



*This 120 litre capacity 600°C LHT **Laboratory High Temperature Oven** has been equipped with a customised sample loading tray which enables the insertion of samples into the chamber without opening the door.*

This minimises heat loss and means that recovery of oven temperature after insertion of the sample is much more rapid. Many variations of this concept have been supplied in order to satisfy the demands of specific user applications.

LHT Laboratory High Temperature Oven with custom sample loader

An integrated 3 oven system designed for heat treatment to AMS 2750E Class 2 ($\pm 5^\circ\text{C}$) instrumentation Type D.

The system was made for a manufacturer of electronic engine and fuel system controls for aircraft engines.

Housed within a common frame each chamber has a maximum temperature of 300°C, independent temperature control and fan convected airflow.

The chambers share a six channel UKAS calibrated digital chart recorder equipped with Ethernet communications.



Three Chamber Oven System

A 600°C 350 litre capacity HTMA, High Temperature Modified Atmosphere Oven with a high temperature afterburner for nuclear research applications.

A mass flow controller manages an inert gas flow and the process cycle is recorded using a paperless chart recorder or DAQ (digital acquisition device).

All systems are fully alarmed with over-temperature protection for the main chamber and afterburner.



A Customised HTMA 6/350 With Afterburner

This 250°C top and front loading fan convection oven is one of several that have been manufactured for the thermal testing of borehole test probes for the petrochemicals industry.



A Front and Top Loading Oven For Petrochemical Industry Probes



A Modified GP450A Oven For Use in a Class 3 Cleanroom

*Based upon a **GP 450A General Purpose Oven** this 300°C oven with 450 litre capacity has been modified to enable operation within an ISO 14644 Class 3 cleanroom environment.*

Air is drawn from the cleanroom interior circulated within the oven and then exhausted the exterior environment outside the room.

The oven is used for the drying of materials used in the manufacture of synthetic bone allografts .

A bespoke pass-through oven that fits through the wall of an ISO14644 Class 3 cleanroom operated by a medical device manufacturer.

Able to heat to 400°C with a stability of better than $\pm 1^\circ\text{C}$ under steady state conditions and with a uniformity of better than $\pm 5^\circ\text{C}$ inside a chamber that is nearly a metre long. This is achieved by using a three zone control system.

The oven is used to heat treat vascular stents that are carried on mandrels that are held in a specially designed load management system.



A Bespoke 400°C Pass-Through Oven for Use in a Class 3 Cleanroom



This GPC12/36 General Purpose Chamber Furnace has been equipped with a catalytic afterburner. This is to deal with the combustion products generated by polyethylene within the test sample.

This 36 litre furnace is one of several chamber furnaces to which afterburners have been added so as to process fumes that would normally exhaust through the chimney. The normally 1200°C GPC has been temperature limited in order to protect the catalyst from damage.

Both the main chamber and the afterburner are protected by over-temperature controllers. A manual switch enables the selection of high and low extraction rates.

A GPC 12/36 Furnace With Catalytic Afterburner

A batch process, modified atmosphere oven with a maximum temperature of 200°C and a design that is optimised for the curing of silicone hydrogel contact lenses.

A warning light indicates whether the process cycle is running or complete. Interlocked purge and process gas supplies under the control of a programmable controller are supplemented with the ability to direct a sample of the chamber atmosphere to an oxygen monitor.

An independent over-temperature thermostat, protects the chamber and its load should there be a failure of the primary controller.

The oven was painted to the customers preferred colours.



A Custom Designed Oven for Curing Silicone Hydrogel Contact Lenses



A 300°C Thermoplastic Preheating Oven

This Thermoplastic Preheating Oven is designed for use in conjunction with a Draping Oven.

With a maximum temperature of 300°C, this oven is used to preheat thermoplastic sheets before they are vacuum formed or draped. Like draping ovens this model is frequently used in the production of prosthetic limbs.

This Draping Oven is designed for thermoforming thermoplastic sheets, using the draping method in which pre-heated plastic sheet is laid over a form.

They are further heated until the sheet has moulded to the shape of the underlying form. This process is frequently used in the manufacture of prosthetic limbs.



Thermoplastic Draping Oven



Double GP200B General Purpose Oven System

Built for an aerospace company this system comprises a double GP220B General Purpose Oven system. The two ovens assembled into a single case with an integral floor stand.

Each unit is independently controlled and equipped with its own over-temperature protection thermostat and extraction fan which vents through a top mounted chimney.

The two chambers share a multi-channel digital chart recorder.

Normally operated between 500°C and 1250°C, this four lane strand furnace is being used to anneal platinum wire.

The furnace has three zone temperature control, each zone with independent over-temperature protection.

Independent flow controllers supply inert gas to each lane.



Four Lane Stand Line Furnace



This 300°C conveyor oven was designed for the pre-heating of aluminium billets within a production line for the automated production of aluminium extrusions.

Once heated a robot transfers the billets to the next process in the

A 300°C Conveyor Oven For Heating Aluminium Billets