

# Mobile Racking Systems

Motorized Mobile Storage Solutions

Product Manual



BOTRO RACKING

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MN

承建单位: Botro-Racking  
宝德龙智能电动移动货架  
Botro Mobile Racking System  
项目设计承载: 1500Kg/层  
售后服务电话: 025-5216 9679  
网址: www.nj-botro.com

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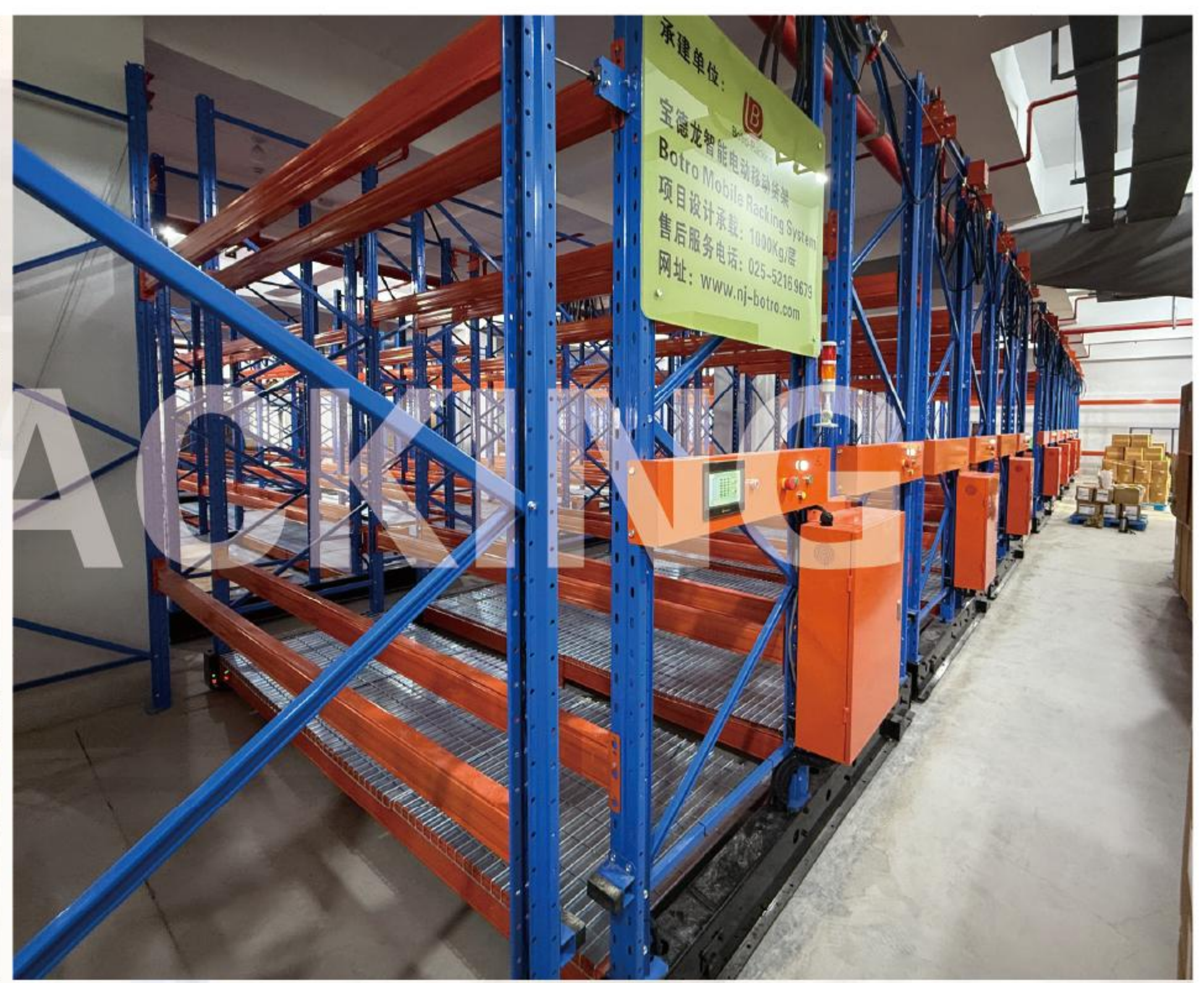
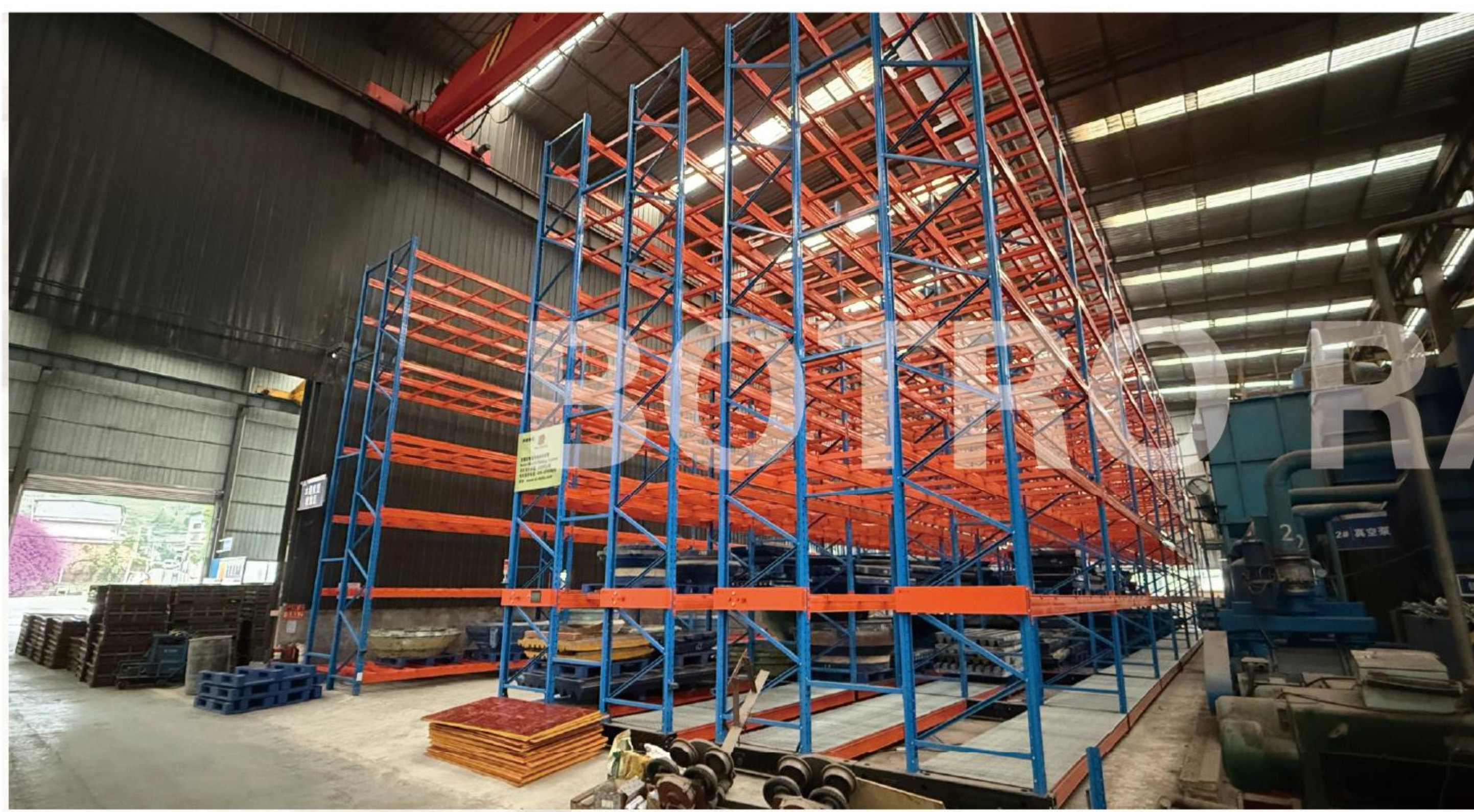
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O 01D-01 ..... 18

