

**Leading Food Processing Manufacture Commissions Spiral Freezer**

**Main Objective:**



The purpose of this project was to provide the electrical drawings, PLC/HMI software design, panel built, and commissioning for a new spiral freezer control system. The objective was to provide the customer with a controls solution to operate the spiral freezer, including a clean-in-place system, steam pasteurization system, and full refrigeration and defrost control.

**Customer Results:**

All systems controls performed as designed. The customer was satisfied with all work performed, and OTI has provided (10) additional spiral freezer control systems for this customer.

**Overview:**

- ❖ To ensure a smooth commissioning process on the end-user’s site, a full simulation of the belt correlation, clean-in-place, steam pasteurization, and defrost was provided during the panel testing.
- ❖ A strong emphasis was placed on maintaining OTI’s standard software template by utilizing individual routines and tag structures for each device type (i.e. motor, prox switch, valve, etc.)
- ❖ The key features of the control system were as follows:
  - Automatic belt speed and correlation control based on the product recipe settings selected by the operation.
  - Automatic clean-in-place system which allowed the operator to modify all time variables, as well as pause, skip, or repeat any step in the process.
  - Full control of the refrigeration and defrost valves from the PLC, including operator-adjustable time values for the various stages of the refrigeration and defrost system.
  - Automatic steam pasteurization system with PID control for maintaining the appropriate temperature during the sequence.



*Every owner, manager, and key decision maker is an engineer. They have all been through the ranks and learned this business before they were given the responsibility to manage it. Diversity is also a key to our success. From a technical standpoint specific areas of expertise include: High Temperature applications, Automotive Paint Finishing, Pharmaceutical Automation, Web Handling Applications, Custom Software Solutions, and Safety. As a Systems Integrator, we are a 50/50 split between Continuous Process and Discrete Automation expertise.*

**Outbound Technologies Inc.**

30026 Research Drive, New Hudson, MI 48165, USA

Tel: (248)-735-5000 Fax: (248)-735-5001

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

Email: MI@outboundtech.com

