



## CKF weigh up sweets for global confectionery manufacturer

**CKF Systems have just completed the successful commissioning of their latest case weighing, filling and conveying system for a global confectionery manufacturer who are a long-standing and valued customer.**

Designed and manufactured by CKF at their Gloucester facility, the completed installation of the automated production line has increased efficiency and throughput in the customer's plant by replacing their current manually operated line. The brand-new system receives the flow wrapped confectionery from two wrappers, then positions, weighs and fills pre-erected cases with product. The cases, on exiting the weigh system, are conditioned to ensure that the product is settled prior to case sealing and then conveyed to one of two locations. It was vital that this new system maintains the integrity of the product throughout the system without marking or causing any form of damage.

The system is built around the CKF Vertical Weigh Machine, designed in Stainless Steel and meeting our customer's hygiene specifications. A new distribution system from the outfeed of two flow wrappers, provides for a course and fine feed to the weigher. The wrapped product is delivered into a multi-tier hopper system, providing fill, buffer and weigh zones. Capable of handling different product sizes of the confectionery, the Weigher utilises Precia Molen load cells and has been commissioned to deliver product to fill 7kg of wrapped product per case. The Vertical Weigh Machine meets the customer's defined performance of 105g -1.5%, 84g +1.2% at a case rate of 3 cases/minute, giving a throughput at 1260kg an hr.

The CKF team designed and supplied the full stainless steel turnkey system to fit within the defined area of the manufacturing facility. The wrapped confectionery infeed system incorporates CKF mobile, flighted incline and high-level transfer belt conveyors together with twin feed vibratory feeders. Empty cases are conveyed at low level on a series of CKF standard 24v zero-line pressure roller conveyors, with a buffer capacity prior to the fill position. The zoned conveying allows for pressure-less control of the case. A case conditioner and case accumulation zone is positioned prior to delivery of the case to the sealer and coding printer. A switch is also incorporated into the CKF modular conveying design to provide for diversion to hand stack down if the palletising route is unavailable.

The system control is managed on an Allen Bradley platform zoned to provide three areas of operation, delineated both on the HMI as "Run / Stop" procedures and through the safety circuit. The architecture of the control system is designed to minimise downtime and disruption as unaffected equipment will continue to run should a particular zone become unavailable.

An easy-to-use interface is available via a 12" AB Panel View HMI, providing the operator of the system with the ability to adjust fill weight levels and access registered data for the Vertical Weigh Machine performance and efficiency.

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