

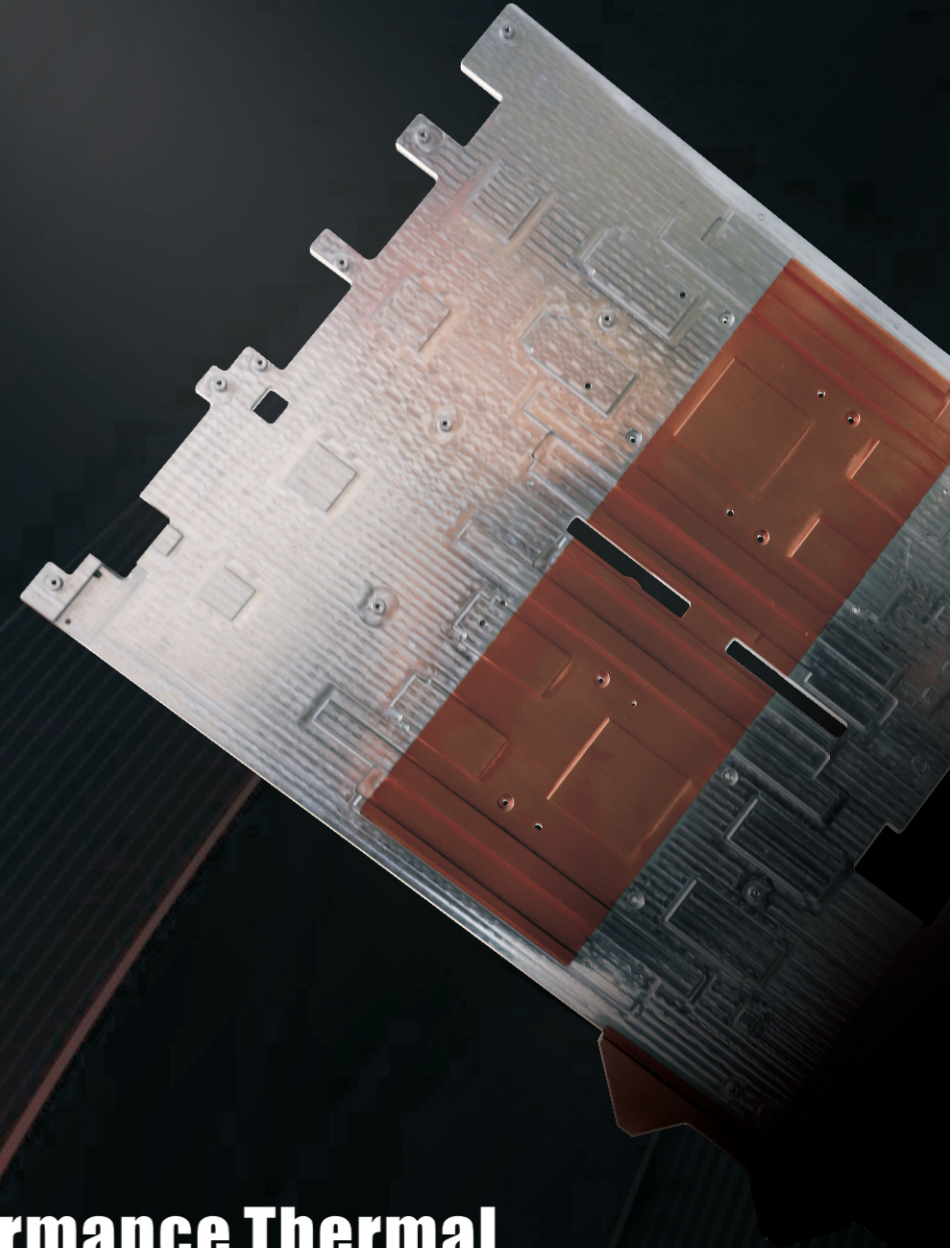
ADV
Cooling The World

ADV
Cooling The World

Advantage | Development | Value



**High Performance Thermal
Solution For Power
Electronics Industry**



Your Reference		Description			
DIRECT EXPANSION COIL - 165050_C_S HR 24T 8NR 4800A 12P 32NC					
Geometry	165050_C_S HR	Coil Length	4800 mm	Nr. of baffles	0
Nr of Tubes per Row	24	Fin Pitch	12.0 mm		
Nr of Rows	8	Nr of Circuits	32	Tube Shape	Circular
Capacity			55.15	kW	
Sensible Capacity			53.64	kW	
Latent Capacity			1.51	kW	
Mechanical & Thermal Design Service					
Quantity of Produced Water			2.19	kg/h	
Exchange Surface			398.97	m ²	
Global Exchange Coefficient			31	W/(m ² K)	
			4.5	° C	
Cooling Solutions - Air, Liquid, Active & Passive					
Coil Material		Aluminium / Copper			
Fin Pitch			0.3000	mm	
Coil Internal Volume			173.0	l	
Tubes External Diameter			16.5	mm	
Tubes Internal Diameter			15.5	mm	
Number of skipped tube			0		
Performance & Capability Test					
AIR SIDE					
Atmospheric Pressure / Altitude			1.01 / 0.00	bar A / m	
Volumetric Air Flow			65778.0	m ³ /t	
Mass Flow			97079	kg/h	
Face Velocity on the Coil			3.17	m/s	
Inlet Air Density			1.48	kg/m ³	
Inlet Air Temperature			-34.0	° C	
Inlet Air Relative Humidity			95.00	%	
Inlet Air Specific Humidity			0.10	g/kg AS	
Inlet Air Enthalpy			-33.87	kJ / kg	
Outlet Air Temperature			-36.0	° C	
Outlet Air Relative Humidity			99.14	%	
Outlet Air Specific Humidity			0.10	g/kg AS	
Outlet Air Enthalpy			-35.92	kJ / kg	
Pressure Drop			92	Pa	
Partial Exchange Coefficient			64	W/(m ² K)	
Fouling Factor			0.000000	(m ² K)/W	
