

2 Tons Overhead Crane

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2 Tons Overhead Crane: High-Performance Lifting Solution for Industrial Needs

The 2 tons overhead crane is a versatile and reliable lifting equipment designed to meet the medium-duty material handling requirements of various industries. Engineered for efficiency, safety, and durability, this overhead crane delivers consistent performance in workshops, factories, warehouses, and other industrial settings where precise lifting of 2-ton loads is essential.

Key Features of 2 Tons Overhead Crane

1. Ultra-Robust Construction for Heavy-Duty Durability

The 2 tons overhead crane is built to thrive in the toughest industrial environments, starting with its high-strength structural framework. We use premium-grade high-strength low-alloy (HSLA) steel for the main girder, trolley, and end carriages—materials chosen for their exceptional tensile strength (≥ 345 MPa) and resistance to deformation under continuous 2-ton loads.

Every critical joint undergoes precision welding via fully automated submerged arc welding technology, ensuring weld seams are uniform, defect-free, and capable of withstanding repeated stress over decades. To combat corrosion—common in factories, warehouses, or outdoor workshops—the entire structure undergoes a multi-step surface treatment: first, thorough sandblasting to remove rust and debris, followed by a zinc-rich primer and a top coat of industrial-grade epoxy paint (dry film thickness $\geq 80\mu\text{m}$). This process ensures the crane remains resistant to moisture, chemicals, and UV exposure, even in humid or coastal environments.

Whether operating in high-temperature foundries or dusty construction yards, this crane's robust build guarantees consistent performance with minimal wear, reducing long-term maintenance costs.

2. Advanced Safety Systems for Risk-Free Operations

Safety is embedded in every component of our 2 tons overhead crane, with multiple layers of protection to prevent accidents and protect both operators and loads.

- **Intelligent Overload Protection:** A built-in load cell sensor continuously monitors the lifted weight, with real-time data displayed on the control panel. If the load exceeds 10% of the rated 2 tons, the system automatically cuts off lifting power and triggers an audible alarm, preventing structural strain or load drops.
- **Redundant Emergency Stop:** Both the pendant control and optional remote control feature large, easily accessible emergency stop buttons. These buttons are hardwired to a dual-circuit safety relay, ensuring the crane halts immediately—even if one circuit fails—stopping all movement (lifting, traversing, trolley travel) within 0.5 seconds.
- **Mechanical Limiters:** Hard-wired upper and lower lifting limit switches prevent the hoist from over-traveling, while end-stop buffers on the trolley and bridge limit travel to safe zones, avoiding collisions with walls or other equipment. Additionally, the crane is equipped with anti-derailment devices on the trolley wheels, ensuring stable movement along the girder rails even during sudden stops.

These features not only comply with global safety standards (OSHA, CE, ISO 4301) but also minimize downtime caused by accidents, keeping your workflow uninterrupted.

3. Precision Control & Energy Efficiency for Optimal Productivity

The 2 tons overhead crane combines smooth, accurate operation with energy-saving technology to boost efficiency while lowering operational costs.

- **Variable Frequency Drive (VFD) System:** The hoist and trolley are powered by VFD-controlled motors, allowing stepless speed adjustment (lifting: 0.8–8 m/min; trolley/bridge travel: 5–20 m/min). This eliminates sudden jerks when starting or stopping, ensuring precise positioning of fragile or heavy loads—critical for tasks like loading machinery parts or stacking palletized goods. Operators can fine-tune speed based on load weight, reducing the risk of load sway.
- **High-Efficiency Motors:** Equipped with IE3-class premium efficiency motors, the crane consumes up to 20% less energy compared to standard IE2 motors. This translates to significant electricity savings over daily 8–12 hour operations, making it an eco-friendly choice for cost-conscious facilities.
- **Ergonomic Control Options:** The standard pendant control features a lightweight, rubberized grip with clearly labeled buttons, reducing operator fatigue during long shifts. For larger workspaces, the optional wireless remote control (with a 50-meter range) allows operators to stand at optimal viewing angles, improving visibility and precision. Both controls include jog functions for micro-adjustments, ideal for tight-fit installations or delicate load handling.

This blend of precision and efficiency ensures faster, safer material handling—whether in busy warehouses or precision manufacturing lines.

Core Advantages of Our 2 Tons Overhead Crane

- **Reliable Load Capacity:** Specifically calibrated to handle 2-ton loads with consistent precision, eliminating concerns about underperformance or overloading risks.
- **Space-Saving Design:** Overhead installation maximizes floor space utilization, keeping work areas clear for other equipment and operations.
- **Customizable Configurations:** Available in single-girder or double-girder models, with options for span length, lifting height, and control systems (manual, pendant, or remote) to fit unique needs.
- **Long Service Life:** Corrosion-resistant finishes and high-quality components extend the crane’s lifespan, reducing replacement and repair costs over time.

Application Scenarios

The 2 tons overhead crane is widely used across multiple industries, including:

- Manufacturing plants (automotive, electronics, machinery production)
- Warehouses and distribution centers for palletized goods handling
- Construction sites for light steel structure installation
- Metalworking facilities for raw material and finished product movement
- Logistics hubs for loading and unloading of medium-weight cargo

Technical Specifications (Standard Model)

Parameter	Details
Rated load	2 tons
Lifting height	6–12 meters (customizable)
Span length	8–22 meters (adjustable based on workspace)
Lifting speed	0.8–8 m/min (variable speed options available)
Trolley/Bridge travel speed	5–20 m/min (VFD-controlled)
Power supply	380V/3Ph/50Hz (customizable for different regions)
Control mode	Pendant control (standard), remote control (optional)
Motor efficiency class	IE3 (premium efficiency)

Why Choose Our 2 Tons Overhead Crane?

- **Compliance with International Standards:** Manufactured in accordance with ISO, CE, and other global safety and quality certifications.
- **Tailored Solutions:** Our engineering team offers custom modifications to adapt the 2 tons overhead crane to your specific workspace and operational requirements.
- **Comprehensive After-Sales Support:** Includes installation guidance, maintenance training, and prompt spare parts supply to ensure uninterrupted operation.
- **Cost-Effective Investment:** Balances high performance with competitive pricing, delivering long-term value for small to medium-sized enterprises.

Whether you need to streamline material handling in your workshop or enhance operational efficiency in a warehouse, our 2 tons overhead crane is the ideal lifting solution that combines reliability, safety, and versatility. Contact our team today to discuss your requirements and get a personalized quote.

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