



A-Class Print Engines Improve Efficiency in Packaging Processes at The Cheese Warehouse

featuring A-Class Print Engines
print-and-apply labeling ■ ■ ■



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- Paul Ciesielski
Engineering Manager, The Cheese Warehouse

Cheese is one of the oldest and most popular foods in the history of mankind and part of the everyday diet of cultures around the world. The foundations for present-day mass production were established in the 19th century. Research and technical developments by scientists such as Louis Pasteur led to the mechanisation of cheese making and consequently to the industrialisation of the cheese industry. Today over eight million tonnes of cheese are produced annually in the European Union (EU). With over two million tonnes per year, Germany is the largest cheese producer in the EU. Great Britain, which produces around 400,000 tonnes of cheese per year, also occupies a top position.

One of the leading suppliers of cheese in the UK is The Cheese Warehouse. The company from Whitchurch, near Birmingham, supplies a wide product range including grated cheese, diced cheese and block cheese as well as a wide variety of cheeses to food manufacturers, food retailers and the catering industry in Great Britain. The Cheese Warehouse invests continuously in process development in order to be a reliable partner for companies in the food industry, focussing constantly on the quality of its products, quick delivery processes and a good cost-benefit ratio.

Problem ■ ■ ■

Inefficient labelling processes result in lower productivity

Due to a stronger demand in recent years, order volumes have increased significantly at The Cheese Warehouse. The company therefore depends more than ever on quick and precise delivery processes to handle its orders efficiently and to satisfy its customers. One of the most important procedures is the fast and accurate labelling of boxes for dispatch so that no time or material is wasted due to incorrect labels being attached.

The Cheese Warehouse noticed that previous labelling processes no longer met its requirements. They were labour intensive, inefficient and uneconomical. In the past the labels were printed in bulk far away from the production lines on large label rolls, transported at great cost to goods dispatch and then manually applied to the packages by the employees. As a result there was



great potential for error, and inaccurate labels regularly caused problems further on in the supply chain. The labels therefore had to be removed from the boxes before dispatch and replaced by correct labels. A significant amount of material and a lot of time was being wasted, leading to unnecessary costs and lower productivity. Sometimes the delays also resulted in the cold chain being disrupted. As a consequence, the cheese could no longer be delivered to the customer; hence further financial losses were incurred.



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right by our customers.

Solution ■ ■ ■

Installation of state-of-the-art printer applicators with high-performance printers

The Cheese Warehouse therefore decided to install state-of-the-art printer applicators on its production lines. The machines had to improve efficiency, increase productivity and minimise the risk of incorrect labels being attached. The new printer solution had to be cost efficient both in terms of acquisition price and operating costs. After comparing various systems, the P100 printer applicator of the British manufacturer Codeology was installed. Paul Ciesielski, Engineering Manager at The Cheese Warehouse, explains why: “We introduced the P100 system because we were impressed with both the price and the reliability of the solution. The fact that it could also be easily integrated into existing networks, the robust stainless steel design and the positive experience we have had with Codeology in the past were also important reasons for selecting this system.”

The core of the system is the A-Class print engine from Datamax-O’Neil for printing thermal transfer labels. It has been designed specifically for integration into printer applicators and sophisticated print-and-apply applications. Due to its innovative design features such as stainless steel cover and components, the print engine always functions reliably even under harsh conditions in an industrial environment. The A-Class product family from Datamax-O’Neil has also been designed for fast throughput of printing material and is easy to operate. Due to their modular design, the printers can be serviced quickly; for example the print head, platen roller and other components can be replaced and cleaned weekly of paper dust in no time. Thanks to numerous industry-standard interfaces (parallel, serial and USB are standard), the printers can also be seamlessly integrated into existing systems without any problem. In addition, the printers are equipped with a LAN connection, which allows data to be efficiently transferred. In combination with the iBar label software from Codeology, it is also possible to manage all the printers centrally from only one computer. The software also supports, for example, the automatic calculation of expiration dates and a simplified label design.

Results ■ ■ ■

Systems optimise processes with performance and reliability

After the first P100 was installed at The Cheese Warehouse, there was an immediate improvement in efficiency. The company therefore also implemented the system on its two other production lines. In particular the A-Class print engine was responsible for significant improvements. The labels are now printed just before they are attached to the boxes. The labels are then applied automatically in the system, preventing the risk of incorrect labels being adhered to packages. This reduced the material that was being wasted to a minimum. The high throughput of the print solution also resulted in an improvement in productivity. At The Cheese Warehouse six boxes per minute can be labelled and prepared for transport on each production line with the P100. With a daily operating time of twelve hours, each A-Class print engine therefore prints almost 13,000 labels per day.

The P100 printer applicator and the integrated A-Class from Datamax-O’Neil also impressed the technicians and operators because the good throughput rate is not achieved at the expense of reliability. For example, it took two years and five months before a print head had to be replaced on one of the print modules. This had previously been used for 16 weeks in a demonstration printer, which further underlines the resilience of the solution. In this regard it is also of benefit that the barcodes can be printed in picket fence format. As, unlike ladder format barcodes, they can still be read in spite of indistinguishable or missing pixel elements, it is possible to print them smoothly with heavily worn print heads. The print heads, therefore, only have to be replaced very rarely, keeping The Cheese Warehouse’s costs low.

Thanks to the long life components, the associated short downtimes and the reduced waste of material, the operating costs of the system are economically viable. “We were immediately impressed by the solution and our expectations have been achieved following implementation. The systems from Codeology with the integrated print modules from Datamax-O’Neil work efficiently and reliably,” explains Paul Ciesielski. “We were able to reduce the number of incorrect labels to a minimum and speed up processes considerably. As a result we have significantly improved our productivity and further strengthened our market position.”

