

# CASE STUDY

FULL AUTOMATION INTEGRATION & INSTALLATION



## THE CHALLENGE

- Customer operating single-use systems via local / manual control
- Existing agitation system was no longer supported by vendor
- Manual / limited data collection
- Inability to process consistent batches

## THE SCOPE

Customer's project requirements included:

- Provide new hardware/software control for existing reactor systems
- Proprietary bioreactor design to be incorporated into control system
- Control multiple systems simultaneously
- Variety of customer hardware configurations

## THE SOLUTION

Develop Custom PLC/HMI-based controller for each of the hardware configurations

- Monitor/control gassing, pH, DO, temperature process feeds, agitation, pressure, and weight
- Incorporate gassing manifold and dump delivery hardware systems into the controller
- Integrate control with existing agitation hardware
- Four of six units designed to control two systems simultaneously
- Provide mobile design to service reactors in multiple locations
- 100% factory tested with customer prior to shipment
- Full start-up and site testing support at customer facility

## THE RESULTS

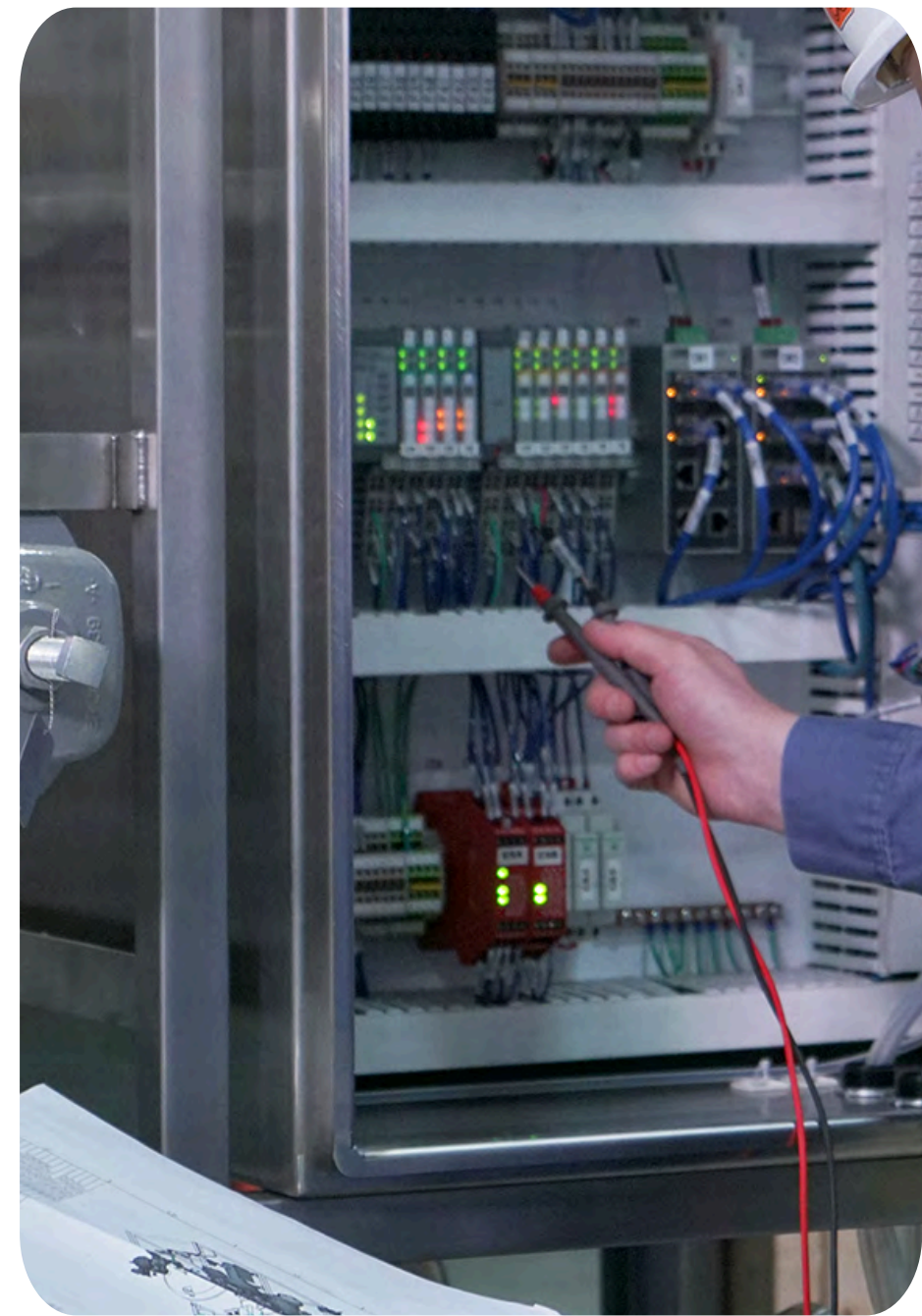
- Seamless start-up of fully automated custom control systems for the customer's proprietary single-use bioreactor systems
- No impact to existing operations or production
- Significantly improved data acquisition capability

## THE BENEFITS

- Custom designed systems provide capabilities specific to customer needs and are adapted to unique customer hardware requirements
- Flexibility is provided within the design to handle future process requirements
- customer has now partnered with ABEC and in contact on a routing basis for both remote and on-site support

## ABEC'S UPGRADE SERVICES

- **Automation Services:** Expert equipment and process analysis identifying improved functionality with development, integration, modifications and upgrades to equipment control systems, hardware and software
- **Vessel Modifications & Upgrades:** Equipment enhancements to meet process/product changes and improve efficiency.
- **Equipment Upgrades & Retrofits:** Changes to equipment for modified functionality or footprint. Fully documented and compliant



## Maximizing Customer Productivity, Controlling Costs, and Reducing Risk

ABEC's service team is highly trained and experienced, working for customers to maximize productivity, control operating costs and mitigate risk. In every way, we strive to eliminate unscheduled shutdowns, while bearing in mind all factors associated with maintaining and improving bioprocess production operations and equipment. Our expertise and capability to address your specific requirements, in line with your schedule, make us the first choice for bioprocess services, no matter the location, the scale of the task, or the original manufacturer.



ABEC SERVICES THE ENTIRE BIOPROCESS

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