BIZPOINT

Your Intelligent Warehouse Solution Partner

天猫 TMALL.COM

CAINIAO 菜鸟

大润发 RT-Mart

全球知名电脑
电子制造企业

唯品会 vip.com

百世 BEST Inc.

盒马鲜生

HUAWEI

JD.COM 京东

中国邮政 CHINA POST

BALL & CHAIN

Lazada
Great prices. Even better service.

DHL 中外运敦豪

UR URBAN REVIVO

MITSUBISHI ELEVATOR

BAO ZUN

Rokin 荣庆特流

DAZZLE

绿叶集团 Greenleaf Group

国药集团 SINOPHARM

SPH 上海医药 SHANGHAIPHARMA

CML 长安民生物流

车享

Indoor Intelligent Driving

Free Humans from Manual Handling

Bizpoint International Pte Ltd
33 Ubi Avenue 3 #06-40 Vertex Tower A Singapore 408868
Tel. No.: +65 6834 3001
Email: sales@bizpoint-intl.com

Product Manual

Bizpoint Pte Ltd Overview

Our company Bizpoint Pte Ltd (www.bizpoint-intl.com) is a local IT solution provider with an excellent track record in serving SMEs for almost 20 years. Our customers ranges from F&B, Retail, Manufacturing, Clinics to Logistics / Warehousing industry.

Our Focus - Automated Warehouse Solutions

We provide smart automated warehouse solutions that is highly flexible, adaptable based on a highly integrated combination of robots and management software.

In 2018 we became the 1st company in South East Asia to successfully deploy an automated warehouse solution with 20 active robots in a 40,000 sqft warehouse.
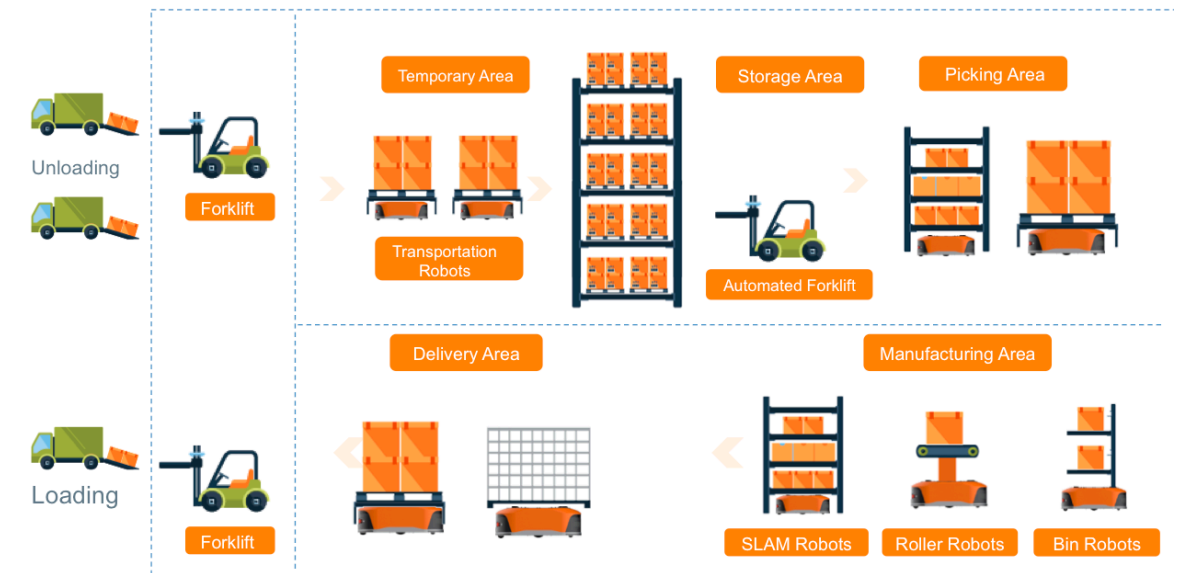
Container Lift

