



AMH Material Handling increases e-commerce throughput for Selfridges & Co at DHL facility



**AMH Material Handling
has completed a total of
three projects for DHL with a
combined value of £600,000 at
its Hams Hall site in Birmingham.**

The 400,000 sq ft site handles the receiving, storage, packing and distribution of products for Selfridges & Co. The Hams Hall facility services Selfridges' four UK stores, its click and collect service as well as its worldwide e-commerce operation.

- ▶ **£600,000 project**
- ▶ **400,000 sq ft facility**
- ▶ **Increased order throughput:**
 - ▶ 6,000 orders per day standard
 - ▶ 20,000 order per day during peak



Automating packing and sortation for e-commerce delivery

In 2016, AMH Material Handling was asked to produce a solution to increase speed, accuracy and throughput capacity by automating the process of packing and despatch over the three floor mezzanine site.

In order to automate the facility, AMH installed belt conveyors on level 2 to accommodate packing desks on either side. Personnel are able to package orders and then place them straight onto the conveyor belt without the need to manually move packaged deliveries. Items on level 2 travel towards the end of the mezzanine floor where they are automatically inducted into a powered decline spiral conveyor.

On level 1 of the mezzanine, AMH utilised existing conveyor systems and upgraded the conveyor belts where necessary. Again, personnel are based at packing stations either side of the conveyors and place packaged parcels onto the two conveyors. AMH installed a number of powered roller accumulation zones between the two packing conveyors to provide a continuous flow whilst merging the two packing lines onto a single conveyor as they also join the powered decline spiral conveyor.

The ground floor of the DHL site is predominately used for the packing of large goods which can't be handled by the spiral conveyor system. Once items are packed by personnel on workbenches adjacent to the ground floor packing line, they are then placed onto a conveyor where they travel to the despatch area. The conveyor

at ground floor level was designed at a height which enables workers to continue processes underneath it. This provides DHL a throughway along the ground floor, ensuring that all large despatch orders can be transported and collated with all other orders at this level.

Packaged parcels on level 2 are merged on the spiral conveyor with packed parcels from level 1. The parcels from both levels are then transported to the ground floor where they meet the ground floor packing line conveyor infeeds. All packaging lines are then merged onto a single conveyor line which transports parcels to the despatch sortation area.

As parcels reach the despatch area, they pass through a five sided barcode scanner which sorts them by final destination. The sortation process is configurable by the user to sort by either region, carrier or store. Flexibility for the operation was key when finalising the functional design specification. Parcels are then diverted using 24v high performance diverts and sent down the correct chute for palletising.

“ AMH managed the whole process for us from start to finish for all three projects. Once timelines had been agreed, they brought their own project team on-site and managed the installation with no disruption to the e-commerce operation. ”

A solution to accommodate e-commerce growth

In 2018, AMH Material Handling was asked by DHL to complete additional work to the Hams Hall site. Assam Khan, operations manager at DHL explains: "Selfridges' e-commerce operation is continuously growing each year. As a result, we needed to expand on AMH Material Handling's initial installation in order to keep up with the demands and meet worldwide customer delivery times.

"Selfridges approached us and said they needed to increase their e-commerce throughput. As a third party logistics provider, it was down to DHL to source the equipment to achieve this. We realised that we needed to expand the number of workbenches on-site to increase throughput and therefore commissioned AMH to complete the additional work to accommodate this.

"We decided to move the store retail operation on the ground floor to the far side of the facility. This freed up a significant amount of space enabling AMH to install two additional conveyor feeds to the despatch line. This allowed us to add an additional 60 benches on the ground floor - significantly increasing packaging throughput.

"Our peak week for e-commerce is Selfridges' 'Christmas Comes Early' (CCE) week which is essentially its Black Friday week. We had planned to process 50,000 units per day but we actually hit 58,000 units per day and we wouldn't have been able to manage this without the extra workbench area installed on the ground floor. AMH also installed a maintenance platform for the raised despatch sortation system to provide safe access so any faults can be quickly and easily rectified."

Future-proofing for continued growth and peak periods

"This year, Selfridges came back to us and predicted another significant increase in e-commerce throughput for 2019. In order to prepare for this year's CCE week, AMH came back onto site and replaced old obsolete belt conveyors on level 2 and installed new replacement conveyors to feed the powered decline spiral conveyor. This has allowed us to make both the ground floor and level 1 our main processing floors with the option of opening up level 2 as we need it. During peak periods all three floors run at full capacity for 24 hours a day.

"AMH also extended the despatch platform and installed an additional two new chutes – taking the total of despatch chutes to six. The despatch chutes cover all our UK and worldwide couriers as well as in-store click and collect.

"The new three floor automation system has increased efficiencies not only by making room for additional workbenches, but also by improving the site layout and allowing us to store products more efficiently. This reduces walking distances for personnel and avoids the need to pick orders across multiple floors. Furthermore, the despatch sortation system has removed the requirement to manually sort parcels by destination which would have been problematic with the growth Selfridges is experiencing.

"The e-commerce system that AMH installed for us handles on average 6,000 orders per day, but then accommodates our peak period where orders increase significantly to 20,000 per day. As well as an increase in orders, the automation and sortation system is able to accommodate 29 different box sizes for both e-commerce and click and collect parcels with no issues."





“ Working with AMH is so easy – we can always rely on them to deliver. There are never any issues and they are always quick to assist whether it’s on the other end of the phone during out of hours or a visit to site. ”

AMH Material Handling – a consistently reliable partner

“AMH managed the whole process for us from start to finish for all three projects. Once timelines had been agreed, they brought their own project team on-site and managed the installation with no disruption to the e-commerce operation. They also took on the roles of both principal contractor and principal designer, managing and coordinating all other trades during the project.

“DHL had a really good working relationship with AMH Material Handling throughout the three projects and found them to have a very professional approach the whole time. The team was always very accommodating whether it was managing health and safety on-site during installation or incorporating any design change requests throughout the process.”

System support - 24 hour maintenance and servicing

"In order to keep the system fully operational and avoid any unnecessary downtime which would be detrimental to meeting delivery deadlines, we have a maintenance and servicing agreement with AMH Material Handling. This includes planned preventative maintenance throughout the year to ensure the system is running to its full capacity as well as a rapid response call-out agreement for any issues if they arise. During our CCE week, we actually have an AMH engineer based on-site so any issues can be rectified immediately.

"Working with AMH is so easy – we can always rely on them to deliver. There are never any issues and they are always quick to assist whether it's on the other end of the phone during out of hours or a visit to site. They're always available when we need them and it's that level of support which makes us carry on using them," concludes Khan.

“ DHL had a really good working relationship with AMH Material Handling throughout the three projects and found them to have a very professional approach the whole time. ”