REFRIGERANT SIDE					
	Manifolds	Vertical			
Fluid				R404A	
Mass Fluid Flow / Mass velocity			1443 / 67	kg/h / kg/(m ² s)	
Fluid Velocity (Gaseous Phase / Liquid Phase)			9.10 / 0.05	m/s	
Subcooling Degrees			36.0	K	
Overheating Degrees			0.0	K	
Evaporating Temperature - Dew			-40.0	° C	
Condensing Temperature - Middle			40.0	° C	
Fluid Pressure Drop			7.61625	kPa	
Manifold Pressure Drop			0.3074238	kPa	
Total Pressure Drop Fluid Side			7.923675	kPa	
Partial Exchange Coefficient			726	W/(m ² K)	
Fouling Factor			0.000000	(m ² K)/W	



About Us

ADV Heat Exchanger Co.,Ltd, located in Changzhou, Jiangsu Province, China, is a professional customized manufacturer for various cooling solutions for Machinery, Electronic, Hydraulic & Lubricant System, Compressed Air & Gas, New Generation, Automotive and Various Industry Applications ...

We design, test and manufacture wide ranges of brazed aluminum coolers, copper and brass tube coolers, plate coolers, stainless steel coolers for Oil, Air (compressed and charged air) and Water/Glycol mixtures, according to the special application requirements.

Advantage, Development , Value is our mission and which we can always offer to our customers.

Since: 2017 Jan

Staff: Above 60

Production Area: 2800 m²

Production Capability:10,000 set / Month

Location: Changzhou, China

Main Products:

- 1.Aluminum Bar&Plate Heat Exchanger
- 2.Tube Fin Heat Exchanger
- 3.Cold Plate
- 4.Brazed Plate Cooler
- 5.Shell&Tube Heat Exchanger
- 6.Air Separation Cooler
- 7.Hydraulic Lubricant System Cooling packages
- 8.Pipe and Fin Heat Exchanger
- 9.Fitting & Accessories

