Nanjing Headquarters
9th Floor, Building 1, Zijin Xicheng Center,
No. 118 Olympic Street, Jianye District, Nanjing

Beijing Subsidiary
Room 1703, Block B, Greenland Central Plaza,
Gaomidian South, Daxing District, Beijing

Nanjing Production Base
NO.26, Zhonghuan Avenue, Binjiang Development
Zone, Jiangning District, Nanjing

Hebei Production Base
Shunxin International Logistics Equipment Industrial Park,
Longhua Town, Jingxian Town, Hengshui

Jiangsu Nova Intelligent Logistics Equipment Co., Ltd.

Hotline
400-997-9161

Follow us to learn more

Headquarters Sales
sales@nova-china.com

Overseas Sales
export@nova-china.com

Marketing and Media
market@nova-china.com

Website
www.nova-china.com

NOVA
INTELLIGENT

Intelligent and Efficient to Command the Future

Intelligent Warehouse and Logistics Solutions



亢维智能®

Contents

01
NOVA Introduction

03
Automated Storage Solutions-Pallets

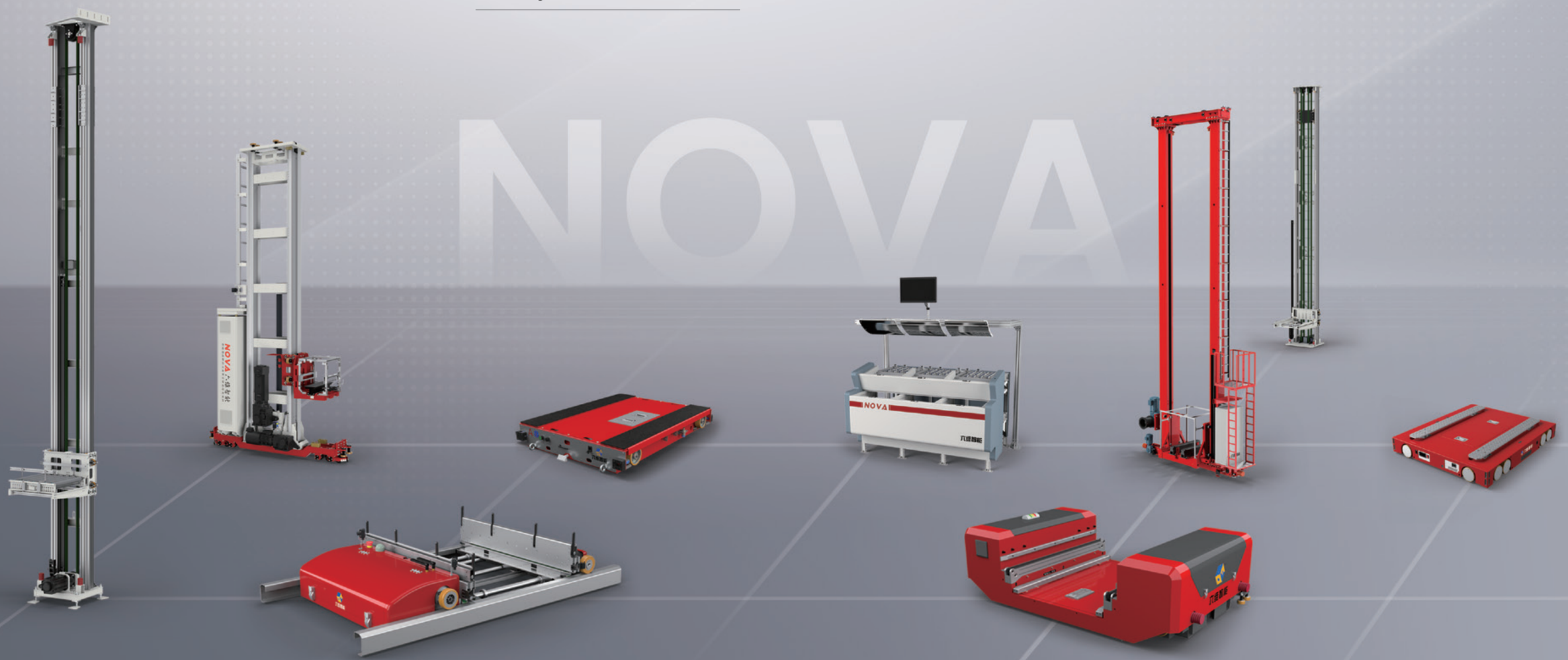
03 Pallet Stacker ASRS Storage Solution
05 Pallet Intensive Storage Solution
07 Pallet Automatic Storage Device
09 Pallet Stacker ASRS Storage Case
11 Stacker + Radio Shuttle Storage Case
13 Four Way Shuttle Intensive Storage Case

15
Automated Storage Solutions-Bins

15 Miniload Stacker Storage Solution
17 Multishuttle Storage Solution
19 Bin Automatic Storage Equipment
23 Bin Stacker Storage Case
25 Multishuttle Storage Case

27
Successful Cases

35
Range of Service



Intelligent and Efficient to Command the Future

Driven by innovation and based on service, NOVA Intelligent continues to provide excellent intelligent warehousing and logistics system solutions to help enterprises to accelerate their transformation and upgrading.

NOVA Intelligent Automation Division, established in 2004, has a Engineering Team of more than 100 people. Based on the concept of intelligent integration, we provide customized high performance automated warehousing and logistics system solutions for customers, providing full life cycle services from pre-sale consultation, planning and design, manufacturing integration, project implementation to after-sales maintenance. Over the years, we continue to expand the product matrix and upgrade iteratively. At present, the company's main equipment system includes ASRS system, pallet intensive storage system, bins storage system, conveyor handling systems, picking system and storage logistics software management system, etc., with 500+ application cases.

NOVA intelligent system solutions integration services cover more than 30 segment industries, including oil chemical industry, biological medicine, new energy, machinery manufacturing, aerospace, electricity, food cold chain, home, daily chemical and other fields, with business all over the country and some overseas regions,and has won the trust and recognition of our customers.

- **2004** Establishment of Automation Division
- **2006** Independent development of storage management system WMS software copyright
- **2013** The two-way shuttle was successfully developed
- **2014** The high-speed shuttle was successfully developed
- **2015** Mother & Child Shuttle System was successfully developed
- **2016** The circular shuttle was successfully developed and applied in the project
- **2017** Successfully developed the pallet disassembling&stacking machine and 3 tons spiral jacking machine for metal sheet storage warehouse
- **2019** Generation miniload stacker/high-speed bin lifter/picking table was developed successfully
- **2020** Single-Deep four-way shuttle/pallet lifter was successfully developed, and a full-life cycle management platform was released
- **2021** The second generation miniload stacker system was introduced and the layer changing lifter was developed
- **2022** Development of standard linear aisle multishuttle/pallet high-speed stacker and development of full life cycle platform 2.0



Pallet Stacker ASRS Storage Solution

Pallet stacker ASRS solution takes palletizing goods as access unit, stacker as access equipment, through the coordination of associated equipment, to achieve the functions such as automatic goods receiving, palletization, inbound, outbound, picking, inventory counting,delivery,inventory statistics and report generation, etc., under the control of computer.

ASRS is usually 10-40m high,less than 5 tons weight, which can make full use of storage space and possess high speed delivery capability. Each stacker capability can reach40-60 trays/hour. It's the most widely used storage method. According to operation requirements, the stacker can be designed to be linear type/ turning type/crossed type,or equipped with single deep/double deep stretch fork, to achieve the double improvement on efficiency and cost performance.

Flexible

Flexible configuration, can be equipped with a variety of accessing function units, suitable for various business scenarios and functional requirements

Efficient

Effectively improve the space utilization rate, work efficiency, reduce labor costs and work intensity

Expandable

Modular design, mature and stable, strong and durable; Support non-standard customization, matching personalized needs



10~40 m

ASRS system design height

5,000 kg

Maximum load of unit

40~60 trays/hour ↑

Capacity of single stacker

40%~60 %

The storage capacity of the warehouse can be increased.

