The Coolest Answer to Power Hungry Data Centers

Build, Grow and Optimize Your Operation with Liquid Immersion Cooling.
For many organizations today, success is inextricably tied to IT. That puts a huge burden on data centers. Standard-performance servers are outpacing the capabilities of traditional air-cooled data centers, causing over-utilization space constraints. High-performance servers are consuming more power and require ever-greater cooling, which drives major capital expenditures, increases operating costs, and creates seemingly insurmountable thermal issues. On top of all this, companies are under pressure to become better stewards of the environment.

Traditional cooling methods can’t keep up. Yet demands on you never stop.

Discover GRC’s Immersion Cooling

Radically simplifying the design, build and operation of data center infrastructure, GRC’s patented immersion cooling solutions provide the breakthrough growth and cost-saving potential you’re looking for, while minimizing your carbon footprint.

Immersing servers in GRC’s ElectroSafe® coolants improves performance, reliability, and efficiency, while giving you greater layout and location flexibility. GRC’s immersion cooling solutions enable you to:

• Scale easily, cost-effectively — and limitlessly
• Slash capex up to 50% — and cooling energy costs up to 95%
• Increase cooling capacity to as much as 100 kW/rack with warm water.

ElectroSafe coolant is a clean, odorless, nontoxic liquid with 1,200X the heat retention capacity of air by volume. ElectroSafe does not evaporate, resulting in zero Global Warming Potential (GWP).
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<th>Conventional Data Centers</th>
<th>GRC’s ICE Solutions</th>
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<tr>
<td>Complex to Design</td>
<td>Cost-Effective</td>
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<tr>
<td>Expensive to Build</td>
<td>Cut data center construction costs by up to 50% by eliminating chillers, CRACs, CRAH’s and raised floors.</td>
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<td>Time-Consuming to Install</td>
<td>Fast + Flexible</td>
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<td>Costly to Operate and Maintain</td>
<td>Locate your data center in virtually any environment — and be up and running within weeks, not months.</td>
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<td>Limited in Location Choices</td>
<td>Future-Proof</td>
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<td>Unable to Cool Emerging Systems</td>
<td>Cool the most powerful servers — as much as 100 kW/rack with warm water — and capitalize on emerging applications. Even more cooling capacity is possible with chilled water.</td>
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<td><strong>Scalable</strong></td>
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<td>Minimize the pains of capacity planning and inaccurate forecasts. Build as you go and grow your operation.</td>
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<td><strong>Power-Efficient</strong></td>
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<td>Experience a &lt;1.03 PUE, 10-20% server load reduction plus an average power reduction of ~50%. Get more from your power envelope, too.</td>
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<td><strong>Resilient</strong></td>
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<td>Eliminate fan vibrations, dust and moisture contamination, oxidation risks, and hot spots.</td>
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ICE Solutions — Power Your Full Computing Potential

**ICEraQ® Rack-Based Immersion Cooling**

With minimal site requirements and a modular design, our ICEraQ solution reduces the expense of building, running, and expanding your data center, enabling you to achieve unprecedented cost, performance, and space efficiencies, while achieving carbon reduction goals.

**Includes:**
- CDU (coolant distribution unit) + racks
- Racks filled with our high-performance, synthetic ElectroSafe liquid coolants
- 2N redundant pumps and control systems
- Rack-mounted service rails for easy server maintenance and hot swaps

**ICEtank® Containerized Immersion Cooling**

ICETanks are turnkey data centers built inside a 20’ or 40’ modular ISO shipping container, giving you total location flexibility — even for adverse conditions. You provide the power, water, and networking. We do the rest.

**Includes:**
- ICEraQ system, including our high-performance synthetic ElectroSafe liquid coolants
- Integrated electrical infrastructure (including power distribution, breakers, panels, etc.)
- Final heat rejection, including water treatment and plumbing.
- Integrated cable management
- 2N redundant pumps and control systems
- Fire suppression system
- Mini-split A/C unit(s) for technician comfort
- IT40UPS includes internal UPS backup

**All ICE solutions also include:** Monitoring with Schneider Electric’s Machine Advisor and alerts with PagerDuty applications; a one-year limited warranty, including service & maintenance.

ICE Solutions Are Designed to Support Applications Such As:
- Artificial Intelligence (AI)
- High-Performance Computing (HPC)
- Cloud/On-Premise Data Centers
- Edge Computing
- High-Frequency Trading (HFT)
Take Your Data Center Beyond Limits
Go with GRC—the World’s Immersion Cooling Authority

Founded in 2009, GRC pioneered the single-phase immersion cooling technology that has helped data centers like yours slash costs plus grow computing power easily, cost-effectively — and limitlessly.

Our solutions power some of the world’s most respected and data-intensive organizations. We hold nineteen landmark patents, have thirteen more pending, and deliver proven bottom-line value for your IT investment.

“immersion-cooled systems do not require chillers, CRAC units, raised flooring, and temperature and humidity controls, etc., they offer a substantial reduction in capital expenditures over air-cooled systems.”
— David Prucnal, P.E. at NSA

GRC ICEraQ Systems Are Compatible With All Leading OEM Servers

Compute Cooler. Run Smarter. Grow Faster
Bring GRC ICE Solutions to Your Data Center

Don’t let the heat barrier have a chilling effect on your data center’s growth potential — or your vision. Break free with liquid immersion cooling from GRC.

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