RunCom™

Perform reliable, direct comparisons of corrosion growth between inspection runs

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 Baker Hughes' 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 RunCom to compare data from our MagneScan™, VECTRA™ GEMINI, as well as data from other vendors' tools. Importantly, in the event that successive inspection runs utilize different technologies, our MagneScan and VECTRA GEMINI inspections can be compared.

The software details the 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.

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 minimizes this possibility performing a direct and quantitative comparison of the raw inspection signals. This enables very high 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.

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.
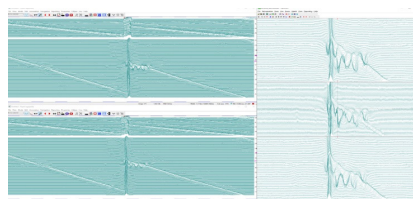
RunCom performs side-by-side matching of raw signal data from various inspection tools to deliver 100% data matching accuracy and identify corrosion growth sites.

Features and benefits

- Detection of internal and external corrosion growth
- Quantification of corrosion growth throughout the pipeline
- Identification of new corrosion sites and any other new features (e.g. dents, touching metal objects, etc.)
- Signal to signal comparisons across different inspection technologies e.g. MagneScan vs VECTRA GEMINI inspections
- 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

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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.

RunCom Reporting Options

There is the option of a short RunCom Screening report which identifies a selection of the highest corrosion growth rates in the pipeline, recommending, if appropriate, a full RunCom assessment to be performed.

Standard RunCom reporting comprises signal matching for the full line followed by a manual assessment of a large sample of features.

An additional RunCom spool-based report can be provided following the Standard RunCom service. This includes a detailed listing 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.
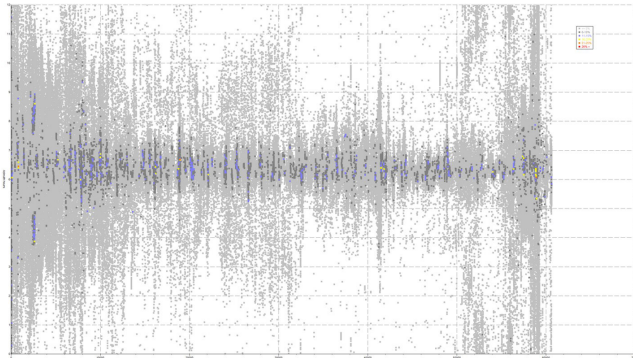
MFL RunCom typically delivers at least three times the accuracy of other box or feature comparisons methods available.

Related Integrity Assessments

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

The new RunCom Cluster Growth 3D assessment can be offered (with or after a RunCom assessment) to account for growth in all three dimensions (depth, length, and width). This most advanced assessment models the more complex interaction between nearby areas of corrosion to identify the

corrosion areas that are most likely to require monitoring or intervention between inspections. This new approach:

- Uses a probabilistic simulation model to select rates from local distributions (groups) to account for variability of growth rate over time.

- Accounts for growth in depth, length and width dimensions and uses the LAPA (RSTRENG) burst pressure algorithm for assessing Cluster severity vs time.

- Models the potential for future interaction between nearby areas of corrosion via a machine learning neural net model to predict plausible sites and patterns of new defect initiation.

- Produces two growth scenarios (worst case and expected) to provide flexibility for evaluating future repair needs and optimising reinspection intervals.
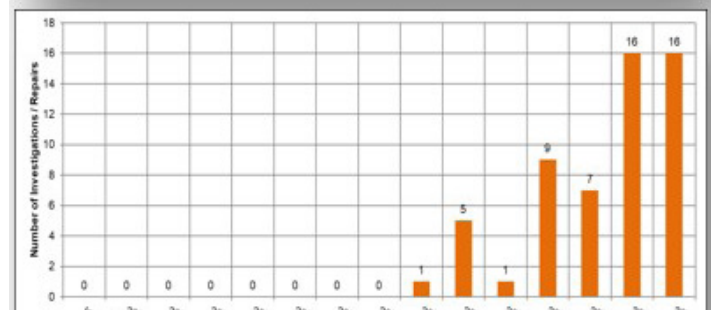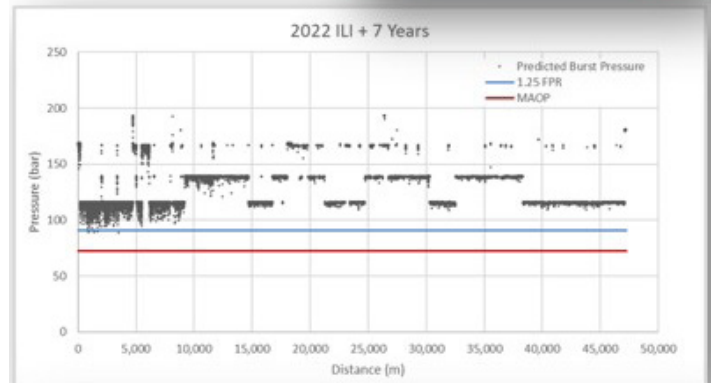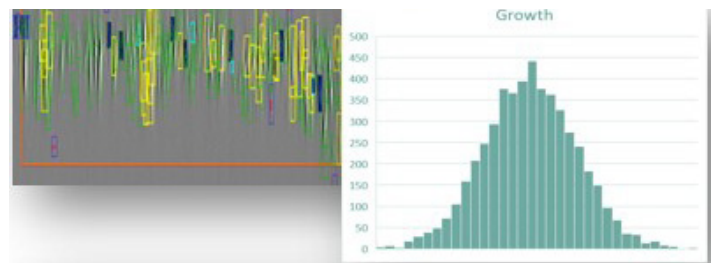
A cluster severity assessment is provided (at 50th & 95th percentile scenarios), using the RSTRENG assessment method, which provides cluster dig predictions vs time.

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