Pallet Intensive Storage Solution

Pallet-intensive storage solution can dispatch storage equipment quickly and accurately according to the instructions issued by the upper computer, and complete the automatic access management of multi-level inventory goods. The height of the system is usually designed to be 5-30m. According to the equipment type, it can be divided into stacker+shuttle solution, mother & child shuttle system solution, and four-way entry shuttle solution, all of which can meet the storage requirements of large quantities and few varieties of goods on conventional pallets. According to the differences of actual warehouse parameters, the preferred scheme is selected.

5~30 m

System design height

60%~80 % ↑

It can improve the storage capacity of standard pallet goods in warehouse.

Space flexibility

According to the actual size of irregular warehouse, the layout is flexible and the applicability is high.

Strong expansibility

The number of equipment depends on operation efficiency Modular design and strong expansibility

Intelligent and efficient

Intelligent scheduling,stable & reliable Selecting the optimal operation route to improve efficiency

Large storage and small investment

The storage capacity per unit area of the warehouse is large, the equipment investment is reduced, and automatic storage is realized.



Stacker + Radio Shuttle Solution

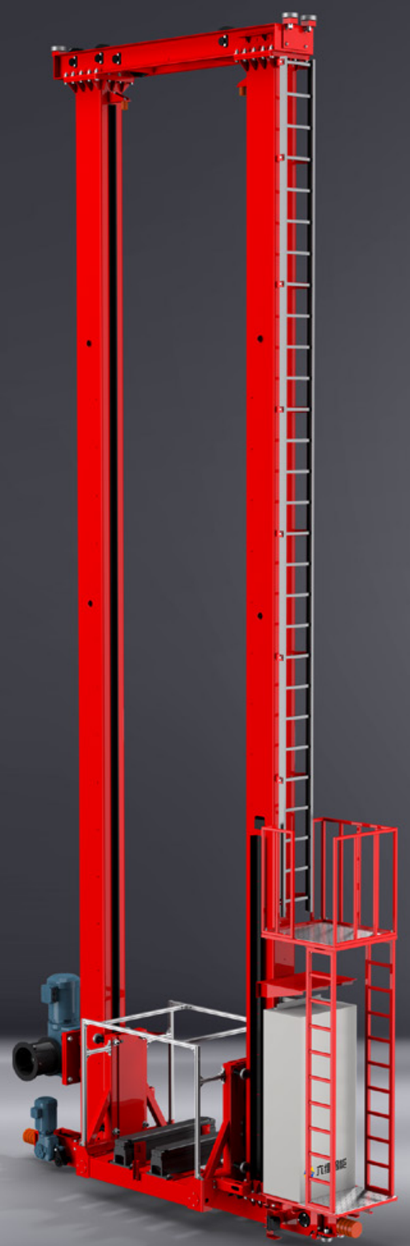
The stacker transports the shuttle to the designated position of the tunnel, and the shuttle completes the cargo access operation. This solution can increase the tunnel depth, reduce the input of stacker, realize dense storage, and increase the utilization rate of warehouse by more than 30%. The operation mode is flexible, and the investment cost is less than that of ASRS storage solution.

Mother & Child Shuttle Solution

WMS/WCS system can realize automatic control of child shuttles, mother shuttles, lifters conveyors and other equipment, which can realize FIFO, and is a reliable choice for automatic storage of batch pallets. This solution has low requirements for warehouse building pattern, floor height, load capacity, flexible layout combination, and can realize discontinuous floor and multi-area layout.

Four Way Shuttle Solution

The four way shuttle solution consists of intensive racks, four way shuttle, lifters, conveyor lines, WMS, WCS and RCS, etc. Through the four way entry shuttle, the goods can be picked and transported flexibly around the racks. The four way entry shuttle solution has the advantages of flexibility and intelligent scheduling. The four way entry shuttle can reach any position in the vertical warehouse, and it is not limited by space, so as to realize cross-roadway and cross-layer cargo transportation.



Pallet Stacker

The stacker structure is safe, stable and reliable, and closed-loop control is realized by vector variable frequency driver and encoder. In the aspect of speed, S-shaped curve control module is adopted to realize high-speed, smooth and accurate operation, and multiple protection measures are set in mechanical and electrical aspects to ensure stable and reliable operation.

Structure form	Single mast	Double mast
Rail form	Linear rail / Curved rail / Changed rail	Linear rail / Bend rail / Changed rail
Load capacity	0.1t-1.5t (non-standard customization is supported)	0.1t-5t (non-standard customization is supported)
Pallet size	1000*1200mm (non-standard customization is supported)	1000*1200mm (non-standard customization is supported)
Fork stretch	Single stretch/Double stretch	Single stretch/Double stretch
Horizontal moving speed	0-240m/min	0-200m/min
Horizontal moving acceleration	0.3-1m/s^2	0.3-1m/s^2
Vertical lifting speed	0-60m/min	0-60m/min
Vertical lifting acceleration	0.5-1m/s^2	0.5-1m/s^2
Fork expansion speed	0-90m/min	0-90m/min
Fork expansion acceleration	0.5-1m/s^2	0.5-1m/s^2
Driving mode	Frequency conversion/Servo motor+Driving wheel	Frequency conversion/Servo motor+Driving wheel
Control system	Siemens /ABB/ Mitsubishi	Siemens /ABB/ Mitsubishi
Positioning	Bar code/Laser recognize address	Bar code/Laser recognize address
Positioning accuracy	±3/±5mm	±3/±5mm
Single machine noise	⩽ 80dB	⩽ 80dB
Environmental temperature	-25° C-+45° C	-25° C-+45° C

Child Shuttle

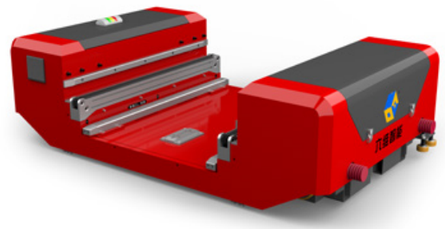
The shuttle is a Linear-rail reciprocating shuttle, which has two modes: first-in, first-out and first-in-later-out, which are mostly used to access a large number of single variety of goods.



Load capacity	⩽ 1.5t
Pallet size	1000*1200mm (non-standard customization is supported)
Self-weight	⩽ 240kg
Moving speed	⩽ 1.5m/s
Moving acceleration	⩽ 1m/s^2
Jacking stroke	40mm
Positioning accuracy	±5mm
Battery life	⩾ 8h
Charging time	⩽ 1.5h
Environmental temperature	-25° C -+45° C

Mother shuttle

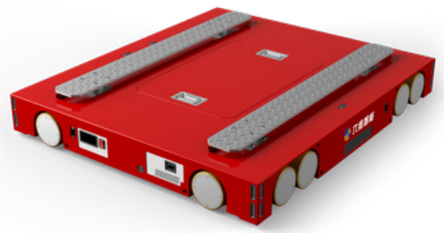
The joint operation of the Mother shuttle and the shuttle is used to connect and switch lanes through the shuttle car, and to transport palletized goods to the conveyor at the entrance and exit of the warehouse.



Load capacity	⩽ 2t
Pallet size	1000*1200mm (non-standard customization is supported)
Moving speed	⩽ 2m/s
Moving acceleration	⩽ 1m/s^2
Convey form	Chain conveying
Driving mode	Frequency conversion/Servo motor+Driving wheel
Control system	Siemens /ABB/ Mitsubishi
Positioning	Bar code/Laser recognize address
Positioning accuracy	±3mm
Environmental temperature	-25° C -+45° C

Four Way Shuttle

The four way shuttle can walk both longitudinally and transversely, and can change the working lane at will, and reach any position in the warehouse, so as to complete the functions of palletized goods such as automatic handling and transportation, automatic storage and retrieval, automatic lane and layer change.



