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WUXIN

INNOVATIVE EXCELLENCE, GLOBAL SHARING



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HUNAN CHINA RAILWAY WUXIN HEAVY INDUSTRY CO., LTD

R&D and Innovation

- Provincial enterprise technology center
- Provincial port lifting machinery engineering technology research center
- High-tech enterprise
- A-level design qualification
- Hunan Industrial Design Center
- Hoisting machinery national standard and industry manual preparation unit

290⁺

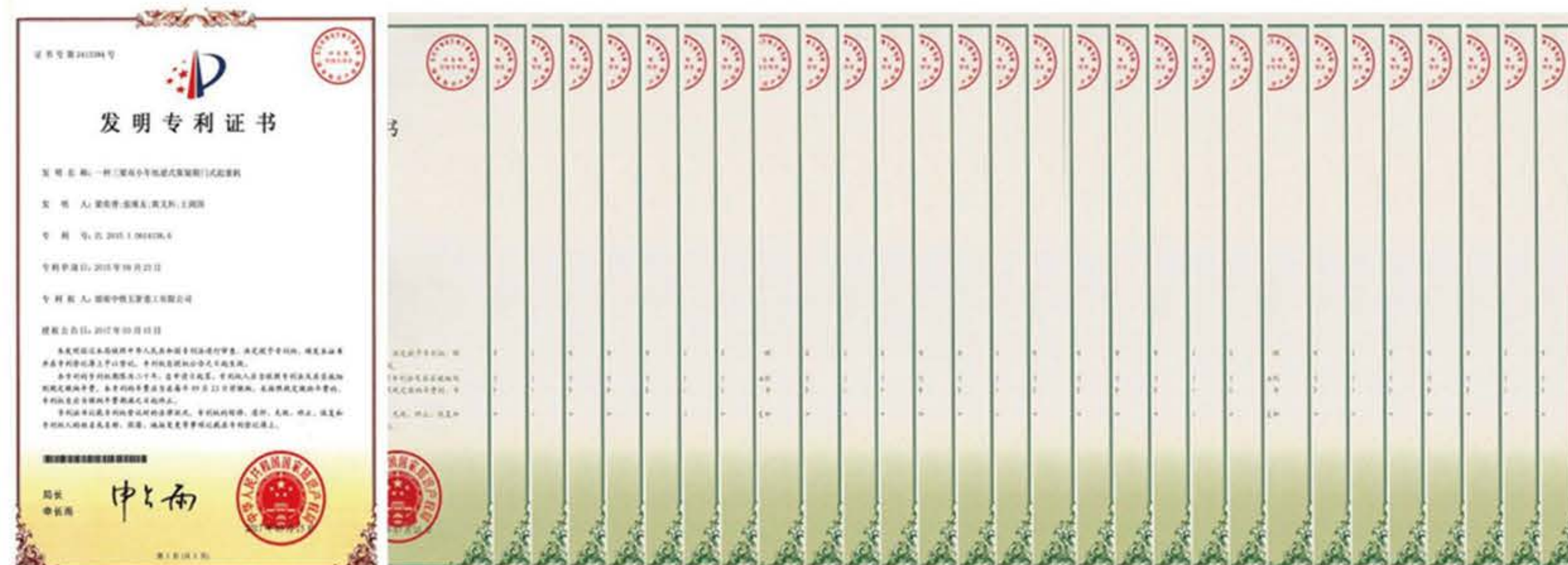
Patents have been granted so far

20⁺

Invention patent

30⁺

Software copyright



The company operates an independent R&D and design team. Recognized as a National High-Tech Enterprise and the Hunan Provincial Port Machinery Engineering Technology Research Center, it has established multiple industry-academia-research collaboration initiatives with leading universities such as Central South University and Wuhan University of Technology.



National-Level Key "Little Giant" Enterprise (Specialized, Sophisticated, Distinctive and Innovative)

Wuxin proudly co-edited the 12th Five-Year Plan National Key Publishing Project *Handbook of Engineering Machinery: Port Machinery and Smart Green Container Terminals*. And WUXIN also actively participated in formulating dozens of national, industry, and local standards for ports.



National Standard Drafting Certificate

Single-Jib Portal Cranes

Single-Jib Portal Cranes, known as highly efficient port handling equipment, feature integrated rotation, luffing, traveling, and hoisting capabilities. Designed for demanding operational environments such as ports, terminals, shipyards, and steel mills, this model achieves 360° full rotation with a compact structural configuration, ensuring extensive coverage and adaptability to high-intensity continuous operations. Compared to Four-Link Portal Cranes, Single-Jib Portal Cranes is characterized by lighter deadweight, lower energy consumption, and reduced maintenance costs, making it a cost-effective solution for bulk cargo, general cargo, and container handling and a major contributor to green and energy-efficient cargo handling at modern ports.

Main technical parameters of Single-Jib Portal Cranes			
Basic parameter	Rated load weight (t)	Lifting hook	10~80
		Under the container spreader	35/40.5
		Grab bucket	10~50
	Lifting height (m)	Above rail	10~40
		Below rail	5~30
	Max luffing range (m)		20~55
	Min luffing range (m)		8~13
	Rail gauge (m)		10.5/12/14/16
	Wheel Base distance (m)		10.5/12/14/16
Velocity parameter	Hoisting speed (m / min)		20~70
	Luffing speed(m/min)		20~60
	Slewing speed (r/min)		0.8/1/1.2/1.5
	Gantry travelling speed (m / min)		25/30
Maximum wheel load (kN)			250/300/350/400/450/500
Rail model			QU80/QU100/QU120
Power supply			380V /10KV 50Hz

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users

Design Features

- Unique Design of Slewing Bearing that Enables Crane-Synchronized Lifespan
- Special Steel Wire Rope Reeving with Low-Wear Design
- Automated Operation System
- Quick-Change Spreader System (Hooks, Grabs, and Containers)
- Lightweight Construction, Reduced Track Load Pressure, and Low Operational Energy Consumption
- Energy Recovery and Saving System
- High Cargo Handling Efficiency
- Simple Structure and High Cost-Performance Ratio"
- Boom Anti-Collision System





Four-Link Portal Cranes

Four-Link Portal Cranes are recognized as highly efficient and stable material handling equipment equipped with a four-bar linkage combined jib system, integrating rotation, luffing, traveling, and hoisting capabilities. Designed for demanding operational environments such as ports, terminals, shipyards, and steel mills, this model features a three-dimensional structural configuration and a robust, industrial aesthetic. Its 360° full rotation ensures extensive operational coverage, enabling seamless adaptation to high-intensity continuous operations. Widely applied in bulk cargo, general cargo, and container handling operations, this equipment serves as one of the core models of green and energy-efficient material handling machinery at modern ports,

