



Food Service Technology Center Appliance Test Summary Report

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Manufacturer	Henny Penny
Model	EEG-14X
Appliance	14-inch Fryer - Gas

Report Number	5012.09.21
Report Date	Oct., 2009
Tested By	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 fryer by applying the ASTM F1361-07 Standard Test Method.

Energy Input Rate

Rate Energy Input Rate (Btu/h)	75,000
Measured Energy Input Rate (Btu/h)	75,563
Difference (%)	0.75

Preheat to 350°F

Duration (min)	7.33
Energy Consumption (Btu)	8,935
Control Energy (Wh)	13.1
Preheat Rate (°F/min)	37.5

Idle at 350°F

Idle Energy Rate (Btu/h)	5,790
Control Energy Rate (W)	31.9

Heavy-Load Cooking Energy Efficiency ^a

Food Product	French Fries
Load Size (lb)	3.00
Cook Time (min)	2.58
Average Recovery Time (sec)	13.8
Cooking Energy Rate (Btu/h)	68,001
Control Energy Rate (W)	95.5
Energy to Food (Btu/lb)	572
Energy to Appliance (Btu/lb)	1,065
Cooking-Energy Efficiency (%)	53.7 ± 1.4
Production Capacity (lb/hr)	64.1 ± 1.1

^a based on a minimum of three test replicates.



Henny Penny EEG-14X gas fryer.

Henny Penny

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Heavy-Load Test Data

	Test #1	Test #2	Test #3
Measured Values			
Electrical Energy Consumption (Wh)	22.2	22.4	22.4
Energy Consumption (Btu)	15,788	16,006	15,908
Total Energy (Btu)	15,864	16,082	15,984
Cook Time (min)	2.58	2.58	2.58
Total Test Time (min)	13.94	14.03	14.12
Weight Loss (%)	29.10	29.10	29.10
Initial Weight (lb)	15.000	15.000	15.000
Final Weight (lb)	10.639	10.638	10.640
Initial Moisture Content (%)	65.2	65.2	65.2
Final Moisture Content (%)	43.8	42.8	44.7
Initial Temperature (°F)	0	0	0
Final Temperature (°F)	212	212	212
Calculated Values			
Initial Weight of Water (lb)	9.780	9.780	9.780
Final Weight of Water (lb)	4.660	4.553	4.756
Sensible (Btu)	2,210	2,210	2,210
Latent – Heat of Fusion (Btu)	1,408	1,408	1,408
Latent – Heat of Vaporization (Btu)	4,966	5,070	4,873
Total Energy to Food (Btu)	8,584	8,688	8,491
Energy To Food (Btu/lb)	572	579	566
Total Energy to Fryer (Btu)	15,864	16,082	15,984
Energy to Fryer (Btu/lb)	1,058	1,072	1,066
Cooking-Energy Efficiency (%)	54.1	54.0	53.1
Control Energy Rate (W)	95.6	95.7	95.1
Gas Energy Rate (Btu/h)	67,954	68,450	67,598
Production Rate (lb/h)	64.6	64.1	63.7
Average Recovery Time (sec)	12.6	13.8	14.4

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