Load capacity	⩽ 1.5t
Pallet size	1000*1200mm (non-standard customization is supported)
Self-weight	⩽ 350kg
Moving speed	⩽ 1.5m/s
Moving acceleration	⩽ 2m/s^2
Reversing time	4s
Jacking travel	40mm
Positioning accuracy	±5mm
Battery time	⩾ 6h
Charging time	⩽ 1.5h
Environmental temperature	-25° C -+45° C

Pallet Stacker ASRS Storage Case



Petrochemical Enterprise Intelligent Stereoscopic Warehouse Project

A petrochemical enterprise's 100,000 tons/year lubricating oil blending project is supported by an intelligent warehousing project, which integrates a series of functions such as empty pallet dispatching, stacking, palletizing, conveying, storage, delivery, picking, and empty pallet returning to storage, etc., and store more than 200 varieties of lubricating oils.

4000 m^2
Warehouse Area

11244 nos
Warehouse Pallet Position

24 m
Total Racking Height

800 kg
Unit Loading

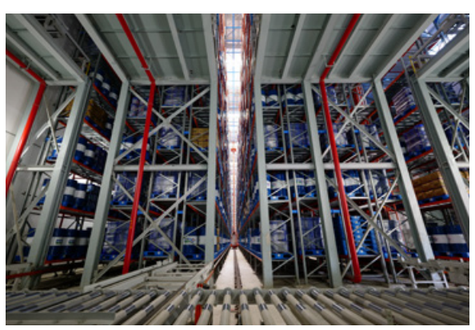
100 trays/hour
In-bound Efficiency

150 trays/hour
Out-bound Efficiency

6 sets
Double Uprights Stacker

MES+TMS
Docking with MES system and integrating TMS vehicle management system





Program Features

- Conveying lines, shuttles, lifters and other equipment are arranged on the second floor, which are seamlessly connected with the filling lines on the first and second floors of the workshop through the corridor. The barrel-shaped products are palletized by the robot, and automatically put in storage after information comparison is successful.
- In the front area of the second-floor warehouse, the traditional circular conveying form is changed, and the conveying line combined with the shuttle car is adopted to save costs on the premise of meeting the efficiency.
- Conveying lines are set at the beginning and end of the first floor, which are respectively transported to the delivery area of the side platform. After the delivery is completed, the empty pallets are automatically stacked and returned to the warehouse. The conveying line of the entire system is closed-loop management, and the empty pallets are not circulated offline.
- All conveying equipment adopts distributed IO control, which finely manages each conveyor, to reduce equipment failure rate and improve system operation stability.

Stacker + Radio Shuttle Car Storage Case

New Energy Battery Separator Enterprise Intensive Storage Project

A new enery lithium ion battery separator company with a relatively single product variety and priority storage capacity, on the basis of intelligent and automated equipment, which integrates multiple information platforms such as ERP, MES and WMS, has achieved the aim on production capacity ramping.

8800 m^2
Warehouse Area

10098 nos
Warehouse Pallet Position

12 m
Total Racking Height

500 kg
Unit Load

6 sets
Double Uprights Stacker

9 sets
Child Shuttle

100 trays/hour
In-bound Efficiency

100 trays/hour
Out-bound Efficiency







Program Features

- The warehouse is built in the middle of the two production workshops. The circular conveyor line + lifter is designed, and the production equipment is seamlessly connected through the corridor to meet the supply of empty pallets and the storage of finished products.
- The design to share the conveying line for two different sizes of pallets can improve system compatibility.
- The annular conveying line adopts distributed IO to realize dual-flow control, which are mutually backup and improve the reliability of the system.
- The conveying line adopts a closed-loop design, and the empty pallets are automatically collected after the delivery is completed, which reduces the labor intensity.
- The WMS system customizes the development of the allocation ratio of cargo spaces, which effectively exerts the maximum performance of the equipment, to meet the production and delivery needs of customers.
- The WMS covers ASRS and flat warehouse,and manages raw materials and finished products at the same time, which effectively improve the level of information management. materials and finished products at the same time, effectively improving the level of information management.

Four Way Shuttle Intensive Storage Case

Cross-border E-commerce Warehouse Automation Project in Comprehensive Bonded Area

The first smart warehouse in a comprehensive bonded area provides services for the global distribution business of imported milk powder of an international dairy group, which requires high throughput and fast turn around.

