



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 U.S. 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.

1.3 The following safety hazards caveat pertains only to the test methods portion, Section 10, of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

[A167 Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip \(Withdrawn 2014\)](#)³

[D3951 Practice for Commercial Packaging](#)

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.

Current edition approved Dec. 1, 2018. Published January 2019. Originally approved in 1986. Last previous edition approved in 2013 as F1021 – 95 (2013). DOI: 10.1520/F1021-18.

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 The last approved version of this historical standard is referenced on www.astm.org.

F760 Specification for Food Service Equipment Manuals

2.2 NSF International Standards:⁴

[NSF No. 29 Detergent/Chemical Feeders for Commercial Dishwashing Machines](#)

[NSF No. 51 Plastic Material and Components Used in Food Equipment](#)

[NSF Food Service Equipment Listing](#)

2.3 Underwriters Laboratories Standards:⁵

[UL 73 Motor Operated Appliances](#)

[UL 94 Test for Flammability of Plastic Materials for Parts in Devices and Appliances](#)

[UL 746C Standard for Polymeric Materials - Use in Electrical Equipment Evaluations](#)

2.4 American Society of Sanitary Engineering Standards:⁶

[ASSE 1001 Performance Requirements for Atmospheric Type Vacuum Breakers](#)

[2.5 Building Officials and Code Administrators International Standard:⁷](#)

[BOCA Basic Plumbing Code](#)

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

⁵ Available from Underwriters Laboratories (UL), 333 Pfingsten Rd., Northbrook, IL 60062-2096, <http://www.ul.com>.

⁶ Available from ASSE International Chapter of IAPMO, LLC, 18927 Hickory Creek Drive, Suite 220, Mokena, Illinois 60448, <http://www.asse-plumbing.org>.

⁷ Available from Building Officials and Code Administrators International, 4051 West Flossmoor Rd., Country Club Hills, IL 60477, <http://www.iccsafe.org>.