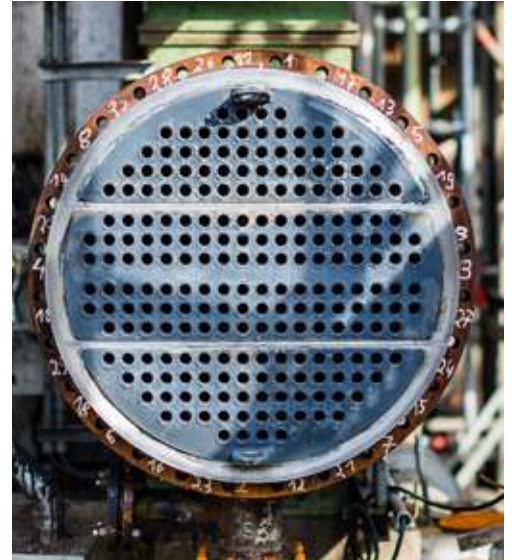


Customer Success Story: Major Oil and Gas Processor

How RevospECT HX Pro Automates Inspection Workflows

Whether they're involved in oil and gas processing, chemical production, power generation, or other industries, nearly every owner or senior manager of heat exchanger assets faces the same issues when they evaluate their inspection campaigns:

- Budget and schedule constraints can limit the scope they need, to the point where only a sample of the component tube population is examined with eddy current testing.
- Manual analysis is tedious and inspection teams may miss flaws while they have access to tubes and other components, leading to more downtime and costs.
- There are too few inspectors with the proper training, qualifications, and experience to analyze and report the data efficiently.



Reducing Inefficiencies

Any of these factors can cause asset owners to question the effectiveness of eddy current inspections.

"Technology changes the equation," says Tom Bipes, project manager for Zetec's RevospECT and Eddynet software business. "Automating the acquisition and analysis of eddy current data can eliminate repetitive tasks and streamline the process for evaluating signals of interest. It addresses virtually every inspection challenge for asset owners without adding cost or resources,"

Bipes recalls an oil and gas processor that contacted Zetec about using automation to improve the efficiency, probability of detection, and consistency of heat exchanger inspections at a remote refinery in Southeast Asia.

"Normally the plant operator's inspection team would collect eddy current data, save it on one computer, and then move to a different computer where another analyst would make a determination whether or not a tube should be taken out of service," Bipes said.

These steps alone took several hours. The final report was completed off-site and required another week or more.

"There was a 10- to 14-day lag from when the data was collected until it was analyzed and a final report was in hand," Bipes said. "The plant managers accepted these delays because they weren't confident that their personnel had the experience necessary to manually analyze and validate the results there on site."

Enter RevospECT HX Pro

Zetec's RevospECT HX Pro software automates and refines the process from acquisition through analysis of the inspection data.

Developed specifically for heat exchangers in nuclear and non-nuclear-power applications, RevospECT HX Pro automatically retrieves and analyzes eddy current data from heat exchanger tube inspections as it is being acquired.

This particular oil and gas customer implemented RevospECT HX Pro with little or no changes to existing inspection procedures, equipment, or staff.

"Today they're receiving analysis at the same rate of acquisition, or around 15 seconds per tube, and preliminary reports can be produced within an hour of completion," Bipes explained. "Furthermore, the process takes one person whereas previously required three. It's extremely fast and consistent."

A Tailored Approach to Implementation

Bipes noted that Zetec RevospECT HX Pro can be deployed in a variety of ways.

The most efficient solution is to integrate RevospECT HX Pro with Zetec acquisition test equipment and probe-handling hardware. This allows for automated acquisition analysis and reporting with minimal staffing.

A second solution is to use RevospECT HX Pro to produce an inspection analysis report and have a data analyst verify the results and make a final decision about how to respond.

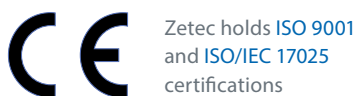
Other solutions include the use of RevospECT HX Pro with Zetec HDC, or Historic Data Compare. Zetec HDC can provide a full-tube comparison of historical data automatically, making it easier to consistently monitor changes over time. In a few seconds, an entire tube can be scrolled to view degradation in a true "apples to apples" comparison of inspection data.

RevospECT HX Pro can also use Zetec HDC as an independent detection method to look for indications that are present in the current data that were not there before.

Better Results

RevospECT HX Pro ensures that analysts can confidently classify all flaw indication types and return heat exchangers to service faster than with conventional manual inspections. It reduces lag time between acquisition and analysis, and gives you a high level of confidence that the inspection configuration will dramatically improve your ability to detect degradation and maintain the integrity of heat exchanger tubes.

"In oil and gas applications, automated analysis can expand your inspection scope, eliminate the variability of human performance, and deliver instant plug reports so you can return heat exchangers to service faster," Bipes said. "It enhances the abilities of the analyst to identify potential indications and perform more inspections in the same amount of time without increasing costs."



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