



CKF secures a major central palletising order using Qimarox HR7 Layer Palletisers

CKF are delighted to have been awarded their latest multi-million pound palletising project with a major global confectionery manufacturer. This new contract builds upon the trust and confidence in the capability of the CKF Engineering team to deliver large value central palletising systems. The system utilises Qimarox HR7 Layer Palletisers - CKF are proud to be the sole Silver Partner for Qimarox in the UK and have a wealth of experience integrating Qimarox product lifts, pallet lifts and layer palletisers.

Challenge

Continued development of their environmentally friendly packaging and the need to upgrade an obsolete plant, the customer is investing in a new production line throughout their factory. The new plant will produce a range of shelf-ready and shipping cases from multiple machine outfeeds which can be delivered at up to 90 cases per minute.

These products need to be palletised ready for shipping to retail outlets globally. Due to the speed of delivery and weight of cases the new palletising process is fully automated removing any manual handling challenges. The system is designed to provide moisture barrier sheets laid onto the pallets prior to palletising, layer sheets applied dependent on the pallet pattern, together with stretch wrapping and labelling.

Approach

The customer's initial request was to extend the existing suite of robotic palletising robots with an additional single robot which would cater for all three lines. The CKF Systems team analysed the data and products that need to be handled, enabling a full understanding and utilisation of the customer's original request.

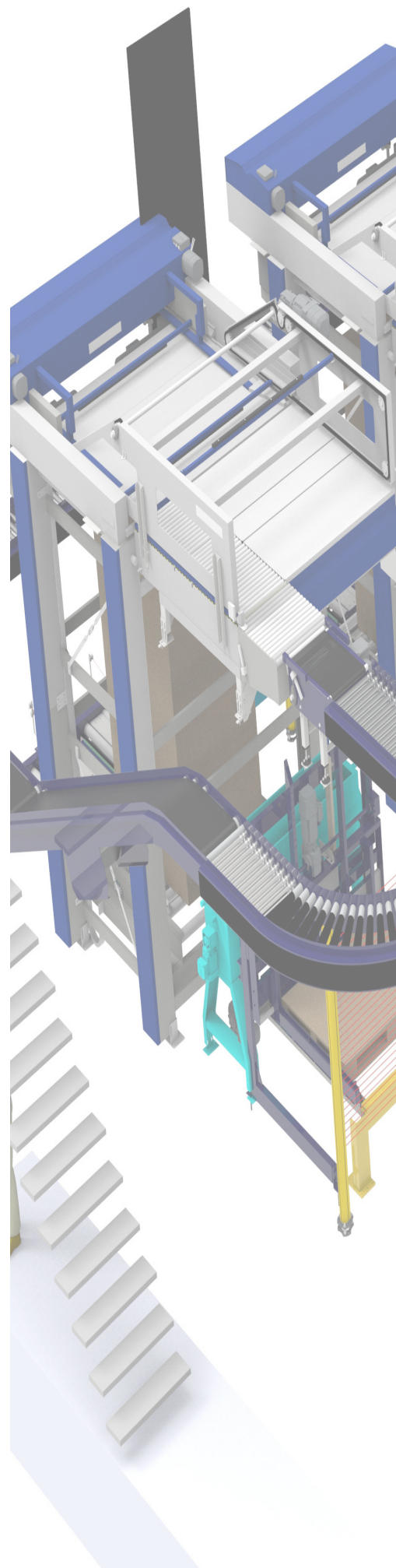
Based on the calculations it was clear that a single robot was not capable of the total throughput, in fact three robot systems would be required. Unfortunately, the available space was not suitable to accommodate the footprint of three additional robots.

CKF reviewed the overall layout of the facility and analysed the product flow to identify alternative solutions that were available to the customer. A layer palletising solution was developed and presented in 3D which, with minor modifications to the existing palletising and no impact to production, allowed a solution that was cost effective, flexible and simplified the palletising operation. The new solution was presented to the customer's engineering and production team allowing the customer the opportunity to collaborate to fine-tune the solution to best fit their operation.

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Solution

The system collects finished cases from the customer's six machine outfeeds and immediately elevates them to a high-level using Ambaflex spiral conveyors. The cases are then fed out onto a series of Intralox Packing to Palletising modular belts, incorporating Intralox ARB technology and series 2300 Zero tangent belting to collate, and feed the cases to palletising at a maximum rate of 90 cases per minute.