Unmanned Forklift

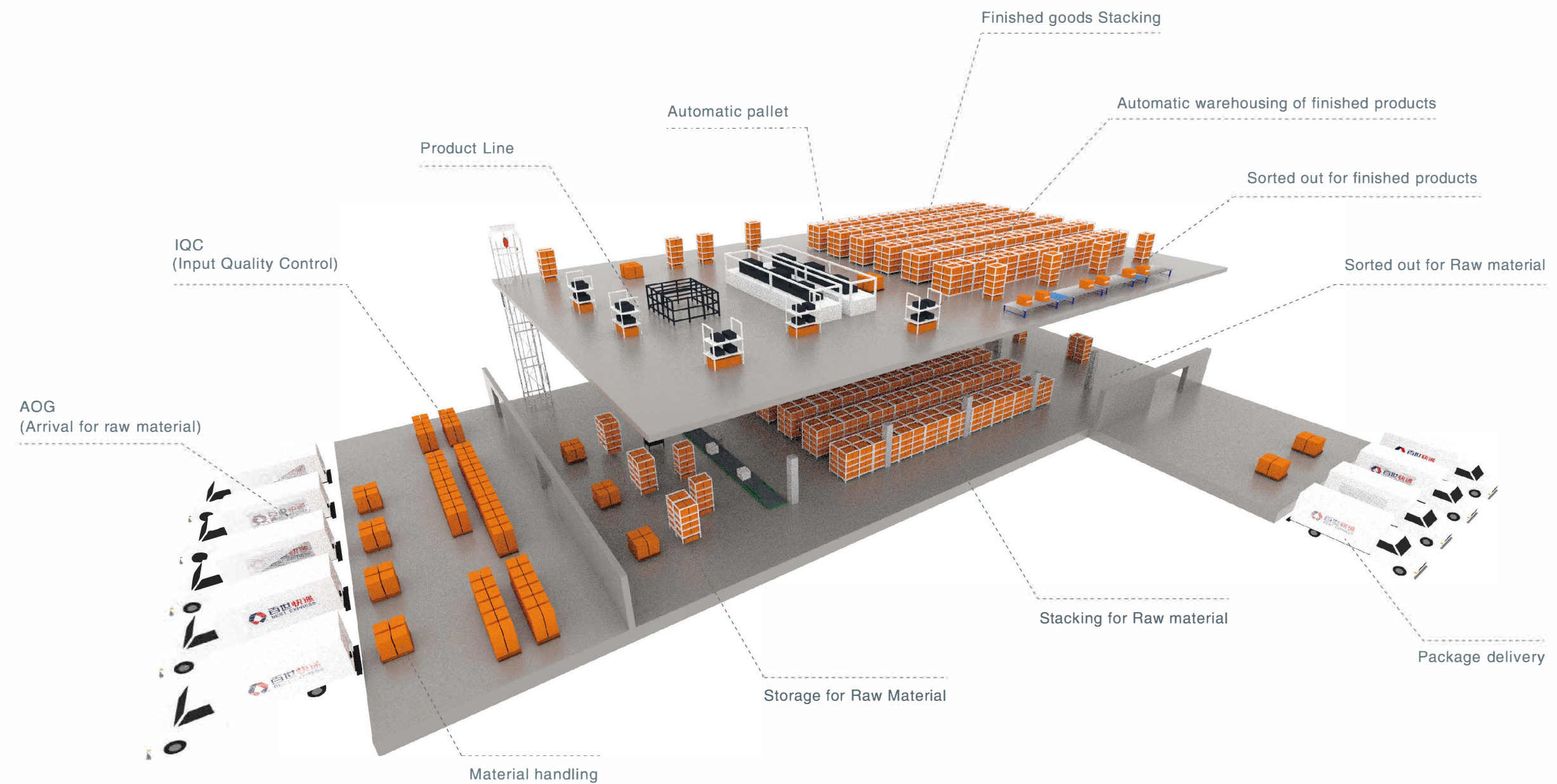QS40 with breed belt

QS40 with small belt

Customized
Industrial robots

Pallet Truck

M60 ZHUQUE

Mini ZHUQUE

M100 XUANWU

QINGLONG

We offer smart automated warehouse solutions that is highly flexible, adaptable based on a highly integrated combination of robots and management software. Our solution reduces costs and improve throughput, efficiency, and productivity, free your warehouse staff from heavy lifting to focus on higher value tasks.

