

CASE STUDY

SLIP JACKET SOLUTION TO PREVENT SHEATHING CRACKS



THE CHALLENGE

A long-standing ABEC customer experienced repeated sheathing and tailing lug cracks due to extreme thermal shock. ABEC proposed installing slip jackets around the vessels as a root cause solution to the problem; however, due to time constraints, the customer elected to reinforce the cracking areas.

Despite the reinforced alcoves, the doublers around the legs, and added support around the breast ring, the thermal shock continued to cause sheathing cracks. The cycle of repair continued with ABEC remediating the cracking every six to nine months.

During the year-end business review, ABEC resubmitted the slip jacket proposal and provided a business case outlining the cost savings and ROI (return on investment) of the slip jacket solution versus continual sheathing crack repairs. ABEC received approval to perform the installation on two test vessels.

THE SOLUTION

ABEC's slip jacket design allows the top of the shell to move independently from the bottom of the shell to help stabilize the vessel by dispersing the effects of extreme thermal shock to prevent cracking and related issues.

The sheathing crack repairs and slip jacket installations on the two test vessels were completed onsite within a week. A typical slip jacket install takes three business days from start to finish.

THE RESULT

Six months after installing the slip jackets, the customer reported no new sheathing cracks or weld stresses. The customer initiated a program to install the slip jackets on all vessels that were subject to thermal shock. In total, ABEC installed slip jackets on 31 vessels at the customer's facility.

Upon project completion, ABEC quickly delivered a fully audited industry leading turnover package. This turnover package links all the modifications and all materials utilized in the modification, for full traceability. The package includes all weld logs, material traveler, authorized inspector documentation, material certifications, technician certifications, and updated drawings.

The first onsite slip jacket install took place in 2013. To date, the vessels that were fitted with an ABEC slip jacket have not had any recurrences of sheathing cracks that required a return remediation visit.



THE BENEFITS

- After one year without the need for multiple remediation visits, the customer recognized the ROI for this project
- ABEC's slip jacket is a cost-effective addition that will increase vessel longevity, eliminate risk, and reduce down-time



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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