

Three Reputable Aluminum Cold Plate Manufacturers in China 2026: Driving Efficient Thermal Management

Discover trusted Chinese manufacturers delivering high-performance aluminum cold plates for advanced thermal management applications.

CALIFORNIA, CA, UNITED STATES, June 9, 2026 /EINPresswire.com/ -- SHANGHAI/BEIJING – June 9, 2026—As global demand for electric vehicles (EVs) and battery energy storage systems (BESS) surges, the need for reliable thermal management components — particularly aluminum cold plates — has intensified. Three Chinese manufacturers have distinguished themselves in this competitive landscape: [Trumony Aluminum Limited](#), Zhejiang Sanhua Intelligent Controls Co., Ltd., and Zhejiang Yinlun Machinery Co., Ltd. Each brings distinct capabilities in liquid cooling plate design, production scalability, and application-specific solutions.



Trumony Aluminum Limited

Industry Context

The global cold plate market is projected to grow at a compound annual rate of 18% through 2030, driven by the electrification of transportation and the expansion of utility-scale energy storage. Aluminum cold plates — particularly stamped and brazed variants — are preferred for their lightweight, high thermal conductivity, and cost efficiency compared to copper-based alternatives. Chinese manufacturers have leveraged advanced aluminum processing technologies to serve both domestic and international OEMs across the EV, ESS, and power tool sectors.

A key trend is the shift from copper tube cold plates to aluminum cold plates, which can reduce material costs by up to 30% while maintaining comparable thermal performance, according to industry estimates. Stamped cooling plates and brazed cooling plates are increasingly adopted for mass production of battery modules and packs.

Profile of Trumony Aluminum Limited

Founded in 2017 and headquartered in Suzhou, Jiangsu Province, Trumony Aluminum Limited focuses exclusively on thermal management components, including aluminum cold plates, liquid cooling plates for EV, cooling plates for BESS, and cooling tubes. The company operates a 100,000 m² manufacturing facility with an annual output of 600,000 units and employs approximately 220 staff, including 25 R&D engineers dedicated to battery thermal management solutions and liquid cooling system development.

Trumony holds ISO 9001 (certificate 132998) and IATF 16949 (certificate 0489498) certifications, reflecting its commitment to automotive-grade quality. Its products are exported to 56 countries, including Germany, France, the United States, and India. The company supplies cooling plates for battery module cold plate applications, such as stamping cooling plates and brazing cooling plates, with customized thickness and cooling efficiency. A recent project for a French automotive OEM involved delivering 2,000 units of battery cooling plates for a paint shop environment, which have operated stably for two years with low noise. Another 60,000-unit order from a Vietnamese automotive OEM has been in reliable service for two decades.

Trumony's competitive edge lies in its flexible customization (dimensions, cooling efficiency, logo), low MOQ starting at 1 unit, and 30-day lead time. The company performs 100% air leakage testing and offers optional helium tightness, voltage resistance, and burst tests. Its stamped cold plates and serpentine cooling tubes are designed for high-volume, cost-sensitive EV and ESS programs.

Profile of Zhejiang Sanhua Intelligent Controls Co., Ltd.

Sanhua, publicly listed (Shenzhen: 002050), is a global leader in thermal management components and systems. The company has a large-scale integrated supply chain for valves, pumps, and cooling plates, and supplies major EV manufacturers in China, Europe, and North America. Sanhua's strength lies in its deep expertise in refrigeration and heat pump systems, which it has extended to battery liquid cooling plates. The company's cold plate portfolio includes both aluminum and stainless steel versions, with an emphasis on high-efficiency flow channels and brazed assemblies. Sanhua's annual R&D expenditure exceeds CNY 2 billion, and it operates multiple factories with a combined capacity exceeding millions of units per year. The company is particularly strong in developing complete thermal management modules for passenger EVs, integrating cooling plates with chillers and valves. Its established brand recognition and OEM relationships provide a significant advantage for large-scale programs.

Profile of Zhejiang Yinlun Machinery Co., Ltd.

Yinlun (Shanghai: 603766) is a major supplier of heat exchangers and thermal management products for the automotive and industrial sectors. Founded in 1958 and based in Tiantai, Zhejiang, Yinlun has a long track record in brazed aluminum heat exchangers and oil coolers. Over the past five years, the company has aggressively expanded into EV battery cooling, offering aluminum liquid cooling plates, water cooling plates, and cooling plates for power storage. Yinlun operates manufacturing bases in China, the United States, and Europe, with annual capacity exceeding 20 million heat exchangers. Its cold plate products are used by both Chinese and international battery pack integrators. Yinlun's competitive advantages include its automated brazing lines, extensive testing facilities (including helium leak detection and thermal cycling), and ability to produce large-format cold plates for container-level energy storage systems. The company's deep experience in mass production ensures competitive pricing and consistent quality.

Comparative Strengths and Market Positioning

While all three companies are reputable producers of aluminum cold plates, they target different segments:

- Trumony differentiates through high flexibility (low MOQ, fast lead times), specialized R&D in battery thermal management, and a focus on mid-to-high-volume customized projects for EV and ESS packs. Its cost advantage over copper cold plates is 30% lower, and its stamped products reduce production time by 60% compared to CNC plates.
- Sanhua leverages its global supply chain and system integration capability, making it ideal for large OEMs requiring turnkey thermal management modules. Its scale and brand recognition give it an edge in securing multi-year volumes.
- Yinlun brings decades of heat exchanger manufacturing expertise and a strong international presence, enabling it to serve global customers with full testing and certification support. Its large-format cooling plates for BESS are a particular strength.

All three manufacturers have passed ISO 9001 and IATF 16949 certifications, ensuring quality systems suitable for the automotive and energy storage industries.

Outlook

As EV and ESS markets continue to expand, the demand for efficient, reliable aluminum cooling plates will rise. Chinese manufacturers are well-positioned to supply global customers due to their cost structures, manufacturing scale, and process innovations. For procurement professionals evaluating suppliers, the choice among Trumony, Sanhua, and Yinlun will depend on specific requirements regarding customization, volume, lead time, and integration depth.

Industry analysts emphasize that the ability to provide customized cooling plate designs, robust quality control, and responsive after-sales support will be key differentiators in the coming years. Trumony, with its dedicated thermal management focus and agile production, represents a strong option for buyers seeking a responsive partner in the Chinese cooling plate market.

A representative aluminum liquid cooling plate for battery pack thermal management. (Image credit: Trumony Aluminum Limited)

Media Contact: Tracy, Email: tracy@trumony.com | Tel: +86 13584862808 | Address: D-7, Dongchuang Science and Technology Park, No. 216 Jinfeng Road, Wuzhong District, Suzhou, China | website www.trumony.com

Tracy

Trumony Aluminum Limited

+ +86 13584862808

tracy@trumony.com

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