

# Infra-red thermal imaging

Infra-red thermography involves nonintrusive scanning of mechanical and electrical equipment to assess thermal properties.

ETEL Services offers an online technique which gives best results when equipment is under higher loads. It is effective at diagnosing faults such as:

- High resistances including loose or corroded electrical fittings
- Overloading and overheating
- Insulation breakdown (electrical and thermal)
- Moisture ingress
- Bearing and alignment problems in rotating equipment
- Malfunctioning valves and heat exchangers

Equipment commonly scanned includes:

- Power electrical systems
- HV switchgear and lines
- Substations
- Distribution boards & Switchboards
- Heat and insulated systems
- Vessels, pipes and ducts
- Hydraulic systems
- Rotating mechanical equipment
- Kilns, ovens and furnaces

Thermal imaging can also be used to monitor process changes and time dependent faults using video storage. Safe access to live equipment can be ensured through the supply and installation of infra-red 'Windows' for covered equipment.

Accurate spot temperatures can be reported across an image from -40°C to 2,000°C.



Using ETEL Services will provide the following benefits:

- ✓ Class leading cameras and industry certified technicians.
- ✓ Formal reports within five working days