



ADVANCED COOLING TECHNOLOGIES



ACT: YOUR THERMAL PARTNER

WHERE HEAT MEETS INGENUITY

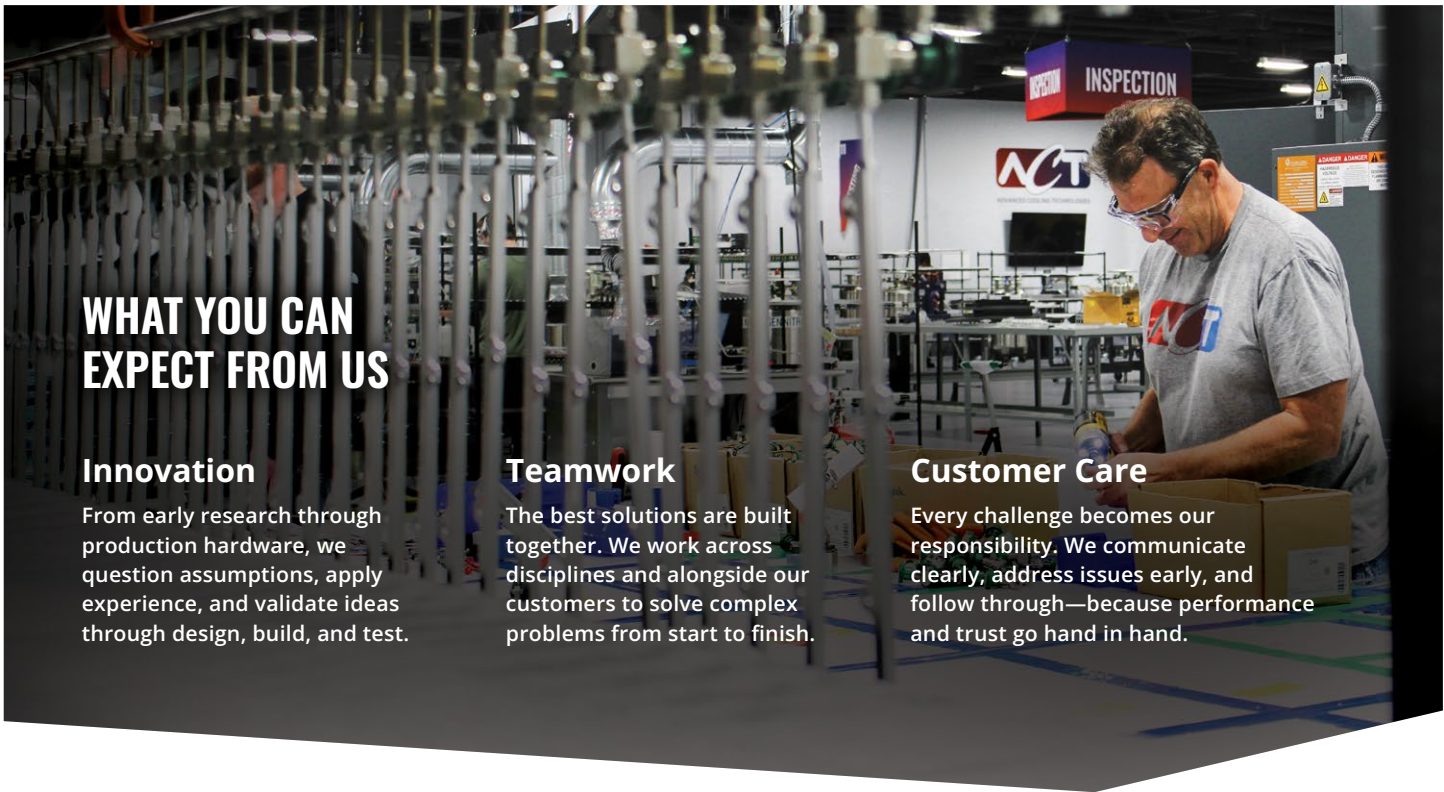
Heat is rarely top of mind

—until it becomes a barrier to everything else.

When thermal margins disappear, systems degrade, performance drifts, and timelines slip. Problems that looked theoretical on paper become very real in hardware, at scale, and under load.