MATERIAL: ERG22  
QTY: 10 SET  
CARTON: 100/10  
MADE IN TAIWAN



## Product Catalog

- Mobile Pallet Racking
- Mobile Cantilever Racking
- Mobile Roll-Out Cantilever Racking
- Trackless Mobile Racking
- Cold Storage Mobile Racking
- Mobile Racking with AGVs
- Mobile AS/RS
- Long Material AS/RS



Founded in 1999, Botro Racking pioneered China's storage equipment industry.

Our factory began self-designing and manufacturing racks, building a solid production foundation.

# 1999

# 2008

# 2004

In 2004, Botro Nanjing was established, handling national sales of storage products.





Botro products have been exported to over 70 countries, receiving high praise in the US, Europe, and Australia.

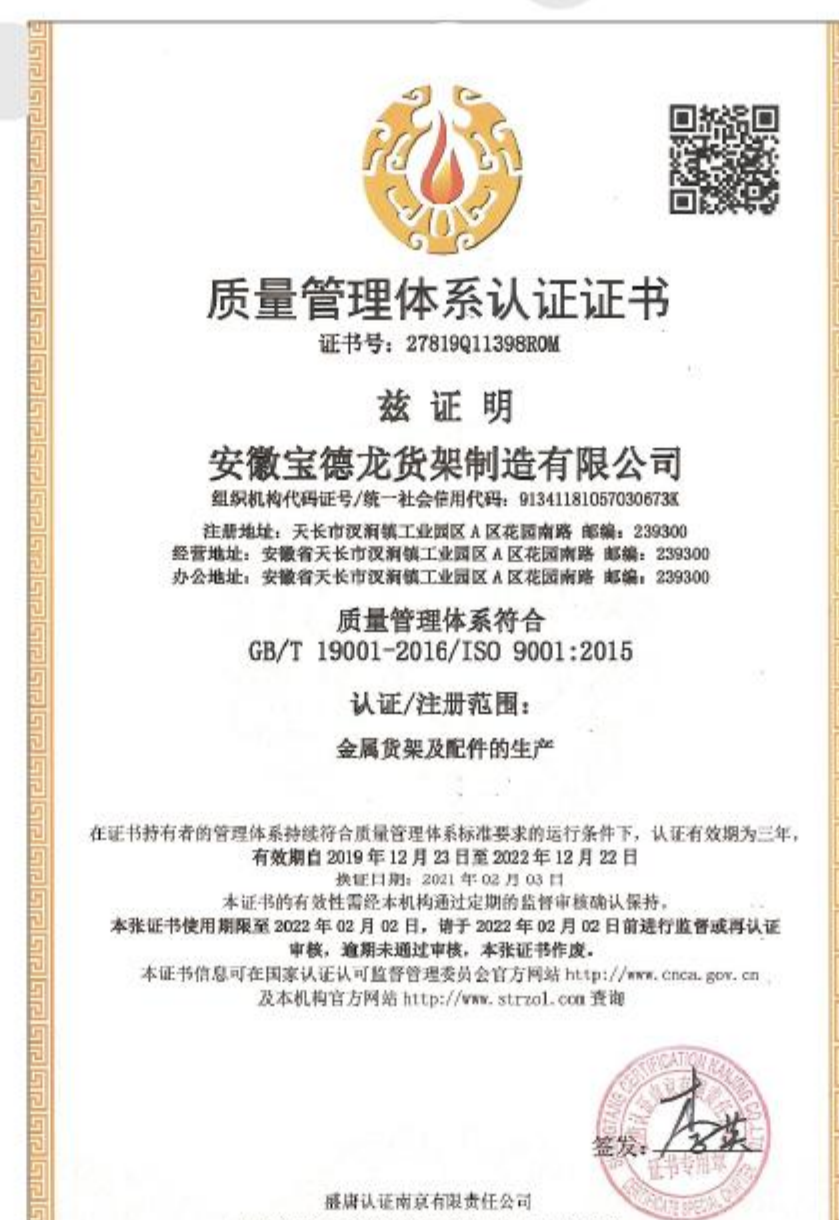
2015

2012

Since 2012, Botro has operated its own factory in Tianchang, Anhui, dedicated to rack production.

2019

Our R&D team holds unique technical strengths in fully self-developed automation for electric mobile racks.





## Botro Mobile Storage Technology

With 15+ years in electric mobile racks, Botro is a global leader. We deliver innovative, high-quality intelligent dense storage solutions.

- **Full-link Self-developed Technology, Global Leader**

Our core systems are all self-developed, ensuring product reliability and industry leadership.

- **Highly Modular Design, Efficient & Reliable**

Innovative modular design allows quick installation, easy expansion, and low maintenance costs.

- **Complete Product Range, One-stop Solution**

Our full line of electric mobile racks meets diverse needs, from standard warehouses to special environments.

- **Global Projects, Proven Expertise**

15+ years of global experience across industries enable us to provide proven, customized solutions.

# Mobile Racking Systems Solution



- Traditional racks require wide forklift aisles, each taking about 20% of storage space.

- In a 200 m<sup>2</sup> warehouse, traditional racks provide only 180 pallet positions.



