

Rail Mounted Gantry Crane (RMG): Industrial Lifting Solutions

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Rail Mounted Gantry Crane (RMG): Customizable, High-Capacity Lifting for Ports & Yards



What is a Rail Mounted Gantry Crane?

A rail mounted gantry crane (RMG crane) is a robust, high-capacity lifting system designed to operate on fixed rail tracks, making it ideal for precise, repetitive material handling in large-scale facilities. Engineered to handle heavy loads—from containers and bulk goods to industrial equipment—RMG cranes deliver unmatched efficiency in ports, container yards, intermodal terminals, and industrial storage facilities.

Whether you need to streamline container stacking, accelerate cargo turnover, or optimize yard space, our rail mounted gantry cranes are built to meet the demands of high-throughput operations.

Key Features of Our Rail Mounted Gantry Cranes

Our RMG cranes are designed with cutting-edge technology and durable materials to ensure reliability, safety, and long-term performance. Here’s what sets them apart:

- **High Load Capacity:** Handles loads from 20 tons to 100+ tons, with customizable configurations for ultra-heavy cargo.
- **Precision Control:** Equipped with advanced PLC systems and variable frequency drives (VFD) for smooth, accurate positioning—critical for stacking containers or aligning heavy equipment.
- **Weather Resistance:** Built with corrosion-resistant steel and sealed electrical components to withstand harsh environments (rain, humidity, extreme temperatures).
- **Energy Efficiency:** Regenerative braking systems and low-power consumption motors reduce operational costs without compromising performance.
- **Space Optimization:** Operates on fixed rails to maximize yard space utilization, allowing for dense stacking and efficient traffic flow.
- **Safety First:** Includes overload protection, emergency stop systems, anti-sway technology, and 360° monitoring cameras to minimize risks.

Technical Specifications

Parameter	Range (Customizable)
Maximum Lifting Capacity	20T – 150T
Span Length	10m – 40m
Lifting Height	6m – 25m
Travel Speed	0-40 m/min (adjustable)
Hoisting Speed	0-15 m/min (adjustable)

Power Supply	380V/50Hz (or custom)
Control System	Remote control + cabin operation

Applications: Where Rail Mounted Gantry Cranes Excel

Our RMG cranes are versatile enough to serve multiple industries, including:

- **Container Terminals & Ports:** Efficiently stack, load, and unload shipping containers from trucks, trains, or vessels.
- **Intermodal Yards:** Seamlessly transfer cargo between different transport modes (trucks, trains, ships).
- **Industrial Warehouses:** Handle heavy machinery, steel coils, or bulk materials in manufacturing plants.
- **Logistics Hubs:** Accelerate cargo sorting and storage to meet tight delivery deadlines.

RMG vs RTG: Comparative Advantages

Understanding the differences between Rail Mounted Gantry Cranes (RMG) and Rubber Tyred Gantry Cranes (RTG) is crucial for selecting the right material handling solution. Below is a detailed comparison of their core advantages:

Comparison Dimension	Rail Mounted Gantry Crane (RMG)	Rubber Tyred Gantry Crane (RTG)
Mobility & Flexibility	Operates on fixed rails for stable, predictable movement; ideal for dedicated work zones with consistent workflows.	Tire-based design enables unrestricted movement across yards; suitable for dynamic layouts requiring frequent repositioning. 5G-enabled remote control models enhance operational flexibility further.
Load Capacity & Stability	Superior stability from rail foundation; supports 20T–150T loads (customizable for ultra-heavy cargo) with precise positioning.	Typically handles 40T–60T loads; tire suspension reduces stability for extreme weights or high stacking heights.
Space Utilization	Dense stacking capability (up to 6+ containers high) maximizes yard space; rail layout optimizes traffic flow for high-throughput operations.	Requires wider turning radii and spacing between units; limits stacking density compared to RMG systems.

Energy Efficiency & Maintenance	Regenerative braking and low-power motors cut energy costs; minimal moving parts in rail systems reduce maintenance frequency.	Electric RTG models reduce diesel consumption, tire replacement, and suspension maintenance long-term costs.
Application Suitability	Best for large-scale container terminals, intermodal yards, and industrial facilities with fixed, high-volume workflows.	Preferred for medium-sized yards, temporary projects, or facilities needing periodic layout adjustment.

For operations prioritizing stability, heavy-load handling, and space efficiency, RMG cranes deliver long-term value. RTG systems excel in scenarios requiring flexible, on-demand positioning.

Why Choose Our Rail Mounted Gantry Cranes?

- 1. Customization:** We design RMG cranes tailored to your facility’s layout, load requirements, and operational goals.
- 2. Quality Assurance:** All cranes comply with international standards (ISO, FEM, DIN) and undergo rigorous testing before delivery.
- 3. Global Support:** Our team provides on-site installation, training, and 24/7 after-sales service to keep your operations running smoothly.
- 4. Cost-Effective:** Durable construction reduces maintenance needs, while energy-efficient design lowers long-term operational costs.

FAQs About Rail Mounted Gantry Cranes

Q: How often does a rail mounted gantry crane require maintenance?

A: Routine maintenance (lubrication, inspection) is recommended every 3 months, with major servicing annually—our team can schedule and perform these checks for you.

Q: Can RMG cranes operate in narrow spaces?

A: Yes, we offer compact models with reduced span lengths to fit tight yards while maintaining high performance.

Q: Are your cranes compliant with safety regulations?

A: Absolutely. All our RMG cranes meet OSHA, EU, and international safety standards, with built-in features to prevent accidents.

Get Your Custom Rail Mounted Gantry Crane Solution

Ready to boost efficiency in your facility? Contact us today for a free consultation and quote. Our experts will help you select the perfect rail mounted gantry crane for your needs.

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