

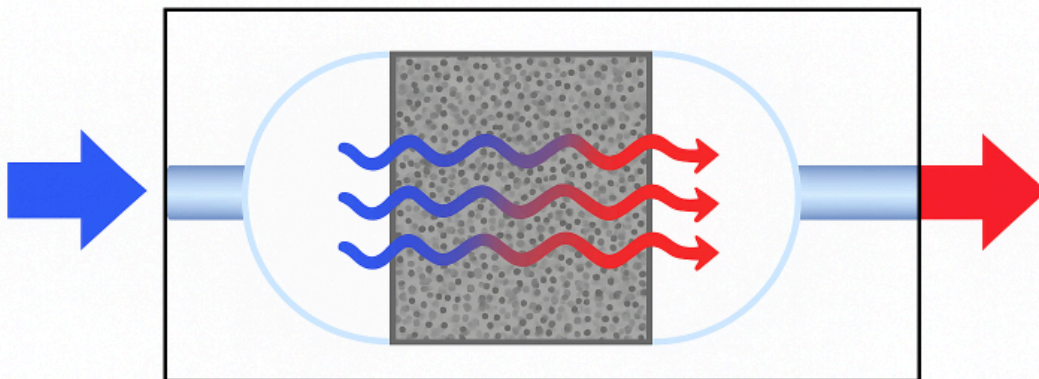
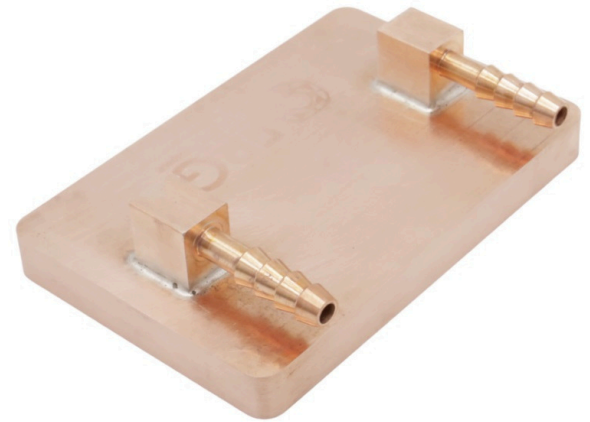
# Waterless 2-Phase Cold Plates

Waterless cooling for next-generation AI systems.

Duocel® 2-Phase Cold plates are designed specifically for 2-Phase cooling  
Our proprietary foam increases heat transfer and prevent hot spots

## Step up to Duocel®

- **Performance and Efficiency**
  - **Harness** up to 80% of the refrigerant's boiling capacity for maximum efficiency
  - **Dry-out:** Turbulence prevents dry-out by continuously redistributing liquid across every surface
  - **No Hot-Spots:** Boiling at the hot spot increases heat transfer providing additional localized cooling
  - **Unmatched Performance:** 400 Watts CM<sup>2</sup>
- **Reliability and Sustainability**
  - **Turbulent fluid dynamics** maintain uniform chip temperatures; no overheating, no downtime.
  - **Waterless system** virtually eliminates the risk of leaks
  - **Dynamic Self-Regulation:** Heat coefficients scale proportionally with load to maintain consistent temperature distribution



The Perfect Fit for AI Data Centers

## Proven Performance

### Advantages of our patented Duocel Foam:

- Dielectric refrigerants undergo phase change (liquid-to-vapor) directly at the heat source
- Turbulence throughout the cold plate prevents air pockets and dry out

***"Harness Duocel® 2-Phase technology for maximum efficiency, zero water risk, and no hot spots."***

## Benefits of Duocel® Waterless Liquid Cold Plates

### Hot Spot Mitigation

- Two-phase boiling removes heat precisely where flux is highest, no uneven temperature distribution.
- Reduces internal gradients, enabling faster, more consistent cooling

### Improved Thermal Properties

- Keeps your chips cooler by design — less than 5°C variation
- 400 Watts of heat removal per CM<sup>2</sup>

### Reliability

- Waterless closed loop systems minimizes corrosion, scaling, and leak risks.

## Manufacturing & Lifecycle Support

### Vertically Integrated

- Engineering design, thermal modeling, prototyping, testing, and production under one roof

### Decades of Experience

- ERG has been providing foam based cold plates since the 1980's



***See Duocel® in action — request a demo or performance analysis!***

Partner with ERG Aerospace for innovative solutions that prioritize performance, sustainability, and integration.

DELIVERING EFFICIENCY,  
POWER, AND SUSTAINABILITY  
IN THERMAL MANAGEMENT



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