

**Standardized Products, Customized Applications** 

# **Intelligence and Smart Logistics**

**One-Stop Solution Integrator** 





### **AMRs**

Forklift Robot
Jacking Robot
Picking Robot
Customized Robot



## **Sorting System**

Cross-belt Sorter Swivel Wheel Pivot Sorter



## AS/RS

Mini Load System
Pallet System
Mini Shuttle
Pallet MDPS



### Conveyors

DC/AC Motor Roller Diverter, etc.





### AMR | Autonomous Mobile Robot Solutions

Forklift, Jacking, Picking and customized robots

### **SRC | AMR Controller Solutions**

Compatible with all robots and abundant interface

### **RDS | Resources Dispatching System**

Robot dispatching and traffic control

### **RoboView | Visual AI Solutions**

Real time monitoring



## Building a dBase up to 5,000 cases + of operating scenarios

| Controller (SRC)   |                  |  |  |
|--------------------|------------------|--|--|
| Bus Interface      | CAN, RS485       |  |  |
| Internet Interface | Ethernet, Wi-Fi  |  |  |
| Other Interface    | USB2.0/3.0, HDMI |  |  |
| Position Accuracy  | ±10mm, 1º        |  |  |
| Navigation Speed   | ≤2m/s            |  |  |
| Map Area           | ≤400,000m²       |  |  |
| Wokring Temp.      | 0 ~ 50°℃         |  |  |
| IP Protection      | IP42 / IP65      |  |  |

| Model          | Jacking Robot<br>(AMB-150J) | Auto-Forklift<br>(SFL-CDD14) | Picking Robot<br>(SPK-HAI-A42M) |
|----------------|-----------------------------|------------------------------|---------------------------------|
| Navigation     | Laser SLAM                  | Laser SLAM                   | Laser SLAM                      |
| Dimension      | 780*550*260                 | 1650*990*2043                | 1300*800*2100                   |
| Rotating Dia.  | 909mm                       | 1,182mm                      | 1300mm                          |
| Load Weight    | 150kg                       | 1,400kg                      | 150kg                           |
| Lifting Height | 60±2mm                      | 3,000mm                      | 1,740mm                         |
| Accuracy       | ±5mm                        | ±10mm                        | ±10mm                           |
| Navi. Speed    | ≤1.5m/s                     | 1.5m/s                       | ≤1.3m/s                         |

# **Auto Storage and Retrieval System**



### **Efficient Inventory Management**

Efficient inventory management through automated FI/FO

### Preservation

Product damage rate 0% with precision control

### Computerization

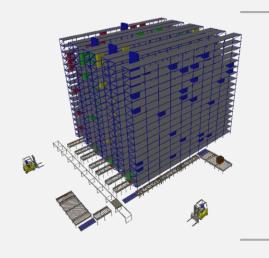
Seamless interface with info management and upper system

#### **Cost Saving**

Unmanned environment and intuitive UI

#### Space

Space utilization maximized



## We Supply One-Stop Solution integrated with AMRs.

| Category        |         | AS/RS   |          | Shuttle System |              |  |
|-----------------|---------|---|----------|----------------|--------------|--|
|                 |         | Mini Load                                     | Pallet   | Mini-Shuttle   | MDPS(pallet) |  |
| Install. Height |         | 20m   | 40m      | 20m            | 25m          |  |
| Load Weight     |         | 50kg(30*2)                                    | 1,500kg  | 50kg           | 1,500kg      |  |
| Speed           | Travel  | 300m/min                                      | 180m/min | 240m/mim       | 120m/min     |  |
|                 | Lift    | 100m/min                                      | 80m/min  | 180m/min       | 60m/min      |  |
|                 | Fork    | 60m/min                                       | 50m/min  | 30m/min        | 30m/min      |  |
| Туре            | of Rack | Free-Standing Rack or Rack-Supported Building |          |                |              |  |

