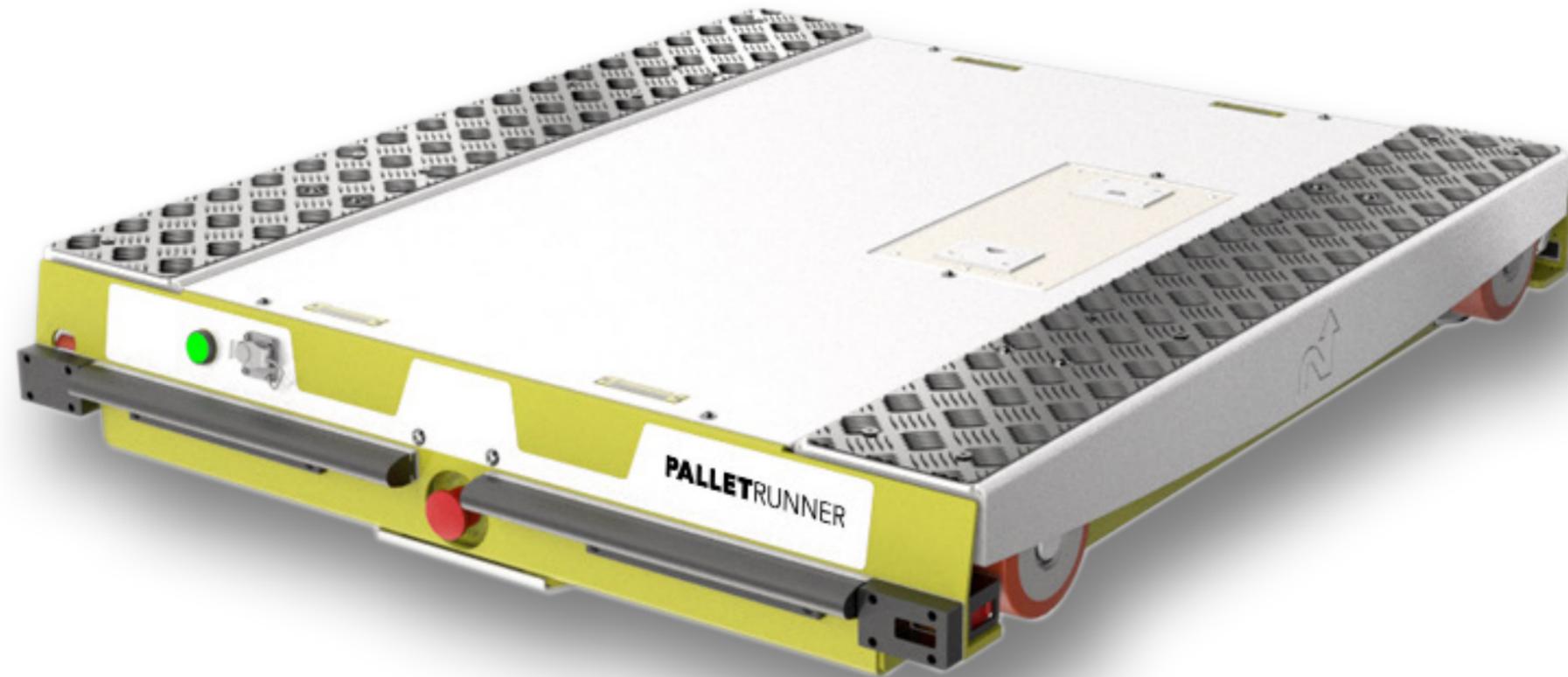


PALLETRUNNER



AUTOMHA
AMERICAS

AUTOMATION MADE SIMPLE

PALLET RUNNER

- DEEP LANE HIGH DENSITY STORAGE
- MAXIMUM UTILIZATION
- INCREASED THROUGHPUT

PALLET RUNNER is a semi-automated deep lane storage system. Especially suited to applications with high volume SKU's, **PALLET RUNNER** has proven to be an ideal choice for companies worldwide for over 10 years.

Pallets are loaded into the system by lift truck and transported into deep lanes by the **PALLET RUNNER** cart. Once the load is positioned the cart returns to the front of the system to receive the next pallet. With the cart doing the deep lane transport the lift truck operator travels only between load source and lane entry, maximizing productivity and minimizing travel distance.

