



## 浙江中扬立库技术有限公司



总部：嘉兴  
制造基地：广德  
总部地址：浙江省嘉善县经济开发  
区滨江路15号



网址：www.zoneyung.com  
邮箱：ZY@zoneyung.com  
传真：0573-84824168  
电话：400-056-7256

Zoneyung Automatic Warehouse Technology Co.,Ltd.

Headquarters: Jiaxing  
Manufacturing Base: Guangde  
Address: No.15 Binjiang Rd.Jiashan,  
Zhejiang, China.314100

Web: www.zoneyung.com/en/  
Email: ZY@zoneyung.com  
Fax: +86 0573-84824168  
Tel: +86 400-056-7256

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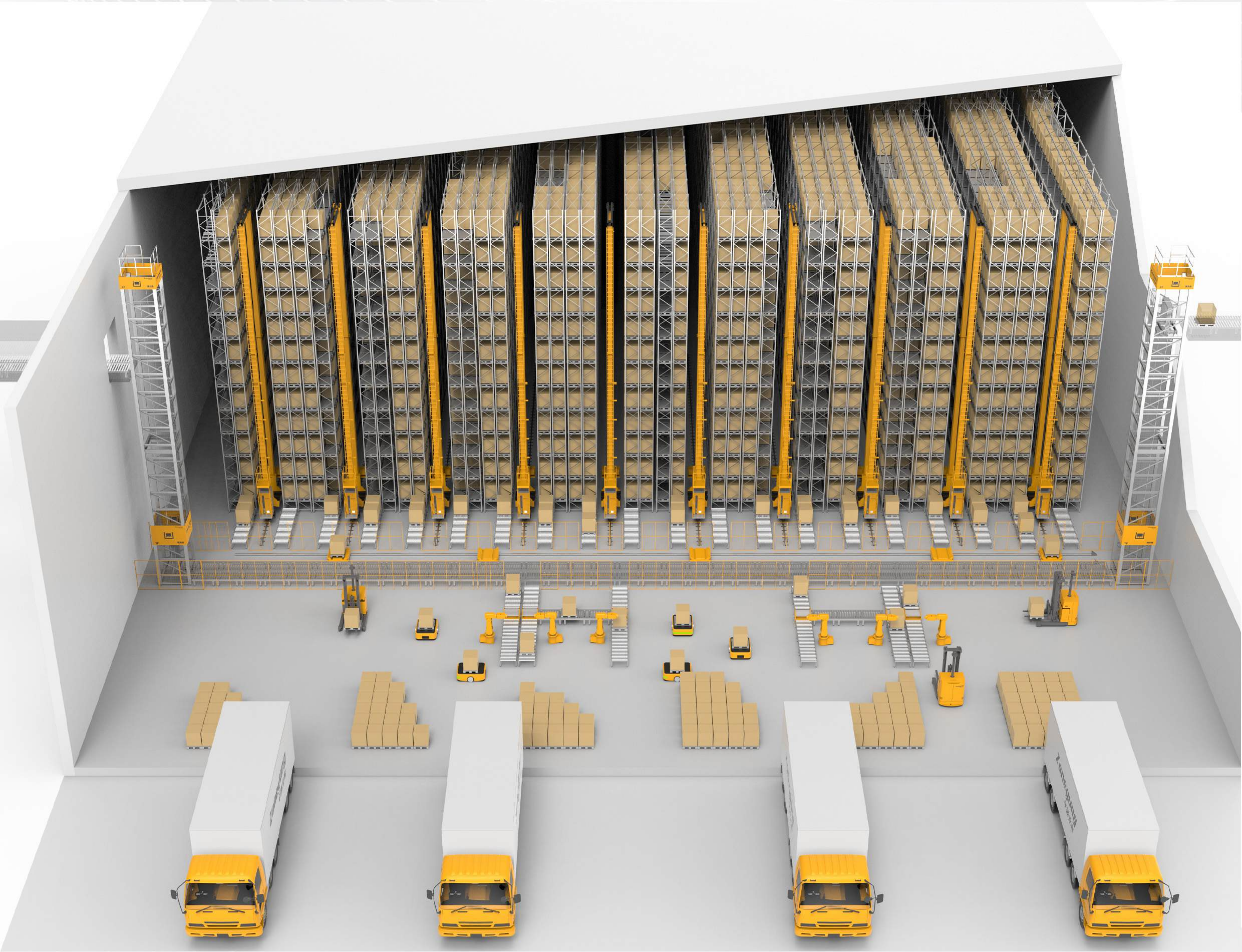
中扬立库公众号  
Wechat Account

Efficient Warehousing, Intelligent Logistics  
More Efficiency for Manufacturing and Logistics

**Zoneyung**  
中扬立库

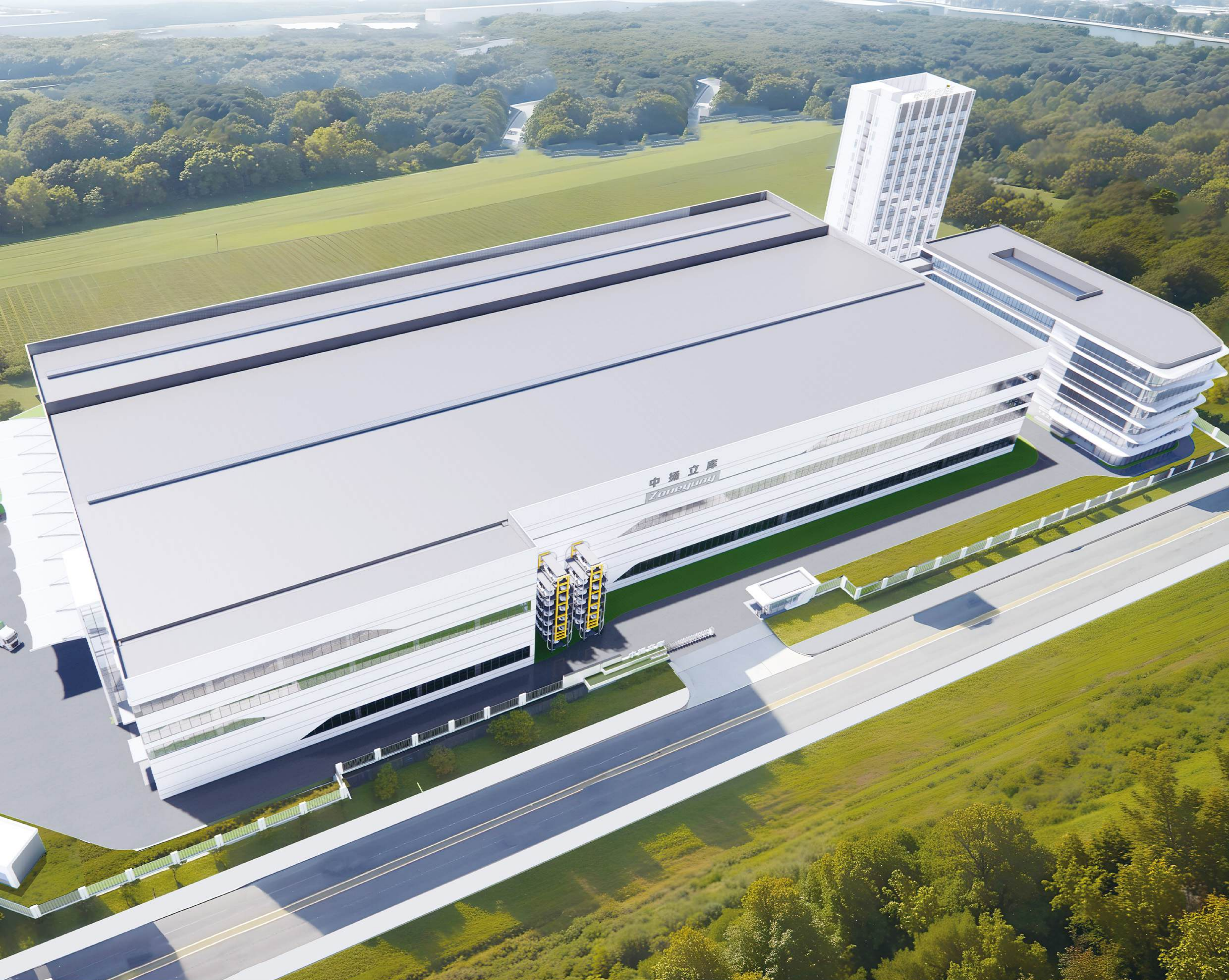
# 高效仓储 智能物流

让制造与物流更高效



浙江中扬立库技术有限公司

Zoneyung Automatic Warehouse Technology Co.,Ltd.



# 公司简介

## About us

中扬储存集团于2009年成立，浙江中扬立库技术有限公司是中扬集团旗下专业的智能仓储物流设备源头服务商，致力于让制造与物流更高效。集团年销售额超6亿人民币，是中国立体仓库大型厂家之一。员工总数500余人，研发人员占比超30%。已建及在建总建筑面积超过12万平方米。是国家高新技术企业，浙江省“专精特新”企业，参与浙江省“尖兵、领雁”项目，浙江省重点培育企业，综合实力位居行业前列。我们是京东、菜鸟、日日顺、巨石、晶澳、申洲等大型制造与物流企业的长期合作伙伴。

Zoneyung Automatic Warehouse Technology Group Corporation was established in 2009. Zoneyung Automatic Warehouse Technology Co.,Ltd., a key subsidiary of the group, is a leading manufacturer committed to intelligent warehouse storage and logistics equipment. With an annual revenue exceeding RMB 600 million, the group employs over 500 people, and its R&D personnel account for more than 30% of the workforce. It is recognized as a National High-Tech Enterprise and a Specialized, Refined, Differential, and Innovative (SRDI) Enterprise of Zhejiang Province. It is also designated as a pioneering entity in Zhejiang's "Pioneer and Leading Goose" R&D initiative and a cultivated enterprise. Zoneyung maintains long-term partnerships with major industry leaders such as JD.com, Cainiao, Ririshun, Jushi Group, JA Solar, and Shenzhou International.



## 中扬立库（嘉善总部）



### Zoneyung (Jiashan Headquarters)

中扬立库（嘉善总部），是集团研发中心、智能制造基地、系统集成总部。占地面积3.03万平方米，建筑面积5.7万平方米，总投资5亿元。公司专注研发与生产多种类、可定制的托盘堆垛机、料箱堆垛机、四向穿梭车、有轨搬运车、料箱机器人以及智能仓储系统，年产值超20亿元。公司采用AI大数据、数字孪生系统，实时监控项目动态，并优化、验证方案，结合人工智能与机器人技术，保障项目交付周期。作为行业领先的智慧黑灯工厂，嘉善总部集研发、生产、规划、设计、销售、售后为一体，提供全生命周期服务，致力于赋能客户数智化升级。

Zoneyung (Jiashan) is the group's R&D center, intelligent manufacturing base and integrated systems headquarters. The facility covers a land area of 30,300 square meters with a total floor space of 57,000 square meters, representing a total investment of RMB 500 million. The company specializes in the R&D and production of diverse, customizable stacker cranes and automated systems, including pallet stackers, box stackers, four-way shuttles, rail-guided vehicles, bin-handling robots, and complete warehouse automation solutions, with an annual output value exceeding RMB 2 billion. By leveraging AI big data and digital twin systems, Zoneyung monitors project progress in real time, optimizes and validates solutions, and integrates artificial intelligence with robotics to ensure on-time project delivery. As an industry-leading unmanned "lights-out" smart factory, the Jiashan headquarters integrates R&D, production, planning, design, sales, and after-sales support to provide full life-cycle services, empowering customers on their digital and intelligent transformation journey.



## 中扬广德



### Zoneyung Guangde

中扬储存设备（广德）有限公司，位于安徽广德经济开发区，占地4万平方米，建筑面积2.7万平方米，总投资1.8亿元；2017年开始投产，年产轻/重型堆垛机超500台，工业货架及载具8万余吨，年产值超5亿人民币。

Zoneyung Automatic Warehouse Technology Group Corporation, located in the Guangde Economic Development Zone, Anhui Province, covers a land area of 40,000 square meters with a total floor space of 27,000 square meters. The total investment in the facility amounts to RMB 180 million. Since commencing production in 2017, the company has an annual production capacity of over 500 light/heavy-duty stacker cranes and more than 80,000 tons of industrial racks and loading equipment, with an annual output value exceeding RMB 500 million.

# 发展历程

从技术到生态，持续创造价值  
从产品到愿景，始终与您同行

## Development History

From technology to ecosystem, constant value creation.  
From products to vision, always walking with you.

2004

核心创始团队将先进互联网技术率先应用于物流装备领域，实现了互联网+物流的生态结合，并正式涉足物流装备领域

The core founding team pioneered the application of advanced internet technologies in the logistics equipment sector, achieving an ecosystem integration of "Internet + Logistics," and formally entered the logistics equipment industry.

2009

浙江中扬储存设备股份有限公司正式成立

Zoneyung Automatic Warehouse Technology Group Corporation was officially established.

2012

浙江嘉善经济开发区生产基地投产，开始为国内外知名物流系统集成商提供OEM代工服务

The production base in Zhejiang Jiashan Economic Development Zone was put into production, beginning OEM manufacturing services for renowned domestic and international logistics system integrators.

