

Infrared thermographic (IRT) inspection & condition monitoring



The ability to instantly visualise and verify thermal performance in power generation is paramount for safety, environmental and commercial factors.

The Problem

Electrical connections or poorly lagged components can lead to adverse thermal efficiency and ineffective operation of plant. In addition, every employer has a duty of care to its employees whereby overheating joints or hot surfaces can be readily identified using IRT techniques.

The Challenge

To develop reliable and accurate IRT techniques to detect and measure deficiencies in plant such as inappropriately applied or slipped lagging, overheated electrical joints, blocked or thin furnace tubes, adverse temperature gradients in thick walled components and Condition Monitoring (CM) of plant systems when matched against technical limit on factors such as surface emissivity, flame temperature and environmental issues.

Our Solution

Specialist IRT cameras linked to bespoke analytical software has resulted in the resolving of many thermographic issues, through the identification of adverse temperature gradients and distribution patterns, local hot spots and thermal discrepancies.

Product

- IRT equipment interfacing with custom designed analytical software
- non-contact inspection tool, with appropriate camera/lens combination enables considerable distances to be interrogated
- quantifiable results
- permanent records incorporated into IM reporting documentation.

Benefits

- significant contribution to plant thermal efficiency
- extend plant life and reduce plant/apparatus unavailability through improved predictive maintenance
- on-line monitoring, no need to withdraw component from service
- wide range of applications, i.e. electrical, buildings, insulated plant, mechanical components such as, pumps, motors etc, process systems.