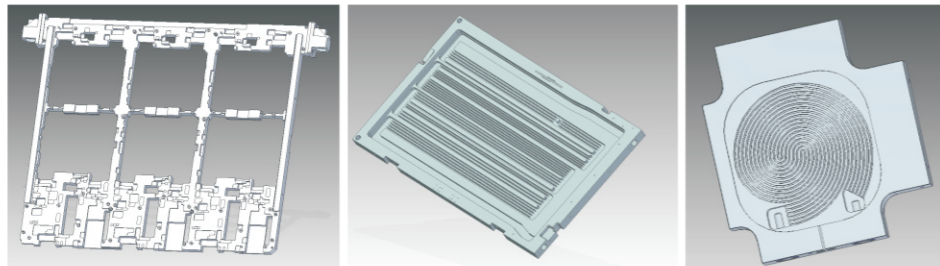
Application

 Laser Equipment	 Solar Energy	 Rail Way
 Super Computer & Data Center	 Wind Power Generation	 New Energy Vehicles
 Marine Electronic	 Mobile Communication & Broadcast	 Medical Device & Test Equipmeny

Some Facts You Should Know About ADV Engineering

Design

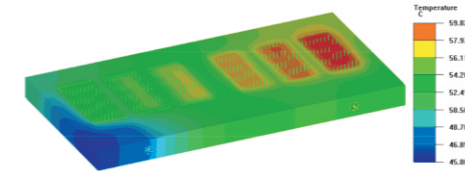
We have an experienced and reliable thermal engineering team who are the experts for thermal designing and manufacturing over 10 years, by partnering with OEM customers, we use our vast experience in thermal performance, material capability, and fluid dynamics to custom your design.



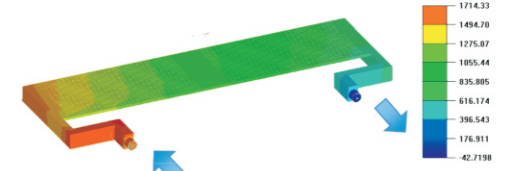
Simulation

Our Design & Simulation team will stay closely with our customers early in the design phase of development to be able to assist with modeling and simulation, and finally develop innovative thermal solutions.

Temperature Simulation



Pressure Simulation

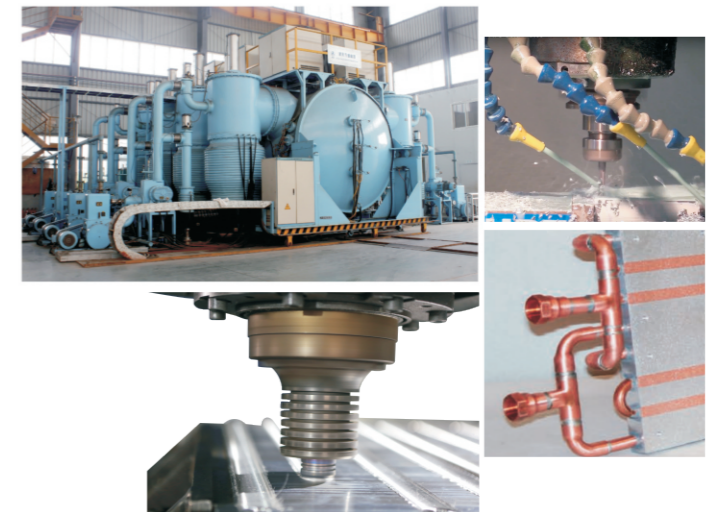


Testing

We can offer leak test (including helium test), flow test, pressure test(the liquid Cooler can withstand burst pressure up to 90 bar), Anti-corrosion Test(We can reach C5 Anti-corrosion Standard), and Etc...