At Advanced Cooling Technologies (ACT), we make sure heat never stands in the way of performance. For more than 20 years, our engineers, technicians, and problem-solvers have worked alongside customers to tackle the toughest thermal challenges—because when the stakes are high, precision matters.





WHAT YOU CAN EXPECT FROM US

Innovation

From early research through production hardware, we question assumptions, apply experience, and validate ideas through design, build, and test.

Teamwork

The best solutions are built together. We work across disciplines and alongside our customers to solve complex problems from start to finish.

Customer Care

Every challenge becomes our responsibility. We communicate clearly, address issues early, and follow through—because performance and trust go hand in hand.

WHAT WE DO



DESIGN & ENGINEERING



MANUFACTURING



TESTING & VALIDATION



RESEARCH & DEVELOPMENT

ACT develops advanced thermal solutions for demanding environments where performance, reliability, and scalability are critical. Across a range of industries—from aerospace and defense to next-generation data centers and beyond—ACT ensures thermal performance never limits what’s possible.

Our work is supported by three specialized centers of excellence, each contributing deep technical expertise. Together, these teams design, build, and validate thermal solutions that perform where it matters most.

Lancaster, PA

ADVANCED HEAT MANAGEMENT

Company headquarters and core engineering teams specializing in passive and active two-phase systems, advanced heat transfer solutions, and R&D.

York, PA

RUGGEDIZED COOLING SYSTEMS

Specialists in vaporization, refrigeration, and energy recovery systems focused on efficiency and reliability in mission-critical operations.

Anaheim, CA

STRUCTURES AND COMPOSITES

Advanced composite and metallic structures and panels supporting aerospace, defense, and industrial systems where thermal and structural performance work together.



PASSIVE THERMAL SOLUTIONS

Reliable. Efficient. Proven.

Passive thermal technologies are ideal when reliability, longevity, and minimal maintenance are critical. ACT designs passive solutions to deliver stable, predictable performance over the full life of the system—often in environments where intervention isn't an option.

- ↳ Heat Pipes
- ↳ Loop Thermosyphons
- ↳ Vapor Chambers
- ↳ HiK™ Plates
- ↳ ICE-Lok® Wedge Locks
- ↳ Phase Change Material Heat Sinks

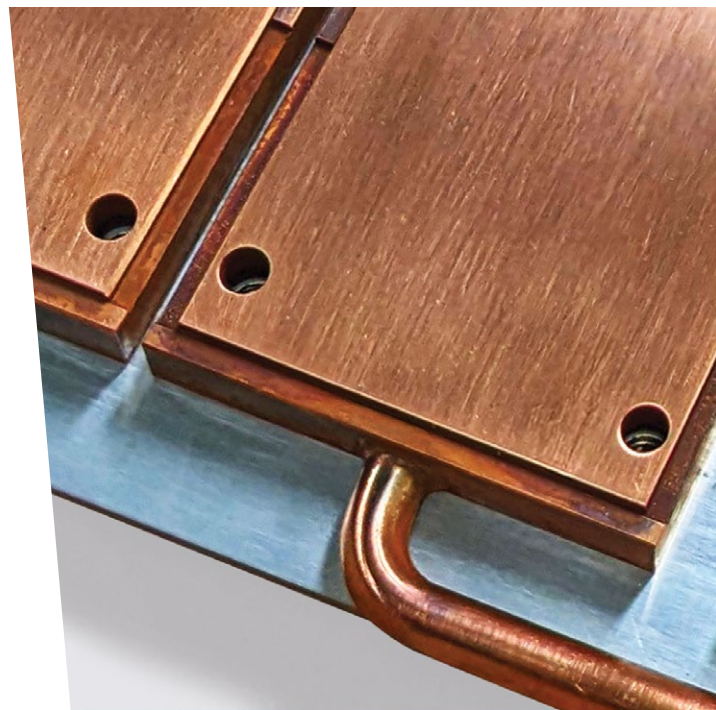


ACTIVE THERMAL SOLUTIONS

When Passive Isn't Enough

High heat flux and tight temperature control demand more advanced approaches. ACT's active thermal solutions provide precise, adaptable cooling when performance requirements exceed passive limits.

