

## Wiggle eCommerce Fulfilment Centre



Conveyor Systems Ltd completed a major installation supplying an extensive pack and sortation conveyor solution for global online retailer Wiggle Ltd. Operating as the UK's #1 online Cycle, Run & Swim retailer along with being recently voted the Which? recommended #1 online outdoor & leisure shop. In 2015, due to the continuous growth of the business, they took the decision to relocate the Operation to a larger, consolidated Fulfilment Centre (320,000 sq. ft.) in the West Midlands from the multiple small sites operated in Portsmouth.

After a rigorous tender process, CSL's ability to provide a well demonstrated solution was key to meeting the brief and winning the contract. This included using the latest 3D CAD drawing software to help visualise the system as a life-like operational representation in the new building.

The brief was to combine packed consignments from 3 pick/pack areas over 3 floors and sort them down 12 lanes into 4 dispatch zones for separate carriers and services. The system needed to cope with up to 90 boxes per minute of varying sizes and weights, from very small parts and clothing up to large boxes of bicycle wheels!



The conveyor system which was specially designed by CSL at over 900mm wide, was engineered in detail after taking into account all comments/ suggestions made by both management and operators at Wiggle together with fully recognising their requirements, considering the vast array of shapes and sizes of products whilst overcoming operational issues.

The mezzanine consists of 2 upper floors which along with the ground floor form three independent pick/pack zones and sortation areas which were designed specifically to avoid issues caused when one combined system is stopped for maintenance/Repairs.



Once an order is picked, packing operatives check the order then pack into an array of outers ranging from poly bags to large cardboard boxes prior to applying carrier despatch labels. The consignment is then placed on a section of zero line pressure (ZLP) accumulation roller conveyor which starts the transit to the sortation area on the ground floor. This type of conveyor is used widely on the system to ensure non-contact queuing due to the wide variety of sizes, shapes and weights causing damage to each other and potentially initiating jams along the system.

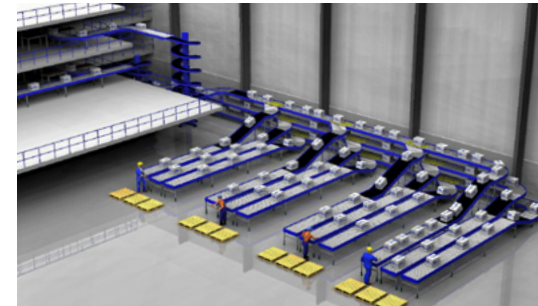


The upper mezzanine floors use 2 powered Ambaflex spiral lowerators (almost 100 units supplied by CSL throughout the UK to different customers), to safely and continuously bring the boxes down where they are then barcode scanned to determine, by way of state-of-the-art scanning arrays on each line, which carrier despatch lane they require. When the packages reach the correct despatch lane they are diverted off at 90 degrees using high speed switch sorters. Depending on the source pick floor, they either decline down a grip top belt to an ergonomic picking height or transit on a horizontal roller conveyor to the discharge area where a despatch operative removes and places them onto a pallet or into a wheeled cage ready for carrier collection.

CSL provided the full turnkey conveyor project including control, installation and commissioning of the wide range of packages.

“As this was a new facility it was difficult to visualise the conveyor system prior to the mezzanine floor installation, but CSL provided a detailed 3D drawing which included both the mezzanine and the conveyors which brought clarity to this. The install process was smooth and the end results have allowed us to increase control, flexibility & volumes”

**Dan Corrigan, Head of Logistics & Operations Development**



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