

GRC **ICE** Immersion Cooling Solutions

The Coolest Answer to Power Hungry Data Centers

Build, Grow and Optimize Your Operation
with Liquid Immersion Cooling.





Super-Cool Your Servers. Future-Proof Your Data Center. Be Green.

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.

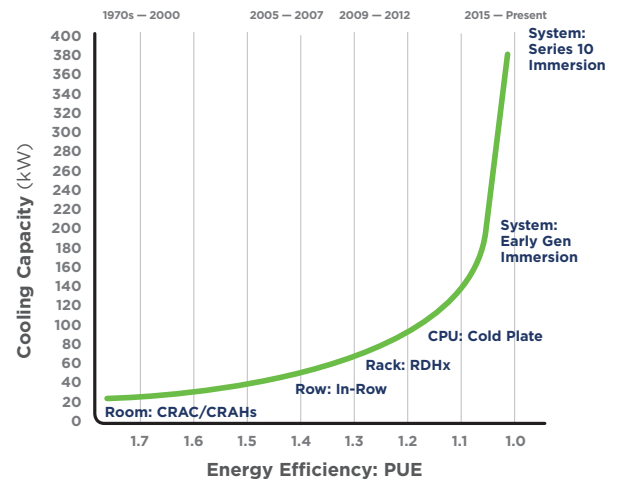
Discover GRC's Immersion Cooling

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.

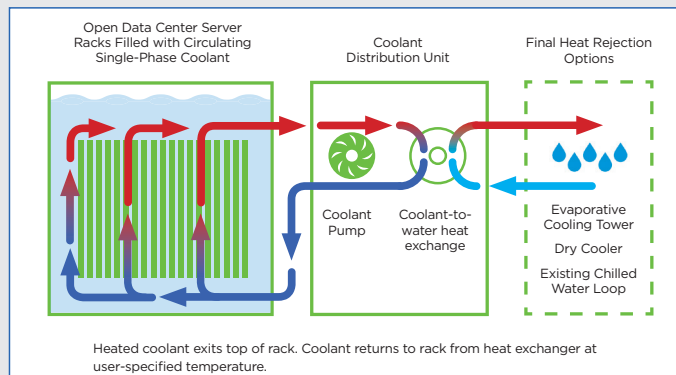
Immersing servers in GRC's ElectroSafe® coolants improves performance, reliability, and efficiency, while giving you greater layout and location flexibility. GRC's immersion cooling solutions enable you to:

- Scale easily, cost-effectively — and limitlessly
- Slash capex up to **50%** — and cooling energy costs up to **90%**
- Increase cooling capacity to as much as 100 kW/rack with warm water.

The Evolution of Data Center Cooling Leads to Immersion









How GRC Liquid Immersion Cooling Works:



ElectroSafe coolants are clean, odorless, nontoxic fluids with 1,200X the heat retention capacity of air by volume. ElectroSafe does not evaporate, resulting in zero Global Warming Potential (GWP).

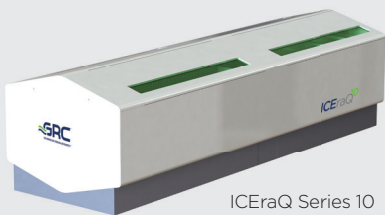
Compare and You'll See That GRC Immersion Cooling Systems Are Superior in so Many Ways

Conventional Data Centers	GRC's ICE Solutions	
Complex to Design	 Cost-Effective Cut data center construction costs up to 50% by eliminating chillers, CRACs, CRAH's and raised floors.	 Scalable Minimize the pains of capacity planning and inaccurate forecasts. Build as you go and grow your operation.
Expensive to Build		
Time-Consuming to Install	 Fast + Flexible Locate your data center in virtually any environment — and be up and running within weeks, not months.	 Power-Efficient Experience a <1.03 PUE, 10-20% server load reduction plus an average power reduction of ~50% . Get more from your power envelope, too.
Costly to Operate and Maintain		
Limited in Location Choices	 Future-Proof 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.	 Resilient Eliminate fan vibrations, dust and moisture contamination, oxidation risks, and hot spots.
Unable to Cool Emerging Systems		

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.

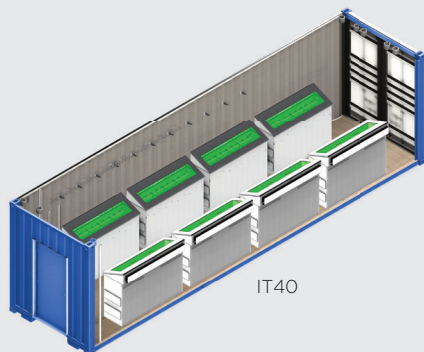


Includes:

- 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 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 detection system
- Mini-split A/C unit(s) for technician comfort
- Monitoring with Schneider Electric's Machine Advisor and alerts with PagerDuty applications.
- A one-year limited warranty with customized support options available.

ICE Solutions Are Designed to Support Applications Such As:

- Artificial Intelligence (AI)
- High-Performance Computing (HPC)
- Enterprise, Cloud, and Hyperscale 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 24 landmark patents, have 15 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

Global Presence

Our Deployments Are in **Twenty-One** Countries Across the Globe



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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