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An American National Standard

Standard Test Method for Performance of Double-Sided Griddles[1]

This standard is issued under the fixed designation F 1605; 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 test method covers the energy consumption and cooking performance of double-sided griddles. The food service operator can use this evaluation to select a double-sided griddle and understand its energy efficiency and productivity.

1.2 This test method is applicable to thermostatically controlled, double-sided gas and electric (or combination gas and electric) contact griddles with separately heated top surfaces.

1.3 The double-sided griddle can be evaluated with respect to the following (where applicable):

1.3.1 Energy input rate (10.2);

1.3.2 Temperature uniformity across the cooking surface(s) and thermostats accuracy (10.3);

1.3.3 Preheat energy and time (10.4);

1.3.4 Idle energy rate (10.5);

1.3.5 Pilot energy rate, if applicable (10.6);

1.3.6 Cooking energy rate and efficiency (10.7); and

1.3.7 Production capacity and cooking surface temperature recovery time (10.7).

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

1.5 *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 *ANSI Standard:*

ANSI Z83.14 Gas Food Service Equipment—Counter Appliances[2]

2.2 *AOAC Documents:*[3]

AOAC Official Action 950.46 Air Drying to Determine Moisture Content of Meat and Meat Products

AOAC Official Action 960.39 Fat (Crude) or Ether Extract in Meat

2.3 *ASHRAE Document:*

ASHRAE Guideline 2-1986 (RA90) Engineering Analysis of Experimental Data[4]

3. Terminology

3.1 *Definitions:*

3.1.1 *cook time*, *n*—the time required to cook frozen hamburgers, as specified in 7.4, to a 35 ± 2 % weight loss during a cooking energy efficiency test.

3.1.2 *cooking energy*, *n*—energy consumed by the double-sided griddle as it is used to cook hamburger patties under heavy-, medium-, and light-load conditions.

3.1.3 *cooking energy efficiency*, *n*—a quantity of energy imparted to the hamburgers, expressed as a percentage of energy consumed by the double-sided griddle during the cooking event.

3.1.4 *cooking energy rate*, *n*—the average rate of energy consumption (Btu/h (kJ/h) or kW) during the cooking energy efficiency tests. It refers to all loading scenarios (heavy, medium, and light).

3.1.5 *double-sided griddle*, *n*—a device for cooking food by direct contact with two hot surfaces.

3.1.6 *energy input rate*, *n*—the peak rate at which a double-sided griddle consumes energy (Btu/h (kJ/h) or kW).

3.1.7 *idle energy rate*, *n*—the average rate of energy consumed (Btu/h (kJ/h) or kW) by the double-sided griddle while" holding" or "idling" the cooking surface at the thermostat set point.

3.1.8 *pilot energy rate*, *n*—the average rate of energy consumption (Btu/h (kJ/h)) by a double-sided griddle's continuous pilot (if applicable).

3.1.9 *preheat energy*, *n*—the amount of energy consumed by the double-sided griddle while preheating the cooking surface from ambient room temperature to the thermostat set point.

[1] This test method is under the jurisdiction of ASTM Committee F26 on Food Service Equipment and is the direct responsibility of Subcommittee F26.06 on Productivity and Energy Protocol.

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[2] Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY, 10036.

[3] Available from Association of Official Analytical Chemists, 1111 N. 19th Street, Arlington, VA 22209.

[4] Available from American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc., 1791 Tullie Circle, NE, Atlanta, GA 30329.

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