

The complete supplier of Temperature & Humidity Environmental Test Chambers, Heating/Drying Ovens and Support Services

"The Unique Independent Solutions Provider for All Your Temperature & Humidity Test Equipment Requirements"

# PRODUCT GUIDE & SPECIFICATION DATA

Official UK Agents/Distributors for the following companies:-









For Advice & Assistance
Please Telephone Us On 01772 600771

3 Bamfords Fold, Bretherton, Leyland, Lancashire, PR26 9AL
Tel: 01772 600771 Fax: 01772 600771 E-Mail: andy@teslatest.co.uk Website: www.teslatest.co.uk



### "The Unique Independent Solutions Provider for All Your Temperature & Humidity Test Equipment Requirements"



Teslatest Systems is the UNIQUE Independent supplier of Temperature and Humidity Environmental Test Chambers, Laboratory Ovens and associated equipment and services. We provide a completely independent service and consultation service backed up by our extensive knowledge and experience in temperature and humidity testing of products and materials gained through many years of using test chambers and associated equipment.

We are the Official UK Distributor for Binder GmbH and supply their extensive range of Temperature and Humidity test chambers, Constant Climate chambers, laboratory ovens and associated products. Because we are independent we are able to supply from multiple manufacturers such as

Binder GmbH, North American Envirosystems, Imitor Ltd and ESS Systems, and also offer significant discounts on the list prices due to our negotiated discounts.

Teslatest Systems have specially selected a range of suppliers of test chambers, test systems and the unique Thermal Platforms plus Vibration systems, which enables us to provide a comprehensive range of test solutions to meet all your Environmental testing requirements. We can offer solutions from our standard test chambers through to bespoke test systems, ranging from our bench top test chambers through to large walk-in test chambers. Each range of chambers offers the full range of test conditions including Temperature, Humidity and Vibration.

We have also selected the Unique Thermal Platforms that offer the ideal test solution for all types of semiconductor, microcircuit and microwave component testing and characterisation. These offer a cost effective solution to the testing and characterisation of all your components and offer easy access for carrying out adjustments and alterations to your product during tests.



TESLA TEST SYSTEMS

Teslatest Systems through its team of selected suppliers and its own team of engineers can supply a complete maintenance and support service to maintain all your equipment in its optimum operational condition. These services include repair and maintenance of your test systems and the calibration of the systems performance in both Temperature and humidity. We can also provide a complete refurbishment service for your existing equipment.

**Contact Us** For Your Free No Obligation Consultation on the best solution for your Test Equipment Requirement.

3 Bamfords Fold, Bretherton, Leyland, Lancashire, PR26 9AL Tel: 01772 600771 Fax: 01772 600771 E-Mail: andy@teslatest.co.uk Website: www.teslatest.co.uk

#### **Test Chambers**

Teslatest Systems is able to supply a broad and comprehensive range of equipment that will provide solutions for all your testing needs, including performance testing against Temperature and Humidity and Reliability testing of your products and materials. The chambers are all supplied and fitted with a range of PID controllers either a single set point controller or a fully programmable controller for cyclic type testing of your equipment. The controllers fitted are all microprocessor PID controllers and meet the required chamber functions and testing requirements. The majority of chambers are supplied with an RS232/422 or Ethernet communications port for connection to a remote PC for chamber control and Test Data Logging with or without the appropriate software package. This therefore gives the user all the benefits of a comprehensive range of chambers with a broad range of accessories and functions that cover all the possible requirements for the testing of their products.

All our chambers are supplied and delivered ready for connection and use, giving you the benefit of rapid installation; many just require connection to the power supply before being ready for use. All the chambers are supplied as standard with Internal Shelves, Porthole, Internal Light plus feet or Castors as appropriate and can be configured for all uses with the comprehensive list of optional accessories that are available.

The Environmental test chambers enable your company to carry out the following types of testing on your own site without sending your equipment to expensive test houses and subjected to their lengthy schedule waiting time. They offer an excellent cost effective solution to all your company's performance testing of your products or reliability and quality testing of your products and materials.

