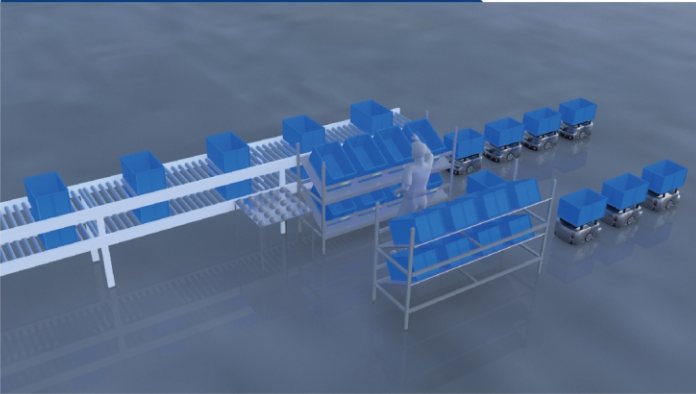


GZ Fast-Picking System

Ultra-High Density, Ultra-High Efficiency Intelligent Picking Solution

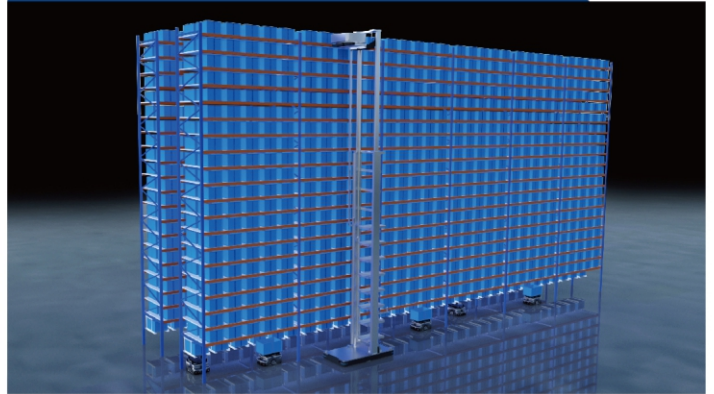
The GZ Fast-Picking System operates through the collaboration of two types of robots—the P4L tote picking robot and the AM50 high-speed AMR lifting robot. Cooperate with with shelves, totes, and the iWMS, it efficiently handles tasks such as inbound and outbound, inventory, and sorting within the warehouse. This system provides a standardized solution for order picking operations which require high throughput efficiency, high storage density, and high flexibility.

High Efficiency



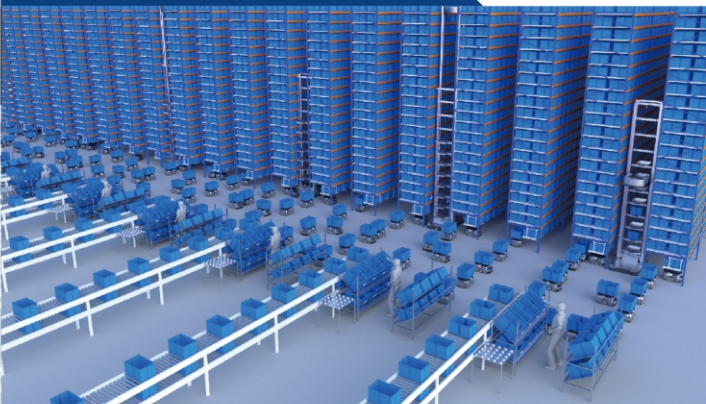
- **Division of Labor:** P4L stores and retrieves totes; AM50 transports them to picking stations.
- **Enhanced Efficiency:** Target specific totes, compared to shuffling mode of AutoStore. 100% efficiency improvement than Mini-load by staying in the Aisle.
- **High-Speed Picking:** Picking stations achieve rates exceeding 350 totes per hour.
- **Smart Optimization:** Pre-sorts high-demand items at the bottom level during idle periods.

High Storage Capacity



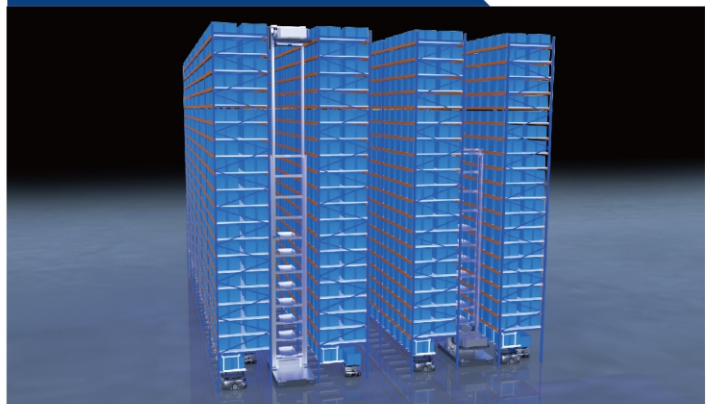
- **Higher Density:** Stores up to 50 totes/m² with double-deep deployment and 10m retrieval height.
- **Narrower Aisles:** Narrower main aisle by Picking station designed according to AM50.
- **Larger Storage Volume:** AM50 operates under shelves without extra aisles.
- **Smaller Stations:** Station area reduced by up to 40% compared to traditional U-shaped setups.

