

ROSEN Establishes RoCorr MFL-A Plus as Standardized Evaluation Approach in Routine Operations

Improved corrosion feature resolution and classification consistency at unchanged inspection performance

Stans, Switzerland. June 18, 2026 – ROSEN Group has transitioned its enhanced RoCorr MFL-A Plus evaluation methodology into worldwide commercial use, enabling a more comprehensive and consistent characterization of corrosion-related metal loss without altering inspection requirements, tool configuration, or operational execution. The approach delivers measurably improved assessment outcomes while leveraging the established capabilities of ROSEN's axial magnetic flux leakage (MFL-A) inspection fleet.

Unlike conventional enhancements that focus on sensor technology or data acquisition, MFL-A Plus introduces a systematic advancement at the data evaluation stage. The underlying inspection principle remains based on axial magnetic flux leakage: the pipeline wall is magnetized, and local disturbances in the magnetic field, caused by metal loss, are measured and recorded.

RoCorr MFL-A Plus retains this data acquisition methodology unchanged and introduces an enhanced interpretation workflow. The evaluation process is supported by ROSEN's machine-learning-based models, which are trained on extensive datasets of laser-mapped corrosion features. These models enable more efficient and accurate type classification by drawing on patterns learned from extensive training on large volumes of laser-scanned corrosion data, enabling defect identification based on similarities to previously observed geometries. Moreover, this special data-driven evaluation approach is designed to reduce variability caused by manual interpretation. It improves the detectability and reproducibility of smaller-scale and complex metal loss features, which have historically posed challenges in consistent classification and reporting.

As a result, RoCorr MFL-A Plus enables the systematic reporting of all feature categories defined in Pipeline Operators Forum (POF) specifications, including pinhole corrosion and axial slotting. These feature types are consistently incorporated into the integrity assessment in accordance with established industry frameworks. "The key innovation of MFL-A Plus lies in the evaluation layer," said Marc Fischer, Vice President Proficient Integrity Data Analytics, ROSEN Group. "By applying this special structured, data-driven interpretation methodology, we improve consistency and feature identification and classification capabilities beyond what is typically achievable through conventional manual processes."

The refined evaluation workflow supports a more complete representation of corrosion populations within the inspection dataset. By minimizing discrepancies and extending capabilities in feature classification and sizing, the approach improves transparency and reliability in integrity assessments while strengthening risk management. The accurate detection of deep, small-dimensional features, such as pinhole (PINH) and axial slotting (AXSL), ensures full coverage of corrosion dimensional categories defined by the Pipeline Operator Forum (POF), reducing the likelihood of unforeseen incidents caused by critical but easily overlooked anomalies.

From an operational standpoint, RoCorr MFL-A Plus is fully compatible with ROSEN's existing MFL-A tool fleet. There

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are no changes to inspection procedures, tool logistics, or deployment strategies required.

This compatibility enables integration of the enhanced evaluation into standard inspection programs, including combined inspection runs, without affecting planning assumptions- or execution-workflows. Moreover, it offers the flexibility to upgrade from standard MFL-A to MFL-A Plus when required, in most cases.

Fischer added: “A critical requirement was to maintain full alignment with existing inspection practices. Operators can seamlessly adopt MFL-A Plus at any stage of inspection or reporting, with no changes required to existing specification, scheduling, or execution workflows.”

Within ROSEN's corrosion inspection portfolio, RoCorr MFL-A Plus is positioned as the intermediate service tier between standard MFL-A and MFL-A Ultra. The tiered structure allows operators to align inspection outputs with specific integrity requirements, considering factors such as corrosion morphology, defect density, and required confidence levels.

The service has been deployed in commercial operations since 2023 with initial application in the Canadian market followed by broader implementation across North America and selected regions in Asia. To date, more than 150 inspection projects have been completed using the MFL-A Plus methodology across a wide range of pipeline configurations, operating conditions, and corrosion profiles.

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Photo: ROSEN Group

Caption:

Rendering of ROSEN's RoCorr MFL-A Plus Tool

About the ROSEN Group

The ROSEN Group is a leading global provider of data-enabled, cutting-edge solutions and services in all areas of the integrity process chain. Since its beginnings as a one-man business in 1981, ROSEN has grown rapidly and is today a technology group that operates in more than 110 countries with over 4,000 highly qualified employees.

ROSEN's products and services:

- Inspection of critical industrial assets to ensure asset availability, reliable operations of the highest standards, and effectiveness
- Customized engineering consultancy providing efficient asset integrity management

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- Insights from unique and extensive data sets, combined with its advanced machine learning capabilities
- Production and supply of customized novel products and systems
- Market-driven, topical state-of-the-art research and development providing “added-value” products and services

For more information about the ROSEN Group, go to www.rosen-group.com.

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