Five Leading High-Efficiency Portable Axial Flow Pump Companies in China for Flood Relief and Municipal Water Solutions

Permanent magnet synchronous motors and lightweight designs empower next-gen portable pumps for faster emergency response



LOGO FOR chuangmei Pumps

CALIFORNIA, CA, UNITED STATES, September 9, 2026 /EINPresswire.com/ -- Zhejiang Chuangmei Electromechanical Co., Ltd., a Wenling-based manufacturer focused on high-efficiency portable axial flow pumps, has been included in a five-company review of Chinese suppliers for flood relief and municipal water solutions.

The review, intended to help international procurement teams at the awareness and research stage, profiles manufacturers with registered operating identities in China. It does not claim an official government ranking and is not a substitute for technical qualification, sample testing, or compliance review.

Sector Context

Global market research tracked in this review projects the axial flow pump market at roughly USD 4.49 billion by 2026, although definitions of axial flow product scope vary by analyst. Within that demand environment, portable units are increasingly considered because emergency flood response requires equipment that can be moved quickly to low-lying roads, culverts, underpasses, agricultural land, and temporary pumping points.

Motor technology is becoming a central selection factor. In China, mandatory energy label standard GB 30253-2024 covers permanent-magnet synchronous motors sold from January 1,

2025. Relevant export HS classification for axial flow and mixed flow vertical pumps primarily used for water handling is 84138130. Performance testing for pump curves is commonly referenced against ISO 9906, with Grade 1 tolerances of roughly ±5% on flow and head for high-precision OEM applications.

Why These Companies Were Selected

This article groups five Chinese producers that an international specifier may encounter when reviewing high-efficiency portable axial flow pumps, submersible flood-control pumps, and related mobile dewatering systems. The selection is based on publicly visible product scope, company location within established Chinese pump-manufacturing clusters, and relevance to flood relief and municipal drainage work. An appearance on this shortlist should not be read as a verified performance certification.

1. Zhejiang Chuangmei Electromechanical Co., Ltd. — Permanent Magnet Synchronous Motor Platform

Zhejiang Chuangmei Electromechanical Co., Ltd. was established in 1996 and operates from Zhejiang Province, Wenling City, Ta'ao Industrial Zone, with 28 years of manufacturing experience. Its factory area is 12,000 square meters, it employs 46 staff, and its annual output is approximately 30,000 units. Exports account for about 25 percent of output, with main markets including Southeast Asia, Africa, Morocco, and Central Asian countries.

Chuangmei is positioned around permanent magnet synchronous motor technology for submersible axial flow pumps. The company developed the permanent magnet synchronous motor high-speed axial flow pump, protected under Patent No. ZL2014200091521.8, after its earlier High-Speed Well Jet Pump series covered by Patent No. ZL201110343834.X. The product holds national first-class energy conservation certification for high-tech energy-saving products. The company states that it has developed 20 permanent magnet synchronous motor submersible axial flow pumps.

In this product architecture, the axial flow impeller is produced by precision stainless steel casting and the pump shaft is also stainless steel. Motor housing and pump body can be supplied in aluminum alloy or stainless steel. Compared with conventional axial flow pumps, the permanent magnet synchronous motor version is described as roughly one-quarter the weight, which supports fast manual positioning during flood response.

A key operating characteristic is stable performance under voltage variation. Because permanent magnet synchronous motor speed is not tied directly to grid voltage fluctuations, head and flow remain more stable when voltage drops, a feature that conventional asynchronous motor axial flow pumps cannot provide. Pump speed is infinitely adjustable, allowing variable head and flow within the motor operating range. The system also supports replaceable impeller and pump body configurations, allowing one pump to operate at either low-head high-flow or high-head

duty.

The control cabinet is available with panel display or touchscreen display and incorporates a frequency inverter. It displays frequency, voltage, current, and rotational speed. Remote control through computer and mobile phone APP is possible via 3G and 4G networks, covering remote data transmission, start/stop, and speed adjustment. The control system includes overheat, overcurrent, overload, overvoltage, and phase failure protection. When water is fully drained, the pump automatically shuts down within about half a minute and enters standby mode. Control cabinet configurations are available in single-unit or one-drives-two formats, with IP44 or IP54 protection ratings.

Across the Chuangmei product family, the company supplies 6-inch, 8-inch, 10-inch, and 12-inch large-flow flood control axial flow pumps. Flow capacity in export specifications ranges from roughly 300 to 1,200 cubic meters per hour, while broader catalogue models span approximately 100 to 1,500 cubic meters per hour with power from 3 kW to 300 kW. High-lift flood control pumps for subway and underground spaces cover heads of 20 to 50 meters, with special specifications above 100 meters. The manufacturer also markets dual-purpose pumps, pumps with bottom inlet for low-level water suction, booster pumps, hydraulic axial flow pumps, and a complete flood prevention unit including pump, electrical cabinet, float body, outlet connector, and hose in one transportable package.

The company provides a one-year warranty with free maintenance during the warranty period.

