



UK MAIL – A LEADER IN THE UK MAIL AND PARCEL DELIVERY MARKET

Moving to a new, purpose-built hub and a fully automated parcel processing system has enabled UK Mail to increase capacity and ensure a fast response to future increases in demand

The move from Birmingham, to Ryton-on-Dunsmore, near Coventry, was more than a change of location for UK Mail's national hub; it also marked a paradigm-shift in its approach to processing its growing volume of parcels.

As one of the UK's leading integrated postal operators, UK Mail made the major investment in the purpose-built

hub and equipped it with a state-of-the-art automated parcel sorter to secure the capacity to meet future growth forecasts, particularly from the strong e-commerce sector. The move to automated parcel sorting was crucial to increasing efficiency and to helping UK Mail to meet its objective of providing improved customer service.

HIGHLIGHTS

- › System design allows UK Mail to extend its cut-off time for accepting parcels into its hub for next-day delivery.
- › Faster and more flexible sorting, and the use of fewer trucks, contributes to the overall return on investment (ROI)
- › Automation, integrated control and yard management systems help increase efficiency by optimising the parcel flow and reducing environmental and operational costs.

PARCEL AUTOMATION



FLEXIBILITY

One of the key elements in the design of the new sorting system was its ability to handle parcels across the widest possible range of shapes and sizes. Using a single sorter to handle parcels ranging from the smallest packets to large parcels weighing up to 49kg, or up to 1,395m in length, allows UK Mail to maximise efficiency by handling a higher percentage of parcels through the new automated sorting system.

FEWER TRUCKS & FASTER PROCESSING

A one-stop concept for unloading and loading trailers, with more loose loads and fewer cages and pallets, ensures faster and more efficient shipment of parcels to UK Mail's regional centres. The ability to unload all of the incoming parcels from a trailer into a single dock significantly reduces the number of shunt movements. This results in faster processing in addition to lowering operational costs.

The combination of more efficient unloading, and the fully automated sortation system, has also allowed UK Mail to extend its cut-off time for accepting parcels into its hub for next-day delivery.

AUTOMATING THE PARCEL-HANDLING PROCESS

In-bound parcels are discharged from the trucks into the hub via a boom conveyor and are then manually singulated. In-gauge items are accepted into the sortation system whilst out-of-gauge, out-of-size and out-of-weight items are automatically discharged for manual handling.

The hub features four conveyor sections feeding five inductions for each of the two sorters. The sorters are installed in a two-tier configuration, with the lower, hammer-head style sorter being used to sort parcels for delivery to the local Coventry postal area. If a parcel for a



Coventry destination enters the hub via the upper sorter, it is automatically discharged to a conveyor and fed to the lower sorter to be taken to the chutes for other destinations.

TIGHTER CONTROL

The sorter system's SCADA overview is fully integrated into UK Mail's yard management system. This allows operators to optimise trailer movements by notifying the control

OPTIMISED CONTROL



room when a trailer is about to be emptied. The yard manager then sends an alert to the shunter's mobile device to prepare to replace the empty trailer with a new trailer which is ready to be unloaded.

This allows UK Mail to achieve a typical swap-over time of just seven minutes in addition to minimising downtime at the in-feed sections and increasing productivity by maintaining full capacity on the sorters.

On the floor, process managers use a combination of the BEUMER Group software suite statistics programme, CIS, and the SCADA overview to generate updates on operational performance. This can include monitoring the KPI for flow capacity and the performance statistics for each in-feed section.



SYSTEM OVERVIEW

- › 187,000 ft² (17,400m²) hub
- › 17,000 ft² (1,600m²) offices
- › 34,500 ft² (3,200m²) local depot
- › Parking for over 130 tractor/trailer combinations
- › 20,000 parcels per hour sortation capacity
- › 24 in-feed boom conveyors
- › 72 out-feed boom conveyors
- › 28 local depot chutes
- › 30 cross-dock doors
- › UK Mail's yard management is integrated with the sorting system's SCADA overview to optimise trailer movements. UK Mail takes particular care to optimise these movements to minimise downtime at the infeed sections. On the floor, process managers use the BEUMER Group software suite statistics program, CIS, as well as the SCADA overview, to generate updates on operational performance.
- › Handles a wide range of parcel shapes/sizes

	Minimum	Maximum
Length	155 mm	1,395 mm
Width	105 mm	800 mm
Height	10 mm	700 mm
Weight	100 g	50 kg



See the sorting system at the UK Mail hub in action on the BEUMER Group YouTube channel.