### FLR APPLICATION STORY





# Thermography lowers operating costs in the food industry

Consumer demand for convenience is higher than ever before; the food industry's response to that need is to offer more products, twenty-four hour service and expanded store facilities. Grocery stores and food production plants consume tremendous amounts of electricity and house many mechanical and electrical systems that are susceptible to failure if not properly maintained. Periodically inspecting equipment and systems with a thermal imaging camera can prevent costly equipment failures and subsequent shutdowns.

## Therma**CAM™** prevents lost revenue in grocery operations

The ThermaCAM is ideal for inspecting the wide variety of electrical and mechanical equipment found in food retail, warehousing, and production facilities. Power loss in food storage and production areas can be catastrophic to refrigeration and warehousing facilities. The ThermaCAM's temperature data is extremely valuable when inspecting indoor electrical components such as motor control centres, breaker panels, disconnect switches, and transformers. Outdoor components monitored with IR include: substations, switchgear, transformers, and circuit breakers.

Accurate temperature measurements allow maintenance personnel to prioritise repairs. ThermaCAM systems can detect temperature differences as small as 0.1°C. Since typical industrial electrical or mechanical problems occur when there is a temperature increase of 10°C or more, the ThermaCAM 'sees' these problems well in advance of a failure. Typical mechanical systems monitored in a predictive maintenance infrared programme include: bearings, motors, pumps, and compressors. Routine IR inspections can identify defective fan motors in open chiller cabinets and faulty bearings on condenser fan shafts.

The ThermaCAM can also identify air conditioning leaks and other problems that cause energy losses in heating and cooling systems. Frozen food is typically stored at -18°C or colder depending on its ingredients. Food held in warmer air for only a few minutes will start to thaw, deteriorating product quality. The ThermaCAM can help maintenance personnel identify faulty components, suggest a course of action, and make repairs before refrigeration and freezer-units shutdown and product is lost.

As grocery stores expand operations to offer busy consumers more goods in one location, the food industry must continue to find ways to keep their stores stocked and running with minimal interruptions in service. Thermography has proven to be an excellent tool to help optimise operations and deliver quality and convenience to the consumer. Whether the application is electrical, mechanical, or building diagnostics maintenance, FLIR Systems' ThermaCAM provides maintenance personnel with the accurate thermal information necessary to make critical decisions about equipment repair, replacement, and efficient food store operation.

### For further information contact:

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