Full Warehouse Automation Solution

Unloading

Forklift

Temporary Area

Storage Area

Picking Area

Transportation Robots

Automated Forklift

Delivery Area

Manufacturing Area

Loading

Forklift

SLAM Robots

Roller Robots

Bin Robots

Integrated Product Solutions

Finished goods Stacking

Automatic warehousing of finished products

Automatic pallet

Sorted out for finished products

Product Line

Sorted out for Raw material

IQC
(Input Quality Control)

AOG
(Arrival for raw material)

Stacking for Raw material

Package delivery

Storage for Raw Material

Material handling

Intelligent Picking System Solution

ZHUQUE M60 / XUANWU M100

BIZPOINT

Intelligent Picking System Solution

Based on various hardware and software systems, the Bizpoint Intelligent Picking System Solution consists of mobile robots, mobile racks, replenishment and picking stations, Warehouse Management System (WMS) and Robots Control System (RCS). Centering on AI-algorithm-based software system, the solution is well qualified for all warehouse operations, including racking, goods sorting, replenishment, returning, inventory counting and more .

Rack capable being moved to any designated operator

During all operational procedures involving the sorting area (including racking, replenishment, sorting, inventory counting and returning), it is unnecessary for any staff to access the sorting area. It will suffice for them to wait in the work station and the system will designate an AGV robot to move the required rack to the work station. Once the staff have completed its operation under system guidance, the rack will be moved back to the sorting area.

Reduce labor by 60%

Scientific management

Accuracy rate 100%

Flexibility

ZHUQUE M60

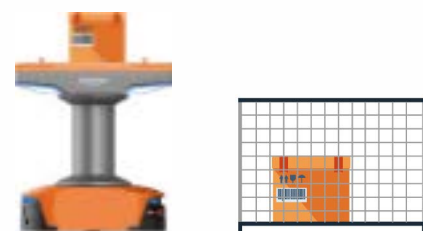|	
size(L*W*H)(mm)	915*715*300(mm)
dead-weight	180kg
rated load capacity	600kg
size of rack(L*W*H)(mm)	900*900(mm)
communication mode	WIFI / IEEE802.1b/g
max running speed	1.5 m/s
stop accuracy	≤ 5mm
navigation	visual 2D code+inertial+slam
obstacle avoidance	LIDAR+Anticollision bar
battery capacity	26Ah
battery life	8h (fully loaded)
charge time	≤ 1.5h (after totally discharged)

XUANWU M100

size(L*W*H)(mm)	1110*918*308(mm)
dead-weight	260kg
rated load capacity	1000kg
size of rack(L*W*H)(mm)	1200*1200/1100(mm)
communication mode	WIFI / IEEE802.1b/g
max running speed	1.2 m/s
stop accuracy	≤ 5mm
navigation	visual 2D code+inertial+slam
obstacle avoidance	LIDAR+Anticollision bar
battery capacity	40Ah
battery life	8h (fully loaded)
charge time	≤ 1.5h (after totally discharged)

Intelligent Sorting System Solution

ZHUQUE QS40 / QS10 / Q150

BIZPOINT

Intelligent Sorting System Solution

With the fast development of e-commerce, customers impose increasingly higher requirement of timeliness on package sorting. Bizpoint independently developed QS40 and QS smart sorting robots which can visually identify the informa-tion on package labels. The robots can figure optimized paths for themselves before unloading any package at the right discharge port. Its sorting speed and accuracy witness significant improvement when compared to manual practice.

Features and advantages

Fast and stable
The robot can run at a maximumspeed of 2.5m/s The robot has intelligent power management

Quickly and accurately
Accuracy for Single-face read code is more than 99.99% ,with read code speed <8s

Flexibility
It can support up to 40 kg large packages and up to 2 packages simultaneously for sorting

Intelligent scheduling
The system can manage nearly a thousand robots at the same time
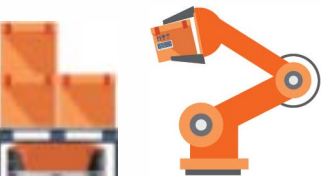
More application scenarios

- Logistics delivery-The parcel delivery
- Manufacturing industry – Material movement;

