Thermographic Imaging

Reduces the Risk of Electrical Fire

What is it?

Thermographic imaging is a way of finding out how hot something is by measuring the amount of infrared radiation being emitted. This is measured using a thermal imaging camera which converts the infrared information to a temperature reading. Doing this allows you to identify potential problems with electrical and mechanical components and systems.

Thermographic Imaging helps detect electrical faults that maybe invisible to the naked eyes such as:

- loose connections
- faulty equipment
- overloads
- imbalanced circuits
- damaged / faulty switches
- faulty fuses
- arcing and hotspots
- other unwanted electrical condition

Benefits of thermographic scans

The benefits of conducting regular thermographic scans can be substantial, they:

- reduce the risk of electrical or mechanical faults occurring, leading to fire or major breakdown.
- reduce risk of personal harm to staff and visitors from fire or electrical shock.
- reduce costs of unscheduled maintenance and shutdowns.
- reduce repair costs by fixing a fault before major failure.
- help manage the risks to your property.

What should be scanned?

Thermographic scans of the main electrical switch and electrical distribution boards are most common.

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Contributing factors that indicate the need for a scan of electrical equipment include:

- Main switch or distribution boards featuring ageing or outdated components such as fuses or located in dusty or corrosive environments.
- Electrical equipment mounted on or near combustible material, or in open cabinets.
- Circuits loaded close to their maximum, e.g. new equipment installed on existing circuits.

How often should you get scans done?

Regular scans can form an important part of an effective predictive maintenance regime as they provide a record of the temperature changes over time.

In addition, ad hoc scans are also beneficial before and after any major system upgrades, especially when new equipment significantly increases the load on electrical circuits. Such scans can assist in making sure that equipment continues to operate within normal bounds after the upgrade. They also help verify that the upgrade has been completed correctly.

Accredited professional

Scans must be carried out by a person trained in:

- the use of a thermographic camera
- analysis of scans, and
- reporting and recommending corrective actions.

Scans should be completed under full load and all components should be open and uncovered during the scan.

Any written report should include:

- thermal images of the equipment,
- details and summary of findings, including temperature differences detected,
- actions including the priority of repairs.