2015

引入合伙人制度并吸收了一批15年以上台资背景的智能仓储物流行业的技术骨干。正式开始进入智能化仓储物流设备领域并自主研发出WMS、WCS及轻/重型堆垛机系统。

Introduced a partnership system and recruited a group of technical backbones from the intelligent warehousing and logistics industry with over 15 years of experience in Taiwan-funded enterprises. Officially began to enter the field of intelligent warehousing and logistics equipment and independently developed WMS, WCS, and light/heavy stacking systems.

2017

安徽广德生产基地正式投产。年产轻/重型堆垛机突破200台。

The Anhui Guangde production base was officially put into production. The annual output of light/heavy pallet stackers has exceeded 200 units.

2019

承建了高35米，载重6.5吨的高位智能立体仓库系统

Constructed a high-bay intelligent AS/RS (Automated Storage and Retrieval System) with a height of 35 meters and a load capacity of 6.5 tons.

## 2024

总部数字化智能工厂项目建设正式启动，提出打造“智能仓储2.0系统”的目标，与浙江大学创办联合实验室，荣获“智能物流产业优秀品牌奖”、“新能源绿色物流领军案例”、“物流技术与装备行业发展调研活动创新金智奖”。

The construction of the headquarters' digital intelligent factory project has officially started, with the goal of building the 'Intelligent Warehousing 2.0 System'. A joint laboratory has been established with Zhejiang University, and it has won the 'Excellent Brand Award in Intelligent Logistics Industry', 'Leading Case in New Energy Green Logistics', and the 'Innovative Golden Wisdom Award in Logistics Technology and Equipment Industry Development Research Activities'.

## 2022

成功交付智能仓储项目300+，年销售额突破5亿，荣获“中国智能物流产业杰出工匠奖”、“2022年度物流知名品牌奖”、“智能物流产业实力品牌奖”。

Successfully delivered over 300 smart warehousing projects, with annual sales exceeding RMB 500 million, and was awarded the 'Outstanding Craftsman Award in China's Smart Logistics Industry,' '2022 Renowned Logistics Brand Award,' and 'Strong Brand Award in the Smart Logistics Industry.'

## 2023

运用数字孪生技术自主研发出SCADA系统，组建了智能物流软硬件完整的生态系统。为实现物流机器人的大规模生产开始建设数字化、智能化、立体化的行业灯塔工厂。

Using digital twin technology, we independently developed a SCADA system independently and established a complete ecosystem of intelligent logistics software and hardware. To achieve large-scale production of logistics robots, we are beginning the construction of a digitalized, intelligent, and three-dimensional industry lighthouse factory.

## 2021

承接了整厂级智能仓储物流系统大型集成项目，荣获“中国智能物流产业前沿科技奖”。

Undertook a large-scale integrated project for a factory-level intelligent warehousing and logistics system, and was awarded the Cutting-edge Technology Award in China Intelligent Logistics Industry

## 2020

第三代（400m/min）高速堆垛机系统上市，正式开始研发搬运机器人、料箱机器人等物流机器人。

The third generation (400m/min) high-speed stacker system was launched, officially initiating the R&D of logistics robots such as handling robots and container robots.



# 研发中心

R&D Center

## 研发规模 R&D Scale

中扬立库研发中心5000平方，  
测试中心5000平方。

Zoneyung R&D Center: 5,000 sqm;  
Testing Center: 5,000 sqm



## 研发投入 R&D Investment

中扬立库每年不低于10%研发投入，  
深耕智能仓储物流科技核心技术。

Zoneyung allocates no less than 10% of its annual revenue to R&D, focusing on advancing core technologies in intelligent warehousing and logistics.



## 研发人才 R&D Talent

中扬立库研发人员占比超过30%，  
大专及以上学历占比100%。

R&D personnel account for over 30% of Zoneyung's workforce, with 100% holding college degrees or above.



## 校企合作 University Partnerships

中扬立库与多所高校建立长期的研发和人才培养机制，设立专项基金以促进人才孵化。

Zoneyung has established long-term R&D and talent development partnerships with multiple universities, and has set up dedicated funds to drive talent incubation.



## 软件研发 Software R&D

中扬立库以“数字+智能+绿色”作为研发核心，自主研发的智能仓储物流软件生态系统，助力企业降本增效，助力企业实现真正可持续发展。

Zoneyung focuses on "Digital + Intelligent + Green" as the core of its R&D efforts. Its independently developed intelligent warehousing and logistics software ecosystem helps companies reduce costs, improve efficiency, and achieve truly sustainable development.





# 软件团队

Software Team



## 浙江嘉善软件部技术中心

📍 浙江省嘉善县  
总人数150余人，其中研发人员50余人，工程技术人员60余人，系统实施、项目经理40余人

### Zhejiang Jiashan Software Division Technology Center

Located in Jiashan County, Zhejiang Province.  
Total staff: over 150 members, including 50+ R&D personnel, 60+ engineering technical personnel, 40+ system implementation and project managers.



## 上海软件研发中心

📍 上海市闵行区  
软件研发人员8人，其中博士1人，硕士3人

### Shanghai Software R&D Center

Located in Minhang District, Shanghai.  
Software R&D team: 8 members, including 1 PhD holder and 3 Master's degree holders.



## 新加坡软件研发中心

📍 新加坡  
软件研发人员8人，其中博士2人，硕士3人

### Singapore Software R&D Center

Located in Singapore  
Software R&D team: 8 members, including 2 PHD holders and 3 Master's degree holders.

# 完善的智能仓储产品线

Comprehensive Intelligent Warehousing Product Line



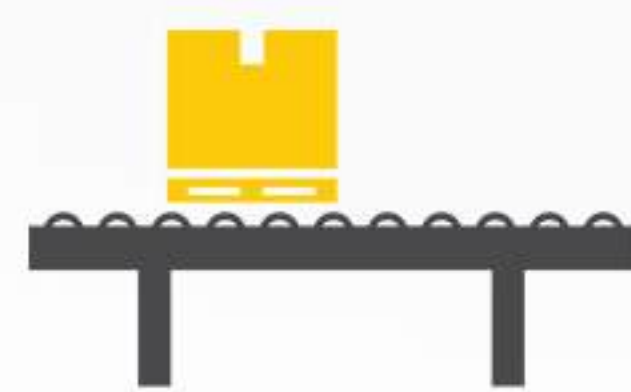
有轨搬运车  
RGV



四向穿梭车  
Shuttle Robot



两向穿梭车  
Shuttle Robot



输送分拣系统  
Conveying and Sorting System



WMS



WCS

托盘堆垛机  
Pallet Stacker Crane

料箱堆垛机  
Tote Stacker Crane

四向穿梭车  
Shuttle Robot



托盘堆垛机

Pallet Stacker Crane



双工位堆垛机

Dual-station  
Pallet Stacker Crane



料箱堆垛机

Tote Stacker Crane



料箱堆垛机  
(双立柱)

Double-Column  
Tote Stacker Crane



托盘仓储机器人

ASR-P



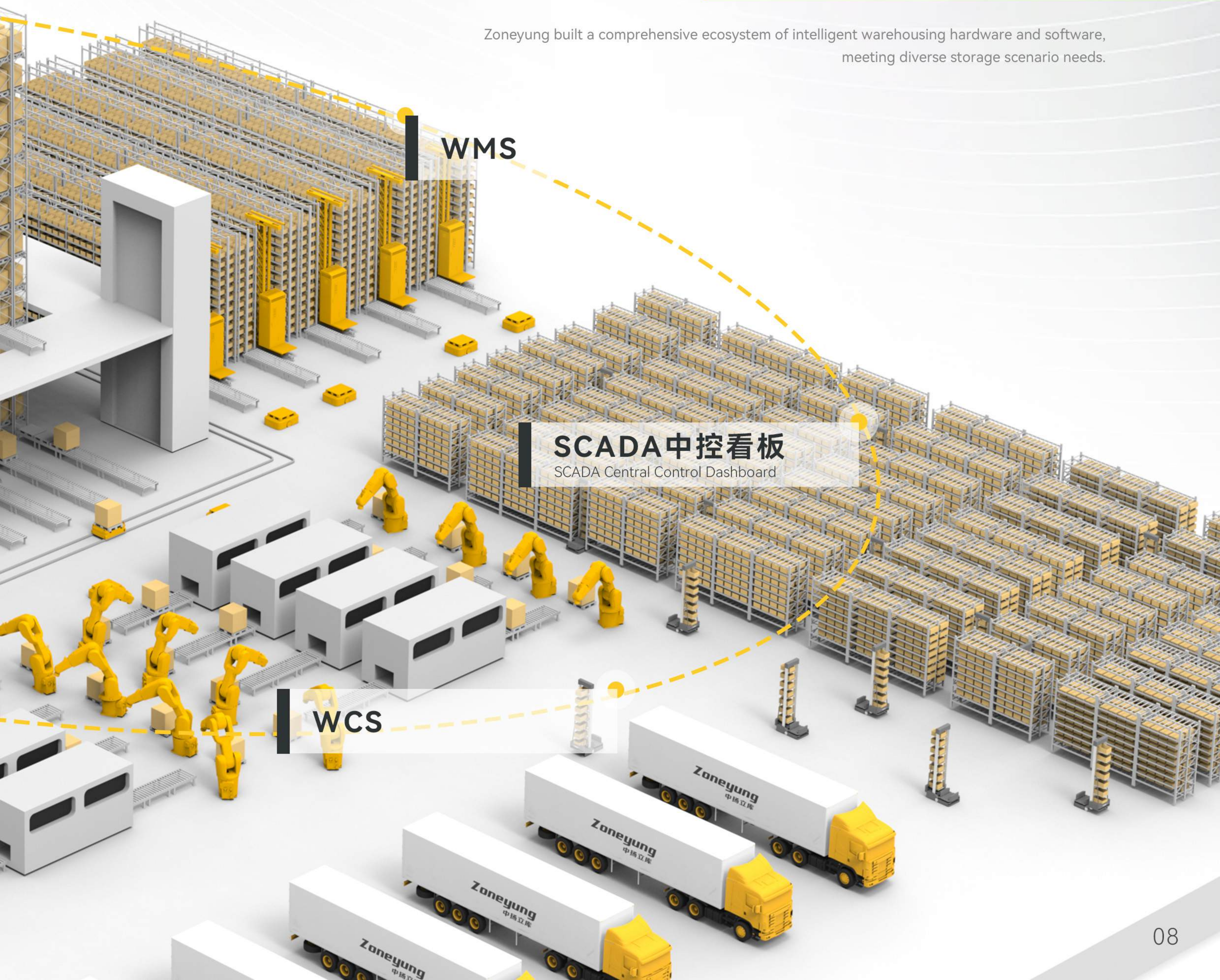
料箱仓储机器人

ASR-T

## 中扬立库拥有完善的智能仓储软硬件生态

### 能够满足不同仓储场景需求

Zoneyung built a comprehensive ecosystem of intelligent warehousing hardware and software, meeting diverse storage scenario needs.



# 托盘堆垛机

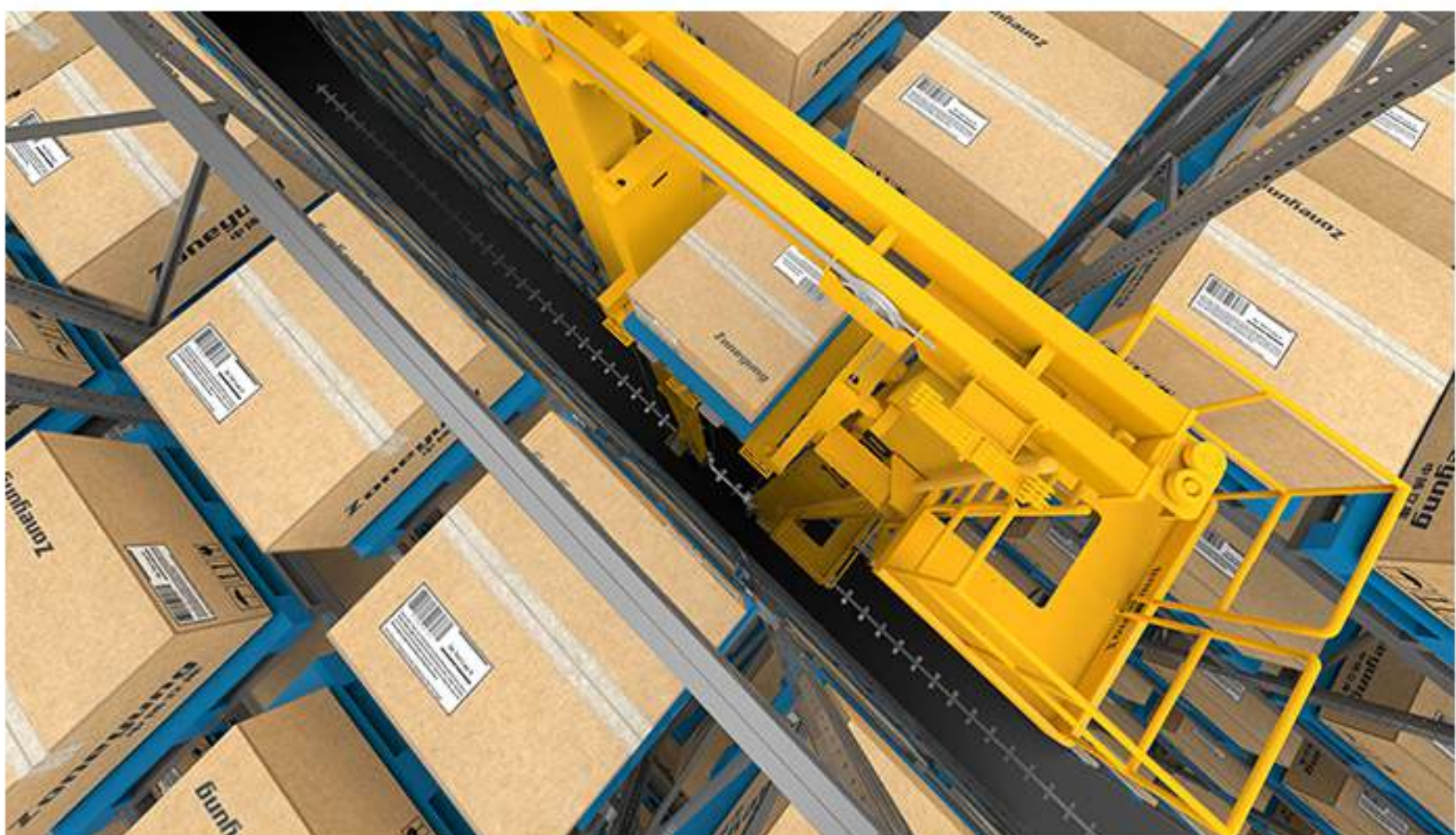
单双工位，可灵活存取不同货物

Pallet Stacker Crane  
Single/Dual Stations – Flexible Handling of Diverse Goods

- **35m**  
高度（可定制）  
Height (Customizable)
- **0.5t-10t**  
额定负载（可定制）  
Rated Load (Customizable)
- **120m-200m/min**  
水平速度  
Horizontal Travel Speed

