



DP&C Enterprises, LLC
SUPPLY CHAIN SOLUTIONS



CASE STUDY: Belmay – International Flavor and Fragrance Supplier

Belmay Smells the Sweet Fragrance of Success by Implementing “Plant As Machine” DP&C Concept

Belmay is a full-service, multinational flavor and fragrance supplier headquartered in Yonkers, NY. It has operations in 11 strategic global locations serving thousands of customers in 40 countries. The company creates fragrances for the small to mid-tier consumer products goods manufacturers in the household, personal care, air freshener and automotive markets.

To compete more efficiently and profitably in the challenging marketplace, Belmay elected to outfit its Chester, NY plant with a comprehensive solution for enhancing logistics and supply chain management efficiency and profitability.

The Challenge

Belmay's dilemma was two-fold. The company needed to satisfy demand for increasingly high levels of customer service in order to better compete as an original equipment manufacturer (OEM) supplying new and high-demand fragrances more rapidly to worldwide markets. It also needed to seek ways to enhance cash flow while reducing inventory and operating costs, without a negative impact on its commitment to increased customer service.

DP&C's Solution Re-invents Chester Plant and Processes

The team from DP&C began the process with the application of a unique metaphor: view the entire plant and its processes as a single “machine”. The DP&C team focused on a comprehensive analysis of the current market and best practices within the fragrance and flavors industry, and a review of the entire supply chain process and the various production functions that support the Company's operations.

Additionally, the DP&C team looked at every step in the chain of fulfilling a customer order from the sourcing of raw material, through inventory management, materials handling on the plant floor, production and order tracking, customer fulfillment and shipping. The DP&C team applied practical technological solutions as appropriate, to create an integrated process that increases velocity and efficiency from receipt of order to shipment, while making real-time, decision-critical information available at every step throughout the process. Critically important, DP&C realized that information was not only important in the management suite, but also a powerful tool for every department on the plant floor.

Geographic Area Served

Global

Challenge

Respond to market pressures that have been squeezing margins and cash flow by implementing a process to increase the velocity of customer service and speed from order to delivery, while simultaneously lowering inventory and operating costs.

Solution

Re-engineer Belmay's supply chain, manufacturing, order fulfillment and customer service processes to demonstrate the value of integrating supply chain and logistics processes into a seamless system supported by 21st century application of affordable, reliable and practical technology.

Results

- Increased shipments 16-18% (by weight) vs. prior year
- \$1 million/year (14%) reduction in physical inventory
- 10%/year minimum reduction in operating expenses
- Reduced order-to-shipment processing
- Reduced physical inventory process from 6 to 2 days while simultaneously increasing inventory-on-hand accuracy to 99.5%
- Enabled consolidation of West Coast plant with estimated annual savings of \$1 million plus one-time inventory reduction savings of \$1 million.



How it was Done

The application of the DP&C solution for Belmay's 50,000 square-foot Chester facility began with an analysis of materials flow, and the logical reallocation of production floor space including the relocation of more than 3,000 items. With physical placement of materials better aligned through a simplified process flow, the DP&C team implemented solutions to enhance inventory location integrity.

The fragrances and flavors produced involved the physical mixing of multiple liquid components to exacting specifications. DP&C analyzed the current manual processes, and designed and implemented a customized liquid dispensing system. This simple solution of enhancing the efficiency of the age-old drum dispensing process, which previously required nearly constant manual handling of 400 pound drums of raw materials, simultaneously increased the number of dispensing locations by 600%, while increasing facility utilization by 100%.

With the physical dispensing of materials enhanced, DP&C then outfitted the plant with a wireless system including ERP integration, programmatic measurement of every material pour and interface with RFID. The system monitors and reports every movement of and

provides real-time raw material inventory tracking. This process now enables better work-flow planning, and up-to-the-instant order tracking.

The customized software at the heart of this wireless technology provides immediate visibility throughout the dispensing, and compounding of fragrance and flavor components, ensuring that raw materials stations are never out of service and providing validation of the order fulfillment process. The system also provides constant information feedback that drives continuous improvement throughout the plant.

DP&C also provided the training for users and created a plant materials and logistics group - enhancing manufacturing capability and setting the stage for the continued introduction of technical sophistication. It is important to note that the plant personnel have enthusiastically embraced the application of the technology, as it provides them with an easy-to-understand technology application that mirrors their traditional activities, rather than creates new, complex processes that are in conflict with the traditional factory-floor workflow.

On the distribution side, DP&C integrated the inventory and production process with the shipping

processes. Enhanced process visibility and automation has streamlined the creation of electronic bills of lading, packing lists, product tags and integrated hazmat documentation.

While the process enhancement initiative was mainly focused on delivery of bulk shipments, it also has application in Belmay's research and development, a core capability for effective competition within the industry, enabling Belmay to enhance the fulfillment for customer samples and new product development.

About DP&C

DP&C Enterprises, LLC is a privately held company headquartered in Basking Ridge, NJ. **DP&C** is a one-stop resource for the complete design, engineering and execution of 21st Century supply chain solutions. **DP&C** delivers seamless supply chain solutions that enable the client to quickly get goods to market while turning physical assets into working capital.

Additional information about **DP&C Enterprises LLC** is available by calling 888-RMA-TRAK, or on the internet at www.DPCELLC.com.