The process of unloading realizes the same efficiencies. The **PALLET RUNNER** cart carries loads out of the system while an operator moves between the lane and the shipping dock or other destinations.

Extremely robust, **PALLET RUNNER** carts are available in different sizes to suit a wide variety of pallet designs. **PALLET RUNNER** can be set up for FIFO or LIFO applications in both ambient and freezer environments. Value added options let us tailor **PALLET RUNNER** to suit your specific needs.

PALLET RUNNER is a proven platform brought to you by AUTOMHA, the world leader in cart based automation. If you want to maximize storage and occupancy in your facility while simultaneously reducing your overhead, **PALLET RUNNER** may be the perfect choice.



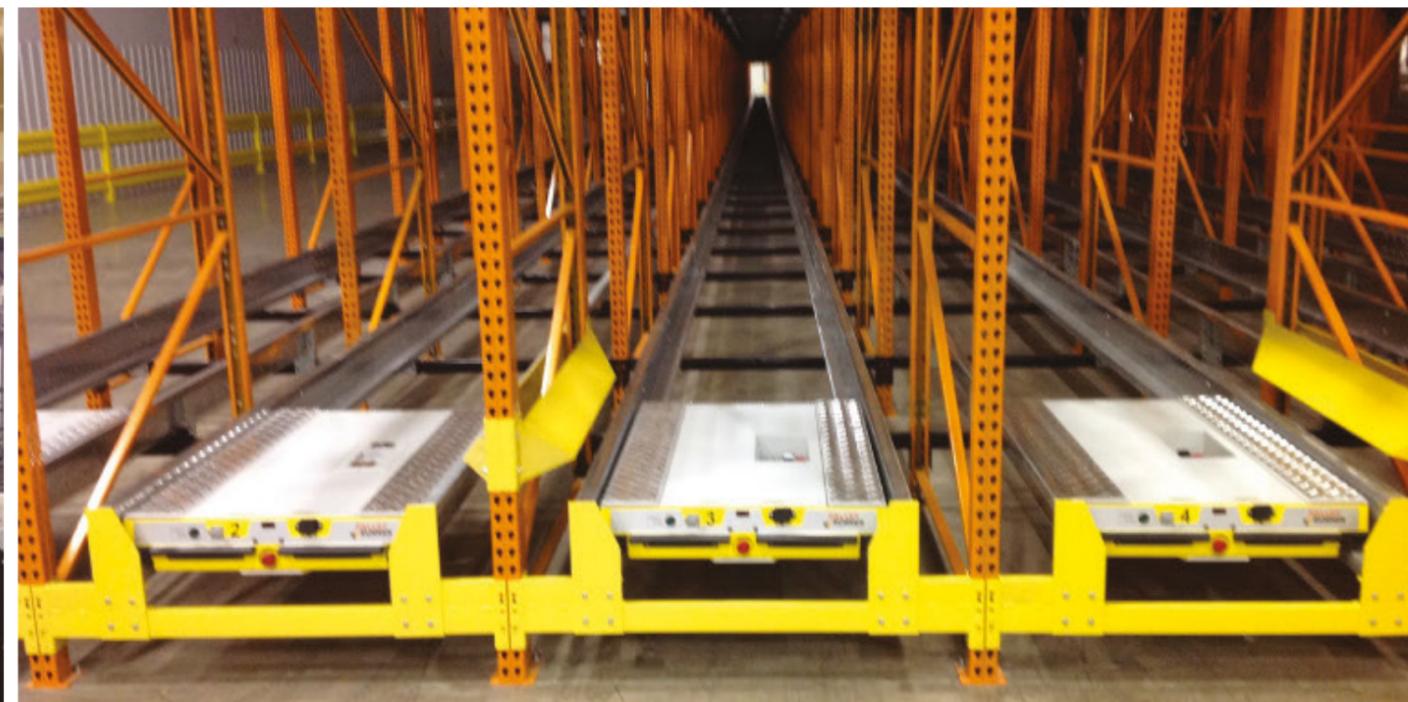


AUTOMHA AMERICAS

- Manufacturing
- Blast Freezers
- Order Staging
- Cold Storage
- Distribution Centres
- Cross Docking
- 3PL Operations
- Replenishment
- Food Industry



Density, Speed And Utilization Every Time!



