Fully Automatic Concrete Mixing and Pumping Machine S6

Product Overview

The S6 fully automatic concrete mixing and pumping unit is specifically designed for pumping fine-aggregate concrete to high-rise buildings and over long distances. It utilizes dual-cylinder piston and S-valve distribution technology to enable direct pumping from the mixing site. The unit features a high delivery head, stable operation, and simple operation and maintenance. It comes standard with forklift sockets at the base for flexible site relocation, effectively reducing material waste. It is a highly efficient pumping solution that enhances construction efficiency and ensures a clean worksite.



Technical Specifications

Maximum theoretical pumping capacity	8 m^3 /h	Maximum aggregate size	≤30 mm
Maximum theoretical discharge pressure	10 MPa	Vertical conveying height	100 m
Motor power	22 kW, 380 V, 50 Hz	Horizontal conveying distance	150 m
Main oil pump displacement	65 L/min	Conveyor cylinder diameter	120 mm
Main Oil Pump Type	A10V45	Hopper capacity	0.6 m^3
Main cylinder diameter	80 mm	Equipment weight	1600 kg
Main system pressure	25 MPa	Equipment Dimensions	2480 × 2020 × 1700 mm

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Key Benefits and Features of the Product

Integrated mixing and pumping—mix and pump on-site

By combining mixing and pumping functions into a single system, the concrete is automatically mixed after being loaded on-site and fed directly into the pumping system, eliminating the need for transfer via concrete trucks.

This design not only reduces construction preparation time but also effectively prevents segregation and early setting of the concrete during transport, ensuring that the quality of the pumped material remains consistently uniform and stable.

High-pressure long-distance transmission without pipe blockages

Featuring a dual-cylinder piston pumping system and S-valve distribution technology, the main oil pump is equipped with a constant-power variable-displacement piston pump, delivering high outlet pressure and stable flow rates.

The S-valve features automatic wear-compensation, ensuring excellent sealing performance. Combined with a long-stroke material cylinder design, this effectively reduces the likelihood of pipe blockages and ensures reliable continuous pumping at high elevations and over long distances.

Precise control via solenoid valves ensures smooth system operation

The hydraulic system features a three-pump open-loop design, ensuring that the various hydraulic circuits do not interfere with one another and that solenoid valves provide precise directional control.

The system is equipped with a reverse pumping function, which allows for rapid reverse flushing to clear blockages in the event of a pipe clog. It also supports brief shutdowns during material delays, reducing the impact of unnecessary starts and stops on the equipment and improving overall operational stability.

Wear-resistant core components ensure a long service life for the entire machine

All key wear-prone components of this equipment are manufactured from wear-resistant alloy materials. Combined with a lubrication system, this ensures that all moving parts are adequately lubricated during continuous, high-intensity operation, significantly extending the equipment's overhaul intervals and overall service life while reducing long-term operating costs.

Forklift socket design for flexible relocation and site cleaning

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The unit comes standard with forklift sockets on the bottom, allowing for quick relocation without the need for crane lifting.

This design also reduces cleanup time and concrete waste during the final stages of pumping, effectively keeping the work area clean and tidy. It is particularly well-suited for multi-story construction projects or situations requiring frequent relocation between dispersed work sites.

Easy to operate and maintain

The machine features a user-friendly control panel that allows you to enter automatic operation mode with a single button press.

All components are made from internationally standard parts, ensuring high interchangeability and making daily maintenance and parts replacement quick and easy, thereby reducing the need for specialized technicians.

Applications

Chemical Industry: Pigments, coatings, plastic pellets, and premixed additives

Building Materials Industry: Dry-mixed mortar, joint compound, and insulation materials

Food Industry: Seasonings, milk powder, and protein powder blending

Pharmaceutical Industry: Pharmaceutical powders and raw material blending for nutritional supplements

Feed Industry: Production of premixes and concentrated feed

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

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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.

★★★★★ 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.

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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 materials can the S6 mixing and conveying pump handle?

