



Standard Specification for Washing Machines—Pot, Pan, and Utensil, Heat Sanitizing, Commercial Rotary Conveyor Type¹

This standard is issued under the fixed designation F1203; 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.

1. Scope

1.1 This specification covers manually fed, motor-driven rotary conveyor type, automatically controlled, commercial pot, pan, and utensil washing machines, hereinafter referred to as “the washer.”

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 The following precautionary statement pertains only to the test methods portion, Section 9 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

[A53/A53M Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless](#)

[A167/A240/A240M Specification for Stainless Chromium and Heat-Resisting Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications](#) (Withdrawn 2014)

[A436 Specification for Austenitic Gray Iron Castings](#)

[A554 Specification for Welded Stainless Steel Mechanical Tubing](#)

[B43 Specification for Seamless Red Brass Pipe, Standard Sizes](#)

[B75 Specification for Seamless Copper Tube](#)

[B127 Specification for Nickel-Copper Alloy \(UNS N04400\) Plate, Sheet, and Strip](#)

[D3951 Practice for Commercial Packaging](#)

[F760 Specification for Food Service Equipment Manuals](#)

[F1021 Specification for Feeders, Detergent, Rinse Agent, and Sanitizing Agent for Commercial Dishwashing and Glasswashing Machines](#)

[F1696 Test Method for Energy Performance of Stationary-Rack, Door-Type Commercial Dishwashing Machines](#)

2.2 American National Standards:³

[ANSI S1.4 Specification for Sound Level Meters](#)

[ANSI S1.13 Methods for the Measurement of Sound Pressure Levels](#)

2.3 Federal Regulations:⁴

[OSHA Title 29](#)

2.4 National Electrical Manufacturers Association Standards:⁵

[NEMA ICS Industrial Controls and Systems](#)

[NEMA MG-1 Motors and Generators](#)

2.5 National Fire Protection Association Standard:⁶

[NFPA/ANSI 70 National Electrical Code](#)

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, 2016. Published January 2017. Originally approved in 1988. Last previous edition approved in 2006 as F1203—06. F1203—11. DOI: 10.1520/F1203-11.10.1520/F1203-16.

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 American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

⁴ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098.

⁵ Available from National Electrical Manufacturers Association (NEMA), 1300 N. 17th St., Suite 1847, Rosslyn, VA 22209.

⁶ Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269-9101.

2.6 *NSF International Standards*:⁷

NSF/ANSI 3 Commercial Warewashing Equipment

NSF/ANSI 5 Commercial Hot Water Generating Equipment

NSF/ANSI 29 Detergent/Chemical Feeders for Commercial Spray-Type Dishwashing Machines

NSF Listings—Food Equipment

2.7 *Underwriters Laboratories Standard*:⁸

UL 921 Commercial Dishwashers

3. Terminology

3.1 Definitions:

3.1.1 *commercial pot, pan, and utensil washing machines*—machines that uniformly wash, rinse and heat sanitize food preparation utensils. The machines shall be capable of removing physical soil and sanitizing properly racked and pre-scraped multiple pots, pans, and utensils. The machines shall consist of the following principal parts: legs, wash chamber, hood, tank, doors, spray assemblies, pumps, motors, controls, piping, valves, heating equipment and accessories.

4. Classification

4.1 *General*—The washer shall be of the following type, size, and class as specified.

4.2 Types:

4.2.1 *Motor-Driven Continuous Rotary Conveyor*:

4.2.1.1 *Type I*—One door (front loading).

4.2.1.2 *Type II*—One or two door (pass-through corner operation).

4.2.1.3 *Type III*—One or two door (pass-through straight line operation).

4.2.1.4 *Size 1*—Nominal 42-in. diameter.

4.2.1.5 *Size 2*—Nominal 60-in. diameter.

4.2.1.6 *Size 3*—Nominal 74-in. diameter.

4.2.1.7 *Size 4*—Nominal 86-in. diameter.

4.3 Tank Heat:

4.3.1 *Style 1*—Steam heated.

4.3.1.1 *Class A*—Injection.

4.3.1.2 *Class B*—Heat exchange coil.

4.3.2 *Style 2*—Electric heat.

5. Ordering Information

5.1 Purchasers should select the preferred options permitted in this specification and include the following information in the procurement document.

5.1.1 Title, number, and date of this standard; type, style, and class of machine required.

5.1.2 A pressure-reducing valve, if required (see 7.4). Incoming water pressure must be specified when ordering a pressure reduction valve.

5.1.3 A standard 40°F (22°C) temperature rise steam, or electric booster if required. If the required temperature rise is more than 40°F (22°C) (see 7.13), it should be specified.

5.1.4 Electrical power supply characteristics (voltage, phase, frequency) (see 7.11.3).

5.1.5 A detergent feeder, if required (see 7.14).

5.1.6 Accessory equipment, spare and maintenance parts required, selected options.

5.1.7 Treatment and painting if other than specified (see 7.17).

5.1.8 When energy consumption profiles, water consumption profiles, or productivity profiles are desired (see 9.3).

5.1.9 Manufacturer's certification, when required (see Section 10).

6. Materials

6.1 All materials shall be specified as follows:

6.1.1 Materials used shall be free from defects that would adversely affect the performance or maintainability of individual components of the overall assembly. The pot, pan, and utensil washing machines shall meet the material, design, and construction requirements of NSF/ANSI 3.

6.1.2 *Corrosion-Resistant Steel*—Corrosion-resistant steel shall conform to the requirements of any 300 series stainless steel specified in 2.1 (see Specification [A167A240/A240M](#)).

⁷ Available from NSF International, P.O. Box 130140, 789 N. Dixboro Rd., Ann Arbor, MI 48113-0140.

⁸ Available from Underwriters Laboratories (UL), 333 Pfingsten Rd., Northbrook, IL 60062.