

Laboratory Solutions

Precision Testing and Expert Analysis for Gas Turbine Components

PSM Labs offers a combined 75+ years of extensive technical expertise along with its state of the art Materials, CMM and Radiographic engineering laboratory.

Full Service Laboratory

Over 75 Years of Experience

Our full-service lab offers a wide range of solutions, including first article inspection, materials engineering, reverse engineering PMAs, failure analysis, and materials characterization. Our highly experienced staff boasts diverse technical backgrounds in military, power generation, and commercial aerospace, as well as expertise in transportation, heavy industry, energy, marine, and consumer products.

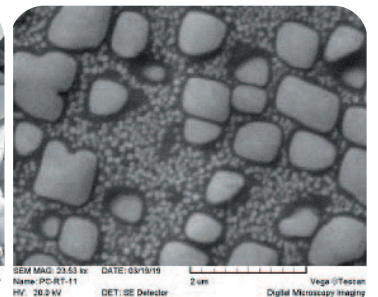
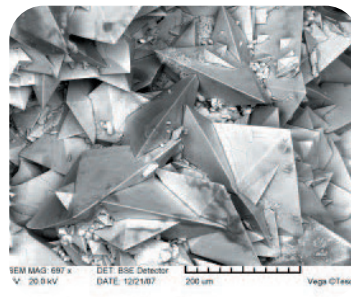


Multi-Industry Services

- + Metrology
- + Failure Analysis/Fractography
- + Materials Laboratory
- + Radiographic Testing (RT)

Laboratory Services

PSM's laboratory personnel work closely with our customers to evaluate and analyze parts and materials to comply with engineering specifications. We examine and identify engineering problems with objectivity and without influences. We identify failures or problem solving with full reporting to include solutions and/or root cause analysis.



Metrology

Our Metrology Engineering team uses the Atos Scanning System to provide you with 3D scanning services that offer quality measurement solutions. CMM and Faro Arms are also available depending on your requirements.

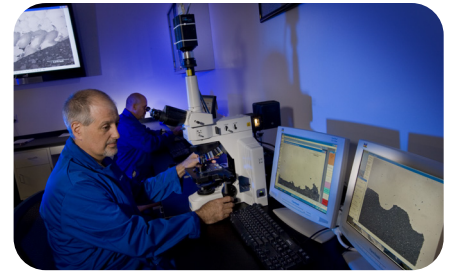
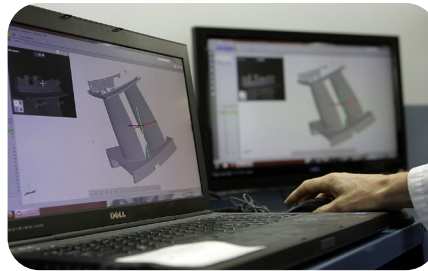
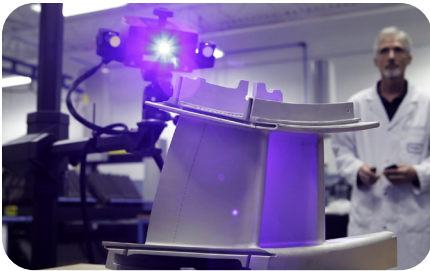
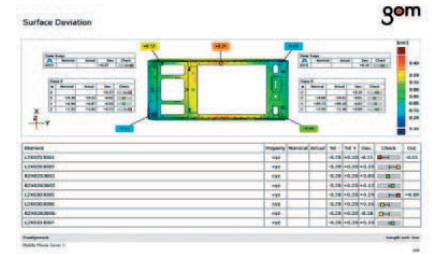
Whether you require an independent, third-party evaluation or lack the manpower or equipment for your workload, our Metrology team can help with your needs.

