

R-bot Four-Way Pallet Shuttle

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The R-bot Four-Way Shuttle is a smart storage robot that is independently developed by Zikoo and designed for dense storage systems of pallets. It boasts four-way flexible driving, smart autonomous handling, multi-shuttle collaborative operation, and other benefits. It is flexibly adaptable to dense storage scenarios for pallets in various industries.



All-mechanical construction

All gearbox design with self-developed intellectual property rights
Short production cycle, fast delivery and easy maintenance



Precise positioning

Positioning accuracy of ± 2 mm, breaking through the distance between cargo spaces RFID+laser positioning, realizing absolute address recognition and maintenance free



Extreme speed

Maximum running speed of 2m/s Reversing time of 2.5s



Extra-long battery life

Super large battery capacity and a 10h battery life

Automatic sleep when there is no task, low energy consumption and energy saving



Various optional models

-25°C~45°C operation environments Suitable for various pallet dimensions and customizable according to the scenarios



Flexible intelligence

Cluster scheduling, path planning and task scheduling

Hotspot storage and smart charging



Applicable to multiple scenarios

Applicable to electricity, new energy, cold chain, medicine, food, 3PL, precision manufacturing and other scenarios



Intelligent protection

All-round ranging sensor and multi-level obstacle avoidance
Pallet anti-skew detection for safer cargo

Product Values

Flexible

The Four-Way Shuttle can access any location within the stereoscopic warehouse without being restricted by fixed paths, making it suitable for a variety of complex scenarios.

• Efficient Handling

A highly intelligent design is used to enable auto goods handling and conveying, as well as switching of aislesand layers, thus ensuring efficient operation.

Smart Scheduling

It can be integrated with elevators, conveyors, and other equipment, allowing for the efficient scheduling of multiple vehicles on the same floor, as well as smart scheduling among various devices.

Dense Storage

Ideal for dense storage of pallets, significantly enhancing space efficiency and reducing land costs.

R-bot Product Specifications

| | | Standard Model R1500N | Cold Chain Model R1500C | New Energy Model R1500E |
|-----------------------------|------|--------------------------------|--------------------------------|--------------------------------|
| Weight | Kg | 320 | 360 | 350 |
| Rated load | Kg | 1000 | 1500 | 1500 |
| Navigation | - | RFID + photoelectric sensor | RFID + photoelectric sensor | RFID + photoelectric sensor |
| Positioning accuracy | mm | ±2 | ±2 | ±2 |
| Applicable temperature | °C | -10~45 | -25~0 | -5~45 |
| Type of batteries | - | Lithium-iron phosphate battery | Lithium-iron phosphate battery | Lithium-iron phosphate battery |
| Battery capacity | Ah | 46 | 38 | 48 |
| Duration time at full charg | ge h | 8~10 | 6~8 | 8~10 |
| Fully charging time | h | 1.5 | 2.5 | 2.5 |
| Body dimensions | mm | L1000*W972*H125 | L1192*W972*H125 | L1192*W972*H125 |
| Applicable pallet sizes | mm | 1100~1600*800~1200 | 1200~1600*1000~1200 | 1200~1600*1000~1200 |
| Maximum speed | m/s | 2 | 2 | 2 |
| Acceleration | m/s² | 2 | 2 | 2 |
| Reversing time | S | 2.5 | 2.5 | 3.5 |
| Lifting time | S | 2.5 | 2.5 | 3.5 |

Cold Chain Model

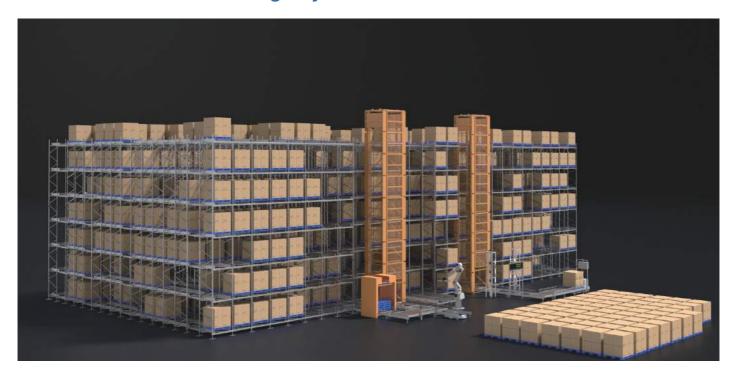
- The lithium battery specialized for low-temperature environments ensures stable operation at -25°C / The combination of RFID and laser positioning facilitates easy maintenance
- Enhanced security protection with a special PCBA coating / Low-temperature charging port design
- It is highly durable, with a battery life of 6-8 hours, and supports auto charging
- A high level of intelligence, featuring smart operation/scheduling/power management

New Energy Model

- Anti-static design
- ${\mbox{\ensuremath{\bullet}}}$ The wheels are fully cushioned with rubbera
- The entire vehicle is devoid of materials like copper, zinc, nickel, and lead, and is dust-proof
- $\boldsymbol{\cdot}$ The structural components are blackened and the racks are stainless steel



R-bot + H-bot Dense Storage System



U-BOT + R-BOT Dense storage picking system



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