



# Food Service Technology Center Appliance Test Summary Report

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<b>Manufacturer</b>	Vulcan-Hart
<b>Model</b>	36RRG
<b>Appliance</b>	3-foot flat gas griddle

<b>Report Number</b>	5012.08.17
<b>Test Date</b>	May, 2008
<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 griddle by applying the ASTM F1275-05 Standard Test Method.

## Energy Input Rate

Rated Energy Input Rate (Btu/h)	82,500
Measured Energy Input Rate (Btu/h)	83,444
Difference (%)	1.14

## Preheat to 375°F

Duration (min)	9.58
Gas Energy Consumption (Btu/h)	12,197
Control Energy Consumption (Wh)	4.12
Preheat Rate (°F/min)	31.6

## Idle at 375°F

Gas Idle Energy Rate (Btu/h)	15,107
Control Energy Rate (W)	12.3

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

Food Product	Hamburgers
Load Size (Count)	24
Cook Time (min)	6.25
Average Recovery Time (min)	< 1.0
Gas Cooking Energy Rate (Btu/h)	56,627
Control Energy Rate (W)	0.04
Energy to Food (Btu/lb)	465
Energy to Appliance (Btu/lb)	1,149
Cooking-Energy Efficiency (%)	40.5 ± 1.2
Production Capacity (lb/hr)	49.3 ± 0.4

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



Vulcan 36RRG gas griddle.

## Vulcan-Hart.

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Baltimore, MD 21222  
[www.vulcanhart.com](http://www.vulcanhart.com)

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## Heavy-Load Test Data

	Test #1	Test #2	Test #3
<b>Measured Values</b>			
Gas Energy Consumption (Btu)	40,604	40,891	40,944
Electrical Energy Consumption (Wh)	0.026	0.027	0.027
Total Energy (Btu)	40,604	40,891	40,944
<b>Cook Time (min)</b>	<b>6.25</b>	<b>6.25</b>	<b>6.25</b>
Total Test Time (min)	43.26	43.21	43.26
Weight Loss (%)	35.40	34.95	34.54
Initial Weight (lb)	35.411	35.604	35.571
Final Weight (lb)	22.874	23.160	23.284
Initial Moisture Content (%)	61.3	61.3	61.3
Final Moisture Content (%)	53.1	52.6	53.4
Initial Temperature (°F)	0	0	0
Final Temperature (°F)	212	212	212
<b>Calculated Values</b>			
Initial Weight of Water (lb)	21.707	21.825	21.805
Final Weight of Water (lb)	12.145	12.186	12.436
Weight of Fat (lb)	6.622	6.658	6.652
Weight of Solids (lb)	7.082	7.121	7.114
Sensible to Ice (Btu)	347	349	349
Sensible to Water (Btu)	2,862	2,852	2,826
Sensible to Fat (Btu)	434	433	430
Sensible to Solids (Btu)	232	232	230
Latent – Water Fusion (Btu)	3,126	3,143	3,140
Latent – Fat Fusion (Btu)	302	304	304
Latent – Heat of Vaporization (Btu)	9,274	9,350	9,088
Total Energy to Food (Btu)	16,578	16,662	16,367
<b>Energy To Food (Btu/lb)</b>	<b>468</b>	<b>468</b>	<b>460</b>
Total Energy to Griddle (Btu)	40,604	40,891	40,944
<b>Energy to Griddle (Btu/lb)</b>	<b>1,147</b>	<b>1,149</b>	<b>1,151</b>
<b>Cooking-Energy Efficiency (%)</b>	<b>40.8</b>	<b>40.7</b>	<b>40.0</b>
<b>Cooking Energy Rate (Btu/h)</b>	<b>56,316</b>	<b>56,779</b>	<b>56,788</b>
<b>Production Rate (lb/h)</b>	<b>49.1</b>	<b>49.4</b>	<b>49.3</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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