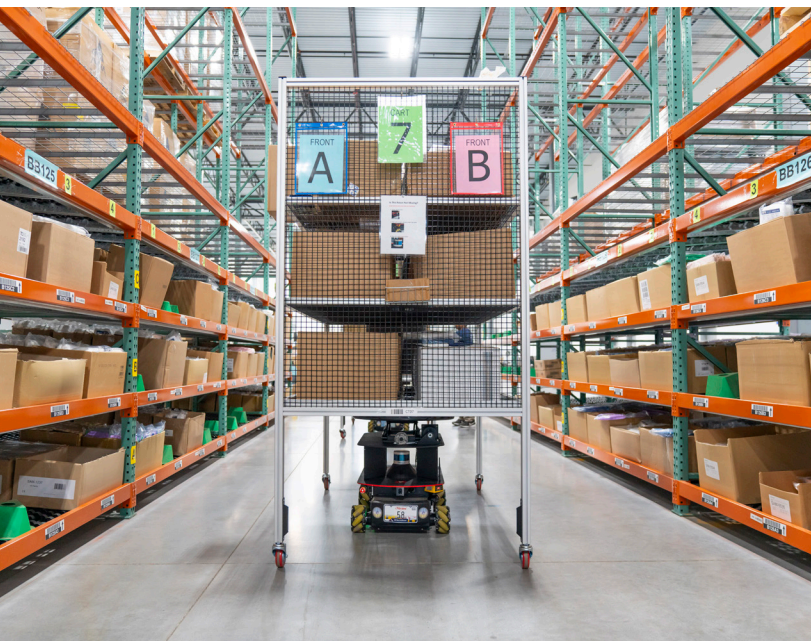# The NuminaGroup
Warehouse Automation Experts

Autonomous Mobile Robot (AMR) Batch Pick Carts

RDS Batchbot™ Combines Pick by Voice and AMR Batch Pick Carts, Uniting People and Robots to Lower Labor Costs and Double Order Fulfillment Productivity

RDS Batchbot Features and Benefits

RDS™ Voice Suite - Optimizes Batch Order Pick, Pack, and Ship Automation

+ Directs the movement of AMRs and simultaneously directs the movement of workers to the closest pick zones, eliminating walking and manual cart pushing to boost productivity

+ Automated order start, pick-up and drop-off at packing stations keeps AMRs operating at 90% utilization rates in pick & pack operations, lowering the required number of AMRs

+ Flexible, scalable solution simultaneously supports both manual push carts and AMR Batchbot

+ Pick by voice commands combined with hands free barcode scan validation provides single touch 99.9% picking accuracy driving a **2x gain in pick and pack productivity**

Bigger Batch Carts Increase Picking Density

- Fleet of 6 RDS AMR Batchbots™ outperform 25 AMRs equipped with a fixed shelf six-tote capacity cart
- Voice directed picking for up to 30 orders per cart increases lines per operator pick rates
- Handles a wide variety of cart sizes with up to 600 lb. weight capacity
- Rapid ROI compared to conveyor systems or large fleet of small capacity AMRs

Nimble, Robust Batchbot™ Technology

- Rugged all steel construction, embedded P-8 computer, 3-D LIDAR and camera guidance
- Fast warehouse mapping, omnidirectional precise maneuvering and delivery
- Wireless charging provides low maintenance contactless auto charging for multi-shift operation
- AMR Kingpin™ auto cart drop & connect to eliminate robot idle time

RDS Batchbot Voice Directed Autonomous Mobile Robots, AMR's Batch Picking

The RDS™ Voice Suite combines best of breed technologies, pick by voice with automated batch picking carts into a unified, highly efficient order fulfillment automation solution. Numina Group's Real-time Distribution Software (RDS™) simultaneously directs voice picking and Batchbot AMR movement.

RDS™ software manages the entire process, including prioritized batch order release and cartonization. It selects a group of up to 30 orders based on an optimized travel path, picking density, cube and weight velocity, and assigns orders to the closest available Batchbot. The software then directs the transport of the cart to the first pick location.

Operators are equipped with Zebra voice picking wearable mobile computers, Bluetooth headsets and hands free barcode scanners. As the Batchbot cart arrives at the first pick zone, RDS™ Voice sends a voice command to the closest operator to meet the AMR at the first pick location. The operator scans the cart barcode ID and voice commands instruct the picking process. RDS™ Voice combines voice instructions with barcode scan and voice acknowledgement responses to validate the pick and put by scanning the product and a barcode on the cart shelf position.

As each pick is completed, the AMR automatically advances the cart to the next pick location in the zone. At the same time, a voice command advances the operator to the location and directs the required picking tasks. When all the picking tasks are completed in the zone, the AMR moves to each subsequent pick zone until the carts pick tasks are completed. Pick completed carts transport to an open pack station and automatically dropped and free for assignment to the next batch pick mission.

RDS™ Voice is ideally suited to order picking applications, especially batch picking of orders that are a mix of both each items and full case picks. It is fast, highly accurate technology for directing and enforcing order picking rules and other warehouse tasks. Additionally, it is highly intuitive, easy to use technology that requires **zero operator voice training so workers are productive in as little as 15 minutes!**

Scalable Redundant Order Picking included with RDS Batchbot AMRs

The RDS™ voice suite includes discrete order, manual batch cart picking, and pick to pallet processes. All picking processes can operate simultaneously in cooperation with AMR technologies. Voice combined with AMR Batchbot™ Carts have achieved picking rates of 250 or more lines per operator, double the typical performance of a voice directed operator using a 10-12 batch order push cart!

Numina Group designs solutions that scale to your business requirements. Our automated order fulfillment solution can start with pick by voice, and pick by light using pick to conveyor, manual batch carts, fork truck or tugger based pick to pallet picking processes. The modularity of RDS™ solutions allows you to add AMRs and AGVs as your business grows.

The RDS™ Voice Suite is an integral automation module within Real-time Distribution Software (RDS™). RDS™ is a modular, scalable and flexible Warehouse Execution and Control System that contains a full family of automation modules to equip warehouses with the right processes and technologies to lower labor costs and increase profitability across the entire operation.

The NuminaGroup
Warehouse Automation Experts

RDS™
Real-time
Distribution
Software

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