

Syntech Metals Expands Aluminum Thermal Management for North American EV Charging

Syntech Metals moves beyond extrusion supply to thermal-design partnership as a Canadian energy provider sources EV charging cooling components.

FOSHAN, GUANGDONG, CHINA, August 25, 2026 /EINPresswire.com/ -- As North America's charging infrastructure moves toward higher power density and tougher outdoor operating conditions, the Chinese manufacturer is positioning itself as a full-stack thermal design partner rather than a raw-material supplier.

As electric vehicle charging infrastructure moves toward higher power density, faster charging speeds and more demanding outdoor operating environments, thermal management has become an increasingly important engineering consideration. For charging-system developers, the challenge is no longer simply finding an aluminum component supplier, but finding a manufacturing partner capable of translating thermal requirements into scalable, production-ready hardware.

Syntech Metals Limited is positioning itself in that role through an integrated



Syntech Metals Limited



China aluminum heatsink extrusion profiles manufacturers

approach to [aluminum extrusion](#), thermal management, [precision CNC machining](#), surface treatment and assembly.

The company has supplied customized [aluminum thermal-management components](#) for applications including EV charging equipment and power electronics. Its approach focuses on the relationship between heat dissipation, thermal performance, extrusion design, fin geometry and weight optimization, rather than treating the heatsink as an isolated commodity component.



North America's EV Charging

A recent supply relationship with a Canadian community energy solutions provider highlights this direction. The Canadian company, which develops EV charging and energy-storage solutions, has sourced customized aluminum thermal-management components from Syntech Metals for electric vehicle charging equipment. The buyer was not identified at its request.

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We are proud to have delivered more than 3 million pieces of aluminum extrusion profiles and CNC-machined components so far, serving customers across over 70 countries and regions.”

*Ken Yip, Sales Director at
Syntech Metals*

The application reflects a broader trend in charging infrastructure. As charging systems handle increasing electrical loads, thermal performance can influence component reliability, equipment footprint and operating stability. Aluminum extrusion provides manufacturers with an opportunity to integrate cooling structures directly into the mechanical design, while maintaining the lightweight

characteristics required for modern charging equipment.

“Thermal management should be considered part of the product architecture, not simply a component purchased after the electrical design is complete,” said Ken Yip, Sales Director at Syntech Metals. “Our role is to work with customers on extrusion design, fin geometry, material utilization, machining and surface treatment so the final component supports both thermal performance and manufacturability.”

That philosophy is reflected in Syntech Metals’ manufacturing model. According to the company, its approximately 100,000-square-meter manufacturing operation integrates aluminum extrusion and precision machining, supported by 17 extrusion presses ranging from 500 to

10,000 tons. The company also reports more than 30 years of experience in aluminum extrusion and has supplied more than three million CNC-machined parts and customized aluminum extrusion profiles to customers worldwide.

For thermal-management applications, extrusion design can determine much more than the external shape of a component. Fin height, thickness, spacing and geometry affect the available surface area and airflow characteristics, while the overall profile must remain practical for extrusion, handling and downstream machining.

Syntech Metals' engineering and customization capabilities are designed around this balance. The company says its engineering team can review customer drawings and templates for manufacturing feasibility, develop customized extrusion molds and optimize designs with consideration for cost and production requirements.

The manufacturing process can extend beyond extrusion. Syntech Metals operates CNC machining capabilities covering milling, drilling, tapping, turning, cutting and other secondary processes. This allows customized thermal profiles to be converted into finished components with mounting holes, machined contact surfaces and other application-specific features before delivery.

Surface treatment is another part of the thermal-management equation. Depending on the application, Syntech Metals offers anodizing and powder coating options designed to provide corrosion resistance, durability and the required appearance. Its heatsink production capabilities include custom lengths, multiple surface treatments and CNC machining.

For EV charging equipment deployed outdoors, these manufacturing considerations can become particularly relevant. Charging infrastructure may face temperature fluctuations, moisture, road contaminants and extended operating cycles. A properly engineered aluminum thermal solution therefore needs to balance heat dissipation with structural integrity, corrosion resistance, weight and installation requirements.

The company's broader manufacturing portfolio also includes industrial, automotive and solar aluminum profiles, giving it experience across applications where customized extrusion geometry and downstream processing are important. Syntech Metals states that its products are exported to more than 70 countries and that its quality systems include ISO 9001:2015 and IATF 16949 certification.

For North American equipment manufacturers and energy-technology companies, the significance of this model is increasingly practical: instead of sourcing an aluminum extrusion from one supplier, machining from another and surface treatment from a third, customers can engage a single manufacturing partner capable of managing multiple stages of the component-

development process.

That shift—from selling an aluminum heatsink to delivering an integrated thermal management solution—is central to Syntech Metals’ strategy as EV charging, battery storage and power-electronics markets continue to expand.

About Syntech Metals Limited

Founded in 1993 and headquartered in Foshan, Guangdong Province, China, Syntech Metals Limited is a vertically integrated manufacturer of custom aluminum extrusion profiles and precision CNC-machined components, serving customers across North America, Europe, Australia, Asia and other international markets. Its capabilities span extrusion design, thermal-management profiles, CNC machining, surface treatment, finishing and assembly, with quality systems certified to ISO 9001:2015 and IATF 16949.

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