WHY PALLET RUNNER?

- **Depth** - Storage Depths Unattainable by Traditional Rack Systems while Maintaining Selectivity.
- **Flexibility** - Systems Easily Integrate with Traditional Rack in the Same Footprint.
- **Smarts** - A Wide Range of Programming Options to Suit Your Needs.
- **Strength** - Our Carts Can Handle Loads up to 4,400 Pounds.
- **Adaptability** - Customized Carts for Non-traditional and Specialized Loads.

PALLET RUNNER WILL REDUCE

- Product Damage
- Racking Damage
- Truck Charging and/ or Propane Requirements
- Lighting Requirements
- Health & Safety Concerns
- Storage Footprint/ Real Estate Requirements
- Labour Costs

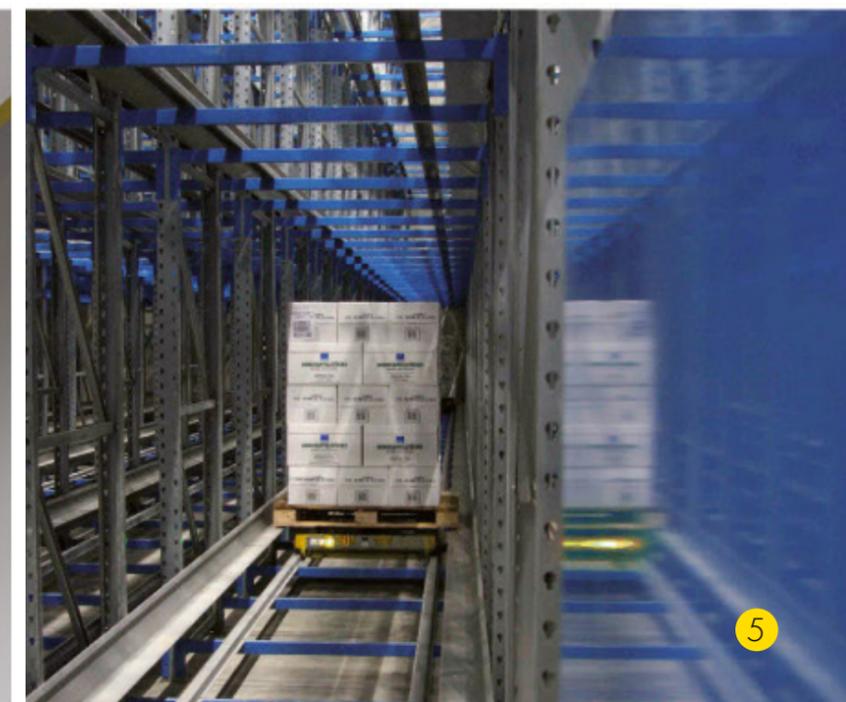


OTHER ADVANTAGES

- Maximizes Storage Density for Any Load
- Compatible with All Common North American Lift Trucks
- Pallets of Different Depths can be Handled in the Same Lane
- Batteries Lift Out and Snap in Place; Changes are Simple and Fast
- Ease of Maintenance; Engineered for Ready Access to Appropriate Components
- Straight-forward Operation and Training

OTHER FEATURES & CHARACTERISTICS

- Powered by the Latest in 48 Volt Lithium-Ion Technology
- Battery Recharge Time of 5 Hours
- Load Capability up to 4,400 Lb.
- Cold Freezer Capability Down to -22°F. (-30°C.)
- "Smart Sensor" Technology for Precise Speed Control and Position Detection.
- Pallet Spacing Available in 10mm Increments from 20-150mm (0.39" Increments, 0.79-5.9")
- Magnetic Plates Under the Cart Cling Fast to Truck Forks for Safe Transport
- Strobe Light Illumination to Signal Cart Operation
- Audible Sound Acknowledges Receipt of Commands and Start of Operation
- E-stop and Safety Bumper Stops





ETHERNET PORT
Allows on-site as well as remote service, programming and support.



MACHINE IDENTIFICATION NUMBER
Uniquely identifies each cart supplied to a single site.



DUST COVERS
Protect sensors from dust and debris.



BATTERY
High performance 48 volt lithium Ion battery technology. Quickly changed, quickly charged. Less than 30 lb.



