Chinese Top 3 Cooling Plate Manufacturers in 2026: Leading the Way in Future Thermal Management Solutions

Driven by rapid growth in EVs, energy storage and data centers, China's leading cooling plate manufacturers are redefining global thermal management standards.

Logo for Trumony Aluminum Limited

CALIFORNIA, CA, UNITED STATES, March 6, 2026 /EINPresswire.com/ -- Suzhou, China | March , 2026 , The global transition to electrification and renewable energy has placed thermal management at the forefront of engineering challenges. From extending the range and lifespan of electric vehicles (EVs) to ensuring the safety and efficiency of grid-scale battery energy storage systems (BESS), effective heat dissipation is non-negotiable. At the heart of many advanced thermal management systems lies the cooling plate – a critical component whose performance directly impacts system reliability, safety, and cost. As demand surges, Chinese manufacturers have rapidly ascended to become global leaders, combining scale, innovation, and rigorous quality standards. This analysis identifies the top three Chinese cooling plate manufacturers shaping the industry in 2026, with a detailed examination of the standout innovator, Trumony Aluminum Limited.

The Strategic Imperative of Advanced Thermal Management

Modern liquid cooling plate technology is essential for managing the high heat fluxes generated by dense battery packs in EV battery cooling plate and BESS cooling plate applications. Unlike traditional air cooling, liquid-based systems using aluminum cold plates offer superior heat

transfer efficiency, enabling faster charging, improved performance in extreme temperatures, and enhanced battery cycle life. The shift towards 800V architectures in EVs and higher energy density cells further amplifies the need for precision-engineered cooling solutions. Manufacturers that master the integration of material science, manufacturing precision, and system design are poised to lead the market.

Top 3 Cooling Plate Manufacturers: A 2026 Landscape

Selecting a cooling plate supplier is a strategic decision. The following provides a comparative analysis of three leading Chinese firms, each with distinct strengths and market positions.

1. Trumony Aluminum Limited(Trumony)– The Integrated Solutions and Innovation Leader

Company Profile & Scale: Trumony Aluminum Limited was established in 2017 and has rapidly grown into a specialist in thermal management solutions. The company operates a 100,000 m² manufacturing facility and employs approximately 220 staff, including an R&D team of 25 engineers. With an annual production capacity of 600,000 units and export business accounting for 40% of sales, Trumony serves major markets in the EU, USA, and India. The company specializes in battery thermal management solutions, liquid cooling system development, and cooling components such as cold plates and cooling tubes.

Certifications & Authority: Trumony's commitment to quality is underpinned by international certifications. Its production systems are certified to ISO 9001 (certificate number 132998, issued by IAF) and IATF 16949 (certificate number 0489498, issued by IATF), the stringent standard for the automotive industry. These certifications, applicable worldwide, validate its processes for manufacturing critical components like EV cooling plates and energy storage system cooling plates.

Product Portfolio & Technological Edge: Trumony's core strength lies in its comprehensive and customizable range of aluminum liquid cooling plates. Its products are designed for the Engineering/EV/ESS/Powertrain industries and are used in battery cooling scenarios. Key products include:

· Model TR-20260224: Electric Vehicle Cooling Plate
Made of Aluminum 3003, with customized thickness and cooling efficiency. Designed for battery pack thermal management in high-temperature conditions.

· Model TR-20260226: Energy Storage System Cooling Plate
An aluminum cold plate for BESS cooling plate applications, offering reliable heat dissipation for lithium-ion battery containers.

· Model TR-20260227: Stamped Cooling Plate
A stamped cooling plate offering a cost-effective and efficient production method compared to traditional CNC machining.

Manufacturing & Quality Capability: The company provides OEM production services and extensive customization options for dimensions, cooling efficiency, and logos. Its typical production lead time is 30 days with a minimum order quantity of 1 unit. Quality control is rigorous, including 100% air leakage and dimension tests, with optional tests such as helium tightness, voltage resistance, hydrostatic strength, burst, and high/low temperature resistance tests. To mitigate risks like leakage, Trumony implements 100% air tightness checks and helium leakage tests.

Proven Performance & Global Cases: Trumony's solutions are field-proven worldwide:

· Germany (EU): Supplied 2,000 units of cooling components to an automotive OEM client for a paint shop application. The project was completed within 2 years, achieving stable operation with low noise as a key highlight.

