

MAXIMISING THROUGHPUT AND EFFICIENCY IN THE SNACKS INDUSTRY

A GUIDE TO EFFECTIVELY ADOPTING AUTOMATION

With a \$3.4 billion global increase in 2017, the growth of the snacks industry is showing no signs of slowing down.

Combined with healthier or lighter snacks rising in popularity in key European markets such as the UK, France, Germany, Italy, Spain and the Netherlands, there are great opportunities available for snacks producers. But in this ultra-competitive sector, how can the effective adoption of automation throughout the packing process deliver notable improvements in OEE?



Consumer Habits

As consumer habits change over time, the development of new products alongside existing favourites is required to ensure that snacks companies can keep up with the latest trends.

Snack packaging automation has enabled producers to respond to changing consumer tastes with the ongoing introduction of both new snack varieties and new pack formats. Machinery manufacturers' developed and enhanced solutions offer faster speeds, greater accuracy and higher efficiencies, and are critical in enabling companies to capitalise on this still-growing demand for snacks.

Efficient Changeover

Put simply, automation helps make the set up and changeover procedures more straightforward, avoiding costly errors in the process. As the settings are pre-programmed and the machines more intuitive, set up can take place at the touch of a button. In terms of the weighing and bagging operation, this means that the film, former set-up and the position of the printer will move automatically into place with no need for manual adjustments.

In addition, barcode scanners will also check that the correct film is being used for each job, giving our operational staff confidence that the system is ready to run as specified and will deliver maximum efficiency and performance.

Another development in automation technology has allowed the changeover of reels on the bagmaker to happen more quickly. LED lightbars will allow the quick and accurate line up of film registration marks to ensure the reel is exactly in place, which will minimise film waste.



Furthermore, the introduction of auto-splice technology also enables this process to be carried out automatically, which minimises machinery downtime and also frees up our line operators to carry out other tasks.



Inspira rotary bagmaker

Maintaining Performance

The speed and efficiency debate is something which is of vital importance to snack manufacturers. While there is a need to maximise throughput, if a line is achieving over 200 packs per minute but weighing accuracy and seal quality are being compromised, then there is little to gain.

However, thanks to remote reporting - which is offered by our Sentinel™ software for instance - these issues can be quickly assessed. In fact, it's even possible to compare several lines at once, observing them running at different speeds to identify which one offers the best efficiencies allowing proactive improvements to the line to happen.



Sentinel reporting software

In addition, the requirement for operators to man the line is reduced, allowing them to concentrate on managing more lines increasing overall operational effectiveness and efficiencies. Therefore, it's clear to see that the availability of remote monitoring and reporting plays an important role in supporting the smooth and efficient running of the line.

Continual monitoring of the line allows for potential problems to be identified and remedial action taken immediately before impacts on performance occur. In support, regular maintenance and servicing can be easily scheduled, for example during a complete factory clean in order to ensure that downtime does not impact on production.

Quality is another concern that needs to be closely monitored, and throat metal detectors and x-ray systems can also help to spot a wide range of foreign bodies on the line. Furthermore, in-line seal testers check pack integrity to ensure that product freshness and quality are consistently maintained.



Sealtester and checkweigher combination for snacks



Removing Guesswork

A key benefit of packaging automation is the ability to take the 'guesswork' or 'gut feeling' out of the production process, where operators have to make their own judgements in adjusting a machine to try and achieve the required performance.

An example of this is the use of our Auto Air Fill to manage and adjust the air fill within each snack pack. This provides pack consistency and allows maximum efficiency for the case packer – a task that would have been carried out manually before.

Safety

Safety is of paramount importance and it goes without saying that today's snacks equipment has been designed to protect the wellbeing of operators. For example, accessibility around machines has been improved, the use of pre-set and automatic adjustments minimises the need for manual intervention, and designs have been made more ergonomic.



Improved accessibility

Choosing a Supplier

Over the years machinery manufacturers have continued to develop and enhance models and devise integrated solutions to offer faster speeds, greater accuracy and higher efficiencies. And by effectively incorporating automation throughout the packing process, snacks manufacturers have the potential to reap the benefits of reduced labour costs, while still maintaining the required speed and efficiency to capitalise on the ever-growing demand for snacks.



Inspira twin bagmaker with quality control and case packer complete solution

However, the need to carefully select a supplier who can provide both the equipment and monitoring support to minimise downtime, maximise OEE and enable manufacturers to get the best out of every machine on the line will be the key element for automation success.

For more advice or to speak to one of our team, please contact Simon Ruffley by emailing simon.ruffley@ishidaeurope.com.

