



Designation: F2643 – 07

## Standard Specification for Powered Pot, Pan and Utensil Washing Sinks<sup>1</sup>

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### 1. Scope

1.1 This specification covers commercial powered pot, pan and utensil washing sinks.

1.2

1.3 *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:*<sup>2</sup>

**A29/A29M** Specification for Steel Bars, Carbon and Alloy, Hot-Wrought, General Requirements for<sup>3</sup>

**A120** Discontinued 1987: Specification for Pipe, Steel, Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless for Ordinary Uses; Replaced by A 53<sup>3</sup>

**A167** Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip

**A276** Specification for Stainless Steel Bars and Shapes

**A436** Specification for Austenitic Gray Iron Castings

**A554** Specification for Welded Stainless Steel Mechanical Tubing

**A582/A582M** Specification for Free-Machining Stainless Steel Bars

**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

**F760** Specification for Food Service Equipment Manuals

**F2379** Test Method for Energy Performance of Powered Open Warewashing Sinks

2.2 *Federal Regulations:*<sup>4</sup>

**OSHA Title 29** Chapter XVII, Part 1910

2.3 *American National Standards:*<sup>5</sup>

**ANSI S1.4** Specification for Sound Level Meters

**ANSI S1.13** Methods for the Measurement of Sound Pressure Levels

2.4 *National Electrical Manufacturers Association Standards:*<sup>6</sup>

**NEMA ICS** Industrial Controls and Systems

**NEMA MG-1** Motors and Generators

2.5 *National Fire Protection Association Standards:*<sup>7</sup>

**NFPA No. 70** National Electrical Code

2.6 *NSF Standards:*<sup>8</sup>

**NSF/ANSI 2** Food Equipment

**NSF/ANSI 51** Plastic Materials and Components Used in Food Equipment

**NSF Listings** Food Equipment

2.7 *Underwriters Laboratories Standards:*<sup>9</sup>

**UL 921** Commercial Electric Dishwashers

2.8 *American Society of Sanitary Engineering Standards:*<sup>10</sup>

**ASSE 1001** Pipe Applied Atmospheric Vacuum Breakers

### 3. Terminology

3.1 *Definitions:*

3.2 *powered pot, pan and utensil washing sink, n*—an all-purpose, stainless steel water basin with electrically powered water pump(s) and multiple high flow water nozzles designed for cleaning pots, pans and utensils.

3.2.1 *Discussion*—The main washing basin holds 50 to 100 gallons of heated water. The unit may or may not feature a

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Withdrawn.

<sup>4</sup> Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov>.

<sup>5</sup> Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

<sup>6</sup> Available from National Electrical Manufacturers Association (NEMA), 1300 N. 17th St., Suite 1752, Rosslyn, VA 22209, <http://www.nema.org>.

<sup>7</sup> Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, <http://www.nfpa.org>.

<sup>8</sup> Available from NSF International, P.O. Box 130140, 789 N. Dixboro Rd., Ann Arbor, MI 48113-0140, <http://www.nsf.org>.

<sup>9</sup> Available from Underwriters Laboratories (UL), 333 Pfingsten Rd., Northbrook, IL 60062-2096, <http://www.ul.com>.

<sup>10</sup> Available from American Society of Sanitary Engineering, 901 Canterbury, Suite A Westlake, OH 44145, [info@asse-plumbing.org](mailto:info@asse-plumbing.org).

scrapper sink (with or without a disposer), rinse tank, sanitizing tank and/or a drain table. The machines shall consist of the following principal parts: legs, wash basin, rinse basin, sanitizing basin, clean and soiled end drain boards, spray nozzles, pump, motor, controls, and piping. May or may not be provided with an electric heater, faucet, pre-rinse spray hose and other accessories.

#### 4. Classification

4.1 *General*—Powered pot, pan and utensil washing sink shall be of the following types, styles, classes, size, and capacity group, as specified:

4.2 *Types*:

4.2.1 *Type I (Right-to-Left)*—This machine is designed with the utensil flow from the right to the left as you are facing the machine.

4.2.2 *Type II (Left-to-Right)*—This machine is designed with the utensil flow from the left to the right as you are facing the machine.

4.3 *Styles and Classes*:

4.3.1 *Style 1* (electrically heated wash tank).

