System Logistics

POWERdepot™ Vertical Carousel
The Power of Productivity

The POWERdepot™ is our leading edge vertical carousel storage and retrieval system that maximizes space utilization, efficiency and productivity in all types of applications.

- Engineered for safe and reliable operation, the innovative features of the POWERdepot™ put it far ahead of conventional vertical carousels.

- Dual-chain guidance technology with 8-fold suspension arm system for optimized load balancing, lower maintenance costs, maximized cube and carrier capacity of up to 2,200 lbs.

- Limitless carrier configurations up to 19' wide and options including pullout drawers, shelves, dividers, inserts, automatic door systems, clean room and cold room units, as well as custom and application-specific carriers

- Dual-motor drive enables greater width capabilities and provides redundancy for continuous up-time

- State-of-the-art safety features like light curtains, upper and lower pressure limit switches, e-stops and motor overload sensors

- Dual-access option for versatile multi-operator use, both front and rear or on multiple floors

Minimized footprint, maximized efficiency
The POWERdepot™ provides the same amount of storage space as several rows of traditional shelving or modular drawers... yet saves over 1,400 sq. ft. of valuable floor space.
The Vertical Carousel Advantage
...Maximized

With the POWERdepot™, System Logistics Corp. has taken all of the benefits of vertical carousel technology and powered them up to the next level!

Productivity
- Materials are delivered directly to operator, minimizing walking, climbing, bending or reaching for heavy objects
- Pass-through design eliminates time-consuming transport of items from floor to floor
- 100% out-of-balance capability provides trouble-free picking with no need to redistribute carrier loads
- Point-of-use design keeps parts closer to the operation, eliminating trips to cribs or stock rooms
- Productivity increases more than 2.5 times over static solutions
- System is easily operated by both trained or new personnel

Control
- Pick product by carrier number or part number
- Shortest path retrieval system speeds picking efficiency
- Host interface capability for advanced inventory management and control
- Manual carrier jog buttons to override automated machine control
- Organized storage of raw material and finished product is possible within the same unit
- Lockable front doors provide additional security by allowing doors to be closed and locked between shifts

Space Utilization
- All available vertical height is utilized, reducing floor space requirements
- Under-used racks, shelves and drawer cabinets are eliminated
- Aisles are cleared of clutter
- Carriers can include shelves, dividers, 100% extendable pull-out drawers and drawer divider systems to create discrete storage locations within a single carrier

Safety & Ergonomics
- No more risk of injury from climbing up and down ladders to retrieve heavy or bulky boxes
- All materials are delivered to operators at an ergonomically correct waist-high position, reducing potential for back injuries
- Standard 12” work counter enables picking while product is out of carrier, or can provide a place to rest product while waiting to be loaded
- Parts are protected from particulates inside a fully enclosed system
Powerful Dual-Chain Guidance Technology

Industry Exclusive

Unlike other vertical carousels with troublesome straight or curved track guidance systems, the POWERdepot’s™ exclusive dual-chain technology with 8-fold suspension offers smooth, stable performance with virtually no tilting or lateral deviation. The carousel can handle up to 100% unbalanced loads, so carrier profiling is always determined by the operator, not the restrictions of the carousel capacity.

Plus, with dual-chain technology, the POWERdepot™ can accommodate multiple carrier clear heights, widths and depths (up to 55”), enabling maximized cube utilization and a maximum carrier capacity of up to 2,200 lbs. Its reliable, stable operation means reduced long-term maintenance costs.

Clean Room Units

- Internal airflow regulating system adjusts air pressure and flow inside the unit.

- Automatic bi-parting doors available to maintain clean room integrity and protect against contamination when product enters or leaves the unit.

- Enclosed drive motor and dual-chain guidance system minimize the contaminated air entering the clean product storage area.

- Designed to SEMI safety and ergonomic standards.

- Self-contained clean room carousels are third party certified to Class 100.

- May be designed to operate in existing clean rooms with a range from Class 100K to Class 1.

- Carriers may be designed for future automated induction.

- Carriers may be perforated or designed with open bottom to allow air to flow through unit.
Taking It to the Next Level

Developed by our in-house software engineering staff, DiamondWare™ Software provides unmatched control, flexibility and customization.