Main technical parameters of Four-Link Portal Cranes			
Basic parameter	Rated load weight (t)	Lifting hook	10~80
		Under the container spreader	35/40.5
		Grab bucket	10~50
	Lifting height (m)	Above rail	10~40
		Below rail	5~30
	Max luffing range (m)		20~55
	Min luffing range (m)		8~13
	Rail gauge (m)		10.5/12/14/16
	Wheel Base distance (m)		10.5/12/14/16
Velocity parameter	Hoisting speed (m / min)		20~70
	Luffing speed (m/min)		20~60
	Slewing speed (r/min)		0.8/1/1.2/1.5
	Gantry travelling speed (m / min)		25/30
Maximum wheel load (kN)			250/300/350/400/450/500
Rail model			QU80/QU100/QU120
Power supply			380V /10KV 50Hz

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users

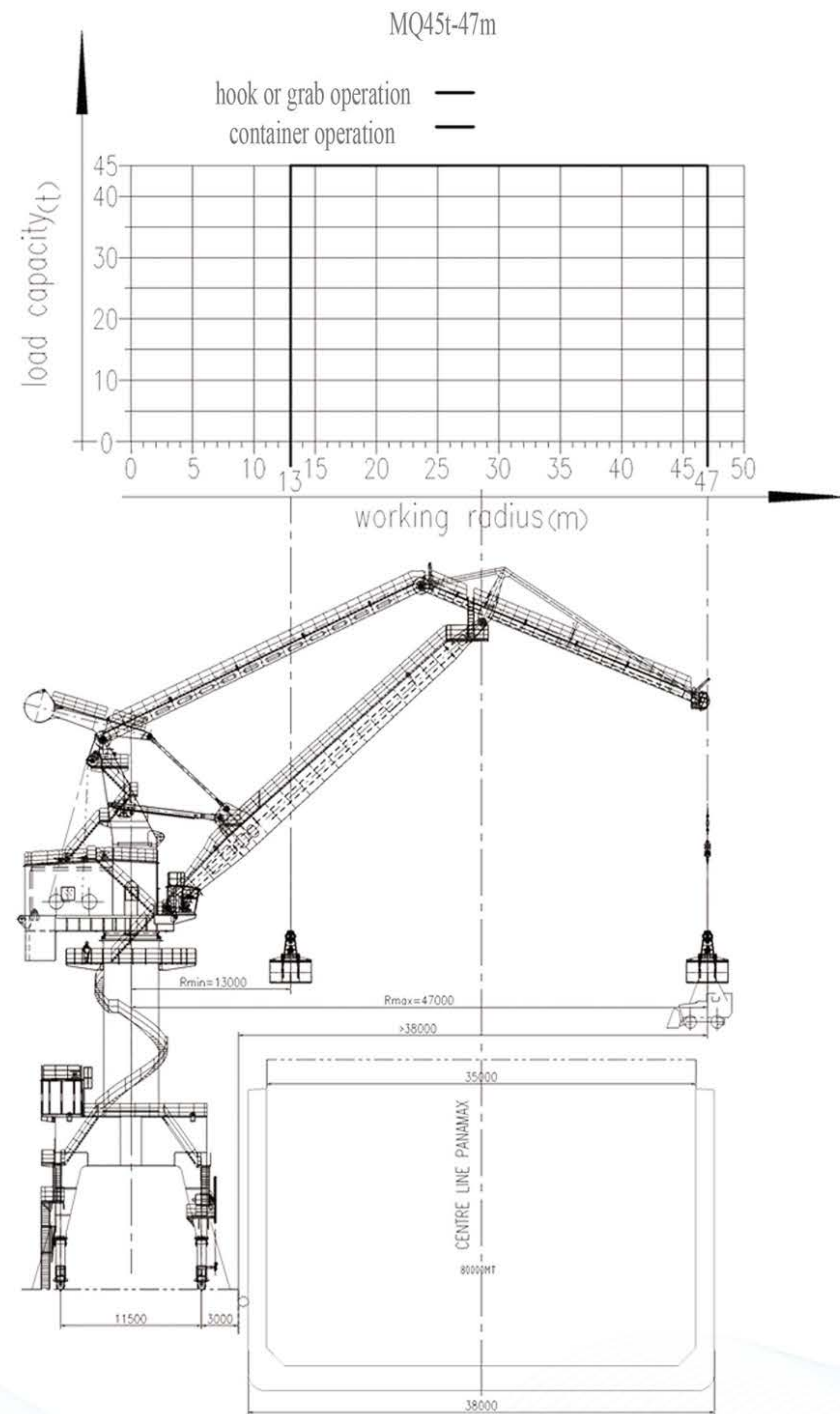
Design Features

- Boom Anti-Collision System
- Energy Recovery and Saving System
- High Power Factor, Low Harmonic Content
- Precision lifting with exceptional stability in heavy-duty operations
- High-precision luffing and horizontal movement
- Unique Design of Slewing Bearing that Enables Crane-Synchronized Lifespan
- Long service life with low maintenance costs
- Quick-Change Spreader System
- Anti-Sway Grab Control System
- Automated Operation System

