

# In The Pipeline: Measuring Wall Thicknesses To Detect Corrosion

Imperial College London



Measuring the wall thickness of pipelines that transport natural gas and petroleum is key to detecting corrosion and defects. But this can be challenging when pipelines possess high temperatures. Standard ultrasonic transducers — devices used to measure pipeline wall thicknesses — can be destroyed by excessive heat.

Professor Peter Cawley of the department of engineering, Imperial College London, England, invented a cost-effective means to attach ultrasonic transducers to pipelines without risking their destruction due to high temperatures.

“ *The product resulting from the development program uses a wireless data transmission capability, thereby removing the risk of damage to the measurement tools.* ”

Funding for the original research came from the Engineering and Physical Sciences Research Council, the United Kingdom's governmental agency for funding university research grants for engineering and physical sciences projects. The patented technology was first licensed in 2006 and will be deployed extensively.

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