

Next generation cooling systems for defence platforms

Through our pioneering thermal management solutions, Reaction Engines is realising the Defence Command Paper on the future of advanced technologies and next generation allied capabilities.

Markets



Marine

Enable a more sustainable fleet

Our light weight, low drag heat exchangers can be used to increase vehicle efficiency and are ideally suited to zero carbon power trains such as hydrogen and electric.



Aerospace

Enhance mission systems performance with higher thermal loads

Rejecting more heat into a given cooling airflow can enable higher power mission systems without compromising the performance of the vehicle.

Compact solutions are well suited to upgrades.



Defence

Improve operational capability for hotter environments

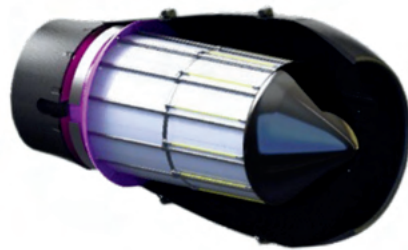
Our high effectiveness heat exchangers provide nominal engine cooling at up to 15°C higher environmental temperatures than incumbent technology, whilst remaining within existing radiator volume and pumping power.

Ideal for improving operational capability with minimal impact on the vehicle.

Products

Radiator

Our radiators reject more heat into a given air flow, enabling platforms to be upgraded to operate in hotter climates and increasing mission system thermal loads. The low drag packaging is ideal for zero carbon aircraft propulsion cooling, in some cases enabling the use of hydrogen fuel cells. The low frontal area is well suited to ducted installations.



Air cooled oil coolers

For increased cooling capacity or simply reducing platform mass, Reaction Engines' high effectiveness oil coolers offer increased levels of flexibility in cooling system architecture.



Charge air coolers

For compressed cathode air cooling in hydrogen fuel cell power trains and internal combustion engine charge air cooling, our water-cooled intercoolers are significantly smaller and lighter than competing coolers, enabling extended range and efficiency.



Evaporators and Condensers

Our lightweight microtube condenser/evaporator units for thermal lift systems are ideal for cooling systems to a constant temperature, including power electronics, battery pack and mission system cooling.



Exhaust heat recovery heat exchangers

Designed to recover engine exhaust heat to increase efficiency whilst reducing the energy in the exhaust plume leaving the vehicle.

