Customer Case Story

Improved packaging process at chrysanthemum grower

Kreling Chrysanten sets up flower packaging automatically



Introduction

Durability, delivery quality and cost-effective production are decisive competitive factors in the cultivation of ornamental plants. In order to optimise the cost structure and streamline production processes, the Dutch plant breeding company Kreling Chrysanten is constantly integrating innovations. With a packaging solution from the manufacturer Lantech, the company has automated the building of the shipping cartons for the flowers.

In 2021, the five largest chrysanthemum growers from the Bommelerwaard region in the heart of the Netherlands joined forces to form the Kreling Chrysanten cooperative. The cooperative's cultivation area is 45 hectares, on which up to 140 million ornamental plants intended for shipping are grown each year. Kreling Chrysanten's customer base includes the largest retailers in Europe. The cooperative is strengthening its position on the international flower market with a targeted investment offensive in cost-efficient volume production and processing.

In addition to consistently high product quality, the rapid availability of plants is crucial to the cooperative's competitiveness. An internal review process revealed that the automation of the production and packaging lines promises the greatest possible return on investment (ROI). Until 2021, for example, the cartons were still built manually by two employees. The three most common carton formats for shipping ornamental plants are now built fully automatically, which has reduced labour costs and increased system productivity.



Investment target packaging line

The cooperative's annual production volume has increased by five million plants since it was founded. In response to the increased volumes, Kreling Chrysanten introduced a two-shift system with an enormous personnel and administrative effort in order to handle daily production without delays. However, manually building cartons was monotonous and strenuous work, which resulted in regular interruptions and absences due to illness.

In view of the ever-increasing production volume, constant performance of the packaging line was a top priority for Kreling Chrysanten: "Since we installed the C-1000 <u>case erector</u> from Lantech, we have been packing more reliably and avoiding downtime. We also save on labour costs," says Jan Kreling, explaining the investment decision.

The contact with Lantech, a packaging machine manufacturer with extensive expertise in areas such as case and tray handling, came about through recommendations from other floriculture companies. At an initial meeting at a trade fair, an appointment was made on site and just a few weeks later, the Lantech experts visited Kreling Chrysanten's production facilities. The C-1000 case erector from Lantech was the right choice due to the flexibly variable carton cutting sizes and the high throughput rate of up to 30 pieces per minute. The machine was integrated into the packaging line at the beginning of 2023. The installation was completed within five hours. The discharge roller conveyor was raised to ensure a seamless transition to the subsequent filling station.



Square case advantage

The C-1000 case erector combines high performance with flexibility. Many types of cases can be processed with this system, with case dimensions ranging from $200 \text{ mm} \times 150 \text{ mm} \times 150 \text{ mm}$ to $500 \text{ mm} \times 325 \text{ mm} \times 520 \text{ mm}$. The case size range as well as the machine frame, performance data and communication options can be customised to the application so that Kreling Chrysanten can flexibly produce the three most important shipping formats with just one machine.

Another advantage of the C-1000 is the reliable right-angled building of the 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. Cases that are not square also cause machine jams and production downtime. However, the condition of the corrugated board, temperature and humidity changes and variations in case blanks can affect the squareness.

From the moment a blank enters the magazine until it exits the carton builder as a properly formed and bottom-sealed case, it is fully controlled. A special pick-up frame pulls the blanks out of the magazine on two sides and forces them into an open and rectangular position. The bottom 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 unit.



Ready for further growth

By investing in the packaging line, Kreling Chrysanten was able to reduce costs and improve production continuity. The amortisation period is estimated at two years. In future, further line components are to be automated in order to fully utilise the potential of the case erector. "With 15 cycles per minute, we are currently only producing at half capacity," says Jan Kreling, referring to the possibility of increasing the machine's throughput to up to 30 cases per minute by making minor adjustments. The cooperative is therefore well equipped to continue its growth trajectory of recent years.

Automation continues

The successful automation of case processing has already prompted the management of Kreling Chrysanten to start further investments and to renew its collaboration with Lantech. According to the company, a second C-1000 case erector was ordered in order to be able to produce for several customers at the same time. With the integration of the Lantech systems, the cooperative is pursuing a long-term growth plan. "We are currently examining the economic viability of a fully automated packaging robot that, in conjunction with various Lantech machines, automates the entire production line for our ornamental plants," says Jan Kreling,



About Lantech

Lantech is recognized worldwide as a leader in robust and efficient case and tray handling machines and stretch wrapping technology. Our mission is to dramatically reduce the billions of euros of damage that happens in transit, making sure products get from the factory floor to the retailer's door in pristine condition. For more information about the different machine types, please visit our website.

For more information about the different machine types, request a <u>quote</u>.

See our Case Erectors

See our Case Sealers

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