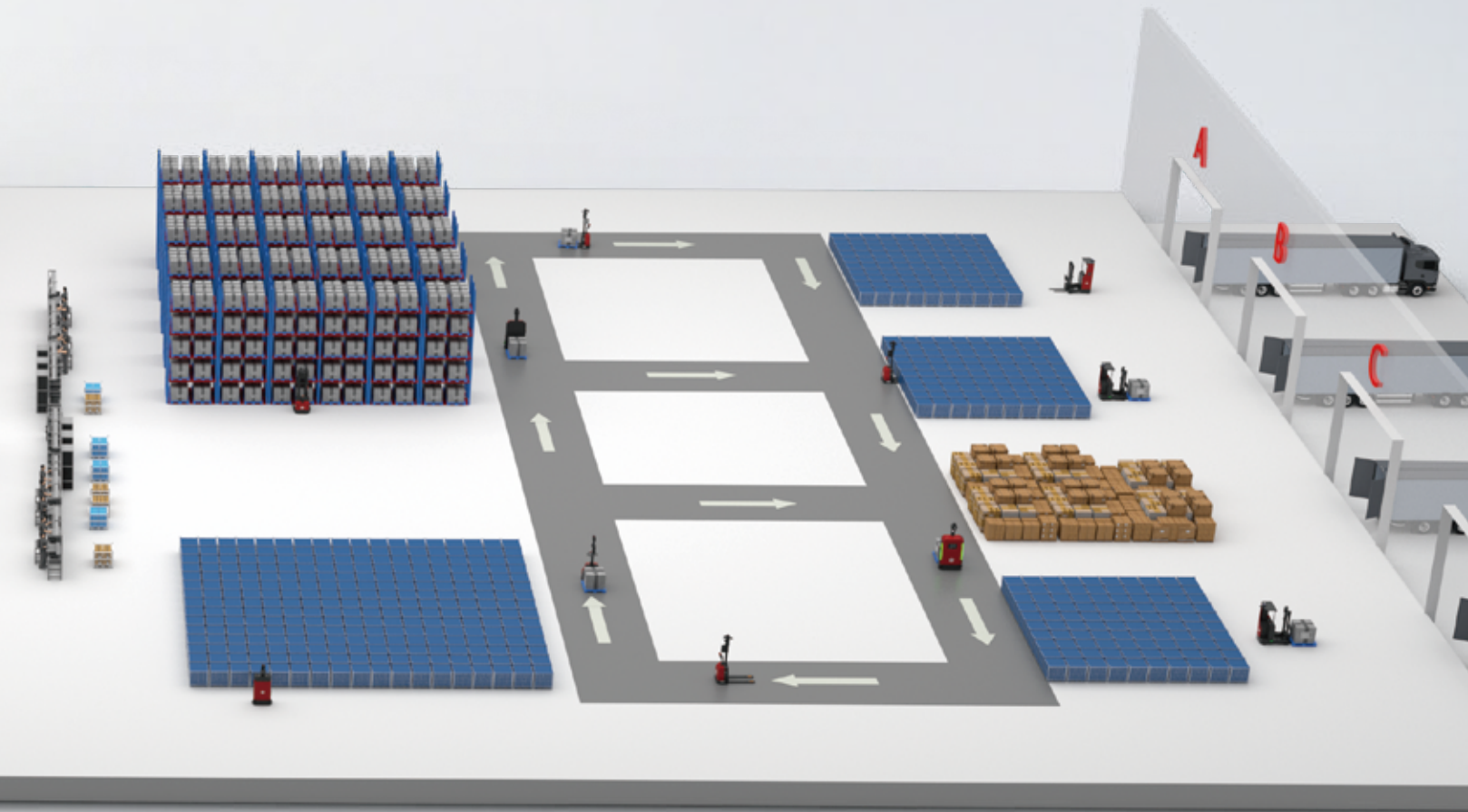
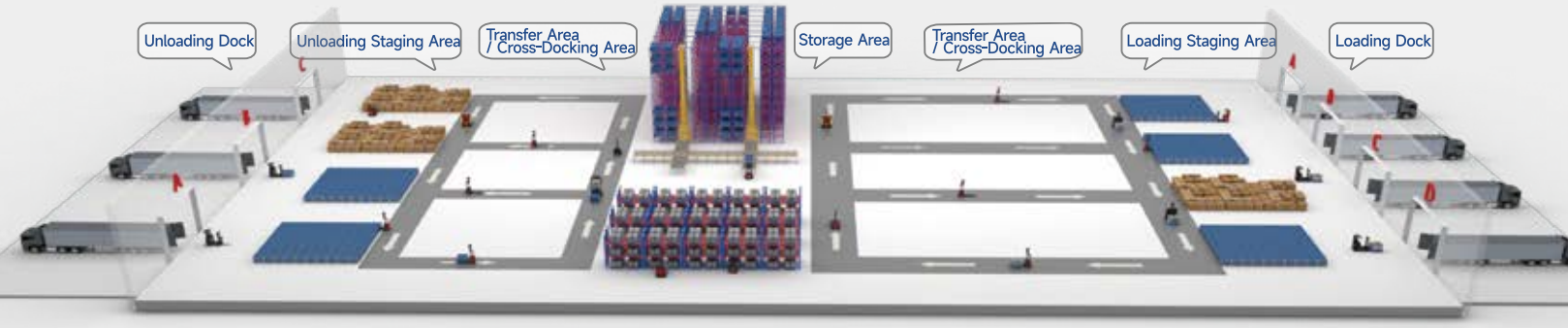
X-Mover

