Auras Liquid Cooling Solutions

Advanced Liquid Cooling Infrastructure for Next-Generation Data Centers



Next-Gen AI Liquid Cooling Infrastructure

Next-Gen Framework

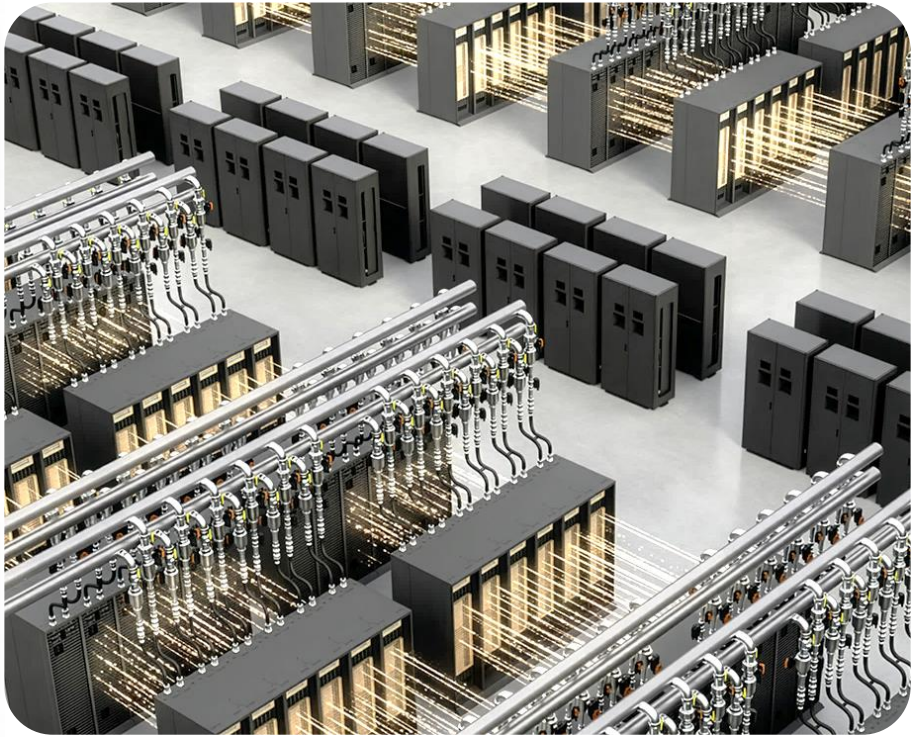
Engineered for next-gen AI system architecture to integrate silicon, software, and facility-level cooling infrastructure.

Profitability Driver

Redefines data center economics by minimizing cooling parasitic loads to maximize Tokens per Watt.

Maximum Computing Performance

- The smart CDU system
- The microchannel cold plate technology



Smart CDU: Active Thermal & Flow Regulation

Maximizing Efficiency



1 Industrial Telemetry Integration

Designed for open telemetry integration with facility BMS/DCIM systems to connect IT computing and OT cooling infrastructure.

2 Predictive Flow, Reduced Throttling Risk

Predictive CDU flow adjustment anticipates heavy LLM workloads designed to reduce thermal throttling risk.

3 Efficiency Optimization

Precisely controlling pump power minimizes infrastructure energy overhead.

4 Compute Power Redirection

Every single watt saved by the CDU feeds straight back into the AI GPU. This directly translates the saved energy quota into more token output.

CDU Serviceability:

Tool-less Modular Design & Minimized Downtime Operations

1 Tool-less Modular Design

Components like the pumps, control units, and filters can snap things in and out quickly.

2 Live Hot-Swapping

To supports online serviceability and hot-swappable modules.

