A CASE STUDY IN ENGINEERING, EXPERIENCE, AND EXPERTISE

Reverse Engineering Cuts Costs & Corrosion

Texas Gulf Coast

SITUATION

A large chemical plant on the Gulf Coast needed to replace tip and riser components of multiple process burners operating in an olefins unit due to recurring corrosion issues. The original equipment manufacturer (OEM) offered to supply like-in-kind parts for the system, meaning the chemical plant would be purchasing replacements with the same underlying corrosion issues. Seeking an economical solution to address the problem's root-cause, the chemical plant called on Zeeco to engineer the replacement parts.

CHALLENGE

Because a competitor of Zeeco originally supplied the process burners, our Aftermarket team needed to reverse-engineer replacement components for the system. The new components' designs needed to solve the underlying issue leading to corrosion while maintaining personnel safety and burner efficiency.

SOLUTION

To prevent future damage from corrosion, Zeeco's Aftermarket engineering team chose to fabricate the replacement burner tips and risers from stainless steel instead of carbon steel used to make the original components. The team also identified an opportunity to simplify production and reduce manufacturing costs by shortening one of the tips' overall length – moving the threads further from a radius in the riser.

RESULTS

Operators in the chemical plant approved Zeeco's engineered solution. All 120 replacement burner components arrived at the site by the expected delivery date – within six weeks of the order's receipt. The customer has not reported any corrosion issues since the installation of the new risers and tips.

Competitor Part

ZEECO® Replacement

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