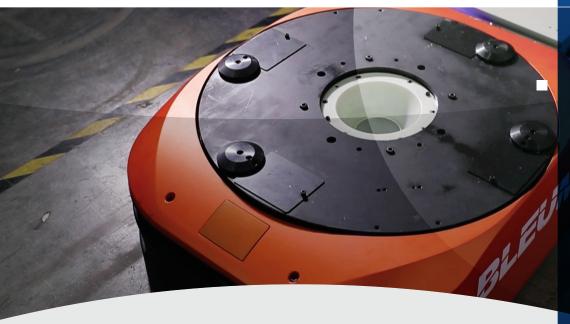
BLEUM WAREHOUSE ROBOTICS

Efficient Solution for Warehouse Operations



Bleum has more than 15 years of experience developing and deploying warehouse systems in 20-plus countries globally. Recognizing the challenges warehouse operators face with low margins, workforce issues and the increase in demanding customers, Bleum has determined that automation with robots is the next step in the industry's evolution.

Bleum's warehouse robotics are designed to fit underneath fulfillment center shelves to move and be directed to warehouse personnel to retrieve goods for packaging. The shelves can also be restocked and redirected back to a specific location within the warehouse.



FEATURES

- Size of a stool or small ottoman
- Lift shelves up to 8000 pounds
- Can rearrange the shelves in neatly packed rows, or bring them to warehouse personnel
- Automatic recharger station

BENEFITS

- Integrates with legacy, homegrown or JDA WMS
- Allows more products to be packed into a tighter space
- Stacking and picking more accurate and efficient by automatically bringing empty shelves over to packers or the right products over to pickers
- Reduces labor costs by more than 60 percent
- Increase inventory accuracy and security

Warehouse Robotic Solution **HOW IT WORKS**

PICKING OPERATION

Inventory comes to the picker

- Order sent from Order Management System (OMS) to the Warehouse Management System (WMS)
- WMS sends order to Robot Controlled System (RCS)
- Robots retrieves shelf with inventory for order
- Robots queue up at pick station
- Picker takes an item from indicated slot on storage shelf
- Picker scans item and is instructed appropriate bin to use
- Picker places item in pack bin

RESTOCKING/PACKER OPERATION

Inventory stripped across multiple storage shelves to minimize "dwell" time

- Restocker/packer communicates to WMS to receive an order
- RCS identifies available robots and shelves on which to store items being received
- RCS dispatches robot to retrieve shelf and queue up at receiving station
- Restocker/packer scans item to be stocked
- System highlights slot in storage shelf for item to be placed
- Restocker/packer places item in slot
- Robot takes shelf to storage area to be stored

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