

Infrared **Electrical-Mechanical** Surveys

Reduce Costs, Downtime, Failures and Equipment Damage

Today's facilities engineers are saving of millions of dollars every year with infrared electrical-mechanical inspections. Our professional infrared testing services can substantially improve profitability and reduce your operating, testing and maintenance costs by:

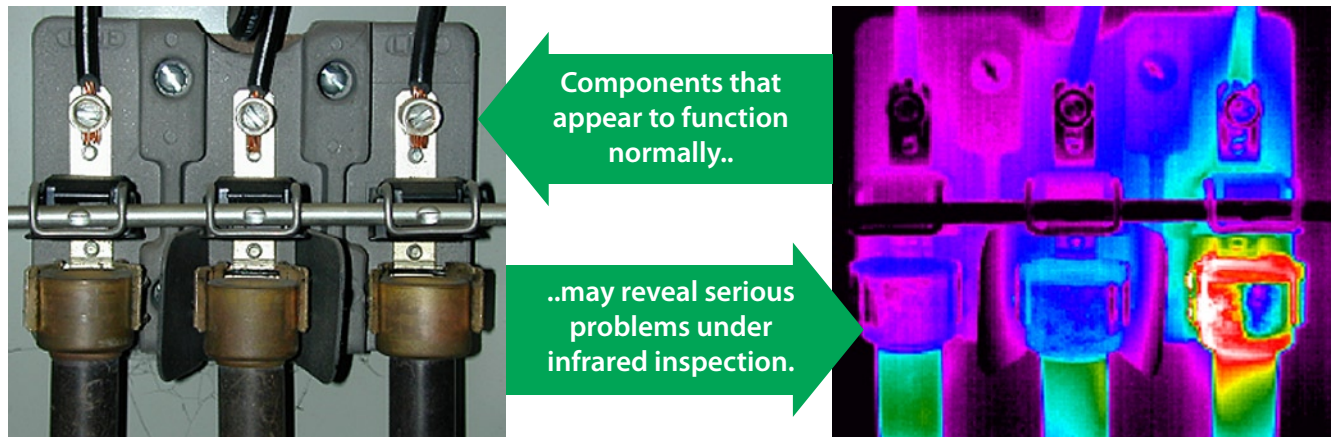
- ▶ quickly pinpointing problems
- ▶ reducing downtime and equipment damage
- ▶ preventing catastrophic failures
- ▶ establishing repair priorities
- ▶ improving maintenance efficiency
- ▶ testing under load to avoid costly shutdowns

Excess heat = Trouble ahead

In electrical and mechanical systems, excessive heat is a sign of impending trouble. High temperatures indicate excessive electrical resistance, worn components, lubrication failure, or other common problems that can lead to expensive or even catastrophic failures. Trying to find these incipient failures with visual and manual inspections is a costly, time-consuming process that may not locate the underlying problems.

Professional Thermography: Fast, accurate detection

Using cutting-edge infrared detection technology, our Certified Thermographers rapidly and accurately pinpoint the thermal anomalies that threaten the safety and reliability of your electrical and mechanical systems.



Thousands of points can be inspected in a single day. In a matter of hours, our professional infrared testing can develop a complete catalog of the hidden thermal stresses in your operating equipment.

No need to shut down

Because thermography is non-contact and nondestructive, there is no need to interrupt production or plan for costly shutdowns. Our thermographers inspect your equipment under normal loads and operating conditions, so you don't have to disrupt your service and production schedules. By testing the operation of your systems in 'real time' our inspections can help you understand the practical impacts of emerging component problems.

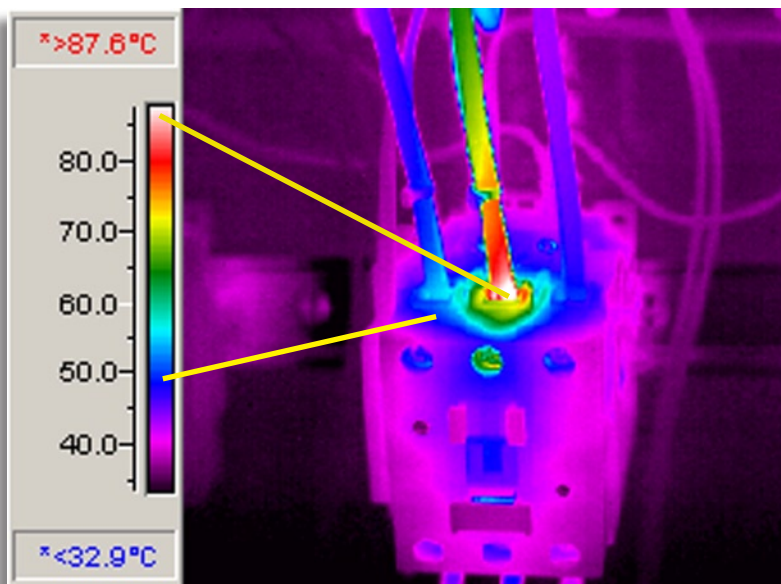
INFRARED ANALYZERS INC
Certified Thermographers

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The infrared imager's onboard computer determines the relative and absolute operating temperatures of inspected components.