- 1. The Environmental Test chambers and laboratory Ovens enable the user to test their products performance against all Temperature, Humidity, and Corrosive, conditions against any BS, EN, ISO and Automotive standards, Military standard or Aerospace standard test specifications.
- 2. A test chamber also allows the user to test the durability, reliability and Quality of their products, materials and components, when subjected to prolonged exposure and cycling of Temperature, Humidity and corrosive atmospheres in a controlled environment. Thus allowing the user to prove the functionality and reliability of their products and materials in the factory before delivery to the customer ensuring your products meet the customers' expectations without failures.
- 3. The chambers and laboratory Ovens can also be used for the conditioning and storing of temperature and humidity sensitive products, materials and components during their use in the manufacturing process at constant temperature and/or humidity levels to prevent the degradation of the materials.

The comprehensive range of Temperature & Humidity environmental test chambers, material test chambers, laboratory ovens and vacuum drying ovens is combined and complimented by the 25+ years experience we have gained through testing electronic and mechanical assemblies, components and materials. This experience enables TeslaTest Systems to provide an unrivalled knowledge of testing and the procedures required, allowing us to recommend the best possible equipment solution for any testing and conditioning required by any specification.

**D**etails of our comprehensive range of products and services which will offer you an excellent solution to your testing and product conditioning needs can be found on the following pages.

#### **Binder MK & MKT Cyclic Temperature Chambers**

We supply the excellent range of MK & MKT standard Temperature chambers from Binder GmbH Germany; these chambers are supplied in two temperature ranges MK -40°C to +180°C & MKT -70°C to +180°C. They are designed as fully programmable temperature cycling chambers and have temperature change rates of up to 5.0°C per minute. The chamber is fitted as standard with a fully programmable microprocessor PID controller with colour graphical LCD display for programming and monitoring the test parameters, they are also fitted with an Ethernet communications port for connection to a remote PC for programming and Data logging via our APT-COM software package including the Basic Edition of the software supplied free with the chamber.



#### Features and Benefits of the MK & MKT Chambers

- Electronically controlled APT.line<sup>™</sup> preheating chamber assuring temperature accuracy and reproducible results
- Unique Horizontal uniform airflow throughout the chamber ensuring uniform temperature conditions
- Temperature range of MK -40°C to 180°C or MKT -70°C to 180°C
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
  - User-friendly LCD screen
  - Easy-to-read menu guide
  - Integrated electronic chart recorder
  - Variety of options for the graphic display of process parameters
  - Real-time clock
  - Adjustable ramp function via program editor
- Access port Ø 50 mm, left side on smaller chambers, 2 x 80mm Ø portholes for 720 litre chambers
- Heated viewing window with LED interior lighting
- Temperature safety device class 2 (DIN 12880), with visual and audible temperature alarm
- Ethernet interface for communication software APT-COM™ Data-Control-System
- BINDER Communication software APT-COM™ 3 Basic Edition
- 1 stainless steel rack
- BINDER test confirmation
- Programmable condensation protection for test material
- 230 V power socket on the right-side operating panel (MKT only)
- 4 potential-free relay outputs that can be activated via MCS controller (MKT, optional on MK)
- 4 casters with 2 brakes, MK 53 fitted with feet for bench, trolley mounting
- Powered by 400V, 50Hz, 3 phase neutral & earth supply, except the MK 53 which is 230V 50Hz 13 Amp.
- Available with an extensive range of optional accessories to customise the chambers to the users exact requirements
- Delivered from stock within 3-4 weeks

These chambers are supplied in a range of sizes as follows:-

• 53 litres 402 x 330 x 402mm (Internal WxDxH), MK only

115 litres 600 x 400 x 480mm (Internal WxDxH)
 240 litres 735 x 443 x 700mm (Internal WxDxH)

• 720 litres 1200 x 600 x 1020mm (Internal WxDxH)



**★ TESLA TEST SYSTEMS** 

3 Bamfords Fold, Bretherton, Leyland, Lancashire, PR26 9AL

#### **Binder MKF & MKFT Cyclic Climatic Chambers**

The excellent range of the MKF & MKFT cyclic climatic chambers have all the features and benefits of the MK/MKT range with the exception that they are fitted with a Humidity system for added performance benefits.