- ↳ Environmental Control Units
- ↳ Chiller Systems
- ↳ Single- and Two-Phase Liquid Cooling
- ↳ Two-Phase, Direct-to-Chip Liquid Cooling
- ↳ HVAC Energy Recovery Systems

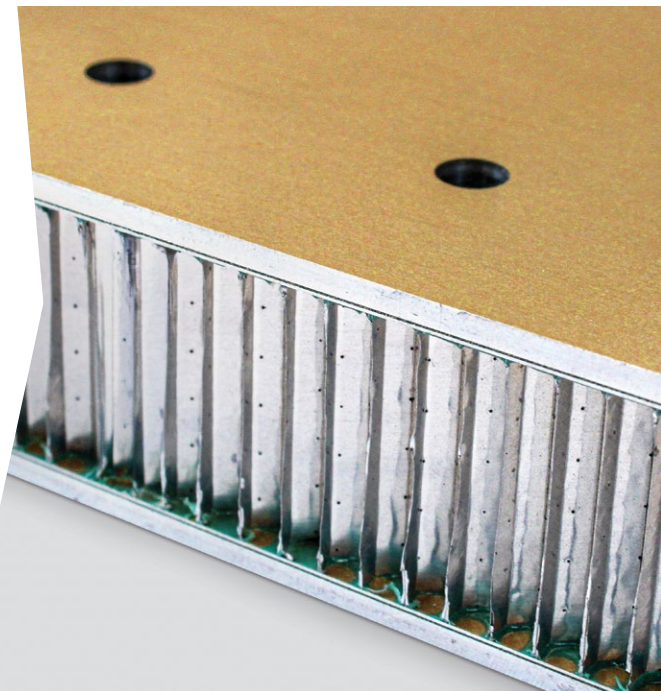


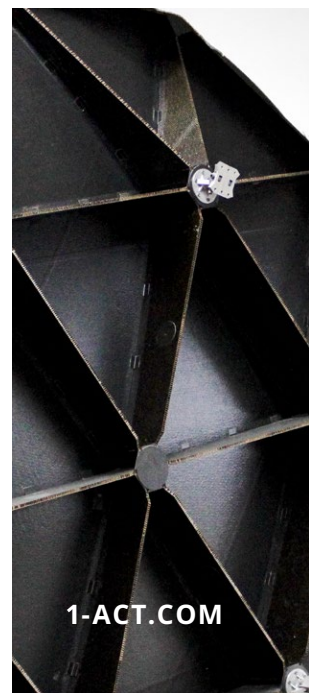
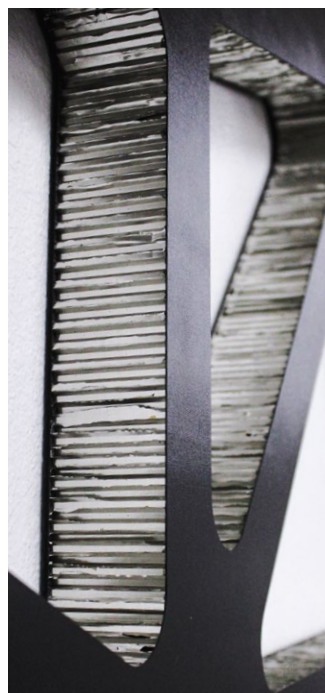
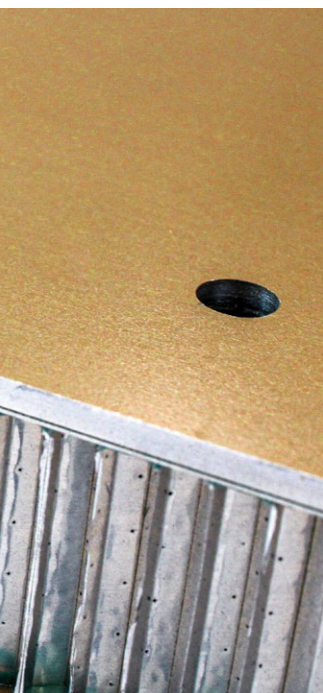
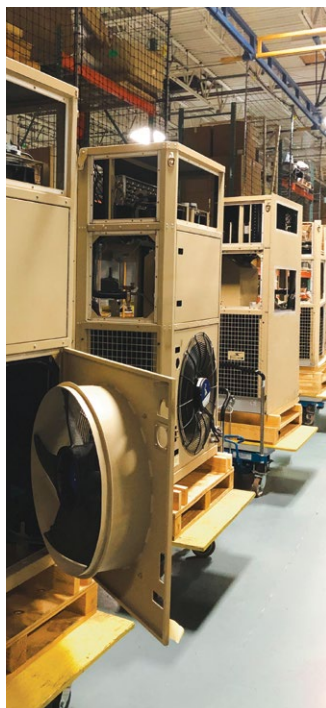
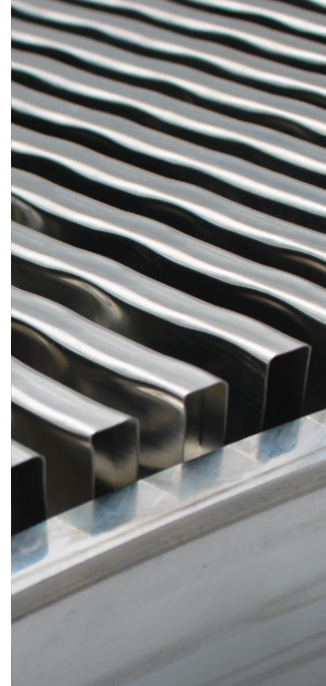
ADVANCED MATERIALS & STRUCTURES