Establish Repair Priorities

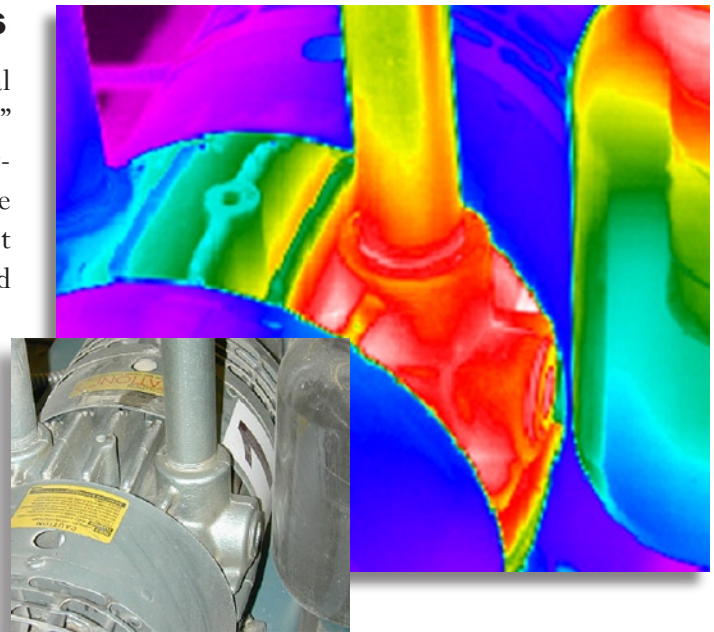
An effective preventive maintenance program saves money and boosts profits by scheduling repairs before expensive emergencies arise. Infrared inspections can help you differentiate the relatively few real problems in a system from thousands of potential problem areas. Our testing reports establish the urgency of needed repairs with a 4-step system of priorities, based on the nature of the equipment and its temperature increase over ambient conditions. Our clients have significantly improved their maintenance productivity by using our reports to improve the targeting and scheduling of their repairs.

More Money Saving Benefits

► **Immediately Cost-effective:** Professional thermography delivers the best “bang for the buck” of all predictive maintenance technologies. In virtually every electrical or mechanical inspection we find hidden incipient failures that would have cost several times the survey investment. Locating and eliminating even one or two of these potential failures can more than pay for the service.

► **Safe, Flexible, and Scalable:** Even equipment operating at high voltages or temperatures can be quickly and accurately inspected. Because infrared thermography is a “remote sensing” technology, systems of almost any size and configuration can be safely and accurately tested.

► **Proven Predictive Maintenance Technology:** Infrared thermography is a proven scientific method for the detection of impending failures. Since their introduction in the early 1970s, infrared surveys have given facilities managers the power to predict and prevent failures—to actually see problems before they happen. Infrared inspections have become an integral part of effective maintenance programs at commercial, industrial and institutional plants across the country. Manufacturers, healthcare facilities, property managers and utilities are just a few of the industry groups that have come to rely on the cost-saving benefits of routine infrared inspections.

