



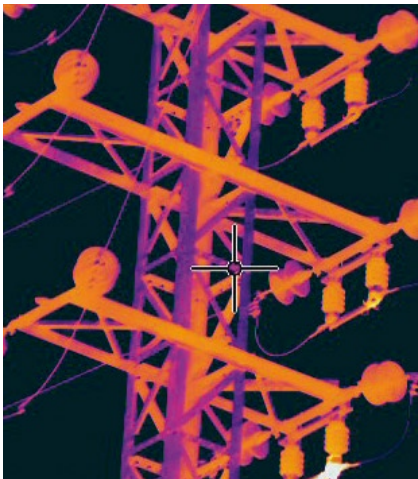
# THERMOGRAPHY

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Infrared technology is the perfect tool to support preventive maintenance management processes. After an initial survey, SGS will tell you where to focus and whether there are mechanical, electrical or heating issues to be addressed. Using infrared technology, SGS will identify where actions need to be undertaken.

Thermography is an inspection method which maps temperature differences of any object.

Temperature differences are caused by bad insulation, wall thickness variances, blocked heating pipes, incorrect process parameters and many more possible causes of future failure of your process equipment.



Thermal Imaging, therefore, is extremely efficient in identifying objects and parts requiring preventive maintenance in order to keep your process and assets operational.

Thermography can detect problems, prevent unscheduled downtime, guide needed corrective action and increase the safety of your systems. The application is non-contact and

non-invasive, so many objects or large areas can be inspected both cost and time effectively.

Thermography becomes most valuable when embedded in an onset integrity management program, to directly follow up and report corrective actions.

## THERMOGRAPHY IS

- non-destructive
- non contact and fast
- has a range of - 15 up to 1500°C
- does not effect the production process

SGS will mobilise the dedicated equipment needed to conduct the inspection. All images will be saved digitally during inspection. SGS has all the necessary software to make a detailed analysis of the images. After the analysis, the customer will receive a full colour report and assessment.

## MAIN APPLICATION AREAS

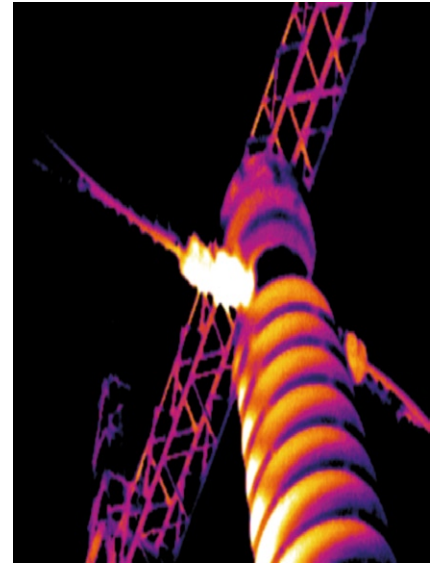
SGS mainly covers electrical, mechanical and structural systems in petrochemical plants, refineries, steel industry and power plants.

### ■ ELECTRICAL SYSTEMS

Our advanced thermacams can indicate electrical faults such as loose connections, overloaded or imbalanced circuits, faulty breakers, damaged switches, flawed fuses and a wide range of other unwanted electrical conditions

### ■ INSULATION EFFICIENCY

Refractory linings, pipe and vessel insulation, refrigeration units, cryogenic storage tanks can all suffer from breakdowns. Thermal imaging can test the efficiency of the insulation without shutting the equipment down. Areas that need to be repaired can be highlighted for the next planned outage.



### ■ MECHANICAL SYSTEMS

Excessive heat in mechanical systems is a sign of impending trouble. High temperatures can indicate intense excessive resistance, worn components lubrication failure, or other common problems that can lead to expensive or even catastrophic failures.

## THE SGS EXPERTS

SGS Industrial Services has the knowledge, expertise and experience to perform conventional and advanced NDT Inspections around the world using our unique network. Our services offer variations disciplines from Guided Wave and the Conventional NDT Techniques to Risk Based Inspection (RBI/AIM), Time of Flight Diffraction (TOFD), Corroscan, Positive Material Identification (PMI), Magnetic Flux Leakage (MFL), ACFM, Leak Testing, Electromagnetic Testing (ET), RFEC, IRIS, Digital Radiography, Radiation Detection, RVI and Endoscopy Inspections.

We are pleased to provide services to any location around the world, pertaining as to how SGS can help you in improving the reliability of your processes and assets.

## CONTACT US

[WWW.SGS.COM/NDT](http://WWW.SGS.COM/NDT) OR [INDUSTRIAL.GLOBAL@SGS.COM](mailto:INDUSTRIAL.GLOBAL@SGS.COM)

WHEN YOU NEED TO BE SURE

SGS