

# CASE STUDY

MAXIMIZING UPTIME THROUGH ACCELERATED SHUTDOWN MAINTENANCE



## THE CHALLENGE

A long-standing ABEC customer operates at a high production rate, leaving only a short window for preventive maintenance and critical repairs on essential process systems and vessels. Any delay in executing this work within the defined shutdown schedule would cause significant production impacts, including missed batch targets and downstream scheduling disruptions.

## THE SOLUTION

ABEC deployed 10 system technicians for 8 weeks (December–January) to perform high-level preventive maintenance across multiple process systems, including inspection, parts change out, elastomer replacement, and gearbox maintenance. In parallel, 2 vessel technicians were assigned for 4 weeks to execute targeted repairs on stainless steel vessels, including weld repairs, surface finish restoration, and integrity checks to meet sanitary and pressure specifications.

To ensure execution quality, every technician participated in ABEC's On-The-Job (OTJ) Training program, demonstrating competence in technical tasks related to assembly and repair of process equipment through hands-on performance (e.g., orbital welding), evaluation by Manufacturing Leads and Operations Management, and formal assessment by Field Service Management. Experienced ABEC Team Leads were embedded on-site to coordinate daily activities, troubleshoot issues, and uphold quality and safety standards, while a dedicated Project Manager oversaw scheduling, resource allocation, and daily communication with the customer's maintenance and operations team.

*"ABEC's ability to flex technicians in during "high need" times allows for the company to save money by not staffing for the large peaks that occur during shutdown" - Customer Testimonial*

## THE DETAILS

- Fully staffed, highly trained on-site team capable of completing complex work within a constrained shutdown window. Reduced risk to production schedules.
- Embedded leadership and structured project management enabled clear communication, rapid issue resolution, and strong adherence to quality and safety requirements.
- Site-specific safety training ensured consistent workmanship, minimized the likelihood of rework, and strengthened customer confidence in ABEC's ability to support future maintenance cycles.

## THE RESULTS

- All preventive maintenance activities and vessel repairs were completed within the scheduled shutdown window, with zero rework required.
- Additional system technicians were mobilized mid-project to address emergent work, preventing delays and maintaining schedule integrity.
- A post-shutdown Lessons Learned session informed planning for the next maintenance cycle, positioning the customer to further optimize resource deployment and minimize future downtime.



## 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.



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