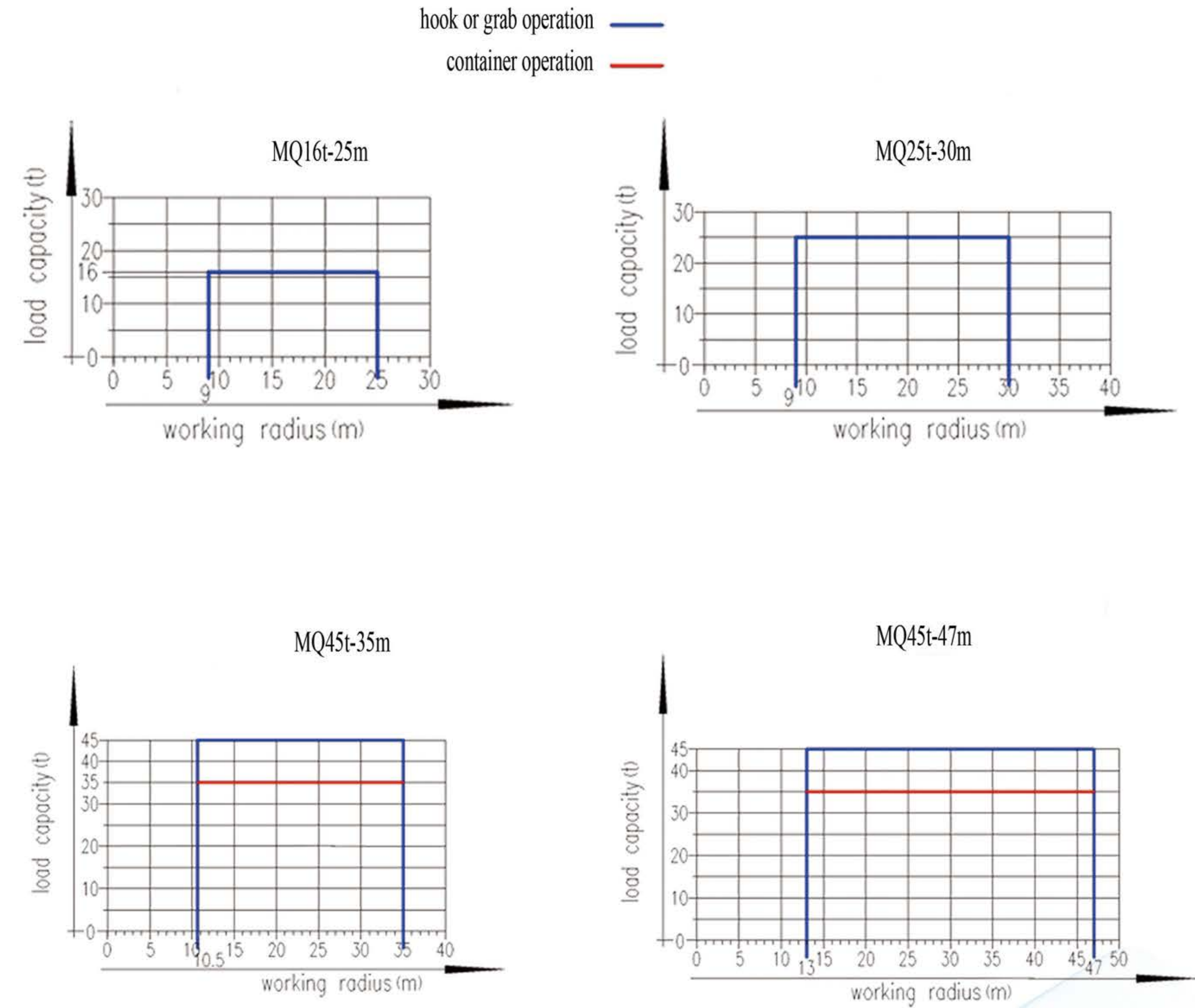




Load Diagram



■ The above technical parameters are recommended references and can be customized according to the actual requirements of users



Wuxin Portal Slewing Port Crane is designed to maintain its rated lifting capacity across the entire working range. Even at the maximum luffing range, the crane delivers the full rated lifting capacity without compromise. The total luffing range spans from 10m to 50m, with a standard rated lifting capacity of 16t to 45t and a maximum capacity of up to 300t.

Grab Bucket Portal Cranes

Grab Bucket Portal Cranes are highly efficient and integrated bulk cargo handling equipment specifically designed for bulk material processing, achieving an efficiency of 500–1,500 tons/hour. Its core features include a portal-frame structure combined with an enclosed hopper and conveyor system, enabling continuous operations from material grabbing to transferring. The compact design ensures efficient operation in limited spaces while reducing dependency on complex site layouts. It is primarily used in terminal handling operations for bulk commodities such as coal, ores, and grains, particularly suitable for medium to high throughput ports. With its high efficiency, environmental friendliness, and intelligent features, this equipment has become one of the primary handling machinery in modern bulk terminals.

Main technical parameters of Grab Bucket Portal Cranes			
Basic parameter	Rated load weight (t)	Lifting hook	10~80
		Grab bucket	10~50
	Lifting height (m)	Above rail	10~40
		Below rail	5~30
	Max luffing range (m)		20~55
	Min luffing range (m)		8~13
	Rail gauge (m)		10.5/12/14/16
	Wheel Base distance (m)		10.5/12/14/16
Velocity parameter	Hoisting speed (m / min)		40~80
	Luffing speed (m/min)		40~80
	Slewing speed (r/min)		0.8/1/1.2/1.5
	Gantry travelling speed (m / min)		25/30
Maximum wheel load (kN)			250/300/350/400/450/500
Rail model			QU80/QU100/QU120
Power supply			380V /10KV 50Hz

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users

Design Features

- Unique Design of Slewing Bearing that Enables Crane-Synchronized Lifespan
- Anti-Sway Grab Control System
- Automated Operation System
- Multi-Functional for Bulk/Break-Bulk
- Max Cargo Handling Efficiency: 1500t/h
- Dust Suppression/Negative-Pressure System that Complies with Environmental Standards
- Continuous Operation Mode: Grab+Hopper+Conveyor
- Versatile Material Handling through Interchangeable Grabs
- 360° Rotation + Traveling Movement, Unrestricted by Vessel Position or Rear Layout Constraints.
- High-clearance gantry design that Allows vehicle passage underneath and Enables Direct Truck-Loading





Floating Cranes

Floating Cranes integrate portal cranes’ high efficiency and floating platforms’ mobility edge. With floating vessel as their carrier, they operate on water bodies and adapt to tides, complex hydrology, and dockless environments, serving as a core lifting solution for marine engineering.



Main technical parameters of the floating crane			
Basic parameter	Rated load weight (t)	Lifting hook	10~80
		Under the container spreader	35/40.5
		Grab bucket	10~50
	Lifting height (m)	Above deck	10~30
		Below deck	5~15
	Max luffing range (m)		20~40
Velocity parameter	Min luffing range (m)		8~13
	Hoisting speed (m / min)		20~60
	Luffing speed (m/min)		20~60
	Slewing speed (r/min)		1/1.2/1.5

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users



Fixed Cranes

Floating Cranes integrate portal cranes’ high efficiency and floating platforms’ mobility edge. With floating vessel as their carrier, they operate on water bodies and adapt to tides, complex hydrology, and dockless environments, serving as a core lifting solution for marine engineering.

Design Features

- Unique Design of Slewing Bearing that Enables Crane-Synchronized Lifespan
 - Long service life with low maintenance costs
 - Quick-Change Spreader System
 - Lightweight machine structure with low construction cost
 - Enhanced stability for high-wind operations and demanding environments
- High operational efficiency for repetitive fixed-location tasks
 - Simplified mechanisms with low maintenance costs and high reliability
 - Compact footprint ideal for space-constrained sites
 - Energy recovery and saving system

Main technical parameters of Fixed Cranes			
Basic parameter	Rated load weight (t)	Lifting hook	10~80
		Under the container spreader	35/40.5
		Grab bucket	10~50
	Lifting height (m)	Above wharf deck	10~40
		Below wharf deck	5~30
	Max luffing range (m)		20~50
Velocity parameter	Min luffing range (m)		8~13
	Hoisting speed (m / min)		20~70
	Luffing speed (m/min)		20~60
		Slewing speed (r/min)	0.8/1/1.2/1.5

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users



Ship-to-Shore Container Crane (STS)

Ship-to-Shore Container Cranes (abbreviated as STS) refer to specialized equipment designed for high-efficiency container ship handling at port terminals. As a core asset in modern container hub ports, Wuxin's STS achieves precise movement along the quayside via a steel-wheel rail travel mechanism and features a multi-voltage compatible power system (380V–10kV) to adapt flexibly to diverse port grid infrastructures. With optimized operational design, their theoretical handling efficiency reaches 60 natural containers/hour. Wuxin's STS complies with the latest GB, FEM, DIN, IEC, and AWS standards, offering safety, stability, customization, low maintenance costs, and energy efficiency.

