

Modular Data Center Solutions

Designed and fabricated in the U.S., Mears Advanced Technology Group (MATG)'s Modular Data Center solution features immersion cooling technology. Our advanced immersion cooling approach to modular data centers allows for expedited infrastructure design and development with leading-edge immersion cooling technology as a turn-key solution. Our modular data center integration team has the capabilities to deploy modular solutions that scale from 750KW to 24MW.



► **Development**

Design and development of modular data center facilities based on our clients' deployment requirements.

► **Modular Fabrication**

Executed as a complete EPC model, including project management, scheduling and procurement of the modular buildings to ensure delivery targets.

► **Site Preparation**

Turn-key solution for GC to include permitting, electrical, network and infrastructure deployment activities.

► **Deployment Certainty**

Modular data center facilities allow for expedited infrastructure design and development of Edge and campus site expansion solutions with CAPEX and OPEX certainty.

► **Efficient Design**

Modular immersion cooling solutions operate with a PUE of < 1.06 (typical) and are less complicated to adapt to greenfield or repurpose within existing sites.

► **High Density**

Improved IT loads with a small footprint, improved IT performance and lower energy consumption. Immersion cooling does not have a requirement for water treatment allowing for deployments in extreme high temperature environments.



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Proof of Concept

MATG launched an operational Modular Data Center facility in Northern Georgia. Phase I includes the launch of a 1.5MW immersion cooling infrastructure, configured as two (2) 750KW Critical Infrastructure Modules (CIM), for a total of 1,250 square feet. The facility is protected by two separate substation power feeds and dual 750KW UPS (total peak power of 1.5MW) with a 2MW backup generator.

Immersion Cooling Benefits

Building a customized modular immersion cooling data center with MATG provides you with a full team of project management and integration specialists combined with the latest network technology in data center development.

Immersion cooling technology using the 3M™ Fluorinert™ Electronic Liquid two phase platform provides:

- ▶ Higher energy efficiency and lower operating costs
- ▶ Improved computing performance and hardware reliability
- ▶ Reduced environmental impact and increased energy savings by reducing HVAC cooling 90%
- ▶ High density applications with 90% reduction in footprint
- ▶ Broad adoption for applications where servers and storage equipment need to be located with higher density and in a very small footprint are additional benefits
- ▶ Improved HW reliability in 3M™ fluid, extending the useful life of assets
- ▶ Form factor flexibility of IT equipment
- ▶ Inherent fire protection from fluid cooling approach

The Quanta Advantage

Mears is a proud member of the Quanta Services family of companies with skilled electrical, broadband, and civil construction capabilities.

When Quanta acquired Mears in 2000, we gained access to:

- ▶ A network of sister companies which helps us self-perform 85% of our work. Our relationship with Quanta reduces project durations, mitigates risks and provides collaborative, thorough infrastructure solutions for our clients.
- ▶ The fourth-largest fleet in the country, with over 63,000 pieces of equipment and 42,000 highly trained personnel. Our skilled workforce is the largest in the industry and allows us to complete projects and contracts of all sizes throughout the country.
- ▶ Dependable financial backing as part of a Fortune 200 Company. Through our partnership with Quanta, we can offer flexibility in project/contract services and pricing/bidding capabilities.



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