



A Flexible and Efficient Automated Pallet Storage & Retrieval System

FPSS1500

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-13°F to 113°F
Temperature Ranging

The FPSS1500, a cutting-edge Automated Pallet Storage & Retrieval System (AS/RS) developed by HWArobotics, offers a solution for modern warehousing needs. This sophisticated system offers a flexible and efficient solution for automating warehouse operations.



Key Components

Four-directional pallet shuttle

Navigates flexibly in all directions, maximizing pallet storage density and access.

High racks

Optimize storage space utilization.

Pallet cargo dimensions inspection

Ensures accurate pallet handling and storage.

Communication system

Using AI to coordinate the shuttles, vertical lifts, conveyors and locations with seamless data exchange between system components.

Pallet unit system

Securely holds and transports pallets, ensuring smooth operation.

Inbound and outbound automatic conveyor

Streamline material flow.

Barcode reading system

Provides real-time tracking and inventory management.

Computer monitoring and control system

Offers centralized control and comprehensive operational insights.

Pallet Shuttle Options

The system accommodates various temperature requirements, providing flexibility for diverse operational needs, including options for both room temperature and -13°F storage.

New Generation of Warehousing

The FPSS1500 represents a significant advancement in automated warehousing technology. Its flexibility, efficiency, and adaptability make it a perfect solution for businesses seeking to optimize their operations and gain a competitive edge in today's dynamic marketplace.

Extensibility and Versatility

The FPSS1500's modular design allows for flexible configuration to adapt to specific warehouse layouts and needs. This makes it ideal for:

Low height warehouses

Maximizes storage space without requiring significant building modifications.

Warehouses with irregular shapes

Adapts to unique floor plans and maximizes storage potential.

Dynamic Orde

When certain SKU is in high demand, more than one shuttle will collaborate for higher throughput.

Warehouses with many columns

Optimizes space utilization around obstacles.

Goods in and out flexibility

Allows for flexible handling of various goods by accommodating different locations for goods entering and leaving the system.

Scalability and Efficiency

The system's modularity also allows for easy scaling. You can adjust the number of equipment components based on your operational requirements, ensuring maximum efficiency and cost-effectiveness. This eliminates the drawbacks of high maintenance costs and complex mechanical structures often associated with traditional AS/RS solutions.



FPSS1500 Rack System



Quick Installation



Flexible Adjustments

The FPSS1500 rack system is designed for fast installation and easy customization. Its compact layout, solid structure, and simple expansion capabilities make it an ideal solution for businesses that need to quickly adjust their storage space to meet changing needs.

Benefits of the FPSS1500 Rack System

Quick installation	The system's modular design and simple assembly process allow for quick installation, minimizing downtime and disruption to your operations.
Flexible adjustments	The rack can be easily added, removed, or adjusted to accommodate changing inventory or space requirements.
Compact layout	The system's compact footprint maximizes storage space without taking up valuable floor space.
Solid structure	The FPSS1500' s racking system is built with high-quality materials and construction techniques, ensuring long-lasting durability and performance.
Cost-effective	The system's quick installation, flexibility, and space-saving design leads to significant cost savings over time.

Control system

European Engineering	The system leverages the quality and reliability of European components for its core functions ensuring long-term performance and minimal downtime.
Optimized Efficiency	Handles large-scale goods with ease, maximizing productivity for both inbound and outbound operations.
High Storage Density	Utilizes a multi-depth storage system, providing a compact footprint while maximizing storage capacity.
All-Electric Drive	Operates entirely on an electric driven system, enhancing energy efficiency and reducing environmental impact.
Eco-Conscious Design	Incorporates energy-saving components and a drive scheme focused on minimizing energy consumption, contributing to environmental sustainability.
Intelligent Batching	Temporarily stores pallets or groups picking orders for streamlined processing, enhancing efficiency.



The FPSS1500 demonstrates its versatility through its extensive applications in various industries, including logistics distribution centers, intelligent manufacturing for finished and semi-finished products, raw materials management in assembly workshops, and even low-temperature preservation warehouses.

Overall Features

CE Certified System

The entire system, including the shuttle robot and lift, has obtained CE certification, ensuring compliance with rigorous European safety and quality standards.

Intelligent Scheduling and Control

The system seamlessly integrates intelligent scheduling and control functions, optimizing workflow and streamlining inventory management.

User-Centric Design

The system is user-friendly, easily modifiable, maintainable, and scalable.

Enhanced Shuttle Robot

The shuttle robot features 16 walking wheels, enhancing functionality across fire zones, maximizing operational efficiency and flexibility.

Space Optimization

Designed with efficiency in mind, the system maximizes storage capacity within limited space, providing a compact and adaptable solution.

Energy Recovery System

The shuttle robot is equipped with an energy recovery system, reclaiming energy during deceleration or braking for energy-saving benefits.

Applicable industries















HWArobotics PTE. LTD.