Control, Performance And Flexibility
All In One Packaging Solution.

For higher throughput and increased flexibility, look no further than BTU’s Paragon series of convection reflow ovens. Equipped for all packaging applications from flip-chip attach to wafer bump reflow for lead or lead-free solders, Paragon is the ultimate packaging solution. Its precise atmosphere, tight thermal control and patented Flux Management System deliver high yields with unparalleled ease of maintenance. Best of all, Paragon carries the BTU name, ensuring industry-leading thermal performance and reliability. When it comes to convection reflow, nothing is more versatile. Nothing performs like Paragon.
### Specifications

<table>
<thead>
<tr>
<th></th>
<th>Paragon 70</th>
<th>Paragon 98</th>
<th>Paragon 150</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conveyor width</strong></td>
<td>22 in</td>
<td>22 in</td>
<td>22 in</td>
</tr>
<tr>
<td><strong>Heated length</strong></td>
<td>70 in</td>
<td>98 in</td>
<td>150 in</td>
</tr>
<tr>
<td><strong>Heated zones (top/bottom)</strong></td>
<td>5</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td><strong>Cooling length</strong></td>
<td>28 in</td>
<td>28 in</td>
<td>48 in</td>
</tr>
<tr>
<td><strong>Cooling zones (top/bottom)</strong></td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Overall system length</strong></td>
<td>135 in</td>
<td>170 in</td>
<td>256 in</td>
</tr>
<tr>
<td><strong>Overall system height</strong></td>
<td>60 in</td>
<td>60 in</td>
<td>60 in</td>
</tr>
<tr>
<td><strong>Overall system width</strong></td>
<td>62 in</td>
<td>62 in</td>
<td>62 in</td>
</tr>
<tr>
<td><strong>Voltage range</strong></td>
<td>208-480 VAC</td>
<td>208-480 VAC</td>
<td>208-480 VAC</td>
</tr>
</tbody>
</table>

*All specifications are subject to change without notice.*

### Features

- Maximum temperature rating of 325°C (400°C option)
- Cross-belt temperature uniformity ±2°C
- High volume, 24/7 production capability with minimal maintenance required
- High power heaters (5kW)
- Blower plenum modules (quick change)
- Flux Management System
- Modular zone construction
- Hinged clamshell design
- Nitrogen atmosphere
- WINCON® oven control software
- Comprehensive warranty program
- 400°C max temperature rating
- Closed-loop blower speed control
- SMEMA logic interface
- GEM communications protocol SECS/GEM

### Options

- Uninterruptable power supply
- Remote diagnostics
- Autogas sample
- Air doping

### Automated Wafer Handler Option

- BTU has developed a 200mm wafer handler and a 300mm bridge tool for semiconductor packaging customers seeking to completely automate their processes. Automated robotic wafer handlers can be used with BTU products or with any manufacturer’s conveyortype furnaces. Both handler types are SEMI S2 and S8 compliant and have been designed to maintain batch and slot integrity. The 300mm autoloader is FOPU compatible and has an optional optical inspection station.

### Customer Support

- 24-hour, 7-day worldwide customer support
- PBET certified trainers
- Regional locations with replacement parts in-stock
- Global field offices
- Process engineering support and training
- Electronic user documentation

### Addresses

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Closed Loop Control

BTU’s exclusive Closed Loop Convection Control provides maximum flexibility in process control. Greater efficiency is obtained by using the static pressure developed within the heating modules to achieve true impingement velocity.

- Impingement convection with side-to-side recirculation enhances temperature uniformity
- Ensures process repeatability
- Unmatched convection efficiency reduces zone temperature setpoints

Atmosphere Control

BTU’s Paragon reflow oven—as configured for packaging—operates with a reduced product clearance, decreasing overall nitrogen consumption and greatly increasing the purity of the atmosphere.

- Oxygen levels as low as 2ppm above source in reflow zone
- Nitrogen consumption as low as 450scfh at 20ppm O₂ depending on configuration

- E39, E40, E87, E90 and E94 (3000) software standards available
- Safety features included to recover wafers during an event failure
- 200mm: Typical 120 wafers per hour dual lane; Footprint: 51 x 41 inches
- 300mm: Typical 55 wafers per hour single lane; Footprint: 62 x 64 inches

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