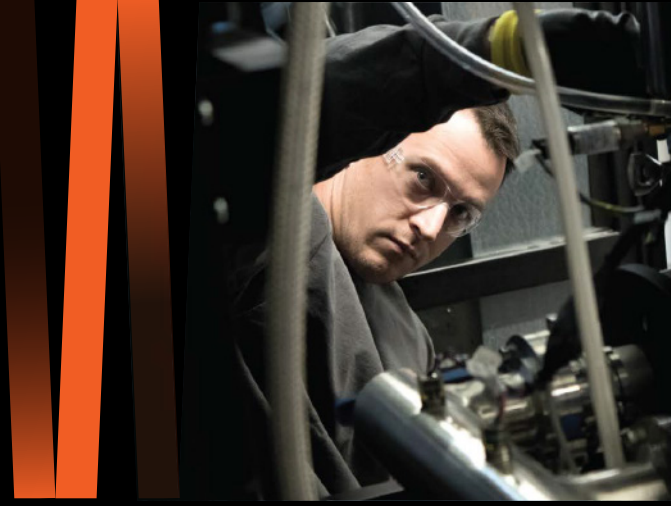






Vertiv™ Liquid Cooling Services.

Enhance facility reliability by preventing downtime, extending equipment lifespan, and sustaining thermal stability in high-performance computing environments with Vertiv's comprehensive liquid cooling services.



Getting started with Liquid Cooling Services

- 
Consultation & assessment
 Supporting the architecture of the liquid cooling solution, we work closely with you to gather requirements and provide designs suited to your needs.
- 
Installation & integration
 Prioritizing thorough validation of the installation of all liquid cooling components to help deliver a seamless start-up process.
- 
Commissioning
 Test, train, and handover. By performing all necessary testing and delivering comprehensive training, we seamlessly transition the solution into your operations.
- 
Recurring services
 Lifecycle maintenance services. Ongoing services to maintain operational continuity and to support the uptime of these critical systems.

Reliability through our extensive global network

Vertiv's strong global footprint and network of certified technicians enables us to support large-scale deployments world-wide with consistent quality and quick responsiveness.

Optimize operations with end-to-end lifecycle support

Providing a holistic suite of services including installation, startup, system commissioning, maintenance, fluid management, and digital management for smooth and optimized operation of your liquid cooling systems.

Save time when leveraging world-class expertise

Digitally-enabled and swift diagnosis, prompt technician assignment, and guaranteed on-site response, all delivered by highly skilled technicians who are experts in liquid cooling equipment.

Fluid Management, Lifecycle Services

Sampling



Vertiv trained Engineers collecting coolant fluid samples*:

- Seal coolant fluid containers securely to prevent leakage
- Label appropriately the coolant fluid containers
- Submit fluid samples to appropriated testing lab address, to have analyzed for correct chemistry, levels of inhibitors and biocides 1, 2
- Check make-up bag is full, properly connected & purged of air
- Check secondary filter clogging
- Remove, clean secondary filter(s) if necessary, check filter new pressure values

Testing



Fluid analysis performed by the fluid manufacturer or authorized 3rd part testing lab*:

- Quantity (1/2/4) of secondary fluid testing to be agreed upon by Vertiv and the customer.
- Provide fluid analysis results
- Maintain database of testing results
- Define recommended remediation activities (Flush and Fill, adding booster or inhibitors, etc.) based on results

Remedial 1



Corrective actions on site based on testing results, performed by Vertiv trained Engineers based on addition of boosters*:

- System Preparation (verify liquid level)
- Booster preparation (injector cleaning)
- Booster Injection
- Parameters check


Remedial 2



Corrective actions on site based on testing results, performed by Vertiv trained Engineers based on addition of Coolant refreshment and boosters*:

- Coolant removal (Circuit discharge)
- Waste collection and Unit Cleaning
- Unit Charge and Sample collection
- Parameters Check

 **Performed by Vertiv**

 **Performed by Subcontractor**