



## CKF delivers the right ingredients for sweet success

**CKF have successfully completed their latest ingredient system for a brand leading, global confectioner. The new system utilises the latest technology in measured, ingredient handling. It is built on the CKF Engineering team's experience for accurately delivering and mixing ingredients for inclusion within the confectionery sector and wider food industry.**

CKF are leaders in automated and robotic solutions with more than 30 years' experience supporting different industries including Food & Beverage, Logistics, Pharmaceutical and Automotive. This is the latest ingredient system to have been delivered and commissioned by the experienced Engineering team at CKF, aiding their clients drive for new product lines and automation of operations within their UK manufacturing facility.

Competition drives innovation within the global confectionery sector and with a continued consumer appetite for new products there is a necessity for manufacturers to deliver new products to market. Often, more cost effectively, modification of existing brands with new variants has been the route to market. CKF have developed ingredient inclusion systems for over three decades, supporting the confectionery sector with flexible, hygienic and accurate automation.

The accurate inclusion of additional ingredients into parent product bars of confectionery creates very specific and bespoke system challenges to overcome. From the very start of the inclusion process, the inclusion materials can be a mixture of natural and / or manufactured, refined ingredients. CKF have developed the material handling equipment and systems for the variety of transportation packaging formats that typically contain the ingredients. These include bin tipping, bulk bag hoist systems, hopper storage and vacuum handling.

The quality of ingredients, once input into the system, has to be guaranteed to meet the final product specification. Whilst production refined ingredients are more likely to be of a regular specification and quality, i.e size, moisture content, more natural products, often used for inclusion, will be sourced globally and seasonally, which can result in the irregular quality of the ingredient. CKF screening systems are used to remove unwanted inclusions in the form of oversize, undersize, skin, shell, broken and stalks. With the use of refiners, clump forming ingredients (formed within packaging and transportation) will be separated, providing a regular quality and precise particle size of the ingredient into the system.

Our experience in material handling has developed transfer and conveying mediums to suit a range of ingredient specifications. Systems incorporate, vibratory feeders, vacuum transfer, trough, flat and flighted belt conveying. The system layout and specific transfers are designed by the CKF Engineering team to suit the customer's manufacturing facility, ingredient and line specification. Focus areas for spillage prevention, transfer speeds, dust extraction, air conditioning and product damage are of prime importance for all the transfer systems.

### **CKF Systems Limited**

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Accuracy of the ingredient mix is essential to the performance of the inclusion delivery system. CKF have developed and successfully delivered systems with dynamic belt weigh feeders, screw feeders and weigh mixers. Each element is integrated and controlled to optimise ingredient volumes, matching production recipes and delivering on specification. Continual measurement and feedback of the flow of each ingredient is a key feature of the CKF systems, providing clear information, data and alarm if the correct flow of ingredients for a specific recipe is not within tolerance.

Customer specification and recipes determines the layout of the inclusion system and is specific to each system. Flexibility within our ingredient systems provides the opportunity for any number of ingredients to be introduced to a specific recipe. The CKF inclusion systems are designed to manage the stoppage, buffering and start-up of ingredients during interruptions within the main production line. Our systems are mobile and flexible providing for disengaging of equipment and providing easy access or removal to wash rooms. Both the mechanical and control interfaces allow the flexibility to extend to being able to hygiene one ingredient line whilst still producing another ingredient recipe. All CKF ingredient inclusion systems are designed with food contact parts in 316 stainless steel, product covers throughout, hygienic conveyor and equipment design.

The CKF turn-key inclusion systems provide for handling and management of the initial bulk ingredients through to delivering the correct ingredient mix / molten chocolate ratio to the main production line. This delivery is via a bespoke servo-driven oscillating system which provides an even supply of mix across the full width of the mix supply hopper to the main moulding plant.

Installed and commissioned by the CKF Engineering team, our latest ingredient inclusions plant is now in production. With accuracy, efficiency and flexibility, the ingredient feed system is providing the customer with the ability to manufacture their product range to the world class standards expected from one of the leading global confectionery brands.

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