## 产品特点

Product Features



### 高承载力

High Load Capacity

最大载重量可达10t，能够满足各种重物的搬运需求。  
Maximum load capacity up to 10t, capable of meeting various heavy-duty handling needs.

### 高空间利用率

High Space Density

能有效利用仓库的垂直空间，提高仓库的空间利用率。  
Effectively utilizes vertical warehouse space to enhance storage density.

### 高稳定性

High Stability

抗扭曲，刚性强的双立柱结构确保最大稳定性和安全性。  
Anti-twist, rigid double-column structure ensures maximum stability and safety.

## 适用场景

Applicable Scenarios



冷链物流中心  
Cold Chain Logistics



各种制造业  
Manufacturing



航天军工  
Aerospace & Defense



# 超长型堆垛机

## 能够处理各种超长重型货物

Ultra-long Pallet Stacker Crane

Capable of handling various oversized and heavy loads.

- **35m**  
堆垛机高度（可定制）  
Stacker Crane Height (Customizable)
- **0.5t-10t**  
额定负载（可定制）  
Rated Load (Customizable)
- **120m-200m/min**  
水平速度  
Horizontal Speed

### 产品特点 Product Features



#### 超长承载能力

##### Exceptional Long-span Load Capacity

能容纳较长的货物，并具备超强的稳定性，可保证存取货物的过程中不出现任何滑落或脱落。

Accommodates lengthy goods with exceptional stability, ensuring no slippage or dropping during handling.

#### 高强度结构

##### High-Strength Structure

由于需要承载重型或超长的货物，超长型堆垛机的结构必须非常坚固，通常采用高强度钢材和其他耐用材料制成。

Designed to handle heavy and oversized loads, the ultra-long stacker crane features an exceptionally robust structure, typically made of high-strength steel and other durable materials.

#### 高效控制系统

##### High-Efficiency Control System

超长型堆垛机需要高效的控制系统来确保平稳、准确的运动，并减少操作过程中的误差。

The ultra-long stacker crane requires a highly efficient control system to ensure smooth and precise movement while minimizing operational errors.

### 适用场景 Applicable Scenarios



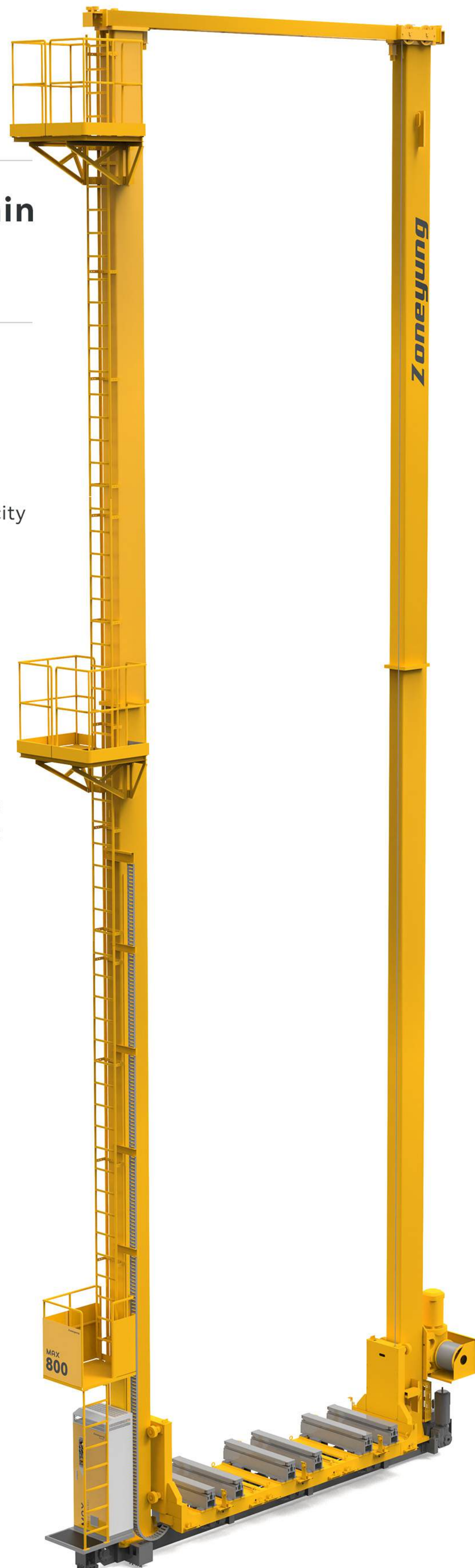
汽车行业  
Automotive



金属管材制造  
Metal Pipe Manufacturing



船舶制造  
Shipbuilding



# 卷料类堆垛机

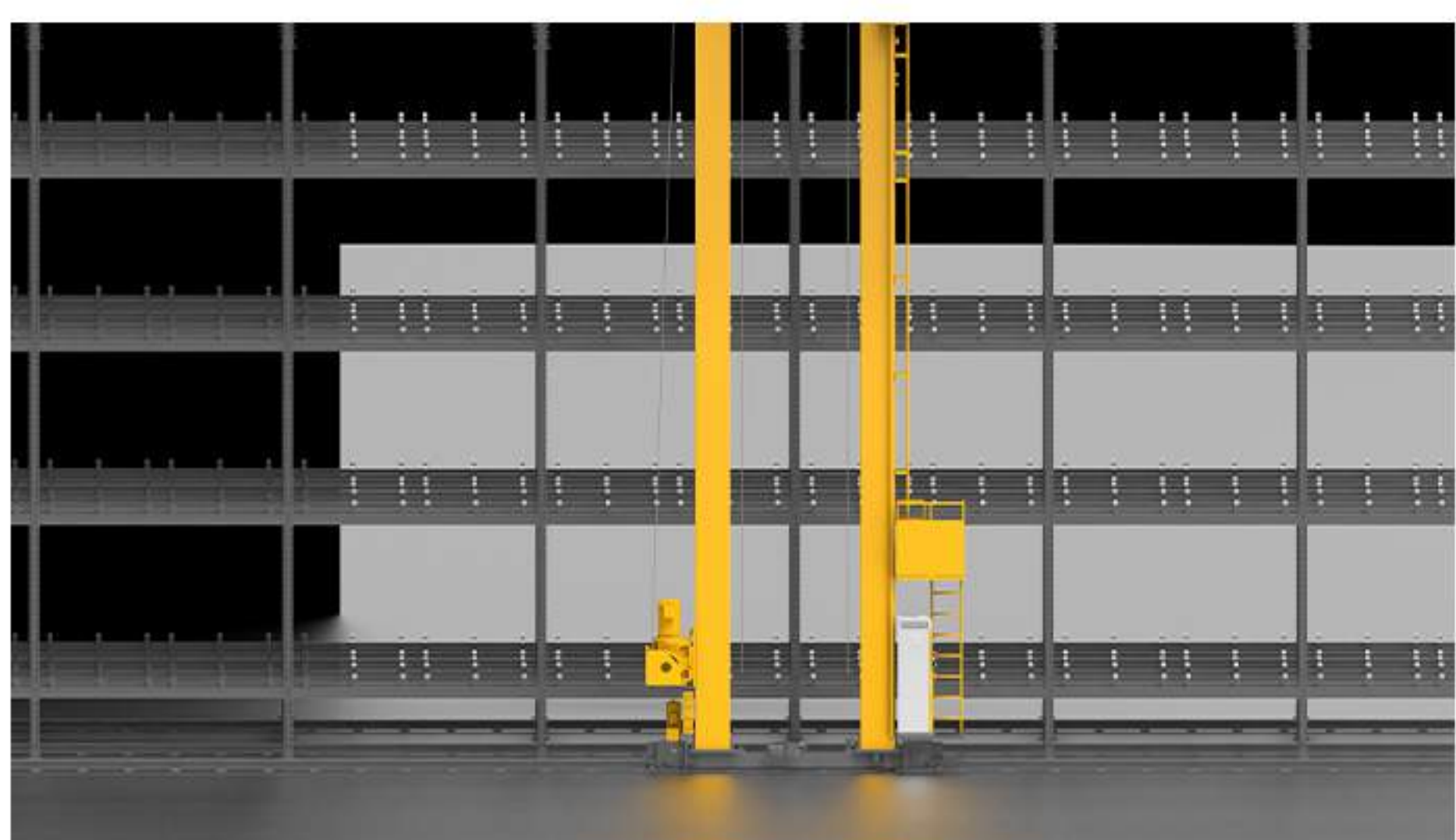
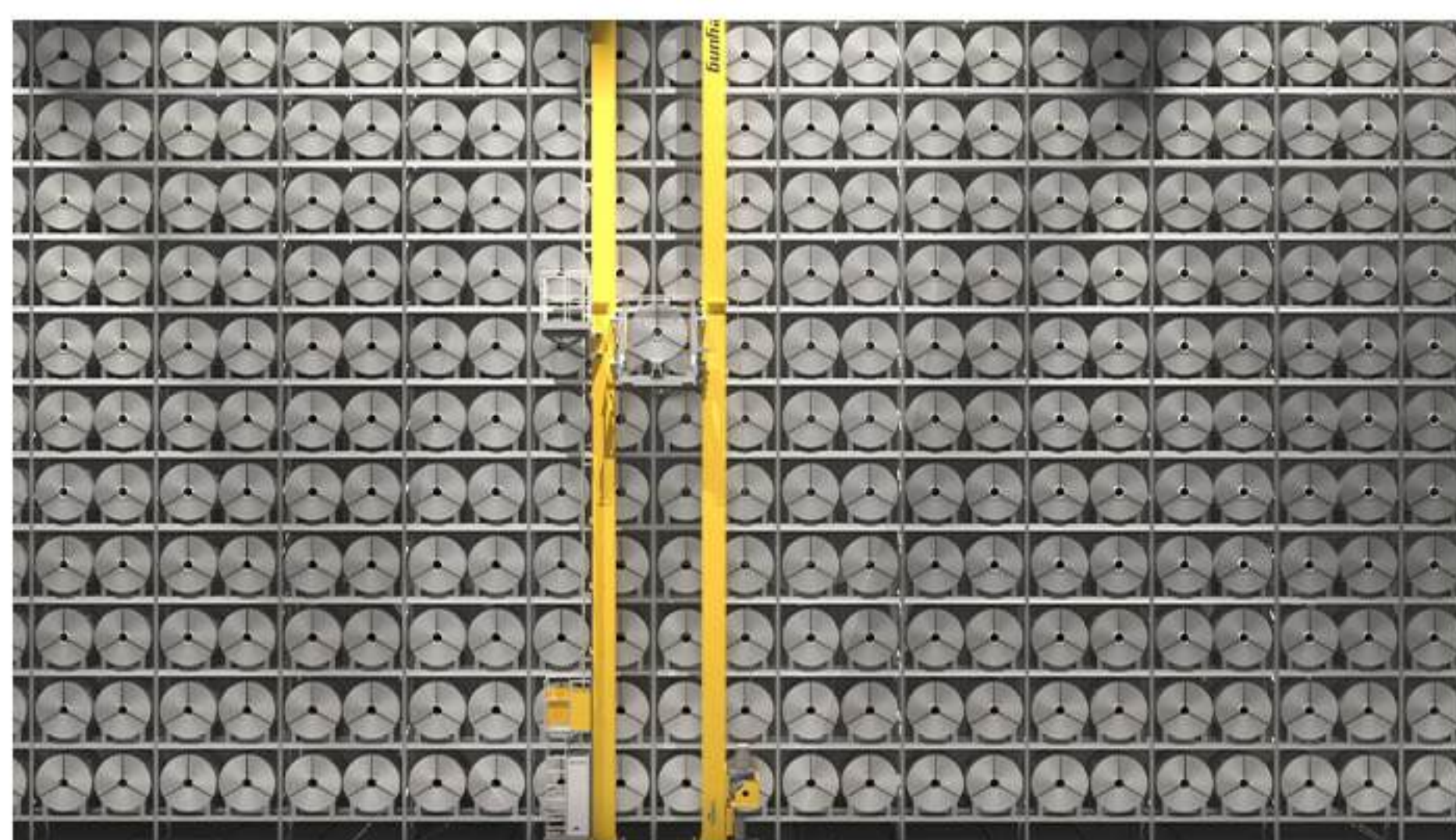
可安全存取各类重型卷材货物

Coil Pallet Stacker Crane  
Safely handles various types of heavy coil materials.