4000 m^2
Warehouse Area

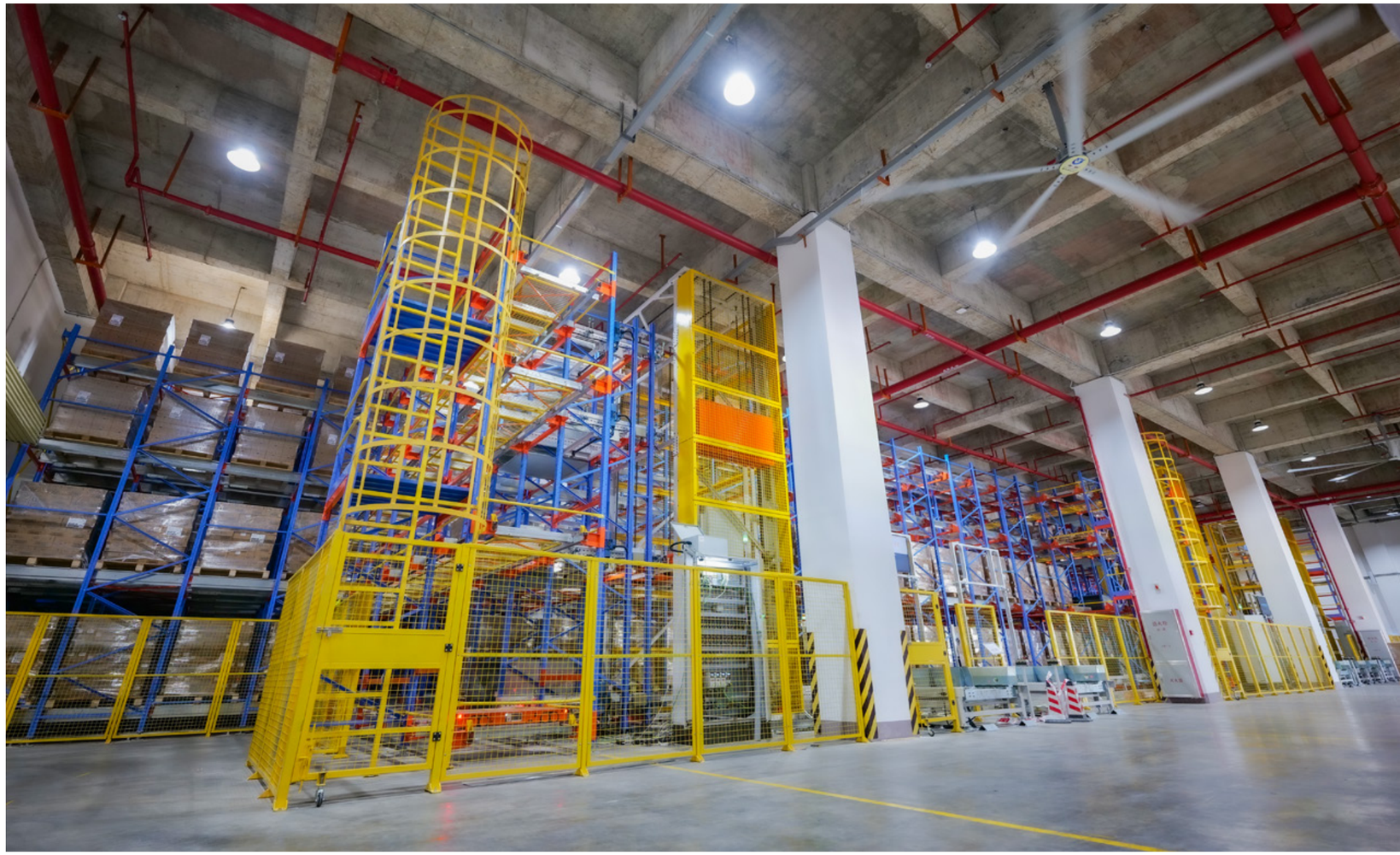
5502 nos
Warehouse Pallet Position

7.5 m
Total Racking Height

700 kg
Unit Load

7 sets
Four-way Shuttle Car

100 trays/hour
In-bound Efficiency







Program Features

- A four-way shuttle intensive warehouse is used to break through the site restrictions and achieve fast access, such as few varieties, large batches, old building with limited height and irregular size.
- According to customer needs, set up online inventory stations, customize inventory operation mode, and meet customers' monthly inventory plan.
- According to the different building heights, design different racks heights to maximize the storage space.
- Combined with the simulation platform, the intelligent dispatching system is designed to optimize the operation line of the four-way shuttle, and effectively improve the operation efficiency of the warehouse.
- The warehouse management system is automatically connected to the ERP system, and the data is seamlessly connected to avoid repeated manual input.

Miniload Stacker Storage Solution

The miniload system is a high-density storage solution composed of a bin as the main access unit, a high-speed stacker as the main access device, and auxiliary other conveying equipment. Its working form is divided into single-depth position/double-depth position and single-station /double-station, which is suitable for the storage of goods with a large number of SKU, and the access is flexible and efficient, which is convenient for the storage of the whole bin of materials and the sorting of parts. The system can be widely used in many industries, including new energy, e-commerce, food and beverage, Express, third-party logistics, etc. NOVA Intelligent can provide high, medium and low equipment configurations with different standards depending on the situation. According to customer requirements and system throughput requirements, configuration planning and design are carried out in terms of driving speed, positioning accuracy, fork lift, Pick-and-Drop speed, etc. to provide reasonable and suitable solutions, meet the demand and create higher economic value for customers.

Features

- Various cargo handling units available Excellent performance
- Extremely scalable, making it suitable for many solutions
- Suitable for a variety of warehouse application environments
- Outstanding equipment capability, suitable for high-efficiency working environment
- Standardized modular structure design
- Handle all kinds of material bin (carton, turnover bin)

