

NSF/ANSI 18 – 2005

Manual food and beverage dispensing equipment

**NSF International Standard/
American National Standard**

NSF/ANSI 18 – 2005



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American National Standard
for Food Equipment —

Manual food and beverage dispensing equipment

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Contents

Foreword	vii
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	2
4 Materials	2
4.1 Conformance with NSF/ANSI 51	2
4.2 Sound dampening materials	3
5 Design and construction	3
5.1 General sanitation	3
5.2 Internal angles and corners, food zone	3
5.3 External angles and corners	4
5.4 Joints and seams	4
5.5 Fasteners	4
5.6 Insulation	4
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 Hinges	5
5.12 Covers	6
5.13 Openings to food zones	6
5.14 Edges and nosings	6
5.15 Louvers	6
5.16 Gaskets	7
5.17 Shelving	7
5.18 Support brackets and pilasters	7
5.19 Ventilation openings	7
5.20 Equipment mounting	7
5.21 Legs and feet	8
5.22 Entry ports	9
5.23 Casters, rollers, and gliders	9
5.24 Storage compartments for packaged liquid products	9
5.25 Temperature indicating devices for hot and cold food storage	9
5.26 Storage compartments for single service items	9
5.27 Refrigeration and cooling equipment	9
5.28 Water cooling units	10
5.29 Ice pans and bins	10
5.30 Condenser units	10
5.31 Backflow prevention on noncarbonated beverage dispensers	10
5.32 Backflow prevention on carbonators and beverage dispensers with internal carbonators	11
5.33 Water filters	11
5.34 Dispensing mechanisms	11
5.35 Springs	11
5.36 Food dispensing pumps	11

6	Performance.....	12
6.1	Cleaning and sanitization procedures.....	12
6.2	Temperature requirements – Cold potentially hazardous foods or beverages.....	13
6.3	Temperature requirements – Hot potentially hazardous food and beverages.....	14
7	Product literature.....	15
Figures		
	Figure 1 – External corners or angles.....	16
	Figure 2 – Single panel door.....	16
	Figure 3 – Openings and rims – food zone.....	17
	Figure 4 – Perforated false bottom.....	17
	Figure 5 – Diverting shelves.....	18
	Figure 6 – Interior fixed shelves.....	18
	Figure 7 – Rack slides.....	18
Annex A		
A.1	Summary.....	A1
A.2	Equipment.....	A1
A.3	Microorganisms.....	A1
A.4	Supplies.....	A1
A.5	Reagents.....	A1
A.6	Safety precautions and hazards.....	A2
A.7	Growth medium.....	A2
A.8	Culture of <i>E. coli</i>	A3

Foreword²

The purpose of this Standard is to establish minimum food protection and sanitation requirements for the materials, design, construction, and performance of manual food and beverage dispensing equipment.

This Standard contains requirements for equipment and devices that manually dispense food or beverages, in bulk or in portions. This Standard may also be applied to components of food and beverage dispensing equipment.

In the previous editions of NSF/ANSI 18, the in-place cleaning (IPC) performance evaluation method prescribed two distinct methodologies and acceptance criteria to evaluate a manufacturer's IPC procedures, both of which had to be met for a unit to be deemed acceptable. These were 1) a pour plating technique using Violet Red Bile agar (VRB), which was used primarily for confirmation that the organisms recovered were, in fact, the challenge organisms, and 2) the Most Probable Number (MPN) method using Brilliant Green Bile media, which was used for enumeration of the organisms.

The MPN evaluation method used for the IPC evaluation has been replaced with the Membrane Filtration (MF) technique. The MF method also serves as an alternative to both the MPN and the pour plate methodologies. The MPN method has been deemed outdated for this application.

MF is a more sensitive method of determination. The volume of sample analyzed post-IPC is equal to the volume collected (500 mL). Per this method, the entire slug of effluent collected is analyzed (as opposed to the MPN method which employs statistical interpolation to determine the amount of organisms *most probably* present in the entire slug from aliquots thereof). Also, the use of MF makes pour plating with VRB agar procedurally obsolete as the MF technique utilizes a media selective only for the enumeration of the challenge organism.

MF provides a more accurate assessment of the efficacy of the IPC procedure. As such, the NSF Joint Committee on Food Equipment and the NSF Council of Public Health Consultants recommends that NSF/ANSI 18 incorporate the most suitable methodologies and up-to-date techniques commonly available to microbiologists for these evaluations and that this methodology be utilized for the IPC performance evaluations.

This Standard was revised to include editorial changes to clarify requirements, achieve consistency with the "boilerplate" language in the NSF food equipment standards and update the normative references. The methods used for suspension preparation, controls and analysis of *Escherichia coli* were moved to annex A.

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, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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NSF/ANSI Standard
for Food Equipment —

Manual food and beverage dispensing equipment

1 General

1.1 Purpose

This Standard establishes minimum food protection and sanitation requirements for the materials, design, construction, and performance of manual food and beverage dispensing equipment and their related components.

1.2 Scope

This Standard contains requirements for equipment and devices that manually dispense food or beverages, in bulk or in portions. The materials, design, and construction requirements of this Standard may also be applied to an item that is manufactured as a component of food and beverage dispensing equipment. This Standard does not apply to vending machines, dispensing freezers, and bulk milk dispensing equipment covered by the scope of other NSF Standards.

Dispensing equipment components and materials covered under other NSF or NSF/ANSI Standards or Criteria shall also comply with the requirements therein. This Standard is not intended to restrict new unit design, provided 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, dispensing 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 standards 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.

ANSI/ASSE 1001 – 2002. *Atmospheric Type Vacuum Breakers*³

³ American Society of Sanitary Engineering, 901 Canterbury, Suite A, Westlake, OH 44145