- **35m**  
堆垛机高度（可定制）  
Stacker Crane Height (Customizable)
- **0.5t-10t**  
额定负载（可定制）  
Rated Load (Customizable)
- **120m-200m/min**  
水平速度  
Horizontal Speed

## 产品特点

Product Features



- 高载重**  
High Load Capacity

最高荷载可达10t，高度可达35m。  
Maximum load capacity up to 10t, height up to 35m.
- 稳定可靠**  
Stable and Reliable

优化结构设计，运行稳定可靠，立柱防摇，保障作业时货物无损耗。  
Optimized structural design ensures stable and reliable operation, with anti-sway columns to prevent cargo damage during handling.
- 高速运行**  
High-Speed Operation

水平移速120m-200m/min，替代人工，大力提高生产效率。  
Horizontal speed 120-200 m/min, replacing manual labor and significantly boosting production efficiency.

## 适用场景

Applicable Scenarios



加工制造业  
Manufacturing



有色金属冶炼  
Non-ferrous Metal Smelting



造纸厂  
Paper Mill



# 超高型堆垛机

专为应对超高储位货物存取而生

Ultra-Tall Pallet Stacker Crane

Designed specifically for accessing ultra-high storage locations.

- **45m**  
堆垛机高度（可定制）  
Stacker Crane Height (Customizable)
- **0.5t-10t**  
额定负载（可定制）  
Rated Load (Customizable)
- **120m-200m/min**  
水平速度  
Horizontal Speed

## 产品特点

Product Features

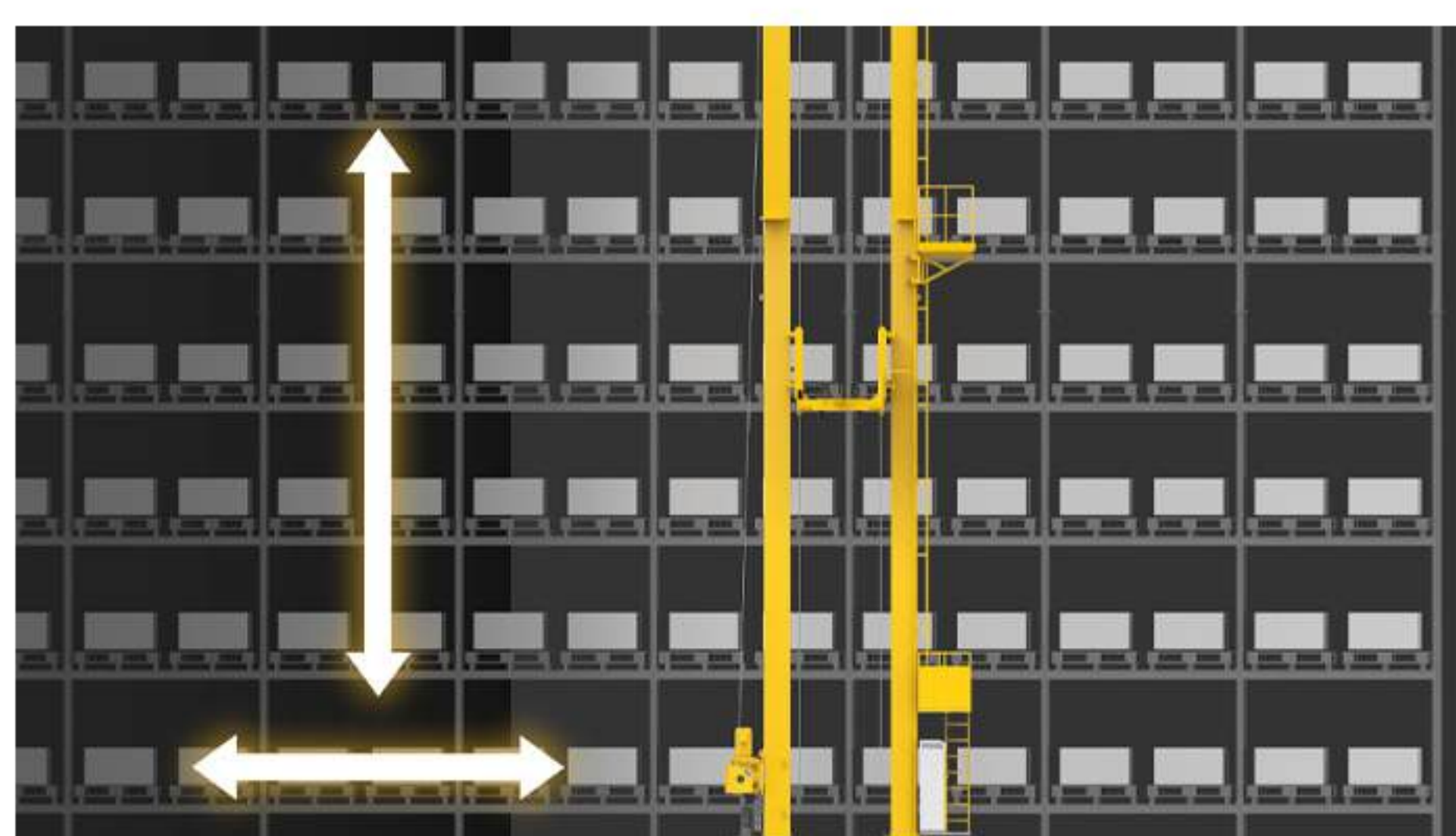


### 节约空间

Space-Saving

最高可达45m，相对于普通的货架存储，超高型堆垛机能充分利用垂直空间，大大节约仓库面积，提高了仓库的储存密度。

Reaching up to 45m, the ultra-tall stacker crane maximizes vertical space utilization compared to conventional rack storage, significantly reducing warehouse footprint and increasing storage density.



### 提高效率

Improves Efficiency

超高型堆垛机在搬运货物时具有极高的速度和精度，能够快速地将货物从货架上取下或放回，省去了人工搬运的时间和成本。

The ultra-tall stacker crane offers exceptional speed and precision in handling goods, enabling rapid retrieval and placement of items from shelves, eliminating the time and cost of manual labor.



### 灵活性高

High Flexibility

超高型堆垛机在操作时可以根据不同的货物种类和尺寸进行灵活调整，能够满足不同的搬运需求。

The ultra-tall stacker crane can be flexibly adjusted to handle various types and sizes of goods, meeting diverse handling needs.

## 适用场景

Applicable Scenarios



各种制造业  
Manufacturing



新能源行业  
New Energy Industry



港口物流  
Port Logistics



# 料箱堆垛机

## 单双工位，感受未来世界的智能速度

Tote Stacker Crane  
Single/Dual Stations – Experience the Intelligent Speed of the Future

- 6m-12m

高度  
Height
- 300m/min

水平速度  
Horizontal Speed
- 65m/min

垂直速度  
Vertical Speed



标准产品60天可完成交付，现场可快速安装  
Standard products can be delivered within 60 days and quickly installed on-site.



为不同的货物存取装置提供最大的灵活性  
Provides maximum flexibility for diverse cargo handling devices.



支持多端口控制链接，柔性落地融合，操作步骤简单易上手  
Supports multi-port control connectivity, enables flexible on-site integration, and features user-friendly operation.



专业售后团队，24小时专人在线，售后无忧  
Professional after-sales team with 24/7 dedicated support for worry-free service.

### 产品参数 Product Parameters

|                                        |                                                  |
|----------------------------------------|--------------------------------------------------|
| 高度<br>Height                           | 6m-12m(可定制)<br>6m-12m (Customizable)             |
| 通讯方式<br>Communication Method           | 载波/光通讯/无线通讯<br>Carrier / Optical / Wireless Comm |
| 水平速度<br>Horizontal Speed               | 200m-300m/min                                    |
| 垂直速度<br>Vertical Speed                 | 45m-65m/min                                      |
| 货叉速度<br>Fork Speed                     | 30m/min                                          |
| 货叉定位精度<br>Fork Positioning Accuracy    | ±3mm                                             |
| 提升定位精度<br>Lifting Positioning Accuracy | ±3mm                                             |
| 地轨<br>Ground Rail                      | 铝轨<br>Aluminum Rail                              |
| 控制方式<br>Control Method                 | 变频调速<br>Variable Frequency Control               |

|                                           |                                               |
|-------------------------------------------|-----------------------------------------------|
| 定位方式<br>Positioning Method                | 激光/条码<br>Laser/Barcode                        |
| 供电方式<br>Power Supply Method               | 滑触线/拖链<br>Catenary/Drag Chain                 |
| 水平加速度<br>Horizontal Acceleration          | 0.8m/s <sup>2</sup>                           |
| 垂直加速度<br>Vertical Acceleration            | 1m/s <sup>2</sup>                             |
| 货叉加速度<br>Fork Acceleration                | 0.5m/s <sup>2</sup>                           |
| 水平定位精度<br>Horizontal Positioning Accuracy | ±3mm                                          |
| 自动伸缩货叉<br>Automated Telescopic Fork       | 板叉/夹抱（可定制）<br>Plate Fork/Clamp (Customizable) |
| 操作方式<br>Operation Method                  | 手动/半自动/全自动<br>Manual/Semi-Auto/Full-Auto      |

### 适配载具 Adaptable Carriers



料箱  
Storage Bin

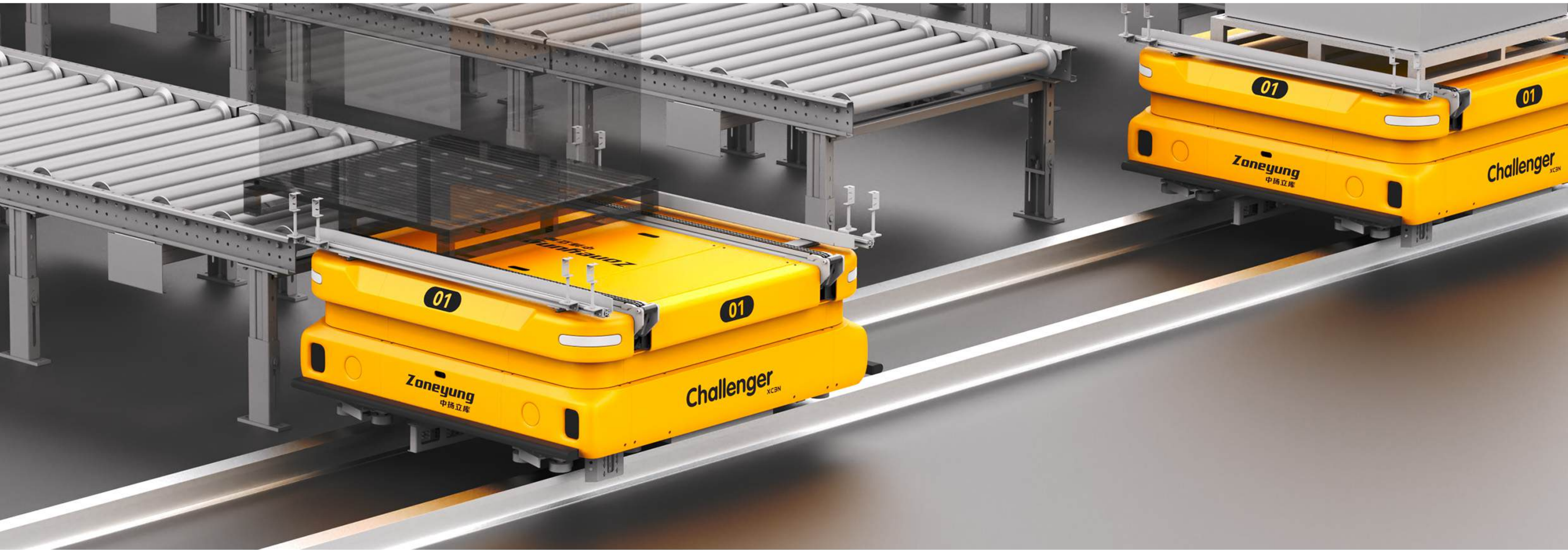


# 有轨搬运车

更稳定、可靠、灵活、快速地转运货物

Rail Guided Vehicle (RGV)

More stable, reliable, flexible, and faster cargo transfer.



