



Trade Media Release

Schaffhausen (Switzerland)

11 November 2025

GF launches LiquidCore Engineered Flow Solution for direct-to-chip liquid cooling

As liquid cooling becomes the standard for high-density AI and HPC environments, GF launches a complete, reliable, and scalable polymer piping system for direct-to-chip liquid cooling to deliver stable, clean, and energy-efficient coolant flow between the coolant distribution unit (CDU) and the cold plate.

Direct-to-chip cooling places strict demands on the fluid handling infrastructure. Consistent flow, coolant purity, and hydraulic stability are critical to maintaining chip temperatures and system uptime. LiquidCore addresses these needs by combining high-performance polymer pipes, fittings, valves, actuation, instrumentation, engineered manifolds, jointing solutions, and precision design and pre-fabrication into one integrated solution.

A complete engineered Flow Solution

- **Distribution system:** Pre-fabricated high-performance polymer liquid-to-rack piping system for reliable coolant distribution
- **Rack integration:** The patented Quick Connect Valve 700 has a 25% better flow rate, is more than 50% lighter than metal alternatives and enables safe and fast rack-integration.
- **In-rack manifold:** Custom-designed manifolds ensure consistent coolant distribution across every port to maintain thermal stability under high computational loads.
- **Valve actuation and instrumentation:** Valves, actuation, and measurement solutions support precise flow regulation and system efficiency.

GF's global engineering and pre-fabrication services provide tailored 3D design, hydraulic and material reviews, reliable infrared jointing, and controlled-environment manufacturing to deliver ready-to-install modules. This combination reduces on-site labor, shortens installation times, and strengthens reliability for mission-critical cooling infrastructure. Weld bead inspection supports consistent joint integrity and long-term operational stability at the core.

Driving sustainability and efficiency

LiquidCore builds on more than 30 years of experience in demanding fluid handling applications for the semiconductor industry. High-purity polymers have long been proven in corrosive and mission-critical environments and are ideal for handling deionized water and coolants such as PG25.

Compared with conventional metal systems, GF's polymer Flow Solution offers:

- 100% corrosion-free operation
- Up to 80% lower CO₂ footprint*
- 4x faster installation through pre-fabrication*
- 30% better thermal insulation*
- Certified Environmental Product Declarations (EPD) and full traceability across manufacturing and installation help data center operators meet their ESG targets without compromising system performance.

**compared to metal alternatives*

“With LiquidCore, we combine our materials expertise and global design and pre-fabrication footprint to help scale AI computing efficiently and sustainably. By rounding out our polymer offering from chiller to chip, we enable fully integrated Flow Solutions for the entire data center cooling , environment with our novel solution for the data hall” said Charles Freda, Global Head Data Centers at GF Industry & Infrastructure Flow Solutions.

[**Find more about LiquidCore.**](#)

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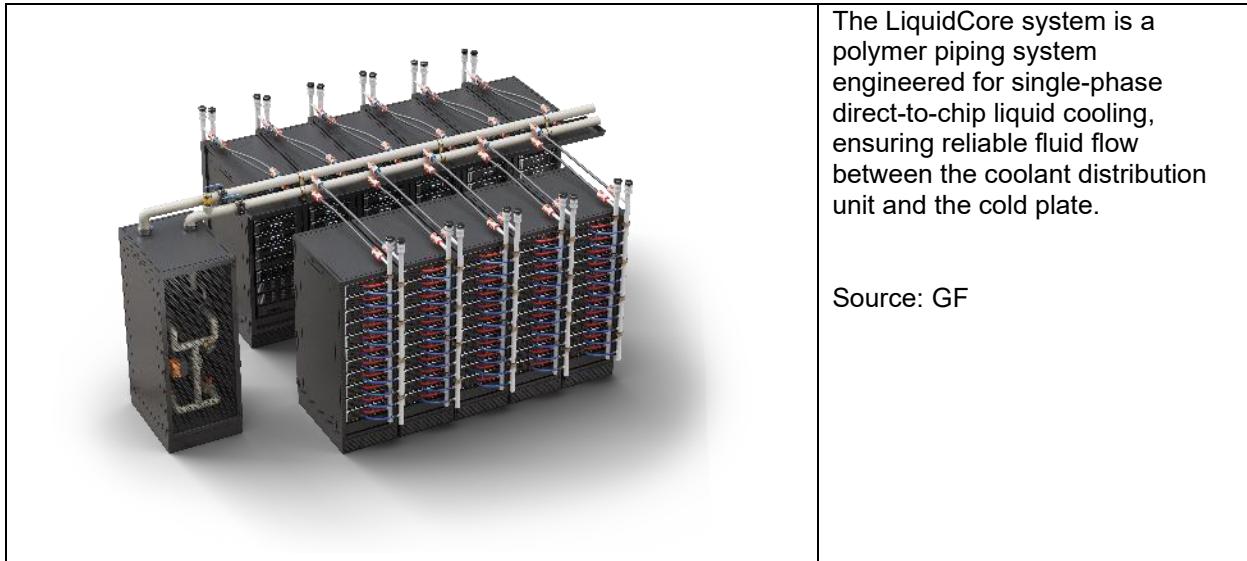
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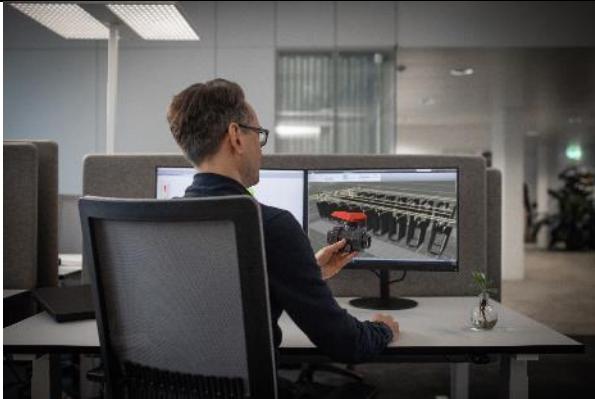
Corporate Profile

With a rich history in industrial innovation since 1802, GF is actively reshaping itself to become the global leader in Flow Solutions for Buildings, Industry and Infrastructure. GF delivers Excellence in Flow through essential products and solutions that enable the safe and sustainable transport of fluids worldwide. As part of its strategic transformation, GF divested GF Machining Solutions on 30 June 2025 and has signed an agreement to divest its GF Casting Solutions division. Headquartered in Switzerland, GF employs about 15'700 professionals and is present in 46 countries. GF generated sales of CHF 4'776 million in 2024. GF is listed on the SIX Swiss Exchange.

www.gfps.com

Pictures





Leveraging decades of industry experience, material expertise, and engineering expertise. GF delivers state-of-the-art technical drawings and 3D models, engineered for future-proof cooling infrastructure.

Source: GF



The LiquidCore system is made from high-performance polymers PVDF and PP-H. Thanks to its material properties, LiquidCore is ideal for water-glycol and deionized water-cooling applications, providing outstanding chemical resistance and long-term durability.

Source: GF