

Whelen Automates Order Picking with VLMs and WMS - Speeds Processing, Improves Productivity



A global manufacturer of safety lighting for Police, Fire, EMS and DOT professionals, as well as many other industries, Whelen Engineering has two manufacturing facilities totaling over 800,000 square feet in New Hampshire and Connecticut.

Challenges

Whelen needed to streamline their storage and retrieval of existing products. By reducing the square footage used in one of their buildings and increasing order picking efficiency in the Finished Goods Warehouse and Stock Room, they would redeploy some of their current warehouse order pickers to higher value tasks elsewhere in the operation. This would allow them to reclaim space to be used for additional manufacturing.



Solution

Abel Womack installed two complete material storage and delivery systems; semi-finished goods and finished goods/packaging in one of their buildings. The Finished Goods Warehouse and the Stock Room contain six and seven Kardex Remstar Shuttle XP Vertical Lift Modules (VLMs) respectively, and each contains three batch stations with lights, all run by WaveTrak warehouse management system (WM) provided by Abel Womack.

Previously utilizing a single order, manual picking process and a Crown Wave to pick goods from high shelves, operators now use automated batch picking and have significantly reduced travel and search time, wait time between picks, as well as eliminating the large vehicle transporting employees to top shelf items to retrieve goods. The VLMs' ergonomic design eliminates reaching and bending by bringing the goods to the individual and is adjustable to accommodate different operators within the picking function.

Results

Space utilization went from using 12-foot-high racks to installing (13) 42 foot VLMs. This doubled storage density within the same footprint. Now employing Goods to Man technology, the system is now run with four workers instead of eight in the previous system.

Using fixed barcode scanners in the picking zones and hand-held barcode scanners in the batch stations, a batch of up to six orders can be processed by one order picker. Barcode scanners are used to match totes to PUT lights and confirm picks while lights direct the PICK and PUT. All picked orders are placed on the conveyor to move to the pack/ship station. The software keeps track of the number of totes in a given batch station at one time. New orders are inducted accordingly to keep each zone as productive as possible.



Whelen's Warehouse Manager, Corey Matthews said, "Before the new system supplied by Abel Womack, we had an average of eight employees picking 150 line items each for an overall of 1200 line items daily. Since the implementation of the new system, we've downsized our picking staff to an average of four employees picking 1500 line items daily. The combination of the VLMs and the WaveTrak software also eliminates the manual monitoring of FIFO and provides a host of other benefits and reports to help us run our business more efficiently."

Whelen achieved faster order processing and throughput, increased picking speed by 25 percent with 50 percent less labor in both Finished Goods Warehouse and Stock Room combined. By directing operators to the location to pick and put, accuracy improved as well as overall productivity.

Whelen Engineering Challenges

- Manual picking processes
- Inefficient order fulfillment

Abel Womack Solution

- Kardex Remstar VLMs
- WaveTrak WMS
- Automated picking system

Benefits

- Picking speed increased 25% with 50% less labor
- Doubled storage density