Once into the palletising room the cases are conditioned to an aligned position on the conveyor feed and each case barcode is read to determine the destination of the product.

Using an Intralox DARB S4500 sorter, CKF can send any production line to any palletiser giving the customer ultimate flexibility to accommodate changes in production and schedule maintenance on individual palletiser machines.

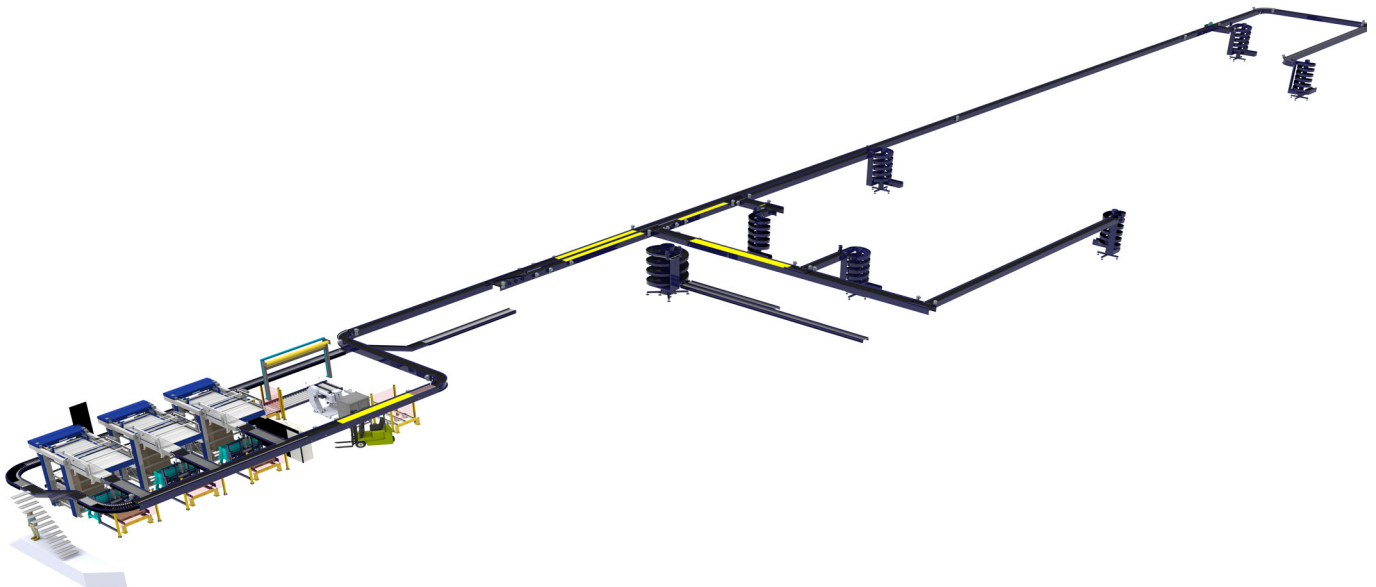
Layer patterns are easily generated by the customer using the on-board layer pattern generator which is embedded into the HMI and simply requires the inputting of simple case dimensions and pallet detail. The system will present the operator with a choice of pallet patterns which they can simply select and save against the product code.

Cases will be oriented and positioned using the Twist Runner 2 system and Qimarox's robust layer formation table. Once a layer is formed it's pushed onto the bomb doors where it's deposited onto the waiting pallet positioned immediately below the doors. The pallet is handled and presented by a Qimarox MK10 pallet lift.

Euro or UK pallets are loaded into CKF's pallet destackers in stacks of up to 15 pallets which will automatically adjust to cater for the different pallet type. As it's fed to the palletising position a moisture barrier sheet is positioned on the pallet.

Once a full pallet is created it will be conveyed on CKF's PRC1100 range of pallet conveyors to an Atlanta Packaging UK Mytho which is a turntable pallet wrapper. Finally, the pallet is labelled to GS1 standards using the Domino Printers M230i pallet labeller and presented to the offload point for offloading by an operator on a FLT.

The whole system is enclosed in Troax machine guarding to create multiple safety zones with separate access into each zone.

