Hanwha Vision

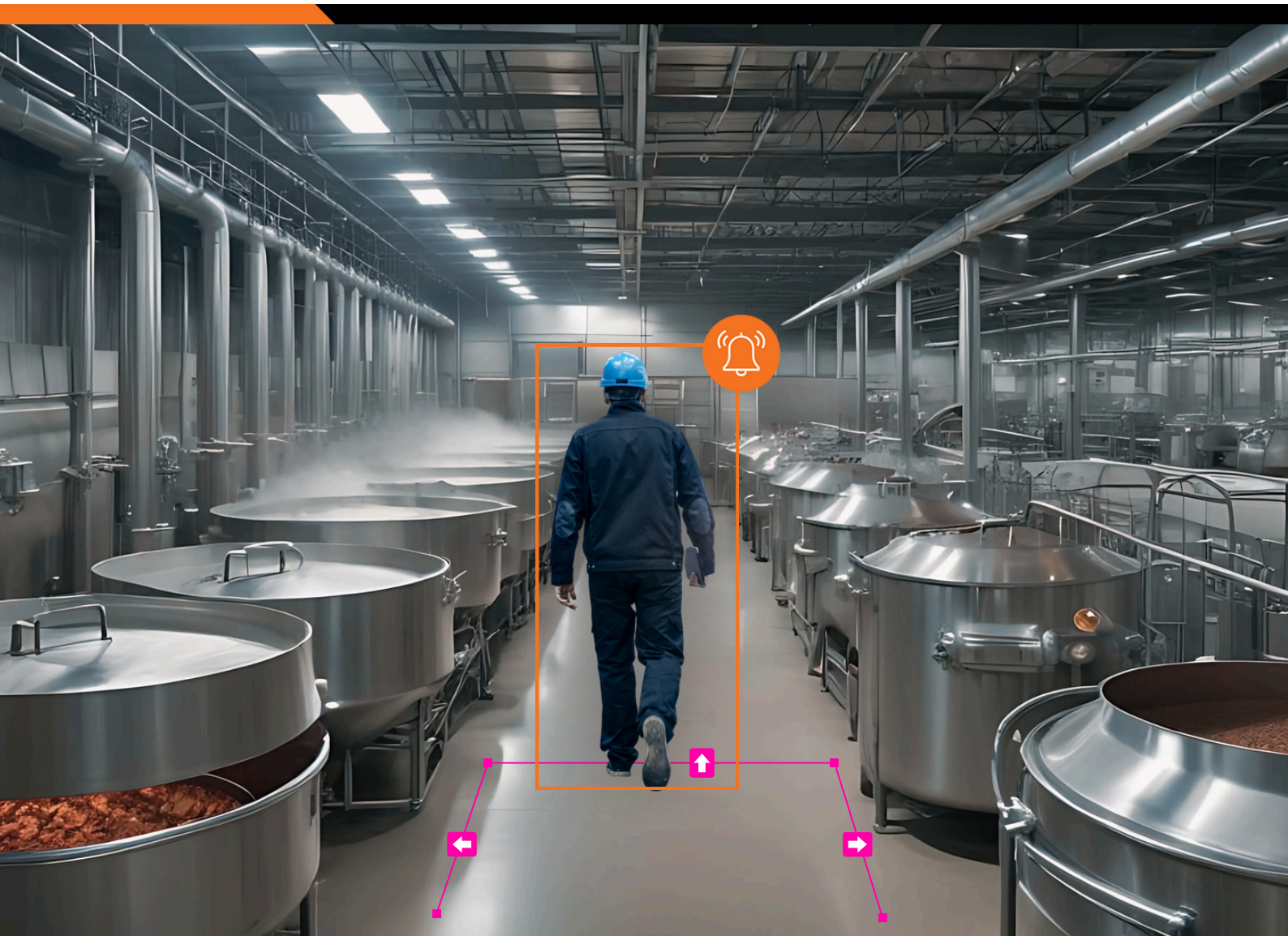**Food & Beverage Manufacturing**

Security & Beyond

How Intelligent Video Surveillance Solutions Benefit Food & Beverage Manufacturers

Food & Beverage Manufacturing

Today, investments in advanced AI video surveillance systems are enabling food and beverage manufacturers to generate substantial benefits for security and beyond.

With the same, easily customized AI-enabled surveillance solutions, companies can deter intruders, reduce theft, and protect employees and facilities from threats, while also gathering key insights that can positively impact nearly every part of their business.

Below, We have highlighted some of the business benefits that the right AI enabled video surveillance solutions can deliver.

Enhancing Compliance

For food and beverage manufacturers, one of the key operational challenges is maintaining and reporting on compliance with stringent regulatory requirements and commonly-used best practices, such as ISO 22000, GMP, HACCP, and IFS.

Along with potentially impacting public health and safety, non-compliance can lead to costly fines and penalties, severe damage to company and/or brand reputation, and loss of morale among employees.

For public companies, investors, partners, or suppliers may show less trust in the organization's current leadership and/or operational practices.

Hanwha Vision's range of intelligent AI-enabled surveillance cameras and integrated VMS solutions, enable manufacturers to more easily adhere to and report on key regulations by delivering real-time tracking and automated alerts.

By providing detailed logs and reports of monitored environments, AI-driven surveillance systems can help companies enhance their overall compliance efforts and simplify compliance reporting.