Main Parameters		Recommended values				Remark
Rated lifting weight (ton)	Under the container spreader	35, 41				
	Under the hook	45, 50				
Rail gauge (m)		10.5, 16, 22, 25, 30				
Front extension (m)		15, 18, 21, 23, 26, 30, 35, 40				
Rear extension (m)		7.5, 10, 12, 15				
Lift height (m)	Above rail	12, 16, 18, 20				
	Below rail	6, 8, 10, 12				
Wheel Base distance (m)		≥16				
Net width inside door frame (m)		≥14.6, ≥15.4				45'Container
Door frame contact beam clearance height (m)		≥6				
Buffer to buffer clearance (m)		≤27				
Maximum wheel load (kN / wheel)		≤350, ≤400, ≤450				
Power supply		10kV/50Hz, 380V/50Hz				
Lift height (m)	Full load	30	40	60	90	
	Empty load	50	70	100	160	
Trolley traveling (m / min)	Full load	100	180		210	
	Empty load	100	180		210	
Gantry travelling speed (m / min)		25, 30				
One-way pitch time (points)		≤5				

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users

Design Features

- Electronic Anti-Sway Technology: Minimizes Spreader Swing During Operation
- Auto-Positioning System: Enables Precise Spreader Positioning over Shipboard Container Cells
- Luffing front boom design: Facilitates Vessel Berthing and Adjacent Crane Operations
- Automated Operation: Supports Remote Control or Unmanned Autonomous Operation
- Smart Control System: Provides Operational Status Monitoring and Fault Diagnosis
- Traction or Self-Propelled Options for Trolley Travel
- Intelligent Lubrication System: Timed Quantitative Grease Replenishment
- High Cargo Handling Efficiency: Up to 25-45 Natural Containers Per Hour
- Meets Panamax Vessel Handling Requirements
- Configurable with Single or Twin-Lift Spreaders





Automated Rail-Mounted Container Gantry Crane (ARMG)

Automated Rail-Mounted Container Gantry Cranes (abbreviated as ARMG) are primarily used for container handling and stacking operations in port container terminals and railway container yards. They can also handle general cargo and bulk materials by switching spreaders. ARMG is increasingly favored for its advantages—high operational efficiency, high space utilization, advanced automation, low failure rates, flexible design, simple operation, easy maintenance, low energy consumption, reduced operating costs, and eco-friendliness. Wuxin’s ARMG complies with the latest GB, FEM, DIN, IEC, and AWS standards, offering safety, stability, customization, low maintenance costs, energy efficiency, and full automation capabilities.

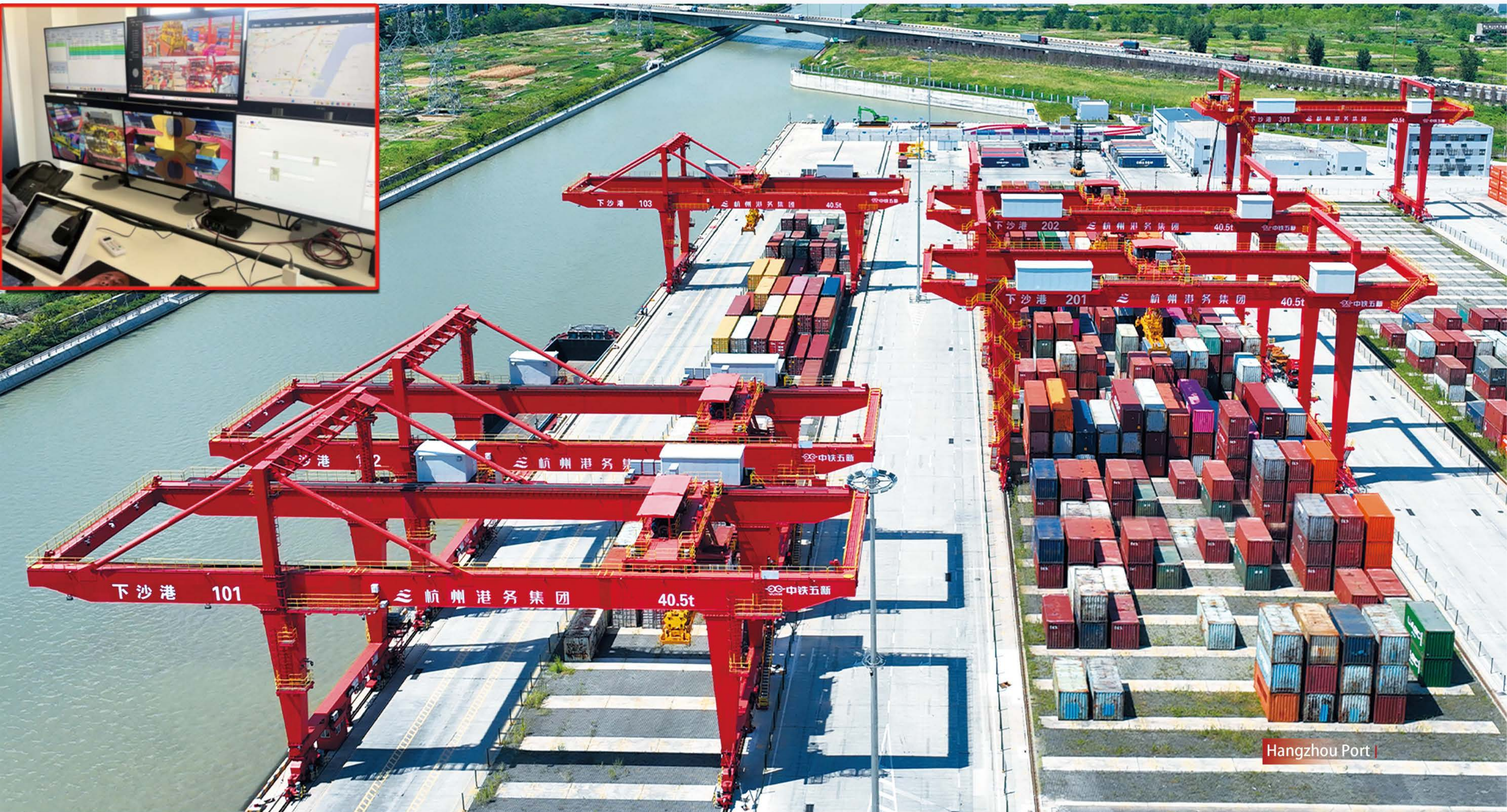
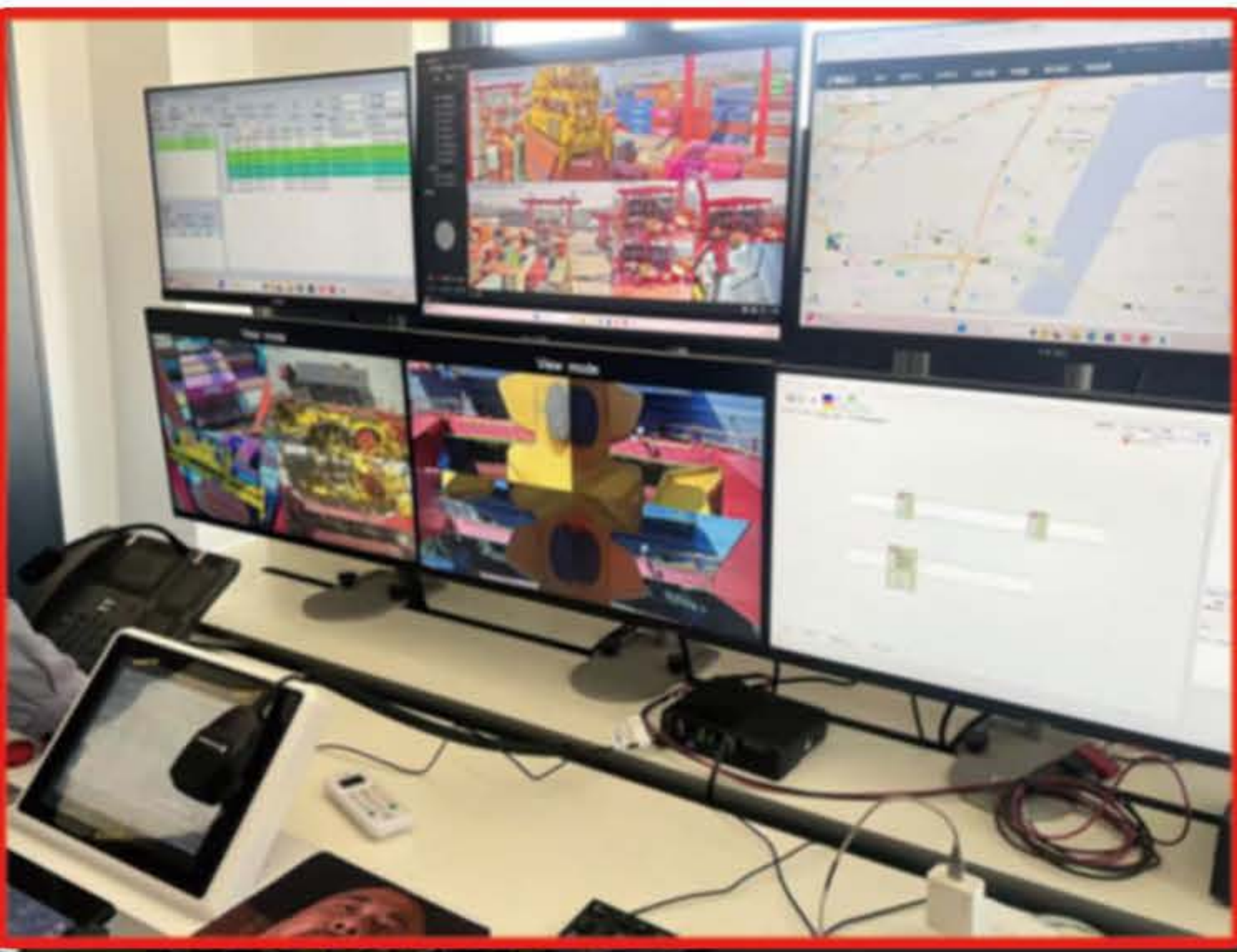
Main technical parameters of the equipment	Main Parameters		Recommended values			Remark
	Rated lifting weight (ton)	Under the container spreader	35, 41			
	Rail gauge (m)		30, 32, 35, 38, 40			20~50
	Effective cantilever length (m)		4.5/5, 7.5			0~7.5
	Lift height (m)	Above rail	15.3, 18.2, 21			
	Wheel Base distance (m)		≥16			
	Net width inside door frame (m)		≥14.6			45' Container
	Maximum wheel load (kN / wheel)		≤250, ≤300, ≤350			
	Power supply		380V/50Hz, 10kV/50Hz			
	Hoisting speed (m / min)	Full load	30	35	40	
		Empty load	50	60	70	
	Trolley traveling (m / min)	Full load/empty load	80, 90, 100			
	Gantry travelling speed (m / min)	Full load/empty load	60, 80			