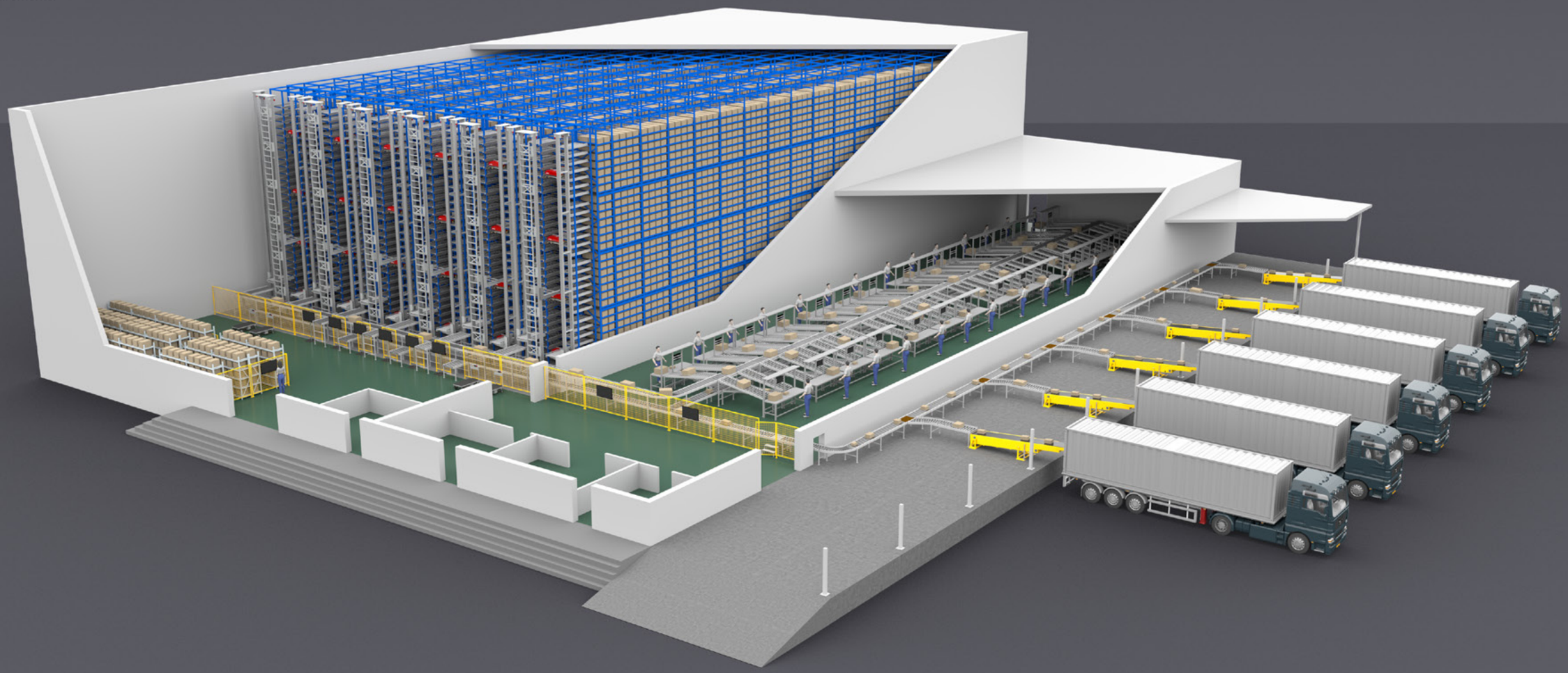


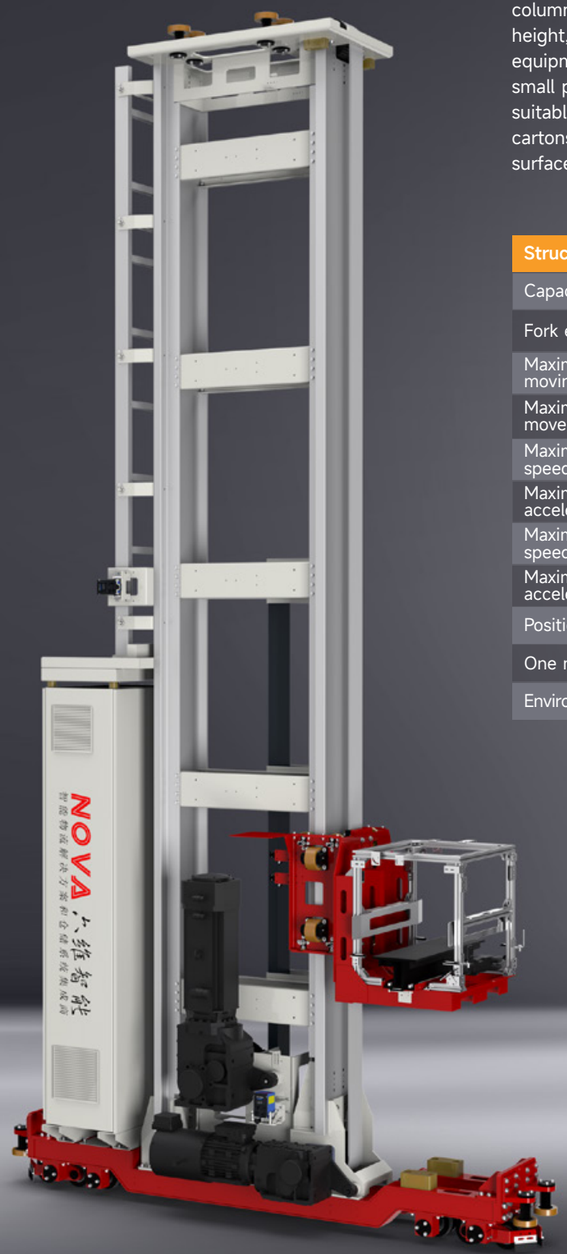
Multishuttle Storage Solution

The multishuttle storage solution is a high-efficiency storage and goods-to-person picking solution, which consists of multi-tier shuttle car and lifter as the core equipment and are supported by layer-changing lift, power station, picking station, charging device, etc. to store multi-size boxes, cartons, and small packages. According to the characteristics of the order, the system realizes the inbound and outbound of the whole bin, the picking inbound and outbound of a single material in the bin, to realize the picking mode of goods to people, and process orders quickly and efficiently. Multishuttle car can perform single-depth or double-depth operations by changing layers and operating across channels. The equipment is mutually backed up, at the same time, it can also adjust the system capacity by flexibly increasing or decreasing the number of shuttle cars according to the workload to improve system flexibility. In the same space layout, the multishuttle system has 5-10 times higher processing capacity than conventional warehouses. The system algorithm is completely independently developed by NOVA Intelligent, which can easily deal with storage position allocation, multi-carts scheduling on the same layer, safety avoidance, cart Rescue, etc., put the required materials in and out of the warehouse quickly and accurately according to the order requirements.

Features

- Accurate selection of multiple SKU to reduce error rates
- Multi-cars use super capacitors, fast charging, good cycle performance and long service life
- Various system configurations, flexible layout, suitable for multi-size bins
- Adopt a variety of mechanical and electrical safety protection measures to ensure the safety of human and equipment
- Equipment modular design, mutual backup, easy to maintain
- Efficient Goods-to-Person Picking for Small Items





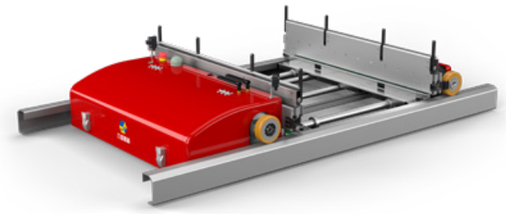
Miniload Stacker

The miniload stacker combines the advantages of light load, high speed and flexibility. It can choose single column or double column according to different load capacity and implementation height, and can be equipped with various load handling equipment. Single-column bin stackers are usually used to handle small parts storage, while dual-column bin stackers are more suitable for handling pallets, containers, pallets, boxes and cartons, etc. There are virtually no restrictions on the shape and surface of an item.

Structure type	Single post	Double post
Capacity	≤ 100kg	≤ 300kg
Fork extension	Single fork/Double fork	Single fork/Double fork
Maximum horizontal moving speed	6m/s	4m/s
Maximum horizontal move acceleration	4m/s^2	3m/s^2
Maximum vertical lift speed	3m/s	1.5m/s
Maximum vertical lift acceleration	3m/s^2	2m/s^2
Maximum fork telescopic speed	0.75m/s	0.5m/s
Maximum fork telescopic acceleration	1m/s^2	0.5m/s^2
Positioning accuracy	±3mm	±3mm
One machine noise	≤ 80dB	≤ 80dB
Environment temperature	-5° C-+40° C	-5° C-+40° C

Multishuttle Car

The multishuttle Car adopts a bus-type full-servo system, and the cart algorithm is completely independently developed by NOVA. It cooperates with the lifter and conveying system, and can access the cargo of any layer and any tunnel to realize the "goods to people" selection of the material bin. The NOVA intelligent multishuttle Car uses super capacitors, charges for 8 seconds and runs for 10 minutes. It adopts a modular and standardized design, and the carts are backed up for the whole machine or parts, which brings convenience to the maintenance work on the project site.



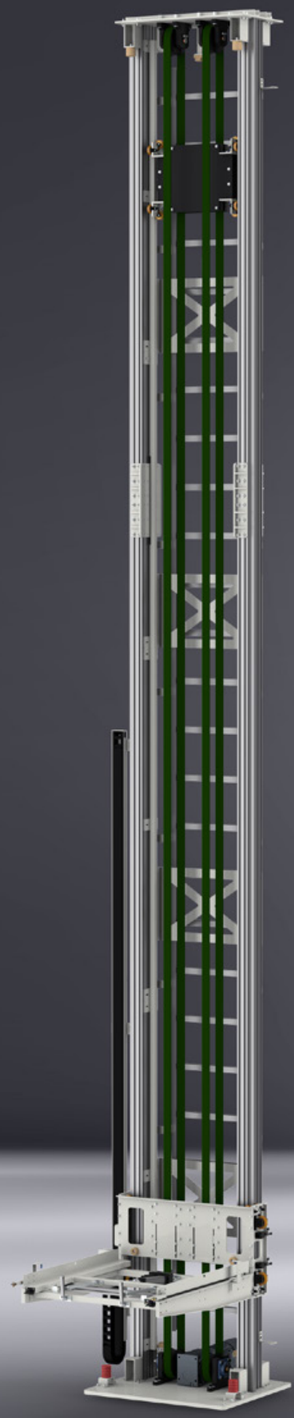
Type	Two way/Four way
Capacity	≤ 50kg
Material bin size	600*400mm(non-standard customization is supported)
Self-weight	≤ 85kg (Sliding contact line) ≤ 110kg (Super capacitor version)
Fork extension	Single fork/Double fork
Fork structure	Fixed width/Variable width
Lifting speed	0-300m/min
Lifting acceleration	0.5-1.5m/s^2
Horizontal speed	0-180m/min
Horizontal scceleration	0.5-1.5m/s^2
Position sccuracy	±3mm
Minimum goods' picking height	120mm
Drive mood	DC servo
Power supply	Trolley line/Super capacitor
Environment temperature	-5° C -+40° C

Picking Table

The picking table system includes a computer, an electronic display label, a transfer device, a picking table, and upper and lower conveyor lines for supply and delivery respectively. The electronic display label is installed on the frame of the picking table and connected to the computer through a signal transmission line. , The upper and lower picking table box positions are respectively connected with the upper and lower conveyor lines through the transfer device, so that the objects are moved from the conveyor line to the picking table, or from the picking table to the conveyor line. This picking device has the advantages of high automation, high picking efficiency, low labor intensity, and strong scalability/integration.



Box's size	600mm*400mm
Connecting height for Order box	650mm
Connecting height for original box	1250mm
Number of equipment stations	3
Computer control	Touch screen
Picking display	Electrical label
Working temperature	-5°C-+40°C
Conveyor line speed	1m/s
Lifting and transplanting conveyor line speed	1m/s
Jacking speed	0.5s/time
Jacking stroke	30mm
Picking maximum efficiency	800times/h
Picking accuracy	99.99%



Layer Changing Elevator

By operating the lifting and precise positioning of the cargo platform, the layer-changing elevator lifts the bins shuttle to the designated layer of the racks in the multi-tier ASRS warehouse, and realizes the shuttle car layer-changing operation quickly and efficiently. The NOVA intelligent layer-changing elevator adopts an aluminum profile frame structure. The cargo platform is equipped with a layer-changing car which has mechanical precise positioning mechanism and a counterweight mechanism. The motor energy consumption is low and the overall operation is stable.

