

7 Impactful Benefits of

FACTORY AUTOMATION FOR FOOD MANUFACTURERS

Automation technologies - such as computer vision systems, on-line sensors, and robotic technologies - are becoming an increasingly important element for small food manufacturers that wish to protect their brands while increasing market share and overall profitability.

Here are 7 ways factory automation can transform a small food manufacturing plant:

1

IMPROVED EFFICIENCY AND PLANT OUTPUT

If plant productivity is defined by the quantity of end products manufactured per unit of time, workers, etc., then it would be directly related to how efficiently these input resources are being used. Automation tools allow plant operators to schedule workflow and labor usage in a much more efficient manner. For example, the ability to maintain records and data concerning past processes can help to pinpoint areas that require greater or lesser resource allocation.

2

PRODUCT CONSISTENCY

Human visual inspection techniques are often tedious and time consuming. Small scale food manufacturers that utilize these techniques often experience inconsistencies in their product quality when production suddenly ramps up. In fact, this is most likely the one aspect of food manufacturing that has benefitted the most from automation, thanks to advances in computer vision technology.

3

INCREASED PROFITABILITY AND GROWTH POTENTIAL

Profitability is likely to be the biggest concern for plant managers. As already discussed, automation technologies help to improve productivity and product quality - which contribute directly to improved profitability. Not only does profitability add to stakeholder value, it allows plant managers to be more strategic when it comes to investing in plant operations and increasing product lines.



4

ABILITY TO SCALE PRODUCTION GIVEN INCREASES IN DEMAND

When working in repetitive environments, humans become tired and bored. Automation technologies, such as robots, are better able to handle repetitive tasks for longer periods of time than their human counterparts. This means that if demand for a product suddenly spikes, there is a smaller chance of experiencing shortages and/or quality issues.



5

IMPROVED HEALTH AND SAFETY

When human workers are subjected to repetitive tasks for a long period of time, the potential for ergonomic injuries is high. Automating these tasks reduces the likelihood of injuries and improve worker health and safety. Robots are also useful for upstream supply chain operations because they can work in critical environments - such as handling food products in freezing temperatures - that are not fit for humans.

Furthermore, humans are exposed to outside conditions and also have hair, nails and bodily fluids - such as perspiration - that can increase the chances of foodborne illness. Robots, in contrast, are frequently designed to prevent the retention of food particles and are resistant to bacterial growth. Robots are also more accurate, meaning there is less waste and fewer ergonomic injuries.

6

REDUCED WASTE

Automation technologies allow for greater precision and consistency in the production line, which helps to reduce waste and increase the overall yield. For example, when it comes to preparing meat products, making precise cuts can mean the difference between spoiled meat and a sellable product. A user-friendly interface allows machine operators to define the cutting path and optimize the process for the highest product yield.

7

OPENS UP OPPORTUNITIES FOR HIGHER PAYING JOBS

The increased use of automation and robotics in food manufacturing has created new opportunities for higher paying jobs, such as maintaining machines, packing products, stocking inventory and more. As automation technologies allow more small and medium-sized manufacturers to compete on a larger scale, the number of jobs available is expected to continue growing.



AUTOMATION IMPROVES PRODUCTION

Small food manufacturers that take advantages of automation technologies often experience higher production rates, improved product quality and, overall, greater profitability. By collecting and maintaining operations data, streamlining repetitive tasks and reducing the effects of external environmental factors, factory automation has the capability to transform a small food manufacturing plant into a major competitor.