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users

Design Features

- Man-Machine Separation: Improves Working Conditions & Reduces Labor Intensity
- Labor Savings: Single Operator Monitors Multiple Units
- Enhanced Safety: Multi-Layer Protection Systems Prevent Failures
- Efficiency Boost Operational Efficiency Increased by Over 30%
- High Automation Level: Autonomous Operation, Optimized Path Planning, and Adaptive Task Sequencing
- Truck Lift Prevention
- Cab Impact Protection System
- Electronic Operational Geofencing
- Real-Time Anti-Bowling System
- High Power Factor & Low Harmonics





Hangzhou Port

Rail-Mounted Container Gantry Crane (RMG)

Rail-Mounted Container Gantry Cranes (abbreviated as RMG) are primarily used for container handling and stacking operations in port container terminals and railway container yards. They can also handle general cargo and bulk materials by switching spreaders. RMG is increasingly favored for its advantages—— high operational efficiency, high space utilization, low failure rate, variable and flexible structural designs, simple operation, easy maintenance, low energy consumption, reduced operating costs, and eco-friendliness. Wuxin’s RMG complies with the latest GB, FEM, DIN, IEC, and AWS standards, offering safe and stable operation, customizable configurations, low maintenance costs, and energy-efficient performance.

Main Parameters		Recommended values					Remark
Rated lifting weight (ton)	Under the spreader	35, 41					
	Under the hook	45, 50					
Rail gauge (m)		20, 25, 30, 32, 35, 38, 40, 45, 50					20~50
Effective cantilever length (m)		4.5/5, 7.5, 10, 12.5, 15, 18, 21, 23					0~23
Lifting height (m)	Above rail	12.4, 15.3, 18.2, 21					
	Below rail	0~30					
Wheel Base distance (m)		≥16					
Net width inside door frame (m)		≥14.6					45'Container
Maximum wheel load (kN)		≤250, ≤300, ≤350					
Power supply		380V/50Hz, 10kV/50Hz					
Lift height (m)	Full load	20	25	30	35	40	
	Empty load	35	45	50	60	70	
Trolley traveling (m / min)	Full load	50	60	70	80	90	
	Empty load	70	80	100	120	140	
Gantry travelling speed (m / min)	Full load	30	35	40	50	60	
	Empty load	40	50	60	80	100	