High Flexibility



- **Uninterrupted Operations:** Eliminates ring conveyor lines, ensuring uninterrupted business.
- **Strong Compatibility:** Supports mixed dispatching with various robots, to handle totes and material boxes.
- **High Scalability:**
 - ① **Flexible Movement:** P4L can switch between aisles, unlike Mini-load.
 - ② **Adjustable Efficiency:** Easily scale robots, aisles, and stations to meet demand.

Cost-Effective



- **Minimized Errors:** Reduces error rate to 0.01%.
- **Budget-Friendly:** Lower site costs with minimal ground and shelving requirements, compared to Mini-Load and AutoStore.
- **Reduced Downtime:** Faulty of single AGV does not impact the whole aisle compare to Mini-Load.
- **Labor Reduction:** Cuts labor intensity and costs by nearly two-thirds.



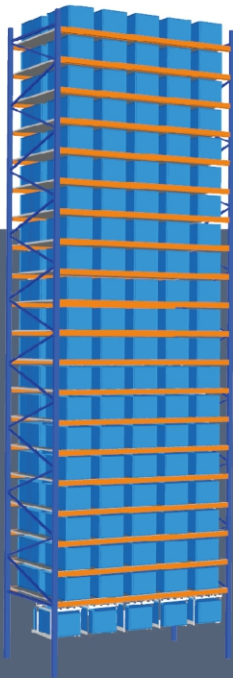
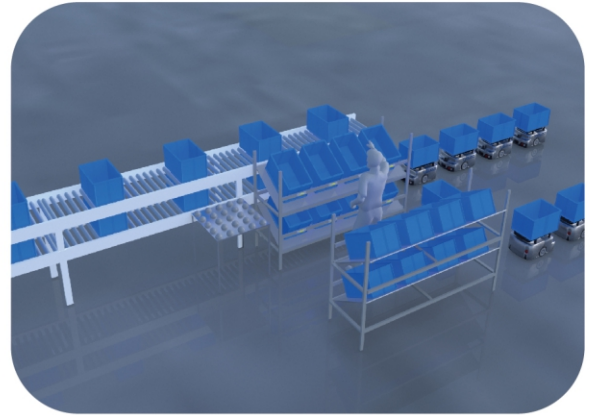
P4L	
Dimensions	1800mm*1000mm*4900/5700mm
Effective Travel	9650mm
Max Lifting Height	10000mm
Min Lifting Height	350mm
Weight	1000kg
Max Totes Weight	30kg
Operating Speed	Unloaded: 1.5 m/s Loaded: 1.2 m/s
Lifting Speed	0.8m/s
Battery	40AH (CE Certification)
Customer	Double-deep; Self-adapting

AM50	
Dimensions	640mm*440mm*380mm
Rotational Diameter	760mm
Lifting Height	Shelf Docking Height: 410 mm Station Docking Height: 920 mm
Weight	60kg
Tote Dimensions	600mm*400mm*(120-400mm)
Tote Type	Supports Multiple Tote Types or Original Material Boxes
Load Capacity	50kg
Max Operating Speed	4m/s
Lifting Speed	160mm/s
Battery	12AH/51.2V



Picking station

- The AM50's height adjusts for operator convenience.
- Picking rate reach up to 350 totes per hour.
- Supports empty/full tote outbound and inbound operations.
- Optional conveyor line improves efficiency by connecting directly to the packing station.

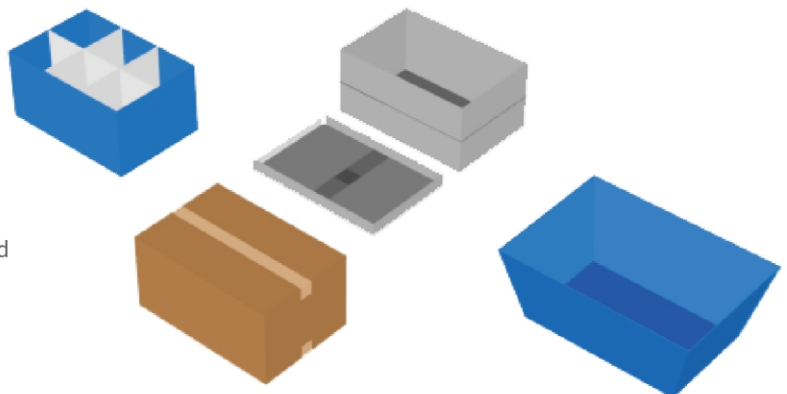


Shelving

- Supports up to 10 meters with 23 layers (400 mm spacing), maximizing capacity.
- The bottom layer docks the AM50 and P4L, enhancing efficiency.
- Beam racks in aisles over 6 meters wide enable near "solid" storage.

