

Customer Success Story: TechCorr

At TechCorr, TOPAZ® 32 Boosts Inspection Productivity By 20%



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- Oswaldo Diaz ,
Manager of Advanced UT,
TechCorr

When Oswaldo Diaz evaluates phased array ultrasonic instruments, he’s not just looking for power and performance.

“We have a team of excellent phased array UT technicians, most with engineering degrees and all with at least 10 years of experience,” says Diaz, manager of Advanced UT for TechCorr, a leader in nondestructive testing services. “The right instrument helps technicians maximize their skills and time, which in the end makes their work more satisfying. This is a highly competitive market for UT technicians and we want to give our people the best equipment available.”

Based in Pasadena, Texas, TechCorr deploys a variety of advanced UT techniques, including advanced phased array UT, Time of Flight Diffraction (TOFD), and applications using robotics and other automated, mechanized devices. Much of its advanced UT work centers around the oil and gas business.

“Our main phased array UT applications are in fabrication shops where we’re inspecting vessels anywhere between one-half and 3 inches thick,” Diaz says. “We needed a self-contained and portable system with enough UT processing power for big inspection jobs and heavy use. The systems we used previously had overheating issues, which hurt productivity.”

Three years ago Diaz began to replace those systems with Zetec’s TOPAZ32 fully integrated portable phased array UT device.

Powered by UltraVision® Touch software, TOPAZ32 delivers everything TechCorr technicians need in one instrument. It has a full set of basic and advanced analysis tools (including volumetric merge, C-Scan stitching, gate selectors, volumetric contour, and thickness thresholding) with fully configurable graphic displays—technicians can create their own layouts to meet a specific requirement or personal preference. Ready-to-print custom PDF reports, including hardware settings, scan plan, and indication information, are generated with a single touch.

“I’d say our productivity with TOPAZ32 has improved 20% compared to other systems we’ve used,” Diaz says. “That’s especially true for inspections of long circumferential and longitudinal welds, large areas, and heavy-wall materials. From start to finish, the inspection process happens faster, with clear visual feedback, and, importantly, no fewer reliability issues.”

He says TOPAZ32 reinforces TechCorr’s reputation as a best-in-class service provider, and lets technicians make the most of their knowledge and experience.

Take, for example, TOFD channel creation and probe positioning. By setting the required depth of the crossing point of the transmitter and receiver beams, the instrument’s onboard PA calculator automatically determines values for probe-center or front-wedge separation. TOPAZ32 provides the technician with the beam divergence of the TOFD configuration, and the values of timebase start and range are automatically calculated and applied.

“It’s a significant benefit for the technician and for TechCorr to be able to get more jobs done in a shorter period of time,” Diaz says. “Of course, it helps the customer be more productive, too. The fabricators get instant, reliable feedback.”

Another advantage of TOPAZ32 is that 2D matrix array probe support is included without the need for any external software. Connect any Zetec probe or scanner and TOPAZ32 will recognize it automatically. Setups that require more complex probe configurations (annular, flexible, or custom arrays, for example) can be done in Zetec’s PC-based UltraVision 3 software and loaded into TOPAZ32 via a USB connection. The file format is the same for both platforms. “As an experienced phased array UT team, our strength is our ability to collect data quickly, analyze it accurately, communicate it clearly, and let fabricators get on with their job,” Diaz says. “TOPAZ32 helps our technicians be more efficient and our customers be more productive. It’s the best tool for the job.”



Zetec holds ISO 9001
and ISO/IEC 17025
certifications



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