

Volume 6 Issue 5 May 2017

Director's Message



Despite the important role they play in commercial facilities, electric motors tend to be out-of-sight and out-of-mind until they fail. Infrared thermography can be used as a cost-effective diagnostic tool for detecting problems within electric motor systems.

Many infrared inspection programs include motor control circuits but overlook the motor itself.

Evidence of several conditions which can lead to premature motor failure can be detected with a thermal imager. The following are suggestions for thermographically inspecting motors.

- With cover removed, inspect electrical connections at the motor junction box. This should be done in conjunction with the regularly scheduled inspection of the facility's electrical system.
- Inspect motor casing for localized hotspots which may be indicative of short circuits within motor windings
- Qualitatively compare individual motors to similar motors under similar load
- When possible, qualitatively compare inboard and outboard bearings for each motor. If a large Delta T is present, it may be indicative of misalignment or a rotor balance problem. If both bearings are hot, the bearings may be worn or improperly lubricated.

Because no complicated analysis is required, infrared inspections typically can be performed rapidly and at a fraction of the cost of other types of motor testing. Additionally, infrared can detect evidence of misalignment at lower thresholds than those detectable by vibration analysis and motor current signature analysis.

Did You Know?

Our content-based website IRINFO.ORG contains a wealth of information on thermography and related technologies. IRINFO.ORG contains hundreds of useful Tips and dozens of

Upcoming Courses

[Level I Certified Infrared Thermographer®](#)

- May 4 - 5 Brisbane*
- May 18 - 19 Perth*
- Jun 12 - 16 West Windsor
- Jun 21 - 22 Sydney*
- Jun 26 - 30 Monterrey
- Jul 3 - 7 Melbourne
- Jul 17 - 21 West Windsor
- Jul 17 -21 Brisbane
- Jul 17 - 21 Kuala Lumpur
- Jul 22 - 26 Montreal
- Jul 25 - 26 Kuala Lumpur*

[Level II Certified Infrared Thermographer®](#)

- May 1 - 5 Melbourne
- Jun 12 - 16 Costa Rica
- Jun 19 - 23 West Windsor
- Aug 7 - 11 Kuala Lumpur

[Level III Certified Infrared Thermographer®](#)

- Jun 26 - 28 West Windsor
- Aug 14 Melbourne*

* Flexible Learning Course

[Full 2017 Schedule](#)

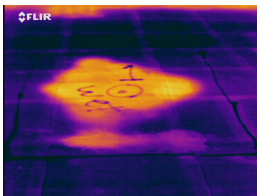
technical articles that can be accessed for FREE!

Other features include directories of equipment manufacturers, infrared thermographers, industry news, and our private list server, IRINFO Group. Content is updated several times each week and can be delivered automatically to your website via an RSS feed.

We invite you to visit IRINFO.ORG today and see what you've been missing!



Spring is the Time for IR Inspections of Roofs



With the onset of warmer weather, the harshness of winter is but a fading memory for most. Left undetected, the damage caused by winter's fury is a reality that can lead to premature roof failure. Fortunately, an infrared inspection of your roof can detect evidence of problems before they

get out of hand.

Performed under the proper conditions with the right equipment, an infrared inspection can detect evidence of latent moisture within the roofing system often before leaks become evident in the building.

The best candidates for infrared inspection are flat or low slope roofs where the insulation is located between the roof deck and the membrane, and the insulation is in direct contact with the underside of the membrane. Applicable constructions are roofs with either smooth or gravel-surfaced, built-up or single-ply membranes. If gravel is present, it should be less than 1/2" in diameter and less than 1" thick.

For smooth-surfaced roofs, a short wave (2-5.6 μ) imager will provide more accurate results especially if the roof is painted with a reflective coating. All infrared data should be verified by a qualified roofing professional via core sampling or invasive moisture meter readings.

[More Information](#)

Call for Papers for IR/INFO 2018

Upcoming Conferences

Infraspection Institute invite you to see us at the following upcoming conferences. Be sure to stop by and say Hello!

[Ultrasound World XIII](#)

May 9 - 12, 2017
Clearwater, FL

[UI Thermal Imaging Conference](#)

October 1 - 4, 2017
San Antonio, TX

[SMRP Conference](#)

October 16 - 19, 2017
Kansas City, MO

[IR/INFO Conference](#)

January 21 - 24, 2018
New Orleans, LA

Links of Interest

IRINFO.ORG

[Maintenance & Reliability Topics](#)

[NACBI](#)

CITA.ORG

Temperatures.com

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Infraspection Institute are pleased to announce that our annual Advanced Training Conference, Technical Symposium and Technology Expo, IR/INFO 2018, will be held January 21 – 24, 2018 in New Orleans, Louisiana. Now in its 29th year, IR/INFO features four days of networking, learning, and fun in a relaxed, yet professional, family atmosphere.



We are presently seeking papers and presenters for IR/INFO 2018. Invited topics include, but are not limited to: safety, emerging applications, building sciences, related NDT, case histories, as well as tips and tricks.

Presentations are typically 20-25 minutes with 5 minutes for Q & A time with the audience. All papers and presentations will be published in the IR/INFO Proceedings. The deadline for abstract submissions is July 31.

[Submit an Abstract](#)



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