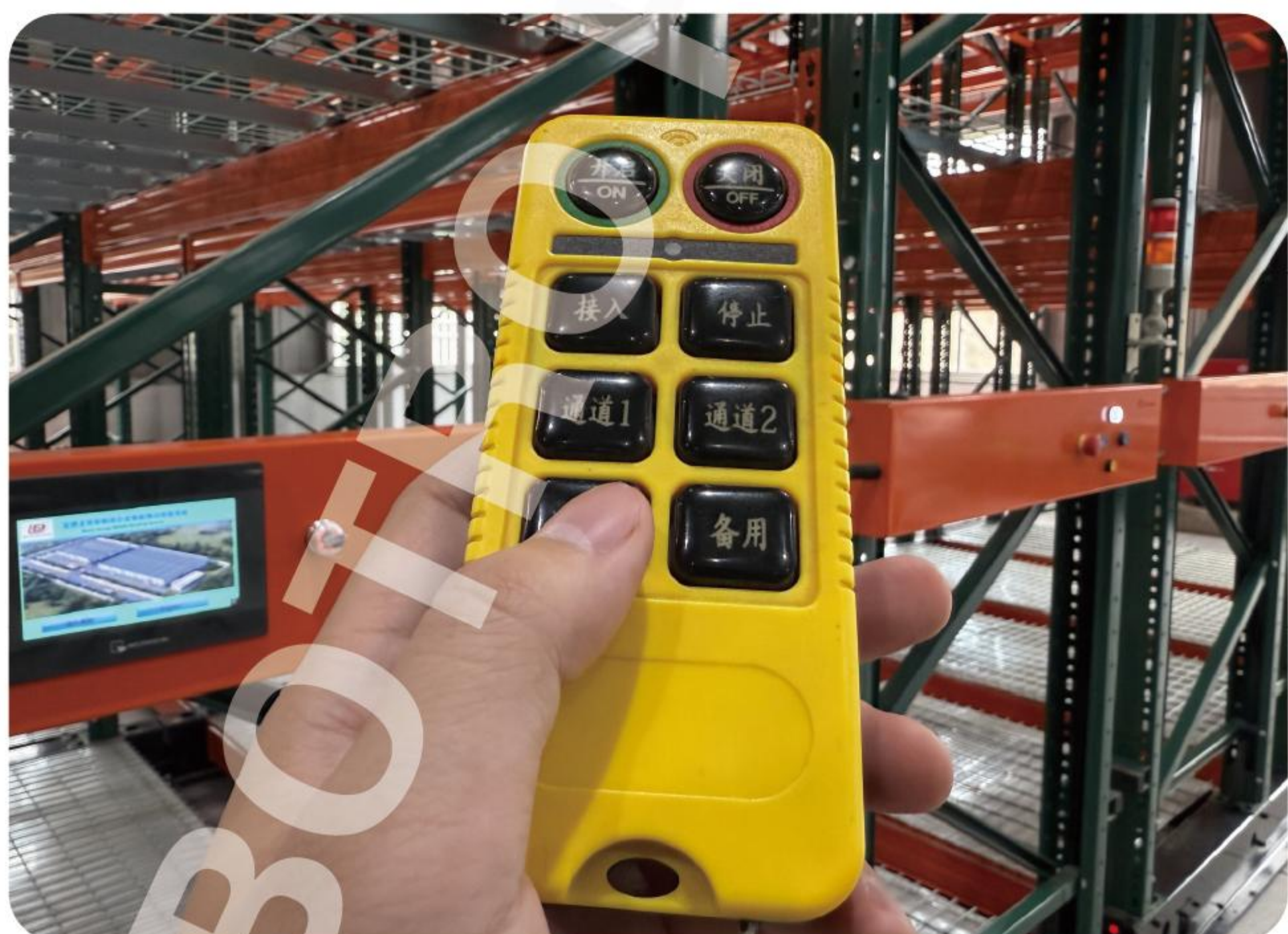
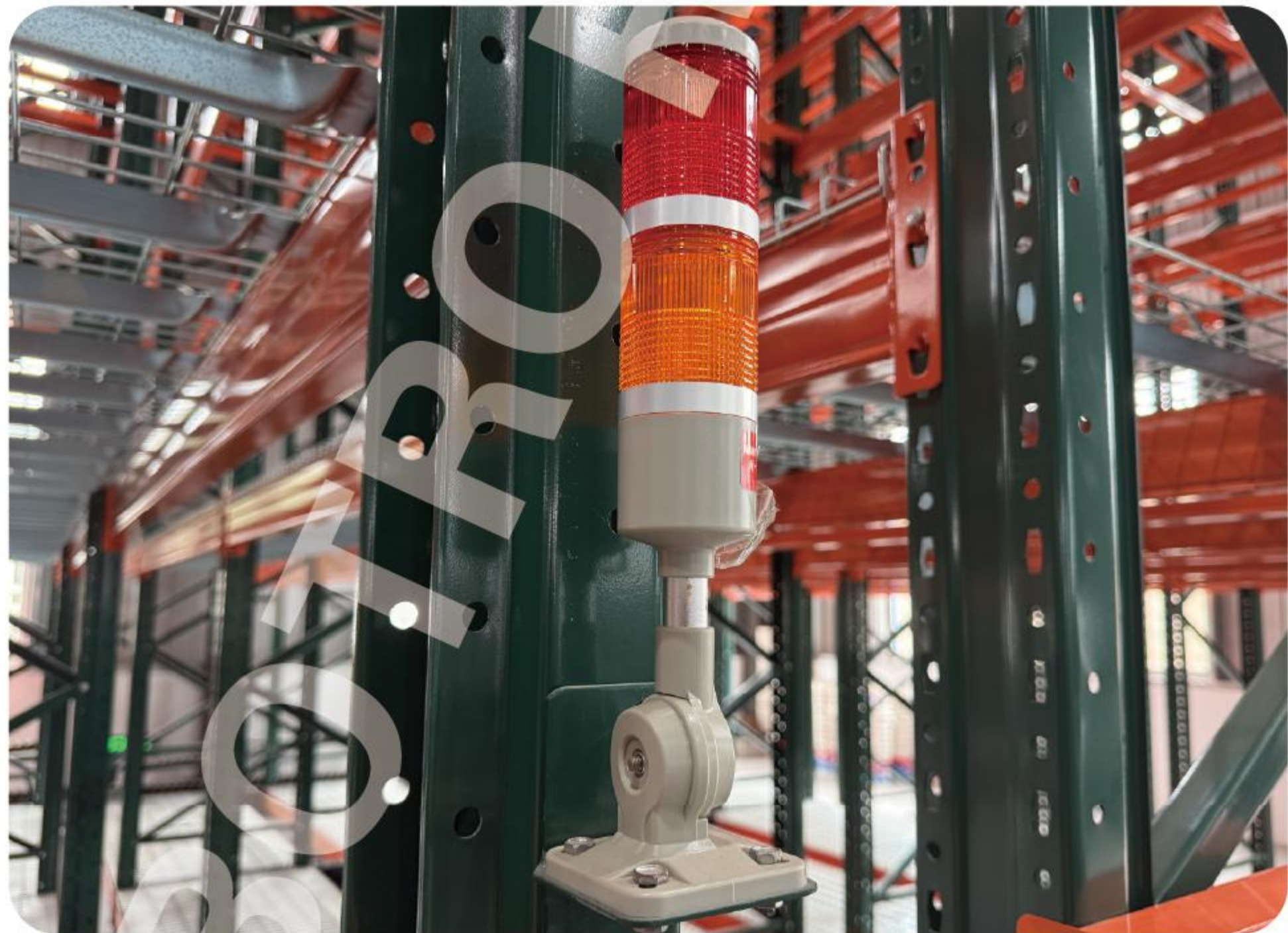
- Up to 60% of the space is used for aisles—only for transit, not storage—resulting in waste.