	ZHUQUE QS40	ZHUQUE QS10	ZHUQUE Q 150
size (L*W*H)(mm)	970*800*830(mm)	600*538*1390(mm)	620*53*222 (mm)
dead-weight	250kg	75kg	88kg
rated load capacity	40kg	10kg	150kg
size of parcel	800*700*150	400*400*150	roll container 750*750*1200 (mm)
max running speed	1.5m/s	2.5m/s	1.5m/s
battery capacity	26(Ah)	18(Ah)	18(Ah)
parcel amounts	up to 2	up to 1	
navigation	visual 2D code+inertial		
obstacle avoidance	LIDAR+Anticollision bar		
charge time	≤ 1.5h (after totally discharged)		
stop accuracy	≤ 5mm		
recharge mode	Automatic quick charging		

Intelligent Carrying System Solution
ZHUQUE QS40 / QS10

Solution Introduction

In the process of intelligent upgrading and transformation of traditional manufacturing industry, it is required that raw materials, semi-finished products and finished products circulate rapidly and efficiently in each manufacturing chain. The intelligent handling system solution provided by Bizpoint has been applied widely in the process of horizontal and vertical transfer of materials and processing equipment among various production line nodes in the manufacturing industry, which not only improves the efficiency of production but also seamlessly connects with all kinds of automation equipment and ERP/MES software system, and thereby reduces the cost of labor and management.

Solution Features

The solution can be widely applied in the transfer of various goods and is in a leading position in the manufacturing industry.

- Production and assembly transportation, and automatic loading and unloading
- Transfer of the processing materials between material units and processing equipment
- Human-Machine Collaboration in transporting materials by carts to work stations
- Monitoring and safety inspections of the environment

Safe and reliable
Multi-sensor fusion navigation mode for more security Real-time monitoring of robot operation status

Flexible and efficient
Flexibly customized scenario, without need for scenario reconstruction Seamless connection with various rollers belts and other mechanism components

System leading
Automation of processes without manual intervention Reduction in the error rate of manual operation

Reduction in the labor intensity
Reduction in manual handling Reduction in the handling intensity and improvement in handling efficiency

Application Scenario

- Manufacturing industry
- Automotive
- Little-3C
- Electronic
- Pharmaceutical
- E-Commerce

Codeless Navigation Intelligent System Solution
Applicable to Bizpoint full series intelligent warehouse robot

Solution Introduction

There are some problems in the existing navigation modes, such as high maintenance cost, reliability at middle level, and high performance application bottleneck. Especially in the human-machine hybrid scenario and high-speed transport scenario, it puts forward higher requirements for navigation technology. Bizpoint Codeless Navigation is an innovative and unconventional navigation technology with originality and independent intellectual property rights, which creatively uses the texture of the ground where the robot operate as the navigation data and organize the ground texture into an effective map with the pre-mapping technology to make it possible to effectively improve the coverage scale, accuracy, robustness, speed and other indexes through matching and retrieving the ground texture, and thus is unique among the existing navigation technologies.

Solution Features

Short implementation period
Flexibly customized scenario, without need for scenario reconstruction No need to lay the QR code and magnetic stripe on site

