

## Lifelike images of a pipe wall: ROSEN reveals new premium service

A pipeline's integrity is constantly threatened by corrosive environmental conditions as well as potentially corrosive internal media. Especially those assets that have been in service for a long time often show multiple defects, such as pinholes and preferential girth weld corrosion, or even more complex defect groups like top-of-the-line corrosion or microbially-induced corrosion, featuring pinholes in pits or even pinhole colonies. Although all defects bear certain risks and eventually need to be addressed, some represent more immediate threats than others. However, the smallest defects do not necessarily represent the smallest risks.

In the past, reliable detection and sizing of defect groups and minuscule defects like pinholes with a diameter of one millimeter (0.04 inches) or less has been all but impossible. Current MFL inspection services simply cannot deliver a signal that is dense enough to create realistic images of a pipe wall's surface. At the same time, large amounts of data constitute a challenge, as their complexity is likely to decrease the repeatability of evaluation results. The consequence is conservative integrity assessments, forcing operators to undertake expensive and often even unnecessary field verifications in order to obtain a realistic image of their asset's structure.



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Round-the-clock availability is essential. Which is why ROSEN provides second-to-none service delivery. Get what you need, where and when you need it. Every time.

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ROSEN's RoCorr MFL-A Ultra now addresses both of these challenges: With 1.6 x 1 millimeters, RoCorr MFL-A Ultra features the highest ILI resolution on the market. Full triaxial, ultra-high-definition MFL sensors detect even tiny changes in a pipe wall's structure, displaying what until now has often remained unseen. Unlike other MFL services, it scans the entire internal and external pipe wall. For the adequate assessment of the high-quality data, RoCorr MFL-A Ultra applies AutoData™—machine-learning, adaptive algorithms that are calibrated using high-resolution 3D laser scans of real pipe defects. These algorithms continuously evolve during their application and therefore constantly improve the quality of their results. Within seconds large amounts of data are processed, ensuring that all features are included in the evaluation process and final report.

Just like an MRI scanner provides lifelike images of the interior of the human body, RoCorr MFL-A Ultra produces lifelike images of a pipe wall's structure. The combination of triaxial ultra-high-resolution MFL sensors and an automated data processing application allows for veritable Pipeline Imaging™. RoCorr MFL-A Ultra operates under the same conditions (velocity, bend passage, temperature, pressure) as common MFL services. Moreover, the dual layer sensor design delivers both high- and ultra-high-resolution data in one run, providing a seamless connection to previous inspection data for corrosion growth assessments.

RoCorr MFL-A Ultra not only permits a realistic evaluation of a pipeline's current integrity status, but also ensures the repeatability of inspection results. More accurate river bottom profiles, higher sizing accuracy, and revised feature clustering will significantly improve the reliability of integrity calculations. This in turn will lead to conclusive integrity and MAOP assessments that actually reflect reality, ultimately avoiding unnecessary dig-ups and enabling operators to tap the full potential of their assets.



*The highest ILI resolution on the market:  
the new RoCorr MFLA Ultra tool*