Manufacturing

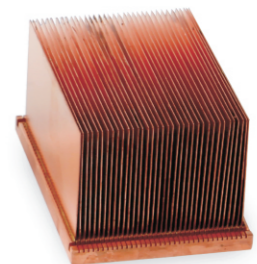
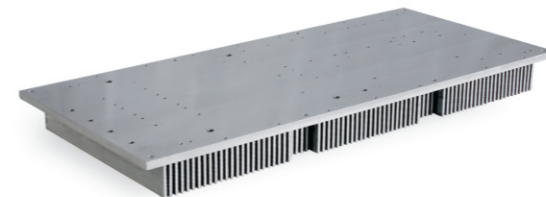
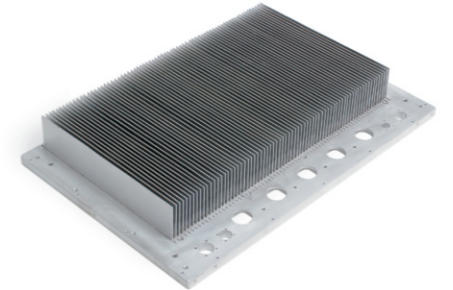
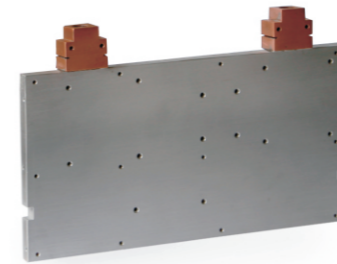
