



# Food Service Technology Center Appliance Test Summary Report

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<b>Manufacturer</b>	Groen
<b>Model</b>	VRC-6E Vortex SN: J110772-1-1
<b>Appliance</b>	Single Compartment 6-Pan Steamer - Electric

<b>Report Number</b>	501310069
<b>Test Date</b>	December, 2010
<b>Tested By</b>	A.Spitz

## 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 steamer by applying ASTM F1484-05.

## Energy Input Rate

Test Voltage (V)	208
Rated Energy Input Rate (kW)	9.00
Measured Energy Input Rate (kW)	9.34
Difference (%)	3.78

## Preheat to 210°F

Duration (min)	18.83
Energy Consumption (kWh)	2.76

## Manual Mode Idle at 212°F

Average Cavity Temperature (°F)	203.0
Idle Energy Rate (kW)	0.30

## Red Potato Cooking Energy Efficiency and Production Capacity Test Results

Load <sup>a</sup>	Heavy Load
Number of Pans	6
Cook Time (min)	29.31
Total Energy Consumed (kWh)	2.00
Energy to Food (Btu/lb)	104
Energy to Steamer (Btu/lb)	142
Cooking Energy Rate (kW)	4.10
Cooking Energy Efficiency (%)	76.2 ± 0.8
Production Capacity (lb/h)	98.3 ± 2.8
Water Consumption Rate (gph)	< 4.5

<sup>a</sup> Each Load is based on a minimum average of three test replicates.



## Groen

1055 Mendell Davis Drive  
Jackson, MS. 89299

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### Heavy-Load Red Potato Data

	Run #1	Run #2	Run #3
<b>Measured Values</b>			
Number of Pans	6	6	6
Cook Time (min)	29.00	29.25	29.67
Electric Energy Consumed (kWh)	2.04	2.04	1.92
Temperature of Uncooked Potatoes (°F)	70.5	70.5	77.0
Temperature of Cooked Potatoes (°F)	192.0	192.2	192.3
Weight of Stainless Steel Pans (lbs)	16.005	15.710	15.725
Weight of Potatoes (lbs)	48.000	48.015	48.015
Total Potato Count	300	300	300
Moisture Content (%)	84	84	84
Condensate Temperature (°F)	n/a	n/a	n/a
Water Consumption (gal)	< 4.5	< 4.5	< 4.5
<b>Calculated Values</b>			
Moisture Weight in Potatoes (lbs)	40.32	40.33	40.33
Average Weight of Each Potato (lbs)	0.16	0.16	0.16
Energy Consumed by Potatoes (Btu)	5,074	5,083	4,816
Energy to Food (Btu/lb)	106	106	100
Energy Consumed by Pans (Btu)	214	210	200
Energy of Boiler re-init (Btu)	n/a	n/a	n/a
Energy Consumed by the Steamer (Btu)	6,961	6,961	6,551
Energy to Steamer (Btu/lb of food cooked)	145	145	136
Cooking Energy Rate (kW)	4.22	4.18	3.88
Production Capacity (lb/h)	99.31	98.49	97.10
Energy Efficiency (%)	75.97	76.04	76.55

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