

Slab/Billet Cranes for Steel Mill

Original link: <https://www.globalweihua.com/products/overhead-crane/slab-billet-cranes-for-steel-mill/>



Weihua Crane

Slab/Billet Cranes for Steel Mill

Product Overview of Slab/Billet Cranes for Steel Mill

Slab/billet cranes for steel mill are specialized lifting equipment meticulously designed to meet the rigorous demands of steel production environments. Tailored for the safe and efficient handling of slabs and billets—core semi-finished products in steel manufacturing—these cranes serve as the backbone of material flow in steel mills, connecting key processes such as continuous casting, heating furnace charging, rolling mill feeding, and finished product storage. Engineered to withstand extreme conditions including high temperatures, heavy dust, and frequent shock loads, our slab/billet cranes for steel mill ensure stable, reliable, and high-performance operation, directly contributing to the improvement of production efficiency and safety in steel plants.

Technical Parameters of Slab/Billet Cranes for Steel Mill (Customizable)

Parameter	Range
Lifting Capacity	5t - 300t
Span	10m - 35m
Lifting Height	6m - 30m
Lifting Speed	0.5m/min - 10m/min (adjustable by frequency conversion)
Traversing Speed	5m/min - 30m/min (adjustable by frequency conversion)
Working Class	A6 - A8 (heavy-duty/extr-heavy-duty)
Ambient Temperature	-20°C - 1000°C (with high-temperature protection)

Core Component: High-Performance Lifting Spreader for Slab/Billet Cranes for Steel Mill



Slab/Billet Cranes for Steel Mill

The lifting spreader is a critical core component of slab/billet cranes for steel mill, directly determining the stability, safety, and efficiency of material handling. We equip our cranes with two types of professional spreaders, customizable according to different steel mill scenarios and material characteristics to maximize the performance of slab/billet cranes for steel mill.

1. Mechanical Clamp Spreader

This spreader adopts a precision mechanical linkage structure, which realizes automatic clamping and releasing of slabs/billets through the gravity of the load and the tension of the crane's lifting mechanism. Its key advantages include:

- **Secure Clamping:** The clamp jaws feature a special serrated design that enhances friction with the surface of slabs/billets, preventing slipping even under high-temperature conditions (up to 1000°C), ensuring absolute safety during lifting.
- **High Adaptability:** It can be adjusted to match different sizes and weights of slabs/billets (from 5t to 150t), with strong compatibility for various steel mill production lines.

- Low Maintenance: The mechanical structure is robust and simple, with no need for additional power sources (such as hydraulic or electric systems) for clamping, reducing maintenance costs and failure rates in harsh environments.

2. Electromagnetic Spreader

Ideal for handling thin slabs, small billets, or scenarios requiring frequent loading and unloading, the electromagnetic spreader uses electromagnetic force to adsorb and lift materials. Its prominent features are:

- Efficient Operation: Enables quick adsorption and release of materials, significantly shortening the handling cycle and improving production efficiency. It is especially suitable for high-volume, continuous production lines.
- Gentle Handling: The electromagnetic force is evenly distributed, avoiding mechanical damage to the surface of slabs/billets, ensuring the quality of semi-finished products.
- Safety Protection: Equipped with a backup power supply system. In case of sudden power failure, the backup power supply can maintain the electromagnetic force for a certain period, preventing materials from falling and ensuring operational safety.

Key Advantages of Our Slab/Billet Cranes for Steel Mill

1. High Temperature Resistance & Durability

The main structure of slab/billet cranes for steel mill is made of high-strength heat-resistant steel, and key components (such as motors, reducers, and bearings) are equipped with high-temperature protection devices. The electrical system adopts dust-proof and waterproof enclosures, ensuring stable operation of slab/billet cranes for steel mill in high-temperature, dusty steel mill environments with a long service life.

2. Precision Control & High Efficiency

Slab/billet cranes for steel mill adopt advanced variable frequency speed regulation technology, which enables smooth lifting and traversing of the [overhead crane](#), with precise positioning accuracy (up to $\pm 5\text{mm}$). It can seamlessly match the rhythm of continuous casting and rolling production lines, avoiding material accumulation and improving the overall production efficiency of the steel mill—another key advantage of our slab/billet cranes for steel mill.

3. Comprehensive Safety Protection

In addition to the safety protection of the spreader, the crane is also equipped with multiple safety devices, including overload protection, overtravel protection, anti-collision protection, and emergency stop systems. The intelligent monitoring system can real-time monitor the

operating status of the crane (such as load, temperature, and vibration), and issue early warnings for potential faults, minimizing safety risks.

4. Customizable Design

According to the specific layout of the steel mill, the size of slabs/billets, and the production process requirements, we can customize the crane's lifting capacity (5t-300t), span (10m-35m), lifting height, and spreader type. We also provide optional configurations such as remote control operation and automatic tracking systems to meet the individual needs of different customers.

Application Scenarios of Slab/Billet Cranes for Steel Mill

Our slab/billet cranes for steel mill are widely used in various key links of steel mills, including: these scenarios fully demonstrate the versatility and reliability of slab/billet cranes for steel mill in steel production.

- Continuous Casting Workshop: Handling and stacking of newly cast slabs/billets.
- Heating Furnace Area: Charging slabs/billets into the heating furnace accurately.
- Rolling Mill Workshop: Feeding slabs/billets to the rolling mill and handling rolled products.
- Warehouse Storage: Stacking and retrieving finished slabs/billets in the warehouse.

After-Sales Service for Slab/Billet Cranes for Steel Mill

We provide a full-cycle after-sales service system for our slab/billet cranes for steel mill: professional technical team on-site installation and commissioning of slab/billet cranes for steel mill; regular maintenance and inspection services; 24/7 emergency repair support; and training for the customer's operation and maintenance personnel. We are committed to ensuring that the slab/billet cranes for steel mill operate at peak performance for a long time, providing reliable support for the smooth production of steel mills.

For more detailed product information, customized solutions, or quotation inquiries about slab/billet cranes for steel mill, please contact our sales team. We will respond to your needs promptly with professional services.

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