

CASE STUDY  
ASDA, UK



## SWISSLOG'S AUTOSTORE BOOSTS SPACE EFFICIENCY AT ASDA

### THE CUSTOMER AND THEIR REQUIREMENTS

Founded in the 1960s, ASDA today is one of Britain's leading retailers with over 180,000 dedicated Asda colleagues serving 18 million customers. The second largest supermarket chain in the UK, holding around 18% market share, ASDA is part of the Wal-Mart group, the world's largest retail chain.

Most of ASDA's stores are open 24 hours a day, and even in the small hours customers expect to find what they're looking for. ASDA believes that advanced technology in the warehouse and out on the road helps them meet this round-the-clock challenge and keep shelves stocked 24/7.

With over 550 stores across the UK, selling more than 75,000 products including

groceries, clothing, household goods and electronics, ASDA is unsurprisingly a leading proponent of warehousing innovation.

The business is constantly looking at ways to improve the use of space within its existing distribution centres. The Lutterworth IDC was no exception, already one of the most complex depots in the logistics network.

ASDA selected Swisslog's AutoStore solution to handle a range of its products in a more space efficient and productive way. An intelligent storage and retrieval system for small case lines, the solution provides ASDA with flexibility for its future expansion.

«The Swisslog design team have shown great aptitude in understanding the needs of our business, and demonstrated a willingness to customise the application to meet our requirements.»

Ant Everett,  
Head of Capacity & Engineering  
Asda Logistics Services



## The Solution

Swisslog worked with ASDA at each phase of the project from the initial design to the installation and on-going support.

Work started on-site in 2012. Before installation of the AutoStore system could commence a robust mezzanine level was built on which the new solution would be constructed. Once the preparation work was completed, installation and commissioning took place in a matter of months, as the rest of the IDC was in full operation.

### Decant

Pallet loads of in-bound goods are conveyed automatically to one of six ergonomic decant stations. An ASDA colleague working at each station transfers products from a pallet into AutoStore bins, whilst lift tables eliminate the need for bending, thereby making the whole process highly ergonomic. Each station also has a chute for colleagues to dispose of waste, and the

area has the feeling of calm efficiency.

### Storage

In the storage area, robots place the bins directly on top of one another in a self supporting aluminium grid. The grid is not only used to guide the bins but also serves as a track for the robots to travel along. A wireless system controls the battery operated robots and manoeuvres the bins within the grid and to and from both the decant and picking stations. Bins containing faster moving items are positioned at the top of the grid whilst slower moving items are stored in the lower sections.

### Picking

The AutoStore robots always work ahead of colleagues to ensure a constant stream of bins are presented at the picking port. Reaching required bins usually involves a digging process, which temporarily stores those above the required bin on top of

nearby stacks.

The solution includes carousel picking ports, designed for high throughput operations. These ports have three rotating arms which are able to carry three bins simultaneously in order to provide seamless delivery to colleagues.

With ten ergonomic picking stations, where orders are collated for store delivery, the site is able to process a large quantity of orders. They're also aided by the robots delivering the bins in sequence. Each colleague has a touch-screen computer instructing on how many of each product line to pick for particular orders, moving them from the captive AutoStore bin into the store consolidation tote. Once all items for a store are picked, colleagues push the tote onto the conveyor for shipping.

## LOGISTICS DATA

### Storage & Picking

Number of robots:	140
Number of bins:	44,860
Number of pick stations (ports):	10
Number of decant stations (ports):	6
Bin presentations	335/hr per pick station

### Grid

Length of grid	48.8m
Width of grid	29m
Height of grid	6.8m
Height of mezzanine	approx. 6.5m from ground level

### Software

WM6
SPOC



## Swisslog's Services

- > Design and delivery of AutoStore solution.
- > Installation and integration of all materials handling equipment, including software.
- > Overall project management.
- > Lifetime partnership.

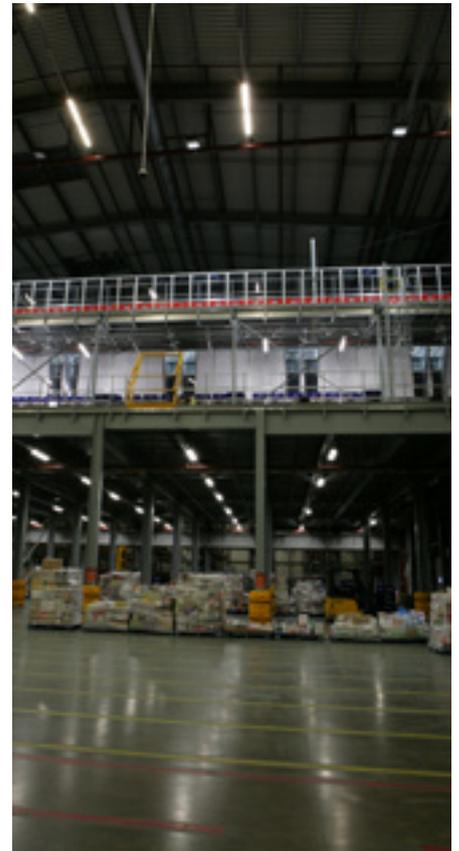


## The Benefits

From the outset, the system enables ASDA to manage several thousand different product lines, whilst allowing further phased investments to accommodate more bins, in line with the retailer's developing requirements.

AutoStore's key benefit is that of space efficiency, allowing for maximum utilisation of the area, in this case bolstered by its installation on a mezzanine level. This leaves the ground level available for other operations. Such benefits are clearly of interest to those in the retail sector where warehouse efficiencies can have a real impact on the bottom line, and yet AutoStore is also geared for future growth and offers flexibility for retailers that continue to grow their online and high street operations.

Thanks to Swisslog's forward planning, mezzanine installation and seamless pro-



ject management, ASDA was able to implement the whole system without any disruption to the current set up. Having an ergonomic goods-to-person solution also maintains colleague wellbeing in what can be a demanding environment.

## LARGEST AUTOSTORE INSTALLATION IN THE UK



"The IDC is already one of the depots in our distribution network. The ability to reengineer our facility and build a space-efficient and ergonomic materials handling application that can integrate with our existing operation and systems was therefore a key selection factor."

Ant Everett, Head of Capacity & Engineering, Asda Logistics Services

## DID YOU KNOW...

Stacked on top of one another, the bins inside of Asda's AutoStore system measure 17.8 times higher than the world's tallest building, the Burj Kahlifa in Dubai.

Asda's AutoStore system has a weight capacity of 1.3 million kilograms, the equivalent of 179 African Savannah Elephants.

Within its compact grid of 48.8m x 29m x 6.8m, Asda's AutoStore stores enough bins to fill three football pitches.