

Fully automated case packing systems double box output

Mail order pharmacy optimises its logistics

The mail-order pharmacy business is booming and the market in Germany is fiercely competitive. This makes the quality and speed of delivery a key selling point. The online pharmacy Eurapon has therefore optimised its logistics area and invested in fully automated systems for case packing. By using systems from the manufacturer Lantech, box output has been nearly doubled.

Eurapon operates a modern logistics centre in an industrial area of Bremen. From there, over-the-counter cosmetics, beauty and wellness products plus food supplements and other over-the-counter medicines are shipped to customers across Germany. The company has experienced rapid growth in recent years, accelerated still further by the Covid pandemic. Whereas in 2010 around 1,000 boxes were sent out daily, today the figure is anything up to 20,000. Such growth rates can only be achieved through process optimisation.

Eurapon's operations manager Yilmaz Akin describes the challenge facing the mail-order pharmacy: "The line management in our logistics centre must be faster and more flexible than that of our competitors. Automation needs to be kept in proportion, because speed must not be at the expense of flexibility." Eurapon's shipments are always packed individually, usually with a small number of products, and each order has to be carefully checked so that, for example, the legally permitted quantities of certain drugs are not exceeded. For reasons of efficiency, all orders are packed in just two case formats.

Investing in case processing. In view of rising order volumes, Eurapon had to increase the performance of the two processing lines. The semi-automatic case processing systems at the beginning and towards the end of the lines were the obvious places to start. Both the erection and the sealing of the cases had to be done much faster. A call for tenders led to contact with Lantech, a packaging machine manufacturer with extensive expertise in the field of



Speed and flexibility are called for in Eurapon's logistics centre

case and tray handling. After a number of successful tests, two C-1000 case erectors and two CS-1000 random case sealers were ordered. "The performance of these Lantech systems was greater and their space requirement smaller than those of the other machines offered to us," says Yilmaz Akin, explaining the investment decision. The new systems were installed in 2020.

Advantage of square cases. Lantech's C-1000 case erectors combine high performance with flexibility. Many types of cases and closures can be processed with this system, with case dimensions ranging from 200 mm x 150 mm x 150 mm to 500 mm x 325 mm x 520 mm. The range of case sizes and the machine frame, performance data and communication options are customisable depending on the application.

The large case quantities required by Eurapon, for example, made it necessary to extend the blank magazines.

A big advantage of the C-1000 case erector is that it always produces square cases. Perfect 90-degree angles are needed on all sides in order for the cases to be optimally suited to the logistics chain and to provide maximum stability. Non-square cases also lead to machine jams and downtimes. However, the condition of the corrugated board, temperature and humidity changes and variations in case blanks can cause cases to be "unsquared". C-1000 case erectors overcome these challenges. From the moment a blank enters the magazine until it exits the case erector as a properly formed and bottom-sealed case, it is fully controlled. A unique pick-up frame pulls the case from the

magazine and forces it to open so it is square. The flaps are folded before the case moves, making it rigid and locking in its “squareness”. A pusher bar delivers the case to spring-loaded side belts, which move in or out to compensate for variations in width, and carry it over the sealing device.

Secure sealing with high performance. Eurapon also increased the packaging speed at the other end of the lines. Cases filled with product are now also sealed using Lantech systems. Two CS-1000 random case sealers ensure reliable sealing at high production volumes and automatically adapt to changing case formats. The square shape of the cases is also maintained during this step of the process. Automatically adjusted feeding systems ensure correct filling while leaving enough space between cases, thus avoiding jams. Rollers move the case through to the spring-loaded side belts that adjust to accommodate even the slightest variation in case width. The belts hold the case as the precisely timed folding process folds the flaps at the score lines and seals the case, locking in the shape.

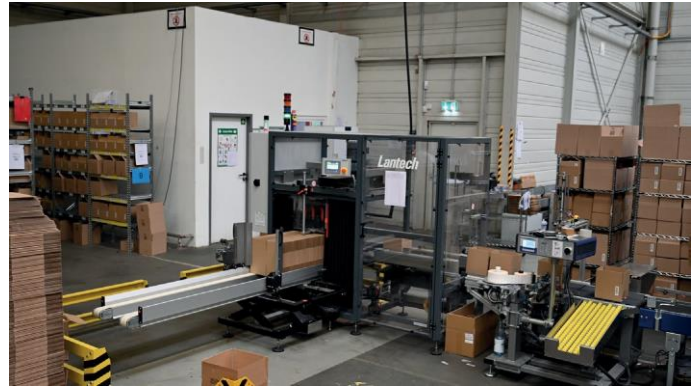
More speed, less manpower. By investing in its case processing system, Eurapon has achieved the significant performance increase it was looking for. Line speeds have increased from 12 to 20 cycles per minute.

“We have not yet exhausted the full potential of the new systems, because up to 30 cycles are possible,” says Yilmaz Akin.



Eurapon's operations manager Yilmaz Akin in front of a C-1000 case erector. The C-1000 combines speed with flexibility. Many types of cases and closures can be processed with this system.

What is more, two fewer employees are needed to operate the lines – the mail-order pharmacy can now assign them to other tasks. So it is not surprising that the investment paid for itself in only six months. According to the company, a third processing line is currently being planned, which will again be equipped with packaging solutions from Lantech. Yilmaz Akin says: “Process optimisation requires good partners. With Lantech, the machines and the service are excellent. We have therefore recommended this supplier to other companies within our group.”



The C-1000 case erector is a high performance system that produces perfectly square cases

Short profile Packaging machinery manufacturer Lantech is a world leader for stretch wrappers as well as robust and efficient case and tray handling machines. Founded in 1972, the US family-owned company developed the world's first rotary stretch wrapping machine and has steadily optimised this technology ever since. Today, Lantech employs around 750 people. The company's European headquarters are located in Malden, Netherlands. [P]