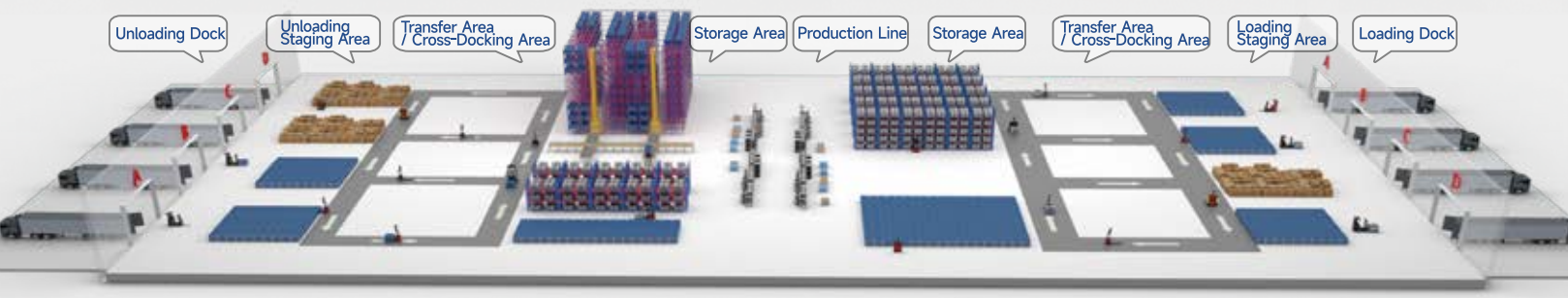
Cross Docking & DC Solutions

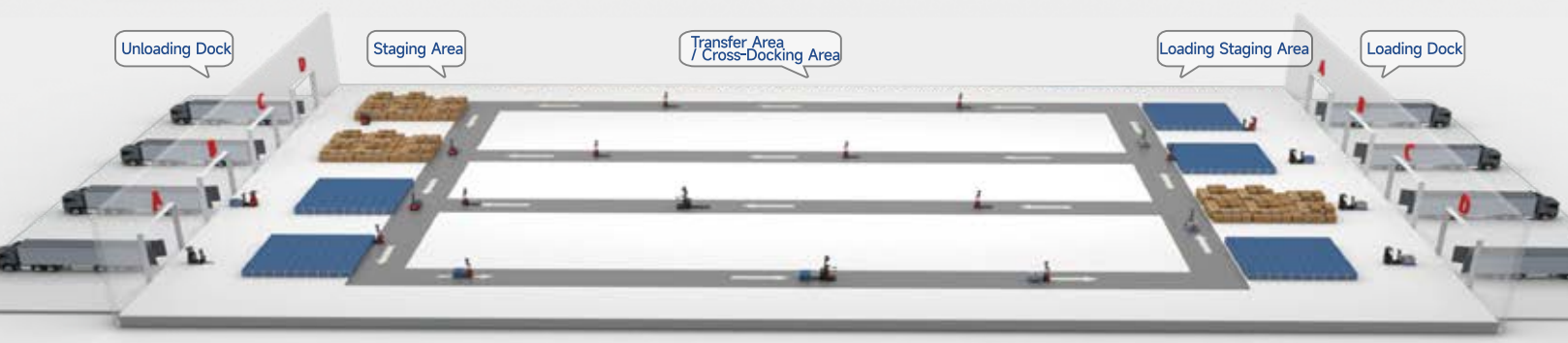


- Material Handling to Material Moving
- Hybrid Automation for Cross Docking
- Stable System Performance in DC's

Cross Docking & DC Solutions







Autonomous Logistics Solutions

Fast Running Speed Long Working Hours

Robot Speed: Up to
10KM/h
7*24h Operation

Cost Saving

AGV can realize one person to manage multiple cars, reduce labor cost and management cost

Fast Response

Robots can distinguish time-sensitive items

Multiple Obstacle Avoidance High Safety Performance

The robot can be moved in an orderly manner, equipped with vision, laser and ultrasonic detection for multiple obstacles to achieve high safety performance.

Goods Positioning Orderly Placement

The robot unloads the goods by column according to the system, and can intelligently distinguish time-sensitive parts and ordinary parts, and arrange them in an orderly manner according to the specified position.

Full-Process Digital Intelligent Management

The robot can be connected to the digital intelligent management system, and the goods information can be managed online, which can effectively avoid the problems such as difficult to track the goods and loss of goods information caused by manual placement of crops.

Kuayue Express

Product: XPL201P High-Speed Logistics-Specific Robot

Company Introduction	Kuayue Express is a large-scale modern comprehensive express enterprise positioned in high-end air logistics, providing fast transportation services for small and medium-sized manufacturing enterprises. It has been awarded honors such as "National AAAAA-Level Logistics Enterprise". Currently, the enterprise has over 3,000 service outlets with a global service network, and has provided time-limited express services for millions of enterprises.
Pain Points	❶ The handling distance from the center to the shipping port is long. ❷ The site is messy and difficult to manage manually. ❸ High labor cost and low operation efficiency.
