

Ladle Cranes for Steel Mill: High-Performance Heavy-Duty Lifting Solution

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Ladle Cranes for Steel Mill

As a critical piece of equipment in the steel production process, ladle cranes for steel mill are engineered to handle the harsh, high-temperature, and heavy-load working environment of steel plants. Designed for precise and safe transportation of molten steel ladles, our ladle cranes play an indispensable role in connecting key production links such as steelmaking, refining, and continuous casting. With advanced technology, robust structure, and reliable performance, they ensure the smooth, efficient, and safe operation of your steel production line.

Product Overview





 **Weihua Crane**
WEI HUA

Ladle Cranes for Steel Mill

Our ladle cranes are specifically tailored for the unique demands of steel mill operations. They are primarily used to lift, transport, and pour molten steel from electric arc furnaces, converters, or refining furnaces to continuous casting machines or ingot molds. The cranes are capable of withstanding extreme temperatures, heavy loads, and dusty conditions, while maintaining high positioning accuracy and operational stability. Available in various configurations ([single girder overhead crane](#), [double girder overhead crane](#), or overhead traveling) to match different workshop layouts and production requirements, our ladle cranes are the ideal lifting equipment for modern steel mills.

Ladle Cranes Core Hook



Ladle Cranes Core Hook

The core spreaders of our ladle cranes are key components for safe lifting. Mainly composed of high-temperature-resistant lifting beams and hook groups, they are made of heat-resistant alloy materials to withstand the radiant heat of molten steel. The optimized design ensures a secure fit with ladle trunnions, preventing slipping or tilting during lifting, and effectively guaranteeing the stability of molten steel transportation.

Ladle Cranes for Steel Mill Core Advantages

1. Exceptional Load-Bearing Capacity & Stability

Constructed with high-strength steel materials and optimized structural design, our ladle cranes feature excellent load-bearing capacity, ranging from 50 tons to 500 tons, to meet the lifting needs of different-sized molten steel ladles. The double-girder structure (for heavy-load models) enhances the overall rigidity and stability, minimizing deflection during lifting and transportation, thus ensuring the safe transfer of molten steel.

2. Advanced Safety Protection System

Safety is the top priority in steel mill operations. Our ladle cranes are equipped with a comprehensive safety protection system, including: overload protection device that automatically cuts off the lifting circuit when exceeding the rated load; anti-collision device that prevents collisions between cranes or with workshop structures; high-temperature resistance protection for electrical components to avoid malfunctions in high-temperature environments; and emergency stop button that allows immediate shutdown of all operations in case of emergencies. These multiple safety guarantees effectively reduce the risk of accidents.

3. High Efficiency & Precise Control

Adopting advanced frequency conversion speed regulation technology, our ladle cranes can achieve stepless speed adjustment of lifting and traveling, ensuring smooth start-up, acceleration, deceleration, and stop. The precise control system enables accurate positioning of the molten steel ladle, which is crucial for the pouring process in continuous casting. Additionally, the optimized transmission mechanism reduces energy consumption while improving operational efficiency, helping steel mills reduce production costs and increase output.

4. Durability & Low Maintenance

Considering the harsh working conditions of steel mills (high temperature, dust, vibration), our ladle cranes are designed with enhanced durability. Key components such as motors, reducers, and brakes are selected from well-known international brands, ensuring long service life. The crane structure is treated with anti-corrosion and high-temperature resistance coatings to prevent rust and deformation. Moreover, the modular design facilitates easy maintenance and replacement of parts, reducing downtime and maintenance costs.

Ladle Cranes for Steel Mill Technical Parameters

Parameter	Specification
Rated Load	50t - 500t

Span	10m - 30m (customizable)
Lifting Height	8m - 30m (customizable)
Lifting Speed	0.5m/min - 10m/min (stepless adjustable)
Traveling Speed	5m/min - 30m/min (stepless adjustable)
Working Class	A7 - A8 (heavy-duty working system)
Ambient Temperature	-20°C - 80°C (with high-temperature protection)
Power Supply	380V/50Hz (customizable according to local standards)

Ladle Cranes Application Scenarios

Our ladle cranes are widely used in various types of steel mills, including: electric arc furnace steel mills, converter steel mills, stainless steel mills, and special steel mills. They are suitable for the following key production links:

- Transportation of molten steel from electric arc furnaces/converters to refining furnaces
- Transfer of refined molten steel to continuous casting machines
- Pouring of molten steel into ingot molds
- Handling of empty ladles and maintenance of ladles

Quality Assurance & After-Sales Service

We adhere to strict quality control standards throughout the production process of ladle cranes. All cranes are manufactured in accordance with international standards (such as ISO, FEM) and undergo rigorous testing (load test, performance test, safety test) before leaving the factory to ensure product quality and performance. We provide comprehensive after-sales service, including: on-site installation and commissioning by professional technicians; operator training to ensure correct and safe operation; regular maintenance and inspection services; and 24/7 technical support to solve any problems encountered during use in a timely manner.

Customization is available! We can design and manufacture ladle cranes according to your specific workshop layout, production capacity, and load requirements. Contact us today to get a personalized solution for your steel mill.

(注：文档部分内容可能由 AI 生成)