

GLOBAL MAINTENANCE *Review*

**HYDROCARBON
ENGINEERING**

provides an overview
of maintenance projects
undertaken around
the world over the past
12 months.

CASE STUDY

USA

After years of aiding customers faced with a sudden need for replacement parts or equipment, the Zeeco Aftermarket Parts and Service team decided to change nearly every aspect of their method when undertaking tight turnaround projects for customers. Zeeco implemented several key changes in the critical path for most replacement or refurbishment projects to shorten response and delivery times and to improve production in both the regular and aftermarket workflows.

Key attributes of the Rapid Response Team (RRT) approach include:

- Experienced at estimating and engineering resources.
- Separate production facility with machining, welding, plasma cutting, pipe bending, cutting and threading all in house.
- Purchasing and supply chain management.
- Separate quality control/inspection team.
- Packaging and shipping.
- International manufacturing facilities for worldwide project response.

Bottlenecks are the most common problem when quick turn maintenance projects necessarily interrupt the existing production schedule. Maintaining a separate aftermarket workflow helps to solve this issue. In most shops, inserting a 'have to get it out today' product into the mix delays both the priority project as well as the existing product and regularly doing it can hamper long term efficiencies and employee morale.

Refineries and chemical plants experiencing an unplanned outage due to equipment failure or damage count the cost per hour until the plant is up and running again, so the pressure to deliver a replacement part as soon as possible can be intense. Zeeco's RRT is built from the ground up to handle the pressure from the quote/engineering process through to shipment or installation of the new part.

One US Gulf Coast refinery recently experienced an upset in production on a Friday, initiating what is known as a 'Friday fire drill' as the maintenance and operations team at the plant tried to source must have parts. The RRT went into action and had pilots, auxiliary lances, wind boxes, gas tip and riser assemblies, plenums, and burner tiles all produced and ready to ship by Tuesday. A follow up visit from the Zeeco Houston office experts to ensure the problem is fixed for good signalled the final step in quickly responding and solving a maintenance crisis.

The RRT regularly replaces gas tips or other parts on an expedited basis, whether Zeeco brand or a competitor's, keeping customer outage times to a minimum. Last November, a Midwestern US refinery in the middle of a plant turnaround discovered a need for gas and pilot tips and pilot mixers. The order grew to more than 100 tips and parts, without there being any stock on hand. The RRT process allowed Zeeco to make and ship all the needed parts in less than a week, achieving a faster response time for the customer while eliminating the stress of starting and stopping production lines for emergency parts.

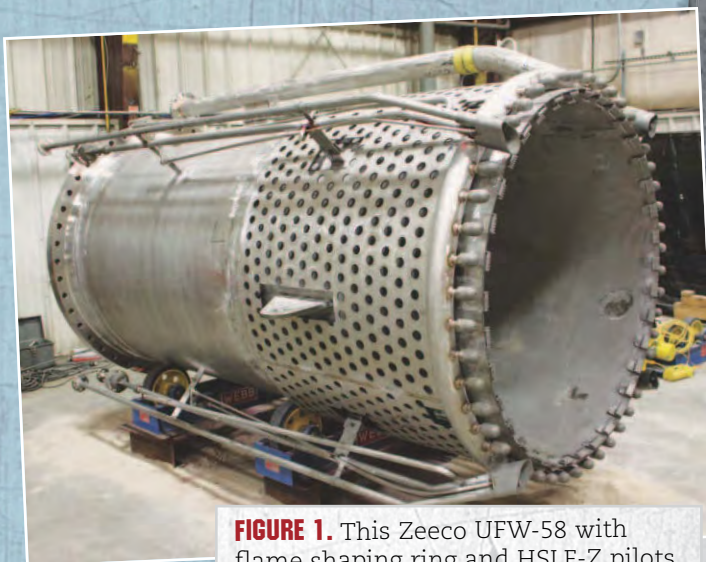


FIGURE 1. This Zeeco UFW-58 with flame shaping ring and HSLF-Z pilots was produced for one of the world's largest LNG producers through the Zeeco Rapid Response Team.

MIDDLE EAST

SAUDI ARABIA

Zeeco, Inc. recently worked with Ar-Razzi, a methanol refining facility located in Eastern Province, to refurbish a steam ring and flare tip for a demountable flare within their six day plant turnaround schedule.

Zeeco's Aftermarket Rapid Response Team quickly responded to the challenge with drawings and a quote delivered on December 18th. Faced with a tight four day deadline, Zeeco demounted and removed the damaged parts, refurbished both the steam ring and flare tip, and then remounted them back onto the flare within 72 hours to

real time responsiveness^z



THE POWER OF Z

In an industry driven by tight turnarounds and critical paths,
there's no time to waste. Waiting for the call back.
Waiting for quotes, parts, and startup...

Built on a foundation of deep industry experience and having
engineered the most challenging combustion equipment
in use today, the ZEECO® Rapid Response Team
changes everything. Whether our burners, flares, and
incinerators or the competitions' equipment,
we help you stop waiting and start running.



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