

High Temperature Storage Heater Projects



CUSTOMER /PROJECT	TYPE OF HEATER	ASE WORK SCOPE			HEATED GAS CONDITIONS			TYPE OF GAS
		Design	Fabricate	Install	Pressure (psi)	Temp. (R)	Flow (lbm/sec)	
FluiDyne Hypersonic Wind Tunnel	Cored Brick	X	X	X	2000	4000 *	4	Air
AEDC Aerodynamic Heating Tunnel	Cored Brick	X			2000	4000 *	620	Air
Svenska Flygmotor Test Cell	Cored Brick	X			1710	2160	46	Air
WPAFB Aerodynamic Research Lab / Hypersonic Wind Tunnel	Cored Brick	X	X	X	2500	4000 *	1	Air
NASA Ames / Hypersonic Wind Tunnel	Cored Brick	X	X	X	2000	4460 *	10	Air
NASA Ames / Hypersonic Wind Tunnel Modifications	Cored Brick	X			2000	3460	600	Air
AEDC / TTT Pilot Heater	Cored Brick	X	X	X	2000	4460 *	10	Air
AEDC / TTT Heater	Cored Brick	X			2000	4460 *	1500	Air
United Aircraft Corp / Test Cell	Cored Brick	X	X		2500	3750	29	Air
FluiDyne Lab / Mixer Test Cell	Pebble Bed	X	X	X	500	1660	50	Air
Rocketdyne	Pebble Bed	X	X	X	500	1460	5	Air
Lockheed Propulsion Co.	Pebble Bed	X	X	X	500	1460	5	Air
Edwards Air Force Base	Pebble Bed	X	X	X	500	1460	5	Air
FluiDyne Lab / Facility Air Heater	Pebble Bed	X	X	X	650	1460	30	Air
NASA Marshall Space Center	Pebble Bed	X	X	X	1500	2260	20	Air
AEDC / APTU Heater and Outlet Modifications	Cored Bed	X			3000	3500	255	Air
General Electric / MHD Test Plant Heater	Cored Brick	X	X	X	150	3500	5.5	Air
General Electric / MHD Test Plant Heater	Cored Brick	X	X	X	150	3500	5.5	Air
Massachusetts Institute of Technology (MIT)	Pebble Bed	X	X	X	300	1400	5	Air

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DOE Argonne National Laboratory / MHD Test Facility Heater	Cored Brick	X			150	3500	24	Air
Eindhoven Technical University (Netherlands) / MHD Test Facility Heater	Cored Brick	X	X	X	100	3600	11	Argon
US DOE / MHD Heater Test Facility	Cored Brick	X	X	X	15	3560	0.5	Air
DOE Pacific NW Lab and EPRI / CAES Heater Test Facility	Pebble Bed	X	X	X	15	1360	0.9	Air
Sundstrand Aviation Mechanical /Turbine Test Facility Heater	Pebble Bed	X	X		1500	2460	0.6	Steam
Naval Underwater System Center / Turbine Test Facility Heater	Pebble Bed	X	X	X	1550	2460	1.8	Steam
Johns Hopkins Applied Physics Lab / Ramjet Test Facility Heater	Pebble Bed	X	X	X	1000	2260	50	Air
NAL Kakuda (Japan) / Ramjet Test Facility Pilot Heater	Cored Brick	X	X	X	1500	3060	4.5	Air
NAL Kakuda (Japan) / Ramjet Test Facility Heater	Cored Brick	X	X	X	1500	3060	45	Air
Tokyo Institute of Technology (Japan) / FUJI 1 MHD Facility	Cored Brick	X	X	X	150	3960	11/1.1	Ar/He
NCKU (Taiwan) / Combustion Laboratory	Pebble Bed	X	X	X	300	1660	25	Air
Princeton University / Heater for Radiatively Driven Hypersonic WT	Pebble Bed	X	X	X	2800	1170	6.6	Air
Asian Research Organization / Heater for Ramjet-Scramjet Test Facility	Cored Brick	X	X	X	1500	3100	8.8	Air
* Temperatures greater than 3600 R achieved using yttria-zirconia material, which is suitable only for a limited number of temperature cycles.								

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