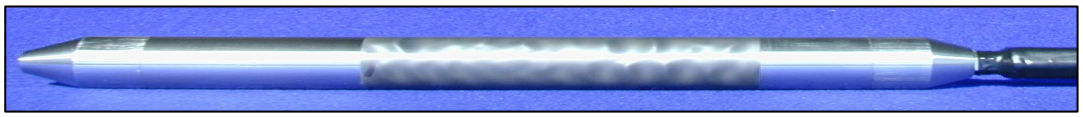
RUSSELL
NDE SYSTEMS INC



NEW INSPECTION TECHNOLOGY FOR PIT DETECTION ON PIPELINES

Russell NDE Systems Inc. is pleased to announce the launch of their new I-PIT and E-PIT technologies for pipeline integrity surveys:

I-PIT™ System *(Internal Pipeline Integrity Tool):*

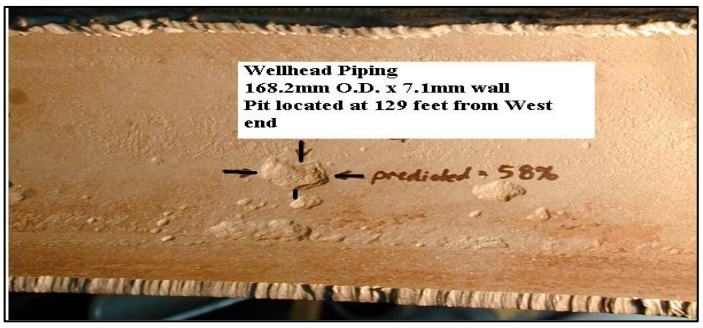
The I-PIT System represents a new technological breakthrough for the rapid inspection of pipelines for internal and external flaws; and is especially designed for pit detection and sizing.

A typical I-PIT tool is shown to the left, just after inspection of a 6" (150mm), 0.284" (7.1mm) wall thickness, seamless pipeline. The internal deposits of wax, oil and sand do not affect the detection of pits in the line.

In fact, the I-PIT tools have a tolerance of 0.250" (6.3mm) to allow passage of the tool past weld roots, dents and internal deposits.

The internal pits shown in the pipe sample to the right were detected by the same I-PIT tool shown above.

Distance to the pitted areas is measured with an odometer which is accurate to within 1" (25.4mm) over distances of 330' (100m).



I-PIT tools are introduced to the pipeline at a cut end and can be pushed by hand or air pressure to the target distance.

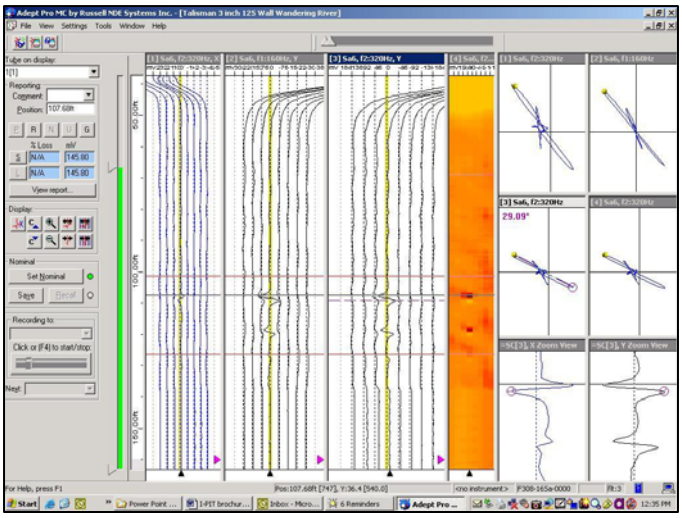
They are then winched back using a simple hand or electric-winch.

Inspection speed is 33'/min (10m/min), and data are displayed immediately following the inspection, on a portable computer.

Data analysis is semi-automatic and a report is created as the analysis is being performed. Depending on the line condition, analysis and reporting can be done in the field, but is usually done the next day, off-site, to reduce labour costs.

The multi-channel I-PIT tools inspect 360° of the pipe and display the data as color map, strip-chart log and voltage plane.

Unlike MFL tools, I-PIT tools contain no magnets, so they can be pushed with relative ease for up to 330' (100m) each way from an access point. The data to the right shows two pits located at 6 o'clock in a gas pipeline



Applications:

- After a pipeline failure: check 100m each side of the repair for more corrosion damage
- Check an old or abandoned line before re-commissioning it
- Pipelines from 2" (50mm) to 8" (200mm) diameter, in wall thickness to 0.375" (9.5mm)

E-PIT™ System *(External Pipeline Integrity Tool)*

E-PIT System Tools are designed to inspect pipes from the outside surface to detect internal pits.

This is useful for situations where a pipe must be inspected before it is taken out of service.

E-PIT can inspect through coatings (e.g. Yellow Jacket™) of up to 0.200" (5mm) thickness.

E-PIT System Applications:

- Detection of internal pits in pipelines without need to remove coatings
- Detection of internal pits in process plant piping
- Detection of internal pits in boiler tubes

I-PIT and E-PIT probes connect to the Ferroscope 308

Ferroscope Specifications:

- Number of channels: 16 absolute plus 16 differential
- Number of frequencies: Two (10 Hz to 20KHz)
- Sample Rate: selectable to 1000 SPS
- Power: 85 to 264 VAC at 47 to 440 Hz, or 120-250 VDC
- Odometer interface built-in
- FCC, CE, CSA certification

Ferroscope Applications:

- Pipelines, piping, boiler tubes, heat exchanger tubes and flat plate.
- Ferrous and non-ferrous materials

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