Solution	Deqing Distribution Center covers a total area of 20,000 square meters. EP has invested in a batch of XPL201P logistics version handling robots with a load of 2 tons and a maximum speed of 10km/h, realizing express transfer and material storage.

Key Takeaways

By designing warehouses without fixed-location management, X-Mover enables autonomous perception and decision-making for unloading, flexible pallet distribution across columns, and fully automated pallet pickup and placement with precise accuracy.

This innovation boosts factory efficiency, reduces daily costs by around 11%, and addresses key challenges such as rising labor expenses, high workforce turnover, recruitment difficulties, and disorganized warehouse layouts.





Sorting Center of a Leading Logistics Enterprise

Product: XPL201P High-Speed Logistics-Specific Robot

Project Introduction

With 194 robots deployed across a total area of 30,000m² and a peak efficiency of 1,500 tons/hour, the system efficiently and accurately handles parcel storage and distribution. This case sets an industry benchmark in robotic application scale and effectiveness, while pioneering digital intelligence technology to drive the transformation and upgrading of logistics centers.

Solution + Application

1. Dense Traffic Management Algorithm: In a 30,000m² site with heavy AGV traffic, this algorithm efficiently schedules large fleets of robots for precise loading/unloading and safe, high-throughput handling.

2. High-Volume Logistics Optimization: In logistics centers with fast circulation, conventional scheduling often causes robot congestion. Our solution introduces a site-wide optimization strategy that keeps flows smooth and efficient.

3. Pickup Booking: Vehicles can be scheduled for unloading in advance, allowing robots to be ready and reducing waiting times.

4. Dynamic Path Planning: Continuously calculates paths in real time, automatically rerouting around obstacles. Ensures system timeliness with millisecond-level responsiveness.

5. Hybrid Warehouse Optimization: Detects zones with high cargo volume and intelligently assigns adjacent areas for overflow storage, improving space utilization.