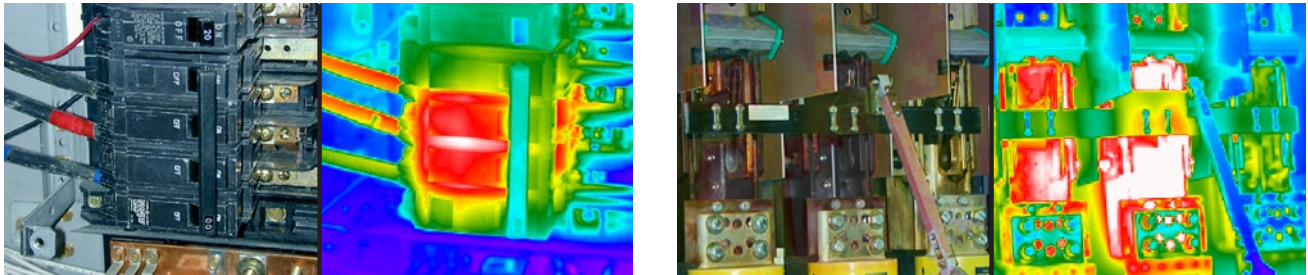


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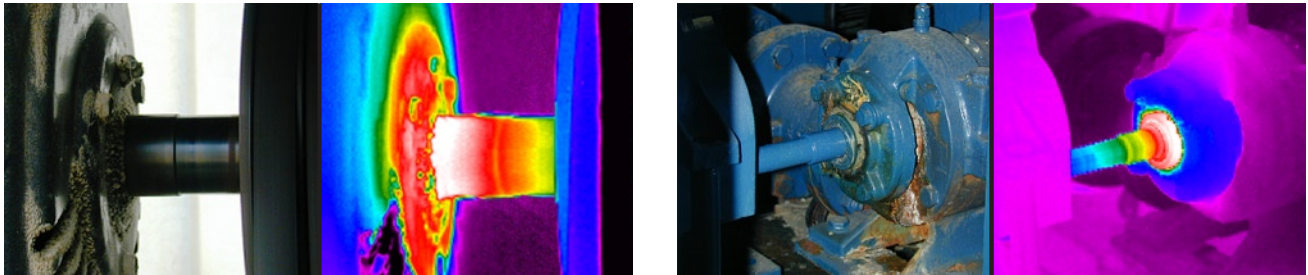
Pinpoint Hot Spots in Electrical Systems

- ▶ Reduce Down Time and Increase Profits
- ▶ Substantially Reduce Unscheduled Outages and Losses
- ▶ Reduce Electrical Energy Costs by Increasing Energy Efficiency
- ▶ Proactive, Predictive Approach Avoids Unscheduled Maintenance
- ▶ Reduce Labor Costs by Targeting Problems



Pinpoint Hot Spots in Rotating Equipment

- ▶ Identify Overheating Motors, Bearings, Couplings, Shafts, Belts, U-Joints, etc.
- ▶ Target Problems Due to Misalignment, Overloading, Poor Lubrication
- ▶ Substantially Reduce Risk of Catastrophic Equipment Failure
- ▶ Proactive, Predictive Approach Avoids Unscheduled Maintenance
- ▶ Cut Costs and Improve Profits by Reducing Downtime



Certified Thermography: Infra-red Analyzers is committed to the highest standards of professional thermography. You can count on our expertise to deliver the accurate, reliable information you need. Founded in 1984, we are an independent, professional consulting firm. Infra-red Analyzers' Certified Thermographers have completed courses of study and passed examinations as specified by the American Society for Non-Destructive Testing (ASNT). In addition, we provide ongoing training and support to our staff in all applications of thermographic testing.

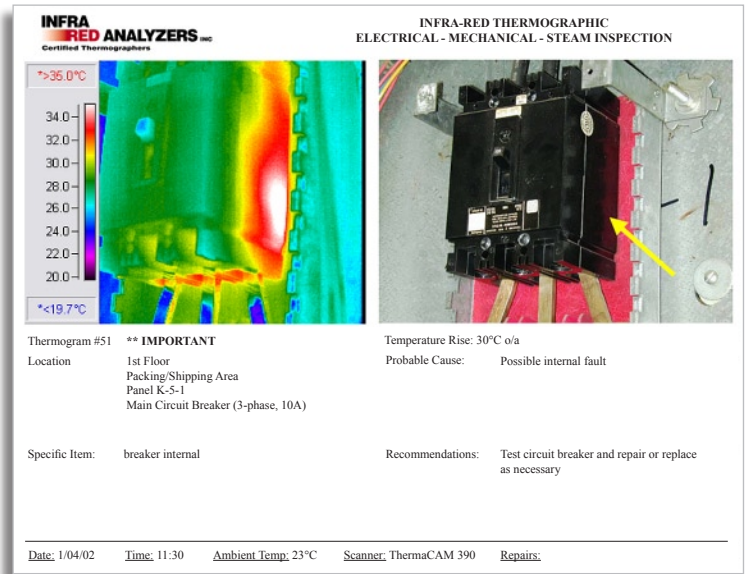
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What You Get..

Our professional testing reports lead the industry in quality, accuracy and detail. When you order an electrical or mechanical inspection from Infra-red Analyzers, you have the option of receiving your completed test results as a printed full-color bound report or as a CD-ROM. Both report formats include:

- ▶ **Complete Equipment List:** All inspected equipment is listed with detailed references to location and specification.
- ▶ **Photographic Documentation:** All detected problems are documented with full color infrared and conventional photographs.
- ▶ **Repair Guidance:** To help you get the most out of your inspection report, we establish repair priorities, note probable causes, and provide recommendations for corrective action.



Equipment Recommended for Infrared Inspection:

Transformers
Bushings
Coolant flow
Switchgear
Capacitors
Bus ducts
Main breakers

UPS systems
Motor controllers
Fuses
Power panels
Lighting panels
AC & DC drives
Splices

Breakers
Contactors
Motors
Generators
Transfer switches
Disconnects
Bearings

Do you have questions about infrared inspections and how they can prevent catastrophic failures and save you money? Please call us toll free at 800-879-1964.

Full Service Thermographers..

Infra-red Analyzers offers a full range of commercial thermographic inspection services, including:

ROOFING

ELECTRICAL

MECHANICAL

STEAM

BUILDING ENVELOPE

MANUFACTURING PROCESS

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