

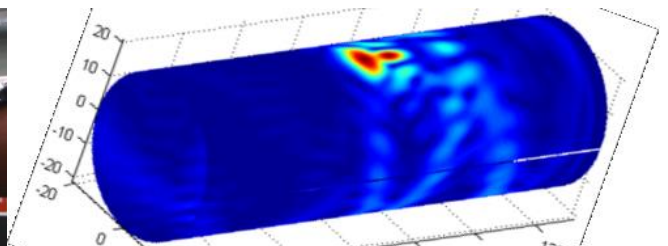
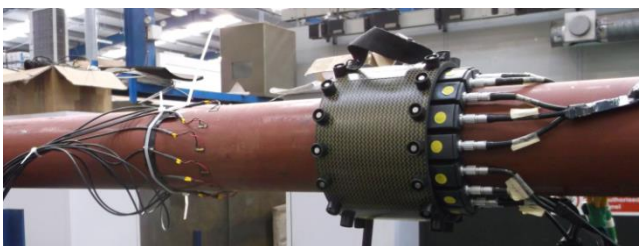


‘Medium-range ultrasonic inspection technique for detecting micro-biologically induced corrosion in automatic fire sprinkler systems’

Fire sprinkler systems are usually subject to a regular visual inspection to identify problems as soon as possible allowing plenty of time to plan remedial works at a convenient time. Occasionally, a more detailed inspection may be necessary e.g. when making a decision to replace a fire sprinkler system. Currently, the commonest way to determine the internal state of a fire sprinkler system is to drain the system and perform an internal inspection of the pipework. The inspection reveals the residual contents of the pipework and the severity and extent to which the internal wall of the pipework has been corroded. The draining of the system and the internal examination is inconvenient, time consuming and expensive.

The SprinkTest project aims to develop a system to inspect lengths of pipework and detect focal corrosion pits in the wall of the pipe prior to a breach of the pipe wall without draining or decommissioning the sprinkler system in any way. Utilising ultrasonic guided wave technology, the system has the potential to inspect entire, straight lengths of pipework in a single session from a single point and detect millimetre scale corrosion pits in the pipe wall. The system should also be capable of determining distributed wall loss through corrosion and also detect occlusion of the pipe by corrosion by-products or externally introduced foreign material.

The system will be portable and convenient allowing quick, cost-effective and detailed inspections of pipework without disturbing the normal operation of the system and its environs.





The SprinkTest consortium

The European Fire Sprinkler Network (EFSN), a not-for-profit organisation for the public good, is a coalition across the fire safety, political and other relevant communities which encourages the greater use of fire sprinklers to save lives and protect property and the environment. <http://eurosprinkler.org/>

The SprinkTest consortium enterprises



Founded in 1967, Baugh & Weedon Ltd (Hereford, UK) is one of the UKs leading NDE equipment developers and manufacturers. Uniquely, Baugh & Weedon are designing and manufacturing Systems and Instruments for Magnetic Particle (MPI), Liquid Penetrant (LPI), Ultrasonic (UT) and Eddy Current (ECT) Inspection. <http://bw-nde.com>



Founded in 1987 and located in Brussels, DVC provides a complete range of services (Electronic Manufacturing Services – EMS) and will accompany you through your project to produce the product that precisely fulfils your requirements. <http://dvc-co.com>



TecniTest is a non-destructive testing engineering company developing and marketing the most efficient solutions to particular inspection needs, together with an outstanding technical service. <http://www.tecniTest.com>



WLB is a consulting and software development company, established to service the needs of clients who need complex analytical expertise and advanced software solutions. <http://www.wbltd.eu>

The SprinkTest consortium research organisations



Innora SA is a privately owned profit R&D company which delivers high-added value advanced technology intellectual property (IP). Services include system design, complete integration and customization, support, and collaboration project development. <http://www.innora.gr>



We represent majority of ultrasonic research groups at Kaunas University of Technology, Lithuania. The ultrasound research in our university is counting more than 50 years of activity. Ultrasound research activities were initiated by prof. Baršauskas in 1960 by founding Ultrasound Laboratory. We are involved in many projects concerning various applications of ultrasonic techniques. <http://ktu.edu/umi/>



Plant Integrity Ltd manufactures the Teletest Focus Guided Wave NDE equipment commonly used for inspection and monitoring pipelines and tubular structures. Established in 1997 and wholly owned by TWI Ltd, Plant Integrity Ltd has been at the forefront of Guided Wave Research and is a market leader. <http://www.plantintegrity.com>

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SprinkTest is collaboration between the following organisations: Plant Integrity Ltd., WLB Ltd., TecniTest Ingenieros S.L., Baugh and Weedon Ltd., DVC Ltd., Innora SA, Kaunas University of Technology and the European Fire Sprinkler Network. The Project is co-ordinated and managed by Plant Integrity Ltd. and is partly funded by the EC under the Research for the benefit of SMEs programme. Grant Agreement Number 605050.