## 产品参数（环形/往复）

Product Parameters (Loop/Reciprocating)

|                                    |                                                                                          |                              |                                                            |
|------------------------------------|------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------|
| 外形尺寸<br>Dimensions                 | 1200mm-2000mm*1000mm-2000mm（可定制载体尺寸）<br>1200-2000mm × 1000-2000mm (carrier customizable) |                              |                                                            |
| 最大载重<br>Max Load                   | 2000kg（定制可达5000kg）<br>2000kg (customizable up to 5000kg)                                 | 行走速度<br>Travel Speed         | 240m/min                                                   |
| 转弯速度<br>Turning Speed              | 1m/s                                                                                     | 输送速度<br>Conveying Speed      | 12-16m/min                                                 |
| 环形轨道弯曲半径<br>Loop Track Bend Radius | 定制<br>Customizable                                                                       | 输送线轨道<br>Conveyor Track      | 700mm                                                      |
| 定位精度<br>Positioning Accuracy       | ±5mm<br>±5mm                                                                             | 外观材质<br>Exterior Material    | 聚胺脂<br>Polyurethane                                        |
| 控制方式<br>Control Method             | PLC                                                                                      | 通讯方式<br>Communication Method | 无线AP/光通讯/载波通讯<br>Wireless AP/Optical/Carrier Communication |
| 供电方式<br>Power Supply               | 滑触供电/拖链<br>Catenary/Drag Chain Power Supply                                              | 调速方式<br>Speed Control Method | 变频无级调速<br>Variable Frequency Stepless Speed Control        |
| 轨道<br>Track                        | 铝合金双规<br>Aluminum Alloy Double Rail                                                      | 轨道形式<br>Track Type           | 双轨<br>Dual Rail                                            |
| 行走电机<br>Travel Motor               | 1.5kW*2                                                                                  | 输送电机<br>Conveyor Motor       | 1.1kW                                                      |

## 适配载具

Adaptable Carriers



钢制平托盘  
Steel Pallet



周转箱  
Tote Box

# 托盘仓储机器人

## 具备窄通道和高负载重

Automatic Storage Robot-Pallet  
Features narrow-aisle capability and high load capacity

- 1450mm

巷道宽度  
Aisle Width
- 1.5m/s

输送速度  
Conveying Speed
- 1.5t

载重  
Load Capacity



强劲负载高效运行，满足高效搬运需求  
Powerful load handling with high-efficiency operation to meet demanding material movement needs.



极窄巷道灵活作业，机身紧凑，大幅提升空间利用率  
Exceptional flexibility in ultra-narrow aisles, featuring a compact design that significantly increases space utilization.



智能导航精准定位，融合导航技术，实现托盘精准存取  
Intelligent navigation for precise positioning, utilizing fused navigation technology to ensure accurate pallet pickup and placement.



续航持久适应性强，续航超8小时，保障连续作业  
Long-lasting endurance and strong adaptability, with over 8 hours of runtime to guarantee continuous operation.

### 产品参数 Product Parameters

|                                       |                                                           |
|---------------------------------------|-----------------------------------------------------------|
| 外形尺寸(L×W×H)<br>Dimensions (L×W×H)     | 3300mm*1400mm*8850mm                                      |
| 自重(含电池)<br>Weight (including battery) | 4300kg                                                    |
| 整机最大负载<br>Maximum Load Capacity       | 1500kg                                                    |
| 托盘尺寸<br>Pallet Size                   | (800mm-1300mm)×(800mm-1300mm)                             |
| 取货高度<br>Pickup Height                 | 300mm-7600mm                                              |
| 直行最大运动速度<br>Max. Travel Speed         | 1.5m/s                                                    |
| 行进方向停止精度<br>Stopping Accuracy         | ±10mm/±1°                                                 |
| 货叉提升速度<br>Fork Lifting Speed          | 0.3m/s                                                    |
| 升降停止精度<br>Lifting Stop Accuracy       | ±2m                                                       |
| 电池类型<br>Battery Type                  | 磷酸铁锂/钠电池<br>Lithium Iron Phosphate / Sodium-ion Batteries |

|                                         |                                                             |
|-----------------------------------------|-------------------------------------------------------------|
| 充电电压<br>Charging Voltage                | 380V                                                        |
| 电池容量<br>Battery Capacity                | 105AH                                                       |
| 工作环境温度<br>Operating Ambient Temperature | -25℃~45℃                                                    |
| 巷道宽度<br>Aisle Width                     | 1450mm                                                      |
| 地面平整度<br>Floor Flatness                 | ±4 (mm/2.25m²)                                              |
| 通信方式<br>Communication Method            | Wi-Fi 5GHz 802.11n                                          |
| 导航方式<br>Navigation Method               | 惯性导航+二维码导航<br>Inertial Navigation + QR Code Navigation      |
| 驱动方式<br>Drive Method                    | 双轮差速，双向行走<br>Dual-wheel Differential, Bi-directional Travel |

### 适配载具 Adaptable Carriers



钢制平托盘  
Steel Pallet



周转箱  
Tote Box



# 料箱仓储机器人

## 经典货箱到人智能化仓储设备

Automatic Storage Robot-Tote  
Classic Tote-to-Person Smart Warehousing Equipment

- **4m-10m**  
场地高度  
Site Height
- **1.2m/s**  
输送速度  
Conveying Speed
- **50kg**  
载重  
Load Capacity



输送速度1.2m/s，大跨步，缩  
减输送时间  
Conveying speed 1.2m/s, long strides, reduces  
transport time.



纸箱/料箱，自动拣选  
Cartons/Totes, Automated Picking



支持多端口控制链接，柔性落  
地融合，操作步骤简单易上手  
Supports multi-port control links, flexible on-site  
integration, and user-friendly operation.



具备障碍物检测、主动  
避障等多项安全功能  
Equipped with obstacle detection, active ob-  
stacle avoidance, and multiple safety fea-  
tures.

### 产品参数 Product Parameters

|                                                    |                                                                                                                                                                    |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 货箱兼容尺寸<br>Tote-Compatible Dimensions               | 600mm*400mm*300mm                                                                                                                                                  |
| 场地高度<br>Site Height                                | 4m-10m                                                                                                                                                             |
| 承载货箱<br>Tote Capacity                              | 5+1个<br>5+1 totes                                                                                                                                                  |
| 输送速度<br>Conveying Speed                            | 1.2m/s <sup>2</sup>                                                                                                                                                |
| 3D识别技术<br>3D Recognition Technology                | 支持同时拣选纸箱/料箱，兼容多规格料箱混场；支<br>持无贴码纸箱拣选搬运<br>Supports simultaneous carton/tote picking, compatible with mixed<br>sizes; handles unlabeled carton picking               |
| 动态可调货叉技术<br>Dynamically Adjustable Fork Technology | 自动识别箱体大小，灵活存取；箱间距合理利用，将<br>整体仓储密度提升 30%以上<br>Automatically identifies box size for flexible access; optimizes spac-<br>ing to increase storage density by over 30% |
| SLAM导航<br>SLAM Navigation                          | 激光识别，灵活避障，适用于制造业场景<br>Laser-based recognition and agile obstacle avoidance                                                                                         |
| 支持红外、RFID<br>Supports Infrared, RFID               |                                                                                                                                                                    |

### 适配载具 Adaptable Carriers



料箱  
Storage Bin



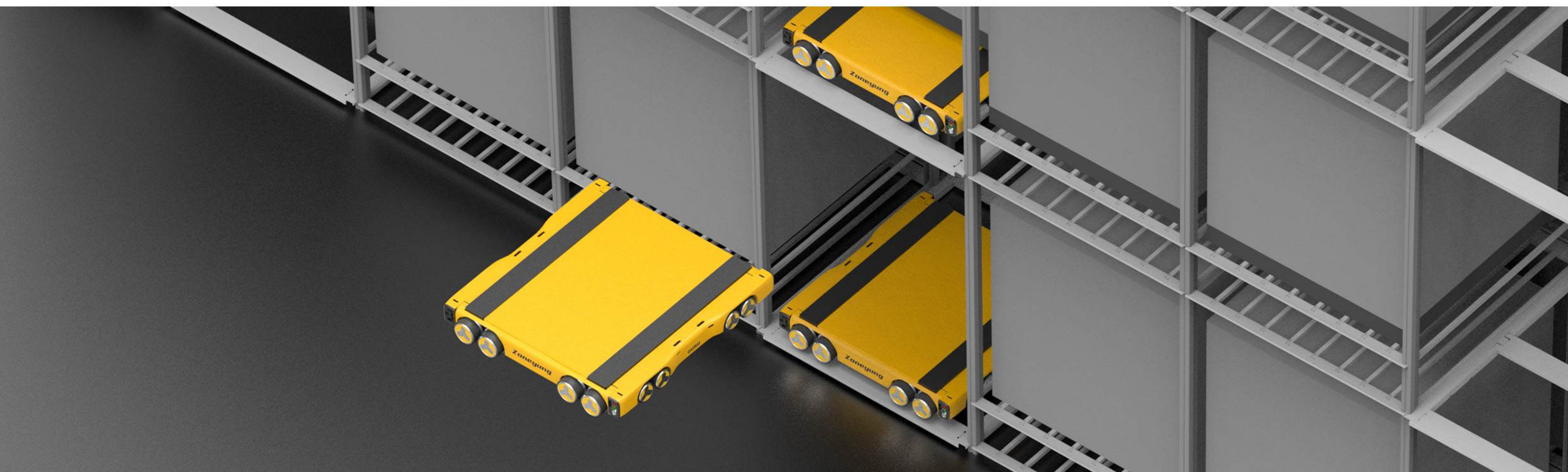
# 四向穿梭车

## 柔性密集型仓储自动化机器人

Four-Way Shuttle  
Flexible, High-Density Warehousing Automation Robot

采用“密集货架”为存储载体，借助货物自身势能为动力，颠覆了传统的仓储工作模式，从设备穿梭运行存取到货物自身移动存取，缩短了设备移动穿行的动线，极大地提高了存储密度和出入库效率。

The use of "dense shelves" as the storage carrier and the use of the potential energy of the goods itself as the driving force subverts the traditional warehousing work mode, from the shuttle operation and access of the equipment to the mobile access of the goods themselves, shortens the movement line of the equipment, and greatly improves the storage density and efficiency of warehousing.



### 四向穿梭车产品参数

Four-Way Shuttle Product Parameters

|                               |                                             |
|-------------------------------|---------------------------------------------|
| 额定承载<br>Rated Load            | 1500kg                                      |
| 定位精度<br>Positioning Accuracy  | ±2mm                                        |
| 定位方式<br>Positioning Method    | RFID+认址片<br>RFID + Address Recognition Chip |
| 换向时间<br>Direction Change Time | ≤3s                                         |
| 适用环境<br>Operating Environment | -25℃-45℃                                    |
| 续航能力<br>Endurance Capacity    | 6h-8h                                       |

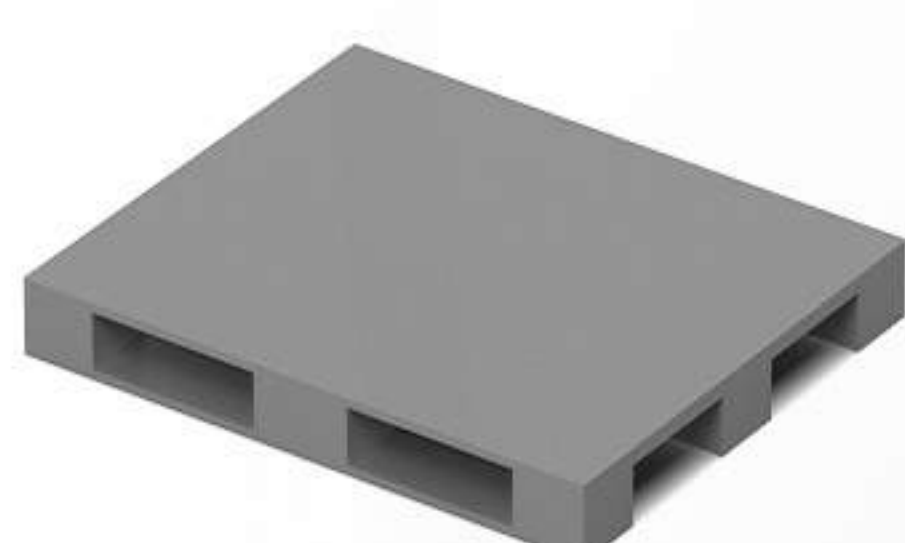
|                            |                                                            |
|----------------------------|------------------------------------------------------------|
| 整机尺寸<br>Overall Dimensions | 1090mm*1030mm*160mm(可定制)<br>1090×1030×160mm (Customizable) |
| 顶升方式<br>Lifting Method     | 机械版<br>Mechanical Edition                                  |
| 适用托盘<br>Compatible Pallets | 1000mm-1400mm                                              |
| 电池容量<br>Battery Capacity   | 48V40Ah                                                    |
| 重载速度<br>Heavy-Load Speed   | 1.2m/s                                                     |
| 轻载速度<br>Light-Load Speed   | 1.5m/s                                                     |
| 行走功率<br>Travel Power       | 1.2kW                                                      |
| 充电方式<br>Charging Method    | 自动充电<br>Automatic Charging                                 |
| 充电时间<br>Charging Time      | 1h-2h                                                      |

