

# SUCCESS STORIES



## INDUSTRY CASE STUDY

Custom folding cartons and stock packaging manufacturing

### CLIENT PROFILE:

Mod-Pac Corp is a Buffalo-based manufacturer that dates to 1881, has an international reputation for excellence in custom packaging for consumer products and stock packaging for the retail confectionery industry. The publicly held company is ISO 9001-Certified and also offers personalized printing for a diverse customer base worldwide.

### CHALLENGE:

Mod-Pac serves a broad range of markets and customers with high volume or short-run needs. The market is highly competitive and customers demand the lowest price and fastest delivery. Suppliers who are unable to consistently meet these requirements will lose business

Mod-Pac's goal is to meet the needs of any customer by providing the customer with flexible quantities and short lead times. To achieve this goal requires them to respond quickly to customer demand without adding capacity or making additional investments in operating expense or equipment.

Thus, the company must have a most reliable scheduling process that prioritizes work orders in order to provide the best lead times in the industry and to ensure on-time delivery.

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## Mod-Pac improves production flow and customer delivery performance, slashes costs with help from Athena SWC

The company provided Athena SWC with an up-close look at its entire operation, from order entry to manufacturing and product delivery. As a result, Athena advisers were able to formulate a custom plan utilizing its Synchronized Production Flow (SPF) solution that produced results within 3-months, and that also enabled a process to implement continuous improvements.

*"We engaged Athena SWC to install a tool that would help us with synchronized production flow and to teach us how to use that tool and apply those technologies to our process. They were here every step of the way, and I have no hesitation in saying that if we had to do it all over again, we would. It worked out very well"* states David Lupp (Mod-Pac chief financial officer and chief operating officer)

*"They wanted to increase throughput, which is the rate they take a customer's order, ship it out and convert it to cash,"* said Steven Hagler, Athena's operations specialist. *"At the same time, they were looking to reduce costs."*

Athena began by mapping the entire customer order process from client specifications to order acceptance to production through delivery. They then began to introduce the SPF approach. An immediate impact occurred by one of the preliminary steps in SPF. The release of production orders follows a very simple prioritization process. There is no negative impact and within weeks WIP went down, on time delivery went up and order cycle times were cut in half.

During the roll out of SPF, they identified production flow impediments and the resource that most constrained their process flow. Once the constraint was identified, actions and requirements were defined to eliminate the impediments. The company now has a simple, visual priority system to facilitate smooth production scheduling and eliminate firefighting.

Attention was then focused on improving the capacity of the constrained resource and using this resource to pace the rate that orders were introduced to the system. This all resulted in speeding the flow of product within the manufacturing floor without adding capacity and making additional investments.

*"A key strategy of SPF is the removal of 'chaos' or impediments to flow on the manufacturing floor",* said Hagler. *"What we typically find is there is a focus on improving efficiencies within the major departments. We teach and implement SPF and they then have the ability to eliminate impediments to flow, increase throughput, and significantly lower required lead times."*

As the project implementation progressed the system was introduced to management to help them understand it and change their paradigm from one of focusing on machine utilization (looking to keep their printing presses busy) to achieving a faster flow of orders through production to customers (faster deliveries to customers).

*"At Athena, we want to not only accomplish the project objectives but have the client understanding the why and how we accomplished the implementation's objectives along with leaving them with the ability to collect the data that will enable them to have a working process of ongoing improvement."* Hagler concluded.

Adds David Lupp *"You have to buy in to the technologies and follow what Athena SWC is trying to teach you to do. Then you have to be able to break away from them so you can do it on your own. Athena helped us with all of that."*

### Customer benefits achieved:

- Customer lead time of 8 to 14 days was slashed to 4 days
- On-time performance over a six-month period increased from 92% to 99
- Significant overtime costs were reduced and eventually eliminated
- Significant additional capacity limits have been revealed
- The Shop floor is run with a simple production priority system
- Customer deliver dates commitments are given with sales and production in sync
- 10 percent business growth reported