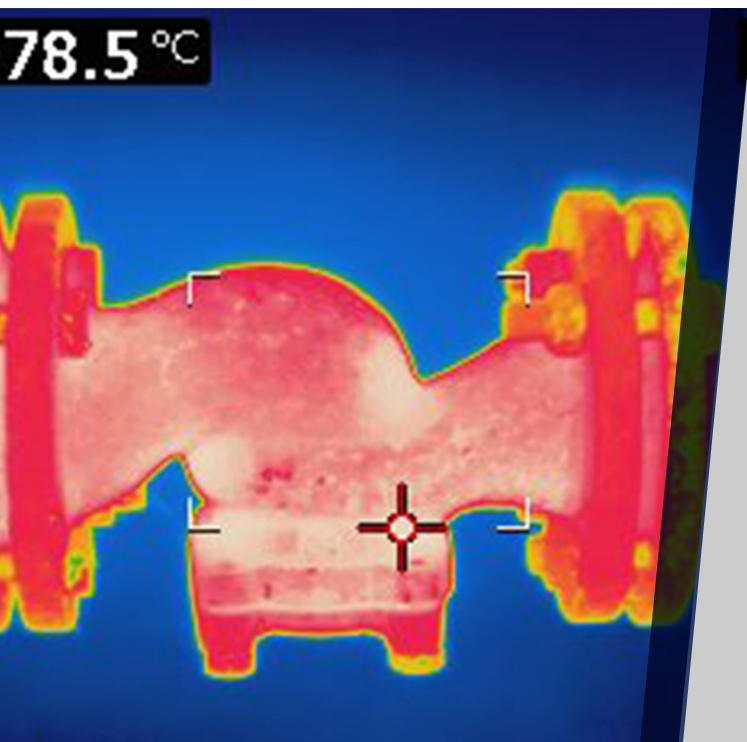


# Infrared thermography: high tech inspections for your business

Whether your business is small or large, if you depend on electrical or mechanical systems as part of its operations, you need to consider infrared thermography to protect it. Also known as thermal imaging, this technology identifies hot spots and potential defects in your operational system before major production disruptions or disasters, such as fires, occur.

## How it works

Trained thermographers use an infrared camera to take images of equipment and electrical systems in order to detect levels of heat in each area of the scan. Hot spots are usually caused by a source of resistance that either stops or hinders motion in mechanical systems and are often a sign of an impending problem. Depending upon the colour palette used by the thermographer on the image, a colour gradient will demonstrate temperature differentials making hot spots readily visible. Thermographers can detect problems that are impossible to detect by the naked eye and will compare historical values and heat levels in similar systems to determine if there is an actual problem.



## Benefits of infrared inspections

Infrared thermography offers numerous benefits:

- Discover defects before they lead to fires and catastrophic loss or put your employees at risk.
- Reduce the risk of equipment failure and downtime with scheduled maintenance work based on what is actually necessary.
- Eliminate losses by detecting problems in your systems not visible to the naked eye.
- Increase productivity by ensuring your systems run at peak performance.
- Ensure efficient production and energy usage.
- Reduce maintenance labour costs, repair bills and downtime.



## Did you know?

Your business relies on a variety of moving parts and intricate systems that depend on one another. Infrared thermography can help you keep these systems running safely and at top speed. Here are a few interesting facts to consider:

- Electrical and mechanical failures are major causes of industrial fires.<sup>1</sup>
- 82% of companies experienced at least one unplanned shutdown over a three-year period.<sup>2</sup>
- Shutdowns last an average of 4 hours and cost an average of \$2 million.<sup>3</sup>
- 70% of companies are not fully aware of when their equipment needs maintenance, upgrades or replacement.<sup>4</sup>
- Predictive maintenance can save you 30% to 40% over reactive maintenance.<sup>5</sup>



## Who can perform infrared thermography inspections?

Conducting and assessing infrared thermographic inspections is complex. Whether you choose to go with someone in-house or hire a consultant, you'll want a certified inspector to handle the job. There are three levels of certification offered by several organizations in Canada and your technician should be at least Level 1 certified.

**Contact your insurance broker for more information on how infrared technology can help detect potential risks.**

### Sources

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<sup>2</sup>Unplanned downtime affecting 82% of businesses. (n.d.). Retrieved from <https://www.themanufacturer.com/articles/unplanned-downtime-affecting-82-businesses/>

<sup>3</sup>Ibid

<sup>4</sup>Ibid

<sup>5</sup>Applying infrared thermography to predictive maintenance. Retrieved from [http://support.fluke.com/find-sales/download/asset/2435559\\_6003\\_ENG\\_B\\_w.pdf](http://support.fluke.com/find-sales/download/asset/2435559_6003_ENG_B_w.pdf)

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