Super high performance
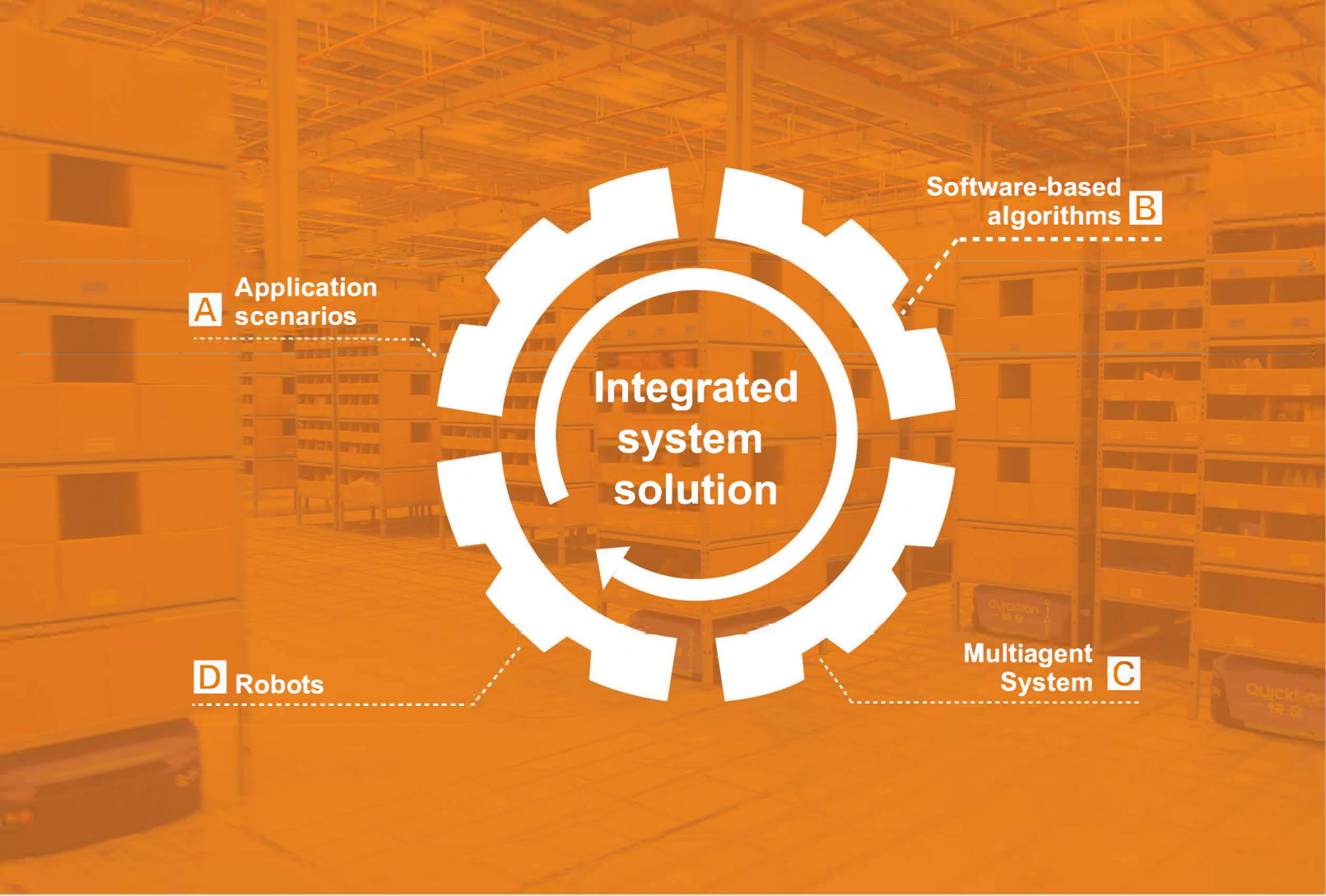Possible to support a speed up to 3m/s Positioning accuracy<8mm

Safe and reliable
Multi-sensor fusion navigation mode for more security Re-planning path in real-time, supporting human and machine operation in the same field

Well-adapted
Applicable to terrazzo flooring, cement floor and epoxy floor.

	QR Code Navigation	LIDAR SLAM	Codeless Navigation
Robustness	Medium	Low	High
Configuration requirements	Low	High	Medium
Positioning accuracy	High	Low	High
Extendibility	Medium	High	High
Path re-planning	Medium	High	High
Curvilinear motion	Medium	High	High
Maximum speed	1.5 (m/s)	<1 (m/s)	<3 (m/s)

Integrated system solution

A **Application scenarios**

B **Software-based algorithms**

C **Multiagent System**

D **Robots**

A Application scenarios

Bizpoint abstracts the common features of customers from complex scenarios in perspectives of industrial properties, operational procedures, commodity types, operational modes, warehouse area and system docking. Thanks to the rich experience and professional planning capacity, it offers customized comprehensive system robot solutions with greater flexibility and efficiency.

