MFL RunCom

Perform reliable, direct comparisons of corrosion growth between inspection runs to enable more accurate and cost-effective corrosion management

The ability to calculate accurate corrosion growth rates will be a key determinant in the success of your corrosion-management strategy and, consequently, the future integrity of your pipeline.

Increase the value of your data

RunCom™ is Process & Pipeline Services' suite of run-comparison software designed to analyze data from multiple in-line inspections. It performs a direct, quantitative comparison to provide your decision makers with actionable information.

Our highly skilled analysts use MFL RunCom to compare data from our MagneScan™ inspection tools. We have other RunCom software to compare data from our UltraScan™ WM inspection tools, as well as data from other vendors' tools. Importantly, UltraScan WM and magnetic signals can be compared in the event that successive inspection runs utilize different technologies.

The software details corrosion activity along an entire pipeline, confirms the effectiveness of past remedial measures, and provides the technical basis for safe and cost-effective remediation and operating plans.

Perform 'pure' comparisons

While less advanced comparison methods can indicate extreme corrosion growth between inspection runs, they cannot reliably quantify the precise extent or location of active corrosion. But this is exactly the level of detail needed to properly prioritize corrosion sites and develop successful, economical remediation strategies. In fact, it is for this reason that operators are advised to select a high-resolution inspection tool for their ILI activities.

MFL RunCom provides a superior solution because it does

not rely on previously processed data or second-hand information. One of the most common sources of error is the incorrect matching of corrosion sites. RunCom eliminates this possibility by comparing raw inspection signals side-by-side, instead of using data that has already been processed by other software. This allows 100% accuracy in matching corrosion sites. Through its signal scaling tools, RunCom adjusts for tool repeatability and maintains consistent sizing methods to minimize other error sources. This approach has proven to be up to three times more accurate than feature comparisons without RunCom.
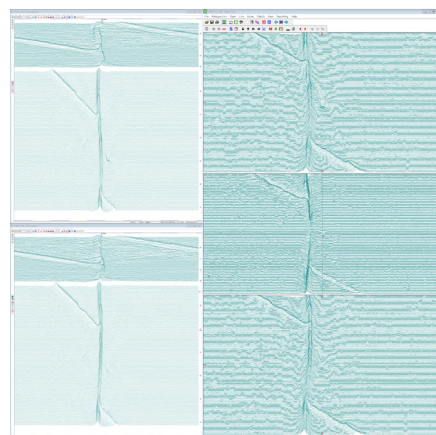
RunCom performs side-by-side matching of raw signal data from various inspection tools to deliver 100% data matching accuracy and identify corrosion growth sites.
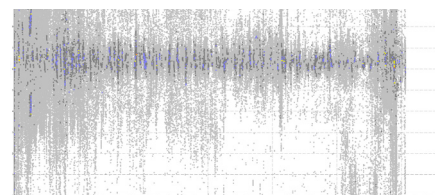
Corrosion growth information is provided for the entire length of the pipeline.

Since its introduction in 1999, RunCom has proven to customers worldwide that it determines corrosion growth rates with greater confidence and higher accuracy than other methods. The information provided in a RunCom analysis is invaluable in the decision-making process and prioritization of the remedial measures necessary to limit future corrosion growth.

This information, together with an advanced integrity evaluation, will optimize future repair and re-inspection needs—resulting in significant cost savings—when compared with estimated rates and codified corrosion assessment methods.

A RunCom Plus assessment is also available, which applies individual spool growth rates in an integrity assessment of the metal loss in the pipeline in order to determine a time-based optimized repair plan.

Procedure summary

First, data from two inspections is aligned by matching girth weld locations along the entire pipeline, taking into account any changes in pipe joint lengths due to cut-outs, etc.

- A comparison of the magnetic signal response from each tool is conducted at intervals along the line and signal scaling factors are applied to ensure the best possible match and minimize magnetic differences

- RunCom automatically matches the inspection signals from each survey, using pattern recognition algorithms

- By applying a single, consistent sizing model to each set of magnetically normalized data, RunCom removes additional potential inaccuracies to increase the level of confidence in the measurement of the corrosion rate

- The final step is to home in on identified growth sites and other major areas of interest and to quantify corrosion growth by analyzing the changes in the magnetic signals

The assessment report gives full details of where active corrosion has been identified on the pipeline and of any other significant changes that have occurred between the two inspection runs. RunCom reporting software is also available. It provides advanced filtering, navigation, graphing, and reporting to facilitate viewing, interrogation, evaluation, and exporting of the corrosion growth information from the RunCom analysis.

Additional reporting can also be provided including detailed listings of the external and internal corrosion growth rates along the entire pipeline on a spool-by-spool, feature-by-feature, and box-by-box basis, corrosion growth rate summary statistics, and charts showing the corrosion growth trends for the pipeline.

Alternatively, there is the option of a short RunCom Screening report which identifies the highest corrosion growth rates in the pipeline, recommending, if appropriate, a full RunCom assessment to be performed.
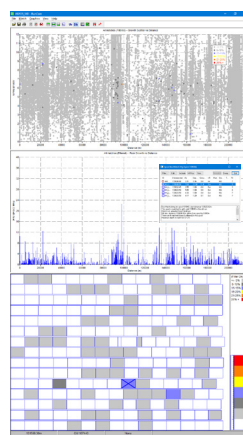
Example of viewing and analysis tools available within RunCom reporting software.
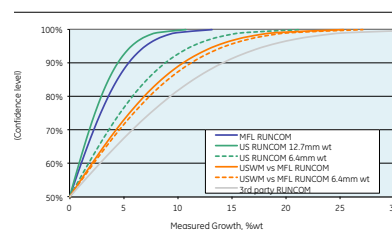
MFL RunCom typically delivers at least three times the accuracy of other box or feature comparison methods available.

Key features

- Detection of internal and external corrosion growth

- Joint-by-joint listing of corrosion activity

- Quantification of corrosion growth throughout the pipeline

- Identification of new corrosion sites and any other new features (e.g., dents, touching metal objects, etc.)

Key benefits

- Provides visibility of corrosion activity (and any other changes) along an entire pipeline

- Gives early warning of active corrosion which enables cost-effective, early intervention

- Confirms where remedial measures have been effective, thus avoiding costly future excavations and repairs

- Provides a segmentation of the pipeline based on corrosion activity

- Enables better-informed integrity and remediation planning decisions

- Optional RunCom viewing and reporting software available to interrogate and evaluate corrosion growth results

Baker Hughes

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