3 Leak-Free QD Action

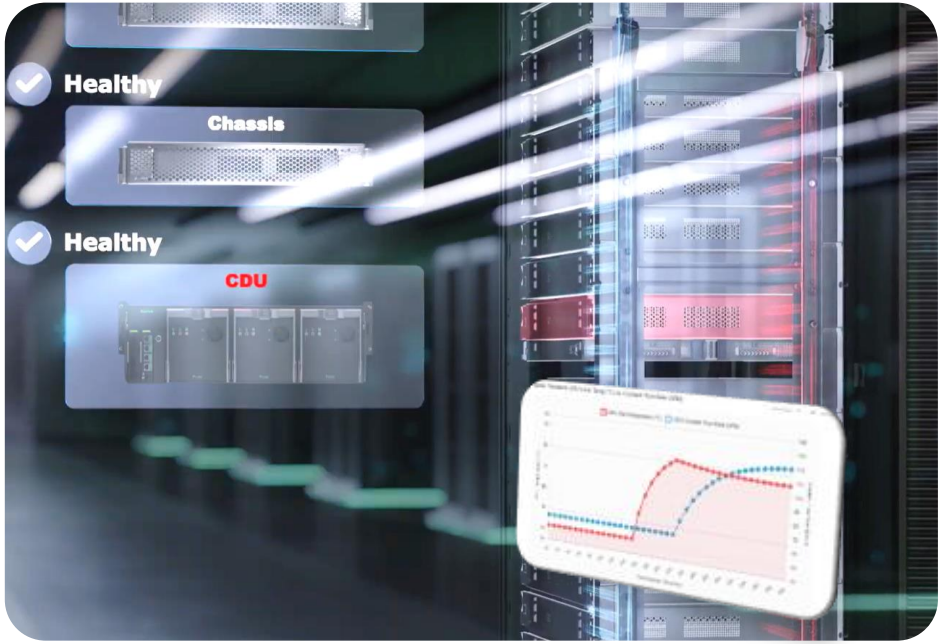
Dry-Break Quick Disconnects automatically shut off when disconnected, helping prevent coolant leakage.

4 N+1 Pump Redundancy

A backup pump instantly absorbs the full load to support serviceability and minimize downtime.



Beyond Hardware:
Intelligent Data-Level Cooling



Smart Cooling Insights

Not only the hardware can be quickly swapped out, but we also take cooling operations and maintenance in the data level.

Predictive Health Management

Utilizes flow trends to enable early anomaly forecasting, alerting operators before component degradation.

Minimized-downtime Operations

Automatically logs maintenance during low-traffic windows for fully automated, hands-free operations.

Cold Plate: Microchannel Synergy for Superior Cooling

Key Innovations

1 W45 Warm Water DLC

Precision microchannel cold plates utilize ultra-low thermal resistance geometries to support 45˚C inlet cooling, supporting chiller-less operation in suitable climates.

INLET TEMPERATURE

45°C

Supports warm water cooling

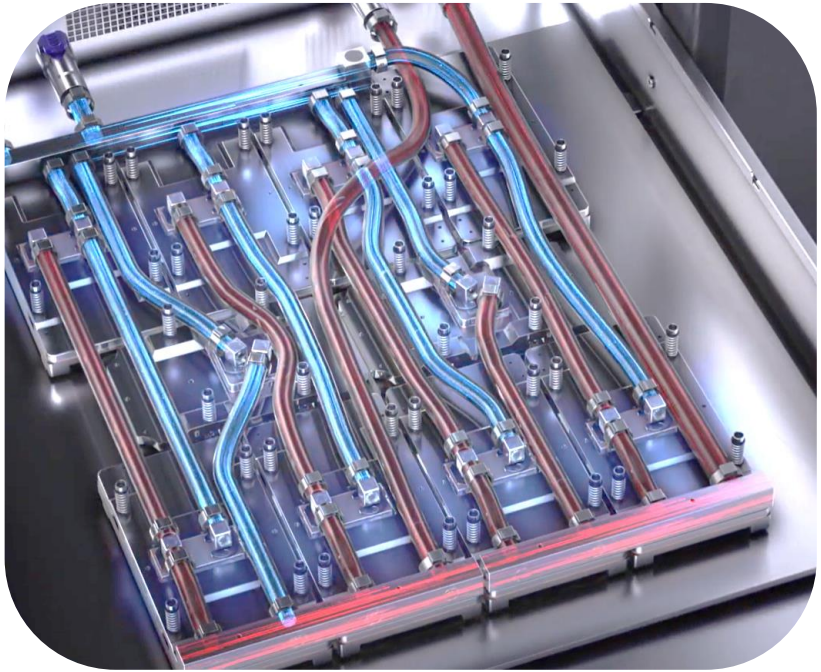
2 Copper Skived Fin with Diamond-Copper Base

A diamond layer facilitates lateral heat diffusion, spreading out hot spots and improving overall liquid cooling efficiency.

BETTER HEAT SPREADING

↑ Higher

Overall cooling efficiency



Conclusion: Auras Liquid Cooling Solutions for Next-Generation AI Factory Infrastructure

Efficiency

Integrates active flow response with a live plug-and-play design, enabling rapid, tool-less maintenance.

Performance

Engineered for seamless, software-defined telemetry to minimize cost-per-token.

Sustainability

Transforms passive cooling into an active mechanism that unlocks unprecedented green compute scale.

