



Payback on robotic investment in less than 22 months

Challenge

Lifting cases with food products is a tough job, if lifted manually. At the Red Mill Snack Foods, in the West Midlands, they decided to put a robot through the task, saving both time and money, as well as staff from getting occupational injuries

Solution

A robotic system based on a 4-axis MOTOMAN-SP100X palletizing robot with 160 kg payload replaced the arduous job of lifting cases by hand. The system also included conveyors and handling equipment supplied by Soco System Ltd.

Five bagging production lines are now served by the new system. Bagged products are packed manually, and then the case is top and bottom taped automatically before continuing its journey. Each product variety has its unique layer pattern programmed into the host computer. Once the complete layer is formed, the robot picks it up with a specially designed gripper and transfers it to one of five available palletizing positions. The robot control knows the appropriate number of layers to complete a pallet, and the height of a fully loaded pallet is typically 2.2 metres.

The beauty of the installed system is its ease of use, high flexibility and reliability with minimal need for operator intervention. Additionally, as the MOTOMAN robot is picking complete layers of collated product and even though the combined total throughput is high for this industry, it more than copes due to its high-speed capability combined with flexibility and versatility

Results

The installed system eliminated the need to employ up to three operators per shift, 24-hours a day, Monday to Friday. According to Red Mill's Manufacturing Director, Simon Faithful, payback was calculated at less than 22 months.

With the MOTOMAN robot now stacking the pallets, health and safety concerns relating to manual loading are no longer an issue, and personnel have been redeployed from the tiring and repetitive job to more amenable work within the factory.

SHORT FACTS

Customer

Red Mill Snack Foods

Product

Snack food

Country

UK

Industry

Food and beverage

Application

Palletizing

System Components

- SP100X-160 robot
- Specially designed gripper

Results

- Reduction of manpower: 3 per shift
- Eliminating health and safety issues
- ROI: less than 22 months

CONTACT

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