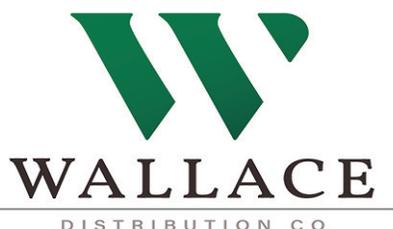


Wallace Distribution



Wallace Distribution believes, “Service is our finest product!” Founded in 1922, the company’s longevity and growth has been fueled by its focus on efficient, integrity-driven service that turns customers into business partners. Wallace has been family-owned and operated since inception. Each new generation introduces innovation, and as John Wallace stepped in the role of Director of Operations in 2018, he set his sights on modernizing Wallace’s warehouse to better synch with new customer needs.

The Challenge

Wallace distributes hardware, lumber and building materials to independent hardware stores, builders and MROs in 11 states from a 217,000-sq ft of warehouse space in Morristown, TN. As customer requirements evolved and new business models emerged (like e-commerce), the company found their operations were not equipped to meet them. However, the Wallace team wasn’t quite sure where to begin modernization, so they engaged with Alpine Supply Chain Solutions for a Best Practice Assessment (BPA). A BPA is an exercise that helps organizations uncover opportunities for improvement while benchmarking their operations against competitive operations.

According to Alpine’s Managing Principal, Michael Wohlwend, “A BPA enables companies to identify supply chain improvements, define requirements, estimate costs, and quantify ROI. In this case, we rapidly realized that Wallace could achieve big gains with a new layout and storage options.”

The Solution

The first step in establishing a new layout and determining storage options was performing a Storage Type Analysis (STA). This exercise assessed the ideal storage and location types required in the warehouse. To begin the process, Wallace collected SKU dimensions for all products in the warehouse. Often times, companies only focus on the fastest-moving goods during an STA, but because Wallace's range of products was so vast (they distribute very small items, such as nuts and bolts and very large items, like water heaters), it was important to capture accurate dimensions for each SKU and case size.

The exercise proved particularly tricky as hardware SKUs can exaggerate storage estimates. Units of measure, nesting factors (two 16" tall cones don't require 32" inches of storage), and kitting requirements (a wheelbarrow requires handles, wheels and a body packaged together) all had to be considered.

With the STA complete, it was time to plan the facility layout. Proposed layouts suggested reorienting the storage layout in one facility so that building columns were out of the way and capacity could be increased significantly. It was also recommended that Wallace replace much of their existing racking with a mix of single select, case flow, hand stacks, bin shelving, and 3-deep drive-in storage. With a new layout, Wallace would gain 30 percent in additional storage capacity.

Wallace was also interested in learning more about goods-to-person technology and how it could modernize their operations and create new efficiencies. Alpine conducted a Goods-to-Person analysis in which they assessed the investment and the ROI of three unique solutions ([OPEX](#), [AutoStore](#) and [Geek-Plus](#)) and in the end, Alpine determined the Geek-Plus solution was the best fit based on the size, shape, and sales throughput of their products.

The Results

Alpine presented multiple layout options for Wallace. All which will result in as much as a 30 percent increase in storage capacity and improved productivity. Wallace is currently gauging which layout will work best for them in terms of how they prefer product to flow through their facility, while considering Geek-Plus solutions. Within the coming year, they will begin re-engineering their facility in preparation for another 100 years in business.