4.3.1.1 *Class A* (single temperature set point)

4.3.1.2 *Class B* (dual temperature set points)

4.3.2 *Style 2* (no heat).

4.4 *Size and Capacity*: Sizes are as follows:

4.4.1 *Drainboards, soiled and clean ends*—(typically 12, 18, 20, 24, 30, 36, 42, 48, 54 or 60 in.).

4.4.2 *Scrapper section*—(typically 20 or 36 in.). May or may not be provided with a disposer.

4.4.3 *Wash Sink*—(typically 30, 32, 36, 42, 48, 54 or 60 in.).

4.4.4 *Rinse Sink*—(typically 15, 18, 20, 24, 30 or 36 in.).

4.4.5 *Sanitizer Sink*—(typically 18-1/2, 20, 24, 30 or 36 in.).

4.5 All powered pot, pan and utensil washing sinks of the same classification, model, or material list designation furnished with similar options under a specific purchase order shall be identical to the extent necessary to ensure interchangeability of component parts, assemblies, accessories, and spare parts.

#### 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,

5.1.2 Type, and size machine required, including width of each sink section and drainboards (see 4.1),

5.1.3 Noise level requirements, if other than specified (see 11.2),

5.1.4 When a service-supply valve is required (see 7.4),

5.1.5 When overflows are required (see 7.7),

5.1.6 Electrical power supply characteristics (current, voltage, phase, frequency) (see Section 8),

5.1.7 Accessory equipment, spare and maintenance parts required, as suggested by manufacturer,

5.1.8 Treatment and painting if other than specified (see Section 10),

5.1.9 When energy consumption profiles, water consumption profiles, or productivity profiles are desired (see 12.3), and

5.1.10 Manufacturer's certification, when required (see Section 13).

#### 6. Materials and Design

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 powered pot, pan and utensil washing sink shall meet the material, design, and construction requirements of **NSF/ANSI 2**.

6.1.2 *Corrosion-Resistant Steel*—Corrosion-resistant steel shall conform to the requirements of any 300 series stainless steel specified in 2.1.

6.1.3 *Corrosion-Resisting Material*—Corrosion-resisting material is other than corrosion resistant steel that is equivalent in the powered pot, pan and utensil washing sink application.

6.1.4 *Nickel-Copper Alloy*—Nickel-copper alloys shall conform to the requirements of Specification **B127**.

6.1.5 *Plastics*—All plastic materials and components used in the powered pot, pan and utensil washing sink in contact with water shall conform to **NSF/ANSI 2** or **NSF/ANSI 51**.

#### 7. Construction Requirements

7.1 The powered pot, pan and utensil washing sink shall be complete so that when connected to the electric power supply, water supply, drainage, the unit can be used for its intended function. Powered pot, pan and utensil washing sinks shall be rigid, quiet in operation as specified by user, free from objectionable vibration, and so constructed as to prevent objectionable splashing of water or overflow of water to the outside of the machine. Parts requiring adjustment shall be readily accessible. Parts requiring service shall be accessible. The machine shall aid in the process of manually washing dishes by pumping a water and detergent solution across dishes in the wash sink basin. Provisions shall be made to fill the wash sink basin either directly from the hot or cold faucet on the sink or automatically through a solenoid, or both. The pump "wash" cycle shall be automatically or manually controlled. A method shall be provided to indicate that the heating element may be energized.

7.2 *Piping, Tubing, Fittings, and Valves (Installation)*—Connections shall be readily accessible to facilitate installation and maintenance. Piping, tubing, and valves shall be located, whenever possible, on the exterior of the machine. See Specifications **A29/A29M**, **A120**, **A167**, **A276**, **A554**, **B43**, and **B75**.

7.3 *Piping and Fittings*—Water piping and fittings shall be of corrosion-resisting material. Fresh water supply to the sink shall be discharged not lower than 2 in. (50.8 mm) above the maximum flood level rim, or an effective air gap or vacuum breaker shall be installed to prevent backflow. Backflow protection shall be in accordance with **ASSE 1001**. The drain and other plumbing connections shall be standard pipe or tubing connections. Drainage piping shall be corrosion-resisting material, or suitable heat-resisting plastic material. Drains may be joined into a single trunk line requiring only one connection or arranged to permit individual connections to the waste line.