- Keeping just one aisle and converting extra space to storage greatly improves utilization.



- Mobile racking uses only one aisle, doubling rack quantity to 360 pallet positions.

- mobile racks boost space utilization by over 100% compared to traditional ones, with even greater gains in larger setups.



## STANDARD ELEMENTS

### ■ Outside Safety Barrier

Detects any person or object entering the aisle during movement.

### ■ Internal Safety Photocells

Detects any person or object remaining inside the aisle during movement.

### ■ Audible & Visual Alarm

An acoustic warning alarm and flashing light activated during movement.

### ■ Color Touchscreen Control System

Provides comprehensive operation, system diagnostics, and fault alerts.

### ■ Radio Remote Control

Enables basic rack movement operations via remote control.

### ■ Manual Control Panel

Ensures rapid response in emergencies and allows for manual control in specific scenarios.

## OPTIONAL ELEMENTS

### ■ WMS/WCS Integration

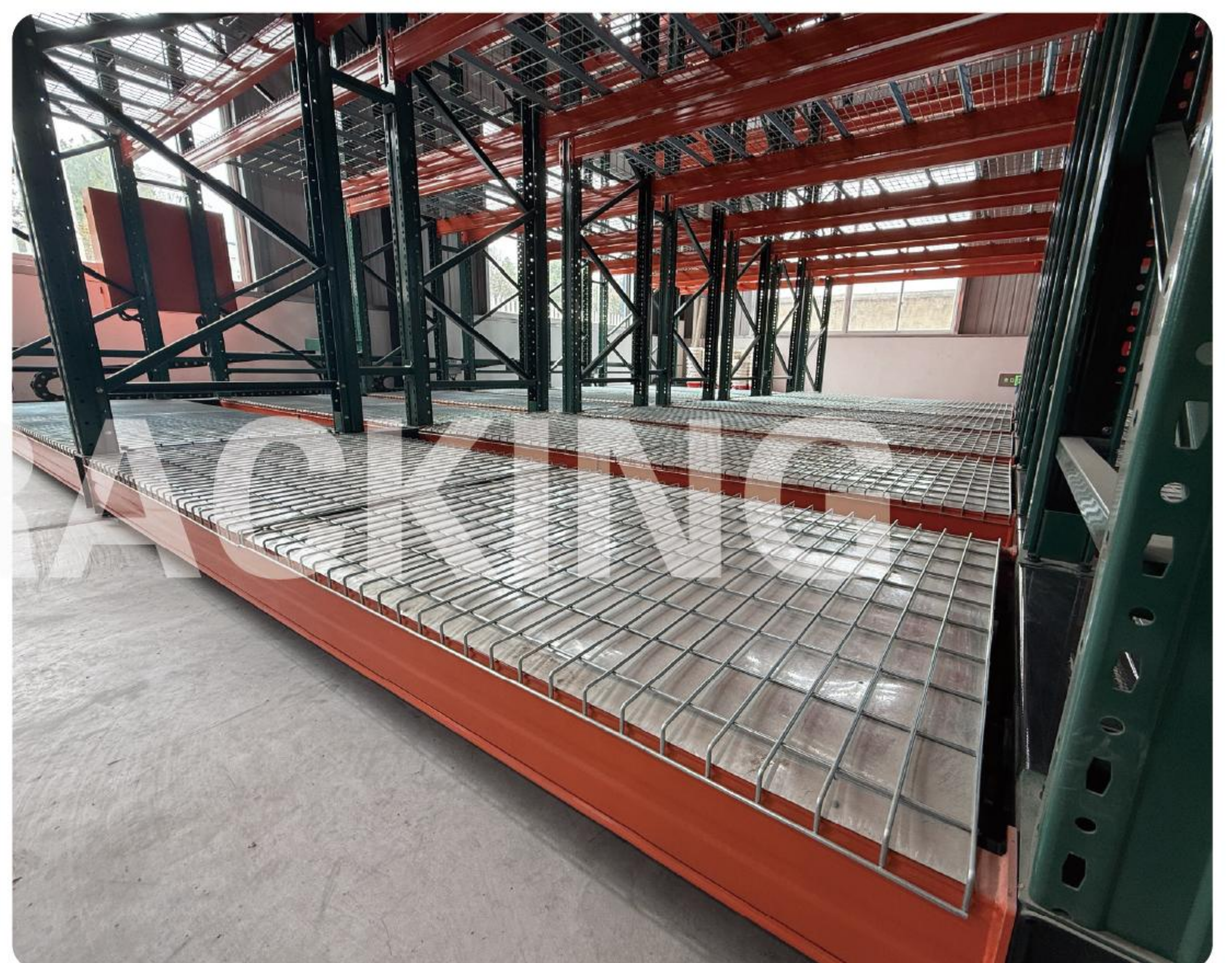
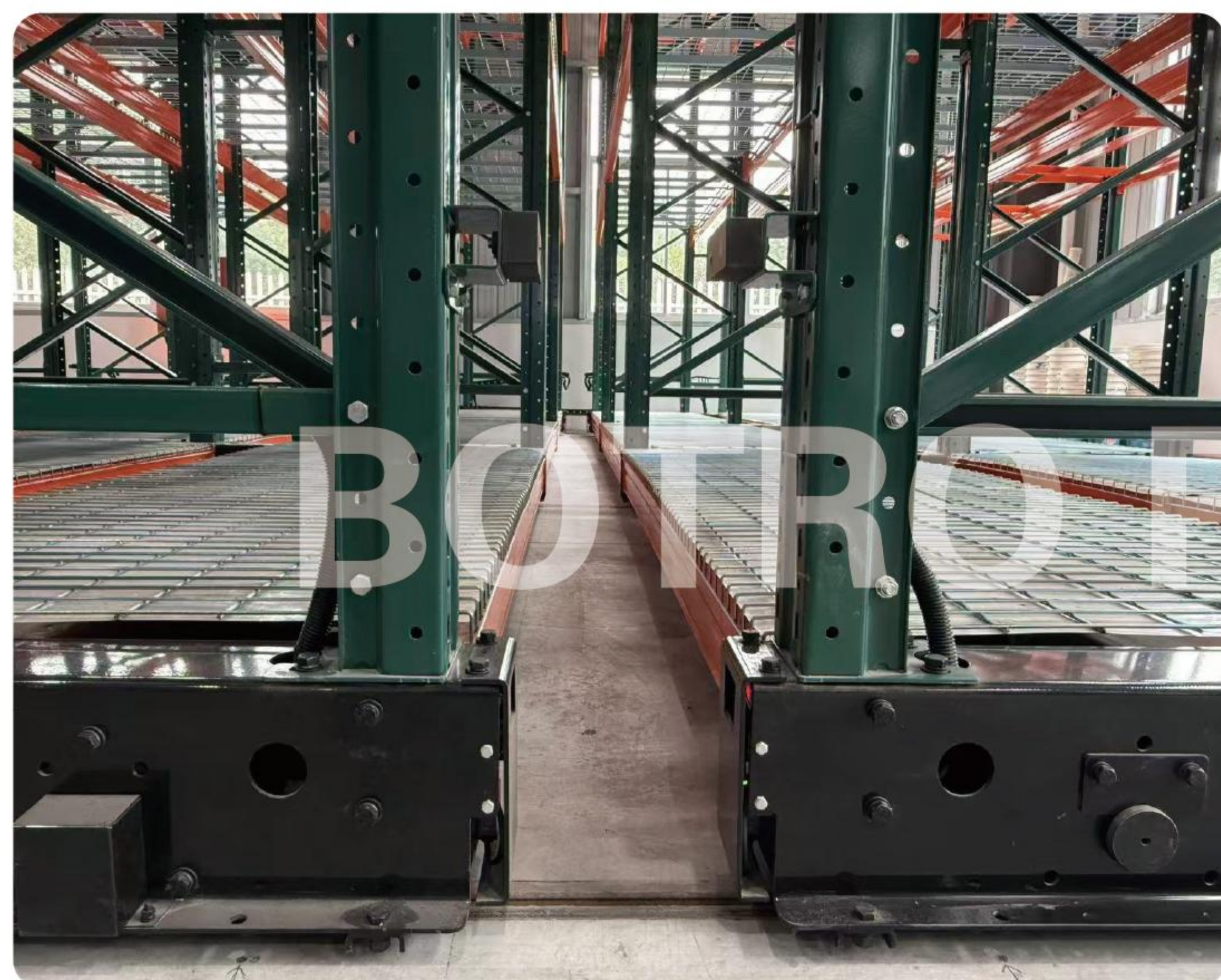
Provides interfaces for management software, including Warehouse Management Systems.

