

Garbage Grab Bucket Overhead Crane - High-Efficiency Waste Handling Solution

Original link: <https://www.globalweihua.com/products/overhead-crane/garbage-grab-bucket-overhead-crane/>



Product Overview

The garbage grab bucket overhead crane is a specialized material handling equipment designed for efficient, safe, and automated waste management operations. Engineered with heavy-duty components and advanced control systems, this crane is tailored to tackle the unique challenges of garbage handling—including high-density loads, corrosive environments, and continuous operation demands. Whether for municipal waste treatment plants, landfill sites, incineration facilities, or industrial waste yards, it delivers reliable performance to optimize waste transfer, sorting, and disposal processes.

Core Product Features

1. Heavy-Duty Grab Bucket Design

- Equipped with **high-strength alloy steel crane grab buckets** (clamshell or orange-peel type) that offer exceptional wear resistance and corrosion resistance, suitable for handling wet, sticky, or abrasive garbage.
- Adjustable grab opening and closing speed (0.8-1.5 m/s) ensures precise control over load capacity, preventing spillage and maximizing handling efficiency.
- Sealed bearing structure and anti-blocking mechanism reduce maintenance frequency and ensure smooth operation even in dusty or debris-filled environments.

2. Stable & Durable Crane Structure

- Main beam and end carriages are fabricated with Q355B high-quality steel, undergone shot blasting treatment and anti-corrosion painting (epoxy primer + topcoat) to withstand harsh waste management conditions.
- Box-type welded structure with reinforced ribs enhances structural rigidity, minimizing deflection during heavy-load operation (deflection $\leq L/1000$, L = span length).
- Low-noise running mechanism ($\leq 75\text{dB}$) with precision gears and lubrication system ensures quiet operation, complying with environmental protection standards.

3. Advanced Control System

- Equipped with **PLC programmable logic controller** and touch-screen operation panel, supporting manual, semi-automatic, and fully automatic control modes.
- Anti-sway technology reduces load swing by 80%, improving positioning accuracy ($\pm 50\text{mm}$) and operational safety.
- Emergency stop button, overload protection (110% of rated load), and limit switches (lift, travel, cross travel) provide multi-layer safety guarantees.
- Optional remote control (effective distance $\leq 100\text{m}$) allows operators to work in a safe, comfortable environment.

4. Energy-Efficient & Easy Maintenance

- Adopts high-efficiency motors (IE3 standard) and frequency converters, reducing energy consumption by 15-20% compared to conventional cranes.
- Modular design simplifies maintenance; key components (motors, reducers, bearings) are easily accessible and interchangeable.
- Long service life of core parts: grab bucket $\geq 8,000$ working hours, crane structure ≥ 10 years (under normal use and maintenance).

Technical Specifications

Parameter	Specification
Rated Load	5-50 tons
Grab Bucket Capacity	3-30 m ³
Span Length	10-30 meters (customizable)
Lifting Height	8-20 meters (customizable)
Lifting Speed	0.5-3 m/min (variable frequency adjustable)
Travel Speed (Longitudinal)	10-30 m/min
Travel Speed (Cross)	5-15 m/min
Power Supply	380V/50Hz/3Ph (customizable for different regions)

Working Class	A6-A7 (suitable for continuous heavy-load operations)
Operating Temperature	-20°C to +60°C
Protection Class	IP54 (motor), IP65 (control cabinet)
Weight of Crane	8-80 tons (varies by load and span)

Application Scenarios

1. Municipal Solid Waste (MSW) Treatment Plants

Ideal for transferring garbage from storage pits to sorting lines, incinerators, or composting facilities . The high-capacity grab bucket efficiently handles large volumes of mixed waste, while the anti-sway control ensures precise feeding into processing equipment.

2. Landfill Sites

Used for waste compaction, stockpiling, and transfer. The corrosion-resistant grab bucket and durable structure withstand the humid, corrosive environment of landfills, reducing equipment failure and maintenance costs.

3. Waste Incineration Plants

Facilitates continuous feeding of garbage into incinerators, matching the high-temperature, high-demand operation of incineration systems. The fully automatic control mode enables seamless integration with the plant’ s production line, improving operational efficiency.

4. Industrial Waste Yards

Suitable for handling industrial solid waste (e.g., scrap metal, chemical waste, construction waste). The adjustable grab bucket design adapts to different waste types, ensuring safe and efficient handling without contamination.

5. Recycling Facilities

Aids in sorting and transferring recyclable materials (e.g., paper, plastic, metal) from waste streams . The precise control system allows gentle handling of fragile recyclables, minimizing damage and maximizing recycling rates.

Why Choose Our Garbage Grab Bucket Overhead Crane ?

- **Customization:** Tailor-made solutions based on your specific load capacity, span, lifting height, and application requirements.
- **Reliability:** Rigorous quality control (ISO9001 certified) and strict testing before delivery ensure stable performance in harsh environments.
- **After-Sales Service:** 24/7 technical support, on-site installation guidance, and regular maintenance training to maximize equipment uptime.
- **Cost-Effectiveness:** Energy-efficient design and long service life reduce total ownership costs, delivering higher return on investment.

Contact us today to learn more about our garbage grab bucket overhead crane and get a personalized quote!

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