



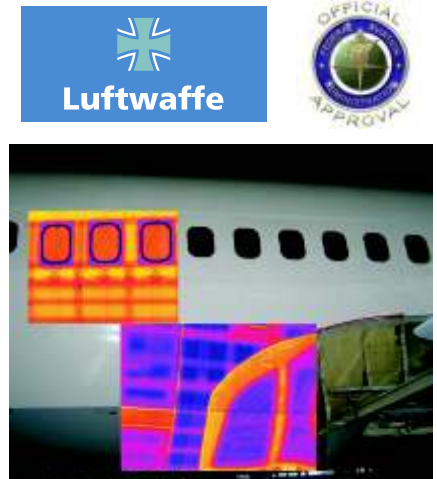
IrNDT - Solutions for Non-Destructive Testing

NDT Systems based on infrared imaging

JetCheck Inspection of aircrafts

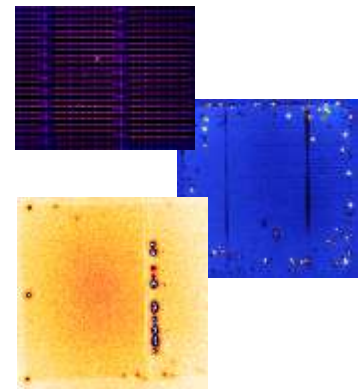
The JetCheck system is used for the quality assurance of aircrafts. It comprises all known NDT techniques based on active thermography and upon request also ultrasound. JetCheck can be used for the inspection of glued bondings and riveted joints in aluminum structures, as well as for the detection of delaminations and water inclusions in honeycomb and composite materials. The system has the approval of the FAA as well as of many renowned aircraft manufacturers, such as Boeing and Airbus. In the military sector JetCheck is used by the German air force for the inspection of all airplanes and helicopters in their air-fleet.

One of the main features of JetCheck is the possibility of inspecting big areas at once. Therefore it is a great tool to help inspectors decide whether an aircraft is safe for flying or not. All inspection results, parameters, airplane records, reporting tools, etc. can be easily managed through the JetCheck database.



SolarCheck Inspection of solar cells

SolarCheck is a complete modular system comprising different active thermography techniques for the inspection of solar cells, taking advantage of the fact that all elemental processes of a solar cell involve heat dissipation. The system was designed in a modular way to assure its adaptability to the inspection of all types and shapes of solar cells. Among the inspection techniques available we can name the Dark LockIn Thermography (DLIT) comprising electrical current modulation to stimulate the solar cell; or the Illuminated LockIn Thermography (ILIT) where a modulated light source is used as excitation source. These two methods enable, above all, the detection of local short circuits (shunts). Other inspection techniques available in SolarCheck are the emission analysis (Luminescence); as well as crack detection.



DashboardCheck Inspection of foamed components

DashboardCheck is a complete solution for the inspection of dashboards and other foamed components. The system is ideal for the fast and contact-free detection of air cavities within the foam. The system is available in two configurations:

DashBoardCheck Online: this configuration was designed for its integration into production lines and is ideal for 100% production quality control (inspection time 5 - 20 sec.).

DashBoardCheck Combined: this configuration comprises both the Online and the Offline inspection. It is ideal for process optimization and for the control of parts long after they have been manufactured.





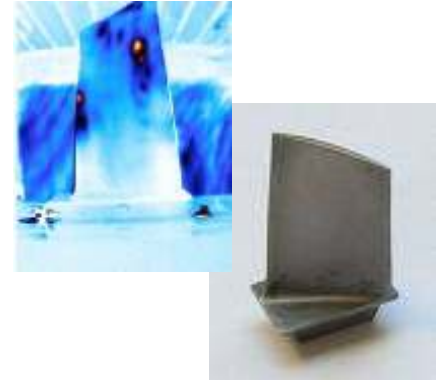
IrNDT - Solutions for Non-Destructive Testing

NDT Systems based on infrared imaging

CrackCheck Detection of cracks

CrackCheck is the ideal solution for the detection of cracks in a wide variety of materials. The working principle of the system is the LockIn or Pulsed stimulation of the inspected component with modulated high-power ultrasound energy while its thermal response is measured with an infrared camera. Some advantages of CrackCheck are the easy interpretation of the results, thus only the defects are displayed on the image, and most important, the defects are detected independently of their geometrical orientation. Normally a high depth range is achieved, in a relatively short measuring time.

A typical application for CrackCheck is the inspection of turbine blades. They are exposed to tremendous workloads and therefore need to be inspected regularly. CrackCheck allows reliable defect detection in a shorter time (< 12 sec.) than with conventional methods.



CompositeCheck Inspection of composite materials

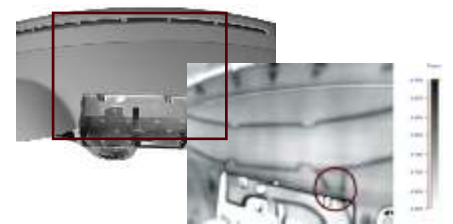
Components made out of composite materials (carbon fiber reinforced ceramic; carbon and glass reinforced plastics) are being used more and more in all possible fields, such as the aerospace, automotive industries. While the quality inspection of these new materials with most classic NDT methods represents a big challenge; active thermography provides magnificent results.

CompositeCheck comprises all known NDT-inspection-techniques based on active thermography. It was designed in a modular way to be easily adapted to meet the customer needs. It supports a wide variety of excitation sources, such as halogen, infrared and flash lamps, hot-air blowers, etc. It enables the easy and fast inspection of larger areas and can be integrated to industrial automated processes.



WeldCheck Inspection of welded joints

WeldCheck comprises a complete solution for the Non-Destructive Testing of welded joints on plastic and metallic parts. The system was designed to be integrated into production lines for 100% quality control (inspection time normally < 1 sec; depending on the material to be inspected). Not only does WeldCheck offer a solution for reliable defect detection; furthermore, the system is the optimal tool for process optimization and quality assurance documentation through its database interface enabling easy tracking of each manufactured part.



Automation Technology GmbH
Hermann-Bössow-Str. 6-8
23843 Bad Oldesloe
Germany

Tel.: +49-(0)4531/88011-0
Fax: +49-(0)4531/88011-20
Email: info@automationtechnology.de
Internet: www.AutomationTechnology.de