

# INDUSTRIAL 3D TOMOGRAPHY

# NOTHING TO HIDE?

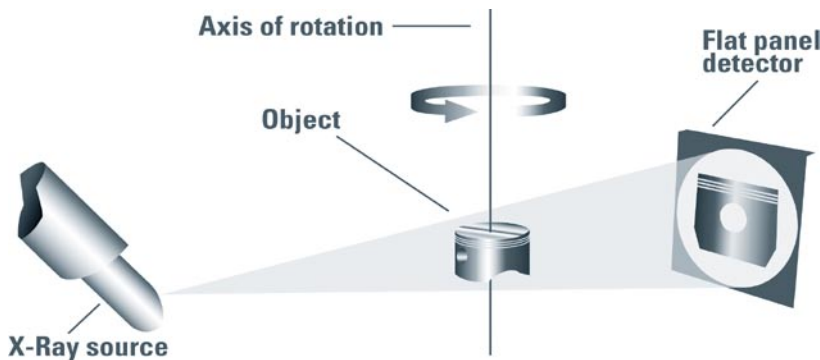
For decades we have studied on 2D representations of materials, to identify defects and possible causes for failure. 3D Tomography adds a new dimension to defect recognition, sizing and characterisation. This originally purely medical applied technology has high added values in failure analysis, 3D modelling and NDT validations.

cross sectional X-ray images from all angles in the computer which reconstructs the inner-structural image. High speed computers process the data into a complete 3D visual image to analyse and interpret. As the technology develops, both accuracy and object size are continuously improving. SGS operates extremely accurate and

SGS integrates material testing and field application of the best applicable NDT methods for both steel, polymer and GRP materials.

## THE SGS EXPERTS

SGS Industrial Services has the knowledge, expertise and experience to perform conventional and advanced NDT inspections around the world using our unique network. Our service offers varies from Guided Wave and the conventional NDT techniques to Risk Based Inspection (RBI/AIM), Time of Flight Diffraction (TOFD), Corroscan, Positive Material Identification (PMI), Magnetic Flux Leakage (MFL), ACFM, Leak Testing, Thermography, Electromagnetic Testing (ET), RFEC, IRIS, Digital Radiography, Radiation detection, RVI and Endoscopy Inspections.



## 3D-COMPUTERISED TOMOGRAPHY

Computerised Tomography (CT) visualises the physical structures of the interior of an object without physically opening or cutting it. This tool is extremely powerful to analyse root causes of failure. Also, when other technologies need to be applied in the field or performance tests are conducted, 3D Tomography delivers excellent insight in defect characteristics and calibration data. Composite materials, light metals and smaller parts can be 100% inspected and analysed.

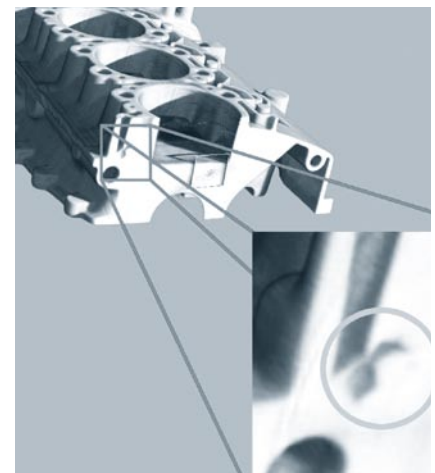
## INSPECTION TECHNIQUE

An X-ray generator and detector (Image Intensifier) are stationary and the sample is rotated during the examination. The digital detector registers 100's of single

powerful systems, to cover both micro structures and electronics as well as larger components.

## APPLICATIONS

- Micro systems acceleration sensor (pores in glass adhesive, inclusions in cavities)
- Crack detection inside the cement or polymer parts
- Inspection of GRP and CRP for internal discontinuities
- Evaluation tests of NDT procedures for detecting specific discontinuities
- Generation of calibration data to set up other NDT technologies
- Generation of 3D CAD data of an existing object for reproduction (reverse engineering)
- Optimising production methods of components and materials



We are pleased to provide services to any location around the world, pertaining as to how SGS can help you in improving the reliability of your processes and assets.

## CONTACT US

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