

“Technical knowhow and a constructive approach made us choose Pattyn.”

KORNELIS CAPS & CLOSURES (THE NETHERLANDS)

Ytsen de Boer, Project Manager

KORNELIS CAPS & CLOSURES, established in 1936, is one of the largest injection molding companies in the field of plastic closures. They can rely upon a long history, but innovation is their driving force.

Kornelis aims to be a leader in the packaging industry through rational development, environmentally friendly production and fast delivery times of high-quality caps, closures and closing concepts for the European packaging market.

Mr. Ytsen de Boer explains: “Ever since the foundation of our company, Kornelis has designed and produced both standardized and customized solutions for various prominent customers in the food industry. Focusing on the production of bakelite components at first, our company has evolved and now offers the same high-quality product as before, but now uses modern plastics. Lids of peanut butter cups, who didn't grow up with those?”

Mr. de Boer continues: “We were looking for an automated packaging solution tailored to our needs. Especially our wish

to control the whole factory over MES (Manufacturing Execution System) was an important factor in our decision making process. As hygienic regulations are becoming stricter every year, the packaging line also **had to live up to the highest possible safety standards.**

Technical knowhow, machine standards, technical details, and the way Pattyn thinks along to find the best solution made us choose for this pioneer in bag-in-box. Thanks to our dedicated collaboration we even worked out a solution to automatically load blank cartons, with different printing labels, on the case erector's magazine.”

“Cartons are loaded by a robot from 6 different pallets, which ensures high autonomy and reduction of manual labor.”

Kornelis acquired a complete Pattyn packaging line. The case erector opens the blank carton perpendicular to the glue seam, creating perfectly rectangular boxes. This offers a reliable solution, with a high box shape retention as a result. A very compact and convenient bagmaker inserter automatically makes bags from a reel and perfectly inserts bags into boxes. After case erecting and before filling, the **QR-code of each box is scanned** to make sure the box will be filled with the right product.



The **AMR (Autonomous Mobile Robot)** picks up the boxes in the production hall and delivers them to the central filling station. By bringing together product, bag and carton only at this stage, all carton and film handling is avoided in the filling & processing area. **This workflow improves safety, logistic handling and hygiene and also creates a lot more space.** After filling, the boxes continue to the bag folder for hygienic bag closing. The fully automated line is completed by the case closer, folding the top case flaps of the box and closing them with tape.

Additionally, the **complete line is compatible with Kornelis' MES system.** This system allows the operators to monitor and control the machines by means of a Tablet, which enables **maximum efficiency.**

Mr. de Boer concluded:

“Previously, internal transportation took 60 to 70% of the operator's time. Thanks to the integration of the Pattyn solution, this time can now be invested in higher value activities and quality control.”



KORNELIS
CAPS & CLOSURES



PRODUCT & CONTAINERS

- Caps & closures put into multiple box sizes

CHALLENGE

- Improve internal transportation
- Separate consumables from the processing and filling area

RESULTS

- Fully automated line offering 60%-70% time saving for one operator
- Improved safety, logistic handling and hygiene, using AMR's
- Complete line is compatible with customer's MES system