

Managing Pallet Movement and Storage with Barcode Solutions

Warehouse management is a vast and growing business. Boosted by omnichannel retailing during the COVID-19 pandemic, market forecasts for the industry value suggest [6-10% growth year-on-year until at least 2030](#). You only need to look at the huge new units appearing alongside any motorway in the UK to see how rapidly warehousing is moving.

As with any fast-paced industry, its effectiveness is greatly determined by good information and data management. In a warehouse, you need to know where each pallet is and exactly what is on it 24/7.

[Warehouse Management System](#) (WMS) software exists to make this task much more straightforward. The software provides a complete picture of a warehouse from when items enter to when they ship out. It stores inventory levels and stock locations, generates pick lists and helps predict item demand. It will often be part of, or integrate with, an ERP system and 3PL providers, giving real-time visibility over the entire end-to-end process.

However, the system is only ever as good as the data that goes into it, and that's where barcoding solutions technology plays a vital part in warehouse and pallet management.

How Barcoding Solutions Help

Barcodes and associated barcoding solutions technology are crucial in pallet management and locating items in a warehouse due to their efficiency and accuracy.

Three core technologies are commonly used to assist in this process:

- **Mobile computers** – handheld devices and/or vehicle-mounted computers in forklifts/telehandlers

- **RFID tags** – on both pallets and individual products
- **Scanners** – both barcode [scanners](#) and [RFID readers can be handheld](#) and used by operators or [at fixed locations in a warehouse](#) to automate scanning as goods move around

The correct use of this equipment will help a warehouse to achieve:

- **Improved accuracy** – by reducing human error during inventory counts and data entry
- **Increased efficiency** – faster processing of goods through better communication and use of human resource
- **Real-time tracking** – enhanced ability to monitor inventory levels and locations
- **Better decision-making** – access to data and analytics for planning and management

Barcoding solutions deliver this by handling and simplifying many critical tasks and functions across the warehouse:

- **Tracking and inventory management:** Each pallet can be assigned a unique barcode or RFID tag corresponding to the specific goods stored on it. This allows for easy inventory-level tracking and helps maintain accurate records of what is stored and where in the warehouse.
- **Efficient locating:** Barcodes can be scanned to quickly locate a specific pallet in a large warehouse. This saves time compared to manually searching for items, especially in large warehouses with thousands of pallets. RFID technology further enhances this by removing the need for line-of-sight scanning.
- **Streamlining picking and packing:** When orders are fulfilled, warehouse staff scan barcodes and RFIDs to ensure they pick the correct pallet. This reduces errors and speeds up the process of picking, packing, and shipping.
- **Automated data entry:** Scanning barcodes eliminates the need for manual data entry, which can be time-consuming and prone to errors.
- **Enhancing security and accountability:** By tracking pallets and products through barcodes and RFID, warehouse operations teams can monitor stock levels much more easily,

reducing the likelihood of theft or loss. This also helps with accountability, as it records who handled the inventory last.

- **Goods in/out:** Upon the arrival of new goods, barcodes/RFID tags help quickly verify and log new inventory. At the point of shipping, they ensure that the correct items are being despatched.
- **Stock take:** With barcoding solutions technology, it is far easier to conduct regular stock takes, as they provide accurate and up-to-date information about what is in the warehouse.
- **Staff management:** Scanning barcodes/RFIDs is relatively simple so new employees can be trained quickly on warehouse processes.

Combining [mobile computers](#), [RFID tags/readers](#), and [barcode scanners](#) makes it much more straightforward for warehouse management teams to manage the flow of goods in a warehouse and critically convert that into digital data.

The quality of that digital data will make the difference. When fed into a WMS, delivering a more automated, accurate, and efficient warehouse operation is possible, which is essential in today's fast-paced and demanding supply chain environments.

It's worth noting that smaller or less complex warehouses might not have or need a fully functioning WMS software system. It's certainly possible to use standalone tools, such as MS Excel or even a paper-based approach, but the fact remains that however you manage your data, you need good data to begin with.

[Contact one of our specialists today](#) for advice on specific barcoding or RFID products for your warehouse.