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users

Design Features

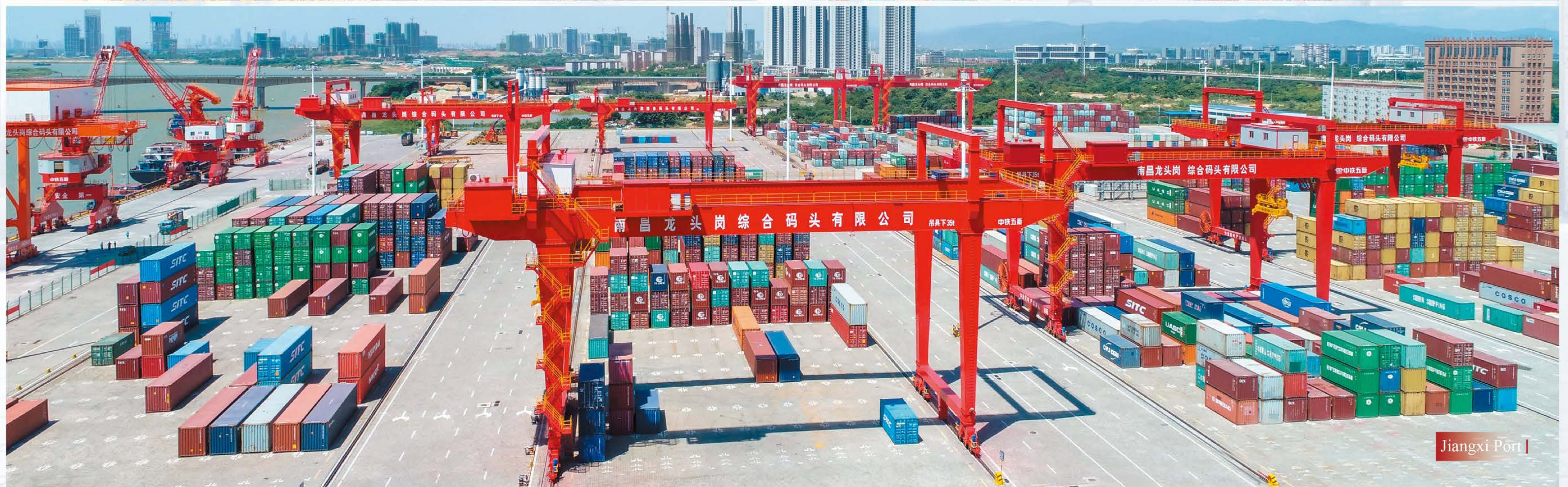
- Selectable Power Supply Systems
- Intelligent Lubrication System: Timed Quantitative Grease Replenishment
- Energy-Saving Design with Energy Recovery and Feedback System
- Modular Design that Minimizes On-Site Installation Time.
- Secondary Sand Blasting Process for Optimal Paint Adhesion.
- Fully Electric Drive Design for Low Noise and High Environmental Compliance, Meeting Green Port Standards
- Real-Time Operational Status Monitoring
- Tireless Rail Operation Minimizes Wear and Lowers Maintenance Costs
- Precise Stacking Capability Allows for Tighter Container Spacing, Improving Yard Density
- Long Service Life with High Long-Term Return on Investment



Zhejiang Seaport Group |



SIPG |



Jiangxi Port |

Railway Freight Yard Gantry Crane

Product overview: modular design, easy to transfer operation, truck gauge can be adjustable, adapt to different construction sites, car can be 90 degrees steering, adapt to the needs of different conditions. The working site is subway construction, and the main use is muck lifting and dumping operation.

Main Parameters		Recommended values			Remark
Rated lifting weight (ton)	Under the spreader	35, 40.5			
	Under the hook	45, 50			
Rail gauge (m)		30, 32, 35, 38, 40, 45, 50			20~50
Effective cantilever length (m)		5, 7.5, 12.5			5~12.5
Lift height (m)	Above rail	12.4, 15.3			
Wheel Base distance (m)		≥16			
Net width inside door frame (m)		≥14.6			45'Container
Maximum wheel load (kN)		≤250, ≤300, ≤350			
Power supply		380V/50Hz, 10kV/50Hz			
Lifting height (m)	Full load	20, 25, 30	25	30	
	Empty load	35, 45, 50	45	50	
Trolley traveling (m / min)	Full load	70	90	110	
	Empty load	100	120	140	
Gantry travelling speed (m / min)	Full load	60	80	90	
	Empty load	80	120	140	

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users



Shipbuilding Gantry Crane

Main Parameters			Recommended values		Remark
Rated lifting weight (ton)	Upper Trolley hoisting (m/min)	Under the hook	50*2,60*2,75*2,100*2,120*2		
	Lower Trolley main hoisting (m/min)	Under the hook	60,75,100,150,200		
	Lower Trolley secondary hoisting (m/min)	Under the hook	10,10,15,15		
Lifting capacity (ton)	Two Trolley's lift		100, 120, 200, 300		
	Turn over in different segments		80, 100, 160, 240		
Rail gauge (m)			50, 55, 60, 70		50~70
Lift height (m)			30, 35, 45, 50		30~50
Wheel Base distance (m)			≥16.5		
Maximum wheel load (kN)			≤350, ≤400, ≤450, ≤500		
Power supply			380V/50Hz, 10kV/50Hz		
On the small car owner lift	On the small car owner lift	Full load	3	5	
		Empty load	5	10	
	Under the small car owner lift	Full load	3	5	
		Empty load	5	10	
	The car is up and down	Full load	10		
		Empty load	20		
Trolley traveling (m / min)	On the car running	Full load	25	30	
		Empty load	40		
	The car running	Full load	25	30	
		Empty load	40		
Gantry travelling speed (m / min)		Full load	30	40	
		Empty load	40		

■ The above technical parameters are recommended references and can be customized according to the actual requirements of users



Versatile Machine, Comprehensive Solutions

The multifunctional design of portal slewing cranes enables seamless adaptation to all port operational scenarios. Leveraging quick-change spreader systems and modular structures, diverse attachments can be swapped within minutes—parameters automatically configure upon software selection, ensuring immediate high-efficiency operations.



Bulk Cargo Handling

Wuxin delivers customized grab solutions achieving 1,500 tons/hour throughput. Its portal cranes serve both inland river ports and large seaports with heavy-duty demands. Paired with eco-friendly hopper systems, operations balance productivity and environmental compliance.



