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# **Commercial Warewashing Equipment**



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NSF International Standard /  
American National Standard  
for Food Equipment –

# **Commercial Warewashing Equipment**

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## Abbreviations

The following table is provided as a reference for unit abbreviations for common forms of measurement used within NSF documents.

|                 |                    |     |
|-----------------|--------------------|-----|
| time            | second             | s   |
|                 | minute             | min |
|                 | hour               | h   |
|                 | day                | d   |
|                 | week               | wk  |
|                 | month              | mo  |
|                 | year               | yr  |
| length          | inch               | in  |
|                 | foot               | ft  |
|                 | yard               | yd  |
|                 | micrometer         | µm  |
|                 | nanometer          | nm  |
|                 | millimeter         | mm  |
|                 | centimeter         | cm  |
|                 | meter              | m   |
| kilometer       | km                 |     |
| liquid measure  | milliliter         | mL  |
|                 | liter              | L   |
|                 | liters per day     | LPD |
|                 | liters per minute  | LPM |
|                 | ounce              | oz  |
|                 | pint               | pt  |
|                 | quart              | qt  |
|                 | gallon             | gal |
|                 | gallons per minute | GPM |
| gallons per day | GPD                |     |
| weight          | microgram          | µg  |
|                 | picogram           | pg  |
|                 | nanogram           | ng  |
|                 | milligram          | mg  |
|                 | centigram          | cg  |
|                 | gram               | g   |
|                 | kilogram           | kg  |
|                 | pound              | lb  |
|                 | ton                | t   |
|                 | metric ton         | mt  |

|               |                      |     |
|---------------|----------------------|-----|
| miscellaneous | colony-forming units | CFU |
|               | milliwatt            | mW  |
|               | parts per million    | ppm |
|               | microwatt            | uW  |

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## Foreword<sup>2</sup>

The purpose of this standard is to establish minimum public health and sanitation requirements for the materials, design, construction, and performance of commercial spray-type dishwashing, glasswashing, bottle washing, and pot, pan, and utensil washing machines.

This standard covers commercial dishwashing, glasswashing, bottle washing, and pot, pan, and utensil washing machines that wash their contents by applying sprays of detergent solutions and sanitize their contents by applying either hot water sprays or chemical sanitizing solutions. Both stationary rack and conveyor machines are covered by the scope of this standard. All equipment previously covered by NSF 26-1980: *Pot, Pan, and Utensil Commercial Spray-Type Washing Machines* is also covered by the scope of this standard.

The requirements established in this standard are intended to be consistent with the Food Code, recommendations of the U.S. Public Health Service, Food and Drug Administration.

This edition of the standard contains the following revisions:

### Issue 10

This revision adds Section [6.4](#) and a new Section [N-3.1](#) with language regarding the new performance test for the soil redeposition and rinseability of warewashing equipment.

### Issue 21

This revision adds new Sections [5.20.4](#), [6.1.4](#), [6.2.6](#), [6.2.7](#), and [7.3.3](#) and adds language to existing Sections [6](#) and [7.3.1](#) regarding bottle washing machines. It also adds clarifying language throughout the standard regarding labels as an acceptable alternative to a data plate.

### Issue 22

This revision affirms new language regarding the organism density performance test in Section [6.2.5.2](#) and [6.2.7.2](#).

### Issue 23

This revision approves new and revised language correcting the use of notes and use of the term “shall” throughout Section [6](#), and adds a new normative reference in Section [2](#).

This standard was developed by the NSF Joint Committee on Food Equipment 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 Food Equipment at [standards@nsf.org](mailto:standards@nsf.org), or c/o NSF International, Standards Department, P.O. Box 130140, Ann Arbor, Michigan 48113-0140, U.S.A.

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# NSF/ANSI Standard for Food Equipment – Commercial Warewashing Equipment

## 1 General

### 1.1 Purpose

This standard establishes minimum public health and sanitation requirements for the materials, design, construction, and performance of commercial warewashing machines and their related components intended for use in a food establishment.

### 1.2 Scope

This standard applies to commercial dishwashing, glasswashing, bottle washing, and pot, pan, and utensil washing machines that wash their contents by applying sprays of detergent solutions, with or without blasting media granules, and sanitize their contents by applying sprays of hot water or chemical sanitizing solutions. Stationary rack and conveyor machines are covered under this standard. Equipment components and materials covered under other NSF or NSF/ANSI standards or criteria shall also comply with the requirements herein. 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 intent of the applicable requirements herein.

### 1.4 Measurement

Decimal and SI conversions provided parenthetically shall be considered equivalent. Metric conversions and significant figure rounding have been made according to IEEE/ASTM SI 10: *American National Standard for Metric Practice*.<sup>3</sup>

## 2 Normative references

The following documents contain requirements that, by reference in this text, constitute requirements of this standard. At the time of publication, the indicated editions were valid. All of the documents are subject to revision and parties are encouraged to investigate the possibility of applying the most recent editions of the documents indicated below. The most recent published edition of the document shall be used for undated references.

40 C.F.R. § 180.940, *Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (Food-Contact Surface Sanitizing Solutions)*<sup>4</sup>

<sup>3</sup> ASTM International. 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. <[www.astm.org](http://www.astm.org)>

<sup>4</sup> National Archives and Records Administration, Office of the Federal Register. 7 G Street NW, Suite A-734, Washington, DC 20401. <[www.ecfr.gov](http://www.ecfr.gov)>