



Food Service Technology Center Appliance Test Summary Report

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| | |
|---------------------|------------------------------------|
| Manufacturer | Ultrafryer Systems, Inc. |
| Model | BE 15-18 |
| Appliance | 18-inch Large Vat Fryer - Electric |

| | |
|----------------------|-------------|
| Report Number | 5012.09.44 |
| Report Date | Sept., 2009 |
| Tested By | 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 fryer by applying the ASTM F2144-07 Standard Test Method.

Energy Input Rate

| | |
|---------------------------------|------|
| Test Voltage (V) | 208 |
| Rated Energy Input Rate (kW) | 14.7 |
| Measured Energy Input Rate (kW) | 15.3 |
| Difference (%) | 3.83 |

Preheat to 350°F ^a

| | |
|--------------------------|------|
| Test Voltage (V) | 208 |
| Duration (min) | 13.8 |
| Energy Consumption (kWh) | 3.42 |
| Preheat Rate (°F/min) | 20.0 |

^a The preheat incorporated a melt cycle to prevent scorching the frying medium.

Idle at 350°F

| | |
|-----------------------|------|
| Test Voltage (V) | 208 |
| Idle Energy Rate (kW) | 1.20 |

Heavy-Load Cooking Energy Efficiency ^a

| | |
|-------------------------------|--------------|
| Test Voltage (V) | 208 |
| Food Product | French Fries |
| Load Size (lb) | 5.00 |
| Cook Time (min) | 2.73 |
| Average Recovery Time (min) | 1.10 |
| Cooking Energy Rate (kW) | 15.2 |
| Energy to Food (Btu/lb) | 609 |
| Energy to Appliance (Btu/lb) | 670 |
| Cooking-Energy Efficiency (%) | 91.0 ± 3.4 |
| Production Capacity (lb/hr) | 77.3 ± 4.0 |

^a based on a minimum of three test replicates.



Ultrafryer BE 15-18 Electric fryer.

Ultrafryer Systems, Inc

302 Spencer Lane
San Antonio, TX 78201
www.ultrafryer.com

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Heavy-Load Test Data

| | Test #1 | Test #2 | Test #3 |
|--------------------------------------|-------------|-------------|-------------|
| Measured Values | | | |
| Test Voltage (V) | 208 | 208 | 208 |
| Electrical Energy Consumption (Wh) | 4,890 | 4,830 | 5,010 |
| Control Energy Consumption (Wh) | 37.8 | 37.8 | 38.2 |
| Total Energy (Btu) | 16,685 | 16,481 | 17,095 |
| Cook Time (min) | 2.74 | 2.73 | 2.73 |
| Total Test Time (min) | 19.11 | 19.22 | 19.87 |
| Weight Loss (%) | 29.85 | 29.24 | 29.75 |
| Initial Weight (lb) | 25.000 | 25.000 | 25.000 |
| Final Weight (lb) | 17.538 | 17.691 | 17.564 |
| Initial Moisture Content (%) | 68.9 | 68.9 | 68.9 |
| Final Moisture Content (%) | 45.5 | 44.5 | 44.2 |
| Initial Temperature (°F) | 0 | 0 | 0 |
| Final Temperature (°F) | 212 | 212 | 212 |
| Calculated Values | | | |
| Initial Weight of Water (lb) | 17.224 | 17.224 | 17.224 |
| Final Weight of Water (lb) | 7.980 | 7.872 | 7.764 |
| Sensible (Btu) | 3,684 | 3,684 | 3,684 |
| Latent – Heat of Fusion (Btu) | 2,480 | 2,480 | 2,480 |
| Latent – Heat of Vaporization (Btu) | 8,967 | 9,071 | 9,177 |
| Total Energy to Food (Btu) | 15,131 | 15,235 | 15,341 |
| Energy To Food (Btu/lb) | 605 | 609 | 614 |
| Total Energy to Fryer (Btu) | 16,685 | 16,481 | 17,095 |
| Energy to Fryer (Btu/lb) | 667 | 659 | 684 |
| Cooking-Energy Efficiency (%) | 90.7 | 92.4 | 89.7 |
| Electrical Energy Rate (kW) | 15.4 | 15.1 | 15.1 |
| Production Rate (lb/h) | 78.5 | 78.0 | 75.5 |
| Average Recovery Time (min) | 1.02 | 1.08 | 1.20 |

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