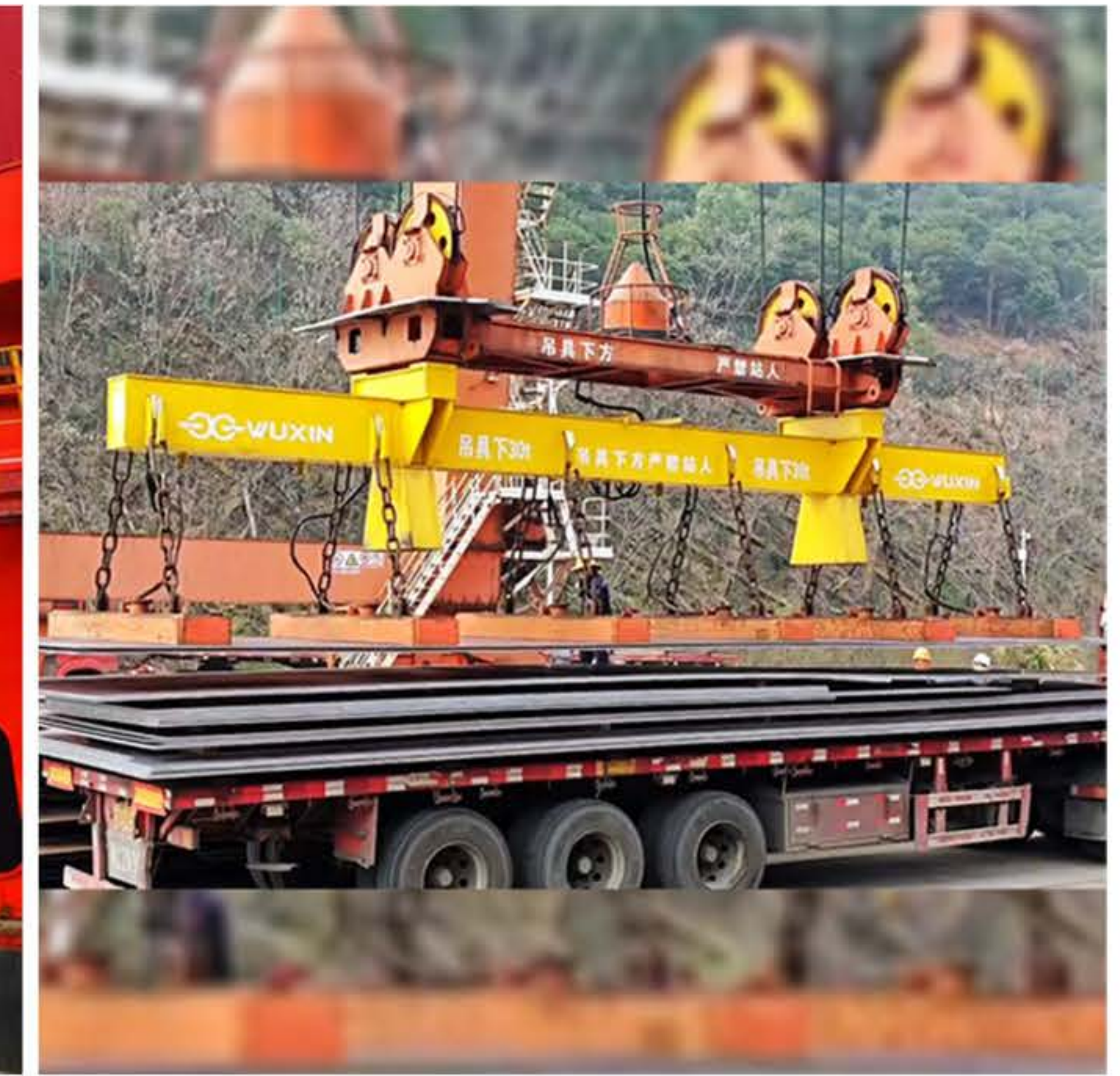
Container Handling

Wuxin portal cranes handle container vessels up to 13 rows wide, covering all vessel sizes from feeder ships to ultra-large container vessels. Equipped with manual, semi-automatic, or fully automatic telescopic spreaders, they efficiently manage 20-foot to 40-foot standard containers in single or dual-lift modes.



General Cargo Handling

Adaptable to hooks, electromagnetic lifters, C-hooks, and lifting beams, Wuxin cranes enable rapid attachment changes for diverse cargo types. The proprietary control system automatically identifies attachment types and presets operational parameters, ensuring uninterrupted workflows and multifunctional versatility.



Electromagnetic Lifter

Wuxin cranes integrate electromagnetic lifters for instant material pickup/release without manual hooking, boosting efficiency by 30%. Adjustable magnetic field strength accommodates varied metal thicknesses and shapes. Backup power activates during outages to maintain adhesion, ideal for high-frequency handling of steel plates, coils, and structural profile.



Remote Controlling System

Higher Operational Efficiency

24-hour uninterrupted efficient operation that exceeds manual efficiency and significantly boosts operational productivity.

Better Working Environment

Operators control portal cranes from the office, vastly improving the working environment.

Reduced Labor Intensity

Operators only need to grab materials. All other actions are completed automatically by the program, which greatly reduces labor intensity.

Higher Operational Safety

Personnel operate from a distance. The equipment is equipped with comprehensive safety protection devices, significantly improving operational safety.



Corporate Mission

Create Value for Customers, Seek Development for Employees,
and Undertake Responsibility for Society.

The above technical information is for reference only and can be customized according to the actual situation.

Driving Technology, Honoring Craftsmanship



Employees Honored as "Technical Masters" and "Model Craftsmen"



Quality Assurance



■ Large bevel milling machine



■ Steel pretreatment shot blasting machine



■ Welding Stress Relief



■ Robotic Intelligent Welding Workstations

CONSTANT TEMPERATURE AND HUMIDITY PAINT ROOM LARGE DOUBLE SAND BLASTING PRODUCTION LINE

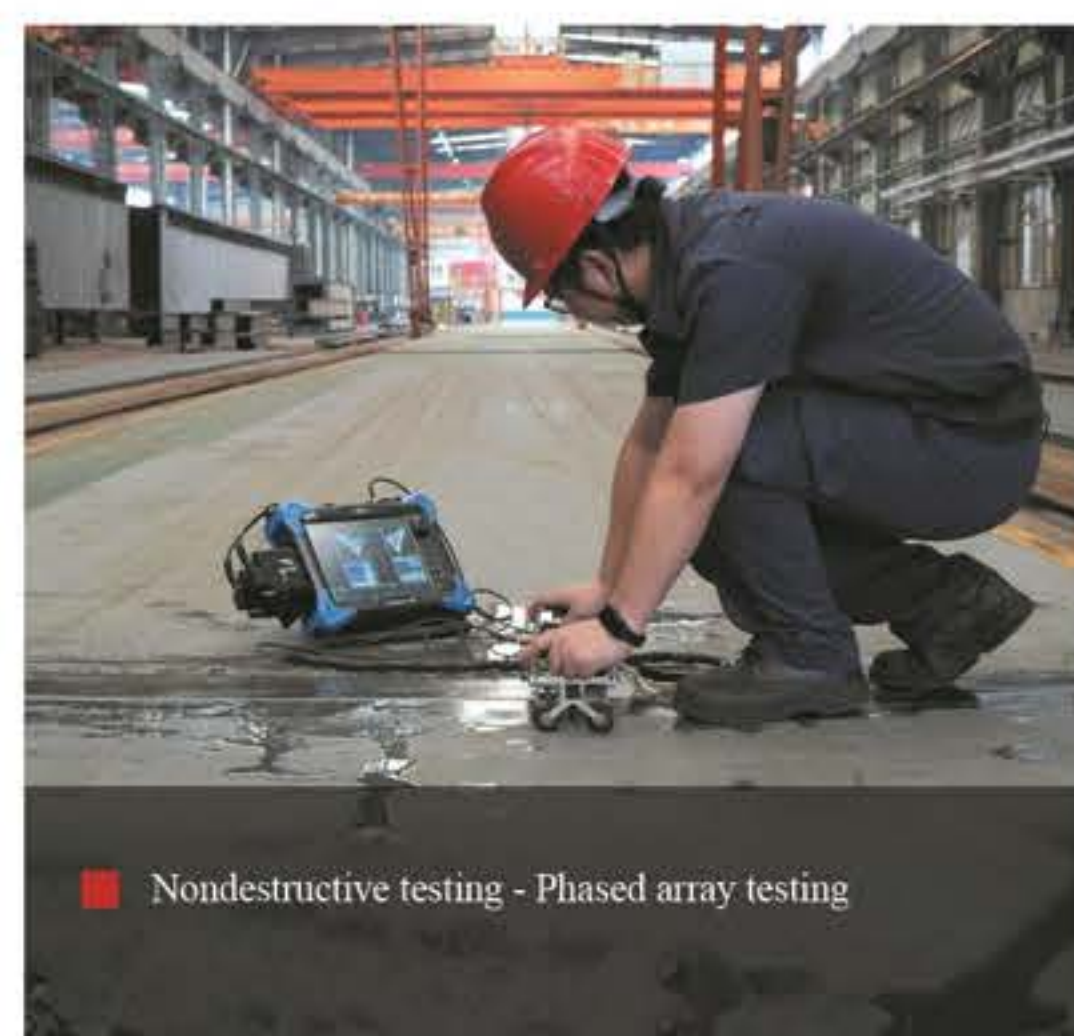


■ CNC laser cutting machine



■ CNC flange plane milling

Detection guarantee



Intrinsic safety



Structural design safety

Design with allowance to avoid overload to extend the service life.