Where Thermal Performance Meets Structure

ACT's advanced materials and structural solutions support aerospace, defense, naval, and industrial applications where weight, strength, and environmental performance are critical.

- ↳ Composite Structures and Assemblies
- ↳ CCHP-Embedded Honeycomb Radiator Panels
- ↳ Metallics







WHY ACT?

Where Expertise Meets Execution

Customers choose ACT when performance, reliability, and production readiness are non-negotiable.

By integrating deep thermal expertise with in-house design, manufacturing, and testing, we deliver solutions built to perform, deploy, and scale with confidence.

The result is high-performance thermal solutions engineered for reliable, repeatable operation in mission-critical environments where conventional approaches fall short.

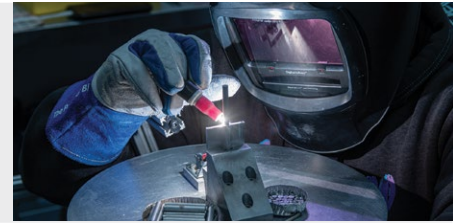
Complete Support

From requirements definition through deployment, ACT provides end-to-end thermal solutions support. Our teams remain engaged throughout the product lifecycle to ensure performance, manufacturability, and reliable operation in real-world environments.



Proven Hardware

ACT's thermal solutions are integrated in demanding, mission-critical applications, delivering consistent performance over extended operating life. Our designs are validated through rigorous testing and proven in sustained, real-world operation.



State-of-the-Art Manufacturing

Our vertically integrated manufacturing capabilities support repeatable, high-quality production at scale. With advanced processes and in-house quality control, we ensure every solution is built to exacting standards and delivered with confidence.

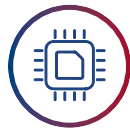


Tailored Solutions, Ready to Scale

We design thermal solutions tailored to specific operational requirements—without sacrificing manufacturability or consistency. Every solution is engineered for reliable operation, repeatable production, and long-term performance.



INDUSTRY EXPERTISE



DATA CENTERS



DEFENSE



AEROSPACE



ENERGY



POWER ELECTRONICS






ENERGY RECOVERY



Ready to solve your thermal challenge?

TALK TO AN EXPERT

1-ACT.COM/CONTACT 
SOLUTIONS@1-ACT.COM 
717.295.6061 





THERMAL SOLUTIONS ENGINEERED TO PERFORM WHERE IT MATTERS MOST.

“

Their expertise, problem-solving, and professionalism ensured a successful installation under challenging conditions, exceeding expectations.

US DEPARTMENT OF DEFENSE

I would not hesitate to recommend the ACT team to anyone. Easy to work with, and they strive to fully understand and meet project needs.

AEROVIRONMENT

Very professional and transparent. ACT knows their products inside and out and consistently supports us when needed.

SIEMENS GAMESA



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ISO 9001 & AS9100 Certified
ITAR & EAR Compliant

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ACT-BRO-01
Revised 2026.05.13