

Cool solutions to thermal problems.

Rocky
Research

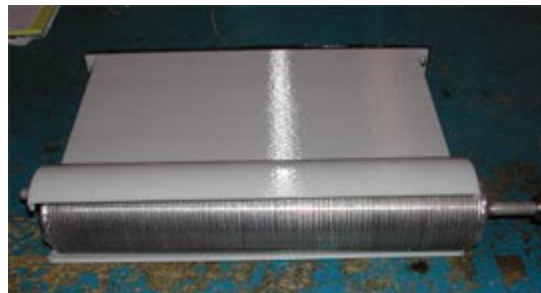
COMMERCIAL | INDUSTRIAL | DEFENSE

Thermal Appliance Applications: Thermal Energy Storage Devices

The thermal expertise and solutions offered by Rocky Research have a startling range of applications, some of which are difficult to categorize. Over the past 20 years, we've developed a wide variety of specialized technologies for use in several special thermal appliances.

Thermal Energy Storage Devices

Rocky Research is a world leader in sorption technology and has numerous patents in this field. While active in the business of conventional sorption as the core lab to UT-Carrier, York International and AAF McQuay in the HVAC field and to several appliance manufacturers, the company developed its own proprietary solid-gas sorption technology in which the absorption and desorption of refrigerant vapor is used to operate a no moving part thermally activated compressor. Unlike conventional sorption systems, the operation can be designed to be independent of g-forces and thereby allows for operation in tilt, acceleration, deceleration and aero-space applications. The unique coordinative complex compound sorption media are capable of storing thermal energy at energy densities far superior to any other rechargeable energy storage means. Rocky Research's fuel fired sorption systems can be used in mobile environments where electricity is not readily available. The solid-vapor system also can act as a thermal battery where it can be charged and stored indefinitely for future use. Figure below shows a thermal energy storage device sorber fabricated by Rocky Research.



- Provides Active Cooling
- Stores Thermal Energy Indefinitely Without Degradation
- Rechargeable Using Electric, Fuel Fired, Waste Heat Energy
- Tested for 40W-hr Capacity at Ambient Temperatures up to 50°C