



## Advanced Cooling Technologies, Inc.

## Your Thermal Solutions Provider

Experience. Thermal. Experts.

1046 New Holland Avenue, Lancaster, PA 17601  
(717) 295-6061 [www.I-ACT.com](http://www.I-ACT.com) [info@I-ACT.com](mailto:info@I-ACT.com)  
AS9100 & ISO9001 Certified

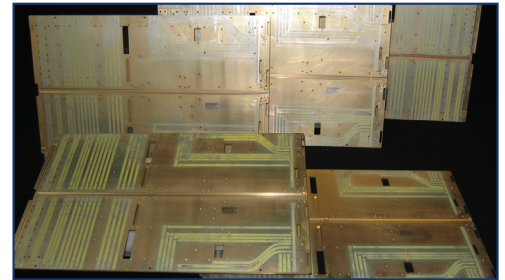
### ADVANCED COOLING TECHNOLOGIES, INC.

*Advanced Cooling Technologies, Inc. (ACT) is an industry leader in providing custom thermal solutions for a variety of applications in commercial and government markets. ACT provides support for our customers' thermal management needs for all environments and through all stages of their product/design cycles. We are one of the very few companies that routinely deliver heat pipes products for satellite and terrestrial applications.*

#### PRODUCTS

**Terrestrial:** heat pipes, vapor chambers, custom heat sinks, HiK plates, pumped liquid systems, isothermal furnace liners, and heat pipe blackbody cavities.

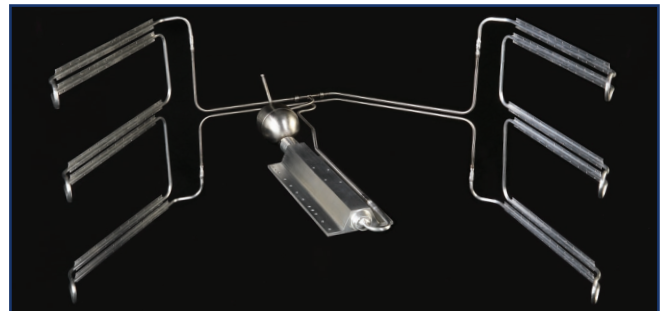
**Aerospace:** Constant conductance heat pipes, variable conductance heat pipes, loop heat pipes, and diode heat pipes.



HiK Plates for Radar Cooling

#### R&D

Contract R&D in advanced thermal management spans diverse technologies and markets. Areas of research include pumped liquid and two-phase systems, thermal storage, phase change materials, and nanotechnology for electronics and LED cooling, HVAC, heat exchangers and spacecraft thermal control.



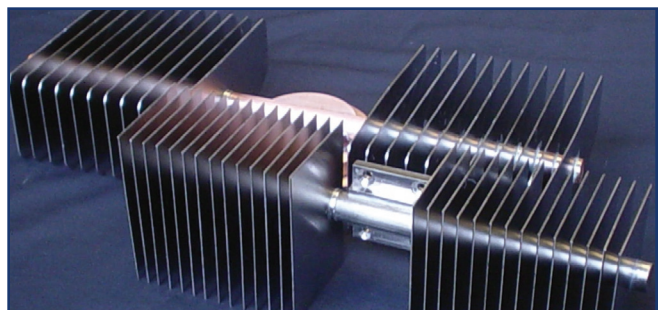
Loop Heat Pipe for Satellite Thermal Control

#### SERVICES

ACT's thermal experts are intimately familiar with all thermal technologies. We can provide the right thermal solution for your application. We offer a full range of thermal engineering services including feasibility/trade studies, advanced modeling, as well as product design, development, prototype and test.

#### QUALITY MANAGEMENT SYSTEMS

ACT's manufacturing and management quality systems are certified to both ISO9001:2008 and AS9100-B. We have received 100% audit scores on every audit since our initial certification in 2005. We actively pursue customer feedback and drive our business accordingly.



Natural Convection Heat Sinks

## 30,000+ft<sup>2</sup> FACILITY

### Manufacturing & Test Capability:

- Terrestrial and Aerospace Heat Pipe Production Lines
- Thermal Test Lab
- Environmental and Thermovacuum Test Chambers

### Design & Modeling Tools:

- 3-D solids modeling/design (SolidWorks, Pro-E)
- Finite element analysis (CosmosWorks)
- Computational fluid dynamics (CFDesign)
- In-house CFD codes for single/two-phase flow analysis
- Proprietary heat pipe and loop heat pipe design codes
- Ab Initio, Molecular Dynamics Simulation



Samples ready for source inspection

## PERSONNEL

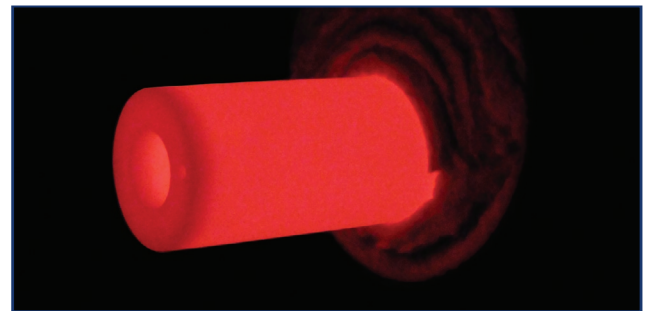
Our employees are our greatest asset.

With hundreds of years of combined industry experience, ACT's technical staff can solve your thermal problems effectively and economically. Our technical team includes dozens of engineers, many of which have advanced engineering degrees. Members of our technical team have published over 350 papers and been named on more than 65 patents. Additionally, ACT has operators certified to weld materials for aerospace applications.

## THE ACT ADVANTAGE

- Unrivaled heat pipe product experience
- Diverse R&D and technical capabilities
- Strong focus on customer satisfaction

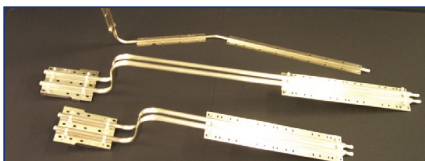
Advanced Cooling Technologies, Inc., is an internationally respected designer and supplier of heat pipes, loop heat pipes, variable conductance heat pipes, thermosyphons and other thermal management devices. Our products provide reliable thermal management for electronics, biomedical, aerospace thermal control and other sophisticated devices on the ground, in the water and in the air. However, our thermal technology expertise only begins with heat pipes. Due to our aggressive in-house and cooperative R&D efforts, we are also experts in many different thermal technologies including heat sinks, pumped liquid and two-phase cooling, thermal storage, catalytic reaction and nanotechnology. This combination of acknowledged expertise in heat pipe design and manufacturing and aggressive participation in emerging thermal technologies enables us to provide our customers with the best performing, lowest cost solutions.



High Temperature Isothermal Furnace Liner

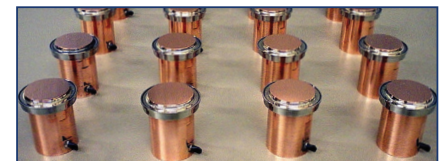
ACT has the **Personnel**, **Quality Management Systems**, and **Facilities** that enable us to provide high quality and cost effective products and services to our many and diverse customers. We have expertise in a wide range of thermal management technologies, and are unique in our capability of providing complete thermal solutions from R&D, design and analysis services, design for manufacturability, through prototyping and design validation, to full volume production.

***We are fully committed to achieving complete customer satisfaction.***



Dual Bore and Soldered Assembly Constant Conductance Heat Pipe

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Thermal Vacuum Feed Through