

# Infrared Thermography

Services

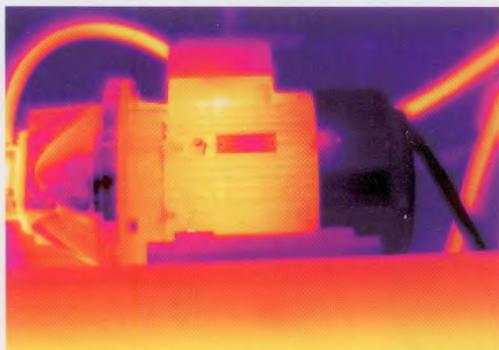
Magneto Electric offers non-contact Infrared Thermography Services to help detect problems early and under normal operating conditions.

This means no interruption to production schedules and it limits unexpected downtime due to equipment failures.



Whether it is electrical, mechanical, or process related, equipment failure can result in costly downtime, lost production, safety hazards, and increased maintenance costs.

Normally, equipment gets hotter before it fails and your plant's equipment is no exception!

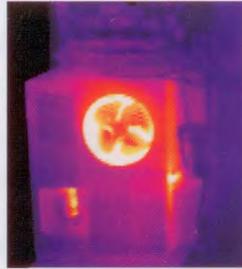


Infrared Thermography is a technology which allows us to see and measure thermal energy.

This energy is captured as images by a state-of-the-art Infrared Camera which are then

processed, analyzed and stored with our advanced computer software.

This technology, when properly applied, can detect problems early before they become failures.



Magneto Electric's Certified Infrared Thermographers will help you to improve your plant's reliability by applying the technology to any of the following areas:

- **Motors**
  - **Motor Control Centers**
  - **Transformers**
  - **Main Feeder Panels**
  - **Bus Ducts**
  - **Electrical Connections**
  - **Distribution Panels**
  - **Steam Systems (Traps & Lines)**
  - **Mechanical (Belts, Bearings, Etc.)**
  - **Insulation and Refractory**
  - **Building Thermography**
- ...and more*

## INFRARED THERMOGRAPHY SERVICES



*Magneto Electric's Certified Infrared Thermographers will help you to:*

- **Maximize plant reliability**
- **Optimize equipment life**
- **Decrease unplanned downtime**
- **Improve plant safety**
- **Minimize repair costs**

*"Keep your plant operating in the black - see it in infrared!"*

**Magneto Electric**

*Service Company Limited - Since 1946*

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Mississauga, ON L4W 2M6

Phone: 905-625-9450

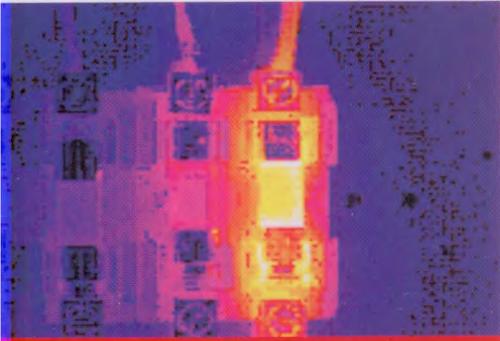
Fax: 905-625-4540

After Hours: 416-930-5858

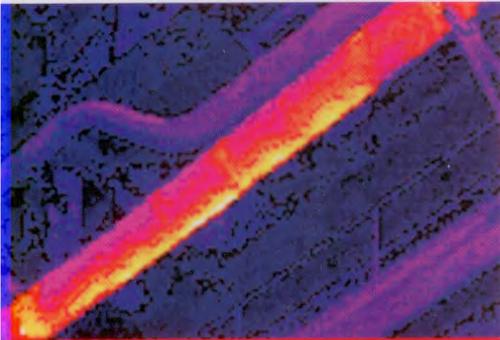
[www.magnetoeele.com](http://www.magnetoeele.com)



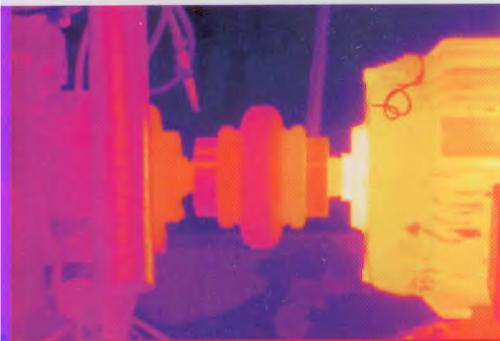
**3-Phase Connections**



**Fuse Inspection**



**Steam Lines**



**Mechanical Components**



**Insulation & Refractory**

### Scheduled Inspections on Motors

As a general rule, the insulation life of a motor is cut in half for every 10°C rise in temperature above its maximum operating temperature. As such, thermal energy, or heat, is the motor's worst enemy. How long the insulating material will effectively perform its function depends primarily on the amount and interval of heat to which it is exposed.

Performing regularly scheduled inspections on motors will reveal increases in surface temperatures which can help to predict future failures.

### Multiple Technologies for Motor Reliability

Magneto Electric's Predictive Maintenance capabilities extend beyond Infrared Thermography for your motor reliability. Should one of our Certified Thermographers detect a condition which could be adversely effecting your motor system, we will call upon our advanced Winding Analysis, Vibration Analysis, or on-site electrical service capabilities (if required) to confirm or address the problem, giving you the most accurate and informed service offering available.

### Scheduled Plant Inspections

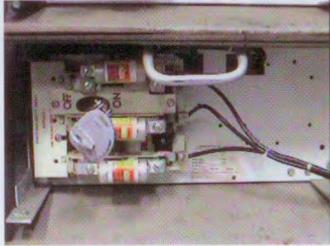
Performing regularly scheduled plant inspections for electrical connections, bus ducts, motor control centers, distribution panels, steam systems, insulation and refractory systems, and building thermography will all improve plant reliability and safety, as well as minimize unplanned downtime.

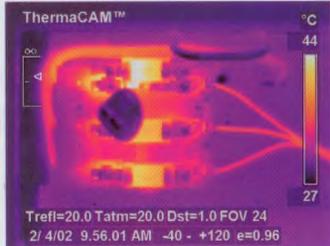
### Effective Reporting & Communication

The most critical component of any service offering is the effectiveness of communication between the provider of the service and the customer.

Clear, concise and easy to understand reports will provide accurate problem identification, the required corrective action to be taken, and the priority (or urgency) with which these identified problems should be addressed. Our reports are customized to suit your application, facility, and any specific requirements.

<b>Magneto Electric</b>	Inspected Equipment:	Operator:
	<b>Fuse Panel #9</b>	J.P. Pontet

<b>Identification</b>											
	<table border="1"> <tr> <td>Section</td> <td>Compressor Room</td> </tr> <tr> <td>Equipment</td> <td>Fuse Panel #9</td> </tr> <tr> <td>Additional Information</td> <td>Load 80%</td> </tr> <tr> <td>Date</td> <td>2/9/03</td> </tr> <tr> <td>Time</td> <td>9:29:24 AM</td> </tr> </table>	Section	Compressor Room	Equipment	Fuse Panel #9	Additional Information	Load 80%	Date	2/9/03	Time	9:29:24 AM
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<b>Fault Description</b>															
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<b>Recommendations</b>
<p>Top Fuse is operating hotter. Check fuse. Check connection. Replace fuse if necessary. Monitor and compare temperatures between fuses after replacement fuse is installed.</p>