

Capability Statement: Fitness for Service Assessments



Equipment in service may be subject to a variety of degradation mechanisms, e.g. corrosion, fatigue cracking. It is possible that after some time in service the condition of the equipment changes to the point where it no longer complies with the requirements of the original design code. This does not necessarily mean, however, that the equipment is no longer suitable for use. A more detailed assessment, based on consideration of fitness for service, may be used to demonstrate that continued operation is justifiable. A fitness for service assessment considers in detail the effects of the degradation present on structural integrity and allows robust decisions on continued operation to be made.

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Sonomatic has offices in strategic global locations so we can respond quickly to customers' requirements wherever they may be situated. Our high quality products are matched only by our customer service. In addition to our field services, we offer training and consultancy at our sites in the UK or at clients' premises anywhere in the world.

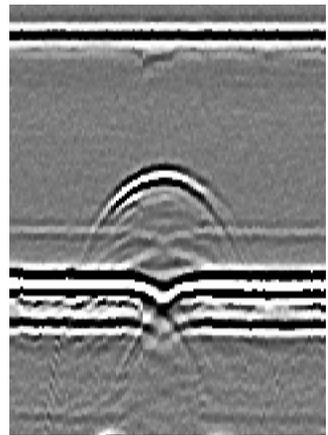
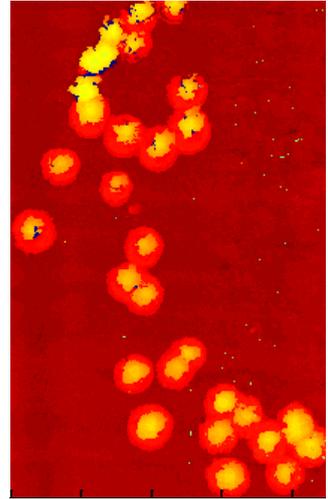
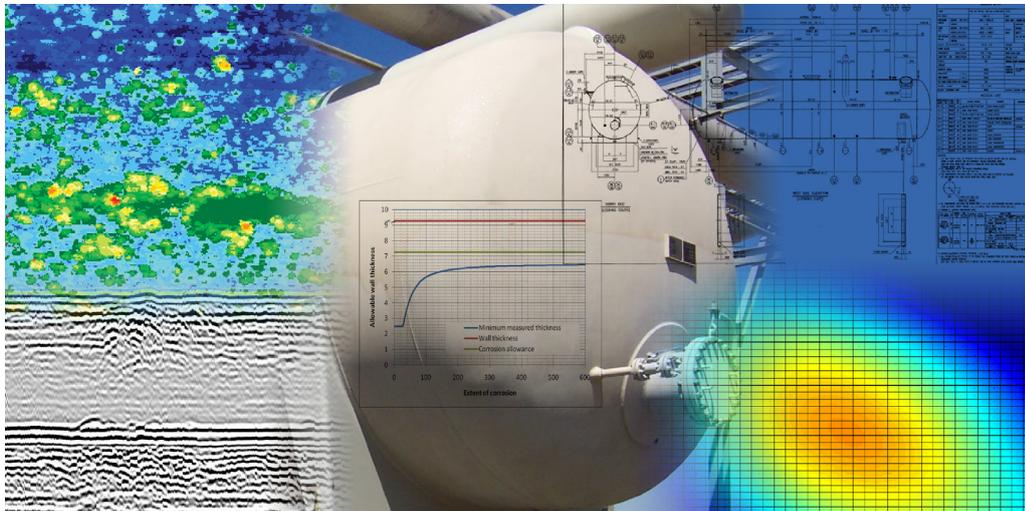
Sonomatic is committed to improving asset performance through applied and innovative technology; to delivering these benefits to our customers in the products and services that we provide; and to working with our customers, as value-added partners, to realise the maximum benefits of inspection technology.

Our capabilities in fitness for service cover the following.

- **Interpretation of inspection results** for defect characterisation. A good understanding of the nature of the defect and its dimensions is essential to reliable fitness for service assessments. Our involvement in inspection services means we have first hand experience in the interpretation and application of data from a range of inspection types.
- Fitness for service assessments in accordance with **API 579, BS7910, R6 and B31G**. These codes cover the majority of in-service defect types likely to be encountered in the Oil & Gas and process industries.
- **Corrosion engineering assessments to validate the type of degradation** and provide estimates of potential future degradation rates. This, coupled with an understanding of defect criticality, forms the basis for defining inspection intervals in management of equipment in-service.
- **Fatigue assessments** to estimate remnant life of equipment under cyclic stresses.

- **Statistical analysis of inspection data** to demonstrate that the required level of assurance is achieved by an inspection. This approach is applicable in cases when an inspection having limited coverage has been carried out.
- **Definition of future inspection requirements** to ensure ongoing integrity. A good understanding of the current condition of equipment, the likely changes in condition over time in service and the critical defect sizes allows a robust inspection strategy to be defined. This is further enhanced through specification of inspection techniques that are most effective in monitoring the type of degradation under consideration.

We understand that effective integrity management relies on understanding what defects are present, how they might evolve over time and what represents a critical condition. We therefore offer an integrated service covering inspection, corrosion engineering and mechanical integrity assessment. This allows utilisation of ageing equipment to be maximised while confidence in integrity is maintained.



QA and HS&E

It is Sonomatic's ongoing commitment to supply services and products, through the application of technical and engineering excellence, which complement both the customer's and our own QA and HS&E requirements.

Sonomatic's commitment to quality is maintained through continuous assessment and review of our Quality Management Systems to BS EN ISO 9001:2008. Sonomatic actively promotes the development, implementation and improvement of our QMS as a part of our ongoing drive to enhance customer satisfaction by meeting or exceeding customer requirements. In 2009 Sonomatic achieved UKAS accreditation as an Inspection Body to BS EN ISO/IEC 17020 (UKAS IB4276).