



# Food Service Technology Center Appliance Test Summary Report

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<b>Manufacturer</b>	Fri-Jado
<b>Model</b>	Multiserie
<b>Appliance</b>	Rotisserie oven - Electric

<b>Report Number</b>	5012.08.34
<b>Test Date</b>	Sept, 2008
<b>Tested By</b>	F. Zappettini Jr

## 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 oven by applying ASTM F1787-98.

## Energy Input Rate

Test Voltage (V)	208
Rated Energy Input Rate (kW)	20.6
Measured Energy Input Rate (kW)	20.8
Difference (%)	-0.7

## Preheat to 350°F

Voltage (V)	208
Duration (min)	8.7
Energy Consumption (kWh)	15.78

## Idle at 350°F

Voltage (V)	208
Idle Energy Rate (kW)	3.8

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

Voltage (V)	208
Food Product	48 Whole Chickens
Oven Temperature (°F)	350
Steam Setting (%)	N/A
Cook Time (min)	49.56
Cooking Energy Rate (kW)	16.6
Energy to Food (Btu/lb)	249.7
Energy to Appliance (Btu/lb)	340.9
Cooking-Energy Efficiency (%)	74.2 ± 4.1
Production Capacity (lb/hr)	166.6 ± 8.9

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



Fri-Jado Inc.

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### Heavy-Load Test Data

	Test #1	Test #2	Test #3
<b>Measured Values</b>			
Test Voltage (V)	208	208	208
Number of Chickens	48	48	48
Cook Time (min)	49.17	50.17	49.33
Electric Energy to Oven (kWh)	13470	13440	14310
Temperature of Raw Chickens (°F)	40.0	40.0	40.0
Temperature of Cooked Chickens (°F)	196.0	196.6	195.0
Weight of Pans (lb)	25.380	25.380	25.380
Initial Weight of Raw Chickens (lb)	161.215	162.050	165.535
Final Weight of Cooked Chickens (lb)	120.735	122.000	121.845
Net Weight of Cooked Chickens (lb)	95.355	96.620	96.465
Maximum Drain Temperature (°F)	N/A*	N/A*	N/A*
Average Drain Temperature (°F)	N/A*	N/A*	N/A*
<b>Calculated Values</b>			
Sensible Heat (Btu)	16,952	17,122	17,379
Latent - Heat of Vaporization (Btu)	19,979	17,084	17,519
Total Energy to Food (Btu)	33,932	34,206	34,899
Energy to Food (Btu/lb)	250	250	249
Energy to Racks (Btu)	436	437	433
Total Energy to Oven (Btu)	45,973	45,871	48,840
Energy per Pound of Food Cooked (Btu/lb)	338	336	348
<b>Cooking-Energy Efficiency (%)</b>	<b>74.8</b>	<b>75.5</b>	<b>72.3</b>
<b>Cooking-Energy Rate (kW)</b>	<b>16.4</b>	<b>16.1</b>	<b>17.4</b>
<b>Production Capacity (lb/h)</b>	<b>165.8</b>	<b>163.4</b>	<b>170.5</b>
<b>Product Yield (%)</b>	<b>70.2</b>	<b>70.7</b>	<b>68.8</b>

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