LIFTING RAILS
Complete with checker-plate steel for a secure grip on the load. Customizable for unique load requirements.



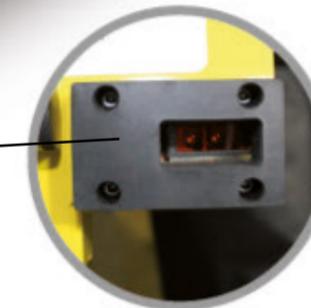
REMOTE CONTROL
Multi-function hand-held with multi-language capability. Remote operates in freezer temps down to -22°F / -30°C.



SAFETY IMPACT BUMPERS
Any impact with an object that should not be present in the lane will immediately shut-down the cart.



MAINTENANCE ACCESS CART
Secure single person transport for deep lane access to the system.



SMART SENSOR TECHNOLOGY
Innovative application of the latest in sensor technology. Safe, reliable and precise pallet detection, end of lane detection and speed control.



E-STOP
Immediate cart shut-down at the push of a button.



STROBE ALERT LED
Operators are able to detect cart operation and location. Especially beneficial in large and multi-cart systems.



WiFi ANTENNA (Optional)



TRANSPORT PACKAGING
Carts are securely packed in robust crates for safe transport via air, sea or rail.

PALLET RUNNER CART (PRC)

Available Functionality

PALLET RUNNER HOME POSITION (HOME): Home is the first position in the lane accessible from the working aisle. This is the position where the PRC and pallets are loaded and unloaded. The cart in this position is ready to receive commands and returns to this position on the completion of commands.

DIRECT MANUAL CONTROL FUNCTIONS: Operators can command the cart to lift and lower, move forward or back, directly from the hand-held remote.

LOADING FUNCTION: The operator selects a PRC and loads the cart into the desired lane. A pallet is positioned by the operator at home. The operator then instructs the PRC to load the pallet using the hand-held controller. The cart will pick up the pallet, store it in the next available position and return to Home.

UNLOADING FUNCTION: On receiving the unload command from the operator the cart proceeds into the lane to the first available pallet, picks that pallet, and transports it to Home. If a pallet is present at Home at the start of the process it will be unloaded first to make space for the PRC.

CONTINUOUS LOADING FUNCTION: After depositing a load in the system the PRC will return to Home and detect whether or not another pallet is present and available for loading. If a pallet is present the PRC will pick that pallet and proceed to load it into the storage lane. Finding Home empty cancels the function and the cart stands by to receive the next command.

CONTINUOUS UNLOADING FUNCTION: After carrying the first load to Home the PRC will remain in Home until the pallet has been removed. The PRC will then proceed back into the lane to retrieve the next pallet.

CONTINUOUS UNLOADING PLUS FUNCTION: Depending on travel distances and system depth this function can greatly enhance the unloading process. With PLUS functionality the PRC does not wait at Home for the pallet it has carried to be removed by the operator. The PRC will deposit the pallet and proceed back into the system to retrieve another pallet right away automatically. If a load is still present at Home when the PRC arrives with the next load the cart will recognize the situation and wait behind Home position. The cart monitors Home and once that position is available it will deposit the load and continue unloading operations automatically.

COMPACTING FUNCTION: Lane compacting can be performed in any partially loaded lane to improve the efficiency of anticipated loading or unloading operations. It can also greatly enhance utilization of available positions. In a LIFO application all the pallets present in a lane are moved forward towards the operating face of the system. In a FIFO application the existing pallets are compacted towards the discharge end of the system. Compacting is especially beneficial when the quantity of pallets stored in a lane is greater than the quantity of pallets typically loaded or unloaded in a given cycle.

MULTI-CART/SINGLE LANE FUNCTION: Some high throughput fifo applications can benefit from the ability to place two carts into a lane at the same time. Additional sensors and anti-collision programming are incorporated to provide sufficient redundancy ensuring the integrity of both PRC's.

MULTI-PALLET FUNCTION: When pallets vary in depth, the PRC must be programmed to accommodate this difference. Multi-pallet function ensures that the pallet is carried into the lane for proper positioning regardless of the depth of the pallet carried by the PRC.

