



CKF tips to improve productivity at leading FMCG company

CKF have recently designed, installed and commissioned a new robotic tray handling system for a multinational confectionery manufacturer in one of their UK facilities. The new system incorporating two ABB robots is the latest installation of CKF robotic automation undertaken on this site.

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

Two ABB robots (IRB660 and IRB460) controlled via MultiMove and sharing the same IRC5 controller, function together to de-palletise product filled trays, tip the product into a mixing bed and then re-palletise the empty trays.

Pallets loaded with fifty product filled trays are transferred into the cell to the IRB660 fitted with CKF bespoke tooling. The product trays are separated into stacks of five by the robot tool, then delivered and collated into a tray de-stacker enabling the second robot IRB460 to pick two full trays at a time and deposit the contents into a mixing bed. Specialist tooling designed by CKF and using SMC rotary actuators allows for two trays at a time to be rotated 180 degrees to empty the contents. The facility for multiple tips is made available to the operator from the HMI for troublesome product types. The empty trays are delivered back to the working range of the IRB 660 which re-palletises the empty trays.

WATCH: See us testing the solution before it was installed in our customer's plant



The pallet conveying system is derived from the CKF standard range of pallet conveying equipment and the tray handling conveyors have been designed specifically for the client's application. A Siemens S7 PLC drives the system, housed into a two bay, stainless steel floor mounted cabinet. Festo servo-pneumatics are used for the tray de-stacker for position and throughput.

The system has been installed and commissioned by CKF using specialist machine guarding, Leuze safety light curtains for the loading and unloading of the pallets together with Fortress locks to the three personnel access doors into the cell.

The new system has delivered the planned performance increase in throughput and allowed the client to re-allocate operational staff from what has been a heavy repetitive task, with its associated risks.

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