### 适配载具

Adaptable Carriers



钢制平托盘  
Steel Pallet

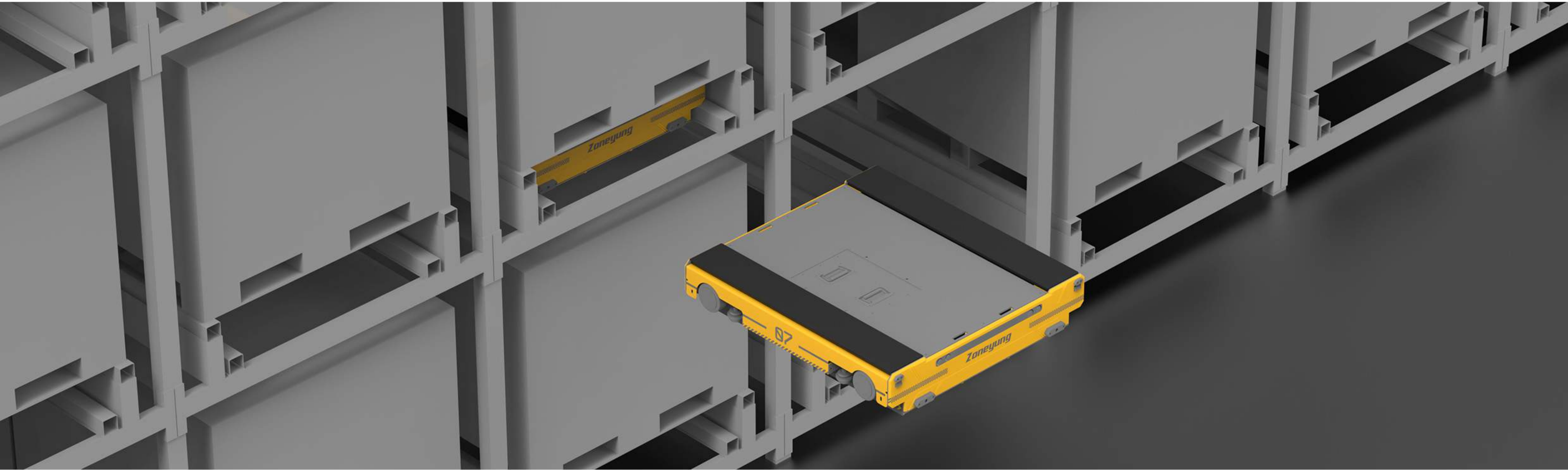


塑料托盘  
Plastic Pallet

# 两向穿梭车

专为仓储高速存取  
货物需求而设计

Two-Way Shuttle  
Designed specifically for high-speed storage and retrieval needs in warehousing.



## 产品参数

Product Parameters

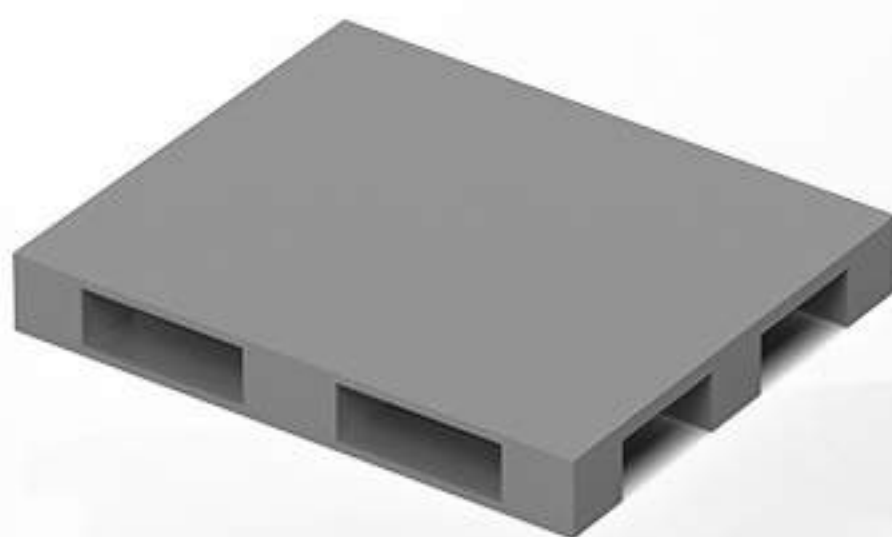
|                                  |                                                                                       |                                    |                                        |
|----------------------------------|---------------------------------------------------------------------------------------|------------------------------------|----------------------------------------|
| 外形尺寸<br>Dimensions               | 1200mm*1000mm*150mm（支持选配其他托盘、箱笼）<br>1200×1000×150mm (supports optional pallets/cages) |                                    |                                        |
| 核定载重<br>Rated Load               | 1000kg-2000kg                                                                         | 运行速度<br>Operating Speed            | 0.9m/s                                 |
| 充放电次数<br>Charge-Discharge Cycles | 800次<br>800 cycles                                                                    | 举升方式<br>Lifting Method             | 电动<br>Electric                         |
| 前侧防护<br>Front Protection         | 激光<br>Laser protection                                                                | 有效工作时间<br>Effective Operating Time | > 8h                                   |
| 充电时间<br>Charging Time            | 3.5h                                                                                  | 电池参数<br>Battery Parameters         | 锂电池48V30Ah<br>Lithium Battery 48V 30Ah |

## 适配载具

Adaptable Carriers



钢制平托盘  
Steel Pallet



塑料托盘  
Plastic Pallet

# 输送分拣系统

## 智能分拣，精准送达

Conveying and Sorting System

Intelligent Sorting, Precise Delivery

• **5000kg**

最大载重

Maximum Load Capacity

• **20m/min**

运行速度

Operating Speed

• **60mm**

输送线轨道

Conveyor Track



## 链式输送机

Chain Conveyor

链式输送机是利用链条牵引、承载，或由链条上安装的板条、金属网带和辊道等承载物料的输送机。广泛用于建材、建筑、化工、矿山、机械、冶炼、粮饲加工等行业，是一种理想的新型输送设备。

A chain conveyor utilizes chains for traction and load-bearing, or carries materials via components mounted on the chains such as slats, metal mesh belts, and rollers. It is widely used in industries including building materials, construction, chemicals, mining, machinery, metallurgy, and grain/feed processing, making it an ideal modern conveying solution.



## 辊筒输送机

Roller Conveyor

辊筒输送机适用于底部是平面的物品输送，主要由传动滚筒、机架、支架、驱动部等部分组成。具有输送量大，速度快，能够实现多品种共线分流输送的特点。可应用于包括快递、邮政服务、电商、机场、食品饮料、时装、汽车、港口、煤炭、建材在内的各种制造业。

The roller conveyor is suitable for conveying items with a flat bottom. It mainly consists of driving rollers, a frame, supports, a driving unit and other components. It features a large conveying capacity, high speed, and the ability to realize multi-variety collinear shunting and conveying. It can be applied in various manufacturing industries, including express delivery, postal services, e-commerce, airports, food and beverages, fashion, automobiles, ports, coal, and building materials.



# 搬运机器人

柔性稳定

AGV  
Flexible Stability



## 产品参数

Product Parameters

|                           |                                                                                      |                                    |                                        |
|---------------------------|--------------------------------------------------------------------------------------|------------------------------------|----------------------------------------|
| 外形尺寸<br>Dimensions        | 1150mm*820mm*256mm (支持选配其他托盘、箱笼)<br>1150*820*256mm (supports optional pallets/cages) |                                    |                                        |
| 额定负载<br>Rated Load        | 1000kg                                                                               | 举升高度<br>Lifting Height             | 60mm                                   |
| 旋转直径<br>Rotation Diameter | 1200mm                                                                               | 举升方式<br>Lifting Method             | 电动<br>Electric                         |
| 前侧防护<br>Front Protection  | 激光<br>Laser protection                                                               | 有效工作时间<br>Effective Operating Time | > 8h                                   |
| 充电时间<br>Charging Time     | 1h-2h                                                                                | 电池参数<br>Battery Parameters         | 锂电池48V40Ah<br>Lithium Battery 48V 40Ah |

