

External Pipeline Inspection Tools

OVERVIEW

The AESL Pipe Inspection Tools allow rapid non-intrusive assessment of the condition of iron or steel pipes. Internal and external corrosion is identified and measured, providing accurate inputs to condition assessment models.

Tool operation is based on measuring magnetic flux leakage. For 3", 4" and 6" diameter, the pipe is inspected in a single pass using tools with full circumferential sensors.



Larger diameter pipes are inspected in segments.



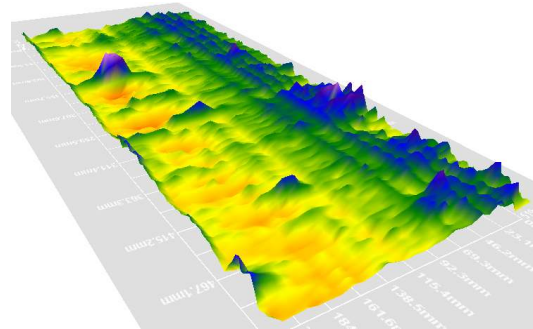
For buried pipe the removal of the soil residue is required prior to inspection. Coatings thicker than approximately 5mm must also be removed.

The inspection tool measures the remaining metal in the pipe wall and differentiates between internal and external corrosion. Corrosion patterns and individual defects can be identified and sized.

INSPECTION PROCEDURE

The inspection tool is fitted to the pipe and traversed along the length to be inspected. A hand held PDA computer communicates with the tool using 'Blue Tooth' technology and controls the inspection process, confirms inspection outputs and analyses the transferred data. A GPS unit automatically records the location at which the pipe is inspected.

INSPECTION OUTPUTS



Once collected, analysed, and validated on site, the inspection data and site photographs are transferred to the AESL office. This allows immediate preparation of inspection reports, which can be formatted to meet customers' requirements. Reports normally include sizing of the most significant external and internal defects together with prediction of remaining life. The GPS output allows easy and effective mapping of patterns in pipeline condition.

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