6. Traffic Rule Optimization: Introduces sequential passage rules to maintain smooth traffic flow—capable of coordinating up to 300 robots simultaneously per second.






A Leading Logistics Enterprise

Product: XPL201P High-Speed Logistics-Specific Robot

Pain Points

❶ Tortuous and complex site environment.
❷ High labor costs; rising unit price of goods handling.
❸ High demand for site automation.

Solution

The customer's site covers 3,200m² with 24-hour operation and 3,500 peak tasks per day. This saves labor and improves operational efficiency.






Pain Points

❶ Difficulty in recruitment and employment.
❷ Large site area; long handling distance.
❸ Large daily cargo handling volume and easy manual misdelivery of goods increased great difficulty in implementing standardized factories.

Solution

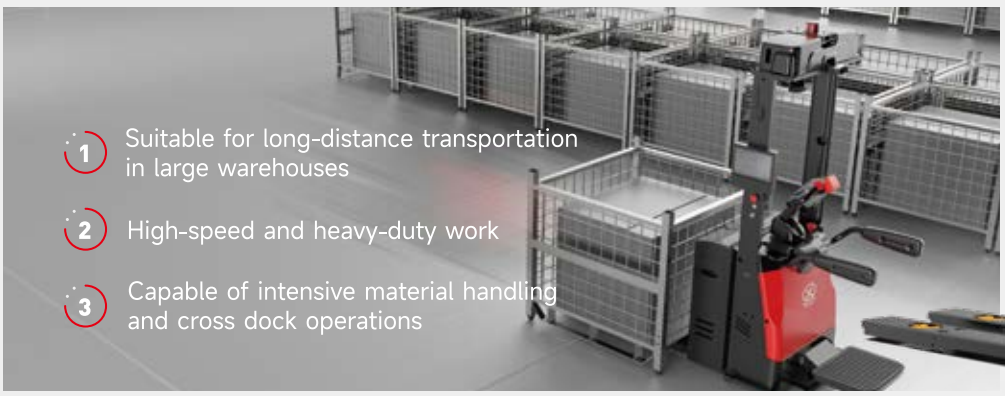
The customer's site covers an area of 62,000m², and it works 24 hours a day with a daily mileage of 40km and a peak task of 3,000 boards per day.




Product

Automated High-speed Transport AMR - XPL201

The XPL201 redefines industrial-scale material moving as a automated high-speed transport AMR engineered for heavy-duty and long-distance applications. The robot combines chassis robustness, transfer capability and adaptive automation technology, delivering unparralleled efficiency for demanding logistics scenarios.