# **Sorting System**



70dB 이하, 3m/sec

### **Excellent Performance**

Throughput: More than 15,000 pcs per hour

#### **Easy Maintenance**

Maintenance cost saving by module configuration

### Low Noise & High Speed

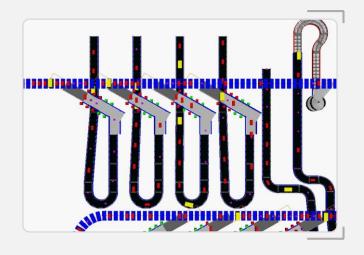
Low noise level (less than 70dB), High speed (3m/sec)

### **Low Energy Consumption**

LSM (uncontact, semi-permanent)

### 1 Unit 1 Carrier / 2 Carrier System

Application from small cargo to large one



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| Category       |      | Cross-belt           |                |                |                |
|----------------|------|----------------------|----------------|----------------|----------------|
|                |      | Large Type           | Small Type     | Swivel Wheel   | Pivot Diverter |
| Capacity       |      | 13,500pph            | 16,560pph      | 9,000pph       | 5,000pph       |
| Load Weight    | Max. | Max.50kg             | Max.30kg       | Max.30kg       | Max.30kg       |
|                | Min. | 0.3kg                | 0.1kg          | 0.2kg          | 0.2kg          |
| Load Dimension | Max. | L1,000*W800*H80<br>0 | L500*W400*H400 | L800*W600*H600 | L800*W600*H600 |
|                | Min. | L200*W200*H20        | L100*W100*H5   | L150*W150*H20  | L150*W150*H20  |
| Speed          |      | 3m/sec               | 2.5m/sec       | 2.3m/sec       | 1.5m/sec       |
| Power Supply   |      | LSM                  | LSM            | DC24V          |                |

# **Conveyor System**







### All about Conveyor System

DC/AC Motor Roller, Pulse Diverter, Controller

### **Benefits**

Low power, low noise level, durable, light-weight

### **Easy Maintenance**

Easy maintenance, minimized system downtime

### **Powerful Performance**

High driving power/output

#### Accessories

Urethane O-ring/V/Flat Belt, Poly-vee Belt

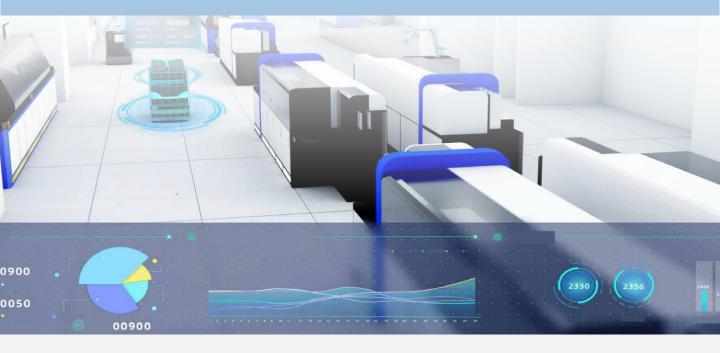




## We Supply One-Stop Solution integrated with AMRs.

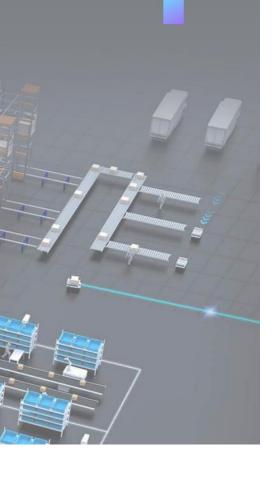
| Product     | DC Motor Roller  | AC Motor Roller | Pulse Diverter  |
|-------------|------------------|-----------------|-----------------|
| Rated Vol.  | DC24V AC220~380V |                 | DC24V           |
| Load Weight | Max.1,500kg      | Max.1,500kg     | Max.150kg       |
| Length      | Max.1,500mm      | Max.1,500mm     | Max.W1000*L1000 |
| Speed       | 2.0 ~ 304m/min   | 2.0 ~ 100m/min  | Max.40m/min     |
| Material    | ZAM / Uni-Chrom  | Belt / Chain    |                 |

**Consulting** Modeling



- · Data analysis
- · Solution and alternative setup
- · Simulation and modeling
- · Case study
- · Feasibility study
- · Engineering report





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