PSM Metrology services include:

- + Applied, Technical or Industrial Metrology
- + Dimensional Layouts
- + First Article Inspection
- + CAD-based Inspection and Comparison
- + 3D Scanning
- + Fixture Certifications
- + Casting Verifications
- + Reverse Engineering

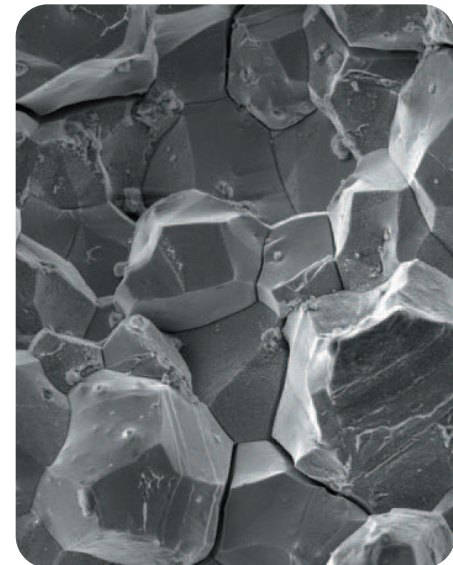
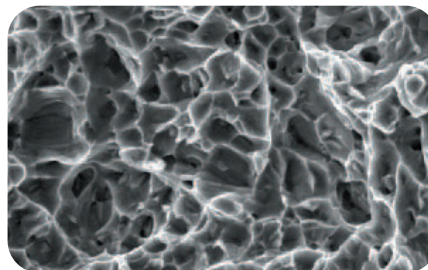
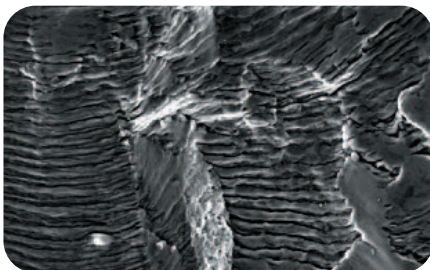
Equipment

- + CMM
- + Atos Scanner
- + Faro Arm



Failure Analysis/Fractography

- + Industrial Accident Investigation/Prevention
- + Personal Injury
- + Forensic Metallurgy
- + Fracture Mode and Origin Identification
- + Quantitative and Qualitative EDS Element Analysis
- + Elemental and Alloy Identification (SEM/EDS)
- + Scanning Electron Microscope Evaluation to 30,000x



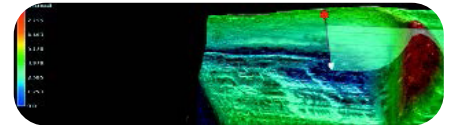
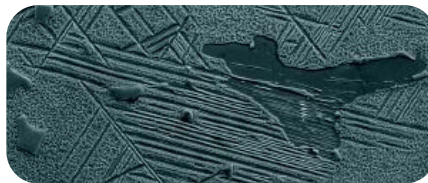
Materials Laboratory

Comprehensive Metallurgical Analysis

- + First Article Inspection
- + Failure Analysis/Forensic Metallurgy
- + Alloy Identification
- + Castings and Forgings Analysis
- + Coating Quality Assurance
- + Plasma Coating Bond Strength Testing
- + Weld and Braze Assessments
- + Micro and Macro Hardness Testing
- + Metal Temperature Analysis of Super Alloys
- + Debris Analysis
- + Warrantee Dispute/Product Liability
- + Expert Witness
- + ISO 14001 Certified

On-site Remote services

- + Microscopy
- + Hardness Testing
- + Replication/Etching
- + Alloy Identification
- + Photography



Radiographic (RT)

PSM's Industry-Leading Radiographic Inspection Capabilities

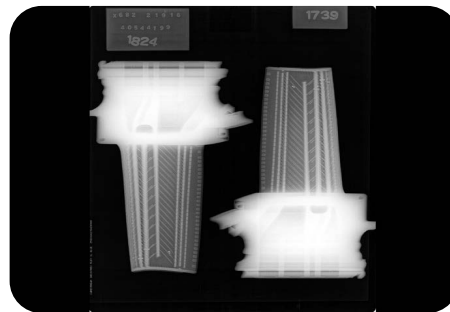
At PSM, we excel in radiographic inspection services across various industries. Our expertise spans from aerospace components to material samples, enabling us to support a wide range of projects.