A: The S6 can handle aggregates with a maximum particle size of ≤30 mm and supports the following common materials:

Fine-aggregate concrete (pebble concrete)

Foam concrete (lightweight concrete)

Thermal insulation mortar

Cement mortar

Expanded clay aggregate concrete

If you need to convey special materials (such as fiber-reinforced concrete or ultra-high-performance concrete (UHPC)), please consult the manufacturer's technical team in advance.

5.

Q: What is the design of the S6's core pumping system? How stable is it?

A: The S6 employs a dual-cylinder piston design, combined with solenoid valve control and an S-valve distribution system, making it one of the most mature and reliable solutions currently available on the market for concrete pumping equipment:

Alternating dual-cylinder operation: The two hydraulic cylinders take turns propelling the concrete, resulting in a more continuous and stable output and eliminating the pulsation associated with single-cylinder operation.

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S-valve distribution: Low directional control resistance, excellent wear resistance, and low maintenance costs.

Main hydraulic pump: A10V45, displacement 65 L/min, main system pressure 25 MPa, providing ample power.

The overall design of the equipment prioritizes system stability and offers strong continuous operation capabilities, making it a reliable choice for long-term, high-frequency use.

6.

Q: How much does the equipment weigh? Is it easy to move?

A: The S6 weighs approximately 1,600 kg and measures 248 × 202 × 170 cm (length × width × height).

The base of the equipment is equipped with forklift sockets, allowing it to be quickly moved to the work site. This saves time on manual handling and reduces cleanup

costs, while also minimizing concrete waste and keeping the work area clean. For permanent installation on-site, anchor bolts can be pre-embedded for secure mounting.

7.

Q: What are the equipment's power rating and voltage? Is it compatible with standard construction site power conditions?

A: Key electrical specifications of the S6:

Motor power: 22 kW

Voltage: 220 V (single-phase) / 380 V (three-phase), optional

Frequency: 50 Hz / 60 Hz (optional)

A 22 kW power rating is considered medium-range. The 220 V single-phase version is compatible with most temporary power setups on construction sites and standard factory power environments, eliminating the need to apply for a dedicated industrial transformer and reducing power infrastructure costs. If you require the 380 V three-phase version, please specify the voltage requirement when placing your order.

8.

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Q: For which types of construction projects is the S6 fully automatic mixing and pumping unit best suited?

A: Based on the equipment's characteristics, the following construction scenarios are the S6's primary target applications:

High-rise buildings: Concrete pumping for the main structure and mortar delivery for high-rise masonry.

Underfloor heating projects: Pouring backfill layers for underfloor heating systems (foam concrete)

Roofing projects: Pouring insulation layers and applying leveling layers

Tunnel projects: Pumping concrete for tunnel secondary linings

Foundation backfilling: Backfilling excavation pits and pouring road subbases

Landscaping: Pouring concrete for rockeries and water feature foundations

9.

Q: What is the delivery lead time for the equipment? Can I visit the factory or see the actual products?

A: Standard delivery time: 20–35 business days after payment (subject to inventory availability)

Custom configurations: Approximately 40–55 business days

Inspection options: We welcome on-site inspections at our factory, and you may also arrange for inspection by a third-party testing agency.

Our production facility is located in Qingdao, Shandong Province. We welcome you to schedule an on-site visit to view the actual products, test the equipment, and sign the contract—all in one stop to complete your purchase.

10.

Q: How many workers can one S6 replace? What is the payback period?

A: Taking a project volume of 500 m^3 as an example:

Comparison Items	Traditional manual methods	S6 Fully Automatic Concrete Mixing and Pumping Machine
Workers Needed	6–8 people per day	2–3 people per day
Daily Output	Approximately 30–50 m^3	80–120 m^3 (including pumping)
Unit Cost	Approximately 35–50 RMB/m^3 (based on the Chinese market)	Approximately 15–25 RMB/m^3 (based on the Chinese market)
Construction Period (500 m^3)	About 10–15 days	About 4–6 days

Assuming a cost savings of 20 RMB per batch (based on Chinese market standards) and a daily production capacity of 100 m^3, the premium on the equipment investment can be recouped after producing approximately 500–800 m^3. For construction crews engaged in concrete projects over the long term, the ROI is typically achieved within 3–6 months.