

White Paper



**How to reduce unplanned
machine downtime:**
Increased efficiency with
linerless labels

Cost pressure and quality standards – challenges for the food industry



Trend topics such as automation, modern process technology and efficiency improvements have increasingly more influence on the Food Industry.

An ever-increasing number of requirements means that the food industry is undergoing a profound change, characterised above all by a trend towards automation, modern process technology and increases in efficiency.

A core requirement of the industry is tight delivery timescales. These have a powerful impact on production processes and call out for efficient solutions. This requirement is reflected primarily in the design of modern production machines: reducing machine set-up times to a minimum and avoiding downtime requires a high level of automation.

Another challenge is the increasing shortage of skilled workers – an issue mainly affecting the technical professions. Employing greater numbers of untrained personnel and agency workers calls for intuitive machines, the benefits of which are short induction periods and ease of use. This requirement conflicts fundamentally with the ever-increasing complexity of modern production

machines and can only be satisfied with user-friendly complete solutions that are automated to a large extent.

At the same time, companies and consumers expect higher standards of product quality, with many consumers today expecting premium quality, transparency and product safety at discount prices.

In light of the rising cost of raw materials, this expectation can only be met through significant increases in efficiency and reductions in cost.

To satisfy the requirements of the end consumer, manufacturers are diversifying to an ever greater extent and increasing their flexibility. The complex nature of this development is particularly evident in the wide-ranging requirements retailers have in terms of labels.

Challenges for labeling technology

New solutions are needed, particularly for complex, time-consuming and expensive stages of production such as labeling technology. With conventional systems, the weakness here lies mainly in the sheer amount of time and money needed to operate and maintain the labeling systems and change of label rolls. The disposal of backing paper waste from the labels also comes under fire for the high costs involved, both monetary and environmental.

The solution to these mounting requirements is found in modern linerless labels. These require fewer roll changes and so ensure less downtime and less waste. Where it is integrated into a complete solution with high levels of automation, linerless technology minimises downtime and increases productivity.

Labeling technology as a key technology for an entire industry

Labeling technology is emblematic of the growing demands placed on food industry production processes. It needs to perform a balancing act between increasing technical complexity and high standards of usability.

This fundamental problem is evidenced most notably in the fact that complex machines can now only be operated by qualified personnel – yet this requirement is almost impossible to meet in light of the shortage of skilled workers.

Consequently, the development of new labeling systems focuses above all on ease of use. Only systems that are simple and intuitive to operate will reduce the risk of error to a minimum and avoid machine downtime.

An additional challenge is the manual exchange of label rolls in the machine. This complicated process takes up vital time that could be better used monitoring the labeling line. Where production problems are overlooked as a result, this will, at worst, result in machine downtime.

The ever-increasing number of additional labels being printed also makes work even harder for the operator – the spectrum ranges from legal information and marketing labels to animal welfare, eco and QA labels. This content often does not fit on the old labels, so the size of the label has to be adjusted or extra labels have to be used. The upshot is longer set-up times, leading to less productivity and greater strain on machines.

Most labeling systems in the food industry nowadays use labels carried on backing material covered in a layer of adhesive. Yet the following is worth noting when it comes to this technology: firstly, the thickness of the backing paper means that the operator has to change rolls more often. Secondly, there is more waste from the backing paper that needs to be disposed of correctly.

The CleanCut® Linerless Solution stands for the perfect combination of weighing and labeling technology, CleanCut® linerless labels, software, worldwide service and financing from one source.

Reducing unplanned machine downtime with linerless labels

One of the most promising approaches to achieving a sustainable reduction in machine downtime is to use labels with no backing material. A good example of this is the CleanCut® Linerless Solution by German label specialists Bizerba. This is a complete solution involving both the labels and a corresponding labeling system.

With this technology, Bizerba delivers a solution that will revolutionise labeling with linerless full-wrap and C-wrap labels. Compared to labels with backing material, rolls carry up to 90% more labels, which significantly reduces labeling system downtime caused by roll changes. What is more, the added advantage of this solution is that blades have to be cleaned much less often due to the reduction in adhesive coating. The blade cuts accurately through a label's adhesive-free areas and so stays much cleaner. This, in turn, leads to improved uptime for the labeling system. Because the adhesive is applied evenly, linerless rolls can also be used right to the core – the machine is able to continue working uninterrupted.

In terms of ease of use, the CleanCut® Linerless Solution has the great advantage of ensuring minimal set-up times when changing articles thanks to its high levels of automation. The operator simply selects the PLU and machines do not need to be manually adjusted. This is an area where the remote service from Bizerba is also



worth a mention. Innovative products such as the Augmented Service app allow users to analyse the machines themselves using a smartphone or tablet. Specialists at the Remote Support Centre are normally able to resolve problems swiftly using video-based instruction or remote access.

When it comes to software, this innovative complete solution is integrated into the BRAIN2 platform. With its modular structure, BRAIN2 adapts seamlessly to user requirements and meets even the highest benchmarks for centralisation, data exchange and safety standards.

Conclusion

The food industry is being confronted with an increasing number of requirements in terms of resource efficiency, productivity and flexibility – these expectations present a challenge most notably to labeling technology. The Bizerba enterprise has developed its CleanCut® Linerless Solution to address precisely this issue. The

revolutionary solution is wholly aimed at reducing machine downtime and achieves a measurable increase in efficiency in practice. Food industry businesses benefit from higher productivity, lower maintenance costs and a comprehensive service package.

Member of the Bizerba Group

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