Commodity Types
Shoes, clothes, chemicals for daily use, makeup, supermarkets, outlets,fashion department store, medicine, 3C products

Operation procedures
Massive SKU management, supporting multiple order structures

Industrial feature
E-commerce platforms, new retail, 3rd Party Logistics (3PL), update of traditional industries, intelligent manufacturing

Warehouse area
1000 – 5000*20
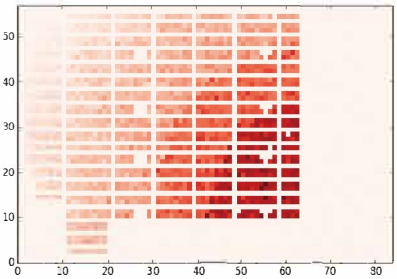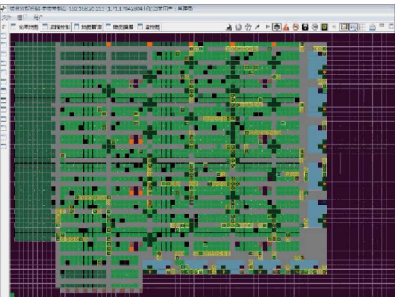
Operational modes
Daily operation, promotion, JIT

System integration
ERP, WMS, WCS, conveying line, Mechanical arm, stacker
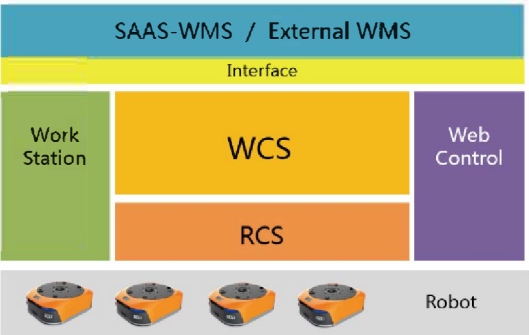

B Software-based algorithms

Scheduling algorithms

- Intelligent scheduling + dynamic optimization
- Conceptual analysis + correlation mining
- Data mining + machine learning
- Distributed clustering + task balancing

RCS

- Intelligent simulation + path planning
- Smooth action + improved efficiency
- Independent obstacle avoidance + automatic recovery
- Accurate tasking + efficient implementation

C Multiagent System

Intelligent Picking/Intelligent sorting

- ERP\MES is able to directly connect to intelligent scheduling system
- flexible customization, intelligent avoiadance, independent efficiency, manpower lay off

Intelligent carrying

- WMS\TMS\OMS whole process informatization management
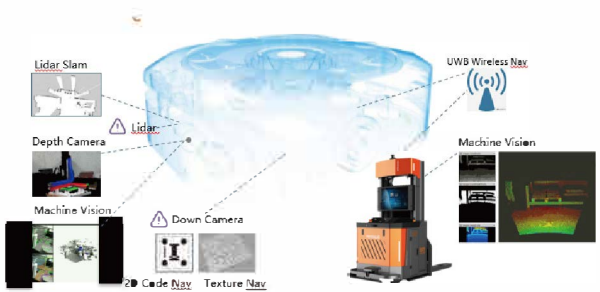- Data mining+machine learning, inventory structure dynamic optimization

