



AMH Material Handling completes two projects at Asda's Lymedale DC to increase storage and throughput for George clothing

AMH Material Handling has completed two projects for George clothing at the Asda Lymedale facility in Newcastle under Lyme. The projects have seen AMH increase storage capacity by 250,000 units and significantly speed up order throughput for George's ecommerce operation.

The 1.2 million sq ft Lymedale facility provides store replenishment regionally and services the ecommerce business nationally. Hosted over three mezzanine floors, the facility handles the replenishment of stock for 174 stores as well as the pick, pack and despatch for UK and International online orders.

- ▶ **1.2 million sq ft** facility
- ▶ Increased capacity by:
 - ▶ **250,000** storage units
 - ▶ **19,000** carton live locations
- ▶ Additional **1,000** linear metres of GOH storage





Project One: Increasing Storage Capacity

Asda has seen tremendous growth for the George ecommerce business which has been operating from this site since 2013. The Lymedale facility was originally designed to hold one million units of stock on site but the operation soon outgrew this.

In order to increase storage capacity, AMH Material Handling was tasked with creating additional space in the warehouse. They managed to achieve this by reorganising both the retail and ecommerce operations. This involved carton live storage, goods on hanger (GOH) storage and conveyor routing.

The extra space created allowed AMH to supplement the existing storage. They supplied and installed additional carton live storage to increase capacity by 19,000 locations and 4,800 SKU locations. Additionally a further 1,000 linear metres of hanging garment storage was supplied and installed.

Overcoming Layout Challenges

As a result of reorganising the retail storage area, the existing conveyor system and replenishment spurs which serviced the retail operation no longer fitted in with the new layout.

To overcome this, AMH changed the routing of all cartons and re-positioned the carton live replenishment spurs to accommodate the new warehouse layout. As the facility was still operational, the material handling specialist had to ensure that any changes

caused minimal disruption to both the retail and ecommerce businesses operating from the site.

AMH was able to design and manage a solution that allowed it to install all new conveyor routing as well as test and commission the system. This had to be completed before sign-off so the old system could be turned off and the operation switched over to the new system.

Once the conveyor system had been rerouted, AMH needed to design and install a new method of removing cardboard waste for recycling from the mezzanine levels. The waste had to be transported by conveyor to the existing baler on site.

AMH overcame this challenge by designing a bespoke solution that allows waste cardboard to travel on high level conveyors, eliminating the need to take up valuable floor space.

The 400 metre conveyor system allows waste to travel from both the left and right sides of the warehouse. The two conveyors meet in the middle where they are joined via a drop slide which transports the waste to the baler system.

AMH designed a bespoke slide system in fibreglass which guarantees that cardboard boxes lay flat whilst travelling through the remainder of the system. This was necessary due to the low overhead clearance above the waste conveyor. In fact, the clearance was so tight that it also required AMH to make the necessary alterations to site services along the way. This included sprinkler, lighting, power distribution and communication networks.

Increasing Efficiency for Hanging Garment System

As part of project one, AMH also aided Asda by increasing efficiencies with its hanging garment system for its retail operation. Items travel through the warehouse on an automated garment hanging system which uses jets to hold the garment hangers securely in place.

AMH designed and installed an improved empty jet routing system which automates the return and storage of empty jets. Previously empty jets were returned manually by operators which was not only time consuming but also delayed the retail operation as the system waited for empty jets to be returned to the goods inbound area. The new system has increased efficiencies within the goods inbound area and allows for faster processing

Project Two: Increasing Ecommerce Order Throughput

The second project AMH Material Handling completed at the Asda Lymedale site for George clothing was to increase order throughput and processing speeds for the ecommerce operation. Essentially, George needed to be able to pick, pack and despatch orders faster to keep up with increasing demands.

