supplemental requirements for marine food equipment	12
	8.1 Materials.....	12
	8.2 Design and construction.....	12

Foreword² (This foreword is not part of ANSI/NSF 169 – 2007.)

The purpose of this Standard is to establish minimum food protection and sanitation requirements for the materials, design, fabrication, construction, and performance of special purpose food handling and processing equipment and devices not fully covered by other individual standards.

This Standard uses inch-pound units as the primary units with SI (metric) units provided in parentheses for informational purposes. The Joint Committee carried a motion that this convention be adopted in future revisions to this Standard. The SI units provided in parenthesis generally represent a hard conversion of the inch-pound units, meaning that the SI value may have been rounded to provide a reasonable and measurable dimension.

This Standard was revised to update the normative references and achieve consistency with the “boilerplate” language in the NSF food equipment standards in Joints and seams (5.4), Shelving (5.19.4), and Hardware (7.6).

This Standard was developed by the NSF Joint Committee on Food 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 Food Equipment, c/o NSF International, Standards Department, P. O. 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. 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.

NSF/ANSI International Standard for Food Equipment —

Special purpose food equipment and devices

1 General

1.1 Purpose

This Standard establishes minimum food protection and sanitation requirements for the materials, design, fabrication, construction, and performance of special purpose food handling and processing equipment and devices not fully covered by other individual standards.

1.2 Scope

Equipment covered by this Standard includes, but is not limited to, specialty equipment items or devices that have special, complex, or multiple functions such as refrigeration heating equipment, and refrigerated tumblers equipment. These are applicable provisions and additional specific requirements or exceptions as might be needed for proper evaluation of devices or equipment for which individual standards do not exist.

The requirements of this Standard shall apply to all specialty equipment items except when equipment components and materials are covered under other NSF or NSF/ANSI Standards or criteria. Components and materials covered by other NSF or NSF/ANSI Standards or criteria shall comply with the requirements of each relevant standard or criteria to which that particular equipment component or material applies. This Standard is not intended to restrict new unit design, provided that such design meets the minimum specifications described herein.

1.3 Alternate materials, design, and construction

While specific materials, design, and construction may be stipulated in this Standard, equipment that incorporates alternate materials, design, or construction may be acceptable when such equipment meets the applicable requirements herein.

1.4 Measurement

Decimal and SI conversions provided parenthetically shall be considered equivalent. Metric conversions have been made according to IEEE/ASTM SI 10.

2 Normative references

The following documents contain provisions that, through reference, constitute provisions of this NSF/ANSI Standard. At the time this Standard was balloted, the editions listed below were valid. All documents are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below.