

HIGH PERFORMANCE LIQUID TO LIQUID HEAT EXCHANGERS

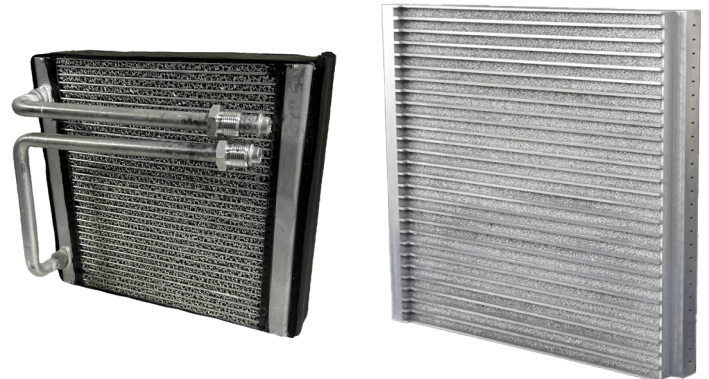


High Thermal Capacity Heat Exchangers

- **High Thermal Capacity:** Capable of managing loads up to 500kW
- **Compact and Modular Design:** Modular configuration supports scalability for varying operational needs.
- **Durable and Corrosion Resistant:** Resistant to wear and chemical degradation; constructed with aerospace-grade aluminum, copper, stainless steel or titanium.
- **Verstaile Integration:** Compatible with existing or custom ground support equipment systems.
- **Reliable:** Built to operate reliably in the most extreme temperatures and environments.

Metal Foam Heat Exchangers

- **Patent-Pending Design:** High-performance, lightweight metal foam heat exchangers engineered for scalability and adaptability in various layered or dimensional configurations.
- **Open-Cell Structure:** The unique foam structure promotes superior airflow and heat dissipation, significantly reducing thermal resistance.
- **Ultra-Lightweight:** Combines strength and performance with a focus on weight reduction, perfect for aerospace applications.
- **Compact and Efficient:** Ideal for space-constrained environments, delivering high thermal performance in a smaller footprint.
- **Eco-Friendly Solutions:** Compatible with sustainable refrigerants, supporting energy-efficient and environmentally conscious operations.



Revolutionizing Thermal Management

Made in the USA since 1967, ERG has been leading the way with innovative solutions designed to maximize efficiency, minimize weight, and meet the growing demands of the aerospace industry for over 50 years.

- **Exceptional Efficiency:** Advanced thermal management technology ensures peak performance with reduced energy usage.
- **Durable and Reliable:** Engineered for extreme environments, guaranteeing long-lasting operation.
- **Customizable Solutions:** Tailored designs meet the unique needs of the aerospace industry.
- **Aerospace applications:** Ground Support Equipment, Rotorcraft & Fixed-Wing Aircraft, Space & Defense

About Duocel®

Duocel® is an open-celled rigid foam with solid ligaments and optimized properties for your design.

Base Material



Aluminum



Copper

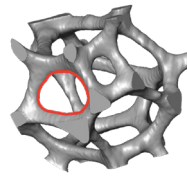


Carbon



Silicon Carbide

Pore Size

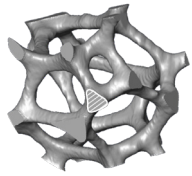


100 PPI
(~0.01")



5 PPI
(~0.20")

Ligament cross-section



Relative Density



3%



6-8%

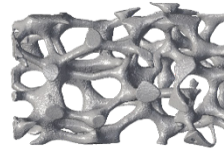


10-12%

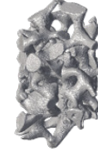


15%

Compression



Uncompressed



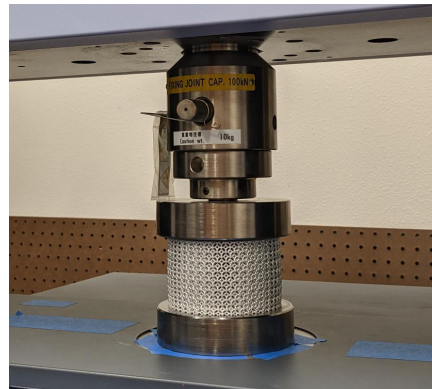
Compressed

ERG Engineering

With over 50 years of expertise designing and manufacturing ECS systems and components, we tailor ECS solutions to your design specifications for maximum performance.

Design Optimization

- Turn-Key Systems Solutions
- Aftermarket Upgrades
- Weight-Relief Configurations
- Installation Expertise
- OEM Interface Experts
- Thermal Transfer, Mechanical & Electrical Engineering Support
- Custom Design Capability



Testing

- DO160 Testing Capability
- Shock and Vibration
- Proof and Burst Pressure Testing
- In-House Thermal Chamber
- Fluid Dynamics Analysis & Testing
- In-House Stress and Fatigue Analysis

Customer Advantage

Speed & Flexibility

We know our customers. Whether legacy or new development, ERG is staffed with a team of experts, uniquely qualified to provide fast and highly efficient thermal management system solutions.

On-Site Support

ERG has an extensive customer service, system simulation, and support team with decades of engineering, assembly, installation, integration, and troubleshooting expertise.



**Ready to Transform Your
Thermal Management Systems?**

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