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Shuttle Rack Systems

Battery operated storage & retrieval system

A Complete Automatic Storage Retrieval System



Managing complex flows from raw material to final products between production and inventory control

141-Foot-High Storage



Given different BOMs (Bill of Materials) we design and build systems to streamline the process of organizing and distributing a variety of raw materials, components, and sub-assemblies, each in varying quantities for the manufacture of numerous end products

Design

- Poleless design with easy access from multiple directions
- Light weight rack traversing robot (RTR)
- Overall dimensions 197' x 33' x 141' feet (LWH)
- 400 frame pieces and 3000 pallets
- Total 3992 compartments
- Compartment size 4' x 4' x 6'3" (LWH)
- Smooth servo-driven acceleration and deceleration
- Easy maintenance requires no climbing on racks

Performance

- 660 pounds per load
- Charging time of 2 hours for 6 hours of nonstop operation
- Energy saving 20%+
- Average retrieving time 25 seconds
- Horizontal speed reaches 400 feet per minute
- Vertical speed reaches 66 feet per minute

Functionality

- Automatic return to charging station
- Sensor-controlled multi-RTR operation in the same aisle
- Regenerative braking during descent extends battery life
- Weigh and size scanning prior to storage
- Updates compatible with Enterprise Resource Planning (ERP)
- Alarms can be relayed via email or instant messaging
- Dozens of features protected under warranty
- Over 39 years of automation experience

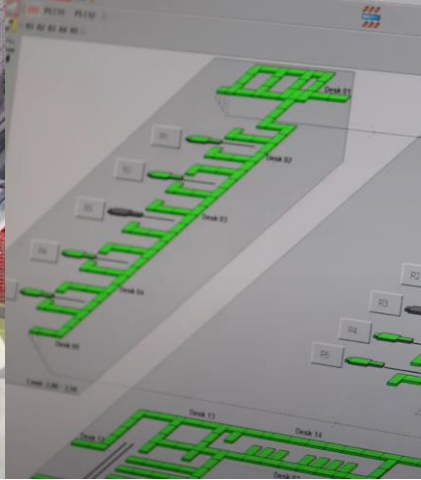
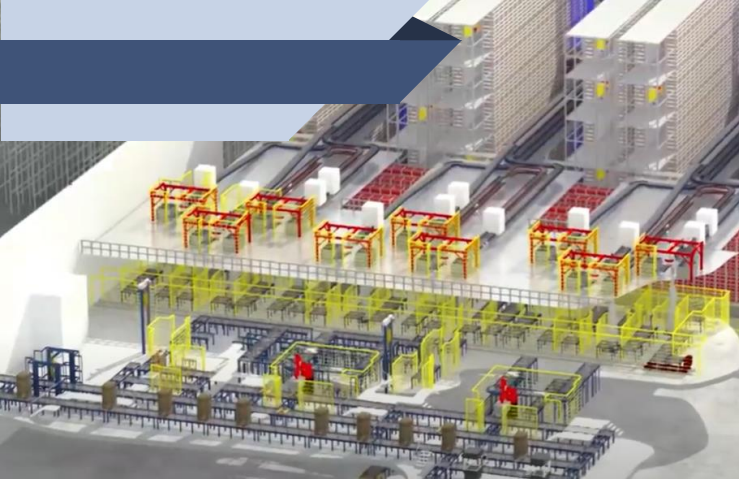


Automated Reefer Warehouse Systems

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- The temperature is consistently maintained at minus 13 degrees Fahrenheit (-25°C)
- Eliminates contamination during handling and transfer of perishable items
- Run on both wire electric and batteries



A Reefer Project Completed in 2018

Temperature Minus 13 Fahrenheit

6200 square feet

40 feet height

55kw power consumption

1340 compartments

4 lanes

Run on wire electric & batteries

1 month design

5 months construction

Maintain every 12 months