

12 KEY QUESTIONS BUYERS ASK US

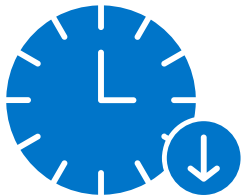
1. WHAT DO YOU BUILD AND AT WHAT SCALE?

- Coolant Distribution Units (CDUs)—commonly built in the 8–10 MW range per system, 2 MW per module (N+1), but CSI can engineer smaller or significantly larger systems when required.
- Rack-level, in-row manifolds, and supply/return headers tailored to site density and layout.
- Custom fabrication of CDU sub-assemblies, piping networks, welded headers, and stainless assemblies to project specifications.
- Options for standardized designs (fast delivery) or engineered-to-order (ETO) systems for unique site constraints.



2. HOW DO YOU REDUCE LEAK RISK AND DOWNTIME?

- Orbital-quality welds performed by AWS-certified craftsmen.
- Welded manifolds with pulled ports—fewer joints than stacked tees.
- Welded connections used where possible; flanged or tri-clamp connections used for service access.
- Hydrostatic and pneumatic testing before shipment for every system or assembly.
- Guidance on gasket replacement intervals and clamp torque to minimize field-related leaks.
- Custom approaches available for sites with elevated pressure, temperature, or vibration requirements.

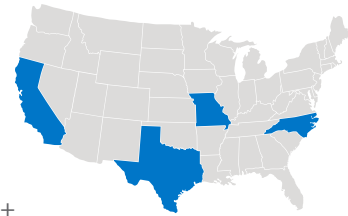


3. HOW DO YOUR CDUS DIFFER FROM OTHERS?

- Straightforward designs prioritize reliability and ease of service without unnecessary complexity.
- Built-in multi-stage filtration (25 μm inline; 1 μm side-stream).
- Heat exchangers sized for low ΔP , reducing pump horsepower and energy use across fleets.
- Redundant pumps, dual power feeds, and UPS-backed controls for resilience.

4. CAN YOU HIT OUR SCHEDULE AND SCALE?

- Distribution centers positioned in Missouri, North Carolina, Texas, and California to support fast logistics.
- Over 100 craftsmen and 40+ engineers for high-volume or complex projects.
- Experience delivering single-engineered skids, replicated OEM programs, and large-scale multi-MW deployments.
- Lead time depends on scope and long-lead materials. We align early to protect schedules and can scale resources as needed.



5. WHAT MATERIALS DO YOU RECOMMEND AND WHY?

- 304 stainless steel is standard for glycol/water loops—balancing cost and corrosion resistance.
- 316 stainless steel where higher corrosion resistance or chemical compatibility is required.
- Other alloys and finishes available if project conditions demand.
- Custom material selections aligned to fluid chemistry, pressure, and lifecycle cost priorities.

6. WHAT SCALE, EQUIPMENT, AND AUTOMATION CAPABILITIES DOES CSI BRING?

- In-house polishing, passivation, ultrasonic cleaning, and leak testing (hydrostatic & pneumatic).
- Broad machining and fabrication capacity to handle both one-off engineered builds and repetitive, high volume OEM programs.
- Automation and precision tools ensure repeatability and consistency at scale.

7. WHAT STANDARDS AND PRACTICES DO YOU FOLLOW?

- ASME B31.3 for piping design and fabrication.
- ASTM A270 for tubing quality.
- AWS-certified welders for all projects.
- Project-specific QC plans, inspection records, and factory acceptance tests (FATs).
- Adaptable additional customer or hyperscale standards when specified.

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8. HOW DO YOU INTEGRATE WITH OUR A&E AND CONTRACTORS?

- BIM coordination via custom integration strategies developed for retrofits, greenfield builds, or modular programs.
- 30/60/90 design reviews plus detailed as-builts at turnover.
- AR/VR technology used for design validation, service clearances, and maintenance walkthroughs.
- FAT and prefab testing reduce site installation hours.

