

FOOD & BEVERAGE PREPARATION AND PROCESSING



Compliance



Efficiency



Assurance

≤100% TEMPERATURE COMPLIANCE TO ACTIVELY REDUCE CONTAMINATION



600 million people globally¹ (that's 1 in 10) become ill after eating contaminated food every year, according to projections from the World Health Organisation (WHO). Worst still, 420,000 people die from foodborne illnesses annually, making compliance with stringent food and beverage protocols essential.



A quarter of all contamination incidents are a direct result of pathogenic microorganisms in food products.² Flir's thermal imaging devices can radically reduce such incidents.



One of the most effective way to reduce contaminant microbes from food and beverage applications is simple: consistent heat in validated, measurable conditions.³ Flir's data-driven thermal imaging solutions ensure facilities can monitor temperature compliance to identify non-uniform heating, ensuring up to 100% compliance with the right safeguards.

Why choose Flir thermal imaging?

The global food safety market is projected to reach \$31.1 billion by 2027.⁴ That's an 8.1% growth rate, meaning that demand for stringent food and beverage safety measures is growing at pace.

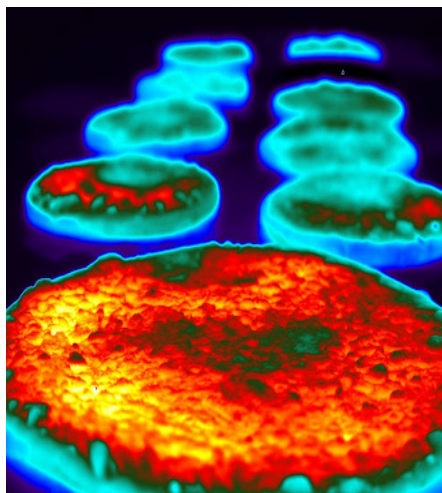
However, with a single bacterial microbial contamination able to grow exponentially, even this modest growth won't be enough to safeguard suppliers in the highly competitive food and beverage markets. Suppliers must equip themselves with the cutting-edge tools they need to ensure that they're not outpaced by their competitors.

That's where Flir's industry-leading range of thermal imaging solutions comes into play, supporting temperature verification by highlighting uniformity and deviations.





Leaders in this space such as Bytronic Vision Intelligence, a Flir Integrator, use versatile and affordable automation solutions with on-edge analysis to ensure absolute compliance.



Bytronic uses the Flir A70 smart sensor in its proprietary TempComply solution.



This application ensures accurate and highly reliable automation thermal inspection for even the most challenging food production and handling environments.

Key values

≤100% in-line thermal verification of cooked products

Flir integrator Bytronic Vision Intelligence supports compliance with stringent food and drink safety standards by accurately monitoring temperature consistency.

It applies Flir technology, augmented by its own innovative data-led algorithms, to cut contamination incidents in factories worldwide by identifying variation from 100% temperature compliance conditions.

Completely eliminate the need for spot checks

Flir's range of thermal imaging cameras and sensors completely eliminates the need for spot checks on the production line.

In a recent installation for a renowned food and beverage brand, Bytronic implemented the Flir A70 to replace the facility's standard 30-minute spot checks with constant, round-the-clock automated monitoring solutions. This ensures that not a single sachet or packet leaves the site that isn't 100% up to specified baseline temperatures to kill any contaminants.

Radically improve safety, maximise uptime

The Flir A70 allows Bytronic's TempComply system to use laser profiling to detect food shapes and profiles, distinguishing product from packaging.

Dynamic masking automatically isolates the food in question, removing thermal noise and ensuring a complete live view of the product's temperature. It's real-time visibility, full traceability and absolute quality assurance.

Key applications

Reduce contamination incidents and downtime in your food processing

An affordable automation solution for food and beverage production facilities

Quickly access thermal characteristics with the wide-area, non-contact temperature sensor, which provides up to 640 × 480 (307,200 pixels) resolution and ±2°C accuracy.

On-edge analysis with open communication protocols and easy integration

Simplify integration efforts with thermal smart sensors that communicate with standard industrial protocols and video

What can Flir thermal imaging do for your food & beverage production line?

management systems including HMI, SCADA, and optional ONVIF S compatibility.

Validate cooking and cooling consistency

Uneven heating or cooling can compromise safety and quality. Flir's advanced thermography continuously verifies temperature uniformity across your line, helping you meet stringent food and beverage regulations with absolute confidence.

Replace manual checks with real-time assurance

Manual spot checks slow production and invite error. By integrating Flir cameras and sensors into your control systems, you gain instant, non-contact verification of every

batch, every time, eliminating the need for intermittent checks and human guesswork.

Harness intelligent automation

Flir thermal data feeds directly into process dashboards and reporting tools. This delivers real-time traceability, full visibility, and absolute confidence that every product leaving your facility meets regulated thermal thresholds.

With actionable thermal insights, Flir helps you to reduce waste and improve yield.

Sources

- 1 www.who.int/news-room/fact-sheets/detail/food-safety
- 2 www.food.gov.uk/board-papers/incidents-resilience-unit-annual-report-202324
- 3 <https://flirpublishers.com/gjnfs/pdf/GJNFS.MS.ID.000601.pdf>
- 4 www.marketsandmarkets.com/Market-Reports/food-safety-365.html

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