## 适配载具

Adaptable Carriers



钢制平托盘  
Steel Pallet

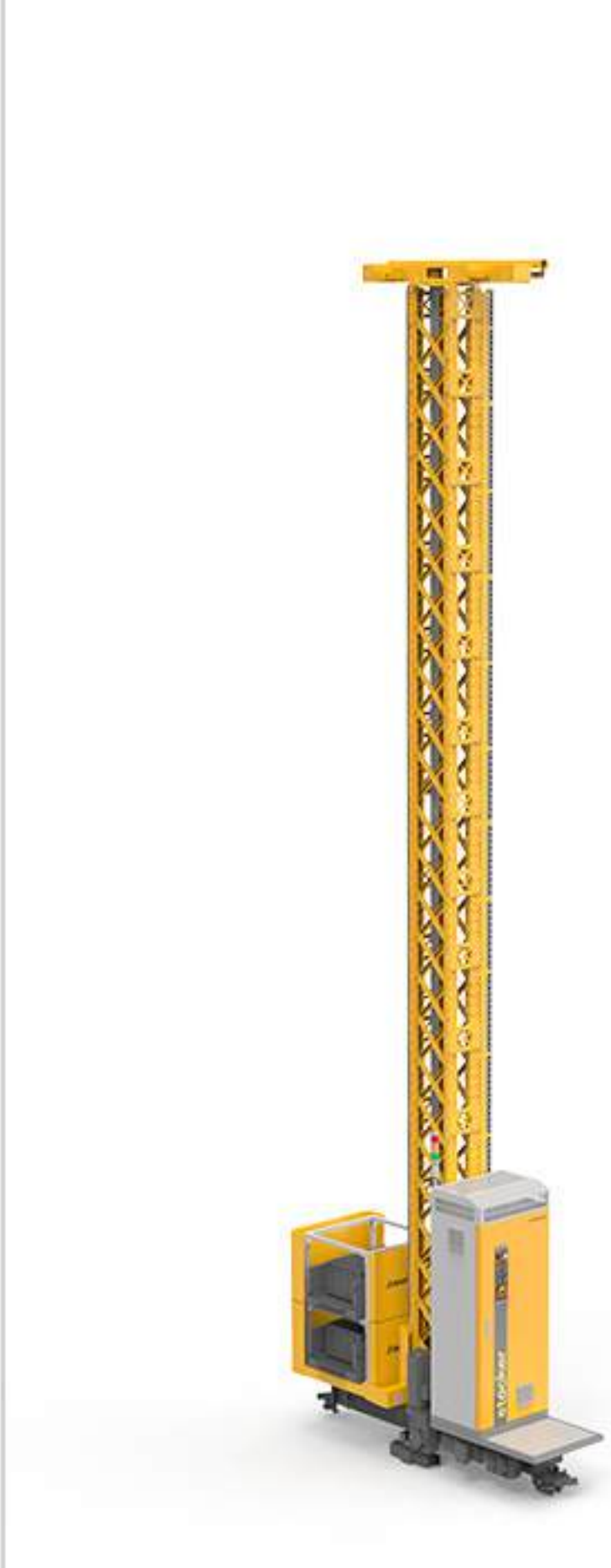


料箱  
Storage Bin



► 技术参数

Technical Parameters

| 产品规格<br>Product Specifications                   |                                                          | 料箱堆垛机<br>Tote Stacker Crane                                                        | 托盘堆垛机<br>Pallet Stacker Crane                                                        | 双工位堆垛机<br>Dual-station Pallet Stacker Crane                                          | 超长堆垛机<br>Ultra-long Pallet Stacker Crane                                             |
|--------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 产品展示<br>Product Display                          |                                                          |  |  |  |  |
| 基本参数<br>Basic Parameters                         | 机器人尺寸 (mm)<br>Robot Dimensions (mm)                      | 2530*800*6200<br>(高度可定制, 最高可达12000)<br>(Height customizable, up to 12000)          | 4600*1400*21000<br>(高度可定制, 最高可达45000)<br>(Height customizable, up to 45000)          | 6100*1400*21000<br>(高度可定制, 最高可达45000)<br>(Height customizable, up to 45000)          | 8000*1400*21000<br>(高度可定制, 最高可达45000)<br>(Height customizable, up to 45000)          |
|                                                  | 载具兼容尺寸 (mm)<br>Compatible Carrier Dimensions (mm)        | 长L (300-600) ×宽W (300-400)                                                         | 长L (800-1200) ×宽W (1000-1400)                                                        | 长L (800-2400) ×宽W (1000-1400)                                                        | 长L (800-3600) ×宽W (1000-1400)                                                        |
|                                                  | 自重 (kg)<br>Self-Weight (kg)                              | 1200                                                                               | 16000                                                                                | 16500                                                                                | 18000                                                                                |
|                                                  | 额定负载 (kg)<br>Rated Load (kg)                             | 50                                                                                 | 500-10000                                                                            | 500-10000                                                                            | 500-10000                                                                            |
|                                                  | 取货高度 (m)<br>Pickup Height (m)                            | 6                                                                                  | 20                                                                                   | 20                                                                                   | 20                                                                                   |
| 运动性能<br>Motion Performance                       | 直行最大运动速度 (m/min)<br>Max Straight-Line Speed (m/min)      | 300                                                                                | 200                                                                                  | 200                                                                                  | 200                                                                                  |
|                                                  | 行进方向停止精度 (mm)<br>Travel Direction Stopping Accuracy (mm) | ±3                                                                                 | ±5                                                                                   | ±5                                                                                   | ±5                                                                                   |
| 充放电性能<br>Charge<br>Discharge Performance         | 满充时间 (h)<br>Full Charge Time (h)                         | \                                                                                  | \                                                                                    | \                                                                                    | \                                                                                    |
|                                                  | 快充时间 (min)<br>Fast Charge Time (min)                     | \                                                                                  | \                                                                                    | \                                                                                    | \                                                                                    |
|                                                  | 满充后续航时间 (h)<br>Endurance After Full Charge (h)           | \                                                                                  | \                                                                                    | \                                                                                    | \                                                                                    |
|                                                  | 快充后续航时 (h)<br>Endurance After Fast Charge (h)            | \                                                                                  | \                                                                                    | \                                                                                    | \                                                                                    |
| 部署环境要求<br>Deployment Environment<br>Requirements | 工作环境温度 (°C)<br>Operating Environment Temperature (°C)    | -30 ~ 45                                                                           | -30 ~ 45                                                                             | -30 ~ 45                                                                             | -30 ~ 45                                                                             |
|                                                  | 地面平整度 (mm/2.25m²)<br>Floor Flatness (mm/2.25m²)          | ±5                                                                                 | ±4                                                                                   | ±4                                                                                   | ±4                                                                                   |
| 安全功能<br>Safety Functions                         | 障碍物检测<br>Obstacle Detection                              | √                                                                                  | √                                                                                    | √                                                                                    | √                                                                                    |
|                                                  | 防碰撞<br>Collision Prevention                              | √                                                                                  | √                                                                                    | √                                                                                    | √                                                                                    |
|                                                  | 声光报警<br>Audible & Visual Alarms                          | √                                                                                  | √                                                                                    | √                                                                                    | √                                                                                    |
|                                                  | 急停按钮<br>Emergency Stop Button                            | √                                                                                  | √                                                                                    | √                                                                                    | √                                                                                    |
|                                                  | 通信加密<br>Communication Encryption                         | √                                                                                  | √                                                                                    | √                                                                                    | √                                                                                    |
|                                                  | 充放电保护<br>Charge-Discharge Protection                     | √                                                                                  | √                                                                                    | √                                                                                    | √                                                                                    |
|                                                  | 升降防坠<br>Lift Fall Prevention                             | √                                                                                  | √                                                                                    | √                                                                                    | √                                                                                    |
| 其它<br>Others                                     | 兼容载具类型<br>Compatible Carrier Types                       | 料箱<br>Storage Bin                                                                  | 托盘、周转箱、堆垛架<br>Pallet、Tote Box、Stacking Rack                                          | 托盘、周转箱、堆垛架<br>Pallet、Tote Box、Stacking Rack                                          | 托盘、周转箱、堆垛架<br>Pallet、Tote Box、Stacking Rack                                          |
|                                                  | 通信方式<br>Communication Method                             | 载波/光通讯/无线通讯<br>Carrier / Optical / Wireless Comm                                   | 载波/光通讯/无线通讯<br>Carrier / Optical / Wireless Comm                                     | 载波/光通讯/无线通讯<br>Carrier / Optical / Wireless Comm                                     | 载波/光通讯/无线通讯<br>Carrier / Optical / Wireless Comm                                     |
|                                                  | 导航方式<br>Navigation Method                                | 激光/条码<br>Laser / Barcode                                                           | 激光/条码<br>Laser / Barcode                                                             | 激光/条码<br>Laser / Barcode                                                             | 激光/条码<br>Laser / Barcode                                                             |

| 托盘仓储机器人<br>Automatic Storage Robot-Pallet                                          | 料箱仓储机器人<br>Automatic Storage Robot-Tote                                            | 有轨搬运车<br>Rail Guided Vehicle(RGV)                                                  | 四向穿梭车<br>Four-Way Shuttle                                                           | 搬运机器人<br>AGV                                                                        |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |
| 3300*1400*8850<br>(高度可定制)<br>(Height customizable)                                 | 1530*940*3700<br>(高度可定制)<br>(Height customizable)                                  | 1500*1500*700                                                                      | 1090*1030*160                                                                       | 1150*820*254                                                                        |
| 长L (800-1300) ×宽W (800-1300)                                                       | 长L (300-600) ×宽W (300-400)                                                         | 长L (800-1200) ×宽W (1000-1400)                                                      | 长L (800-1200) ×宽W (1000-1400)                                                       | \                                                                                   |
| 4300                                                                               | 800                                                                                | 1000                                                                               | 600                                                                                 | 172                                                                                 |
| 1500                                                                               | 50                                                                                 | 1000-5000                                                                          | 1500                                                                                | 1000                                                                                |
| 7.6                                                                                | 3.5                                                                                | \                                                                                  | \                                                                                   | \                                                                                   |
| 90                                                                                 | 72                                                                                 | 240                                                                                | 90                                                                                  | 120                                                                                 |
| ±10                                                                                | ±3                                                                                 | ±5                                                                                 | ±2                                                                                  | ±10/±1                                                                              |
| ≤2                                                                                 | ≤2                                                                                 | \                                                                                  | 2                                                                                   | 1.5                                                                                 |
| \                                                                                  | \                                                                                  | \                                                                                  | 40                                                                                  | \                                                                                   |
| ≥8                                                                                 | ≥8                                                                                 | \                                                                                  | 8                                                                                   | 8                                                                                   |
| \                                                                                  | \                                                                                  | \                                                                                  | 6                                                                                   | \                                                                                   |
| -25 ~ 45                                                                           | 0 ~ 45                                                                             | 0 ~ 45                                                                             | -30 ~ 45                                                                            | \                                                                                   |
| ±4                                                                                 | ±3                                                                                 | ±3                                                                                 | ±3                                                                                  | \                                                                                   |
| √                                                                                  | √                                                                                  | √                                                                                  | √                                                                                   | √                                                                                   |
| √                                                                                  | √                                                                                  | √                                                                                  | √                                                                                   | √                                                                                   |
| √                                                                                  | √                                                                                  | √                                                                                  | √                                                                                   | √                                                                                   |
| √                                                                                  | √                                                                                  | √                                                                                  | √                                                                                   | √                                                                                   |
| √                                                                                  | √                                                                                  | √                                                                                  | √                                                                                   | √                                                                                   |
| √                                                                                  | √                                                                                  | √                                                                                  | √                                                                                   | √                                                                                   |
| √                                                                                  | √                                                                                  | √                                                                                  | √                                                                                   | √                                                                                   |
| 托盘、周转箱<br>Pallet、Tote Box                                                          | 料箱<br>Storage Bin                                                                  | 托盘、周转箱、堆垛架<br>Pallet、Tote Box、Stacking Rack                                        | 托盘<br>Storage Bin                                                                   | 托盘、料箱<br>Steel Pallet、Storage Bin                                                   |
| Wi-Fi 5GHz 802.11n<br>Carrier / Optical / Wireless Comm                            | Wi-Fi5GHz 802 11n                                                                  | 载波/光通讯/无线通讯<br>Carrier / Optical / Wireless Comm                                   | Wi-Fi5GHz 802 11n                                                                   | \                                                                                   |
| 激光/条码<br>Laser / Barcode                                                           | 激光/条码<br>Laser / Barcode                                                           | 激光/条码<br>Laser / Barcode                                                           | 激光/条码<br>Laser / Barcode                                                            | LSLAM/二维码<br>LSLAM/QR Code                                                          |



# WMS

## 智控仓储，精准高效，降本增润

Warehouse Management System

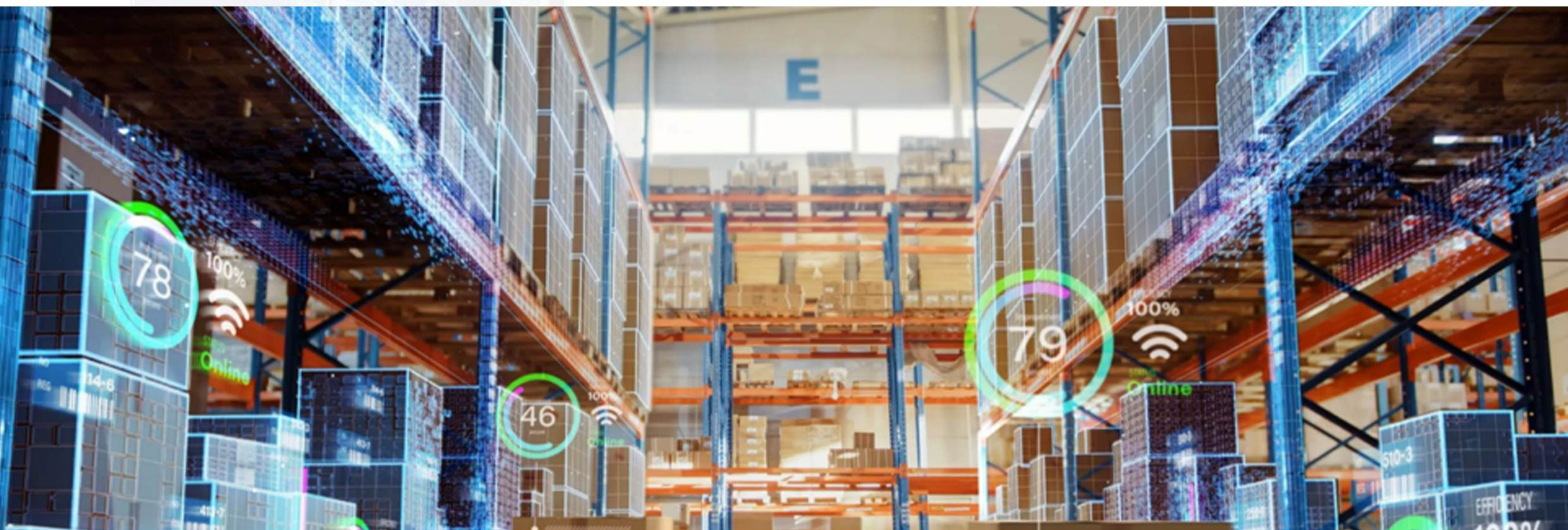
Smart warehousing, precise and efficient, reducing costs and increasing profits.

### ► 系统优势-AI数据模型

System Advantages AI Data Model

结合中扬AI大数据模型的应用，以提升仓库管理的效率和准确性，可以显著改善包括库存管理、订单处理、预测分析等WMS的多个方面。

Leveraging Zoneyung's AI big data model, warehouse management efficiency and accuracy are significantly enhanced, substantially improving multiple aspects of WMS including inventory management, order processing, and predictive analytics.



### ► 库存管理

**智能预测：**预测未来需求，减少库存成本，优化库存存储；  
**自动补货：**根据预测结果和实际销售数据自动生成补货订单；  
**库存优化：**优化库存布局，减少库存周转时间。

#### Inventory Management

**Intelligent Forecasting:** Predicts future demand to reduce inventory costs and optimize storage.

**Automatic Replenishment:** Generates replenishment orders based on forecasts and actual sales data.

**Inventory Optimization:** Optimizes inventory layout to reduce turnover time.



### ► 订单处理

**订单分类：**通过数据分析对订单进行分类和优先级排序；  
**动态调度：**实时调整订单处理优先级和资源分配，以提高处理速度；  
**风险管理：**预测潜在风险并提供预防措施。

#### Order Processing

**Order Classification:** Categorizes and prioritizes orders through data analysis.

**Dynamic Scheduling:** Adjusts order processing priorities and resource allocation in real time to enhance processing speed.

**Risk Management:** Predicts potential risks and provides preventive measures.

# WCS

## 设备智联，实时调度，精准执行

Warehouse Control System

Smart device connectivity, real-time scheduling, and precise execution.

### ► WCS功能

WCS Functions

#### 与WMS信息交互

Interacts with WMS for information exchange.

WCS系统与WMS系统无缝对接，接收WMS系统下发的作业指令。

The WCS system seamlessly integrates with the WMS system, receiving operational instructions issued by the WMS system.

#### 监控设备状态

Interacts with WMS for information exchange.

WCS系统实时获取自动化设备的精准位置，作业状态，空闲状态，合理分配资源，实现效率最大化。

The WCS system acquires the precise location, operational status, and idle state of automated equipment in real time, rationally allocating resources to maximize efficiency.

#### 流畅对接设备

Seamless equipment integration.

智能存取设备对接与动态监控:巷道堆垛机、穿梭车、AGV小车、料箱车、出入库输送线、条码扫描器等。

Intelligent access equipment integration and dynamic monitoring: aisle stacker cranes, shuttles, AGVs, tote carriers, inbound/outbound conveyor lines, barcode scanners, etc.

#### 实时异常报警

Real-time anomaly alerts.

监测设备异常状态，进行实时，可视化，监控预警。

Monitor equipment abnormal status in real time with visualized monitoring and alerts.

#### 优化分解任务

Optimize task decomposition.

