

## Vertical lift module recovers 92% of storage space

Shuttle VLM increases order fulfillment productivity by 460%

By Josh Bond, Senior Editor of Automated Materials Handling · May 11, 2018

Founded in 1986, Diversco Supply is a leading Canadian equipment wholesaler in the gas industry. To position itself for growth, the company sought to expand into additional business segments, including water sports equipment and supplies. After installing three vertical lift modules and inventory management software, the company expanded inventory while reducing storage space and boosting productivity.

The company's Cambridge, Ontario, warehouse is the largest of six throughout Canada and inventories and distributes parts and supplies for four business segments: propane and gas, compressed air, scuba and water sports. Managing a combination of smaller parts



(valves, regulators, hoses, snorkels, fins, etc.) and large parts (kayaks, paddle boards, etc.) added another layer of complexity to the fulfillment process. As the 52,000-square-foot warehouse ran out of space, James Huddle, purchasing and operations manager, looked to take advantage of vertical space.

“With a 40-foot ceiling, adding more rack didn’t make sense,” Huddle says. “It was more economical to go up than out.”

Small parts inventory was previously stored on 5,000 square feet of shelving. Using handheld RF scanning technology, workers would walk through the shelving scanning and picking parts as directed by the RF gun, with each worker often walking several miles per day.

Diversco now uses a combination of three 32-foot-tall shuttle vertical lift modules (VLMs) with inventory management software (Kardex Remstar) to manage 4,500 SKUs of small parts inventory and standard rack and shelving with handheld RF scanning technology for 400 SKUs of large item inventory.

“It was a complete transformation from a manual picking environment of walking and searching to a semi-automated process,” said Huddle. “The compact storage, time savings and ease of use completely offset the cost of the system.”

The three VLMs occupy less than 360 square feet—a 92% floor space savings. The system enabled an 84% increase in large item inventory. Large item storage previously handled eight containers of inventory per season, now it handles 50.



Labor requirements have remained the same, with five full-time workers (one in the small parts VLM area, two in the large item rack area, and two in shipping). Productivity increased from 25 lines per hour to 115 lines per hour —while adding a bag and tag step—a 460% increase in productivity.

Using pick-to-light technology, the transaction information center located on the front of the VLM units in combination with the laser pointer located inside the workstation direct the operator to the exact location within the tray from which to pick. While the operator is picking this item from the VLM and putting it into the individual orders on the batch station, the other VLMs are retrieving additional inventory required for the batch of orders.



Diversco has a small amount of walk-in orders they accommodate within the picking process. To handle this, they use the hot pick module within the inventory software. This allows the operator to suspend the batch picking order they're working on to pick another hot order, usually for a waiting customer.

“Even though walk-ins represent only about 5% of our orders, it was critical to our customer commitment that we had a way to fill these orders quickly and efficiently,” said Huddle.

For more information on the Shuttle Vertical Lift Module, contact Automated Material Handling at 859-293-5887 or email [info@automatedmh.com](mailto:info@automatedmh.com) to speak to a specialist today.