



PAK/TEEM, Inc.

# Torengos Packing Line

System Integration Case Study:

## Project Overview

A large capital project of approximately 70 million dollars, the Torengos Packing Line Project entailed the creation of two packaging lines for the new snack food product called Torengos. The finished packaging lines covered approximately 30,000 square feet and traversed two plant levels. Each line included 14 individual machines.



## PAK/TEEM Role

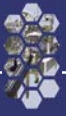
Our customer selected PAK/TEEM to fulfill the following needs on the Torengos project:

**Line Integration:** Including equipment communication and control, power distribution, and conveyor automation.

**Line Construction:** Execute initial construction, disassembly, and preparation for shipment.

**Line Operation/Debugging:** Bring the equipment online, conduct performance-qualification runs.

**Project Management:** Facilitate blending of effort, overall line engineering, and design.



## Case Study

### Torengos Packing Lines

#### Project Mandates

- Equipment integration was to be complete. A line communication system must be created to interface all equipment, controls, and conveyors to enable fourteen, discrete pieces of equipment to function as a single, complete system.
- The lines must be portable. The lines were to be constructed, operated and tested at a temporary location before being moved and installed at another site.



#### PAK/TEEM Performance

- The line was fully integrated with a master PLC that handled line interfacing and line communication. A line control panel was installed to handle line operation. All line communication was routed through quick disconnect interfaces to facilitate line equipment portability.
- The lines were engineered in segments that could be easily disassembled and placed on flatbed trucks. Each segment was equipped with quick-disconnect interfaces for mechanical and electrical components.
- Engineering for the Torengos project was completed in four months.
- The line was completely constructed in three months.
- The line performance qualification runs were completed in three weeks.
- The lines were disassembled and shipped in three weeks.
- Line installation at the plant site was completed in four weeks. PAK/TEEM's ability to build and qualify the lines off site reduced plant downtime by 75%.



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