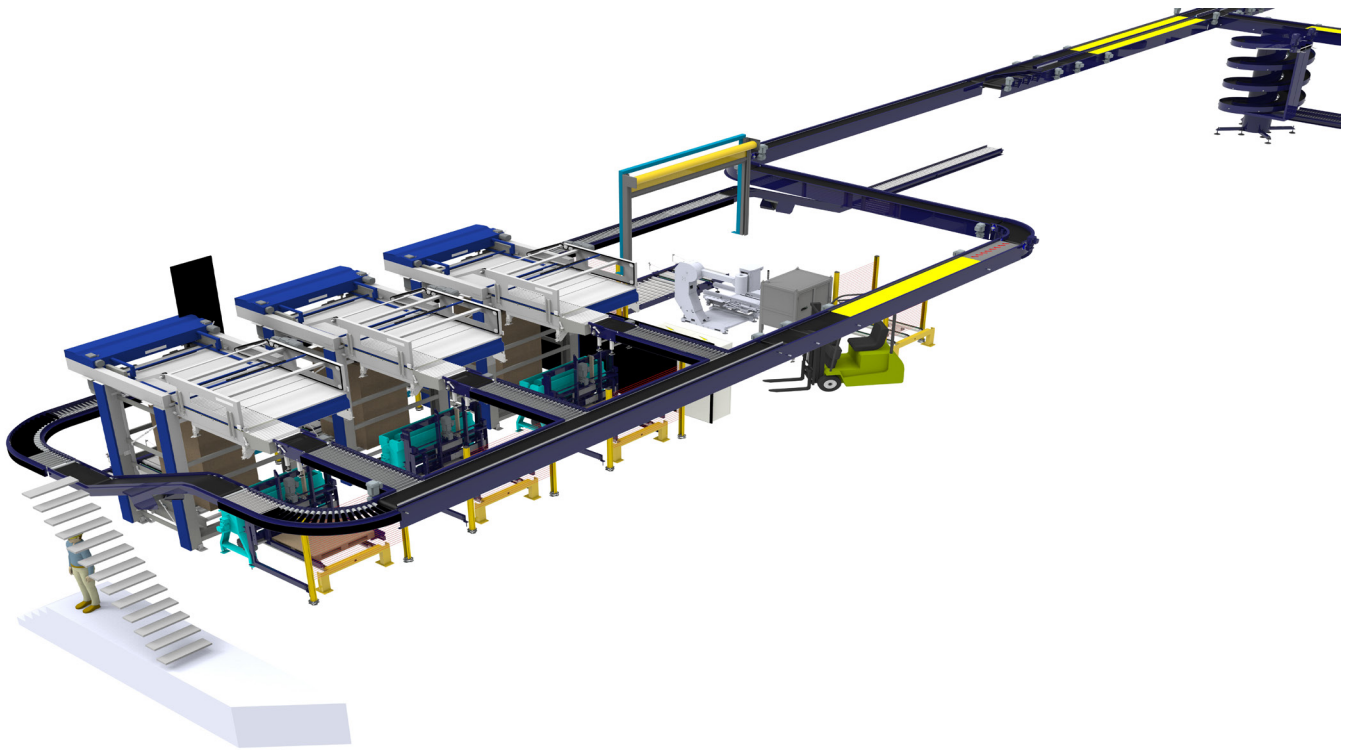


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Summary

CKF Systems work closely with our customers to recognise and develop the best possible solutions for their operation. CKF are not constrained by suppliers or products; we develop the right world leading solutions to suit our clients' operational requirements.

The combination of technologies from CKF Systems, Ambaflex, Qimarox, Atlanta Packaging, Domino and Intralox has created a truly cutting-edge solution to cater to all the customer's needs in a very small footprint, offering ease of access and low maintenance, while maintaining production flexibility.

The CKF Systems team approach all our system concepts in a collaborative way. Our wealth of experience, developed over the last 35 years, is trusted to deliver innovative, flexible, and robust solutions for our leading global manufacturers.

About CKF

CKF Systems has been operating as a leading turnkey automation provider in the UK since 1988 and has a wealth of experience integrating state of the art automation solutions for our customers who range from SMEs all the way up to some of the biggest global corporations.

We are pleased to have achieved some of the highest accolades and partnerships with Qimarox, Intralox, ABB and Interroll for many years, demonstrating their commitment in supporting CKF's capabilities.

CKF offer the full turnkey solution from concept to installation with all our conveyors, software and electrical system designed and built in-house at our offices in Gloucester. The systems are then installed, commissioned, and supported by CKF full time site teams.

To learn more about CKF's robotic and product handling capabilities please visit www.ckf.co.uk or contact us directly on info@ckf.co.uk.

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