Maxium weight	≤ 200kg
Size	1200*1000*500mm (customized based on multi-tier shuttle)
Lifting drive mode	Ac servo drive
Braking way	Automatic detection + Motor enable + Physical collision avoidance
Positioning way	Incremental encoder +Laser ranging
Positioning accuracy	±3mm
Power supply mode	AC 380V
Mode of operation	Manual/Local automatic/Remote automatic
No-load maximum speed	3m/s
Acceleration at no load	2m/s^2
Full speed	3m/s
Full load acceleration	2m/s^2
Communication methods	Industrial bus
Control mode	Siemens plc
Single machine noise	≤ 75dB
Environment temperature	-5° C -+40° C

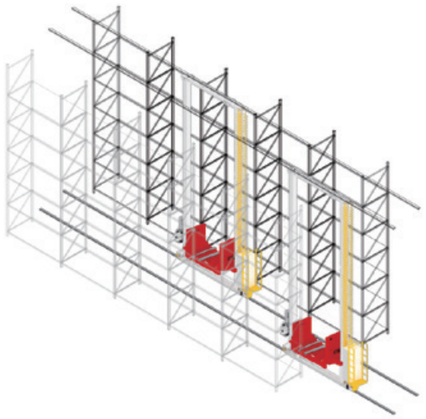


Bin Lifter

The bin's lifter can realize the high-speed reciprocating lifting and inbound & outbound of the bins in vertical direction, which can effectively meet the needs of multi-layer and large-scale goods in and out. The equipment occupies a small area, easy to maintain, and has low operating costs. The main body of the NOVA intelligent Bin's lifter is made of aluminum profiles, and the switching between single and double pallet positions is simple, which can flexibly meet the needs of users.

Type	Single/Double pallet positions
Load capacity	50-100kg
Size	600*400*300mm
Boost drive	AC servo drive
Brake mood	Automatic detection + Motor enable + Physical collision avoidance
Lifting and positioning mode	Incremental encoder + Laser ranging
Lifting positioning accuracy	±3mm
Power supply mode	AC 380V
Operation mood	Manual/Local auto/Remote auto
Max lift speed	3m/s
Maximum lift acceleration	3m/s^2
Delivery type	Roller conveying
Conveyor positioning method	Through-beam switch/Mirror switch
Conveyor positioning accuracy	±5mm
Transfer speed	0.5m/s
Communication method	Industrial bus
Control method	PLC Siemens
Single machine noise	≤ 75dB
Environment temperature	-5° C -+40° C

Case of Bin Stacker Storage



New Energy Battery Industry Intelligent Project

A new energy power battery system company, possessing a complete set of automatic production lines for power battery systems, has created a static cache warehouse that meets the requirements of automated production and can operate efficiently for double combination BLOCK, compatible with a variety of product storage, controlled by MES and WMS systems, and strictly follows the first-in, first-out principle to execute the warehouse.

121 m^2
Area

4.3 m
Height

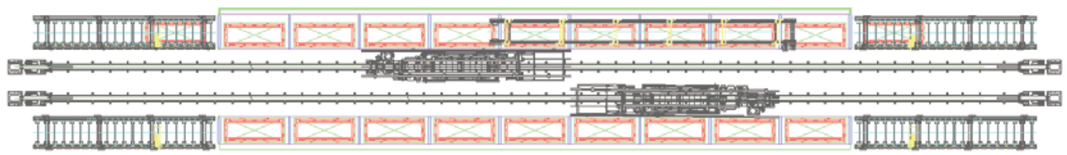
90 nos
Pallet Position

300 kg
Unit Load

120 trays/hour
Inbound/Outbound Efficiency

2 sets
High Speed Stacker Crane

1742×702×227mm
Pallet Size



Program Features

- Two high-speed stacker cranes are arranged in one roadway to work in two directions at the same time, without interfering with each other.
- The double-column stacker equipped with the system adopts the main column aluminum profile splicing structure, which is light in weight.
- The walking drive is a synchronous belt, which does not slip and has low noise; walking and lifting are fully servo-controlled, with high positioning accuracy, the maximum speed is 4m/s, and the maximum acceleration is 3m/s^2.
- The static buffer area of the production line products is seamlessly connected with the production line, which greatly contributes to intelligent manufacturing.



Multishuttle Storage Case

Vehicle Safety System Factory Multishuttle Storage Project

A domestic tier one supplier of automotive passive safety systems, whose production capacity continues to expand in the process of rapid development, urgently needs to improve storage capacity and optimize material flow through warehousing and logistics transformation and upgrading. NOVA Intelligent built a multishuttle rack system to help them to break through the bottlenecks such as warehouse space limitations and low human efficiency.

200 m^2
Area

9860 nos
Pallet Position

29
Levels

16 m
Height

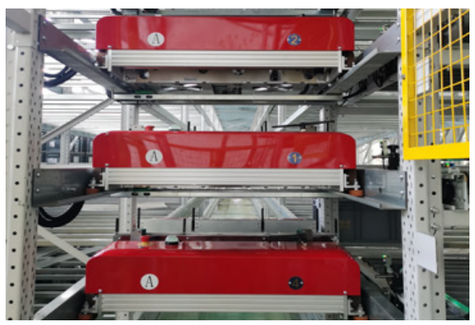
30 kg
Unit Weight

4 sets
Multi-tier Shuttle Cars

250 trays/hour
Inbound/Outbound Efficiency







Program Features

- The variable-fork multishuttle is used to meet the storage requirements of different size bins, and the number of SKUs is more than 8,000.
- Support multi-order picking, which can achieve a picking workload of 250 boxes/hour.
- Unmanned operation in the storage area, the system designates in and out of the warehouse according to the order requirements, and realizes the picking of goods to people, which has a significant effect in improving the operation efficiency and accuracy.
- Seamlessly connect the production workshop, connect the important links of material supply and production, and realize the interconnection and deep integration of intelligent logistics and intelligent manufacturing.
- In the later period, the business volume increases, and the capacity can be easily expanded by increasing the number of multi-tier shuttles, lifters and other equipment.

Successful Case

Chemical Industry



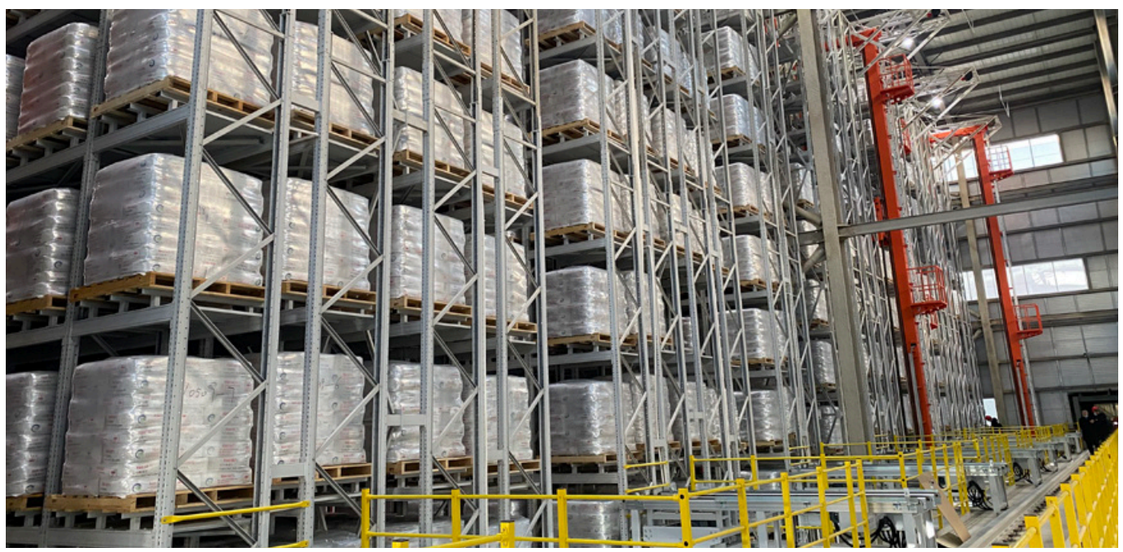
Location: QingDao,ShanDong
Scale: 11000m² **Height:** 27m
Unit Weight: 1500kg
Capacity: 21160 pallet position

