

Standard Test Method for Performance of Staff-Serve Hot Deli Cases¹

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1. Scope

1.1 This test method evaluates the energy consumption and performance of staff-serve hot deli cases with heated wells located within a fully or partially enclosed heated cavity. The food service operator can use this evaluation to select a staff served hot deli case and understand its energy consumption and performance.

1.2 This test method is applicable to electric powered, hot deli cases that have been designed for staff service of prepared hot food items that are held in open hotel pans.

1.3 The deli case can be evaluated with respect to the following (where applicable):

- 1.3.1 Energy input rate (10.2),
- 1.3.2 Holding capacity (10.3),
- 1.3.3 Holding temperature calibration (10.3),
- 1.3.4 Preheat energy rate, (10.4),
- 1.3.5 Idle energy rate (10.5), and
- 1.3.6 Holding energy rate (10.6).

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 test method may involve hazardous materials, operations, and equipment. 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 ASHRAE Document:²

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

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 Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE), 1791 Tullie Circle, NE, Atlanta, GA 30329, <http://www.ashrae.org>.

2.2 NSF Standards:³

NSF Listing Food Equipment and Related Components and Material

NSF/ANSI 4 Commercial Cooking, Rethermalization and Powered Hot Food Holding and Transport Equipment

3. Terminology

3.1 Definitions:

3.1.1 *calibrated setting, n*—temperature setting at which the lowest temperature of the food in the holding pans is at $142 \pm 2^\circ\text{F}$ ($61 \pm 1^\circ\text{C}$).

3.1.2 *capacity, n*—amount of food product that can be held in the unit's heated wells within standard 4-in. (102-mm) deep steam table pans.

3.1.3 *energy input rate, n*—peak rate at which a deli case consumes energy (kW), typically reflected during preheat.

3.1.4 *holding energy, n*—energy consumed by the deli case as it is used to hold cooked food product under full load conditions.

3.1.5 *holding energy rate, n*—average rate of energy consumption (kW) during the holding energy tests.

3.1.6 *idle energy rate, n*—rate of energy consumed (kW) by the deli case while holding or maintaining the appliance at the thermostat set point without any food product.

3.1.7 *preheat energy, n*—amount of energy consumed by the deli case while preheating the appliance from ambient room temperature ($73 \pm 3^\circ\text{F}$ ($22 \pm 2^\circ\text{C}$)) to a temperature at the calibrated setting.

3.1.8 *preheat rate, n*—average rate ($^\circ\text{F}/\text{min}$) at which the deli case is heated from ambient temperature ($73 \pm 3^\circ\text{F}$ ($22 \pm 2^\circ\text{C}$)) to holding temperature with the thermostat set to the calibrated setting.

3.1.9 *preheat time, n*—time required for the deli case to preheat from ambient room temperature ($73 \pm 3^\circ\text{F}$ ($22 \pm 2^\circ\text{C}$)) to the calibrated setting.

3.1.10 *staff-serve hot deli case, n*—(hereafter referred to as deli case) an appliance, with heated wells located in a fully or partially enclosed heated cavity, which is designed for the

³ Available from NSF International, P.O. Box 130140, 789 N. Dixboro Rd., Ann Arbor, MI 48113-0140, <http://www.nsf.org>.