QINGDAO QUANHANG MACHINERY CO., LTD

Concrete Mixer Pump

Product Overview

A concrete mixer pump, also known as an integrated mixing and pumping machine or a trailer-mounted concrete pump, is a type of construction machinery that combines a concrete mixer and a concrete pump into a single unit. It integrates three major functions—automatic loading, forced mixing, and high-pressure pumping—into one machine, enabling a continuous operation mode where mixing and pumping occur simultaneously.

Compared to the traditional combination of a “fixed batching plant + trailer-mounted concrete pump,” the key difference of the concrete mixer pump is that a single unit simultaneously performs both mixing and pumping, eliminating the need for secondary transport by a mixer truck. It is particularly well-suited for small- to medium-sized, decentralized construction sites with high mobility.



Technical Specifications

Max. theo. concrete output	40m^3 /h
Feeding Capacity	0.56m^3
Discharging Capacity	0.45m^3
Max. concrete pumping pressure	10 MPa
Distribution valve type	S-tube valve
Concrete cylinder diameter×stroke	Φ180×1000 mm
Hopper capacity	400L
Outlet diameter	Φ150mm
Diesel Engine Power	82 kW
Rotate speed	2,200 r/min
Hydraulic Circuit Configurations	Open-loop system
Hydraulic Pressure in the Pumping System	32 MPa
Hydraulic Pressure of the Mixing System	6 MPa
Hydraulic Oil Tank Capacity	350L
Maximum Horizontal Conveying Distance	600m
Maximum Vertical Conveying Distance	150m
Max. aggregate diameter	Scree: 40–50 mm
Inner Diameter of Concrete Delivery Pipes	Φ125 mm
Dimensions: Length × Width × Height	6000 x 2300 x 3150 mm
Total weight	6,000 kg

Key Benefits and Features of the Product

One Machine, Two Uses — Saves on Equipment and Labor

Mixing and pumping in one unit, replacing the three-piece set of “mixer + concrete pump + mixer truck”

While the traditional setup requires 3 to 4 operators, the mixing pump requires only one worker to handle loading and operation

Reduces equipment procurement costs by more than 40%, significantly lowering the initial investment

Continuous Operation — 3 to 6 Times More Efficient

Pumping occurs while mixing, eliminating the need to wait for a mixer truck to transport the concrete and ensuring uninterrupted discharge.

For a reference model with a mixing capacity of 15 m^3/h and a pumping capacity of 30–40 m^3/h, daily concrete placement can reach 200–400 m^3.

The construction schedule is shortened by more than 50% compared to the manual labor plus wheelbarrow method.

Labor and Cost Savings

Fully mechanized operation eliminates the need for a significant amount of manual handling and wheelbarrow work.

Based on the mixing volume, labor costs can be reduced by approximately 15–30 yuan per cubic meter.

Reduces concrete transfer losses and improves material utilization.

Flexible Site Relocation — A Powerful Tool for Mobile Construction

The trailer-mounted model is towed, allowing for quick and flexible relocation and the ability to serve multiple job sites simultaneously.

While the concrete is curing (7–10 days), the equipment can be moved to other job sites to generate continuous revenue.

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Its compact design allows it to access narrow rural roads and field paths.

Dual Power Options — No Power Supply Restrictions

Electric Model: Suitable for construction sites with a stable industrial power supply; low noise and low energy consumption

Diesel Model: Available with diesel engines from brands such as Weichai, Deutz, and Cummins; operates independently in areas without electricity

Diesel-Electric Hybrid Model: Dual-power redundancy to handle complex operating conditions

Easy to use — Low training costs

Equipped with a wireless remote control, it eliminates the need for a traditional control panel, allowing a single operator to control the machine remotely.

Features a programmable PLC intelligent system with self-diagnostic capabilities; even beginners can operate it after just 30 minutes of training.

The S-valve offers excellent directional sealing, minimizing the risk of pipe blockages, and features a one-touch reverse pumping function to clear clogs.







Why Choose Us?

Expert Technical Team: Over 10 years of experience in R&D of mixing equipment, providing customized solutions

Quality Assurance: Rigorous quality control system; ISO 9001-certified company

After-Sales Service: Global service network, 24-hour response, and lifetime technical support

Success Stories: Serving over 500 companies across more than 20 countries and regions

Customer Testimonial

1.

★★★★★ Project Manager, a major contracting company (Saudi Arabia)

The small concrete pump delivered flawless performance on our four-story building project — powerful, reliable, and easy to maneuver. It kept our schedule tight and the concrete placement precise. Highly recommend this machine for mid-rise construction.

2.

★★★★★ Construction Crew Foreman, a construction contracting company (Philippines)

This mortar spraying machine offers real advantages in both time and cost savings. It runs on electricity, so we’ ve saved significantly on expensive diesel fuel. We completed the plastering of a 1,500 sq.ft flat in just 1.5 days — that would have taken us nearly a week with traditional methods.