## Features and Benefits of the MKF & MKFT Cyclic Humidity Chambers

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range without humidity: MKF -40°C to 180°C
- MKFT -70°C to 180°C.
- Temperature range with humidity: +10°C to +95°C
- Humidity range 10 % to 98 % RH
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
  - User-friendly LCD screen
  - Easy-to-read menu guide
  - Integrated electronic chart recorder
  - Variety of options for the graphic display of process parameters
  - Real-time clock
- Electronically controlled humidification and dehumidification system with capacitive humidity sensor and vapour pressure humidification
- Integrated water storage tank
- Heated viewing window with LED interior lighting
- Programmable condensation protection for test material
- Adjustable ramp function via program editor
- 230 V power socket on the right-side operating panel
- Independent adjustable temperature safety device Class 2
- 4 potential-free relay outputs that can be activated via MCS controller
- Ethernet interface for connection to a PC for use with the APT-COM™ Data-Control-System software
- BINDER Communication software APT-COM™ 3 Basic Edition
- Access port Ø 50 mm, left side smaller chambers, 2 x Ø 80mm access ports on the 720 litre chamber
- 4 casters (2 with brakes)
- 1 off Stainless steel rack included
- Powered by 400V, 50Hz, 3 phase neutral & earth supply
- BINDER test confirmation
- Available with an extensive range of optional accessories to customise the chambers to the users exact requirements
- Delivered from stock within 3-4 weeks

These chambers are supplied in a range of sizes as follows:-

- 115 litres 600 x 400 x 480mm (Internal WxDxH)
- 240 litres 735 x 443 x 700mm (Internal WxDxH)
- 720 litres 1200 x 600 x 1020mm (Internal WxDxH)





#### **Binder KBF & KMF Constant Climate Chambers**

The excellent Binder KBF & KMF series Constant Climate Chambers are designed for long term humidity testing of assemblies and materials and the long term storage of temperature and humidity sensitive materials and products. They are fitted with heating, cooling and humidity systems that are capable of maintaining the set conditions for many weeks or months with no intervention required for maintenance or adjustments.

The chambers are fitted as standard with a fully programmable microprocessor PID controller with colour graphical LCD display for programming and monitoring the test parameters, they are also fitted with an Ethernet communications port for connection to a remote PC for programming and Data logging via our APT-COM software package.



#### Features and Benefits of the KBF & KMF Constant Climate Chambers

- Electronically controlled APT.line<sup>™</sup> preheating chamber and refrigerating system assuring temperature accuracy and long term stable reproducible results
- Temperature range KBF +0 °C to +70 °C, KMF -10 °C to +100 °C (without humidity)
- Temperature range 10 °C to 90 °C (with humidity)
- Humidity range KBF 10 % to 80 % RH, KMF 10% to 98% RH
- MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
  - User friendly LCD screen
  - Easy-to-read menu guide
  - Integrated electronic chart recorder
  - Variety of options for the graphic display of process parameters
  - Real time clock
- Electronically controlled humidification and dehumidification system with capacitive humidity sensor
- Heated door
- Inner glass door with sealing
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber over-temperature, with visual and audible temperature alarm
- Access port with silicone plug Ø 30 mm, left side
- Safety connection kit for water supply and drainage, including water hose, total length 6 m
- Ethernet interface for connection to a PC for programming and Data logging via the APT-COM™ Data Control System software
- BINDER Communication software APT-COM™ 3 Basic Edition (KMF ONLY, optional for KBF)
- Stainless steel Shelf (KBF 2 off Shelves, KMF 1 off Shelf)
- 4 casters with 2 brakes, KBF 115 & KMF 115 fitted with feet for bench, trolley mounting
- Powered by a 230V 13 amp, 50Hz supply
- BINDER test confirmation
- Available with an extensive range of optional accessories to customise the chambers to the users exact requirements
- Delivered from stock within 3-4 weeks

These chambers are supplied in a range of sizes as follows:-

- 115 litres 600 x 400 x 480mm (Internal WxDxH)
- 240 litres 735 x 443 x 700mm (Internal WxDxH)
- 720 litres 1200 x 600 x 1020mm (Internal WxDxH



TESLA TEST SYSTEMS

3 Bamfords Fold, Bretherton, Leyland, Lancashire, PR26 9AL

#### Binder ED, FD & FED Drying/Heating Ovens for testing & drying

We also supply the excellent all round Binder ranges of Drying/Heating Ovens for component testing, drying and curing. The come in two versions the ED which has Natural convection and the FD & FED which have forced convection through an air circulation Fan with temperature range from +5°C above ambient to +300°C. Each model range is fitted with a different level of microprocessor PID controller with the ED & FD fitted with a basic single set point controller with time setting whilst the FED has additional start and stop settings as well a adjustable fan speed setting.



All the Ovens are fitted with 2 internal shelves and have controlled fresh air vents for the exhaust of excess fumes and heat.