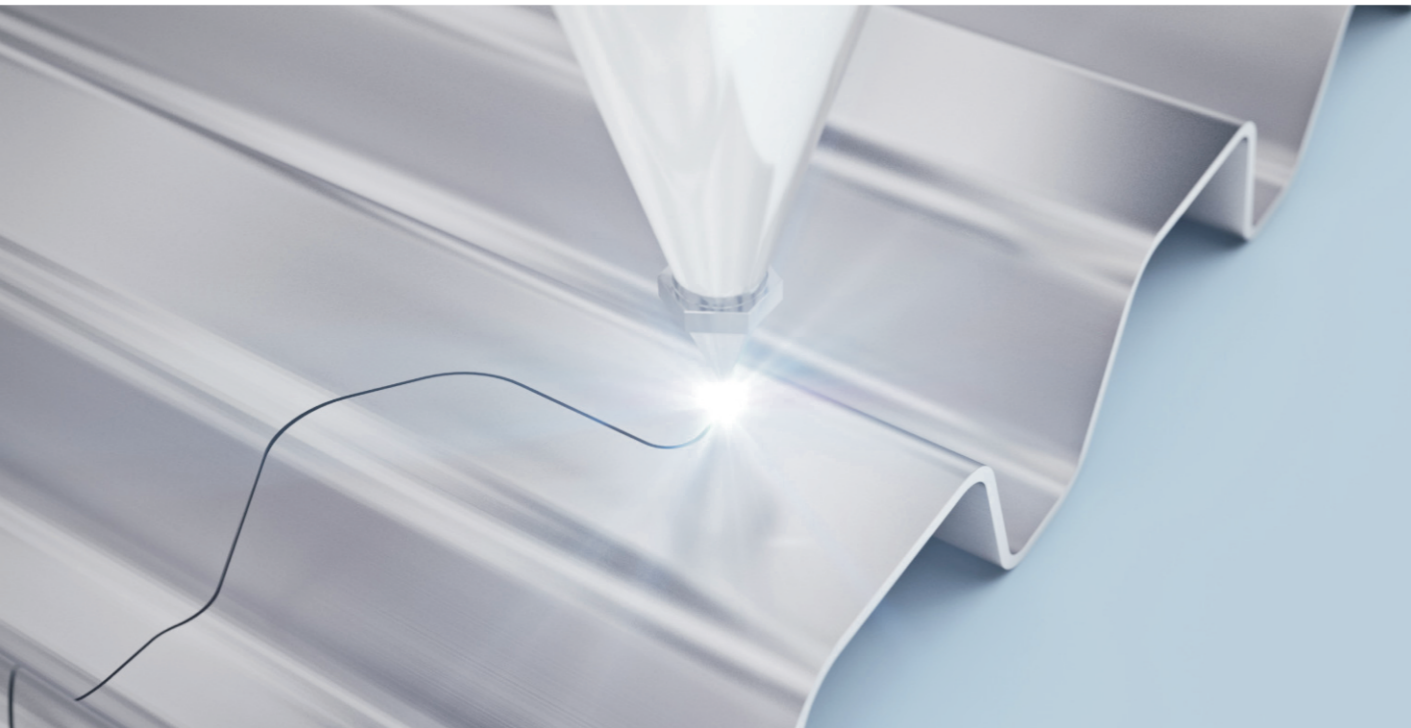
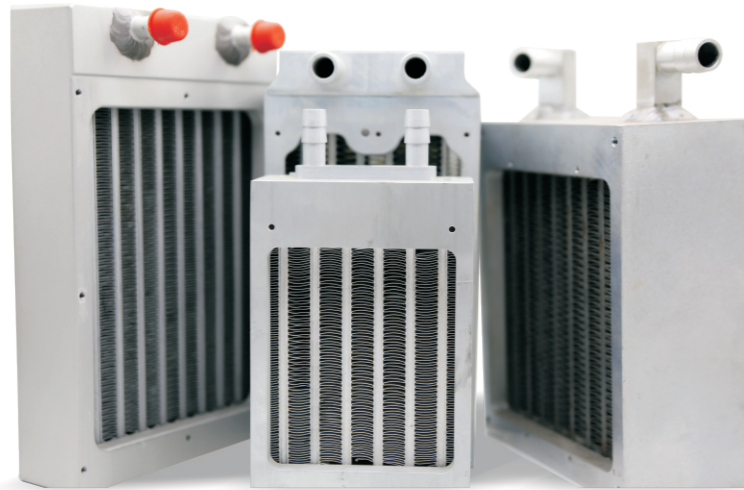
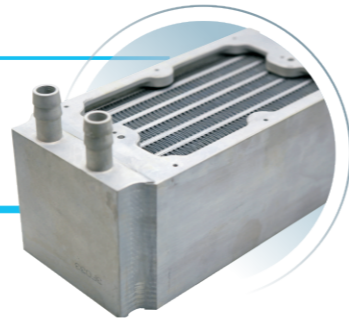
- CNC Machining
- Vacuum Brazing
- Friction Stir Welding
- Assembling



