

ARTiS

Automated Reformer Tube Inspection System

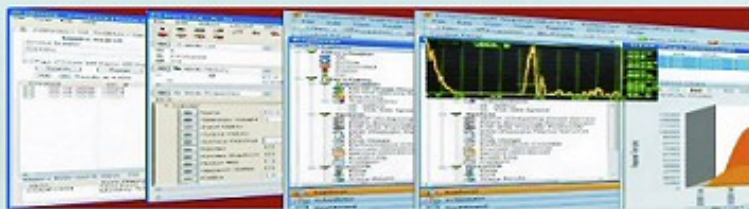
Launch of Fully Indigenous Product and Service



Exploring New Horizon in Inspection Services

Reformer tube inspection System:

One of the major concern in the maintenance of primary reformer is to predict the behavior of the reformer tubes. The prediction is based on selection of suitable inspection methods. Most importantly, the creep strain, mid-wall fissure detection and bowing measurement. ARTiS can perform all these tests at a time, providing integrated and interactive digital inspection record. ARTiS has leading advantage to inspect from external surface without removal of catalyst. The system measures creep strain with high precision IR sensors. Mid-wall fissures are detected through ultrasonic flaw detection. Use of gyroscopes measures precise level of bowing. More than a gigabyte of data is gathered for each tube inspected inclusive of flaw detection dB levels with screen captures, bowing and creep strain. Precision encoders used in crawling ensure accurate location of defectives and generation of 3D plots across length of tube.



Technology Developed by:

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MULTIPLE INSPECTIONS

- Fissure detection
- Creep strain measurement
- Visual aid
- Bowing measurement

INSPECTION BENEFITS

- Inspection without catalyst removal,
- No surface cleaning needed
- Automated crawling action avoids need for scaffolding
- Faster – precise PC controlled movement
- Full coverage across length of tube
- Built-in water tank for ease of ultrasound coupling. No need for overhead water drum arrangement

KEY FEATURES

- Single window operation that classify creep strain, mid-wall fissure and bowing in single run.
- Controlled through computer interface. No need for manual monitoring.
- Self calibrating.
- Skilled & trained manpower deployed at work
- Integrated software interface for digital review of report