All the ovens are fitted with an over temperature safety cut-off switch to Class 2 (DIN 12880).

#### Features and Benefits of the ED, FD & FED Drying/Heating Ovens

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range from +5 °C above ambient temperature to +300 °C
- ED & FD Ovens DS control with integrated timer 0 to 99 hrs
- FED Oven MS controller with several timer functions: Controller timer functions: delayed ON, delayed OFF, temperature dependent delayed OFF
   Adjustable fan speed
- Digital temperature setting with an accuracy of one degree
- Front ventilation flap slide and rear exhaust duct Ø 50 mm (1.97 inch)
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- **FED Oven -** RS 422 interface for use with APT-COM<sup>™</sup> Data Control System communication software or switch over to printer output with RS 232 / RS 422 interface converter
- Units up to 115 litres are stackable
- 2 chrome-plated racks included
- BINDER test confirmation
- Unit sizes 23, 53, 115 & 240 litres powered by 230V 13 Amp socket, 400 & 720 litres 400V 50Hz 3 phase neutral & Earth supply
- Unit sizes 23, 53, 115, 240 & 400 litres fitted with feet for bench/trolley mounting, 720 litres fitted with casters for floor standing
- Available with an extensive range of optional accessories to customise the Ovens to the users exact requirements
- Delivered from stock within 3-4 weeks

These Drying/Heating Ovens are supplied in a range of sizes as follows:-

| • | 23 litres  | 222 x 300 x 330mm (Internal WxDxH)   |
|---|------------|--------------------------------------|
| • | 53 litres  | 400 x 350 x 400mm (Internal WxDxH)   |
| • | 115 litres | 600 x 420 x 480mm (Internal WxDxH)   |
| • | 240 litres | 800 x 520 x 600mm (Internal WxDxH)   |
| • | 400 litres | 1000 x 520 x 800mm (Internal WxDxH)  |
| • | 720 litres | 1000 x 620 x 1200mm (Internal WxDxH) |



3 Bamfords Fold, Bretherton, Leyland, Lancashire, PR26 9AL

#### **Binder FP & M series Material Test Chambers**

We supply the excellent Binder FP & M ranges of Material Test Chambers for component testing, drying and curing. These are similar to the standard ovens except they are fitted with programmable microprocessor PID controllers for cyclic style testing of assemblies. They are fitted with forced air convection through an air circulation Fan with a temperature range from +5°C above ambient to +300°C. The difference between the two models is that the M series has a more complex controller with added functionality and control. All the Ovens are fitted with 2 internal shelves and have controlled fresh air vents for the exhaust of excess fumes and heat.



#### Features and Benefits of the FP & M series Material Test Chambers

- Electronically controlled APT.line™ preheating chamber assuring temperature accuracy and reproducible results
- Temperature range from +5 °C above ambient temperature to +300 °C
- **FP Series** MP controller with 2 programs with 10 sections each, or alternatively 1 program with 20 sections, the time of an individual program step can be set to max. 99.59 hours or 999.59 hours. This adjustment applies to all program sections.
  - Integrated weekly program timer with real-time function
- **M Series** MCS controller with 25 storable programs of 100 sections each for a maximum of 500 program segments
  - User-friendly LCD screen
  - Easy-to-read menu guide
  - Real-time clock
- Adjustable ramp function via program editor
- Program-controlled ventilation flap
- High air-exchange rate through high-performance fan
- Adjustable fan speed
- Exhaust duct Ø 50 mm
- Temperature safety device class 2 (DIN 12880) with visual alarm
- Printer and communication interface RS 422 for use with APT-COM™ Data Control System software
- Units up to 115 litres are stackable
- 2 chrome-plated racks included
- Unit sizes 53, 115 & 240 litres powered by 230V 13 Amp socket, 400 & 720 litres 400V 50Hz 3 phase neutral
   & Earth supply
- BINDER test confirmation
- Available with an extensive range of optional accessories to customise the Ovens to the users exact requirements
- Delivered from stock within 3-4 weeks

These Drying/Heating Ovens are supplied in a range of sizes as follows:-

| • | 53 litres  | 400 x 350 x 400mm (Internal WxDxH)   |
|---|------------|--------------------------------------|
| • | 115 litres | 600 x 420 x 480mm (Internal WxDxH)   |
| • | 240 litres | 800 x 520 x 600mm (Internal WxDxH)   |
| • | 400 litres | 1000 x 520 x 800mm (Internal WxDxH)  |
| • | 720 litres | 1000 x 620 x 1200mm (Internal WxDxH) |



