



Standard Specification for Griddles, Single-Sided and Double-Sided, Gas and Electric¹

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1. Scope

1.1 This specification covers single-sided and double-sided griddles which utilize gas or electrical heat sources, or both, for cooking food in the commercial and institutional food service establishments.

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

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:²

- D3951 Practice for Commercial Packaging
- F760 Specification for Food Service Equipment Manuals
- F1166 Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities
- F1275 Test Method for Performance of Griddles
- F1605 Test Method for Performance of Double-Sided Griddles

2.2 ANSI Standards:

- NSF/ANSI 4 Commercial Cooking, Rethermalization and Powered Hot Food Holding and Transport Equipment³
- ANSI Z223/NFPA 70 National Electrical Code⁴
- ANSI/UL 197 Commercial Electrical Cooking Appliances⁵

ANSI B1.1 Unified Inch Screw Threads (UN and UNR Thread Form)^{6,7}

ANSI Z1.4 Sampling Procedures and Tables for Inspection by Attributes⁶

ANSI Z21.41 Quick-Disconnect Devices for Use With⁶

ANSI Z21.69 Connectors for Moveable Gas Appliances⁶

ANSI Z83.11 Gas Food Service Equipment⁶

ANSI/NFPA 54 National Fuel Gas Code⁴

2.3 Canadian Standard:⁸

CAN/CSA-B339 Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods

2.4 Military Standards:⁵

MIL-STD-167/1 Mechanical Vibration of Shipboard Equipment (Type 1—Environmental and Type 2—Internally Excited)

MIL-STD-461 Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment

MIL-STD-1399/300 Interface Standard for Shipboard Systems Section 300A Electric Power, Alternating Current

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *active cooking area, n*—the cooking areas, designed for cooking contact with food, excluding features like non-heated drip edges, grease troughs, side splashes and back splash.

3.1.2 *cooking device, n*—equipment that transfers heat to food products.

3.1.3 *counter top mounted, n*—equipment that is installed on top of a counter or table surfaces, designed for smaller operations or those with limited floor space.

3.1.4 *drop-in type, n*—equipment that is installed into a hole or cut-out in the top of a counter or table.

3.1.5 *food service equipment, n*—equipment that transfers heat or cold to food products.

¹ This specification is under the jurisdiction of ASTM Committee F26 on Food Service Equipment and is the direct responsibility of Subcommittee F26.02 on Cooking and Warming 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 National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, <http://www.nfpa.org>.

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

⁶ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁷ Available from the Standardization Documents Order Desk, DOCUMENTS, 700 Robbins Ave., Building No. 4 – Section D, Philadelphia, PA 19222-5094.

⁸ Available from Canadian Standards Association (CSA), 5060 Spectrum Way, Mississauga, ON L4W 5N6, Canada, <http://www.csa.ca>.

3.1.6 *griddle, n*—equipment for cooking food in its own juices or oil by direct contact with a hot surface.

3.1.7 *stand mounted, n*—equipment that is secured to a stand for operational height or mobile convenience as well as installation security.

4. Classification

4.1 Type:

4.1.1 *Type 01*, single-sided.

4.1.2 *Type 02*, double-sided.

4.1.3 *Type 03*, partially double-sided.

4.2 Style:

4.2.1 *Style A*—counter top flush.

4.2.2 *Style B*—counter top with legs.

4.2.3 *Style C*—stand-mounted.

4.2.4 *Style D*—free-standing.

4.2.5 *Style E*—drop-in.

4.3 Group:

4.3.1 *Group 01*, manual (non-thermostat) control.

4.3.2 *Group 02*, thermostat control.

4.4 Mode:

4.4.1 Electric:

4.4.1.1 *Mode 01*—208 V, 60 Hz, 1 phase.

4.4.1.2 *Mode 02*—208 V, 60 Hz, 3 phase.

4.4.1.3 *Mode 03*—220 V, 60 Hz, 3 phase.

4.4.1.4 *Mode 04*—240 V, 60 Hz, 1 phase.

4.4.1.5 *Mode 05*—240 V, 60 Hz, 3 phase.

4.4.1.6 *Mode 06*—400 V, 60 Hz, 3 phase.

4.4.1.7 *Mode 07*—480 V, 60 Hz, 3 phase.

4.4.1.8 *Mode 08*—120 V, 60 Hz, 1 phase.

