

## Couzens Storage Solutions puts EWS parts store on track



Automated storage and retrieval equipment supplier Couzens Storage Solutions has designed and delivered a new compact, space-saving installation to EWS's new national parts store in Nottingham. Two 8.51m high vertical lifts provide almost 252 m<sup>2</sup> of secure storage and picking area in only 21 m<sup>2</sup>, with a capacity of 70 tonne for each of the two units. With an eye to the future, EWS has already allocated space and installed cabling for additional units should they be required.



The new warehouse brings together materials and components previously held in various stores under one roof, providing more cost-effective stock control and prompt parts dispatches to EWS locations throughout the country. Designed for fast and accurate order picking, the vertical lifts are playing a vital role in EWS's engineering support for its 500 locomotives and more than 14,000 wagons.

### Client

EWS, Britain's largest rail freight operator

### Problem

Providing prompt and efficient parts distribution to workshops nationwide

### The Couzens Solution

Two 8.51m high vertical lifts providing almost 252 m<sup>2</sup> of secure storage and picking area in only 21 m<sup>2</sup>.

As Britain's largest rail freight operator, EWS has invested over £500m to help increase UK rail freight by 50% in the past decade.

Keith Couzens of Couzens Storage Solutions was involved in planning the new facility from the early stages and presented EWS management with various options, their advantages and drawbacks.

With relevant experience from clients such as ERF, Bosch, Westland Helicopters, Mercedes-Ilmor, Finnings and Sunseeker Boats, Couzens was able to provide knowledgeable guidance to help EWS make the most suitable choice.

A variety of parts and components arrive from EWS's suppliers, are checked and loaded into the vertical lifts. Each unit contains 63, 500kg capacity trays which are automatically stacked vertically, making maximum use of headroom in the 9m high building.

Varied sizes of plastic totes and bins on the 2448mm x 816mm (96in x 28in) trays are presented to the operator for placing and picking at a comfortable working height without stretching or stooping. And with travel speeds of 90m/minute vertically and 30m/min horizontally, a typical pick takes no more than 40 seconds.



Inventory management files in both vertical lifts are connected to EWS's own host computer in Doncaster, and linked to two of the company's own PCs next to each unit. Both lift units and PCs have been carefully positioned to allow a single operator to easily access both machines, or for two staff to work at the same time.

Security is an integral part of the new system, with password entry required before any access is granted to what is a fully enclosed and locked unit when not in use.



One of 20 'Pick by Light' displays along the working face of each vertical lift lights up to identify the correct pick tray, with digits to indicate the tray position from front to back. Four remote confirmation buttons are fitted to the light bars to enable the operator to confirm that the pick has been made without returning to the PC. Once the order or batch has been completed, the PC also confirms the pick details. Parts for dispatch are placed in boxes, stillages and other suitable containers in the marshalling area next to the lifts, ready to be taken to waiting vehicles.

With such a variety of parts in differing sizes and heights, trays can be stacked at incremental 25mm centres to provide maximum flexibility. The PC software controlling the vertical lifts is able to identify free locations, unused space and parts usage to work out the most spaceefficient order and tray location.

**Couzens Storage Solutions Ltd**  
**5 Heron Business Park**  
**Eastman Way**  
**Hemel Hempstead**  
**Herts HP2 7FW**  
**Tel 01442 250010**  
**Email: [CouzensSS@aol.com](mailto:CouzensSS@aol.com)**  
**Web: [www.verticalcarousel.co.uk](http://www.verticalcarousel.co.uk)**

The machine then automatically re-organises trays to optimise available space, while taking into account that fast moving items should be the most accessible.

With a wide choice of individual storage media, EWS is able make the most effective and suitable use of space. Couzens has provided a standard selection of five different bin sizes, from 234mm x 140mm to 600mm x 400mm – plus optional 300mm side panels to retain small components in bulk.

During installation and commissioning, Couzens' staff gave both equipment and software training to EWS staff and are providing 24/7 service support, reflecting the round-the-clock nature of EWS's service.

Mike Hudson EWS summed up. "Our new distribution centre is already helping us improve our service to our workshops nationally. The vertical lifts make maximum use of space and a fast pick rate is key to our performance.

Couzens Storage Solutions and Keith worked alongside us from the start of the project acting almost as consultants, and their guidance was invaluable in reaching the most effective solution. They took the lead and were proactive in dealing with other suppliers too. The equipment was delivered on time and they made sure that everything was working properly including - software compatibility - before we went live."

*Couzens Storage Solutions designs and installs a comprehensive range of high density storage carousels, supplied by leading manufacturers in the UK, Germany and Italy. The company specialises in providing individually designed solutions to match specific client requirements, recognising the need to use costly space in the most productive manner. Solutions range from carousels up to 12m in height, making maximum use of floor space, to innovative designs which extend the upper levels of the carousel sideways, occupying unused roof space and leaving the floor below clear.*