




**BS Handling Systems delivers
pick-to-light conveyor solution
for Mindful Chef**



British healthy meal kit retailer, Mindful Chef, turned to BS Handling Systems when they wanted to add automation into their distribution hub in Redditch.

Mindful Chef

Founded by three friends, Myles Hopper, Rob Grieg-Gran and Giles Humphries, Mindful Chef supplies subscribers with recipe kit boxes which include ready-measured, fresh ingredients and easily followed healthy recipes.

Since it was established in 2015, the business has enjoyed rapid growth and this was a key driver in the desire to improve the throughput and accuracy of the distribution operation. BS Handling Systems was recommended to Mindful Chef by software controls specialist, IDC, which has been a long-term supplier to Mindful Chef and has worked closely on projects with BS Handling for many years.

“After appointing BS Handling Systems to carry out some initial work on our existing system, it gave us the confidence to ask them to quote to develop a new automated conveyor line with pick-to-light stations,” explains Matthew Maxwell the production lead at Mindful Chef.

He continued, “Our goal with the new line was not only to increase the throughput performance, but also to significantly improve the accuracy of the picking process.”

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A thoroughly professional yet friendly company

“From day one of working with BS Handling it was clear that they were no ordinary supplier. There was always a willingness to go the extra mile and it was obvious that they had our best interest at heart. Phil Taylor, who was BS Handling Systems’ key account manager on the project, was flexible, easy to work with and a great communicator. He and I sat down together and between us designed the system that would deliver everything we were looking for.

“The result was a 40m ‘bus stop’ style conveyor system with six pick-to-light stations and a quality control (QC) station at the end of the line to further improve accuracy. In essence, it is a very simple solution, but it is driven by a sophisticated controls software system.”

Pick-to-light stations

At the infeed end of the system an automated box erector machine prepares the outer delivery box and sends it off down the line. Each box has a barcode on it that, when read by a scanner, tells the system which pick-to-light station or stations it needs to go to. Once the box has been diverted to the correct station, another barcode reader scans the box which automatically lights up the items that need to be picked for that order from the flow racks above.

The operator then picks each required ingredient from the lit up flow racks, pushing a button for every item picked to tell the system that it has been taken. Once the operator has picked all the items for that box they push the white ‘order complete’ button which automatically sends the box back onto the main conveyor.

The box then travels either to another pick station or the QC station prior to reaching the end of the line. Opposite the QC station there is an automated leaflet inserter which drops in any paperwork or promotional material required for each order.

To help prevent loss of customers, the QC station is governed by three criteria, with boxes diverted for checking if the system: a) thinks have incorrect or incomplete orders; b) the order is for a customer who has complained of an error in the last four weeks or c) boxes are randomly sent for QC. The boxes sent into the QC station are checked by an operative to make sure all is present and correct before sending the box back on the main conveyor.

When everything is correct, the boxes pass through the automatic box closer where they are sealed before travelling to the end of the conveyor. Here, they are taken off and stacked on a pallet before being wrapped and driven by forklift truck straight into the back of a carrier’s trailer.

30 percent improvement in throughput

Matthew Maxwell again, “Although it is early days, we have already seen a significant improvement in throughput of at least 20 percent. In addition, we are working on box sequencing which will add a further 30 percent increase in throughput. The new system is capable of handling 1000 boxes an hour, although we are currently operating at a maximum of around 650 to 700 boxes an hour.

“In terms of accuracy, we have achieved considerable gains. When the operation was manual, an error rate of around 1.5 percent was normal. With the new system our target is 0.5 percent, and although we are not quite there yet, we expect to reach that target soon as the team learn more about the system and refine the process.

“The new line has eliminated much of the ‘human error’ element from our picking operation. This, from our customer’s viewpoint, means they rarely experience any inconsistencies with what they ordered. And, of course, having totally happy customers who stay loyal to the brand is our ultimate goal.”





Partnering with BS Handling Systems has helped us drive the business forward, improving our customer service by minimising errors and speeding up our throughput. ”

Matthew Maxwell,
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Planning for the future

“The gains we have made with this new automated pick-to-light line have given us the confidence to place further orders with BS Handling. These include two more pick-to-light conveyor lines with robots at the dispatch ends to automate the removal of the boxes from the conveyors and stack them on pallets.

“The aim is to have the new lines operational by the end of Q3 whilst the robots will be added early in Q4. The total investment in this automation process will be in excess of £1.6 million; the savings in terms of time and money, however, will deliver a payback within 12 to 18 months and, more importantly, boost customer retention levels.

“Partnering with BS Handling Systems has helped us drive the business forward, improving our customer service by minimising errors and speeding up the throughput of our distribution operation. What’s more, not only has it been a pleasure working with such a professional, accommodating company which is excellent at adapting to our needs, but it’s also been fun,” concludes Maxwell.



BS Handling Systems

Established in 2009, BS Handling Systems is a provider of warehouse, storage and conveyor solutions across a broad cross-section of industries. Our first principle of business is customer satisfaction and peace of mind. Based in Leicester and drawing on 100 years’ experience in the materials handling industry, we offer a unique competence in delivering bespoke systems and solutions.



BS Handling Systems
Warehouse, storage & conveyor solutions

T: +44 116 289 4958

E: enquiries@bshandlingsystems.com

W: www.bshandlingsystems.com

BS Handling Systems Ltd, 5 Oswin Road, Brailsford Industrial Park, Leicester LE3 1HR