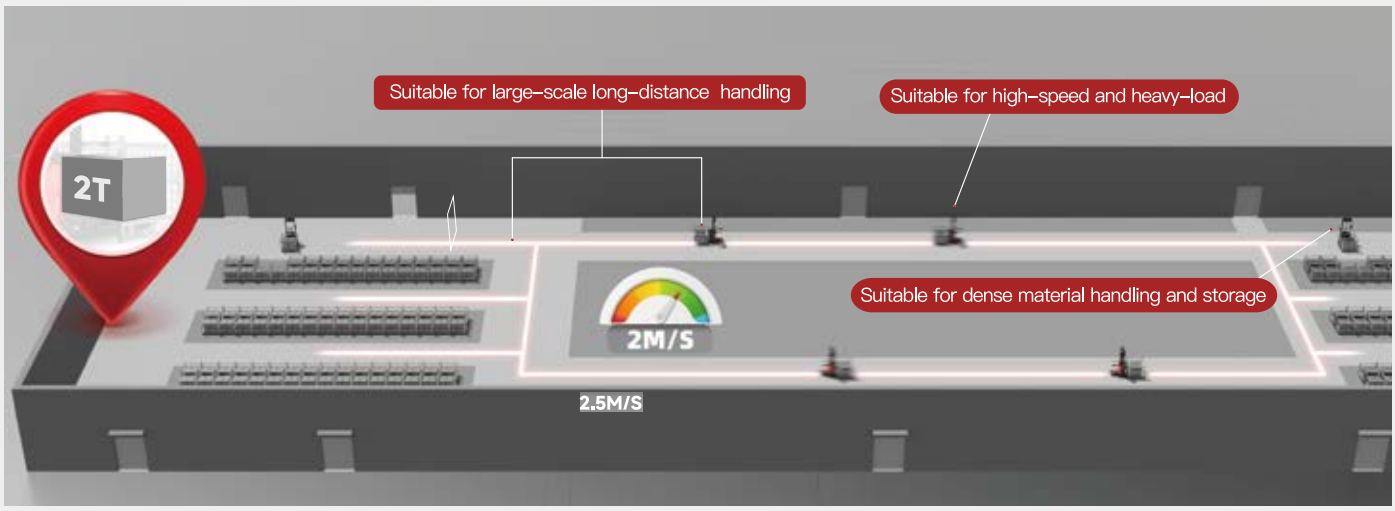


Feature

High-speed and Heavy-duty Automation for Large-scale Logistics lar

The XPL201 excels in long-distance goods transfers and production line feeding across facilities. With the load capacity of 2000kg and the travel speed of up to 2.5 m/s, it tackels high-intensive scenarios across manufacturing plants and distribution centers.

In addition to A-B transfer, the XPL201 is ideal for large-scale operations in mega-warehouses working as a fleet together. The workhorse can seamlessly integrated into existing systems (WMS, MES, and ERP system) and various industrial equipment (cargo lifts, auto doors and conveyor lines), for coordinated, and automated workflows.



Precise Positioning and Multiple Control Accesses

Leveraging advanced SLAM (Simultaneous Localization and Mapping) navigation, the XPL201 guarantees millimeter-precision pallet placement and retrieval. It features positioning accuracy of ±10mm and real-time 2D vision-guided load alignment.
Besides, operators interact through an intuitive touchscreen or command the system via PDA, mobile phone and call box, enabling rapid task assignment and status monitoring.



Dynamic Loading/unloading Colum Management

Flexible storage location management allows operators to redefine loading/unloading zones in real-time with the help of external cameras or integrated automation system. The XPL201 autonomously adjusts workflows to execute precise material handling within these dynamic boundaries—no infrastructure modifications required.



Multi-layered Safety Protection

The XPL201 is equipped with a multi-layered safety system to ensure safe co-working alongside personnel and warehouse infrastructure during intensive operations. The comprehensive protection system integrates an overhead 2D obstacle avoidance camera to detect objects in its path. It also adopts a fork tip photoelectric sensor preventing collisions during loading and unloading, and three PLD Lidars for 360° obstacle scanning.



Sustainable Power Management

The XPL201 comes standard with a 24V/205Ah lithium battery supporting opportunity charging and zero maintenance, and a 24V/100A external charger for rapid manual recharging. For uninterrupted workflow, an optional 24V/100A automatic charging station allows self-docking during workflow pauses, utilizing intelligent power management to maintain 24/7 readiness without human intervention.



