



EDDYTRONIC

Organismo de Inspección &
Certificación Industrial Ltda.

ZETEC
THE INSPECTION ADVANTAGE



Customer Success Story: Eddytronic

For Eddytronic, TOPAZ® 32/128PR Cuts Inspection Time By Up to 30%



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- Carlos Oliva
Technical and Quality Manager at Eddytronic

Boiler and pressure-vessel inspections require meticulous, code-compliant work. You can't trade off speed for a thorough job.

“Trust is one of the pillars of our business, and customers trust us to deliver technical advice and test results that are reliable and accurate,” said Carlos Oliva, technical and quality manager at Eddytronic, a Santiago, Chile, company that conducts a wide range of NDT inspections for power generation, transportation, and other heavy industries. “Customers also expect us to work quickly and without interrupting their own operations.”

Minimizing disruptions and maintaining productivity is a challenge especially when you use industrial radiography (RT) for vessel inspections. So Eddytronic turned to phased array ultrasonic technology (UT) for volumetric inspections of welded joints and heat-affected zones.

Eddytronic wanted a rugged, portable device that would be easy to use and work with a range of standard as well as custom phased-array probes and wedges. Its choice: the Zetec TOPAZ 32/128PR portable phased array UT instrument with UltraVision Touch software embedded.

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TOPAZ 32/128PR is a fully integrated portable phased array system featuring up to 32 active channels on up to 128 element probes. It can use the same 32 transmitters and receivers or can be operated in PR mode using up to 32 channels as transmitters and 32 other receivers for advanced inspections.

There are two high-quality channels for conventional UT: pulse echo, pitch-and-catch, or TOFD.

Oliva said one of the tool's most important features is processing power. A powerful processor combined with an onboard SSD (solid-state drive) can handle large data files without compromising acquisition speed. Plus technicians can create as many inspection groups as needed.

Powerful UltraVision Touch software and its intuitive touch-screen interface let the system perform complex tasks without making it complicated for the technician—or for Eddytronic. "This is advanced UT software and it's onboard the TOPAZ instrument," Oliva said. "It's a full version with no need for us to upgrade or buy more software."

The calculator enables inspections on challenging specimens like axial or circumferential welds (including different weld profiles), and it supports 2D matrix arrays probes. You can virtually position the probes on the specimen to ensure maximum volumetric coverage, and let UltraVision Touch guide the technician on site through these processes step by step. The software can display multiple views of the proposed inspection in one Scanplan-type image.

Sectorial and linear scanning combine to increase the covered inspection area while reducing scanning time. "We can do phased-array UT manually or with a semi-automatic crawler and inspect to a variety of standards including AWS, ASME, and API, among others," Oliva said.

"The speed and ease-of-use make TOPAZ and UltraVision Touch a superior combination for vessels compared to other systems on the market," Oliva said. "Now we're beginning to see its potential for the many different types of phased-array UT applications we perform."



Zetec holds ISO 9001
and ISO/IEC 17025
certifications



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