**PowerPick™ Software**
DiamondWare™ PowerPick™ software provides a highly efficient solution for picking, replenishing and cycle counting. Using a series of standard configuration modules, PowerPick™ can be customized to meet your unique requirements.

**PowerIM™ Software**
DiamondWare™ PowerIM™ is an advanced inventory management system that provides a wide variety of inventory tracking and management functions, including order entry and allocation, order release and cycle counting. By providing a wealth of reporting and management features, PowerIM™ ensures your inventory investment is under control.

**Message Directed Picking**

The Digital Message Center is an optional LED display system embedded into the work counter on the POWERdepot™. The host computer running the picking software uses the display to prompt the operator.

Using modular units, the length of the Digital Message Center can be matched to the working width of the carousel, creating a continuous display across its entire length.
Carriers for Any Application

Up to 19’ wide, carriers may include dividers, inserts, pullout drawers, shelves or even custom configurations to meet the needs of your application.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foot/Shoe carrier design</td>
<td>Provides quick and easy installation of all carriers</td>
</tr>
<tr>
<td>Product protection</td>
<td>Enclosed dust cover panel system minimizes dust and particulates in product storage area, reducing housekeeping requirements</td>
</tr>
<tr>
<td>Easy-to-use operator interface</td>
<td>Operator interface provides control and security and can be customized for each individual user</td>
</tr>
<tr>
<td>Optimized load balancing</td>
<td>Dual-chain guidance system with 8-fold suspension arm optimizes load balancing and minimizes maintenance costs</td>
</tr>
<tr>
<td>Advanced safety features</td>
<td>State-of-the-art safety features like the e-stop and safety light curtain minimize injury and protect product from damage</td>
</tr>
<tr>
<td>Hinged control housing</td>
<td>Provides safe environment for unit controls</td>
</tr>
<tr>
<td>Easy-to-use operator interface</td>
<td>Operator interface provides control and security and can be customized for each individual user</td>
</tr>
<tr>
<td>Dual-chain drive system</td>
<td>Dual-chain eliminates the need for troublesome track type guidance systems</td>
</tr>
<tr>
<td>Advanced safety features</td>
<td>State-of-the-art safety features like the e-stop and safety light curtain minimize injury and protect product from damage</td>
</tr>
<tr>
<td>Locking bi-parting doors</td>
<td>Doors can be closed and locked between shifts to protect against theft and damage</td>
</tr>
<tr>
<td>Upper and lower mechanical safety bars</td>
<td>Provide personal protection for the operator</td>
</tr>
<tr>
<td>Standard stainless steel work counter</td>
<td>12” deep work counter provides work area for operator</td>
</tr>
<tr>
<td>Removeable side and lower access panels</td>
<td>Easy access to drives, motors and other mechanical components for maintenance and repair</td>
</tr>
</tbody>
</table>
Carrier Choices

- Carriers for all types of boxes/totes
- Slotted rails and intermediate shelves
- Drawers with telescopic guidance; available in various heights, widths and depths
- Adjustable dividers

Typical Configurations

- Mezzanine configuration
- Multi-floor application
- Utilization of underground space
- Utilization of the full height of building

Specifications (Partial List)

<table>
<thead>
<tr>
<th>Model</th>
<th>Pitch</th>
<th>Carrier Capacity*</th>
<th>Unit Capacity</th>
<th>% Out-of-Balance**</th>
<th>Motors</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>3/4&quot;</td>
<td>220 lbs.</td>
<td>6,172 lbs.</td>
<td>100</td>
<td>Single/Dual</td>
</tr>
<tr>
<td>45</td>
<td>3/4&quot;</td>
<td>330 lbs.</td>
<td>7,936 lbs.</td>
<td>100</td>
<td>Dual</td>
</tr>
<tr>
<td>70</td>
<td>1&quot;</td>
<td>550 lbs.</td>
<td>11,900 lbs.</td>
<td>100</td>
<td>Dual</td>
</tr>
<tr>
<td>75</td>
<td>1&quot;</td>
<td>660 lbs.</td>
<td>13,227 lbs.</td>
<td>100</td>
<td>Dual</td>
</tr>
<tr>
<td>120</td>
<td>1 1/4&quot;</td>
<td>1,100 lbs.</td>
<td>22,045 lbs.</td>
<td>100</td>
<td>Dual</td>
</tr>
<tr>
<td>160</td>
<td>1 1/2&quot;</td>
<td>1,650 lbs.</td>
<td>29,760 lbs.</td>
<td>100</td>
<td>Dual</td>
</tr>
<tr>
<td>200</td>
<td>1 1/2&quot;</td>
<td>1,650 lbs.</td>
<td>36,374</td>
<td>100</td>
<td>Dual</td>
</tr>
<tr>
<td>240</td>
<td>1 1/2&quot;</td>
<td>2,200 lbs.</td>
<td>44,090</td>
<td>50</td>
<td>Dual</td>
</tr>
</tbody>
</table>
Manufacturing Protective Clothing
Maker of protective clothing uses two POWERdepot™ carousels, each with control stations at the front and rear. Two operators can work simultaneously at one carousel with minimal delay. Drawers can be completely pulled out of the carrier, enabling one operator to assemble components while the other is operating the carousel.