Parameters

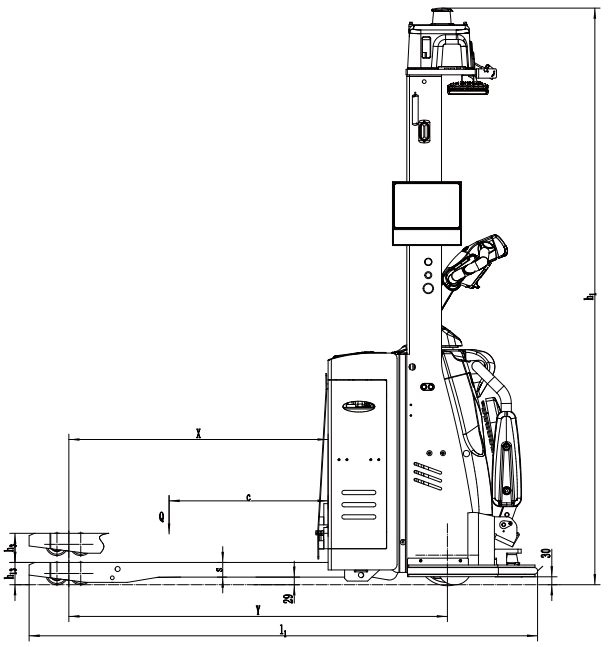
XPL201

Basic parameters	1.1	Manufacturer	-	-	EP
	1.2	Model	-	-	XPL201
	1.3	Drive	-	-	Electric
	1.4	Operator type	-	-	Standing
	1.5	Load capacity	Q	kg	2000
	1.6	Service weight	-	kg	625
	1.7	Navigation	-	-	Slam/Reflector
	1.8	Communication	-	-	Wi-Fi/5G
	1.9	Positioning accuracy	-	mm	±10
	1.10	Indoor / Outdoor	-	-	Indoor
Battery parameters	2.1	Battery voltage / Nominal capacity	-	V/Ah	24/150
	2.2	Battery type	-	-	Li-ion battery
	2.3	Battery weight	-	kg	50
	2.4	Usage time	-	h	6-8
Size	3.1	Dimensions	l1/b1/h1	mm	2100/981/2175（L*W*H）
	3.2	Load centre distance	c	mm	600
	3.3	Load length	x	mm	980
	3.4	Wheelbases	y	mm	1430
	3.5	Fork vertical length	l2	mm	1033
	3.6	Fork dimensions	s/e/l	mm	55/170/1350
	3.7	Distance between fork-arms	b5	mm	540/600/685
	3.8	Height with forks lowered	h13	mm	90
	3.9	Lifting height	h3	mm	110
	3.10	Lateral reach distance	-	-	-
	3.11	Outer width of forks	-	-	-
Other parameters	4.1	Forward distance	-	-	-
	4.2	Travel speed, laden/unladen	-	m/s	2/2.5
	4.3	Max. gradeability, laden/unladen	-	%	8/10
	4.4	Maximum floor level deviation	-	mm	≤8
	4.5	Turning radius	Wa	mm	1785
Channel requirements	5.1	Aisle width for pallets 1000×1200 lengthways	Ast	mm	1800
	5.2	Aisle width for pallets 1000×1200 crossways	Ast	mm	2500
	5.3	Aisle width for one-sided loading/unloading (pallet: 1200 mm L × 1000 mm W)	Ast	mm	3600/3000
Safety	6.1	Emergency stop button	-	-	Two sides
	6.2	Voice and light	-	-	Audible and visible
	6.3	Front protection	-	-	Lidar + 3D camera
	6.4	Rear protection	-	-	Fork-tip Lidar + Camera
	6.5	Side protection	-	-	-
	6.6	Physical bumper	-	-	Front + two sides
	6.7	Pallet in-place detection switch	-	-	Position Switch
	6.8	Charging power	-	-	●24V/50A

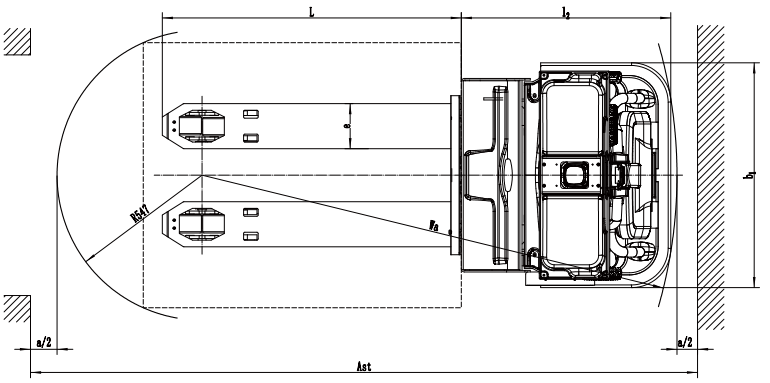
If there are improvements of technical parameters or configurations, no further notice will be given.
The diagram shown may contain non-standard configurations.