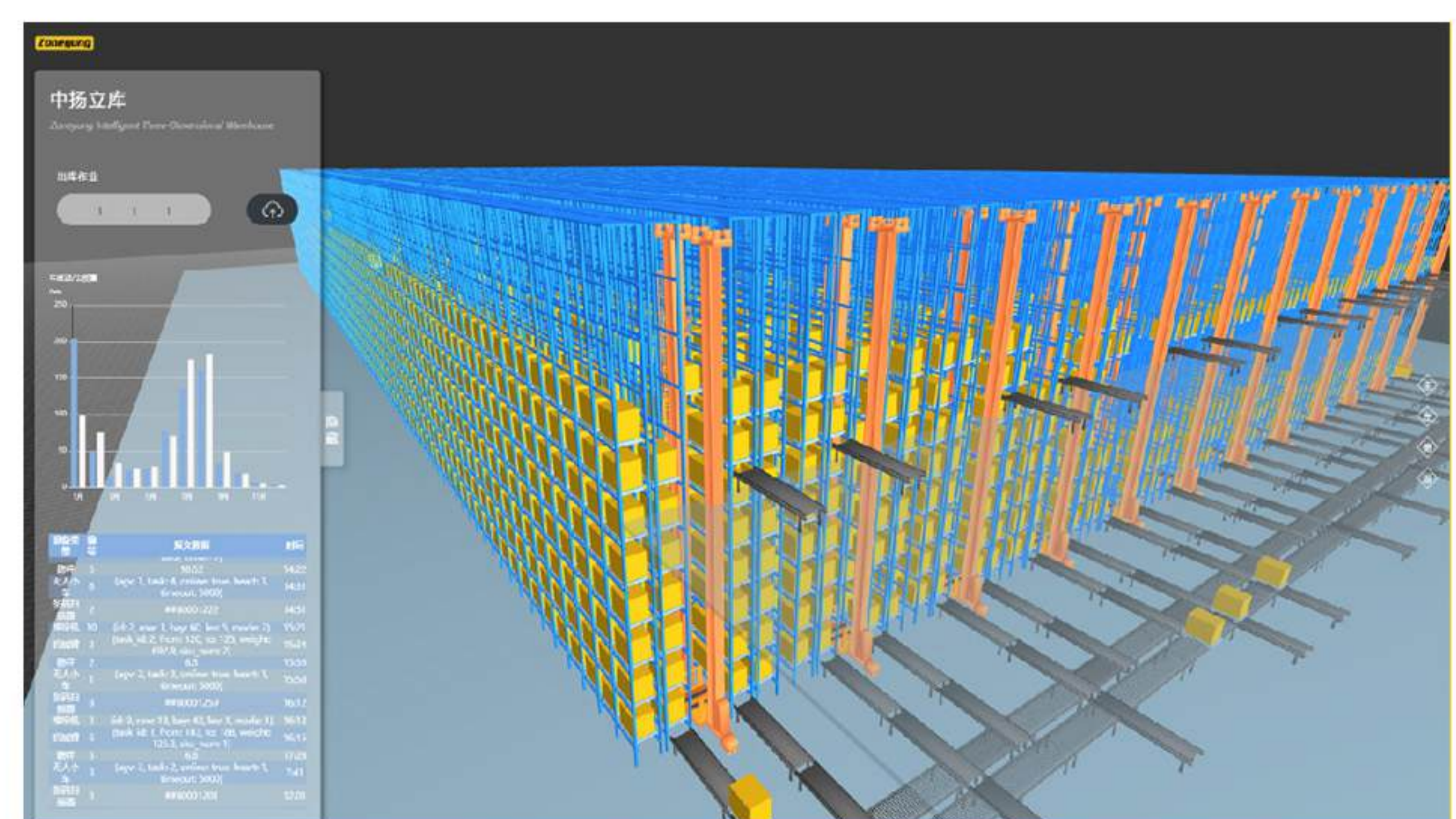
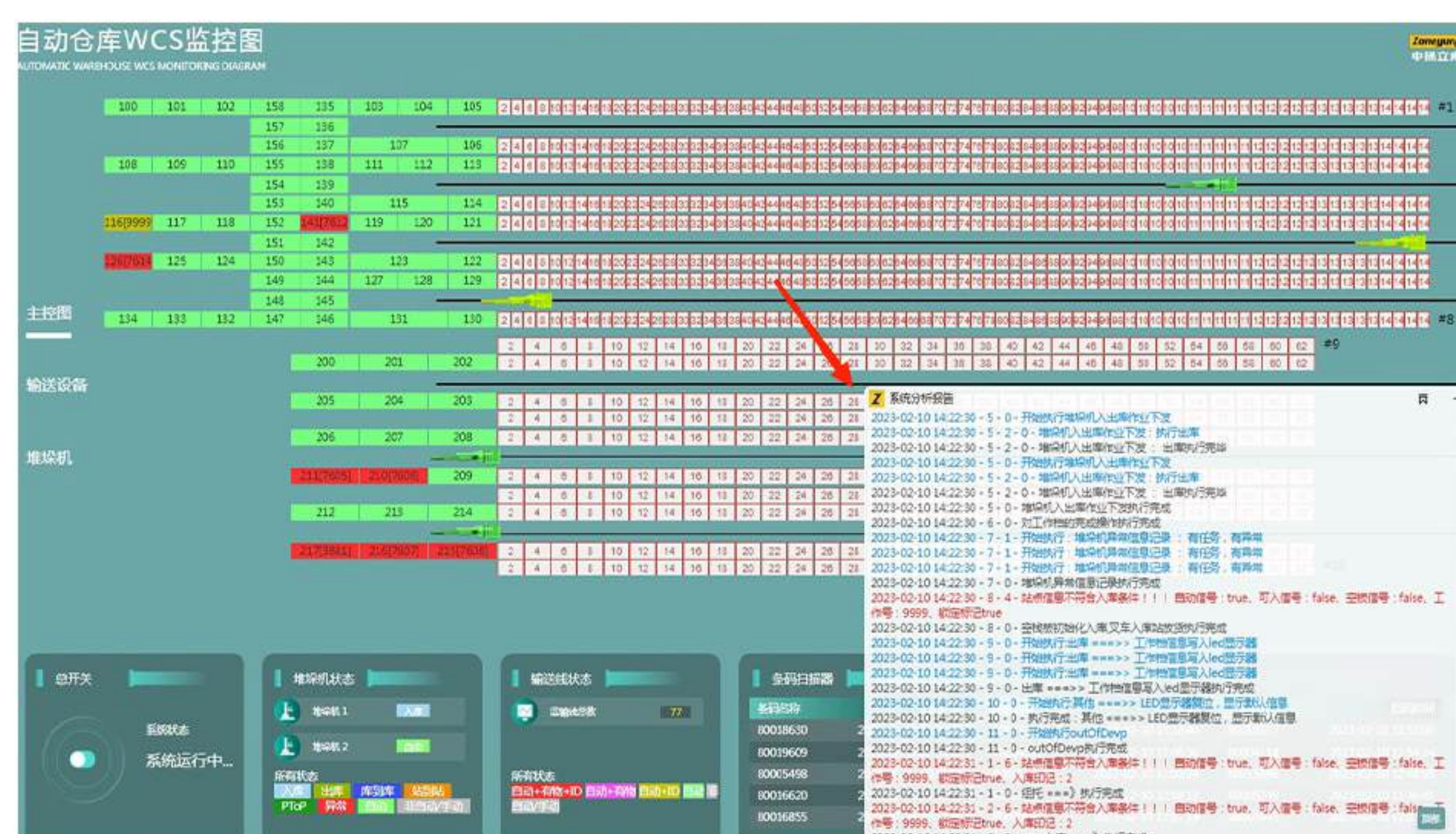
优化分解任务、分析执行路径，提供设备最优路径规划，防碰撞，高效率，为上层WMS系统的调度指令提供有力保障。

Optimizes task decomposition and execution path analysis, provides optimal path planning for equipment, prevents collisions, ensures high efficiency, and offers robust support for the scheduling instructions of the upper-level WMS system.



### ► 主监控界面

Main Monitoring Interface





成功交付内外部项目超

500<sup>+</sup>

Successfully delivered over 500 internal and external projects.

智能仓储领域技术、管理专家

100<sup>+</sup>

Over 100 experts in intelligent warehousing technology and management.

团队研发人员占比

30<sup>%+</sup>

R&D personnel account for over 30% of the team.

# 售后服务

After-Sales Service

我们承诺对所提供的设备、系统  
提供高质量维保服务及终身服务支持

We commit to providing high-quality maintenance services and lifelong support for the equipment and systems supplied

| 全面保障<br>Comprehensive Guarantee                                                                                                                   |                                                                                                                                                                |                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>专属售后服务经理<br/>Dedicated After-Sales Service Manager</p>     |  <p>响应机制<br/>专业高效<br/>Response Mechanism<br/>Professional and Efficient</p> |  <p>现场应急维修服务<br/>On-Site Emergency Repair Service</p> |
|  <p>专项定制技术培训<br/>Specialized Customized Technical Training</p> |  <p>定期预防巡检服务<br/>Regular Preventive Inspection Services</p>                 |  <p>备品备件专属计划<br/>Dedicated Spare Parts Plan</p>       |

| 现场应急维修服务                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 备品备件专属计划                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <ul style="list-style-type: none"><li>驻场售后工程师及时到场</li><li>技术支持工程师0.5小时内远程响应</li><li>技术专家24小时内到达现场</li><li>三级响应、远程支持</li><li>现场维修、部件更换</li></ul>                                                                                                                                                                                                                                  |  <ul style="list-style-type: none"><li>制定专属备件计划，设置安全库存用于维保预备和偶发故障维修</li><li>原厂正品质量保证</li><li>专案预测安全库存</li><li>现场需求快速抵达</li></ul>                                                                                                                                                                                                                             |
|  <p>On-Site Emergency Repair Service</p> <ul style="list-style-type: none"><li>On-site after-sales engineers arrive promptly</li><li>Technical support engineers respond remotely within 30 minutes</li><li>Technical experts arrive on-site within 24 hours</li><li>Three-level response system with remote support</li><li>On-site repairs and component replacements</li></ul> |  <p>Dedicated Spare Parts Plan</p> <ul style="list-style-type: none"><li>Formulate dedicated spare parts plans and set up safety stock</li><li>For maintenance preparation and emergency breakdown repair</li><li>Original genuine quality assurance</li><li>Project-specific safety stock forecasting</li><li>Rapid fulfillment of on-site demand</li></ul> |



# 黄金承诺

## 售后无忧，承诺必达

Golden Commitment Worry-Free After-Sales, Commitment Guaranteed.

## 全程高效破解难题，承诺必达

售后技术员第一时间电话响应，系统工程师与研发专家协同支撑

Efficiently resolving challenges throughout the process, with a commitment to deliver on our promises.

After-sales technicians provide immediate phone response, while system engineers and R&D experts collaborate to deliver comprehensive support.

### 售后部技术人员

第一接口人第一时间电话响应远程/电话指导现场解决问题

After-sales technical staff

As the first point of contact, they provide immediate phone response and remote/phone guidance to resolve on-site issues.

### 系统部技术工程师

工程技术人员作为售后人员的问题升级窗口，解决技术深度问题

System Department Technical Engineers

Engineering technical staff serve as an escalation channel for after-sales personnel, Tackling in-depth technical issues.

### 研发部技术专家

产品研发技术专家作为工程技术升级窗口处理疑难问题，并提供解决方案

R&D Department Technical Experts

R&D Department technical experts act as an engineering escalation channel to provide solutions and resolve complex issues.

## 六重承诺

Six-Tier Commitment

### ► 质保时间

常规项目提供整体项目一年免费质保服务  
自动化设备最长时间可提供三年质保服务  
钢结构货架设备最长时间可提供十年质保服务

Warranty Period

Standard projects include one year of free comprehensive warranty service. Automation equipment can be covered by warranty for up to three years. Structural racking systems can be covered by warranty for up to ten years.

### ► 维修保养

质保期内提供一年两次的保养和检查服务  
质保期外仅收取人工服务费用，  
更换的零部件单独计费（也可自行采购）

Maintenance

During the warranty period, two maintenance and inspection services are provided annually. Outside the warranty period, only labor service fees are charged, while replaced parts are billed separately (or may be self-procured).

### ► 陪产服务及培训

常规项目提供15天免费驻厂陪产服务  
也可根据用户需求有偿驻厂陪产服务  
免费培训客户维保人员，含机械、电气、软件

Commissioning Support and Training

Standard projects include 15 days of free on-site commissioning support. Paid on-site commissioning support is also available based on user needs. Free training for client maintenance personnel, covering mechanical, electrical, and software aspects.

### ► 更新升级

软件系统终身免费升级服务

Updates and Upgrades

Lifetime free software system upgrade services.

### ► 备品备件库

为用户提供备品备件库服务，零件储存在中扬立库设立的仓库内，在质保期内免费进行更换，并储存备品备件BOM清单长达15年，为用户提供长期查询服务。

Spare Parts Inventory

We provide users with a spare parts inventory service. Parts are stored in warehouses set up by Zoneyung Vertical Storage, with free replacement during the warranty period. Additionally, spare parts BOM lists are archived for up to 15 years, offering long-term query services for users.

### ► 技术支持响应

软件及电控问题免费远程解决  
1小时内无法恢复，安排人员到达现场进行检查及维护  
长三角区域承诺4小时内达到现场  
珠三角区域承诺8小时到达现场  
其他区域承诺12小时到达现场

Technical Support Response

Software and electrical control issues are resolved remotely at no cost. If the issue cannot be resolved within 1 hour, technicians will be dispatched to the site for inspection and maintenance. We guarantee to arriving on-site within 4 hours in the Yangtze River Delta region. We guarantee to arriving on-site within 8 hours in the Pearl River Delta region. We guarantee to arriving on-site within 12 hours in other regions.