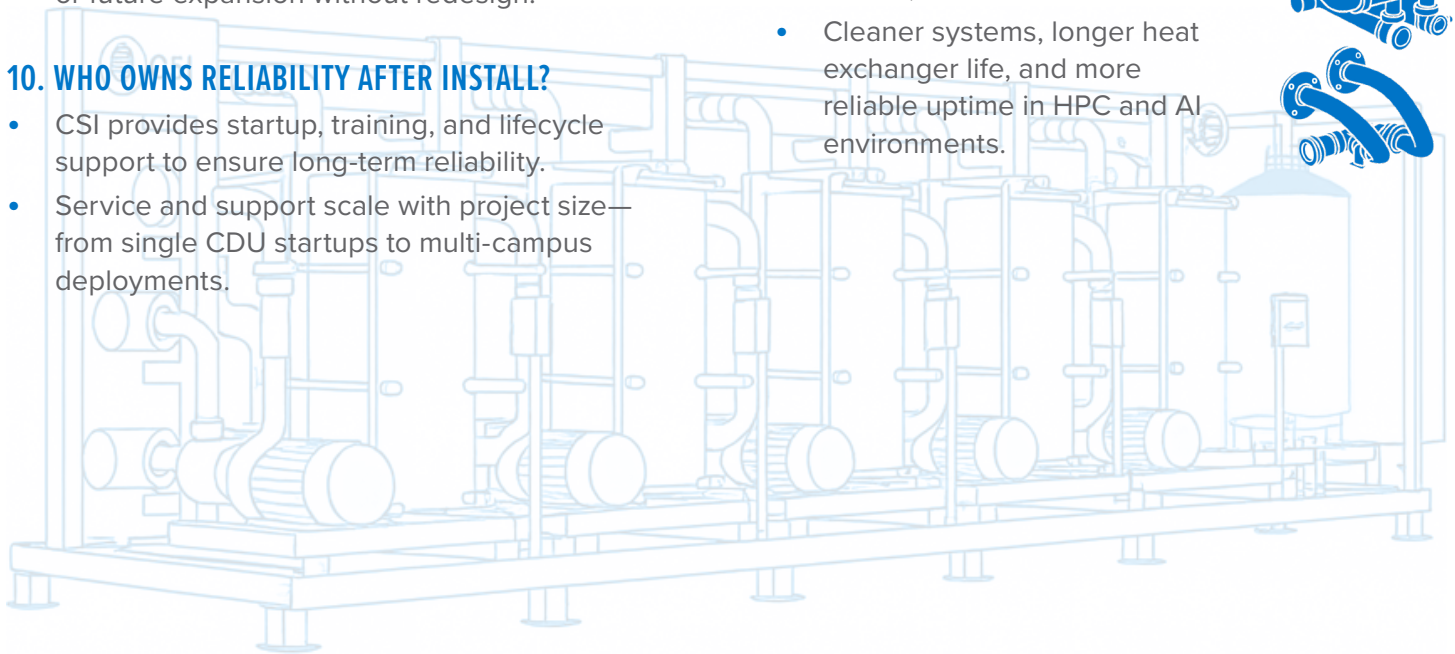


9. DO YOU SUPPORT DIRECT-TO-CHIP, DIRECT LIQUID COOLING (DLC), AND IMMERSION?

- Yes. CSI designs manifolds, skids, and assemblies for D2C/DLC and immersion applications.
- Modular skid architectures that scale linearly with AI/HPC density growth.
- Heat exchangers sized conservatively for pump efficiency and energy savings.
- Flexible system designs allow hybrid approaches or future expansion without redesign.

10. WHO OWNS RELIABILITY AFTER INSTALL?

- CSI provides startup, training, and lifecycle support to ensure long-term reliability.
- Service and support scale with project size—from single CDU startups to multi-campus deployments.



11. WHAT DOCUMENTATION AND TESTING DO WE RECEIVE?

- Inspection records, dimensional checks, and weld certifications.
- Hydrostatic and pneumatic leak testing.
- FAT reports; customer-witnessed FATs available for any build size.
- O&M manuals, recommended spares, and training materials at handover.
- Additional reporting or documentation provided for high-volume OEM or hyperscale projects upon request.

12. HOW DO DATA CENTERS BENEFIT FROM CSI'S INDUSTRY EXPERIENCE?

- Decades in hygienic industries (food, dairy, beverage, pharma) translate into a design discipline essential for mission-critical data center cooling.
- Practices like smoother welds, polished surfaces, and leak-tight assemblies reduce fouling, biofilm, and chemical use.
- Cleaner systems, longer heat exchanger life, and more reliable uptime in HPC and AI environments.



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