ECS
EQUUS COMPUTE SOLUTIONS

Liquid Cooling Solutions

THE INDUSTRY LEADER IN LIQUID COOLING TECHNOLOGY, INTEGRATION AND SERVICES

Equus Computer Systems (ECS) is at the forefront of innovative IT infrastructure solutions, empowering businesses with cutting-edge technology. To meet the increasing demand for energy-efficient, high-performance cooling systems, ECS offers advanced liquid cooling solutions and services designed for modern workloads and high-density environments.

Why ECS?

ECS combines decades of industry expertise with a commitment to delivering bespoke, energy-efficient, and high-performance IT infrastructure solutions. Our liquid cooling technologies, services, support and management enable organizations to overcome thermal challenges, reduce operational costs, and achieve sustainability goals.

Finally, we perform ongoing liquid cooling technology testing and POC's in our innovation lab to ensure the best outcomes for every project.

Liquid Cooling Solutions

Direct-to-Chip Two-Phase Liquid Cooling

High Cooling Efficiency: Removes heat directly from components with minimal thermal resistance.
Compact Design: Ideal for high-density racks and constrained spaces.
Reduced Energy Consumption: Lowers the need for mechanical cooling and reduces PUE.

Single-Phase Immersion Cooling

Consistent Performance: Maintains steady thermal conditions for high-power systems.
Simple Maintenance: Components are easy to replace without complex piping.
Enhanced Longevity: Reduces thermal stress on hardware.

Two-Phase Immersion Cooling

Unmatched Heat Dissipation: Ideal for ultra-high-power densities.
Eco-Friendly: Uses natural convection and phase change for energy efficiency.
Scalability: Supports future increases in processing power demands.

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LIQUID COOLING SOLUTIONS USE CASES

High-Density Data Centers

Challenge: Cooling high-density server racks efficiently while lowering operational costs.
Solution: Depending on workloads and power density needed direct-to-chip or immersion cooling could both be implemented.
Impact: Significant reductions in energy costs and improved reliability for mission-critical applications.

Retail

Challenge: Managing heat from edge servers and IoT infrastructure in constrained spaces.
Solution: For compact environments and dependent on power density , direct-to-chip or single-phase immersion cooling could be deployed.
Impact: Enhanced uptime for retail analytics, point-of-sale systems, and inventory management.

Energy

Challenge: Cooling compute-heavy workloads for energy exploration and simulation.
Solution: For extreme thermal workloads and power density, immersion cooling would work best in this environment.
Impact: Reduces energy consumption while supporting demanding computations.

Finance

Challenge: Cooling high-performance trading systems with minimal downtime.
Solution: Depending on power density, direct-to-chip or immersion cooling could be deployed.
Impact: Reliable operations for algorithmic trading and realtime data processing.

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LIQUID COOLING SERVICES

System Design Integration

Custom Design & Integration:

- Site Assessment & Feasibility Analysis
- Thermal & Fluid Dynamics Analysis
- Custom Design & Integration

Deployment and Installation

Installation & Commissioning:

- Infrastructure Setup
- System Integration
- Testing & Validation

Project Management

Maintenance & Support:

- Preventive Maintenance
- Predictive Maintenance
- On-Site Support
- Coolant Management

Optimization & Upgrades:

- System Tuning
- Retrofits & Upgrades
- Heat Reuse Integration

Program Management

Monitoring & Management:

- 24/7 Remote Monitoring
- Data Analytics & Reporting
- Proactive Alerts & Alarms

Compliance & Sustainability:

- Regulatory Compliance
- Carbon Footprint Reduction
- Green Certifications

Lifecycle Management:

- Capacity Planning
- Decommissioning & Disposal