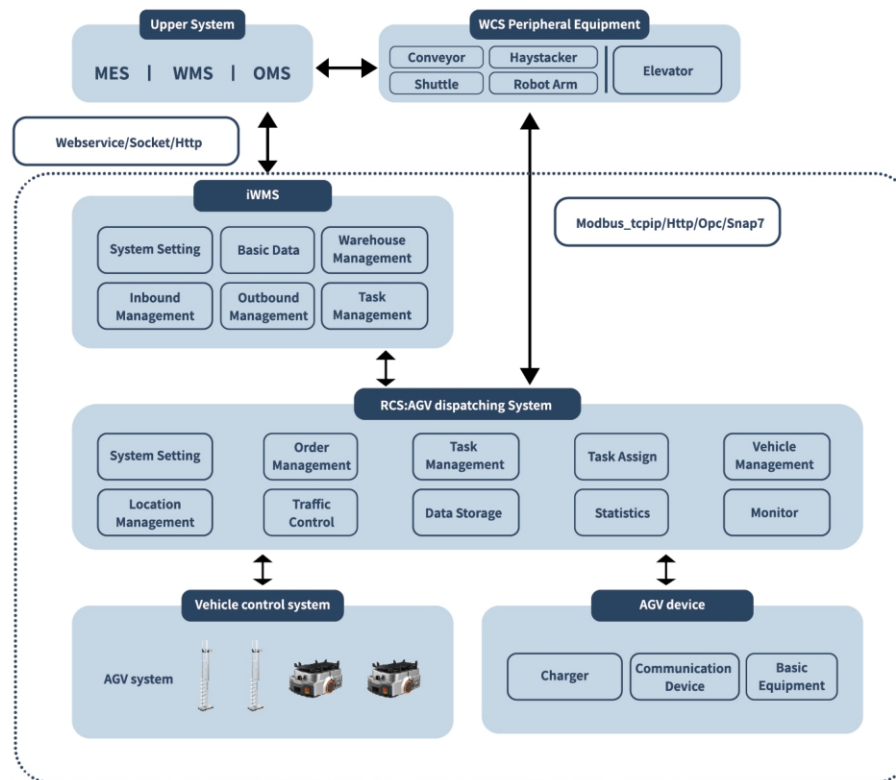
Totes

- Compatible with various totes and boxes.
- Direct storage of original boxes saves labor and replacement costs.

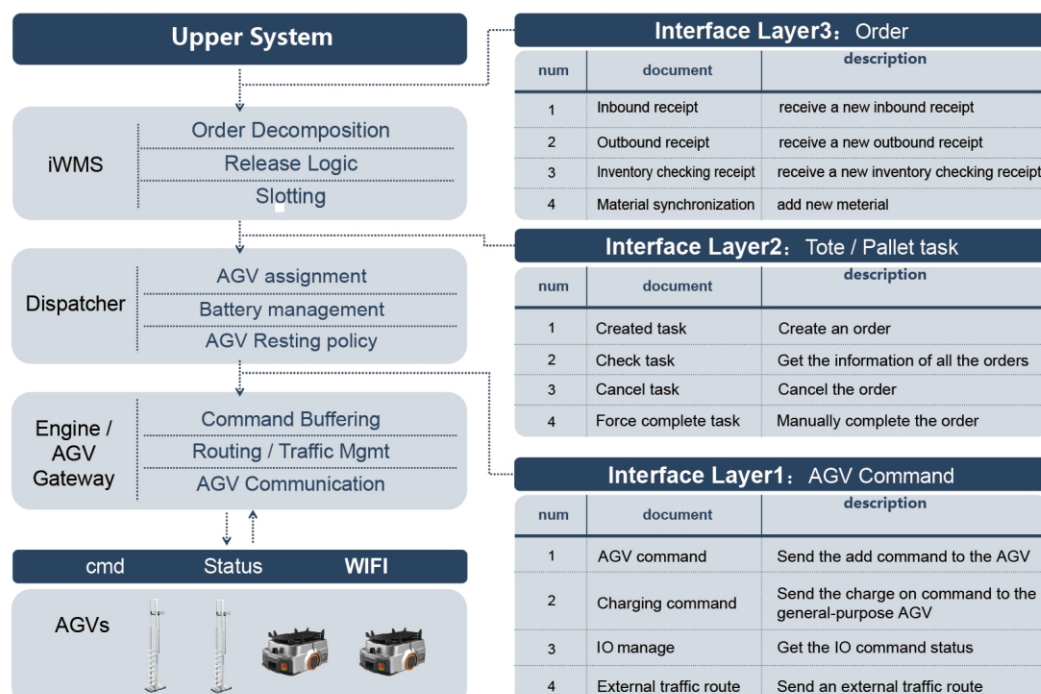


The GZ Fast-Picking System platform consists of iWMS and RCS, capable of interfacing with upper-level systems through various communication protocols, as well as connecting with WCS for multi-device integration. The system is highly modular and offers flexible, multi-layer open interfaces, making it easy for customers and partners to use and integrate.

System Structure



Supports integration with customer systems from Layer 1 to Layer 3, enabling connections at the order level, tote level, and AGV command level, meeting various customer requirements for system integration.



MOVE THE WORLD SEE THE FUTURE ANEW

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