---

D Robots
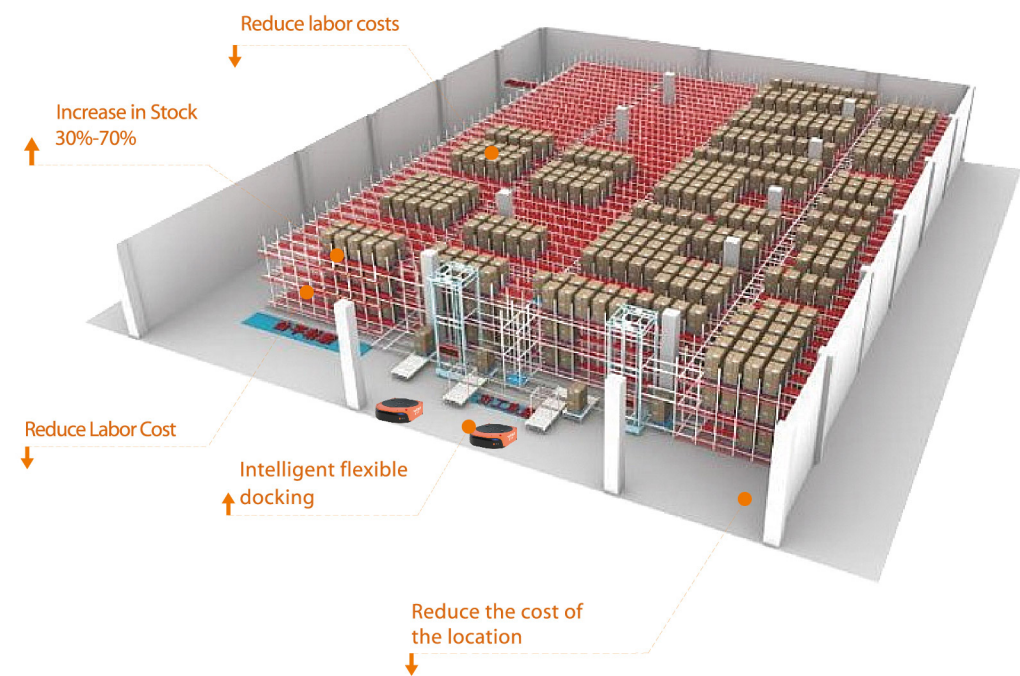
Hardware-based algorithms

- Sensitive perception to environment
- Machine vision
- Auto drive

Motion control

- Motion control algorithm
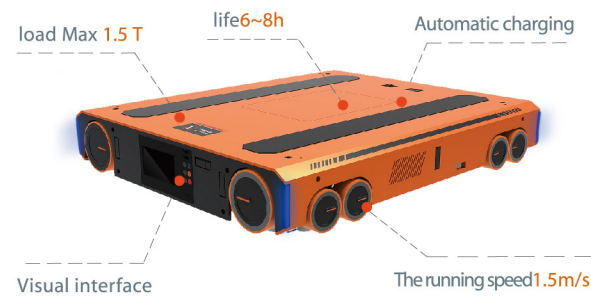- Multi-sensor fusion algorithm
- Remote real-time control

Intelligent four-way shuttle robot from China

Reduce labor costs

Increase in Stock 30%-70%

Reduce Labor Cost

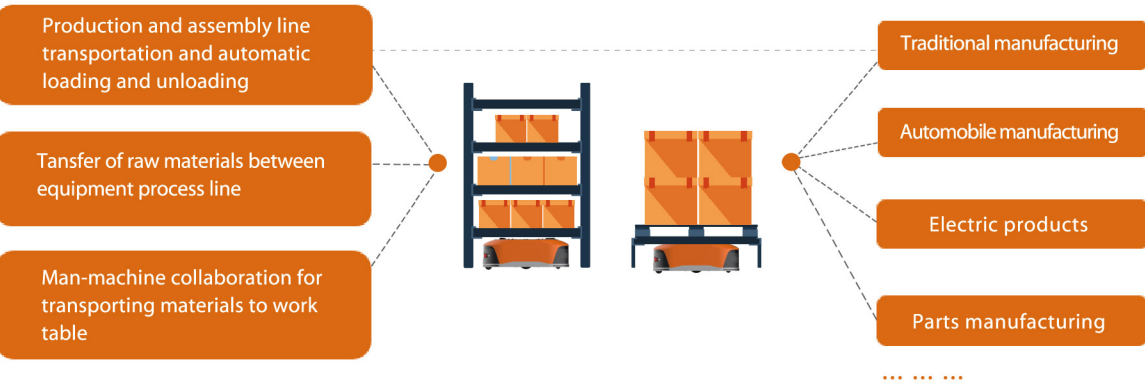Intelligent flexible docking

Reduce the cost of the location

- ERP\MES The production plan is directly connected to the robot intelligent scheduling system；

- Flexible production line - Robot carrying assembly platform, automatic movement of each workstation .

- According to the production plan, pick up spare;

- parts and other materials Goods to people Industry 4.0 high standard visual interface.