### ■ AGV Interface Module

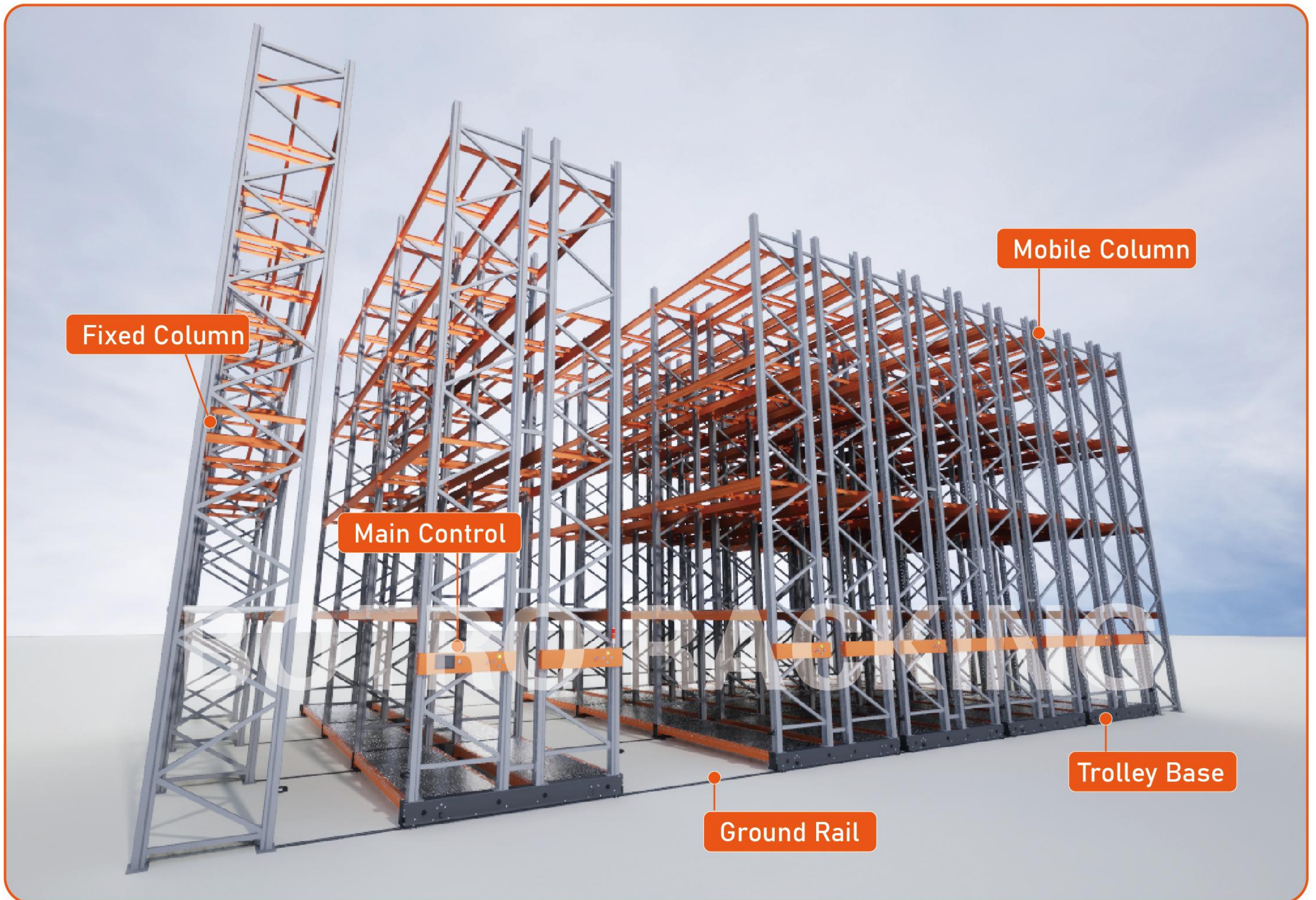
Allows for automated operation with AGVs (Automated Guided Vehicles) and robots.

