



Food Service Technology Center Appliance Test Summary Report

The information in this report is based on data generated at the PG&E Food Service Technology Center (FSTC). The FSTC Energy Efficiency for Foodservice Program is funded by California utility customers and administered by Pacific Gas & Electric Company (PG&E) under the auspices of the California Public Utilities Commission. California consumers are not obligated to purchase any full service or other service not funded by the program.

Manufacturer	Giles
Model / Serial Number	GBF-50 / 71558 011211 01
Appliance	14 inch electric fryer

Report Number	501311067 -R0
Test Date	November-2011
Tested By	K.Sham

Purpose of Testing

This testing determined the energy input rate, preheat time and energy, idle energy rate, heavy-load cooking efficiency and production capacity of the fryer by applying the ASTM Standard Test Method F1361-07.

Energy Input Rate

Test Voltage (V)	208
Rate Energy Input Rate (kW)	18.10
Measured Energy Input Rate (kW)	18.90
Difference (%)	4.4

Preheat

Duration (min)	7.58
Test Voltage (V)	208
Electric Energy Consumption (kWh)	2.23
Preheat Rate (°F/min)	35

Idle Energy Rate

Idle Temperature (°F)	350
Test Voltage (V)	208
Idle Energy Rate (kW)	0.83

Heavy-Load Cooking Energy Efficiency*

Food Product	French Fries
Load Size (lb)	3.00
Cook Time (min)	2.58
Average Recovery Time (sec)	10
Test Voltage (V)	208
Electric Cooking Energy Rate (kW)	13.34
Energy to Food (Btu/lb)	564
Energy to Appliance (Btu/lb)	692
Cooking Energy Efficiency (%)	81.5 ± 2.3
Production Capacity (lb/h)	65.8 ± 0.1

*Based on a minimum of three test replicates



Giles GBF-50 Electric Fryer

Giles
2750 Gunter Park Dr. West
Montgomery, AL USA 36109
www.gfsequipment.com

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Electric Fryer

Heavy-Load Cooking Test Data

Measured Values	Test #1	Test #2	Test #3
Test Date	8/26/11	8/26/11	8/26/11
Initial Weight of French Fries (lb)	15.000	15.000	15.000
Final Weight of French Fries (lb)	10.445	10.385	10.540
Initial Temperature of French Fries (°F)	0	0	0
Final Temperature of French Fries (°F)	212	212	212
Initial Moisture Content of French Fries (%)	65.2	65.2	65.2
Final Moisture Content of French Fries (%)	44.5	45.5	47.2
Cook Time (min)	2.58	2.58	2.58
Test Time (min)	13.68	13.69	13.68
Test Voltage (V)	208	208	208
Electric Energy Consumption (Wh)	3075.0	3038.0	3015.0
Gas Energy Consumption (Btu)	0	0	0
Gas Heating Value (Btu/scf)	N/A	N/A	N/A
Calculated Values			
Average French Fry Weight Loss (%)	30.4	30.8	29.7
Specific Heat of French Fries (Btu/lb,F)	0.695	0.695	0.695
Sensible Energy (Btu)	2,210	2,210	2,210
Latent Fusion Energy (Btu)	1,408	1,408	1,408
Latent Vaporization Energy (Btu)	4,978	4,903	4,661
Total Energy to Food (Btu)	8,596	8,521	8,279
Energy to Food (Btu/lb)	573	568	552
Total Appliance Energy Consumption (Btu)	10,495	10,369	10,290
Energy to Appliance (Btu/lb)	700	691	686
Results			
Cooking Energy Efficiency (%)	81.9	82.2	80.5
Test Voltage (V)	208	208	208
Electric Cooking Energy Rate (kW)	13.49	13.31	13.22
Production Capacity (lb/h)	65.8	65.7	65.8
Average Recovery Time (sec)	10	10	10

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