

10 Ton Overhead Crane

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The 10 ton overhead crane is an indispensable heavy-duty material handling solution in industrial operations, renowned for its robust performance and flexible load management. Capable of lifting and maneuvering loads up to 10 tons with high precision and operational efficiency, it is a staple in factories, warehouses, manufacturing workshops, and construction yards. The two primary configurations—10 ton single girder overhead bridge crane and 10 ton double girder overhead bridge crane—cater to distinct operational needs with their unique structural designs, performance traits, and application focuses. This guide breaks down their key features to help you select the optimal crane for your specific requirements.

10 Ton Single Girder Overhead Bridge Crane

The 10 ton single girder overhead bridge crane is a cost-effective and space-saving material handling equipment, characterized by its simplified structure with a single main girder spanning the crane runway. This design makes it an ideal choice for applications where workshop space is limited and the lifting requirements are relatively straightforward.

Structural & Performance Features

- **Compact Structure:** The single main girder (usually made of I-beam or box girder) reduces the overall height and weight of the crane, allowing it to operate in workshops with lower headroom. This also minimizes the load on the factory building's steel structure, reducing construction and renovation costs.
- **Cost-Effective:** Compared to double girder cranes, single girder models have fewer components, simpler manufacturing processes, and lower maintenance costs. They are a budget-friendly option for small to medium-sized enterprises with 10-ton lifting demands.
- **Smooth Operation:** Equipped with high-quality electric hoists (such as wire rope hoists) and reliable traveling mechanisms, the crane ensures stable lifting and horizontal movement. The hoist is typically mounted under the main girder, providing direct and efficient load handling.
- **Easy Installation & Maintenance:** The simplified structure makes on-site installation quicker and easier. Routine maintenance tasks, such as inspecting the hoist, brakes, and traveling wheels, are also more accessible, reducing downtime.

Technical Specifications: 10 Ton Single Girder Overhead Crane

Parameter	Specification
Lifting Capacity	10 Ton
Span Length	6m - 30m (Customizable)
Lifting Height	6m - 20m (Customizable)
Lifting Speed	3.2m/min - 9.8m/min (Dual-speed optional)
Trolley Travel Speed	20m/min - 40m/min (Dual-speed optional)
Bridge Travel Speed	30m/min - 60m/min (Dual-speed optional)
Power Supply	380V/50Hz/3Ph (Customizable for different regions)
Control Mode	Pendant control, Remote control (optional)
Main Girder Material	Q235B or Q355B Steel
Working Class	A3 - A5 (According to FEM/ISO standards)

Typical Applications

The 10 ton single girder overhead bridge crane is widely used in scenarios such as:

- Warehouses for loading and unloading goods, stacking pallets, and moving heavy materials.
- Machining workshops for lifting and positioning workpieces, molds, and machinery components.
- Assembly lines for transporting semi-finished products between workstations.
- Light-duty manufacturing industries, such as electronics, automotive parts, and hardware.

10 Ton Double Girder Overhead Bridge Crane

The 10 ton double girder overhead bridge crane features two parallel main girders, offering enhanced stability, higher lifting height, and greater versatility compared to single girder models. This configuration is designed to handle more demanding working conditions and complex lifting tasks, making it suitable for heavy-industry applications.

Structural & Performance Features

- **Superior Stability:** The double main girder design distributes the load more evenly, providing excellent lateral and vertical stability during operation. This is particularly important when lifting bulky or irregularly shaped loads, as it minimizes sway and ensures safe handling.
- **Higher Lifting Height:** The hoist is usually installed between the two main girders, which allows for a higher effective lifting height compared to single girder cranes. This is advantageous in workshops where maximizing vertical space utilization is crucial.
- **Greater Customization:** Double girder cranes can be easily customized with additional accessories, such as auxiliary hoists (for precise lifting of light loads), rotating hooks, grab buckets, or magnets. This makes them adaptable to a wide range of specialized tasks.
- **Durability & Long Service Life:** The robust structure and high-quality materials used in double girder cranes ensure excellent durability, even in harsh environments with high temperatures, dust, or corrosive substances. They have a longer service life and can withstand frequent heavy-load operations.

Technical Specifications: 10 Ton Double Girder Overhead Crane

Parameter	Specification
Lifting Capacity	10 Ton
Span Length	10m - 35m (Customizable)
Lifting Height	8m - 30m (Customizable)
Lifting Speed	2.5m/min - 8m/min (Dual-speed optional)
Trolley Travel Speed	15m/min - 30m/min (Dual-speed optional)
Bridge Travel Speed	20m/min - 50m/min (Dual-speed optional)
Power Supply	380V/50Hz/3Ph (Customizable for different

	regions)
Control Mode	Pendant control, Wireless remote control (standard)
Main Girder Material	Q355B Steel (Box Girder)
Working Class	A5 - A7 (According to FEM/ISO standards)
Auxiliary Hoist Capacity (Optional)	2 Ton - 5 Ton

Typical Applications

The 10 ton double girder overhead bridge crane is commonly used in:

- Heavy machinery manufacturing plants for lifting large equipment, engines, and structural components.
- Steel mills and metallurgical industries for handling steel coils, ingots, and molten metal containers (with heat-resistant modifications).
- Power plants for maintaining and installing generators, turbines, and other heavy electrical equipment.
- Port and container yards for loading and unloading containers and heavy cargo (in outdoor or semi-outdoor settings).

Key Differences & How to Choose

To select between a 10 ton single girder and double girder overhead bridge crane, consider the following factors:

Factor	Single Girder Crane	Double Girder Crane
Workshop Headroom	Ideal for low headroom	Requires higher headroom
Lifting Task Complexity	Suitable for simple, routine lifting	Suitable for complex, specialized tasks
Budget	Lower initial and maintenance costs	Higher initial cost but better long-term value for heavy use
Environmental Conditions	Best for light-duty, clean environments	Suitable for harsh, heavy-industry environments

Both 10 ton single girder and double girder overhead bridge cranes comply with international safety standards (such as ISO, FEM, and OSHA) and are equipped with safety features including overload protection, emergency stop buttons, limit switches, and anti-collision devices to ensure safe operation.

Whether you need a cost-effective solution for routine material handling or a robust crane for heavy-industry tasks, our 10 ton overhead cranes are engineered to deliver reliable performance and maximum productivity. Contact us today to learn more about customization options and find the perfect crane for your operation!

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