

# \$85MM MAJOR FOOD PROCESSING & PACKAGING LINE EXPANSION

## ABOUT THE CLIENT

One of our major clients is a world leading food manufacturer and a member of one of the Fortune 500 largest corporations in the United States. Their cereals, frozen foods, and snacks can be found in more than 90 percent of all U.S. homes. EAD became their chosen provider because of our experience in industrial design and construction processes and ability to execute projects within facilities with 24/7 operations and no downtimes.



### SERVICES

Multiple Engineering Disciplines  
Project Management  
Construction Management  
Controls & Automation  
Industrial Panels

### HIGHLIGHTS

- Employed FEL approach and construction phasing to design and implement new process and packaging line under accelerated timeline
- Executed project on-time and in-budget in less than 11 months at the height of the COVID-19 pandemic

## PROBLEM TO SOLVE

Due to increasing product demand from the US and Canada during the COVID-19 pandemic, the manufacturer decided to increase production. However, they also faced a variety of challenges. They needed to install a new processing and packaging line and ramp up production very quickly to meet consumer demand. Our client needed to run up to eight (8) different products simultaneously at 170 lbs. / minute and 160,000 lbs. / day, an effort that involved all of our client's process and packaging systems, from the bulk materials storage, cooking, and flavor adding stations to their multi-stage drying, tempering, milling, toasting, and vitamin application and packaging stations.

Since the plant where the new processing line was installed was over 50 years old and had a significant amount of piping, ducting, and conduit, the manufacturer also needed a way to relocate equipment without disrupting production. Further complicating matters was that the project needed to be completed during a worldwide pandemic, so assistance was also needed with contingency planning to ensure staff safety.

## APPROACH & SOLUTION

Our client relied on EAD's experience and project expertise for everything from the engineering design and equipment procurement and layouts, to the management of the project schedule and construction activities for the large scale project. We employed the FEL approach to provide project management, controls & automation, electrical, and PM and CM support. We also completed a 3D scan of the approximately 41,000 sq. ft project area in order to ensure the team could work around the existing equipment and accurately identify equipment for removal or relocation without disrupting production. In order to handle the accelerated project schedule, EAD's project and construction management teams developed creative ways to speed up the project. Construction phasing was aligned with the engineering packages and our client's operational priorities. EAD's project manager balanced the installation phases with the contractor's workload and equipment deliveries to ensure the project met our client's strict deadlines.



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On the engineering side, the EAD controls and automation team were given the challenging task of designing and implementing the entire control system for the packaging lines and ensuring the successful integration of packaging equipment from multiple vendors. The food manufacturer relied on the controls team to manage every detail of the system design and implementation. The EAD controls engineers developed cost estimates and then successfully completed the control system design, panel fabrication, programming, installation support, check-out, start-up, and commissioning for the manufacturer's new food production line and two new packaging lines. All systems were developed using the Rockwell RS Studio 5000 and Wonderware / Aveva HMI software.

Finally, EAD mitigated potential risks to safety through the development of a project execution plan and COVID-19 response plan that helped the project team with risk and contingency planning. EAD effectively managed project disruptions caused by the pandemic by implementing new safety protocols and cleaning procedures. In addition, a dedicated EAD on-site safety resource assisted with safety oversight of the project and served as the single point of contact for handling all on-site COVID-19 safety compliance issues. EAD adapted their COVID plan in accordance with the changing pandemic conditions to mitigate the impact of staffing issues resulting from the spread of the virus.



### RESULT & BENEFIT

Drawing from our experience in food and worker safety and good manufacturing practices (GMPs), we were able to execute the \$85MM project on-time and in-budget in less than 11 months at the height of the COVID-19 pandemic. We never missed a beat, even when some of the project staff had to be quarantined. While the world navigated the uncertainty around COVID-19, the EAD team remained devoted to supporting our client's complex, fast-tracked project. We achieved our client's goal to increase flexibility and throughput, while optimizing our client's capital investment. Our engineers, project managers, and consultants continue to be a source of new ideas and solutions for our client's complex engineering and project management challenges to this very day.