Certifications

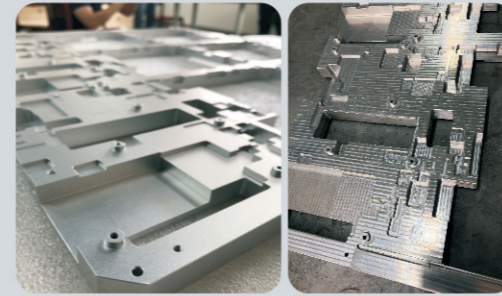


Laser Equipment Thermal Management

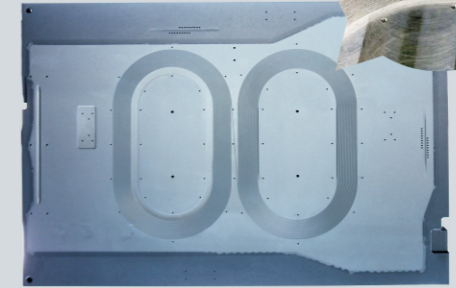
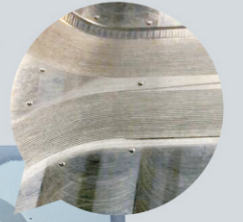


Solar Energy Thermal Solution

Railway Cooling Solutions



These loops could be used in digital logic gates for ultra-high-performance computers. These devices could operate at -269°C (452°F), with very low power and at very high speeds.