Configuration

Double-Column Stacker crane: 16 sets
Box conveyor system: 4 sets
Pallet Conveyor System: 1 set
Loop-through Conveyor system: 10 sets
AGV system: 8 sets
Steel Platform: 1 set
Fire Protection System: 1 set
Monitoring System: 1 set
MIS: 1 set

Efficiency

Box Conveyor: 240 Pallets/hour
Inbound: 150 Pallets/hour
Outbound: 250 Pallets/hour



Location: Binzhou,Shandong
Scale: 5000m² **Height:** 24m
Unit Weight: 1100kg
Capacity: 21038 pallet position

Configuration

Double-Column Stacker crane: 7 sets
Pallet conveyor system: 1 set
Pallet Lifting System: 3 sets
Steel Platform: 1 set
Fire Protection System: 1 set
MIS: 1 set

Efficiency

Inbound: 50 Pallets/hour
Outbound: 100 Pallets/hour

Biological Medicine



Location: Taizhou,Jiangsu
Scale: 2500m² **Height:** 20m
Unit Weight: 1000kg
Capacity: 9072 pallet position

Configuration

Single-Column Stacker crane: 6 sets
Pallet conveyor system: 5 sets
Box conveyor system: 1 set
Pallet Lifting System: 3 sets
Manipulator Palletizing System: 2 sets
Steel Platform: 1 set
MIS: 1 set

Efficiency

Box conveyor: 2000 boxes/hour
Manipulator Palletizing system: 500 times/hour
Inbound: 100 Pallets/hour
Outbound: 200 Pallets/hour



Location: Suihua,Heilongjiang
Scale: 8300m² **Height:** 24m
Unit Weight: 1500kg
Capacity: 14740 pallet position

Configuration

Double-Column Stacker crane: 9 sets
Pallet conveyor system: 2 sets
Box conveyor system: 2 sets
Manipulator Palletizing System: 3 sets
Steel Platform: 1 set
Fire Protection System: 1 set
Monitoring System: 1 set
MIS: 1 set

Efficiency

Cartons: 480 boxes/hour; 800 bags/hour
Inbound: 150 Pallets/hour
Outbound: 200 Pallets/hour

Successful Case

New Energy



Location: JinHua,ZheJiang
Scale: 660m² **Height:** 11m
Unit Weight: 1000kg
Capacity: 1194 pallet position

Configuration

Double-Column Stacker crane: 2 sets
Pallet conveyor system: 1 set
MIS: 1 set

Efficiency

Inbound: 30 Pallets/hour
Outbound: 30 Pallets/hour



Location: Zhenjiang,Jiangsu
Scale: 3000m² **Height:** 20m
Unit Weight: 1000kg
Capacity: 7360 pallet position

Configuration

Double-Column Stacker crane: 12 sets
Pallet conveyor system: 12 sets
MIS: 3 sets

Efficiency

Inbound: 200 Pallets/hour
Outbound: 250 Pallets/hour

Food Cold Chain



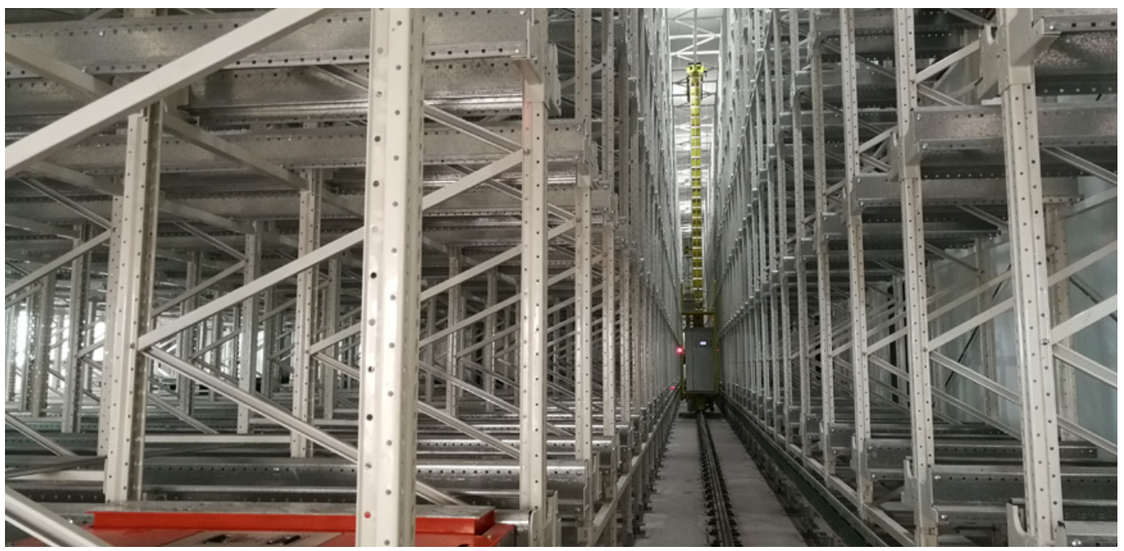
Location: Bangkok,Thailand
Scale: 5500m² **Height:** 24m
Unit Weight: 700kg
Capacity: 18240 pallet position

Configuration

Double-Column Stacker crane: 5 sets
Pallet conveyor system: 1 set
MIS: 1 set

Efficiency

Inbound: 100 Pallets/hour
Outbound: 100 Pallets/hour
Temperature: -25°C~30°C



Location: ChongQing
Scale: 1350m² **Height:** 13m
Unit Weight: 1000kg
Capacity: 2806 pallet position

Configuration

Double-Column Stacker crane: 1 set
Pallet conveyor system: 1 set
MIS: 1 set

Efficiency

Inbound: 20 Pallets/hour
Outbound: 20 Pallets/hour

Successful Case

Household Textile



Location: Tongxiang,ZheJiang
Scale: 1300m² **Height:** 24m
Unit Weight: 1000kg
Capacity: 2310 pallet position

Configuration

Double-Column Stacker crane: 3 sets
Pallet conveyor system: 1 set
MIS: 1 set

Efficiency

Inbound: 50 Pallets/hour
Outbound: 100 Pallets/hour



Location: Jiangyin,JiangSu
Scale: 2700m² **Height:** 24m
Unit Weight: 700kg
Capacity: 3576 pallet position

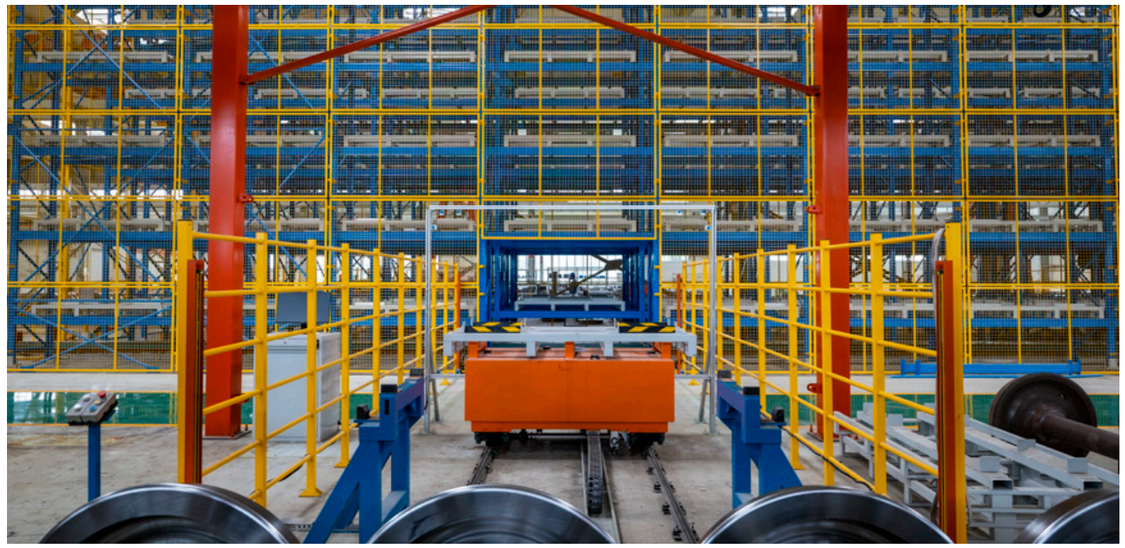
Configuration

Double-Column Stacker crane: 4 sets
Pallet conveyor system: 2 sets
MIS: 1 set

Efficiency

Inbound: 100 Pallets/hour
Outbound: 100 Pallets/hour

Iron and Steel Machinery



Location: Ma'anshan,Anhui
Scale: 400m² **Height:** 10m
Unit Weight: 2500kg
Capacity: 378 pallet position

