



CKF automate their customer's pallet de-topping

CKF were recently commissioned to produce a pallet de-topping and re-palletising system for one of our global confectionery manufacturer customers. They regularly received pallets that were too high for their racking so they had to manually remove layers of product before stacking which was both time-consuming and labour intensive.

CKF designed and installed a system utilising an ABB IRB 660 industrial robot system which handles loads of up to 250kg and has a reach of up to 3.13m. This machine was chosen because it could lift full pallet layers. The system utilises ABB's motion control software, QuickMove™ and TrueMove™ which ensures the IRB 660 palletising is carried out with smooth movements and high path accuracy and also enables a compact robot cell offering better space utilisation.

The system receives the pallets, which are up to 2.5 metres high, and the robot uses the Unigripper vacuum tool to de-top the pallets and place the excess layers onto a donor pallet. The robot also handles the layer cards and places them onto the new pallet. The system uses a pneumatic pallet stop to hold the donor pallet in place until the new pallet is the desired height to be released.

The system includes a pallet de-stacker to supply empty pallets into the system from a stack of up to 15 pallets. The unit comprises an automatic dispenser with a motor-powered lift and pneumatic fingers device to separate single pallets.

The system utilises a We-Qube 2d vision sensor from Wenglor which ensures the alignment of the stacked pallets before they are wrapped by an Atlanta Arm Wrapper. The wrapper has a rotating arm and is an automatic stretch wrapping machine with a four column frame, equipped with film clamping and cutting system.

The cell is equipped with a localised air compressor which allows the system to work in any location without the need for a mains compressed air supply offering flexibility to the end user. The whole system is guarded and has mutable light curtains to allow the pallets to enter and leave the enclosure and ensures the maximum safety of the system.

By using robotic picking the system removes any manual handling and the risks from operators lifting product above head height. CKF's new system also offers the customer better vehicle utilisation with less wasted space, as well as less vehicle movements and reduced carbon footprint from the product distribution.

CKF Systems Limited

The Pavillions, Olympus Park, Quedgeley, Gloucester GL2 4NF

+44 (0)1452728753

www.ckf.co.uk

