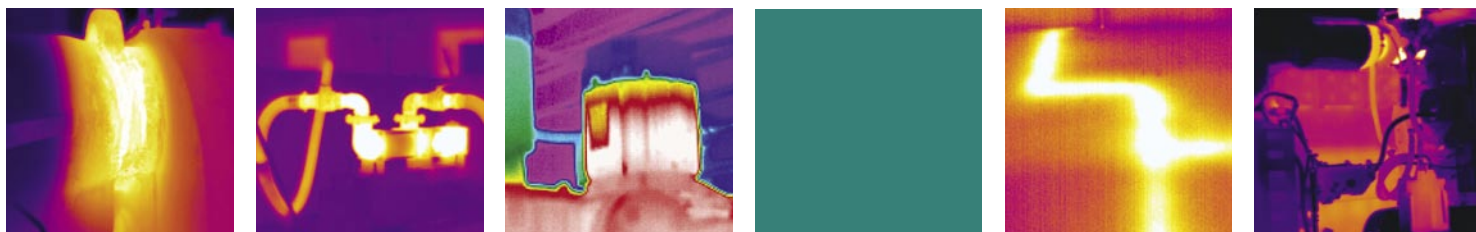


## Mechanical systems

**Thermaltec** is an independent company supplying thermal imaging surveys and inspections to domestic, commercial and industrial organisations in the UK and abroad.



**All mechanical equipment and components are subject to deterioration once commissioned. This deterioration may be in many forms, for example, vibration and misalignment, friction and wear, under or over lubrication.**

This deterioration will often result in friction and higher than normal operating temperatures which if left uncorrected will lead to equipment and component failure.

The environmental conditions of the mechanical equipment and components must also be taken into consideration. Plant is often operating outside and is therefore subject to extremes of weather which may result in additional corrosion and wear. Internal equipment may also be subject to harsh operating conditions such as chemicals and abrasives (and other aggressive materials).

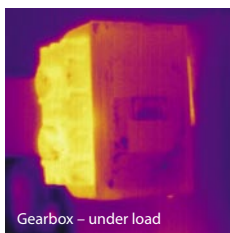
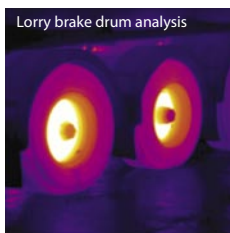
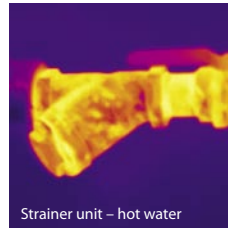
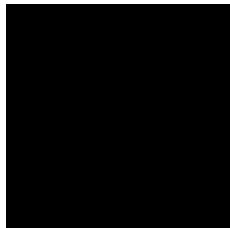
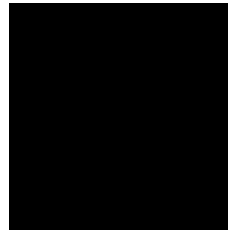
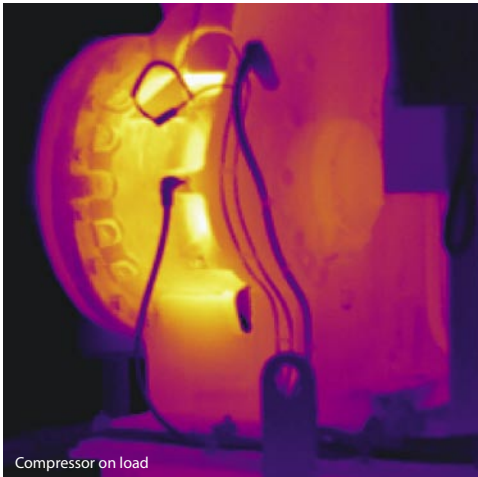
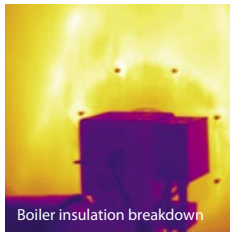
This deterioration of mechanical equipment and components is not always apparent or detected by conventional checks such as routine monitoring and maintenance or vibration and oil analysis.

However, when running and under load, these faults can become clearly visible with the aid of thermal imaging techniques.

In many cases this allows for instant fault diagnosis which in serious cases can be brought to the client's attention immediately, allowing the necessary remedial action to take place at an early stage.

# Key points

- ▶ Equipment and components deteriorate once commissioned.
  - ▶ Environmental conditions can increase plant deterioration.
  - ▶ If uncorrected failure will occur.
  - ▶ Faults are not always apparent with conventional testing.
  - ▶ Early stage remedial action.
- ▶ Faults can become visible with thermal imaging when energized.
  - ▶ Instant fault diagnosis.



## Mechanical applications include:

- ▶ Compressors
- ▶ Vacuum pumps
- ▶ Gear boxes
- ▶ Pulleys
- ▶ Couplings
- ▶ Bearings
- ▶ Drive belts
- ▶ Drive chains
- ▶ Valves
- ▶ Radiators
- ▶ Pipe work
- ▶ Ducting
- ▶ Insulation

**Contact us** for further information on how thermal imaging can enhance your company's performance and help detect problems before they happen – saving you lost production time and money.

**Thermaltec Ltd**  
42 The Drive  
Tonbridge  
Kent  
TN9 2LR

**telephone:** +44(0)1732 362385  
**fax:** +44(0)1732 362385  
**mobile:** 07920 772990  
**email:** david@thermaltec.co.uk  
**website:** www.thermaltec.co.uk

