



## Diversco Supply Expands Vertically with Shuttle XP VLMs

### Features and Benefits

- Recovered 92% Floor Space
- Increased Order Fulfillment Productivity by 460%
- Expanded Inventory

**Industry Group:** Automated Storage and Retrieval Systems (AS/RS)

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Diversco Supply is nothing less than a Canadian success story. Founded in 1986, they quickly became a leading equipment wholesaler in the gas industry; eventually evolving into watersports equipment and supplies. The largest of six warehouses throughout Canada, located in Cambridge, Ontario, inventories and distributes parts and supplies. 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 quickly running out of space, Diversco set their sights vertically. “With a 40 foot ceiling, adding more rack didn’t make sense,” said James

Huddle, purchasing and operations manager at Diversco Supply, "it was more economical to go up than out."

### *A Winning Combination*

Diversco now uses a combination three 32 foot tall Shuttle Vertical Lift Modules (VLMs) with Power Pick Global inventory management software to manage the smaller parts inventory (4,500 SKUs) and standard rack and shelving with handheld RF scanning technology for large item inventory (400 SKUs). "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."

### *Going Vertical*

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, each worker often walking several miles per day. Now, these parts are inventoried in three VLMs that occupy just under 360 square feet – a 92% floor space savings. With the floor space recovered, Diversco has expand large item inventory by 84%, previously handling 8 containers of inventory per season to now handling 50 containers of inventory per season. This has specifically expanded inventory for the watersports division, giving customers more options and quicker delivery times.

### *Improved Efficiencies*

**While labor requirements have remained the same, efficiencies have skyrocketed. With five full time workers (one worker in the small parts VLM area, two workers in the large item rack area and two workers in shipping); Diversco is filing orders faster than ever. Productivity has increased from 25 lines per hour to 115 lines per hour (and added a bag and tag step) resulting in a 460% increase in productivity.**

### *Diversco Always Delivers*

Now, the web based ERP sends small part VLM zone orders to the Power Pick Global (PPG) inventory management software for fulfillment. The operator selects up to eight orders from the order list in PPG for fulfillment. A tote is assigned an order ID and a customer ID and is placed in an open position on the batch station. When ready, the operator starts the fulfillment process with the click of a button and the VLMs move to retrieve the parts required for the selected orders.

Using pick to light technology, the transaction information center (TIC) located on the front of the unit in combination with the laser pointer located inside the work station direct the operator to the exact location within the

tray to pick from. The TIC displays the part number and location to pick, while the laser pointer uses a light beam to highlight the location of the item required. The operator picks the correct quantity of the item, confirms the pick and turns to the batch station to distribute the items among the orders as directed by the put lights on the batch station.

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. The operator is rarely waiting for parts, the VLMs are always working one step ahead of the operator.

The operator works round robin picking from the VLMs and putting into the orders until all parts for the order are filled. When an order is complete, the operator pushes the tote onto take away conveyor as directed by the put batch lights. The order is then taken to the large item fulfillment rack area for additional inventory or routed directly to shipping.

When an order arrives at the large item inventory rack zone for further fulfillment, the worker scans the order ID with a handheld RF device and is directed through the zone to gather the parts required. Once these additional parts are added and the order is complete it is then routed to shipping where the order is repacked and shipped via common carrier.

### *Customer Commitment*

Diversco has a small amount of walk in orders that they need to accommodate within the picking process. To handle this, they use the hot pick module within the PPG software. This allows the operator to suspend the batch picking order they are 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.

**kardex**remstar

**KARDEX REMSTAR**

41 EISENHOWER DRIVE

WESTBROOK, ME 04092

800-639-5805

INFO.REMSTAR.US@KARDEX.COM

WWW.KARDEXREMSTAR.COM