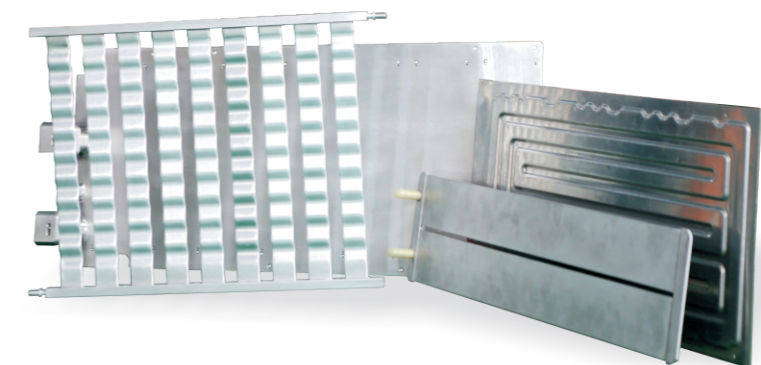
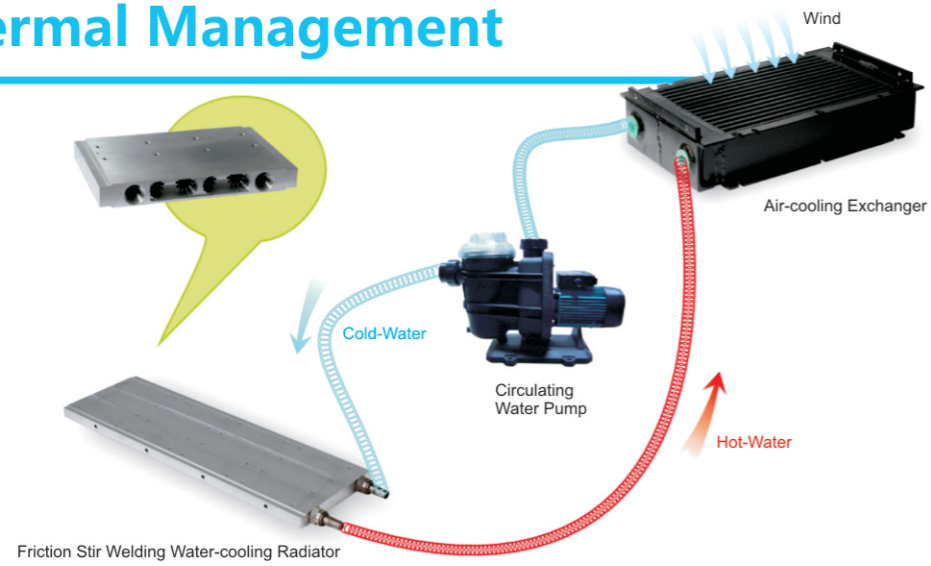
Super Computer Cooling

Innovation For Scientific Computer Cooling

As computer chips get smaller and faster, they're getting hotter and hotter. Typically, almost 40% of a data center's electricity bill is because of its cooling equipment. To help reach the exaflop barrier and beyond, we are investing more efficient and better cooling solutions than traditional standard technology.

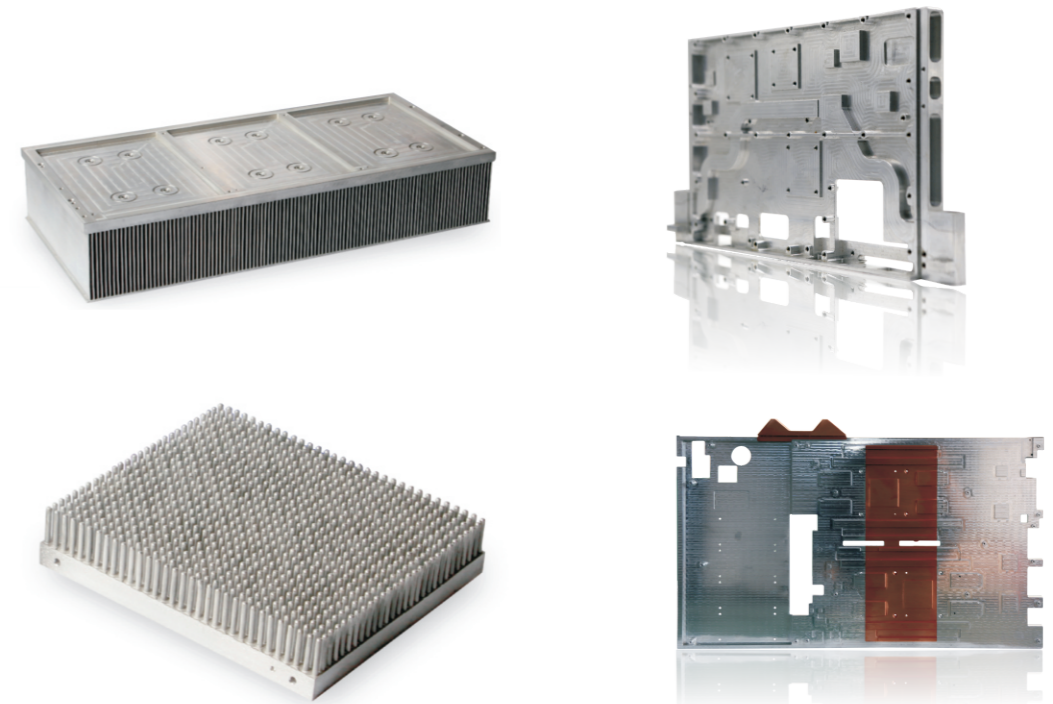
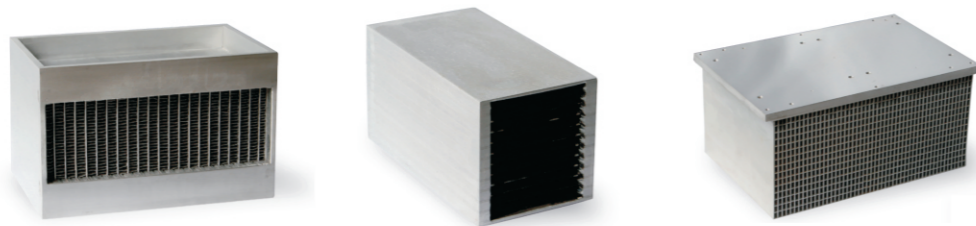


