

DESIGN OF AUTOMATED PRODUCTION ENVIRONMENT FOR \$310MM FACILITY EXPANSION

ABOUT THE CLIENT

EAD has partnered with a world leader in biotechnological solutions since December 2012, embedding staff who serve as on-site project engineering resources and assist in the execution of automation related capital projects. EAD provides continuous support to the facility operations, maintenance, and engineering teams to ensure their continued leadership in bioprocessing, fermentation, and enzyme production.

PROBLEM TO SOLVE

When our client developed a new advanced protein for use in alternative plant based meats, they needed a new facility with 16,000 I/O points to successfully manufacture the protein at scale.



SERVICES

Controls & Automation

HIGHLIGHTS

- Designed custom automation solution to increase production of advanced protein
- Only 10 engineers designed entire 16,000 I/O point ABB 800xA DCS system
- Delivered project 2 weeks ahead of schedule and under budget despite frequent client requested design changes

APPROACH & SOLUTION

EAD was contracted to design and implement a fully automated controls production system for the new facility using the ABB 800xA DCS System, complete with new infrastructure that enabled historical data trending and reporting as well as a S88 batch system. EAD was tasked with developing custom automation solutions for the client's homogenizers, centrifuges, microfiltration, ultrafiltration, chemical dosing and pasteurization systems to ensure the facility had advanced protein fermentation and processing capabilities.

RESULT & BENEFIT

Because the client's products were new with many unknowns, they frequently changed the mechanical design of the facility over the course of the project. The constantly evolving design process meant that we had to respond quickly by adjusting the design of the automation system to align. A small team of 10 EAD controls engineers designed the client's entire 16,000 I/O point control system, developing all of the functional specifications and providing all of the programming and factory acceptance testing for the automated production environment. EAD completed the scope of work two weeks ahead of schedule and under budget by \$150,000.

