



Unique packing & palletising system integrated with track & trace capabilities

Oceania Dairy Limited was initially established to help meet growing international demand for New Zealand milk powder. It is a registered dairy exporter and operates under a Ministry for Primary Industries approved Risk Management Program for its raw milk collection, manufacture, storage, and transport of the final product.

Their main aim is to provide an internationally recognised and respected source of highly valued dairy nutrition that nourishes people for a better, healthy life.



THE CUSTOMER

Oceania Dairy

“The commitment of RML to high quality service is at a level we had not seen before.”

Robbie Breen,
Canning & Pouch Production Manager,
Oceania Dairy

“RML have been ready to help and be solution orientated, even at times when things have got hard.

The trust and reliance that has grown from this has us achieving numbers we previously did not think would be possible. We will be searching for opportunities to collaborate with RML in future.”

THE CHALLENGE

Oceania Dairy approached RML with the challenge of automating a manual case packing and palletising process. The previous process included an operator picking and placing 1kg foil pouches of milk powder into an RSC shipping case, and then manually palletising these cases onto a pallet. The solution that RML proposed was to use a D106 Intermittent RSC Top Load Case Packer with a tape closing option and a Q102 Palletising System to fulfil the challenge that Oceania Dairy was encountering.

Within the scope of the challenge, Oceania had requested the track and trace of all pouches from the filling room into the cases, and then onto the pallets, ensuring the traceability of the product throughout the process for quality purposes.



THE SOLUTION

The solution included a customised Automated D106 Intermittent RSC Top Load Case Packer integrated with a tape-closing system to load the foil milk powder pouches into the cases and close them for palletising.

During the packing process, the products and cases are tracked through the case packer. The products unique QR is scanned as they are loaded into the cases, moved through the closing section of the equipment, checked weighed, and applied with a label that contains the information of each pouch such as weight, batch identification, and production dates.

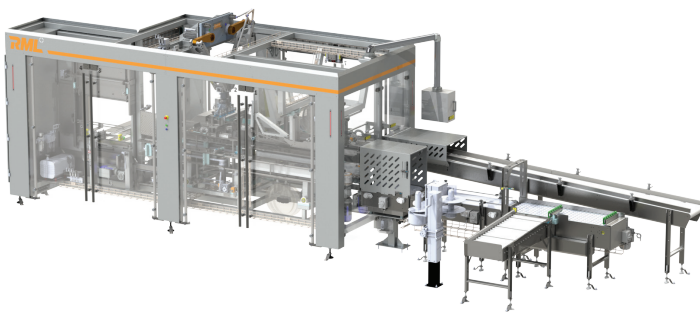


THE SOLUTION CONTINUED...

The closed cases are then conveyed to the Q102 Palletising System, where the cases are scanned and collated. An ABB Industrial Robot picks the collated cases from the conveyor and places them on a pallet in a pre-determined pattern. The robot layers the cases on top of one another until the pallet is full.

Once full, the pallets are then conveyed to the staging zones, collating full pallets that can be called for by the forklift operator if needed, or, collated until the conveyor is full of pallets of cases.

Empty pallets are fed into the palletising cell as stacks of 10. When a full pallet is completed and moves from the palletising conveyor, the ABB robot locates and picks a pallet from the stack and places it at the palletising conveyor. The ABB robot picks a slip-sheet magazine and places it over the pallet prior to palletising.



D106 Oceania Dairy Intermittent RSC Top Load Case Packer Render



Q102 Oceania Dairy Palletising System Render



Once the pallets have been completed, the traceability data held by the equipment for pouches in cases and cases on pallets is transferred onto the Industrial Control System for quality purposes.

This project was complex, but it was one we were able to leverage our 40+ years of industry expertise to complete. The final result was an innovative case packer and palletising system with track and trace capabilities designed and built by RML to unleash the productive potential of Oceania Dairy Limited. In addition, the customised design and build of the machines has allowed for the production line to be future proofed for future expansion.



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We love solving challenges that free our customers and maximise human potential.