Institutional security protection

The equipment is equipped with automatic deceleration, stop, limit and emergency button to ensure safe operation. The motor has overload protection, wind speed sensor interlocking au-



Running status monitoring

The real-time monitoring system of crane, including but not limited to load monitoring, speed monitoring and position monitoring, realizes the real-time understanding of the operating state



Structural stress monitoring

Stress detection of crane structure, install stress sensors at key positions of stress concentration to prevent structural fatigue and failure.



Vibration monitoring and analysis

The vibration detection sensor is set at the motor and the reducer to monitor the vibration level of the crane, which can find potential problems in the early stage to avoid further ex-



Electrical safety protection

The crane electrical system is equipped with safety interlock protection against misoperation damage. Lightning protection grounding system is provided to prevent lightning strike



After-Sales Service

Through a "Triple-Layered System" that integrates Wuxin Onsite Engineers, Local Partnerships, and Headquarters Expertises, we provide 7*24 year-round lifecycle service support to guarantee uninterrupted assistance for overseas clients.



Rapid Response, Heartfelt Commitment

We prioritize customer-centric service, ensuring a 1-hour response time and swift resolution to deliver peace of mind.



Professional Training

Wuxin trains operators, engineers, and maintenance teams for every port machinery prior to delivery. From scientific operation to daily maintenance, we work to see that customers achieve full mastery.



Dedicated and Regular Inspections

Our certified engineers conduct scheduled on-site inspections free of charge to ensure equipment stability. We actively gather user feedback for better services



WUXIN Genuine Parts Warehouses

Wuxin maintains overseas warehouses staffed with after-sales engineers to expedite genuine parts delivery globally. All equipment features permanent identification markings and traceable archived documents to ensure reliable replacement of worn components.



Lifetime Technical Support

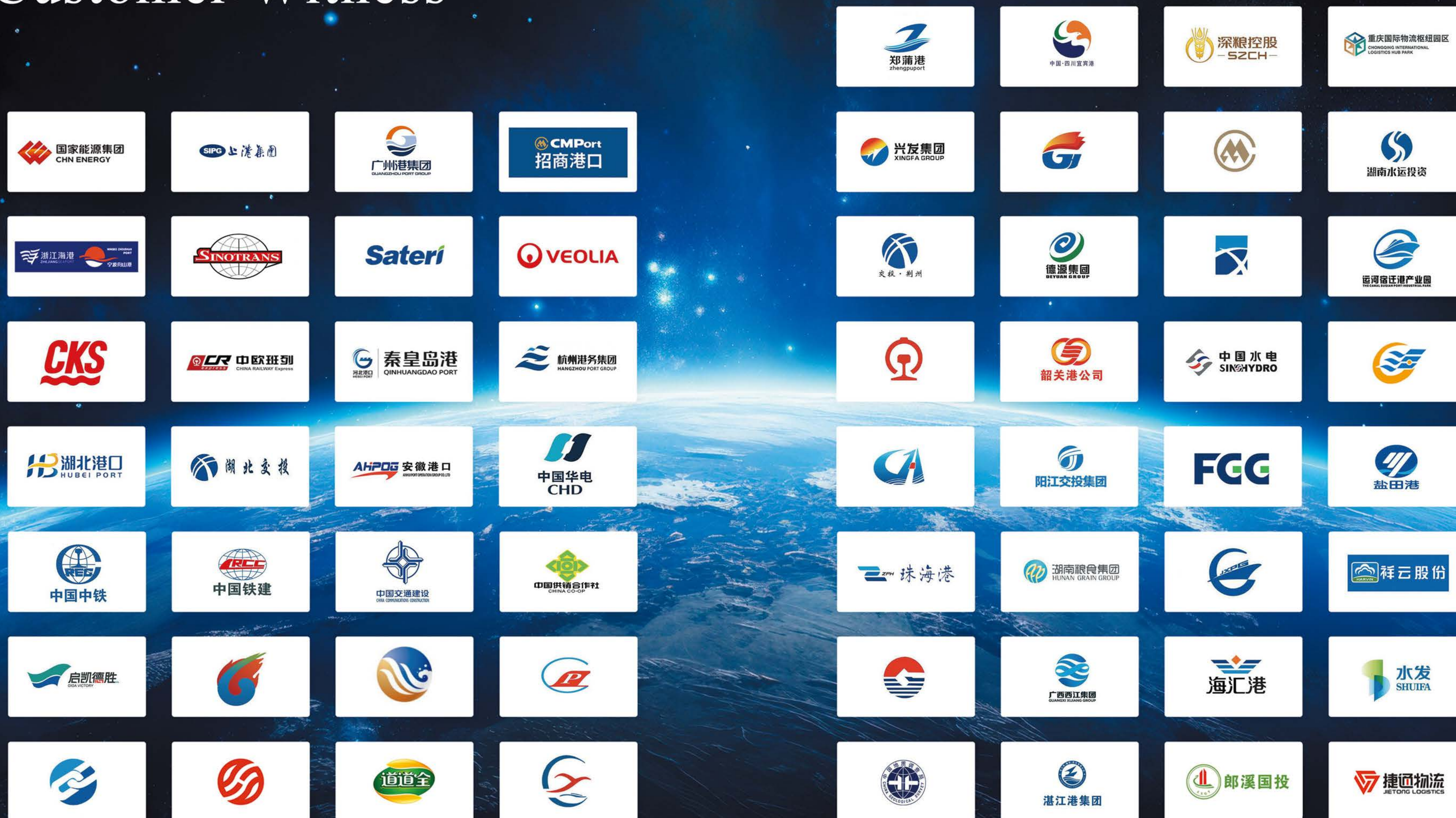
Wuxin has provided lifelong technical assistance for every port machinery unit since its inception, guaranteeing continuous support even post-warranty.



Wuxin Smart Cloud Diagnostics

Wuxin Cloud Diagnostics and Early Warning System enables remote troubleshooting, monitors vulnerable parts, triggers automated alerts for overdue maintenance, and ensures uninterrupted equipment operation.

Customer Witness



Ranking is not in any particular order or size