Wind Power Generation Thermal Management

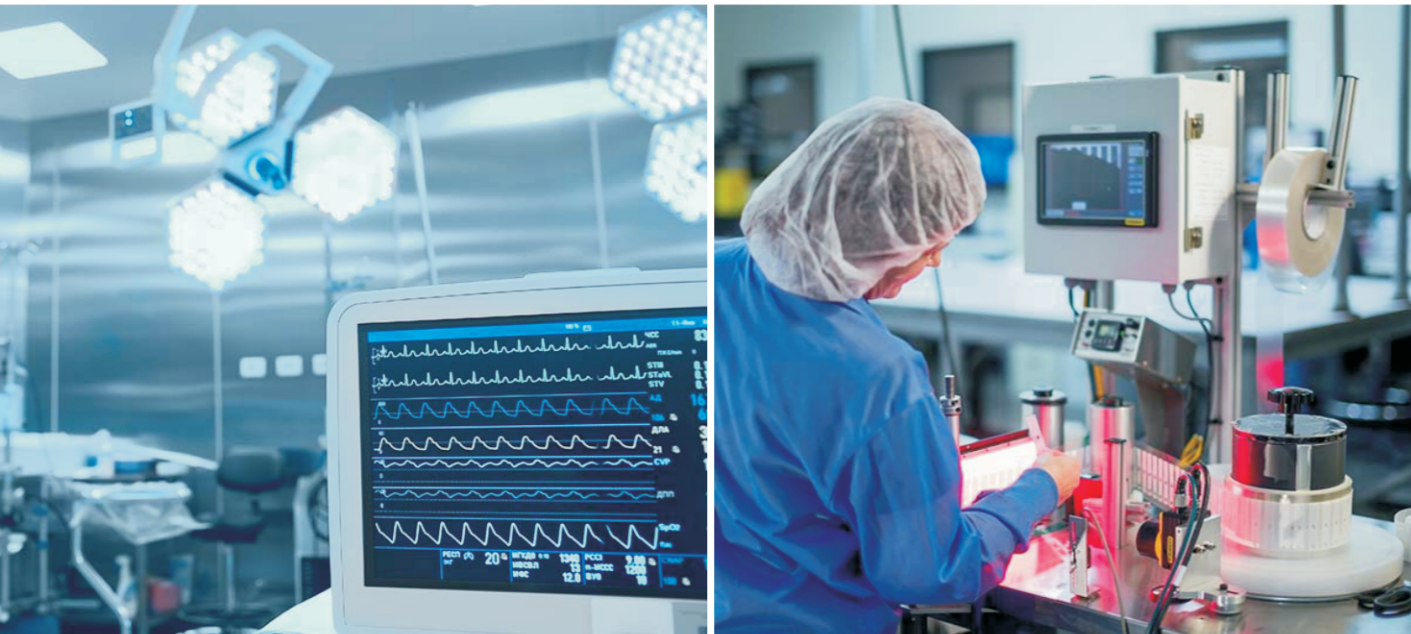


New Energy Vehicle Thermal Solution

Marine Electrical Application



Mobile Communication & Broadcast Cooling Solution

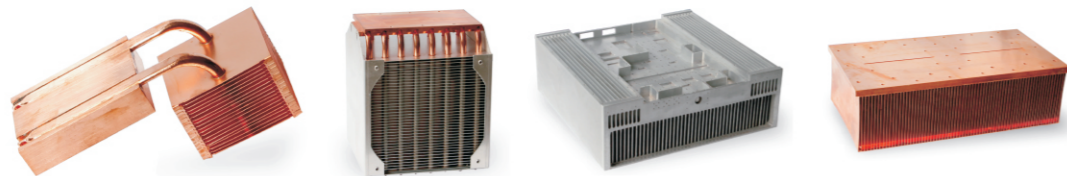


Medical Thermal Management Technologies

Selecting the proper medical thermal management improves performance and enables designers to achieve compact size, extended using life and meet touch temperature standards

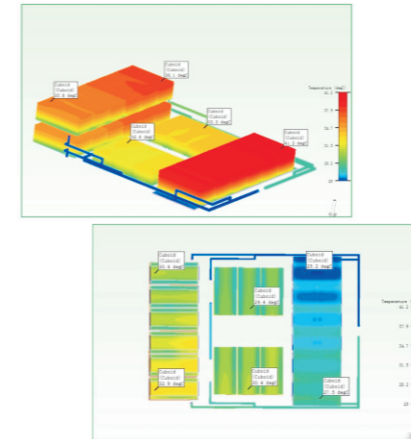
Applications

- Ablation Devices o Bioanalysis
- Bioconditioning o DNA Analysis
- Electrosurgery
- Imaging Scanners
- Lasers & LEDs
- Interventional Medicine (Minimally Invasive)

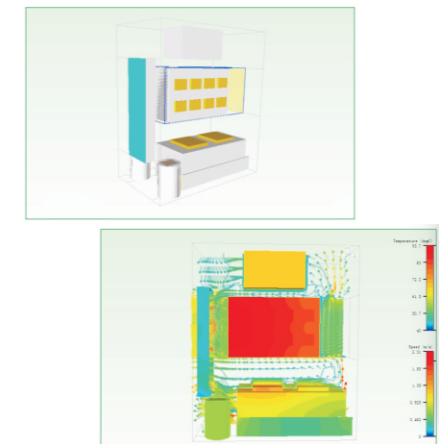


Custom System Solutions:

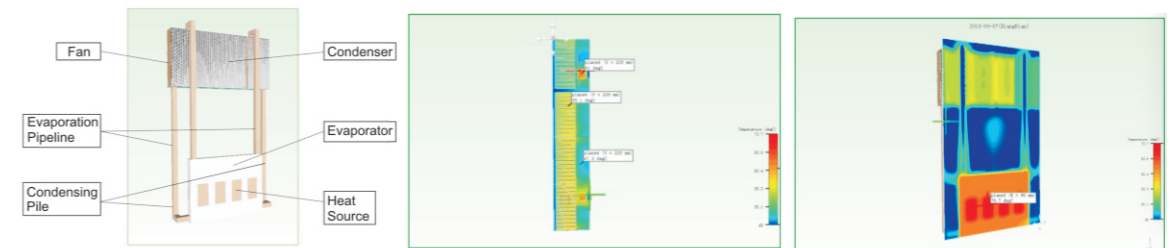
Liquid Cooling System:



Air Cooling System:



Phase Transitions System :



Service Experience

