

# Kaman Industrial Technologies Corp.

## Client Overview

Kaman Corporation, headquartered in Bloomfield, Connecticut, is a \$1 billion business that focuses on three markets: Aerospace, Industrial Distribution, and Music Distribution. Kaman serves both commercial and government arenas. The company is a national distributor of original equipment, repair and replacement products, and provides value added service. Kaman Corporation consists of four subsidiaries—Kaman Industrial Technologies Corporation, Kaman Aerospace Corporation, Kamatics Corporation, and Kaman Music Corporation.

Kaman Industrial Technologies Corporation (KITC) is one of North America's largest industrial distributors. This subsidiary provides a wide range of products and systems related to bearings, mechanical and electrical power transmission, motion control, material handling, and fluid power to factories, farms, mines, and mills throughout the United States and Canada. Operating from approximately 200 branch locations, Kaman supplies over 50,000 customers in most sectors of heavy and light industry.

## The Challenge

KITC has a multiple-tier distribution network. A four-distribution center (DC) network serviced its branch operations, which in turn delivered product to the customer. These DCs were strategically placed throughout the United States. Kaman identified the need to review the Northeastern DC because the throughput increases it was experiencing caused the existing bottlenecks to have a greater impact on operations.

Tompkins found tremendous opportunities to significantly improve the warehousing operations. The following were identified:

- Transition the DC to a random storage configuration
- Rearrange the existing storage equipment
- Redesign inspection and pack area to improve flow
- Simplify procedures in the receiving area to eliminate information float
- Review the viability of a real time, resource directed, radio frequency Warehouse Management System (WMS)

Tompkins' involvement included all warehousing activities from receipt of incoming goods to the shipment of customer orders for the Northeastern DC.

Tompkins led two phases and was utilized in an advisory role on the remainder of the project. Phase I was the Strategic Master Plan. Phase II consisted of developing the Detail Plan.

*continued on back*

**KAMAN**

TOMPKINS ASSOCIATES • WWW.TOMPKINSINC.COM

**TOMPKINS**  
ASSOCIATES

Tompkins provided:

- Documentation of the existing processes and procedures
- A time-phased strategy that documented the complete implementation of the optimal layout while maintaining the existing service levels during start-up
- Staffing plans, equipment descriptions, and simplification/re-engineering of current processes and procedures
- An economic and qualitative analysis of all viable alternatives and the documentation of why the recommended strategy should be pursued
- A WMS functional bid specification that detailed the functionality to support the new operation
- A pre-qualification process for all viable WMS vendors and a recommended vendor list
- Qualitative and quantitative evaluation of vendor bids
- Recommendations for system vendor to implement a WMS

## **The Solution**

Based on the information provided and the analysis performed, Tompkins recommended a three-step plan. The first step was to immediately implement the least cost plan. This plan consisted of compressing the existing shelving, which would provide more storage within the existing layout. Next, a new packaging area and enlarged receiving area improved overall throughput with a small expenditure of funds. During the first year of the plan, Kaman began implementation of a WMS, which was fully operational in the third quarter of that year.

In the third year of the plan, the construction of a mezzanine was required. The plan also re-configured the warehouse to utilize all static shelves and remove the existing high bay-shelving units. A conveyance system was installed to route orders and receive put-away throughout from the warehouse to each required zone and then on to packaging.

## **The Results**

The initial step of the plan rearranged the shelving to provide more storage per unit. This allowed other areas of the warehouse to expand. By reducing the storage area of Kaman product, the amount of walking was reduced, thereby reducing the labor cost of the picking operation. The initial step reduced operating expenses by 6 percent with a minimal investment. The WMS justified the expenditure required to purchase and implement such a system. Exeter was the recommended vendor and significantly improved the operation. The throughput and labor productivity was enhanced as well as other aspects of the warehouse operation such as accuracy and customer satisfaction.