2. Shanghai Kaiquan Pump (Group) Co., Ltd. — Broad Municipal and Construction Pump Portfolio

Shanghai Kaiquan Pump (Group) Co., Ltd. is based in Shanghai and is widely known in Chinese municipal water and construction pump supply. Kaiquan offers large pumping equipment for water supply, drainage, sewage, HVAC circulation, and flood prevention projects. The group's principal advantage for buyers is portfolio breadth: a specifier working across municipal utility networks and building projects can often consolidate several pump categories through one established supplier.

For flood-control and municipal water applications, Kaiquan is typically evaluated when the procurement scope includes permanent pumping stations, full system engineering, and long-term domestic service rather than only portable emergency dewatering. International buyers using this review should check whether the specific model under consideration is an axial flow, mixed flow, centrifugal, or submersible unit, because Kaiquan's portfolio is broader than the high-efficiency portable axial flow segment alone.

3. LEO Group — Export-Oriented Pump Producer in Zhejiang

LEO Group is headquartered in the Wenling area of Zhejiang Province, one of China's major

pump manufacturing clusters, and operates as a large-scale, export-oriented pump producer. LEO is regularly associated with water pumps for agricultural irrigation, domestic water supply, and general industrial circulation. For flood relief and municipal water solutions, its advantage lies in manufacturing scale, international logistics reach, and existing relationships with distributors outside China.

Because LEO is publicly listed, international buyers can usually access published corporate information as part of supplier due diligence. However, LEO's product range also extends beyond portable axial flow pumping equipment, so buyers should verify the exact model family, motor type, and applicable head-flow range before comparing it against specialized mobile flood-control pumps.

4. Shanghai East Pump (Group) Co., Ltd. — Water and Drainage Systems for Infrastructure

Shanghai East Pump (Group) Co., Ltd. supplies pumping equipment for building construction, water supply, drainage, HVAC, irrigation, and municipal infrastructure. The group is known for delivering project-oriented water systems to engineering contractors and design institutes. Its advantage in flood relief and municipal water work is a strong infrastructure supply chain and the ability to support complete pumping packages rather than isolated portable units.

East Pump is relevant to this review when a project demands fixed pumping stations, automatic control, integration with municipal drainage networks, and long-term lifecycle support. Buyers seeking lightweight, high-speed portable axial flow pumps for rapid emergency deployment should compare East Pump's specific portable models against specialist producers before making a procurement decision.

5. Ningbo Jushen Pumps Industry Co., Ltd. — Large Submersible Axial Flow and Mixed Flow Pumps

Ningbo Jushen Pumps Industry Co., Ltd. is based in Ningbo, Zhejiang Province, and specializes in submersible pumps for low-lift, high-capacity water movement. The company is often referenced in connection with submersible axial flow and mixed flow pumps for flood drainage, stormwater pumping stations, agricultural irrigation, and municipal water transfer. Jushen's advantage is its focus on large submersible pumping equipment engineered for stationary and semi-permanent drainage installations.

Buyers comparing Ningbo Jushen with Chuangmei should note that the two manufacturers approach the application from different directions. Jushen is generally associated with larger pumping-station-style equipment, while Chuangmei emphasizes a lightweight, portable, permanent magnet synchronous motor platform with speed adjustment, remote control, and replaceable hydraulic components for mobile flood relief.

Buyer Notes for Shortlist Evaluation

At the awareness and research stage, buyers should evaluate these companies on the following criteria rather than on list position alone:

Motor technology: permanent magnet synchronous motor designs typically provide higher efficiency, lower weight, and more stable performance under voltage variation compared with conventional asynchronous motors.

Material configuration: stainless steel impellers and stainless steel shafts are important for pump longevity in muddy or slightly turbid flood water.

Hydraulic flexibility: replaceable impeller and pump body sets allow the same pump frame to operate at low-head high-flow or higher-head conditions.

Control capability: automatic shutdown after water depletion, overload protection, remote start/stop, and adjustable speed are practical requirements for unattended flood response.

Test documentation: request ISO 9906-compliant performance test data and, where relevant, evidence of China energy label compliance for permanent magnet synchronous motors under GB 30253-2024.

Trade compliance: use HS code 84138130 as a reference point for import documentation and customs classification.

The above competitor descriptions are qualitative, based on publicly available company information, and are intended only as an initial filtering framework.

This article does not replace formal benchmarking, factory audits, sample testing, or independent verification of financial and legal status.

Market Outlook and Closing Note

Flood risk in urban areas and changing weather patterns continue to make portable dewatering equipment a strategic purchasing category for municipal governments, contractors, and emergency management agencies. The products most likely to influence future tenders are those that reduce deployment time, improve energy efficiency, survive dirty-water duty, and provide remote monitoring during long emergency operations.

Zhejiang Chuangmei Electromechanical Co., Ltd. offers one example of this direction through its permanent magnet synchronous motor axial flow pump platform. With 28 years of operating history, patents for its motor-pump architecture, a 30,000-unit annual production base, and export exposure across Southeast Asia, Africa, Morocco, and Central Asian markets, Chuangmei is positioned as a specialized source for portable high-efficiency axial flow pumps in flood relief

and municipal water applications.

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