3.

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★★★★★ Engineer at a construction company, a certain construction firm (Malaysia)

The electric startup takes just minutes, and the remote-controlled valve adjustment makes operation effortless. We all love its smooth pumping operation — it’s been a game-changer for our tunnel project.

FAQ

1.

Q: What is the minimum order quantity for your products?

A: For larger equipment such as mixers, our minimum order quantity is one unit; for smaller products such as valves and fittings, the minimum order quantity ranges from 50 to 100 pieces. Please contact our sales representatives to confirm the specific minimum order quantity.

2.

Q: From which port do you ship?

A: Since our company is located in Qingdao, most of our shipments depart from the Port of Qingdao.

3.

Q: Are you a factory or a trading company?

A: We are a manufacturing company with our own factory; all our equipment is produced in our factory's production lines.

4.

Q: What is the difference between a concrete mixer pump and a trailer-mounted mixer pump?

A: Concrete mixer pumps, integrated mixer-pumps, and trailer-mounted mixer pumps essentially refer to the same type of equipment—machines that combine concrete mixing and pumping functions into one unit. The different names stem from manufacturers' marketing practices; "trailer-mounted mixer pump" emphasizes its trailer-mounted chassis design, while "integrated mixer-pump" highlights the combination of these two functions. When making a purchase, it is recommended to base your decision on actual technical specifications (mixing capacity, pumping capacity, delivery pressure, and power type) rather than the name.

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5.

Q: How high can a concrete mixer pump pour concrete?

A: The vertical delivery height of a concrete mixer pump depends on the model and configuration:

The maximum vertical delivery height is approximately 70 m to 90 m, corresponding to buildings with 1 to 10 stories

Truck-mounted forced-action pumps: Vertical delivery height can reach up to 240 m, suitable for high-rise projects.

In actual use, it is recommended to allow for a 20%–30% pressure margin to ensure smooth pumping. For example, for equipment with a rated vertical delivery height of 70 m, it is recommended to use it for pouring floors below 50–60 m.

6.

Q: Are the mixing capacity and pumping capacity of a concrete mixing pump the same?

A: No, they are two separate metrics:

Mixing capacity: Refers to the volume of concrete that the mixing system can produce per hour; the reference model is 15 m^3/h

Pumping capacity: Refers to the volume of concrete that the pumping system can deliver per hour; the reference model has a capacity of 30–40 m^3/h.

Since the pumping capacity exceeds the mixing capacity, the equipment can continuously pump the freshly mixed concrete to the work site, enabling continuous “mix-and-pump” operation without the mixing process ever falling behind the pumping process.

7.

Q: How many people are needed to operate a concrete mixing pump?

A: One of the biggest advantages of a concrete mixing pump is that it saves on labor. With a standard configuration:

1 worker is responsible for loading (using a loader or manual loading);

1 operator controls the pumping and mixing via a wireless remote control.

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In other words, just 1–2 people can complete the entire mixing and pumping operation. Compared to the traditional “mixer + trailer pump + concrete mixer truck” setup, which requires 3–4 people, the concrete pump saves over 50% in labor costs.

8.

Q: What should I do if the concrete mixing pump becomes clogged?

A: The mixing pump is equipped with a reverse pumping function; most minor clogs can be automatically cleared with a single press of the reverse pump button:

Gently press the reverse pump button to allow the concrete to flow back into the hopper (2–3 cycles).

If the clog persists, stop the machine immediately, disassemble the pipe at the clogged section, and clear the blockage.

Inspect and replace any worn seals or elbows.

After reconnecting the piping, pump mortar to pre-lubricate the lines, then resume concrete pumping.

To prevent blockages: Maintain a concrete slump of 120–200 mm; ensure aggregate particle size does not exceed the permitted limits (40 mm for cobblestones / 30 mm for crushed stone); avoid letting concrete remain in the pipes for more than 30 minutes.

9.

Q: What is the maximum aggregate size (particle size) that a mixer pump can handle?

A: For standard models, the maximum allowable aggregate size is 40 mm for cobblestones and 30 mm for crushed stone. Aggregates larger than these sizes can cause pipe blockages or accelerate wear. Aggregates must be screened before construction to ensure they meet the size requirements. Forced-action mixer pumps are slightly more adaptable to aggregates than drum-type mixer pumps.

10.

Q: Can a concrete mixing pump be used at multiple job sites simultaneously?

A: Yes, this is one of the core advantages of a concrete pump mixer. Concrete pouring involves curing intervals (for example, a 7–10-day wait for the concrete to set between two floors), during which traditional stationary batching plants must remain idle. In contrast, trailer-mounted concrete pump mixers offer flexible site mobility; they can be towed to other job sites (such as residential foundation projects, rural roads, or inside tunnels) to continue construction during the curing period, thereby improving equipment utilization and return on investment.

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