

GRC **Hash** Immersion Cooling Solutions

Unchain Your Blockchain Computing Potential

— with Liquid Immersion Cooling





Blockchain Opportunities Are Heating Up. Get Moving with GRC

Crypto mining is arguably one of today's hottest opportunities, and can be quite profitable for those poised to move with market shifts. What's more, experts believe mainstream blockchain applications will soon explode — with the potential for increasing business efficiency, consumer confidence and value.

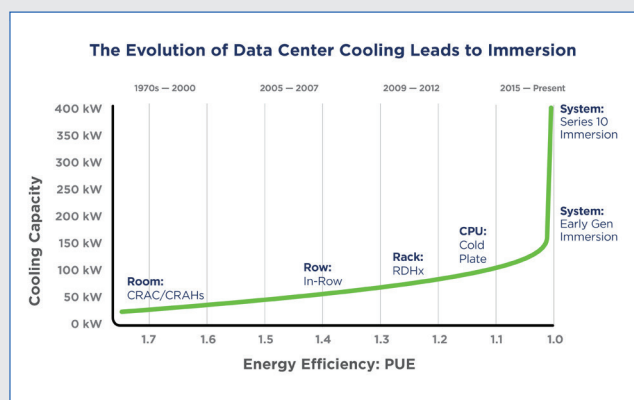
Yet many hurdles stand in the way. Traditional data center construction costs and cooling methods can hold you back. And finding the right location plus clean affordable power sources may also pose a problem.

We're the Key Link to Your Blockchain Success

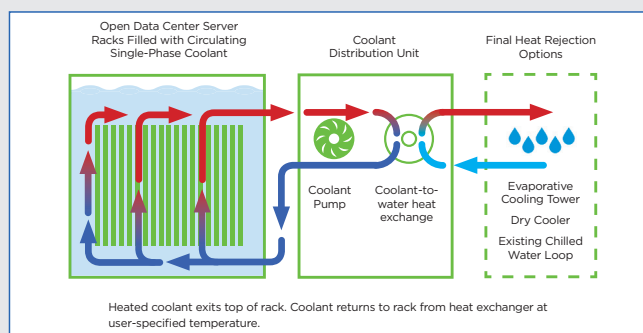
Whether you're mining bitcoin or integrating blockchain technology into your business, GRC's (Green Revolution Cooling) patented liquid immersion cooling solutions can help you achieve more. How? By radically simplifying the design, build and operation of your data center, while also removing the limits of rack density, power availability and siting options.

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

- Slash CapEx up to **50%** — and cooling energy costs up to **90%**
- Increase cooling capacity up to **100 kW/rack**
- **Quickly** deploy computing power most anywhere
- **Save space** with denser layouts









How GRC Liquid Immersion Cooling Works:

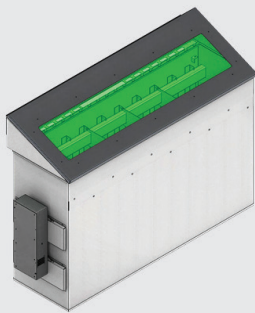


ElectroSafe coolants are clean, odorless, nontoxic fluids with 1,200X the heat retention capacity of air by volume. Immersing servers in this liquid enables cooling up to **100 kW/rack!**

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

Conventional Data Centers	GRC's Hash Solutions	
Complex to Design	Cost-Effective  Cut data center construction costs up to 50% by eliminating chillers, CRACs, CRAHs and raised floors.	Scalable  Minimize the pains of capacity planning and inaccurate forecasts. Build as you go and grow your operation.
Expensive to Build	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.
Time-Consuming to Install	Future-Proof  Cool the most powerful servers — up to 100 kW/rack — and capitalize on emerging applications.	Resilient  Eliminate fan vibrations, dust and moisture contamination, oxidation risks and hot spots.
Costly to Operate and Maintain		
Limited in Location Choices		
Unable to Cool Emerging Systems		

GRC's Hash Solutions — Power Your Full Blockchain Computing Potential



HashRaQ

HashRaQ® Micro-modular, rack-based immersion cooling solutions for data centers

With minimal site requirements and a modular design, our HashRaQ solution reduces the expense of building, running and expanding your blockchain data center, enabling you to achieve unprecedented cost, performance and space efficiencies.

Includes:

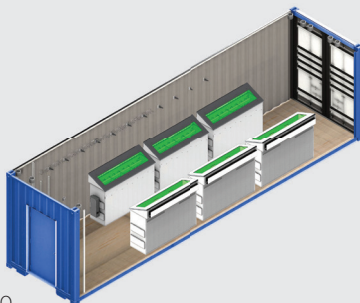
- CDU (coolant distribution unit) + rack
- Custom high-power rack-mounted PDUs
- Networking switches
- Custom Ethernet and power cables to simplify cable management
- Monitoring with Machine Advisor and alerts with PagerDuty applications.
- Rack(s) filled with our high-performance, Earth-friendly, synthetic ElectroSafe coolants.
- Rack-mounted service rails for easy server maintenance and hot swaps

HashTank® Modular, immersion cooling solutions for data centers

HashTanks are turnkey blockchain 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:

- HashRaQ system, including our high-performance, Earth-friendly, synthetic ElectroSafe coolants.
- Standard smart PDUs with remote monitoring and switching capability
- All electrical (power distribution, breakers, panels, etc.)
- Evaporative cooling towers
- Fire detection system
- A/C unit(s) for technician comfort



H40

All Hash Solutions Also Include:

- Schneider Electric's Machine Advisor cloud based and local monitoring capabilities with configurable PagerDuty email alerts.
- A one-year limited warranty, including service and maintenance.



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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.

"GRC is the most efficient cooling technology we have tested. We save about 20% in energy versus our existing free cooling system and can now add capacity in some previously unusable space."

Operating in oil is easy."
— Infrastructure Manager at
Orange Telecommunication

Global Presence

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



GRC HashRaQ Systems Are Compatible with All Leading OEM Servers, Including:



Bring GRC Hash Immersion Cooling Solutions to Your Data Center

Whether you're mining for profit or relying on blockchain technology to drive your business, now is the time to build the data center infrastructure you need. Save time, slash construction and operating costs, and enjoy unlimited scalability with breakthrough liquid immersion cooling from GRC.

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