



Standard Specification for Feeders, Detergent, Rinse Agent, and Sanitizing Agent for Commercial Dishwashing and Glasswashing Machines¹

This standard is issued under the fixed designation F1021; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers detergent feeders, rinse additive feeders, and sanitizing agent feeders intended to automatically maintain the concentration of additives in the wash, recirculated rinse, or non-recirculated rinse water of commercial spray-type dishwashing and glasswashing machines.

1.2 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:²

- A167 Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
- D3951 Practice for Commercial Packaging
- F760 Specification for Food Service Equipment Manuals

2.2 NSF International Standards:

- NSF No. 29 Detergent/Chemical Feeders for Commercial Dishwashing Machines³
- NSF No. 51 Plastic Material and Components Used in Food Equipment³
- NSF Food Service Equipment Listing³

2.3 Underwriters Laboratories Standards:

- UL 94 Test for Flammability of Plastic Materials for Parts in Devices and Appliances⁴
- UL 73 Motor Operated Appliances⁴

¹ This specification is under the jurisdiction of ASTM Committee F26 on Food Service Equipment and is the direct responsibility of Subcommittee F26.01 on Cleaning and Sanitation Equipment.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from NSF International, P.O. Box 130140, 789 N. Dixboro Rd., Ann Arbor, MI 48113-0140, <http://www.nsf.org>.

⁴ Available from Underwriters Laboratories (UL), 333 Pfingsten Rd., Northbrook, IL 60062-2096, <http://www.ul.com>.

2.4 American Society of Sanitary Engineering Standards: ASSE 1001 Pipe Applied Atmospheric Vacuum Breakers⁵

2.5 Building Officials and Code Administrators International Standard:

BOCA Basic Plumbing Code⁶

3. Terminology

3.1 Definitions:

3.1.1 *detergent feeder*—a device that automatically feeds detergents into wash tanks of commercial dishwashing and glasswashing machines.

3.1.2 *rinse additive feeder*—a device that automatically feeds rinse additives into rinse water of commercial dishwashing and glasswashing machines.

3.1.3 *sanitizing agent feeder*—a device that automatically feeds sanitizer into rinse water of commercial dishwashing and glasswashing machines.

4. Classification

4.1 *General*—Detergent, rinse additive, and sanitizing agent feeders shall be of the following types and styles as specified.

4.2 Types:

4.2.1 *Type I*—Detergent feeder, concentration sensing or controlling.

4.2.2 *Type II*—Detergent feeder, timed delivery.

4.2.3 *Type III*—Rinse additive feeder, flow/pressure, or electrically activated.

4.2.4 *Type IV*—Rinse additive feeder, timed delivery.

4.2.5 *Type V*—Sanitizing agent feeder, flow/pressure, or electrically activated.

4.2.6 *Type VI*—Sanitizing agent feeder, timed delivery.

4.3 Styles:

4.3.1 *Style I*—Detergent feeder, powder product.

4.3.2 *Style II*—Detergent feeder, liquid product.

4.3.3 *Style III*—Detergent feeder, slurry product.

⁵ Available from American Society of Sanitary Engineering, 901 Canterbury, Suite A Westlake, OH 44145, <http://www.asse-plumbing.org>.

⁶ Available from Building Officials and Code Administrators International, 4051 West Flossmoor Rd., Country Club Hills, IL 60477, <http://www.iccsafe.org>.