

EPC TURNKEY SOLUTION FOR \$50MM LACTIC ACID PLANT EXPANSION

ABOUT THE CLIENT

Our client, a world-leading supplier of lactic acid with nearly \$1B in annual sales, saw a surge in consumer demand for their lactic acid and derivative products. They serve clients in the pharmaceutical, chemical, food, and personal care industries with high requirements for hygiene and sanitation.



SERVICES

Multiple Engineering Disciplines
Project Management
Construction Management
Controls & Automation

HIGHLIGHTS

- Worked to deliver turn-key solution and executed on major plant expansion to increase our client's lactic acid production capacity
- Contained construction area to ensure continuous hygienic plant operations
- Leveraged EAD vendor network and qualification processes to provide qualified vendors that met client budget and client requirements

PROBLEM TO SOLVE

The lactic acid producer quickly realized that the most efficient way to increase their capacity to produce lactic acid was to invest in the expansion of their existing facility. However, the risks to this investment were high. In the 60 years since the lactic acid plant was first built, it had never undergone an expansion of this magnitude. The supplier knew their facility needed to be engineered to meet the highest standards for hygienic design. They therefore turned to the hygienic design and cGMP experts at EAD for a turnkey solution. EAD was tasked with not only ensuring the supplier's facility could produce enough lactic acid to meet their stated production goals, but that it also met the critical path project timing and budget requirements.

APPROACH & SOLUTION

EAD provided multi-discipline engineering to develop construction and engineering design packages for the expansion. During the pre-construction phase of the project, EAD was contracted to perform the site civil, structural, and electrical underground portions of the project. The scope included demolition work, underground piping, and the installation of steel piling, a concrete foundation, and electrical grounding loops. We put in place measures to ensure the facility could continue normal production during the construction period. For example, critical piping tie-ins were completed over a three-day plant shutdown period to ensure that the plant could continue production during the planned installation of new piping systems. Utilizing our vendor qualification methodologies and existing vendor networks, EAD also helped our client locate and qualify vendors for their project that best fit their quality and budget requirements.

RESULT & BENEFIT

EAD offered multiple options to deliver faster than the client expected on this fast-track project. We leveraged the skills of our in-house project managers, process and mechanical engineers, structural engineers, electrical engineers, and construction managers to provide detailed engineering and construction packages. The team provided everything from process flow diagrams and general arrangement plans to mass and heat balance calculations. Our engineering and project management acumen helped prepare our client to take the project to the next stage.