### ■ Customized Mobility Systems

Tailored system solutions, including features like "One-Click Equal Aisle" mode.



# Mobile Pallet Racking



## Product Introduction

Mobile pallet racking is a high-density storage system. With just one fixed aisle, racks move sideways to open new access lanes.

It enables random pallet access, greatly boosting storage space, ideal for high-density and multi-SKU warehouses.

## Applications

- Warehouses for conventional
- Under 15m, small/medium-sized
- High SKU count & volume

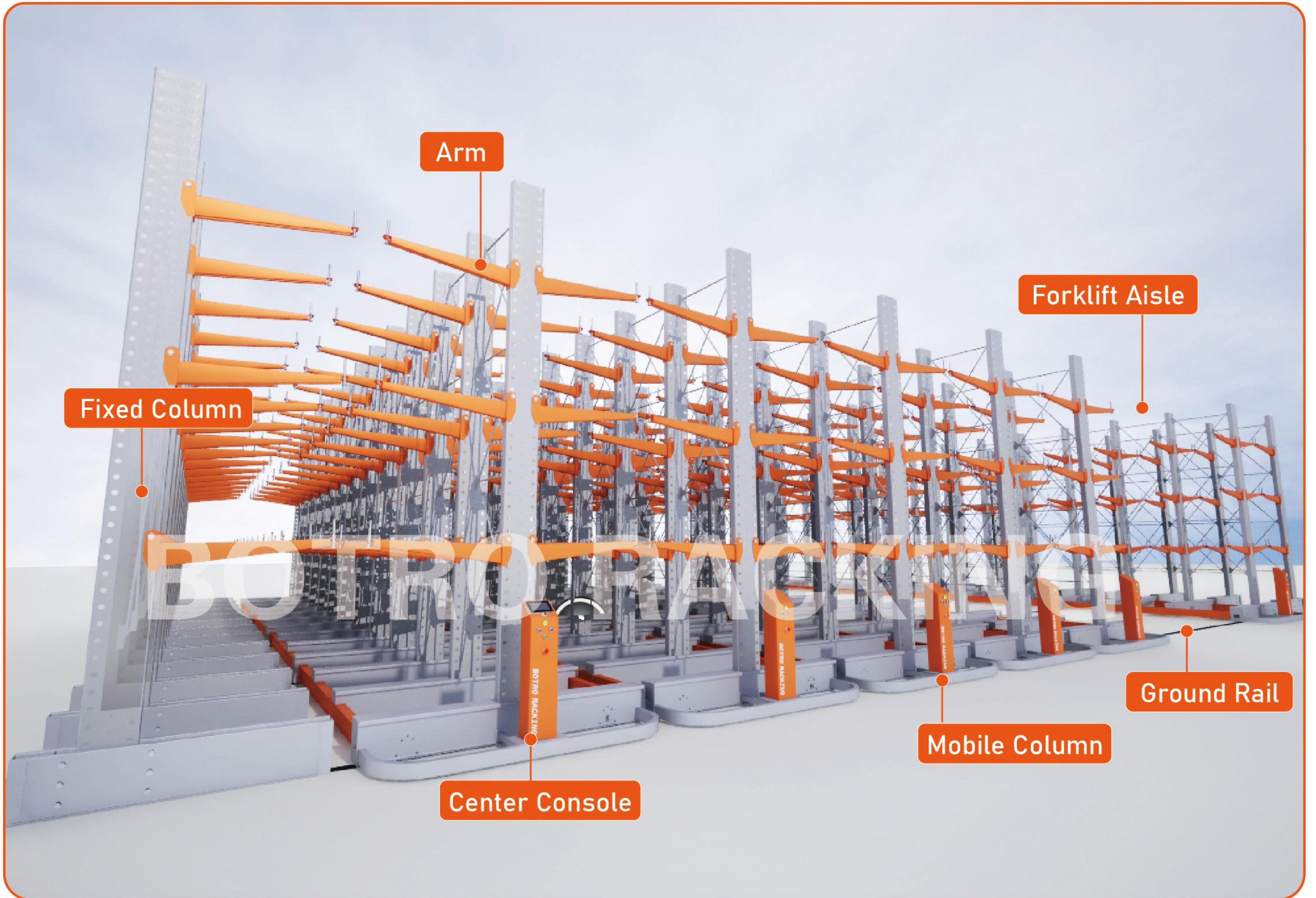
## Rack Parameters

	Light	Medium	Heavy
Height	≤3000mm	≤6000mm	≤12000mm
Level Load	≤500kg	≤1500kg	≤3500kg
Section Load	≤3000kg	≤6000kg	≤16000kg
Max Columns	32	32	32
Depth	Customization		
Track	Standard	Standard	Heavy-Duty
Control	Remote/Electric		
OS	PLC	PLC	PLC
Pick	Manual	Forklift	Forklift

## Warehouse Parameters

Utilization	≥80%
Goods	Multi-SKU/Batch

# Mobile Cantilever Racking



## Product Introduction

Mobile cantilever racking provides dense storage for long materials. It integrates a powered track system with cantilever structure, enabling quick aisle opening via electric control.

This allows forklift access to both sides for handling irregular loads like steel, pipes, and plates with high flexibility.

## Applications

- Warehouses for long material
- Workshops with profile storage
- Facilities requiring forklift

## Rack Parameters

	Light	Medium
Height	≤3000mm	≤8000mm
Arm Load	≤200kg	≤1500kg
Layers	≤4	≤6
Max Columns	32	32
Depth	Customization	Customization
Track	Rail/ Trackless	Rail
Control	Remote/Electric	Remote/Electric
OS	PLC	PLC
Pick	Manual/Forklift	Forklift

## Warehouse Parameters

Utilization	≥70%
Goods	Long materials accessed and store



## Product Introduction

Mobile roll-out cantilever racking is an innovative high-density storage system. Its independently telescopic arms allow operators to move entire rows or extend only target arms for access, eliminating full-row movement.