Storage of Work-In-Process Materials for Prototype Seats
Automobile manufacturer uses POWERdepot™ to store WIP goods for the manufacture of prototype seats. This configuration was also designed to hold upholstery samples or full rolls of carpet.

Storage and Transport Between Floors
Two-floor high POWERdepot™ increases efficiency for a manufacturer of custom fiberglass-reinforced concrete window ledges. Product is placed in carriers on ground floor and removed for finishing on upper floor. Carrier can be inserted or removed over a roller conveyor. A lifting station is used to compensate for stopping tolerances.

Storage of Prepregs for Printed Circuit Boards
Well-known computer manufacturer uses three POWERdepot™ carousels to store prepregs at precisely defined temperature and humidity storage conditions. The carousels have control stations at the front and rear.

Storage of Small Parts and Tooling
Leading automobile manufacturer uses the POWERdepot™ to keep parts and tooling on hand in the maintenance garage.

Storage of Blueprints
Top automotive manufacturer uses seven POWERdepot™ carousels to store blueprints.
Capacity: 16 carriers  
Total Load: 3,520 lbs.  
Unbalanced Load: 100% = 1,760 lbs.  
Control System: Two control stations, front and rear.  
Special Feature: Removal of solvent fumes via exhaust vents. Drive and control system meet EX-11 protection specifications.

Capacity: 16 carriers  
Total Load: 15,840 lbs.  
Unbalanced Load: 100% = 7,920 lbs.

Capacity: 20 carriers  
Total Load: 35,200 lbs.  
Unbalanced Load: 75% = 13,200 lbs.  
Control System: Two operating stations with inventory management software.

Capacity: 20 carriers  
Total Load: 21,120 lbs.  
Unbalanced Load: 100% = 10,560 lbs.  
Control System: Two operating stations with inventory management software.  
Special Feature: Air conditioning to 63°F and 40% relative humidity.

Capacity: 16 carriers  
Total Load: 13,376 lbs.  
Unbalanced Load: 100% = 6,688 lbs.  
Special Feature: Unit has various drawers.

Capacity: 26 carriers with 100% extendable drawers  
Total Load: 33,000 lbs.  
Unbalanced Load: 75% = 12,375 lbs.  
Control System: Pre-selector with inventory management software.

**Machine Dimensions**  
Height:.........19' 6"  
Depth:.........6' 9"  
Width:.........10' 6"

**Carrier Dimensions**  
Height:.........19.3"  
Depth:.........33.5"  
Width:.........101"

Height:.........18' 4"  
Depth:.........4' 5"  
Width:.........16' 5"

Height:.........20"  
Depth:.........18"  
Width:.........163"

Height:.........22' 6"  
Depth:.........7' 10"  
Width:.........16' 2"

Height:.........25" or 19"  
Depth:.........34"  
Width:.........160"

Height:.........12' 2"  
Depth:.........5' 7"  
Width:.........12' 8"

Height:.........7.9"  
Depth:.........25.6"  
Width:.........118"

Height:.........11' 11"  
Depth:.........4' 9"  
Width:.........12'

Height:.........11.8"  
Depth:.........19.7"  
Width:.........118"

Height:.........20'  
Depth:.........6' 5"  
Width:.........12' 8"

Height:.........13"  
Depth:.........25.6"  
Width:.........130"