Small Concrete Pump

Product Overview

A small concrete pump, also known as a mini concrete pump, is a type of construction machinery that uses pressure generated by a hydraulic system to continuously pump concrete through pipes to the pouring site. Unlike large trailer-mounted pumps and concrete pump trucks, small concrete pumps offer the key advantages of high mobility, a compact design, and ease of operation. They are specifically designed for the following scenarios:

1. Buildings with 3 to 8 stories (such as villas and self-built homes) where space is limited and large equipment cannot access the site

2. Tunnel and culvert construction, where cross-sectional space is limited and flexible maneuvering and close-range placement are required

3. Mine shaft and mining projects, where underground space is limited; explosion-proof motors are available as an option

4. Small-volume pours such as pipe installation, retaining walls, and landscape ponds

5. Bridge repair and reinforcement, including localized repairs and pier pouring, among other small-scale operations

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QINGDAO QUANHANG MACHINERY CO., LTD

Technical Specifications

Diesel-Powered Concrete Pump

	DHBT30	DHBT40	DHBT50	DHBT60	DHBT80
Concrete Delivery Volume	30 m^3 /h	35 m^3 /h	40 m^3 /h	37-62 m^3 /h	80 m^3 /h
Horizontal Conveying Distance	150 m/200 m	200 m	200 m	600 m	450 m
Vertical Conveying Distance	50 m	50 m	50 m	150 m	120 m
Export Pressure	8 MPa-10 MPa	10 MPa	11 MPa	7.4 MPa-13 MPa	13 MPa-16 MPa
Maximum aggregate size	35mm	35mm	35mm	40mm	40mm
Hopper Capacity	0.35 m^3	0.35 m^3	0.35 m^3	0.6m^3 -0.7 m^3	0.5 m^3 -0.8 m^3
Feeding Height	1100 mm	1100 mm	1100 mm	1400 mm	1100 mm-1400 mm
Slump	160 – 220	160 – 220	160 – 220	100 – 230	100 – 230
Diesel Engine Power	55 kW（Diesel）	76 kW（Diesel）	82 kW（Diesel）	90 kW-129 kW（Diesel）	176 kW-199 kW（Diesel）
Dimensions	3800×1750×1750 mm-4000×1700×1950 mm	4600×1700×1950 mm	4600×1700×1950 mm	6150×1950×2300 mm	5200×2100×2300 mm-6300×2100×2500 mm
Weight	2,300 kg-2,800 kg	3,000 kg	3,200 kg	5,800 kg-6,000 kg	6,000 kg-6,300 kg

Electric Concrete Pump

	DHBT40	DHBT60	DHBT80
Concrete Delivery Volume	40 m^3 /h	60 m^3 /h	80 m^3 /h
Horizontal Conveying Distance	200 m	600 m	800 m
Vertical Conveying Distance	50 m	150 m	180 m
Export Pressure	13 MPa	13 MPa	18 MPa
Maximum aggregate size	35mm	40mm	40mm
Hopper Capacity	0.35 m^3	0.7 m^3	0.7 m^3
Feeding Height	1100 mm	1400 mm	1400 mm
Slump	160 – 220	100 – 230	100 – 230
Motor Power	45 kW（Electric）	90 kW（Electric）	132 kW（Electric）
Dimensions	4500×1500×1600 mm	6150×1950×2300 mm	6350×1950×2300 mm
Weight	2,800 kg	5,800 kg	6,300 kg

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Key Benefits and Features of the Product

Powerful Pumping Performance — 50% Increase in Efficiency

Maximum theoretical pumping capacity: 60 m^3/h; maximum discharge pressure in high-pressure mode: 13 MPa

Maximum theoretical horizontal delivery distance: 600 m; maximum theoretical vertical delivery height: 150 m

Wide range of concrete slump compatibility: 100–230 mm, covering everything from ordinary concrete to self-compacting concrete

Dual-Power Mode — Unrestricted Power Supply on Construction Sites

Electric Mode: Comes standard with 45 kW, 55 kW, or 90 kW motors, suitable for construction sites with a stable power supply

Diesel Mode: Optional diesel engines from brands such as Cummins, suitable for off-grid operations in rural areas, mountainous regions, mines, and other remote locations

Supports one-touch switching, allowing users to freely select the power source based on on-site conditions

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Compact Design · High Maneuverability

Dimensions (L × W × H): Approx. 6350 × 1950 × 2300 mm (compact compared to similar models)

The vehicle weighs approximately 4–6 metric tons, has a towing speed of up to 8 km/h, and can be quickly relocated

Equipped as standard with swivel wheels and a towing hitch, ensuring hassle-free relocation

The hydraulic system is stable and reliable

Featuring an open hydraulic circuit design, the system generates minimal heat and operates stably.

