Tamworth based, Axiom GB, has manufactured and installed an automated packing solution at Lakeland’s mail order distribution centre in Kendal. The new system has been designed to nearly double the productivity of Lakeland’s operation whilst reducing costs and presenting a better finished parcel for the customer.

Lakeland is a family owned business which will celebrate its 50th year of operation in 2013. The company has grown from humble beginnings to become one of the UK’s leading kitchenware companies offering over 4,000 different lines. It boasts 57 high street stores across the UK and a thriving mail order business where thousands of products are picked and packed each day for the worldwide market.

Moving away from a labour intensive manual process
Lakeland’s mail order operation processes over 1.3 million orders per year. Orders can be made via the internet, phone or post.

Mike Gannon is Lakeland’s mail order operations manager and he was tasked with overseeing this major automation project. He comments, “Historically the packing process has always been very labour intensive. Each day we’d receive pallet loads of 7 or 8 different sized boxes. The packers would have to select the appropriate sized box, make it up, fill it with product and void paper, tape it shut and then apply an address label.

“As the company has grown, manual packing was becoming too time consuming to be cost effective. Therefore a decision was taken to use automated specialists, The Logistics Business, to help us in the tendering process to seek a suitable partner to automate our entire packing system.”

“\text{If a new solution can save you 40 to 60 seconds on each order you pack and you are processing over a million a year, that’s a significant saving.}”

Mike Gannon
Mail order operations manager
Axiom’s automated solution increases productivity for Lakeland

“We had a go live date and we started packing on the new system exactly to plan - all credit to Axiom.”

Mike Gannon
Mail order operations manager

Finding the perfect partner

Gannon continues, “I already knew Axiom as they had been working with Lakeland for a number of years giving us support and assistance with our existing conveyors and our miniload system through both hardware and software. Previously, they had proved to be incredibly reliable and a great company to work alongside, however, as this was a major project for us, it was important that Axiom’s tender was viewed objectively alongside a number of alternatives.

“In the end Axiom came out on top on their own merit. They offered the best solution at a cost effective price in what was a very fair and open process against other experts in the automated field.”

Installing a scalable solution

Once Axiom had been awarded the contract, work commenced to install the new system in the busy run up to Christmas, Lakeland’s peak period. There were a number of difficulties to be overcome during the construction period: Fitting the new mechanised packing system into the tight confines of the building, integrating the new solution with the B+ packaging machines and completing the work in a tight timescale without interrupting Lakeland’s order processing.

“The automated solution takes up a smaller footprint than our old manual system,” explains Gannon. “It was always our intention to leave space to expand our picking operation in the future by the addition of another picking aisle, Axiom’s design leaves us the vital space to be able to do this.

“We were confident right from the start that Axiom not only had the appropriate skills to integrate their machinery and software with the B+ equipment, but also in terms of post go-live, we wanted the Axiom engineers to be comfortable supporting the entire solution for the foreseeable future.

“We really needed to hit the ground running with the new system,” continues Gannon, “we separated the area into two parts, closed one for Axiom to do their work and used the other half to continue packing. We then swapped over and it

Key Benefits

• Significant increase in productivity
• 40-60 seconds saved per order – Cost effective
• Fully automated system – increased accuracy
• Reduced cubic capacity of parcels
• Increased parcel load per trailer – 1400 to 1800
• Smaller footprint – vital room to expand
• Fully integrates with existing equipment
worked seamlessly. We had a go live date and we started packing on the new system exactly to plan - all credit to Axiom.”

**Automate to save time and money**

At the start of the picking process, Axiom’s automated packing solution presents boxes from the carton erector machines to the packers – either a large box from the upper level conveyor or a smaller one from the lower level conveyor. At this stage a small barcode has already been applied to box, the packer assigns an order number to the barcode and then packs the order from the picking trolley before placing it on the middle conveyor.

This ‘takeaway’ conveyor transports the boxes of completed orders to one of two lidding machines. Here the system senses the height of the products inside the box, it scores and folds the box down to the appropriate height, then applies the lid. After this, the sealed box continues its journey along the conveyor.

Scanning the barcode further around the system allows the correct address label to be applied (sensors ensure the label applicators are automatically positioned at the right height for each box). The conveyor then takes the parcel to the dispatch bay where it goes straight into the back of a waiting trailer via a boom loader.

“Approximately 75% of our orders go through the automated route,” concludes Gannon, “these orders can be processed at the rate of 44 per person per hour, an 80% increase in productivity compared to the orders that still have to be packed manually – at the rate of just 24 per person per hour. If a new solution can save you 40 to 60 seconds on each order you pack and you are processing over a million a year, that’s a significant saving.

“We’ve also reduced the amount we spend on cardboard because we are now making up boxes from flat pieces of board rather than buying a more expensive, pre made box and we’ve been able to reduce the amount of void fill paper we use by two thirds. Another important benefit is the presentation of the box to the customer, which is superb, exceeding all of our expectations. It’s the right size box for their products and it’s easy to open via a tear off strip. Additionally the reduced cubic capacity of the parcel means that we have increased the trailer fill from 1400 parcels to closer to 1800 parcels again, a significant improvement.

“We have a great working relationship with Axiom, they are both fair and transparent in the way they do business and that makes for a very trustworthy partnership. There’s no doubting their design and engineering skills and the quality of their products. They’ve also proved to be very good at spotting solutions to problems, always delivering over and above our original remit. We’ll continue to work with them to develop the machinery and the process to deliver even better results in the years to come.”
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