Product Line Diagram

XPL201



Side View



Top View

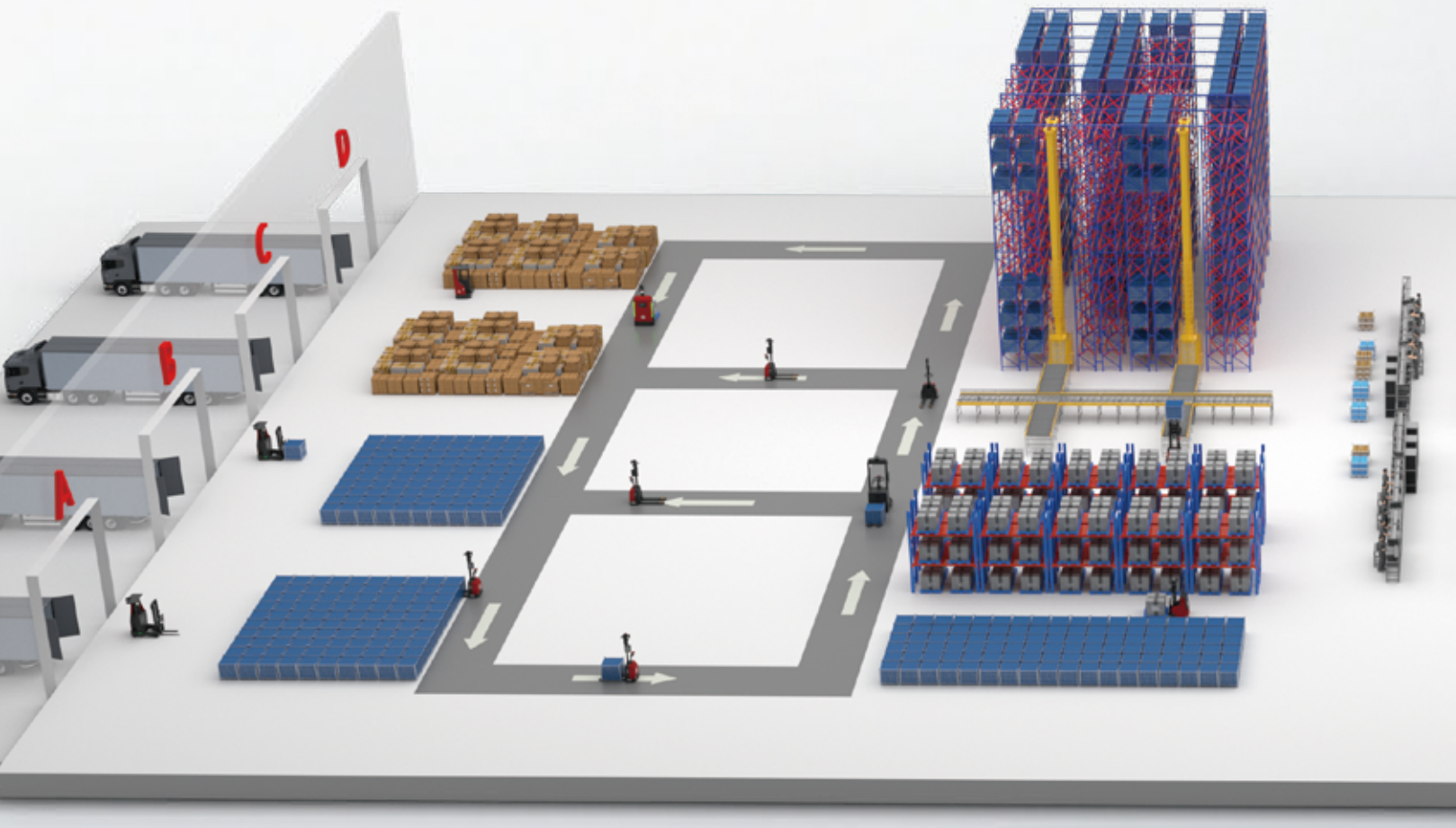
Option List

XPL201

Option List	7.1	Battery	●24V/205Ah
	7.2	Charger	●24V-50A External charger ○24V-100A External charger
	7.3	Automatic charging station	○24V-100A
	7.4	Warning light	●Red light ●Turn light
	7.5	Front protection	●Double lidar, 360° ●3D Camera
	7.6	Rear protection	●Fork-tip sensor ○Camera ○Fork-tip Lidar
	7.7	Interaction method	●Screen ○Buttons

Note ●Standard ○Optional -Inconformity

Material Handling to Material Moving



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V2602.01

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EP'S Smart Intralogistics Solution Automated X-Movers