The real-time alerts help document every part of the production process and see things like whether there are any equipment issues, personnel not wearing proper personal protective equipment (PPE), employees mishandling products, or failing to follow proper cleaning and sterilizing procedures for critical equipment.

These automated reports enable manufacturers to accurately assess their team's overall compliance with industry and safety regulations, and reduce time and money spent on compliance reporting efforts. Having this information easily accessible, 24-7, enables companies to demonstrate to their partners, suppliers, and industry regulators, a commitment to transparency, product quality, safety, and continuous improvement.

Also, these critical insights can also help companies conduct more accurate audits of their day-to-day operations and bolster current training efforts, and/or identify areas for improvement.

Supporting Quality Control

Any deviations in product quality and appearance, whether taste, texture, or packaging, can negatively impact a brand's reputation and consumer experiences.

With Hanwha Vision's smart surveillance solutions, quality control experts can precisely identify any anomalies with final product - and, more importantly, the reasons why. While employee error and malfunctioning equipment are typically the most common causes for anomalies, there are a myriad of other reasons that cause these situations.

By spotting the cause/s of these issues at their earliest warning signs, manufacturers can deliver immediate intervention.

Often overlooked, AI−enabled video surveillance solutions can optimize workload management.

For example, by analyzing patterns in workforce productivity, manufacturers can make data−driven decisions to review optimal employee staffing and shift scheduling, or potential areas that require more training resources.

Furthermore, with increasingly intelligent robots playing bigger roles in optimizing food and beverage production from the plant floor, the ability of smart video surveillance solutions being able to monitor robot performance and durability is vital.

According to a report in the International Journal of Performability Engineering, robot system failure occurs approximately 12% of the year on average. There are varying issues that can cause failure. However, many of them can be reduced through proactive monitoring that identifies warning signs at the earliest stages.

Robot System Failure
Approx. 12%
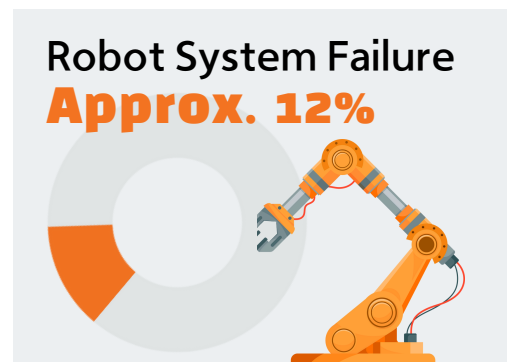
By analyzing continuous data from sensors, AI−enabled video surveillance solutions can efficiently allocate tasks, ensuring a balanced workload among robots. This helps prevent specific robots from being overloaded, reducing wear and tear on a robots' mechanical parts, and the risk of failure or downtime.

Maximizing Productivity By
Protecting Equipment Operating in Extreme Temperatures

Equipment efficiency in food and beverage production is essential for maximizing productivity and minimizing waste. According to research by Aberdeen, a single hour of machine downtime can cost a company, even mid−size food and beverage manufacturers, an average of $260,000*.

For high−powered equipment that operates at extreme temperature conditions, like chillers, cold storage freezers, heat exchangers, high−pressure processing (HPP) units, or ovens, using Hanwha Vision's AI radiometric thermal cameras are an ideal way to ensure safe temperature limits are not exceeded.

They are specially-designed to monitor equipment with dramatic temperature ranges from temperature detection range of −40℉ to 1022℉ (−40℃ to 550℃).

Temperature changes are often the earliest warning sign of future equipment problems, the kinds that cost a lot of money, slow up production, and negatively impact product quality.

If overheating or excess freezing occurs in a piece of equipment, production supervisors are immediately alerted and can use the insights to perform the necessary preventive maintenance tasks. The information can also help maintenance professionals determine optimal proactive equipment maintenance procedures. For example, when to schedule component and system checks, number of operation hours between fluid interval changes (lubricants, greases), and more.

Protecting People & Plant Operations

Along with the cost and time-saving operational benefits listed above, the right AI-enable video surveillance solution can, not surprisingly, help food and beverage manufacturers to better protect their people, secure their facilities, and guard their valuable assets.

With Hanwha Vision's advanced surveillance solutions, including edge, AI-based fisheye cameras, license plate recognition cameras, thermal cameras, and Pan/Tilt/Zoom (PTZ) cameras, and multi-sensor cameras, equipped with integrated video management software (VMS) and IP audio analytics, manufacturers can get clear and detailed views of every part of their locations.

With 24-7 monitoring capabilities and precise object detection (people, cars, etc.), manufacturers can prevent intruders, identify suspicious activity, and reduce theft attempts at any location, from front entrances/exits to the plant floor, storage rooms to executive suites, warehouses and logistics areas. Sensor alarms can help trigger the appropriate immediate response protocols.

In the event of a safety issue like a slip and fall, or an unauthorized breach, high-resolution video and AI powered search capabilities can speed up incident investigations.

Utilizing precise footage retrieval, manufacturers can quickly identify root-cause analysis, implement corrective actions, and enhance, if needed, any law enforcement-related investigations.

Close:

In an industry where safe operations are non-negotiable and every ounce of productivity is essential for maintaining profitability, Hanwha Vision's intelligent, customizable AI-enabled surveillance solutions offer the operational and safety benefits necessary to foster excellence, uphold brand reputation, and secure long-term success.

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