

ASDA

Lymedale, Newcastle-under-Lyme, UK

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AUTOMATED SOLUTION

The new automated system allows for a big step in operational efficiency decreasing the amount of time it takes for flat or hanging garments to get from storage to the stores.

CONSULTANCY APPROACH

SDI's unique consultancy approach has resulted in a solution that is future-proof, being able to meet the future outputs needed, and other precise needs of the customer.

ENHANCED OPERATION

The solution has increased operational efficiency, performance, visibility and control with the conveyors able to transport 200,000 individual garments.



THE CHALLENGE

ASDA's flagship distribution centre (DC) in Lymedale, Newcastle-under-Lyme is home to George clothing range. The 25,000 sq m warehouse currently has the capacity to hold more than 1.8 million garments, both flat boxed and hanging items.

ASDA needed ways to transfer incoming flat and hanging items to the storage areas, quickly and effectively, with minimal labour contact.

THE SOLUTION

SDI has installed systems to handle both flat and hanging items enabling ASDA to undertake more than 1.4 million order picks per week. The installation uses radio frequency identity (RFID) tagging, interfacing with bespoke process control software to manage inventory storage and direct order picking.

RFID technology was chosen in preference to bar coding because of its greater flexibility. Infinitely variable information can be written on tags increasing the speed with which they can be read and responded to by in-line sensors.

The installation has enabled ASDA to receive incoming flat and hanging items more effectively. Boxed items are transferred from delivery vehicles by flexi-conveyors and placed on pallets in

the ground floor receiving area. SDI has incorporated two, two-tonne capacity lifts into a four-storey mezzanine, by which pallet-loads of boxed items are taken to the required floor.

Hanging goods are removed from delivery vehicles on boom rails and transferred to the receiving area, which has a 30-row buffer zone of static hanging rails. The items are grouped by the storage-keeping unit (SKU) and manually transferred onto SDI's custom designed flight bar hangers, known as 'jets'. Each jet is capable of holding up to 40 items and incorporated into the end bracket of each is an RFID tag.

THE SYSTEM

SDI has built separate modules, dedicated to specific SKUs, within the hanging goods storage system. Each module has its own in-feed and output conveyor. As jets move along a powered conveyor their programmed RFID tags are read by in-line scanners linked to SDI's control software, which was written in-house for the George system. The jets are then automatically diverted to the appropriate module's in-feed conveyor, which takes them to the required storage zone. Here they are manually off-loaded onto static rails in the goods on hangers (GOH) storage lanes.

Each of these modules has 120, 31-metre GOH lanes and the powered and free conveyor system serving them is more than seven kilometres long. The conveyor system itself has the capacity to carry 4,500 jets – more than 200,000 individual garments.

Orders are picked manually onto jets from the GOH lanes. Goods are assembled by SKU and moved into a buffer holding zone. From here they are transferred to the powered output conveyors, which take the goods back down to the ground-level dispatch area, where they are manually sorted by store and transferred to dedicated static rail store lanes.

The hanging items are over bagged, and transferred onto rolling rails. The empty jets are then ready to re-enter the system. When they are used again the existing information on their RFID tags is

overwritten with new data entered at the induct point.

In the dispatch area, the hanging garments on the rolling rails come together with the flat garments, in cartons or totes, which have been transferred from the four-storey mezzanine. The goods are combined, within allocated time slots, into specific store consignments and loaded onto delivery vehicles.

“Automation is not a cost but an investment. It gives greater efficiency at lower cost, more volume and more capacity within the DC, and enables us to respond rapidly to changes in fashion and the market place.”

George McKerracher - ASDA

ABOUT SDI GROUP

SDI group is an innovative provider of systems and solutions to the retail, wholesale, fulfilment and e-commerce industries for all aspects of distribution centre materials handling.

As both consultants and system integrators, the company provides clients with a total logistics solution package, which includes materials handling consulting, as well as design, engineering, fabrication, installation and integration services.



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