



# Food Service Technology Center Appliance Test Summary Report

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California consumers are not obligated to purchase any full service or other service not funded by the program.  
This program is funded by the California utility rate payers under the auspices of the California Public Utilities Commission.

<b>Manufacturer</b>	AutoFry
<b>Model</b>	MTI-40C
<b>Appliance</b>	Self-Contained, Ventless Fryer - Electric

<b>Report Number</b>	5012.08.16
<b>Test Date</b>	March, 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 fryer by applying the ASTM F1361-07 Standard Test Method.

## Energy Input Rate

Test Voltage (V)	240
Rated Energy Input Rate (kW)	12.0
Measured Energy Input Rate (kW)	12.2
Difference (%)	1.8

## Preheat to 350°F

Duration (min)	9.00
Energy Consumption (kWh)	1.36
Preheat Rate (°F/min)	30.6

## Idle at 350°F

Idle Energy Rate (kW)	0.94
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## Heavy-Load Cooking Energy Efficiency <sup>a</sup>

Food Product	French Fries
Load Size (lb)	1.50
Cook Time (min)	2.59
Average Recovery Time (sec)	30.6
Cooking Energy Rate (kW)	10.8
Energy to Food (Btu/lb)	583
Energy to Appliance (Btu/lb)	635
Cooking-Energy Efficiency (%)	91.8 ± 3.9
Production Capacity (lb/hr)	58.1 ± 0.7

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



AutoFry MTI-40C fryer.

Motion Technology, inc.

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[www.autofry.com](http://www.autofry.com)

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## Heavy-Load Test Data

	Test #1	Test #2	Test #3
<b>Measured Values</b>			
Test Voltage (V)	240	240	240
Energy Consumption (Wh)	2,760	2,790	2,820
Total Energy (Btu)	9,420	9,522	9,625
<b>Cook Time (min)</b>	<b>2.60</b>	<b>2.58</b>	<b>2.58</b>
Total Test Time (min)	15.43	15.45	15.56
Weight Loss (%)	30.00	29.90	29.90
Initial Weight (lb)	15.000	15.000	15.000
Final Weight (lb)	10.503	10.515	10.510
Initial Moisture Content (%)	66.8	66.8	66.8
Final Moisture Content (%)	44.7	46.4	45.2
Initial Temperature (°F)	0	0	0
Final Temperature (°F)	212	212	212
<b>Calculated Values</b>			
Initial Weight of Water (lb)	10.020	10.020	10.020
Final Weight of Water (lb)	4.695	4.879	4.751
Sensible (Btu)	2,210	2,210	2,210
Latent – Heat of Fusion (Btu)	1,443	1,443	1,443
Latent – Heat of Vaporization (Btu)	5,165	4,987	5,111
Total Energy to Food (Btu)	8,818	8,640	8,764
<b>Energy To Food (Btu/lb)</b>	<b>588</b>	<b>576</b>	<b>584</b>
Total Energy to Fryer (Btu)	9,420	9,522	9,625
<b>Energy to Fryer (Btu/lb)</b>	<b>628</b>	<b>635</b>	<b>642</b>
<b>Cooking-Energy Efficiency (%)</b>	<b>93.6</b>	<b>90.7</b>	<b>91.1</b>
<b>Electric Energy Rate (kW)</b>	<b>10.73</b>	<b>10.83</b>	<b>10.87</b>
<b>Production Rate (lb/h)</b>	<b>58.3</b>	<b>58.3</b>	<b>57.8</b>
<b>Average Recovery Time (sec)</b>	<b>29.4</b>	<b>30.6</b>	<b>31.8</b>

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