This significantly boosts picking efficiency and space use for long materials.

## Applications

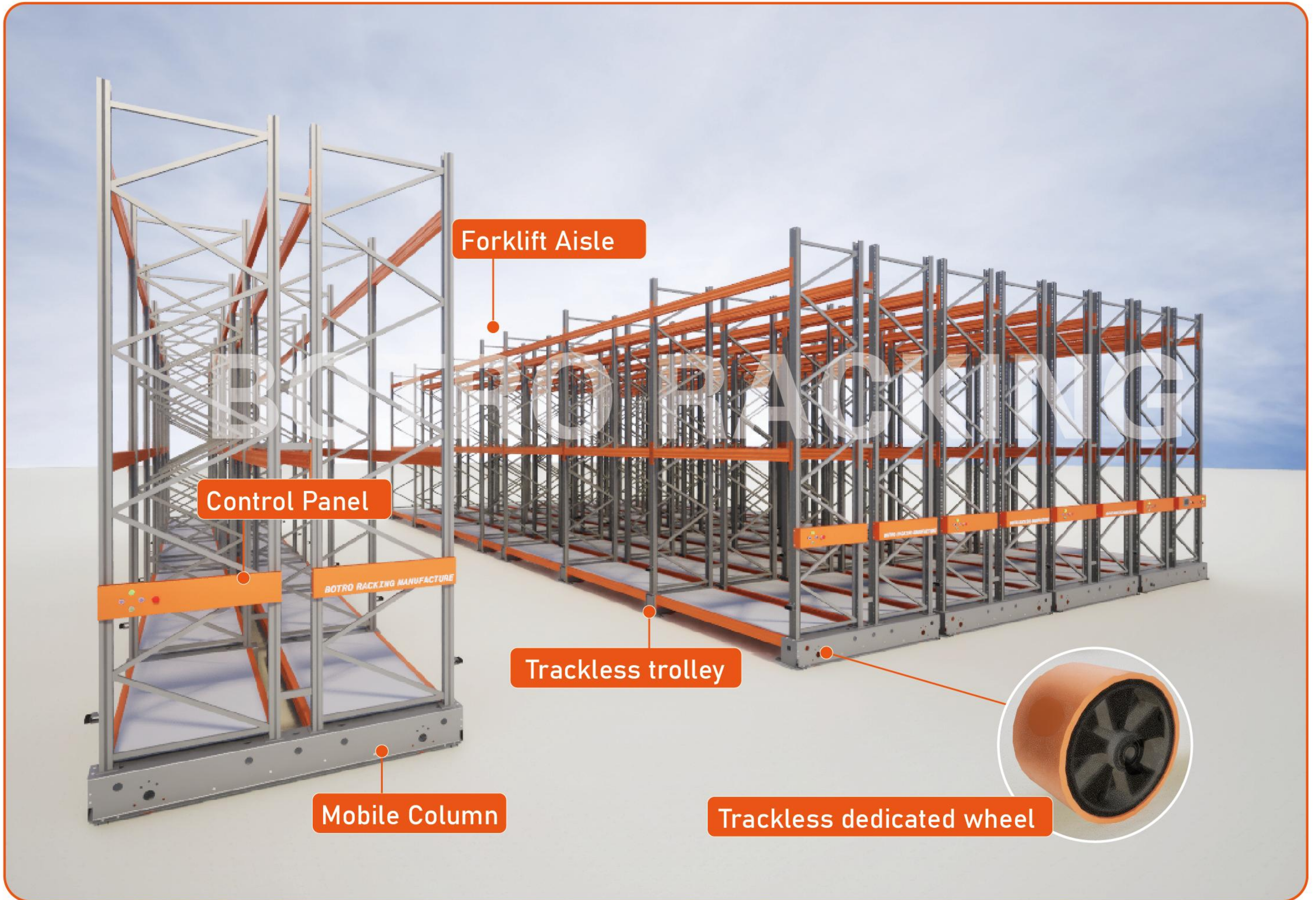
- Long material storage warehouses
- Profile storage workshops
- Crane-accessed long material

## Rack Parameters

	Hand-cranked	Electric
Height	≤4000mm	≤6000mm
Arm Load	≤800kg	≤800kg
Layers	≤4	≤6
Max Columns	32	32
Control	Manual Crank	Electric
Track	Rail	Rail
Control	Remote/Electric	Remote/Electric
OS	PLC	PLC
Pick	Crane	Crane

## Warehouse Parameters

Utilization	≥90%
Goods	Long materials accessed and store



## Product Introduction

The trackless mobile racking offers high-density storage without embedded rails. Its specialized chassis moves directly on flat floors, enabling easy installation in multi-story buildings, renovated warehouses, and sites requiring intact flooring—all while

## Applications

- Multi-story warehouses
- Low-clearance, small spaces
- Flat floors with lightweight goods

## Rack Parameters

	Light	Medium
Height	≤3000mm	≤8000mm
Level Load	≤500kg	≤1500kg
Section Load	≤4	≤6
Max Columns	32	32
Depth	≤30m	≤30m
Track	Trackless	Trackless
Control	Remote/Electric	Remote/Electric
OS	PLC	PLC
Pick	Manual/Forklift	Forklift

## Warehouse Parameters

Utilization	≥80%
Goods	Pallets or manual access, light-weight goods



## Product Introduction

Cold storage mobile racking is designed for low-temperature environments, utilizing frost-resistant motors and steel to ensure reliable operation.

By minimizing aisle space, it reduces cold air loss and door openings, achieving both high-density storage and significant energy savings.

## Applications

- Regular refrigerated warehouses
- Large low-temperature freezers
- High-volume, multi-SKU

## Rack Parameters

	Light	Medium	Heavy
Height	≤3000mm	≤6000mm	≤12000mm
Level Load	≤500kg	≤1500kg	≤3500kg
Section Load	≤3000kg	≤6000kg	≤16000kg
Max Columns	32	32	32
Depth	Customization		
Track	Standard	Standard	Heavy-Duty
Control	Remote/Electric		
OS	PLC/WMS	PLC/WMS	PLC/WMS
Pick	Manual	Forklift	Forklift

## Warehouse Parameters

Utilization	≥80%
Goods	Goods requiring storage -30°C and 0°C



## Product Introduction

AGV Mobile Racking integrates seamlessly with Automated Guided Vehicle systems. Upon receiving WMS commands, the racks move autonomously to open access for AGVs.

