


LTTS HELPS LEADING HOUSEHOLD APPLIANCE MANUFACTURER



THE CHALLENGES

Our customer, a leading manufacturer of household appliances, wanted to mesh the best of both worlds when it comes to cooking the speed of the microwave and the toasting results that usually come only from traditional cooking methods. The ultimate challenge of this program was to heat and toast an object within the specified time frame of 90 seconds and have consistent surface browning with an internal temperature meeting food safety requirements.

To achieve this goal there were 4 areas for optimized engineering:

- The Primary Infrared Radiant Heater
- Supplementary Cavity Heater
- Relocation of the RTD (thermal sensor)
- Enhanced Griddle design

OUR SOLUTION

By utilizing a collaborative effort, the L&T Technology Services' team worked with the production suppliers of both the tubular heat elements and Cooking Griddle to design and engineer the best cooking solution.

- The Primary Infrared Radiant Heater
- Supplementary Cavity Heater
- Relocation of the RTD (thermal sensor)
- Enhanced Griddle design

BENEFITS DELIVERED

The deliverable met the expectations of our customer. We stayed within our design specification and delivered a system that could toast a product evenly in accordance to the specified time frame.

Our deliverables included:

- Design matrix that included our recommendation of element geometry and griddle coatings
- Supporting documentation associated with the testing and validation
- A Cooking system that is ready for implementation into production
- Cost analysis associated with proposed element geometry, cooking griddle, and safety rack and shield.

