



# Food Service Technology Center Appliance Test Summary Report

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<b>Manufacturer</b>	Taylor Company
<b>Model</b>	35-23
<b>Appliance</b>	2-foot double-sided gas griddle
<b>Griddle Plate</b>	24 x 38 inch

<b>Report Number</b>	5012.09.39
<b>Report Date</b>	Oct., 2009
<b>Tested By</b>	D. Cowen

## Purpose of Testing

This testing determined the energy input rate, preheat time and energy, idle energy rate and heavy-load cooking-energy efficiency of the double-sided griddle by applying the ASTM F1605-95 (2007) Standard Test Method.

## Energy Input Rate

Rated Gas Energy Input Rate (Btu/h)	60,000
Measured Gas Energy Input Rate (Btu/h)	62,850
Difference (%)	4.75
Rated Electrical Energy Input Rate (kW)	8.40
Measured Electrical Energy Input Rate (kW)	8.20
Difference (%)	2.43

## Preheat to 350°F

	Platens Up
Duration (min)	12.3
Gas Energy Consumption (Btu)	18,215
Electric Energy Consumption (kWh)	1.60
Preheat Rate (°F/min)	24.5

## Idle at 350°F

	Platens Up	Platens Down
Gas Idle Energy Rate (Btu/h)	9,414	7,760
Electric Idle Energy Rate (kW)	1.36	0.98
Normalized Idle Energy Rate (Btu/h/ft <sup>2</sup> )		1,753

## Heavy-Load Cooking Energy Efficiency <sup>a</sup>

Food Product	Hamburgers
Load Size (Count)	12
Cook Time (min)	2.54
Average Recovery Time (min)	< 1.0
Electric Cooking Energy Rate (kW)	9.47
Gas Cooking Energy Rate (Btu/h)	39,047
Electric Cooking Energy Rate (kW)	3.88
Energy to Food (Btu/lb)	482
Energy to Appliance (Btu/lb)	1,011
Cooking-Energy Efficiency (%)	47.7 ± 0.7
Production Capacity (lb/hr)	51.7 ± 2.3

<sup>a</sup> based on a minimum of three test replicates.

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**Taylor 35-23 double-sided gas griddle.**

**Taylor Company**

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## Heavy-Load Test Data

	Repetition #1	Repetition #2	Repetition #3
<b>Measured Values</b>			
Electrical Energy Consumption (Wh)	1,353	1,351	1,351
Gas Energy Consumption (Btu)	13,887	13,560	13,402
<b>Cook Time (min)</b>	<b>2.62</b>	<b>2.50</b>	<b>2.50</b>
Total Test Time (min)	21.37	20.72	20.68
Weight Loss (%)	36.17	35.87	34.88
Initial Weight (lb)	18.039	17.998	18.047
Final Weight (lb)	11.515	11.542	11.755
Initial Fat Content (%)	16.3	16.3	16.3
Initial Moisture Content (%)	63.7	63.7	63.7
Final Moisture Content (%)	55.2	55.3	55.7
Initial Temperature (°F)	0	0	0
Final Temperature (°F)	166	165	162
<b>Calculated Values</b>			
Initial Weight of Water (lb)	11.491	11.464	11.496
Final Weight of Water (lb)	6.361	6.379	6.549
Weight of Fat (lb)	2.940	2.934	2.942
Weight of Solids (lb)	3.608	3.600	3.609
Sensible to Ice (Btu)	184	183	184
Sensible to Water (Btu)	1,538	1,525	1,500
Sensible to Fat (Btu)	195	194	191
Sensible to Solids (Btu)	120	119	117
Latent – Water Fusion (Btu)	1,655	1,651	1,655
Latent – Fat Fusion (Btu)	117	117	119
Latent – Heat of Vaporization (Btu)	4,976	4,933	4,798
Total Energy to Food (Btu)	8,785	8,722	8,564
<b>Energy To Food (Btu/lb)</b>	<b>487</b>	<b>485</b>	<b>475</b>
Total Energy to Griddle (Btu)	18,505	18,170	18,013
<b>Energy to Griddle (Btu/lb)</b>	<b>1,026</b>	<b>1,010</b>	<b>998</b>
<b>Cooking-Energy Efficiency (%)</b>	<b>47.5</b>	<b>48.0</b>	<b>47.5</b>
<b>Electric Cooking Energy Rate (kW)</b>	<b>3.80</b>	<b>3.91</b>	<b>3.92</b>
<b>Gas Cooking Energy Rate (Btu/h)</b>	<b>38,991</b>	<b>39,265</b>	<b>38,885</b>
<b>Production Rate (lb/h)</b>	<b>50.6</b>	<b>52.1</b>	<b>52.4</b>
<b>Average Recovery Time (min)</b>	<b>&lt; 1.0</b>	<b>&lt; 1.0</b>	<b>&lt; 1.0</b>

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