This "rack-to-person" approach enables efficient goods-to-person picking and serves as a core component of smart warehouses.

## Applications

- 24/7 unmanned operation
- Under 15m, small/medium size
- Automated storage

## Rack Parameters

	Light	Medium	Heavy
Height	≤3000mm	≤6000mm	≤12000mm
Level Load	≤500kg	≤1500kg	≤3500kg
Section Load	≤3000kg	≤6000kg	≤16000kg
Max Columns	32	32	32
Depth	Customization		
Track	Standard	Standard	Heavy-Duty
Control	Remote/Electric		
OS	WMS	WMS	WMS
Pick	AGV	AGV	AGV

## Warehouse Parameters

Utilization	≥80%
Goods	Automated storage for high-SKU inventory



## Product Introduction

The mobile AS/RS integrates dense storage with automated handling. Built on electric mobile racks, it features Botro's self-developed overhead robotic crane.

The control system synchronizes rack and robot movement, maximizing space use while maintaining high throughput for modern smart warehousing.

## Applications

- Automated storage processes
- Under 15m height
- High-volume, multi-SKU inventory

## Rack Parameters

	Mobile AS/RS
Height	≤15000mm
Level Load	≤3000kg
Section Load	≤30000kg
Max Columns	3 Col/Set
Depth	Customization
Track	Heavy-Duty
Control	Control method: Multi-terminal remote control
OS	WMS
Pick	Pick-up method: Crane robot

## Warehouse Parameters

Utilization	≥80%
Goods	Automated storage for high-SKU inventory



## Product Introduction

The Long Material AS/RS is an automated storage system designed for extra-long items like profiles, pipes, and bars.

It combines a mobile cantilever with Botro's self-developed overhead robotic crane to automate the handling of lengthy goods, significantly boosting storage automation.

## Applications

- Automated long material
- Small/medium workshops
- Storage for materials under 6m

## Rack Parameters

	Long material AS/RS
Height	≤ 10000mm
Level Load	≤ 3000kg
Section Load	≤ 30000kg
Max Columns	≤ 32
Depth	≤ 6000mm
Track	Heavy-Duty
Control	Control method: Multi-terminal remote control
OS	WMS
Pick	Pick-up method: Crane robot

## Warehouse Parameters

Utilization	≥ 90%
Goods	Automated storage of materials within 6 meters

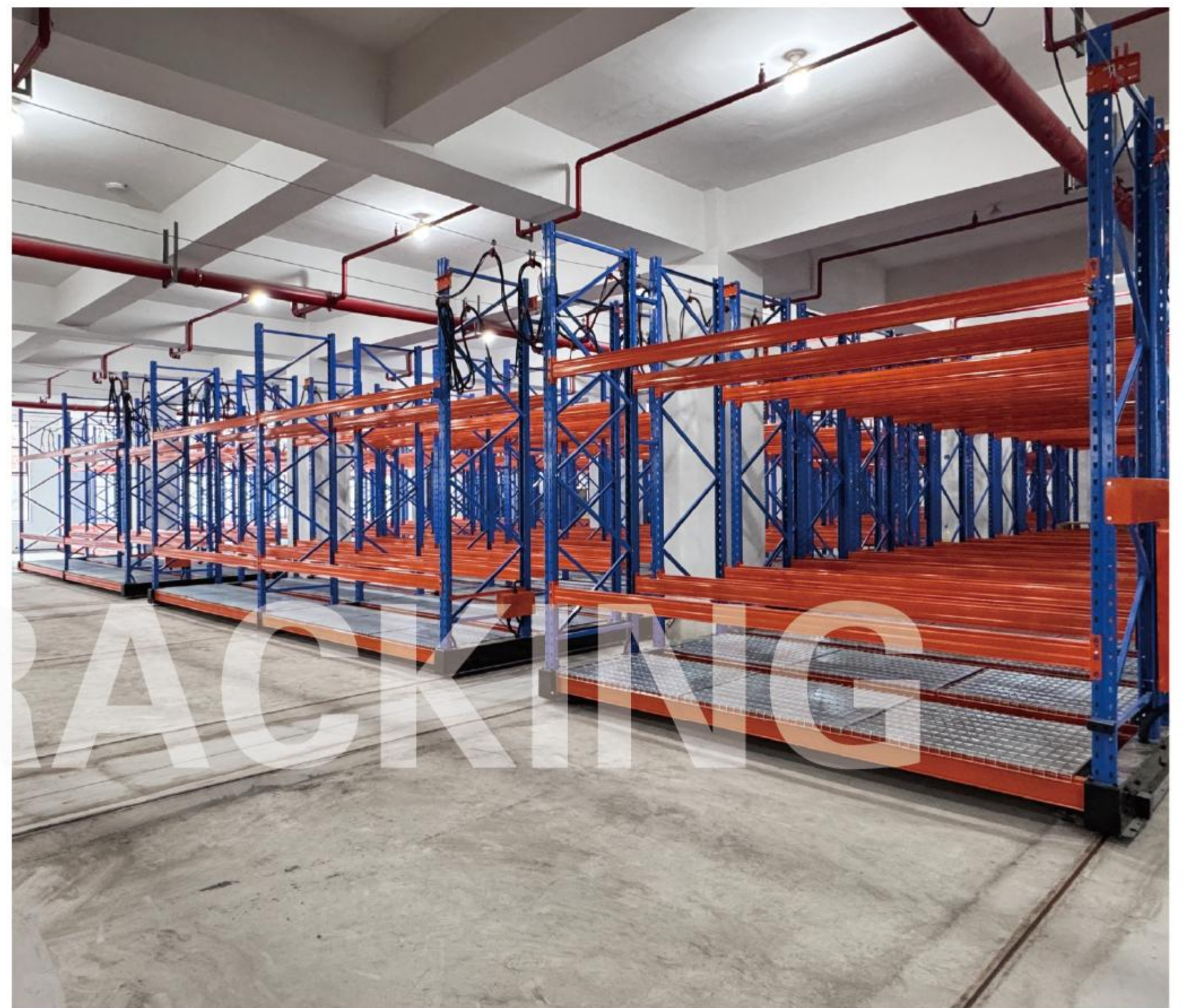


## Installation Team

Botro's worldwide projects are handled by our in-house crew.

Equipped with advanced tools and extensive experience, they ensure fast and smooth setup.

The modular design allows straightforward on-site assembly without special construction.





## After-sales Service

Botro's service team features skilled technicians and advanced equipment. We provide network-based tracking for all users, guaranteeing a 2-hour response time.

Domestic emergency issues are resolved within 48 hours, while international clients benefit from efficient cross-border support via modular replacement.



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