

Chocolate lentils in single-serve stickpacks

Case study



Business challenge

A large confectionery producer based in the Middle-East, visited us at the Prosweets international supplier fair in Cologne. To boost sales of their chocolate lentils and increase their market share, they were in need of a fast and reliable machine to pack a guaranteed number of sugar coated chocolate lentils in single-serve stickpacks, destined for retail sale.

To minimize their Return on Investment period (which is of course every manufacturer's main concern), the required output of this counting and packaging system had to be at least 300 stickpacks per minute (with precisely 30 candies in each stickpack; not one more and certainly not one less, to eliminate any customer complaints).

Besides speed and accuracy, quality and reliability were also key factors in their decision to choose an experienced and well-renowned player in the packaging world; one that can provide an all-in-one 'turnkey' solution for their business challenge. Within just a few weeks after their visit, the final proposal and pre-production drafts for their largely customized counting and packaging solution were signed.

Provided solution

Because Cremer had already gained experience with the counting and packing of similar candy resins, the obvious choice was a CS-series counting machine. To achieve the required output, three identical counting machines were placed on a platform, dispensing their product counts into a 6-lane stickpack machine that can easily produce 300 packs per minute.

As a provider of turnkey counting and packaging systems, Cremer decided to incorporate a stickpack machine by Aranow: an international manufacturer of high-end packaging machinery that shares the same customer-oriented company values.

The CS counting machine (CSTQI-830 to be precise), is a food and pharmaceutical grade counter that is designed specifically for processing small (wrapped or unwrapped) products at very high speeds. To direct the product counts from the counting machines down into the six infeed tubes of the packaging machine, an intricate dispensing unit had to be developed. The most challenging engineering aspect wasn't so much about achieving the required output, as it was about preventing the rather fragile colored coating of the chocolate lentils from chipping.

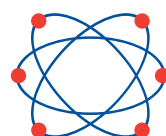


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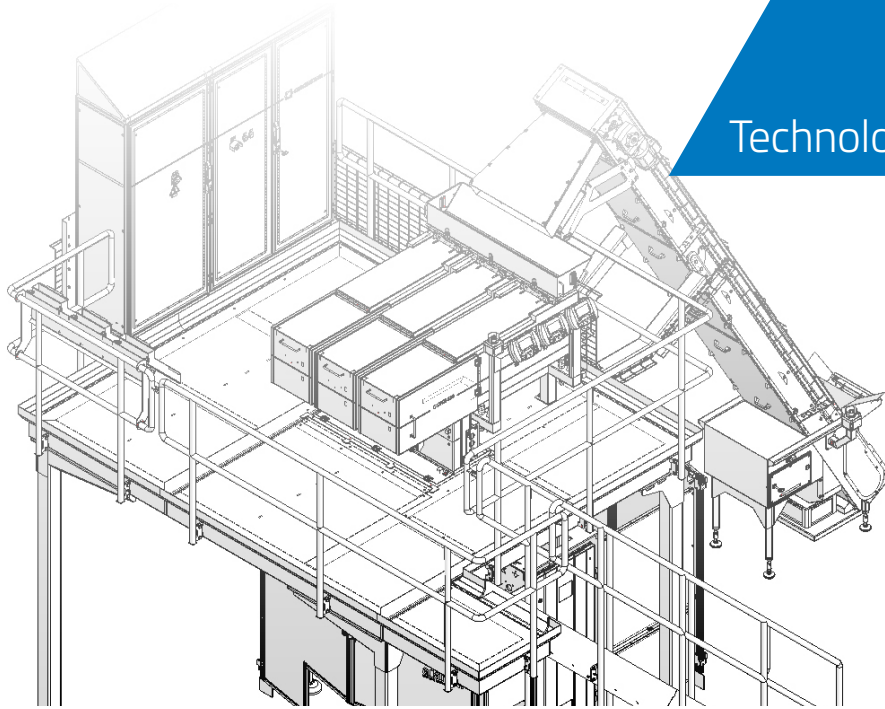
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System configuration

The customer relied on Cremer for developing and providing a turnkey counting and packaging solution. This means that Cremer was fully responsible for the selection, acquisition and full integration of a third-party packaging machine. Shipment, installation, commissioning and operator training were also included in the turnkey contract.

For the delivery of the bulk product to the three counting machines on top of the platform a customized supply/feeder system with an inclined conveyor belt was used. Designing and manufacturing our own feeder systems always guarantees seamless integration, since nine out of ten feeder systems always require some degree of customization.

The counting and packaging system comprised the following equipment:

- Three CSTQI-830 product counting machines
- Cremer DSH-400 product supply system
- Cremer Central control cabinet
- Cremer Discharge/dispensing unit
- Aranow AN1000 6-lane packaging machine
- Overhead platform

The counting and packaging system is designed and constructed in accordance with Machine Directive 2006/42/EC and the design of each piece of machinery complies with all existing health and safety legislation.

CSTQI-830 product counting machine

The CSTQI-830 product counting machine is based on the pharma grade CF counters with complete stainless steel body and easy to clean FDA compliant product contact parts.

Three vibrating V-shaped plates are used for fast product transport and efficient product separation and singulation. The infrared multi-channel product detection unit "scans" and counts the singulated products with 100% accuracy.

Three vertically stacked "memory flap units" are used for collecting the counted products and dispensing them in the right quantities into a discharge/dispensing unit, from where the product counts are released into the Aranow stickpack machine.

Applications

Typical applications for the CSTQI-830 counter are;

- chewing gums
- mints
- candy resins
- chocolate lentils
- chewy dragees
- gummies candy
- tablet sweeteners
- cough pastilles
- vitamin supplements
- homeopathic granules
- beans, nuts, peanuts and seeds

