

FORTNA

Client Success Series

Boston Scientific Optimizes Inventory with FORTNA OptiSlot DC™ Software



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Boston Scientific is dedicated to transforming lives through innovative medical solutions that improve the health of patients around the world. The company's facilities include locations dedicated to advancing science, manufacturing and centers for customer fulfillment. Providing 35 million products, delivered with 18,000 employees globally, Boston Scientific's distribution operations must run effectively to get the right products to the right locations at the right time with utmost care and quality upon delivery to customers.

Boston Scientific's distribution center (DC) in Quincy, Massachusetts is over 580,000 square feet with approximately 10,000 SKUs and contains a wide variety of rack types including bulk floor pallet locations for the absolute fastest moving items, case flow racks, and wire deck shelves. Most of the picking performed is comprised of individual (also known as each) picks to fulfill orders.

The Challenge

With the advances in science and technology that Boston Scientific delivers, SKU proliferation continues to grow and, considering the delicate nature of many of the life science products the company provides, the placement of these items within the distribution center must consider a variety of factors.

When considering the various storage media types, thousands of SKUs, the constraints for each item, and the necessity to run the DC effectively, the challenge required an intelligent solution that could be used sustainably to first optimize and then maintain efficiency levels.

To improve overall operations with a slotting solution, the team split the DC into four areas and tackled the optimization of the facility zone by zone.

Boston Scientific needed to organize products to be grouped and slotted which would create ease of picking, putaway and replenishment. Additionally, they looked for opportunities to improve overall picking productivity by:

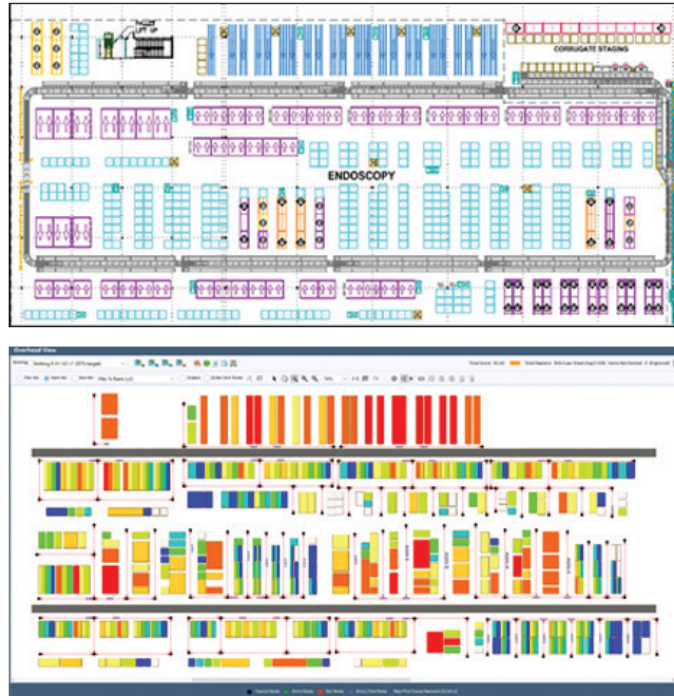
- Optimizing the pick path to reduce horizontal travel
- Reducing bend and reach by implementing golden zone slotting, a technique in which high velocity items are given the easiest to pick locations at chest height, which would make it easier for selectors to pick quickly while also supporting more ergonomic picking.

In building the model, Boston Scientific also focused on improving space utilization and reducing the number of overall replenishments by improving the slotted capacity in active forward pick and minimizing the overstock in reserve.



The Solution

To achieve its goals, Boston Scientific partnered with FORTNA utilizing slotting optimization technology, FORTNA OptiSlot DC™ software. By leveraging the software and slotting experts, Boston Scientific had the ability to build in essential goals, rules and constraints to meet its objectives; weigh the importance of each objective; and compare potential scenarios via comparative reports. Through this method, Boston Scientific was able to view potential results before dedicating the labor to implement the necessary moves to get to the targeted future state.



AutoCAD and OptiSlot DC™ digital twin of overhead view

After weighing the possibilities, Boston Scientific selected an optimization scenario that was able to group all interventional medical specialty items together appropriately while also moving the fastest cube moving items to larger, prime locations that would both reduce travel and replenishments in tandem. The solution was further refined to consider golden zone slotting to support reduced pick costs and improved productivity while also improving the ergonomic standards for picking. With this golden zone slotting approach, the weights of various items were considered to ensure optimal reach.

“The OptiSlot tool has been a complete game changer for us.”

Dan Hamilton
Boston Scientific’s Primary Superuser and Project Manager

The Results

The Boston Scientific team executed the slotting plan while tracking and measuring results. In addition to implementing division grouping to keep medical specialties together, Boston Scientific was able to see measured results for the targeted goals. Having implemented 600 moves in the A1-A3 areas between January and May, the steady state results showed:

- A reduction of 135 replenishments per week, or about 12% of the total for A1-A3
- 248,768 less feet traveled per area within the DC per week
- Improved space utilization with an overall storage capacity increase of 1.6%

As Boston Scientific completes more moves towards the optimal state, improvement results will continue to grow.



User Experience

Boston Scientific's primary superuser and project manager, Dan Hamilton, summarized his positive experience.

"The OptiSlot tool has been a complete game changer for us. Prior to OptiSlot, our slotting tool was a very cumbersome, manual excel-based tool—so we were limited with what we could achieve. With OptiSlot, we're now able to seamlessly layer in as much data (including custom data) from as many different sources as we want; and the flexibility and adjustability of the tool allows us to analyze as many different rules, goals, constraints and "what if" scenarios as we want. Slotting move plans (spanning up to thousands of moves) and comparative reports come back in a matter of minutes, with planned out multi-chain move sets ready to go. We've only just begun to scratch the surface of the capabilities of this tool, and we are already reaping considerable operational benefits."

FORTNA Can Help

Slotting optimization software, powered by advanced mathematical algorithms, addresses distribution operation complexities improving efficiency by supporting efficient putaway, picking and pallet building; reducing product damages; improving space utilization; and increasing customer satisfaction. Leverage FORTNA's powerful slotting solution, developed by mathematicians and refined with domain expertise intel, to create a sustainable slotting solution for your organization.

FORTNA

About FORTNA

FORTNA partners with the world's leading brands to transform omnichannel and parcel distribution operations. Known world-wide for enabling companies to keep pace with digital disruption and growth objectives, we design and deliver solutions, powered by intelligent software, to optimize fast, accurate and cost-effective order fulfillment and last mile delivery. Our people, innovative approach and proprietary algorithms and tools ensure optimal operations design and material and information flow.

Contact us today at www.FORTNA.com