4.4.1.9 *Mode 09*—230 V, 50 Hz, 1 phase.

4.4.1.10 *Mode 10*—400 V, 50 Hz, 3 phase.

4.4.1.11 *Mode 11*—440 V, 60 Hz, 3 phase (shipboard use).

4.4.2 Gas:

4.4.2.1 *Mode 12*—Natural gas.

(1) *Mode 13*—Fixed propane fuel applications.

(2) *Mode 14*—Self-contained propane fuel applications.

4.4.2.2 *Mode 15*—Other gases (specify gas composition, heating value, and specific gravity).

4.4.3 Combination:

4.4.3.1 *Mode 16*—Combination electric/gas-fired griddle.

4.5 Size:

4.5.1 *Size 01*—Nominal width less than 24 in. (610 mm) and nominal depth less than 22 in. (559 mm).

4.5.2 *Size 02*—Nominal width less than 24 in. (610 mm) and nominal depth range of 22 in. (559 mm) deep to 26 in. (660 mm) deep.

4.5.3 *Size 03*—Nominal width less than 24 in. (610 mm) and nominal depth greater than 26 in. (660 mm) deep.

4.5.4 *Size 04*—Nominal width of 24 in. (610 mm) and nominal depth less than 22 in. (559 mm).

4.5.5 *Size 05*—Nominal width of 24 in. (610 mm) and nominal depth range of 22 in. (559 mm) deep to 26 in. (660 mm) deep.

4.5.6 *Size 06*—Nominal width of 24 in. (610 mm) and nominal depth greater than 26 in. (660 mm) deep.

4.5.7 *Size 07*—Nominal width of 36 in. (914 mm) and nominal depth less than 22 in. (559 mm).

4.5.8 *Size 08*—Nominal width of 36 in. (914 mm) and nominal depth range of 22 in. (559 mm) deep to 26 in. (660 mm) deep.

4.5.9 *Size 09*—Nominal width of 36 in. (914 mm) and nominal depth greater than 26 in. (660 mm) deep.

4.5.10 *Size 10*—Nominal width of 48 in. (1219 mm) and nominal depth less than 22 in. (559 mm).

4.5.11 *Size 11*—Nominal width of 48 in. (1219 mm) and nominal depth range of 22 in. (559 mm) deep to 26 in. (660 mm) deep.

4.5.12 *Size 12*—Nominal width of 48 in. (1219 mm) and nominal depth greater than 26 in. (660 mm) deep.

4.5.13 *Size 13*—Nominal width of 60 in. (1524 mm) and nominal depth less than 22 in. (559 mm).

4.5.14 *Size 14*—Nominal width of 60 in. (1524 mm) and nominal depth range of 22 in. (559 mm) deep to 26 in. (660 mm) deep.

4.5.15 *Size 15*—Nominal width of 60 in. (1524 mm) and nominal depth greater than 26 in. (660 mm) deep.

4.5.16 *Size 16*—Nominal width of 72 in. (1829 mm) and nominal depth less than 22 in. (559 mm).

4.5.17 *Size 17*—Nominal width of 72 in. (1829 mm) and nominal depth range of 22 in. (559 mm) deep to 26 in. (660 mm) deep.

4.5.18 *Size 18*—Nominal width of 72 in. (1829 mm) and nominal depth greater than 26 in. (660 mm) deep.

4.5.19 This specification does not purport to address all of the widths and depths, which may be available, but it is an overview of the most common depths used in the industry today.

5. Ordering Information

5.1 An order for a griddle(s) under this specification shall specify the following:

5.1.1 ASTM specification number and date of issue.

5.1.2 Quantity to be furnished.

5.1.3 Type.

5.1.4 Style.

5.1.5 Group.

5.1.6 Class.

5.1.7 Size.

5.2 The following options should be reviewed, and if any are desired, they also should be included in the order.

5.2.1 When Federal/military procurement(s) is involved, refer to the Supplementary Requirements section at the end of this specification.

5.2.2 Type of gas, if applicable, that is, natural, propane, or other (specify gas composition, heating value and specific gravity).

5.2.3 Electrical power supply characteristics, including controls if applicable, such as voltage, frequency, phase, kW input, or amp load, as applicable.

5.2.4 When other than manufacturer's standard, commercial, domestic packaging is required, specify packaging requirements (see 12.1).