

# Transformed shop-floor operations gives food manufacturer a major production boost



**Client**  
Glen Copack Food Manufacturing

**Industry**  
Food manufacturing  
and packaging

**Objective**  
Assess Glen Copack’s throughput, production capacity, and storage to find low-cost ways for improving its manufacturing, inventory, and business processes.

**Outcome**  
COE-ASM’s recommendations streamlined 75 percent of Glen Copack’s production footprint while significantly easing the overall management of its operations.

## Company

Based in Watkins Glen, New York, Glen Copack Food Manufacturing (Glen Copack) specializes in bottling a range of liquid and dry food products, such as sauces, condiments, oils, seasonings, and baking mixes. The small business is one of seven independent businesses launched by the Arc Chemung-Schuyler. In support of the nonprofit’s mission, Glen Copack employs individuals supported by the Arc to provide an opportunity for them to develop vocational skills and work habits alongside a team of full-time staff.

*“It’s very hard to get people to understand food manufacturing. But COE-ASM already had experience in it and came up to speed on our processes very quickly. We would have back and forth discussions during meetings, and the engineers would make suggestions and changes on the fly. Working with COE-ASM was a great experience.”*

**Wendy Shutter**  
Director of Business Services  
The Arc Chemung-Schuyler  
Glen Copack

## Challenge

In 2020, Glen Copack won a grant from FuzeHub in collaboration with Alliance for Manufacturing and Technology (AM&T), the Manufacturing Enterprise Partnership (MEP) in Binghamton. Glen Copack used the funds to purchase new equipment for its facility. In addition, the manufacturer received funds through an Appalachian Regional Commission grant to renovate its facilities. The 2018 renovation significantly increased the efficiency of its operation. The boost in productivity allowed the company to take on new customers with larger orders and increase what it could offer existing clients in terms of volume and product variety. In fact, the enhancement led Glen Copack to nearly double its staff over the course of a year.

The sudden surge in demand had an unexpected result: It exposed the limits of Glen Copack's existing shop-floor configuration. These limits caused bottlenecks for the production kitchens and double-handling of product, ingredients, and packaging. These challenges were exacerbated by irregular and sometimes unplanned deliveries of customers' product and packaging. Aware that the firm's manufacturing and inventory processes needed a strategic reset, Wendy Shutter, Glen Copack's director, wasn't sure where to begin. When she contacted AMT for help, the MEP pointed her to RIT's Center of Excellence in Advanced and Sustainable Manufacturing (COE-ASM).



## Approach

A team of engineers from COE-ASM visited Glen Copack in the fall of 2022 to better understand the challenges facing the company. During the visit, Shutter explained what she hoped to achieve through the project. That is, to find opportunities for improving throughput, production capacity, and storage within Glen Copack's wet and dry product lines. Additionally, she wanted to plan for a future expansion into certified organic products and hoped to identify a separate location to store ingredients for those.

The initial site assessment led them to recommend a material and information flow analysis, which is a study to document how materials and information move throughout an operation. The results of the analysis would serve as a foundation for making recommendations to improve Glen Copack's manufacturing, inventory, and business processes.

Once the analysis was complete, the COE-ASM engineers shared the results with Shutter and her team over the course of multiple meetings. With the company's business goals in mind, the engineers used what they learned through this discovery process to create a plan for improving material flow and space utilization at Glen Copack's facility.

The COE-ASM engineers reimaged the factory's shopfloor, storage, and office areas through a series of evolving facility layouts. Together, the COE-ASM and Glen Copack teams carefully reviewed the plans for reconfiguring the facility to fill in any knowledge gaps, assess the feasibility of the changes, and agree to a course of action.

## Deliverables

COE-ASM delivered the following to Glen Copack:

- A current-state facility floor plan based on Glen Copack's existing layout at the start of the project.
- An analysis of material and information flows for the company's existing processes and floorplan
- A summary of recommendations for improving the flow of materials and information across Glen Copack's operations
- A facility floor plan to visualize a future-state layout for Glen Copack based on COE-ASM's recommendations

## Results

COE-ASM delivered a series of recommendations to Glen Copack during multiple on-site sessions from November 2022 through May 2023. As the changes were implemented, the company realized immediate benefits: less double-handling and time spent traveling on the shop floor; faster turnaround; better utilization of labor and storage and production space; and greater visibility of material flows within the factory.

The shop-floor transformation streamlined roughly 75 percent of Glen Copack's existing production footprint and enabled easier and more efficient management of the entire operation. This allowed the company to fulfil larger orders faster, and meet the growing demands caused by new customers.

Importantly, the floor space and process optimization improved a number of core activities, and removed a series of obstacles impeding routine tasks. The COE-ASM project resulted in the following changes to Glen Copack's shop floor:

- clearly defined work areas and material-flow aisles with highly visible floor markings
- a dedicated area for staging production runs ahead of time
- new and expanded space for more efficient date coding, labeling, and boxing operations for bottled products
- a storage system that prioritizes visibility of received goods, ingredients, and ready-to-ship products to allow for quick date and quality checks to limit product spoilage
- a dedicated space for inspecting deliveries for quality before accepting them
- relocation of staff computers, desks, and records storage out of the production environment to increase storage by roughly one third and to introduce material-flow aisle ways

In addition to optimizing the facility's layout and material storage and organization, COE-ASM also recommended new practices to enhance process efficiencies. This led to a more streamlined workflow with fewer touchpoints between staff and product materials, a change that not only reduced opportunities for mistakes but also turnaround time for orders.



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*a division of the Arc of Chemung-Schuylar*

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