INVENTORY/PALLET COUNT FUNCTION: The PRC can be positioned in a lane and instructed to count the number of loads present to assist warehouse inventory requirements. This function can be invaluable in deep lane systems where it is typically impossible to confirm lane contents by line of sight.

MULTIPLE CART CONTROL FUNCTIONALITY: Operators can command up to 4 PRC's at a time using a single hand-held controller. Command initiation is with a single push of a button and all carts commence the chosen function simultaneously.

MISSION DATA FUNCTION: PRC's store mission quantity and distance traveled data that can be read from the hand-held controller.

BATTERY LEVEL & ALARM FUNCTION: The voltage available to the PRC can be monitored by the operator at any time using the hand-held controller. When the voltage of the battery falls below a certain threshold the PRC will sound an audible alarm to advise the operator to change the battery.





WHY AUTOMHA?

A family owned company with humble beginnings, our greatest strength is our people. Recognizing an opportunity and knowing that he could do better, our founder began producing powered conveyors in his garage in 1979. Continuous innovation, excellence in engineering, market responsiveness and perseverance have driven the company forward ever since.

As the marketplace changes and technologies evolve we take advantage of every opportunity to improve our proven product platforms. We greet unique and complex challenges that others shy away from with determination to engineer and deliver a solution.

We are the world leader in cart based warehouse automation. We satisfy our clients' needs with the most appropriate, reliable and robust automation solutions available. We will provide the right solution for your requirement, at any level of automation.

Call us at 855-725-5786 You'll be glad you did.

PALLET RUNNER WiFi

PALLET RUNNER WiFi takes Semi-Automated cart technology to the next level, bridging the gap between Semi-Automated and Fully Automated System.

The ability of the PRC to receive commands via your internal WLAN (WiFi) allows the cart to be operated from standard handheld or truck mounted units you currently use day to day. This platform of communication will also allow you to integrate other forms of automation such as cranes or AGV's "down the road"

WiFi enabled carts are always fitted with standard communications (RF), providing redundancy in the event that your WLAN (WiFi) signal is temporarily compromised.

- SAME GREAT BENEFITS
- POWERED BY WIFI COMMUNICATIONS
- FLEXIBLE
- COMPATIBLE WITH WMS

"We have been using the Pallet Runner System for 8 years. Some of the benefits to using PALLET RUNNER include significant savings on labor and utilities, along with being able to service inbound and outbound product at a much quicker pace. By using the PALLET RUNNER System we are able to store 4,000 pallets in 16,000 square feet. Our client "Alpha Baking Company" was just awarded "The Supplier of the Year" by Sysco Corporation, part of which can be attributed to the Pallet Runner System."

Tom Wick,
Operations Manager
Frozen Assets Cold Storage

"As well as providing excellent space utilization, the pallet runner system enables us to handle double the throughput with less than half the operators it would require with any other type of storage system such as drive in rack"

Phil Saunders
National Storage and
Distribution manager,
Murray Goulburn

"After extensive research of equipment providers we selected PALLET RUNNER by Automha. PALLET RUNNER provided the full range of high quality warehouse equipment and design services. Pallet Runner project team managed the project from beginning to end and delivered the completed project on time and on budget. Would highly recommend them for future projects."

Mark McLonis
Senior Manager Technical Operations
Worldwide Engineering
Herbalife

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NOTES

TO DO LIST
CALL AUTOMHA
855-725-5786



AUTOMHACARE

AUTOMHACARE is the unique and exclusive service and after market support program for AUTOMHA. We have service locations in both Buffalo, NY and Oakville, Ontario. From these 2 locations, all of your service, support, replacement parts and warranty claims are recorded and handled by our **AUTOMHACARE** staff.

All clients are automatically enrolled into THE **AUTOMHACARE** PROGRAM and enjoy the following services and benefits:

- Parts inventory
- Typically, parts are shipped out next day air service
- PALLET RUNNER repair service for more complex repairs
- Phone support
- Electronic support
- Preventative maintenance contracts
- Training and Education
- Testing of PALLET RUNNER system with customers pallets/ product
- Exclusive PALLET RUNNER rental program for those peak times in your business
- Support line for those questions you just want answered



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TECHNICAL SUPPORT LINE: 1-866-953-0366
E-MAIL: AUTOMHACARE@AUTOMHA.COM