

CASE STUDY

ADVANCING CUI INSPECTIONS WITH THE ART G6+ CRAWLER (AUTOMATED RADIOGRAPHY TESTING)

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BACKGROUND

Corrosion Under Insulation (CUI) remains one of the most significant integrity challenges in refinery and process plant environments. Traditional inspection methods can be costly, time-consuming, and difficult to perform safely in restricted-access areas.

THE SOLUTION

Developed by our partner MISTRAS, the latest ART G6+ Crawler is designed for inspections in tight-access and congested operating environments. Deployable via rope access, it is particularly suited to refinery and process plant applications where conventional access methods may be impractical or expensive.

Compared to previous generations, the G6+ unit is smaller, lighter, and easier to manoeuvre while maintaining the same high inspection capability. These improvements enable faster deployment and better access to challenging inspection locations without compromising data quality.

OUTCOMES

A recent project for a Tier 1 Australian client demonstrated the operational and commercial benefits of robotic CUI inspection technology, including:

- ✚ Reduced costs through lower access requirements and more efficient inspections.
- ✚ Faster inspection completion, minimising operational disruption.
- ✚ Improved inspection quality through consistent data collection and better access to difficult-to-reach areas.
- ✚ Increased productivity, allowing more assets to be inspected within the same timeframe.
- ✚ Faster delivery of inspection data, supporting quicker integrity assessments and decision-making.
- ✚ Zero safety incidents, with all work completed in compliance with site HSE requirements.

CONCLUSION

The successful deployment of the ART G6+ Crawler demonstrated a safer, faster, and more cost-effective approach to CUI inspections. Combining advanced robotic technology with rope access capability, the system provides a practical solution for inspecting critical assets in complex operating environments while improving safety, efficiency, and overall inspection performance.