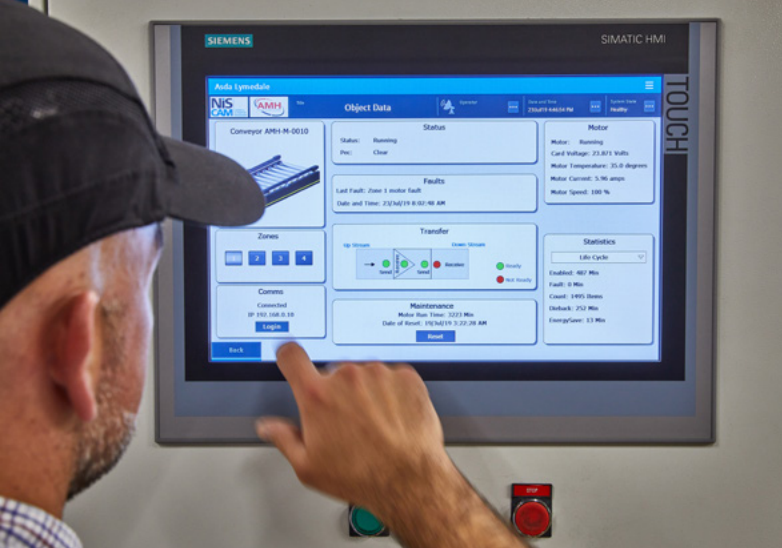
In order to facilitate this, AMH removed the old conveyor system and designed and installed a new conveyor system to deliver customer orders to eight packing benches. Each order is picked and placed into a tote. The tote is then put onto the conveyor system where it travels from level two down to level one and is delivered directly to the packing benches on a gravity decline conveyor spur. AMH also installed eight new packing benches around the spurs, allowing for more order processing.

To increase the throughput and speed of order bagging, a third automated bagging machine was installed. AMH managed the design and layout of the bagging area to accommodate the third bagging machine. They needed to ensure all orders from the bagging machine were directed to an induct station for the existing despatch sorter.

To handle this, a second induction station was installed to take bagged packages to the despatch sortation area. This required AMH to install a new conveyor route to transport completed customer orders from the packing area to the new sorter induction area.

Part of the solution required the existing conveyors to be updated to add a reverse function to the conveyor to change the direction of travel. The reverse direction function allows packages to be re-directed to the second sorter induct as throughput demands dictate.





Easy System Monitoring and Operation

In addition to the storage and material handling solutions, AMH Material Handling ensured that the operation and daily running of the system was also efficient. AMH upgraded the PLC (processing unit) hardware and HMI touch screens for users.

The HMI screens provide a touch operated solution which clearly displays both running and statistical data. Colleagues at the facility are able to monitor the life cycle of components through each stage of the solution. In addition, the controls providing the flexibility to turn packing desks off during quiet periods and set priorities for increased levels of efficiencies when required.



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AMH Material Handling – A Supplier We Can Rely On

Trevor Austin, operations manager at Asda, explains: "AMH Material Handling was awarded both projects after a successful tender process. We have worked with AMH in other capacities previously and we have always been completely satisfied with the work they deliver."

"We needed to update our facility to manage the increasing throughput demands of both the ecommerce and retail operations and we asked AMH to design and develop a solution to manage this. The team took on board the challenges we were facing and worked with us to develop a solution that was fully capable to meet our demands."

"The peak period for George begins with the 'back to school' period and remains at this higher level right through to Christmas. This year's forecast for the number of items despatched in the peak week suggests a 16% increase on the previous year's record week. Therefore, it was critical that the projects were completed in time to handle the increase in throughput."

"This set AMH a tight deadline to meet – especially as they had to work alongside other contractors on site. Their professional approach, however, meant they were flexible and communicated well with all the personnel on site so as to meet our needs."

"Overall, the successful completion of the projects has increased efficiency and performance, and we are better equipped to effectively manage increased volumes."

"The completed projects have significantly increased our storage and throughput capacity. In addition, we have appointed AMH Material Handling as Asda's in-house maintenance team at the Lymedale site, giving us cover at all times throughout the year," concludes Austin.

“ The AMH team took on board the challenges we were facing and worked with us to develop a solution that was fully capable to meet our demands. ”