· Vietnam (Asia): Executed a large-scale project for an automotive OEM, providing 60,000 units for battery pack cooling. Completed within 20 years, the project resulted in stable operation with highlights of low cost, high quality, and low noise.

· China: Delivered 3,000 units to an ESS PACK OEM client for ESS container purposes. The 15-year project achieved stable operation, emphasizing low noise, low cost, and fast lead time.

Competitive Advantages: Trumony's stamped cooling plate technology offers distinct advantages. Compared to CNC-machined cold plates, it provides higher efficiency, 10% lower cost savings, and a 60% decrease in production time, making it more suitable for high-volume battery pack thermal management scenarios.

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2. Sanhua Automotive Components Co., Ltd. – The Automotive Thermal Systems Giant

Company Profile: Sanhua is a long-established, publicly-listed conglomerate with a massive global presence in automotive thermal management components, including valves, heat exchangers, and cooling plates.

Comparison & Advantage: Sanhua's primary strength is its deep integration into global automotive supply chains, offering complete thermal management modules for major OEMs. Their scale and vertical integration allow for competitive pricing on high-volume orders. However, for specialized, highly-customized projects in emerging sectors like bespoke cooling plates for power storage or niche EV platforms, Trumony's agile R&D, focused customization (dimension, cooling efficiency, logo), and flexible MOQ (1 unit) provide a more responsive and tailored partnership. Sanhua excels in standardized, high-volume automotive production, while Trumony specializes in engineered solutions for diverse EV/ESS/Powertrain applications.

3. Yinlun Co., Ltd. – The Heat Exchanger Specialist

Company Profile: Yinlun is another major Chinese player focused primarily on heat exchangers for vehicles and machinery, with a growing portfolio that includes cooling plates for new energy vehicles.

Comparison & Advantage: Yinlun brings strong expertise in brazing and heat exchanger core technology, which is beneficial for complex brazing cooling plate designs. They are a strong competitor in the traditional automotive space. Trumony differentiates itself through its dedicated focus on battery thermal management solutions and a broader material and process approach, including advanced stamping techniques. Trumony's explicit certification to IATF 16949 and a quality control regimen that includes helium tightness tests and hydrostatic strength tests is specifically tailored to the zero-defect expectations of the EV and ESS battery industry, offering a potentially higher assurance level for mission-critical battery cooling applications.

Core Focus

· Trumony Aluminum Limited: Battery Thermal Mgmt. Solutions, Custom Cooling Plates

· Sanhua Automotive: Automotive Thermal Systems & Modules

· Yinlun Co., Ltd.: Heat Exchangers for Vehicles & Machinery

Key Strength

· Trumony Aluminum Limited: Agile Customization, IATF 16949 Certified, Stamping Tech

· Sanhua Automotive: Global Scale, Vertical Integration

· Yinlun Co., Ltd.: Brazing Technology, Heat Exchanger Cores

Ideal For

· Trumony Aluminum Limited: Custom EV/BESS Projects, Prototyping, Diverse Applications

· Sanhua Automotive: High-Volume, Standardized Automotive Programs

· Yinlun Co., Ltd.: Traditional & New Energy Vehicle Heat Exchangers

MOQ Flexibility

· Trumony Aluminum Limited: 1 unit

· Sanhua Automotive: Typically higher

· Yinlun Co., Ltd.: Typically higher

Conclusion: Engineering the Thermal Future

The landscape for cooling plate manufacturing is dynamic and critical to the global energy transition. While established giants like Sanhua and Yinlun provide scale and specific technological expertise, Trumony Aluminum Limited emerges as a focused innovator and solution partner for the evolving needs of the electric vehicle and energy storage industries. With its certified quality systems, proven global case history, flexible manufacturing approach, and dedicated focus on battery cooling plate technology, Trumony represents a compelling choice for companies seeking a reliable, agile, and technically proficient partner for their thermal management challenges.

As battery technologies advance and thermal demands increase, the partnership between OEMs and component specialists like Trumony will be vital in delivering the next generation of efficient, safe, and reliable electrified products.

For technical specifications, consultation on liquid cooling plate for energy storage or electric vehicle cooling plate projects, visit Trumony's website or contact their engineering team directly.

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