Commonly inspected components:

- + Aircraft Structures
- + Castings
- + Forgings
- + Machined Parts
- + Pressure Vessels
- + Structural Steel
- + Valves and Components
- + Welds and Weld Overlays

Our radiographic inspection staff hold certifications in 10CFR34, ANSI/ASNT CP189, and ASNT IRRSP (Industrial Radiography Radiation Safety Personnel). Our Level II technicians utilize state-of-the-art radiography to detect microscopic cracks in metallic materials.

PSM's RT laboratory also performs Computed Radiography and Digital Radiography, two methods which produce an image in a digital format that can be viewed on any laptop or computer, eliminating the need for film and chemical processing.

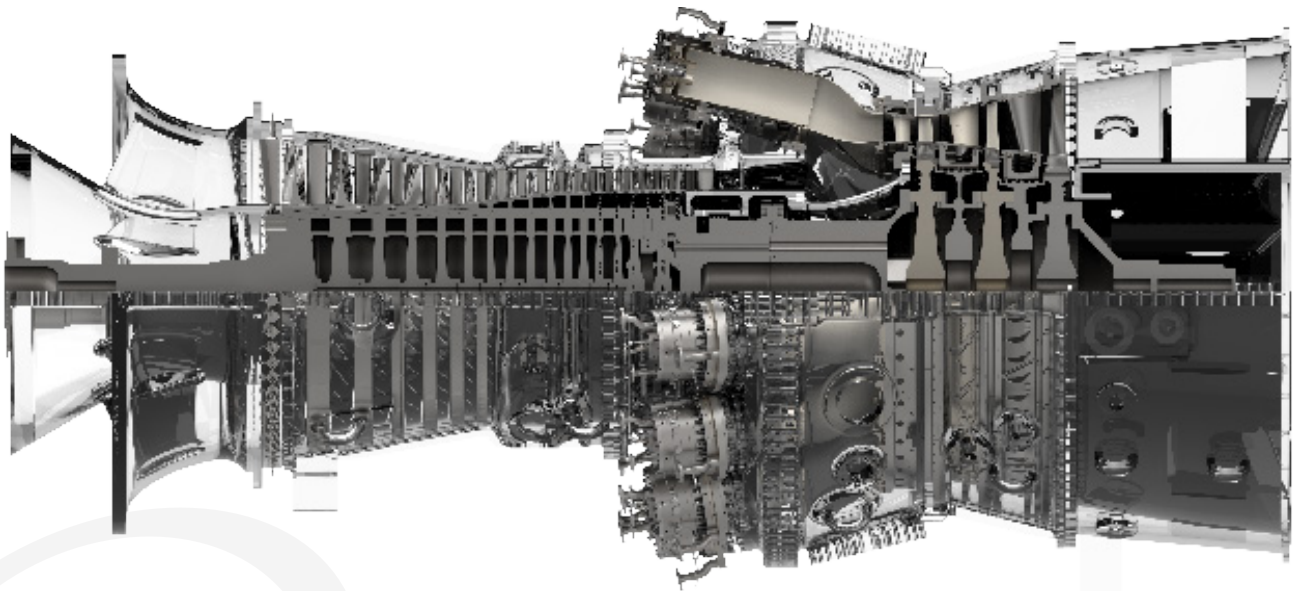


PSM - A Hanwha Company

The growing interest in the hydrogen economy is driven by the need to address climate change and transition to sustainable energy sources. However, challenges remain, including high production and storage costs, and extensive infrastructure requirements for distribution and transportation.

As a Hanwha subsidiary, PSM is uniquely positioned to leverage the expertise and resources of the Hanwha family to accelerate hydrogen development and adoption as a clean energy source. Hanwha's global presence and diverse business interests in areas like solar energy and defense provide PSM access to a wide array of technologies, markets, and partnerships.

Collaboration with Hanwha Q CELLS, a leader in large-scale solar projects, enables PSM to integrate hydrogen production with solar energy systems, fostering more sustainable and efficient energy solutions.



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