

Batter Up for Efficiency: A Success Story of Consolidating Multiple Warehouse Sites Using Storage Type Analysis Data



1 Introduction

A distinguished manufacturer of top-quality bats, renowned for infusing excellence into each of their meticulously crafted products, found itself in a predicament. Despite their bats being unparalleled in the industry, their operational infrastructure was grappling with challenges that included fragmented inventory management, soaring operational costs, and limited transparency throughout the supply chain. Recognizing the pressing need for optimization, the company made a strategic decision to consolidate its 11 dispersed warehouse sites into a single, centralized facility. The primary objective was to streamline processes, expedite order fulfillment, and optimize inventory storage to cater to growing customer demand.

2 The Challenge

Consolidating 11 warehouses from different locations into a single 100,000 sq ft facility was only half the challenge. The manufacturer also had over 6,300 SKUs to plan and account for, including thousands of apparel and footwear SKUs, adding complexity to the layout design.

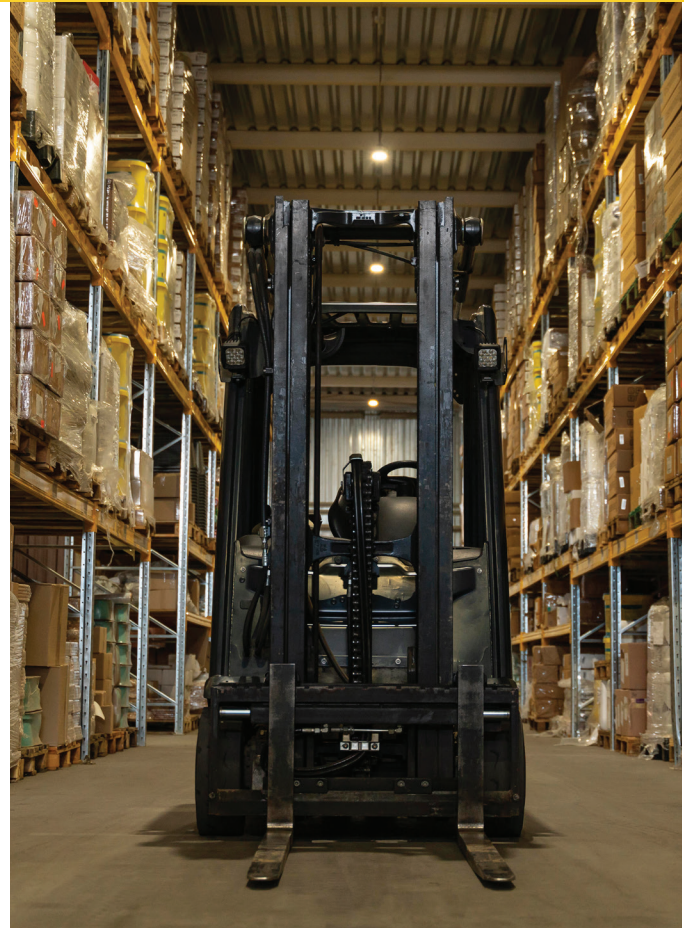


3 The Solution

Knowing their storage needs would impact their decision-making, they embarked on a Storage Type Analysis (STA) with Alpine Supply Chain Solutions. This involved evaluating the characteristics and requirements of the company's inventory, including the bat types, sizes, and materials. Alpine leveraged industry-leading advanced analytics tools and historical sales data to identify the optimal storage types for each product category.

The STA helped forecast the volume and net SKU growth five years out to ensure enough capacity for the future. In addition, the size of the forward pick locations was determined by sizing the rack profiles to accommodate 75 percent of the peak week's volume. This helped define the most appropriate racking systems, shelving configurations, and storage methodologies, such as bulk storage, selective racking, or flow racks. The data-driven insights provided a solid foundation for the warehouse layout design and helped maximize space utilization while minimizing handling and retrieval times. The results of the STA were used to design a layout for the new building incorporating both safety and product flow.

The STA anticipated SKU and volume growth over the next seven years and determined what portion of the new building could be set aside for sublet. By implementing this strategic initiative, the bat manufacturer not only improved its supply chain management, but gained a competitive edge in the industry by implementing an additional source of revenue.



4 The Results

The successful consolidation of multiple warehouse sites into a single facility stands as a testament to the transformative potential of data-driven supply chain optimization. Through strategic planning, informed decision-making, and the adoption of cutting-edge technologies, the manufacturer not only slashed operating costs, including rent, utilities, and maintenance expenses, but also elevated their supply chain management to new heights. Centralizing operations improved inventory visibility, reduced excess stock, eliminated stockouts, and redefined order fulfillment speed and precision, resulting in heightened customer satisfaction. Furthermore, the streamlined logistics operations also curtailed transportation expenses. This resounding success underscores the intrinsic value of periodic evaluation and optimization of warehouse operations in maintaining competitiveness within a dynamic business landscape.