Configuration

Double-Column Stacker crane: 2 sets
Pallet conveyor system: 1 set
MIS: 1 set

Efficiency

Inbound: 540 Pallets/hour
Outbound: 40 Pallets/hour



Location: Suzhou,JiangSu
Scale: 1500m² **Height:** 24m
Unit Weight: 1000kg
Capacity: 6932 pallet position

Configuration

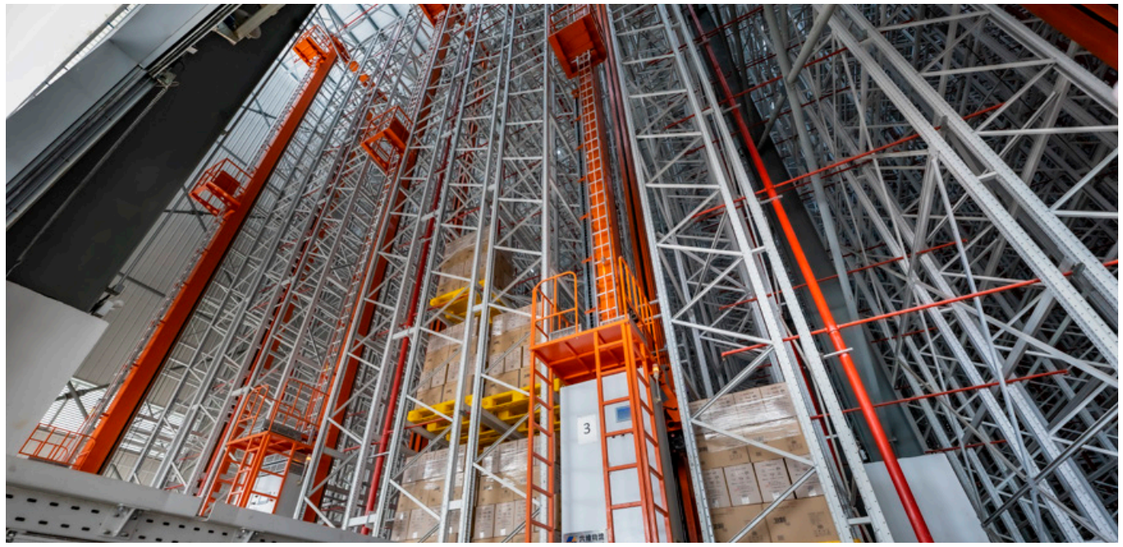
Single-Column Stacker crane: 6 sets
Pallet conveyor system: 3 sets
Pallet Lifting System: 1 set
Steel Platform: 1 set
MIS: 1 set

Efficiency

Inbound: 100 Pallets/hour
Outbound: 200 Pallets/hour

Successful Case

Daily chemical



Location: Guangzhou,Gunagdong
Scale: 9000m² **Height:** 24m
Unit Weight: 1000kg
Capacity: 32400 pallet position

Configuration

Double-Column Stacker crane: 18 sets
Pallet conveyor system: 1 set **Automatic Loading System:** 1 set
Pallet Lifting System: 4 sets **MIS:** 1 set

Efficiency

Inbound: 300 Pallets/hour
Outbound: 500 Pallets/hour
Picking: 100 Pallets/hour



Location: Huzhou, Zhejiang
Scale: 9000m² **Height:** 7m
Unit Weight: 1000kg
Capacity: 10014 pallet position

Configuration

Four-Way Shuttle: 10 sets **Robotic Palletizing System:** 6 sets
Pallet conveyor system: 2 sets **MIS:** 1 set
Pallet Lifting System: 8 sets

Efficiency

Inbound: 100 Pallets/hour
Outbound: 200 Pallets/hour

Non-standard Customization



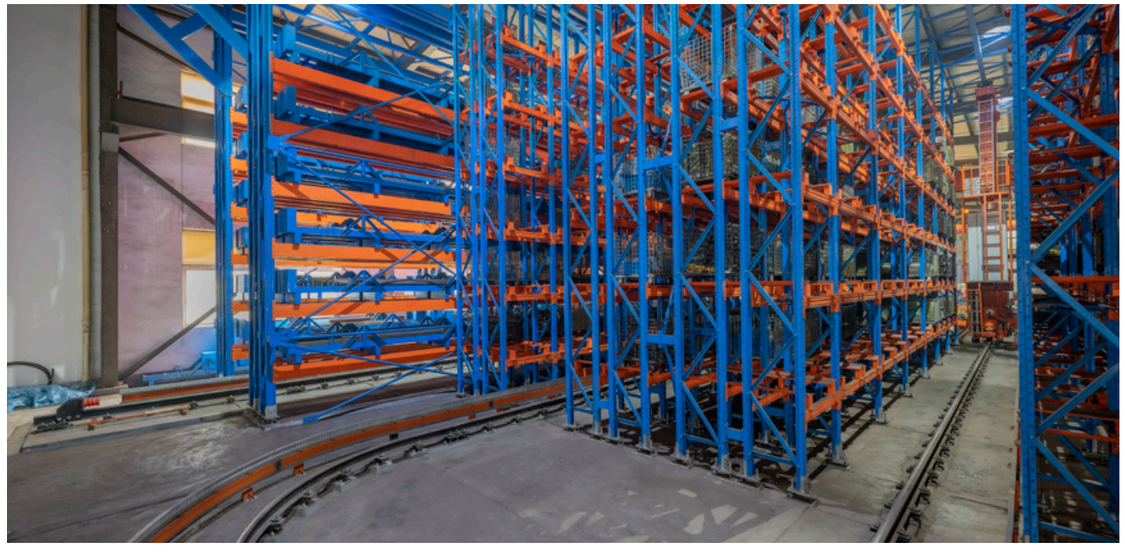
Location: Hefei,Anhui
Scale: 1200m² **Height:** 15m
Unit Weight: 3000kg
Capacity: 168 pallet position

Configuration

Double-Column Stacker crane: 2 sets
Pallet conveyor system: 1 set
MIS: 1 set

Efficiency

Inbound: 50 Pallets/hour
Outbound: 50 Pallets/hour



Location: NingBo,ZheJiang
Scale: 400m² **Height:** 8m
Unit Weight: 3000kg
Capacity: 89 pallet position
Unit Size: L4000*W500*H500

Configuration

Double-Column Stacker crane: 2 sets
Pallet conveyor system: 1 set **MIS:** 1 set

Efficiency

Inbound: 50 Pallets/hour
Outbound: 50 Pallets/hour



Service Area

Each industry has different needs and working conditions. NOVA Intelligent provides customized solutions to meet the individual needs of users in different industries. We have rich industry experience and a deep understanding of the characteristics and requirements of different industries. The development and implementation of a series of large-scale projects have trained a group of expert project planning teams and implementation teams, with both senior industry experience and professional technical level.

NOVA INTELLIGENT

Intelligent and Efficient to Command the Future

Intelligent Logistics Total Solution Integrator