Intelligent handling robot,Can be widely used in various types of material horizontal transport scenario, in themanufacturing industry has industry-leading solutions, including:
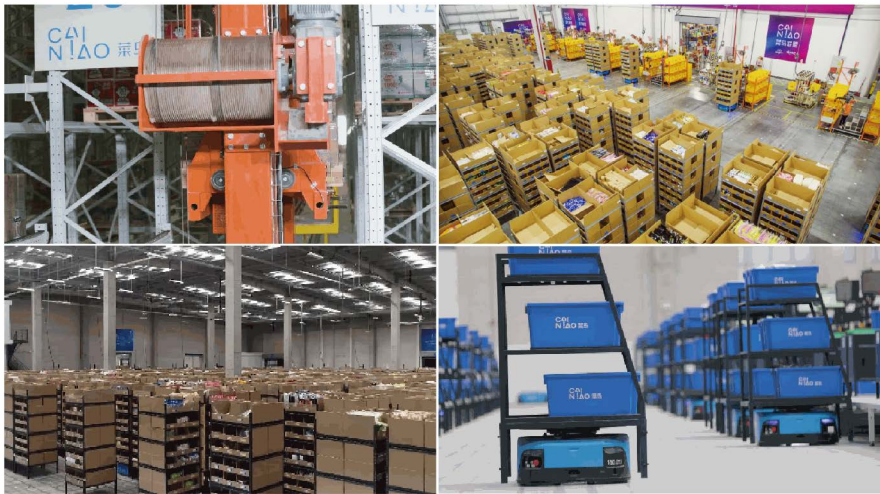
Product features

The intelligent four-way shuttle robot is an intelligent three-dimensional storage system solution that integrates four-way driving, in-place rail change, intelligent handling, intelligent monitoring and scheduling dynamic management. Efficiently realizefast entry and exit of goods through path optimization and scheduling algorithm technology without manual operation.

load Max 1.5 T

life6~8h

Automatic charging

Visual interface

The running speed1.5m/s

Production and assembly line transportation and automatic loading and unloading

Tansfer of raw materials between equipment process line

Man-machine collaboration for transporting materials to work table

Traditional manufacturing

Automobile manufacturing

Electric products

Parts manufacturing

… … …

Wuxi Tmall Warehouse

Wuxi Tmall warehouse is China's first IoT future park. With nearly 700 robots in operation ,the park is the largest intelligentrobot warehouse in Asia.

CAINIAO 菜鸟

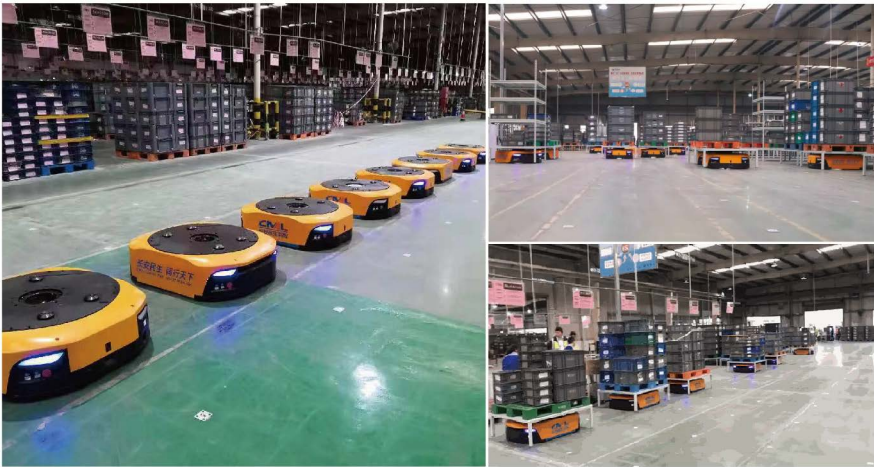- 25000㎡
- 850AGV
- 80,000 orders / 500,000 pieces
- 7*24hour

Yudo Robot Solutions

Bizpoint works with YUDO ,which is a well-known automation system integrator, to serve companies such as Samsung and Lotte.

YUDO

- Abrasive tool
- management for industry
- Integration with other automation equipment

Chongqing Changan Minsheng APLL Logistics Intelligent Robot Solutions

Bizpoint and Chongqing Changan Minsheng APLL Logistics jointly created the first domestic automobile logistics unmanned warehouse.

CML 长安民生物流

- Quick order response
- Accurate inventory management
- High continuity requirement

E-commerce -eWTP Southeast Asia Intelligent Robot Warehouse

The first intelligent robot warehouse in southeast Asia has a working efficiency three times higher than that of artificial mode, achieve to a new stage of intelligent logistics in the region.

Lazada
Great prices. Even better service

- 7*24hour
- 30 AGV
- triple work efficiency