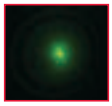
Defect Detection

>> Are you confident that the materials you use are fit for purpose?

>> Do you want more information about your products?

>>Are you looking for a fast, effective NDT service?

Laser Optical offer a complete defect detection service ...




Laser Optical
Engineering Ltd

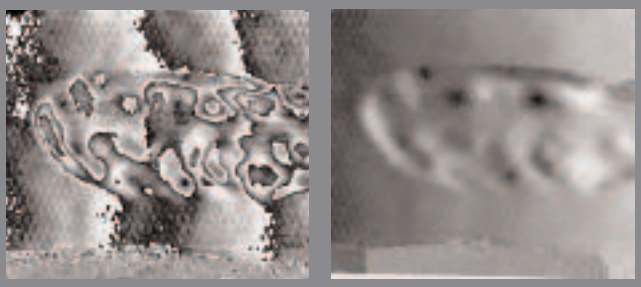
Defect Detection

Laser Optical offer a range of services to perform non-destructive testing to help you see what other systems don't; dynamic information capture of real-time data that is tamper proof and non contact. As experts in laser shearography, Laser Optical are able to offer a fast, high resolution, full-field and reliable measurement technique which is easy to understand.

Laser shearography has proven capabilities in determining faults in composite structures, especially those within the aircraft and marine industries. We have the ability to determine the weaknesses of any structure, including organic and in-organic. In addition to anomaly detection, this gives the user direct access to design integrity and enables lifetime prediction.

The Strain Mapper and the Vacuum Hood are two of Laser Optical's instruments which are used to determine both strain and surface changes on a range of materials. The benefits of both systems are that they are:

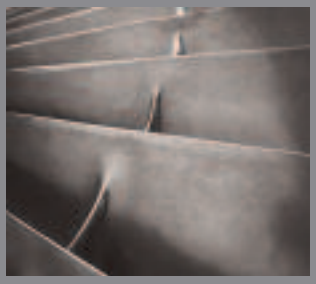
- used in the factory and in-the-field
- fast, efficient techniques taking an image in typically less than 20 seconds for instant viewing
- suitable for large or small areas



Wrapped and unwrapped image of defect. The unwrapped image highlights the relief, and nature, of the defect.

Commercial applications that successfully utilise this technology include::

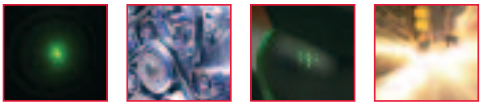
- Marine – currently used for new build, refit and accident investigations by lifeboat users
- Construction – assess the structural integrity of bridges
- Transport – within the rail industry to inspect bonding integrity and environmental effects
- Aerospace – determination of bonding strength in composite structures.
- Medical - prosthetic implant design evaluation and surgery investigations.
- Power Generation – gas turbine and wind turbine blade inspection



Laser Optical's analysis service extends to vibrational techniques to enable an understanding of how components behave as part of a working system. A survey is carried out using a whole-field, non-contact vibration analysis technique. Surface patterns show how the vibration is passing through an object and highlights it's design vulnerabilities and performance characteristics.

This technique is particularly applicable to internal combustion engines and their component parts, but also gearboxes and other assemblies where revolving or oscillating parts are involved.

Please contact us for further details or any of our services.



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