The main oil pump is sourced from international brands such as Kawasaki, ensuring a long service life and low failure rate.

Key valve assemblies can be configured with high-end options such as Bulseen or Rexroth.

Low maintenance costs · High compatibility of replacement parts

Core wear parts such as the delivery cylinder, piston, and S-valve are widely available on the market, with extensive procurement channels and transparent pricing.

The lubrication system uses automatic centralized lubrication, reducing the frequency of manual maintenance.

High-end hydraulic hoses are used for critical hydraulic lines, offering high pressure resistance and wear resistance.

Easy to operate · Low training costs

Programmable electronic control system (compatible with Schneider, Mitsubishi, and Siemens components) with a user-friendly interface

One-touch switching between high- and low-voltage modes; new operators can begin working after just 30 minutes of training

Self-diagnostic system for error codes, allowing maintenance personnel to quickly pinpoint problems

Why Choose Us?

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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.

★★★★★ 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: How many cubic meters of concrete can a small concrete pump deliver per hour?

A: The delivery rate of a small concrete pump varies by model; mainstream models have a delivery rate of 15–60 m^3/h. Among these, certain specialized models can reach 60 m^3/h in low-pressure mode and 30 m^3/h in high-pressure mode. Actual pumping capacity is affected by factors such as concrete slump, pipe length, vertical height, and the number of pipe bends. It is recommended to conduct a pumping test before construction to confirm the actual output.

5.

Q: What is the maximum floor height that a small concrete pump can reach?

A: The vertical delivery height of a small concrete pump depends on the model and configuration. Mainstream models have a maximum vertical delivery height of 120–150 meters, which corresponds to approximately 40–50 stories. However, in actual use, it is recommended to allow for a 20%–30% pressure margin to ensure smooth pumping and prevent pipe blockages.

For example: For equipment with a vertical delivery height of 150 m, it is recommended to use it for pouring floors below 120 m in actual construction.

6.

Q: Can small concrete pumps be used at rural construction sites without three-phase power?

A: Yes. For construction sites without a stable industrial power supply—such as rural self-built homes or remote mountainous areas—we recommend choosing a diesel-powered small concrete pump. Diesel models are equipped with engines from brands like Cummins and do not require an external power source; they can operate as long as diesel fuel is available on-site. Additionally, you may consider using a portable generator in conjunction with an electric model.

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7.

Q: What should be done if a concrete pump becomes clogged?

A: Pipe blockages are a common issue when pumping through small-diameter pipes. The steps to resolve this are as follows:

① Immediately shut down the machine and turn off the power source.

② Pump in reverse for 2–3 strokes to allow the concrete to flow back into the hopper.

③ Disassemble the pipe at the location of the blockage and clear out the clogged concrete.

④ Inspect and replace any worn seals or elbows.

⑤ After reconnecting the pipes, pump mortar to pre-lubricate the lines, then resume concrete pumping

Preventive Measures: Maintain the concrete slump within the range of 120–200 mm; replace the lubricating oil after every 200 m³ of concrete pumped; avoid letting concrete remain in the pipes for more than 30 minutes.

8.

Q: What are the shipping lead times and transportation options?

A: Standard models are in stock and will be shipped within 3–7 business days after payment is received; custom models take 25–40 business days to manufacture. Transportation options:

We support shipping via container (20GP/40HQ) or bulk carrier, and our company handles export customs clearance on your behalf.

9.

Q: What are the main wear parts of a concrete pump?

A: The key wear parts of a small concrete pump include:

Delivery cylinder piston (wear cycle: approximately 2,000–5,000 m³, depending on the concrete mix)

S-valve/eyelet plate (wear cycle: approximately 3,000–8,000 m³)

Hydraulic oil filter (recommended replacement every 500 operating hours)

Seals (cylinder seals, hopper seals)

Delivery pipe elbows (elbows near the pump outlet wear out more quickly)

When purchasing equipment, we recommend also purchasing a set of spare wear parts; our company offers direct supply of genuine manufacturer parts.

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10.

Q: What size transformer or generator is required for a small concrete pump?

A: Power requirements vary depending on the model's power rating:

For a 45 kW model, a transformer capacity of ≥100 kVA and a generator set power of ≥120 kW are recommended;

For a 55 kW model, a transformer capacity of ≥125 kVA and a generator set power of ≥150 kW are recommended;

For a 90 kW model, a transformer capacity of ≥200 kVA and a generator set output of ≥250 kW are recommended;

Note: The transformer capacity should account for other equipment operating simultaneously; the total load should not exceed 70% of the transformer's rated capacity.