TESLA TEST SYSTEMS

3 Bamfords Fold, Bretherton, Leyland, Lancashire, PR26 9AL

#### **Binder KB Refrigerated Ovens for testing & drying**

We supply the excellent Binder KB series refrigerated Ovens used for testing at lower temperatures, these have a temperature range of -5°C to +100°C for component testing, drying and curing. They have forced convection through an air circulation Fan and are fitted with a microprocessor PID controller. All the Ovens are fitted with 2 internal shelves and have controlled fresh air vents for the exhaust of excess fumes and heat.

All the ovens are fitted with an over temperature safety cut-off switch to Class 2 (DIN 12880).



#### **Features and Benefits of the KB Refrigerated Ovens**

- Electronically controlled APT.line™ preheating chamber and patented DCT™ refrigeration system assuring temperature accuracy and reproducible results in both heating and cooling situations
- Temperature range -5 °C to 100 °C
- MP controller with 2 programs with 10 sections each, alternatively switchable to 1 program with 20 sections
  - Integrated week program timer with real-time function
  - Adjustable ramp function via program editor
  - Digital temperature setting with an accuracy of a tenth of a degree
- Adjustable fan speed
- Elapsed time indicator
- Independent adjustable temperature safety device class 3.1, providing full protection against chamber
- over-temperature, with visual and audible temperature alarm
- Inner glass door
- RS 422 interface for communication software APT-COM™ Data Control System
- Adjustable intervals for printer
- Units up to 115 litres are stackable
- Access port with silicone plug Ø 30 mm, left side (240, 400 & 720 litres)
- 2 stainless steel racks
- BINDER test confirmation
- Powered by 230V 50Hz 13 Amp socket
- Unit sizes 23, 53, 115, litres fitted with feet for bench/trolley mounting, 240, 400 & 720 litres fitted with 4 castors (2 with brakes)
- Available with an extensive range of optional accessories to customise the Ovens to the users exact requirements
- Delivered from stock within 3-4 weeks

These Drying/Heating Ovens are supplied in a range of sizes as follows:-

| • | 23 litres  | 222 x 300 x 330mm (Internal WxDxH)   |
|---|------------|--------------------------------------|
| • | 53 litres  | 400 x 350 x 400mm (Internal WxDxH)   |
| • | 115 litres | 600 x 420 x 480mm (Internal WxDxH)   |
| • | 240 litres | 800 x 520 x 600mm (Internal WxDxH)   |
| • | 400 litres | 1000 x 520 x 800mm (Internal WxDxH)  |
| • | 720 litres | 1000 x 620 x 1200mm (Internal WxDxH) |



TESLA TEST SYSTEMS

3 Bamfords Fold, Bretherton, Leyland, Lancashire, PR26 9AL

#### **Binder VD & VDL Vacuum Drying Ovens**

We supply the Binder VD series of Vacuum drying Ovens designed for the safe drying of assemblies and materials in a fast and efficient manner. They use a combination of temperature and vacuum to evacuate all moisture from the product placed inside for drying. With its unique design to maximise temperature uniformity combined with the patented shelf design which is fitted with a large surface area to conduct the heat through the shelf and with clamps to the side walls these have very uniform performance throughout the oven.

These can be supplied with or without the vacuum pump which can be used to a vacuum level of 1.5 mbar or the VDL version can be combined with the ATEX compliant vacuum pump to achieve full safety explosion proof drying of flammable fluids.

#### Features and Benefits of the KB Refrigerated Ovens

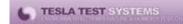
- Electronically controlled APT.line™ preheating chamber with 2 expansion racks assuring temperature accuracy and reproducible results
- Temperature range from +15 °C above ambient temperature to +200 °C
- MP controller with 2 programs with 10 sections each or switchable to 1 program with 20 sections
  - Integrated weekly program timer with real-time function
  - Digital temperature setting with an accuracy of one degree
  - Elapsed time indicator
- Precision-adjustable ventilation valve
- Precision-adjustable inert gas valve with Cross-Flow-Technology
- All electrical components are decoupled from the inner chamber
- Spring-mounted safety glass panel with shatter protection
- Independent adjustable temperature safety device class 2 (DIN 12880), with visual temperature alarm
- Measuring port DN 16 in rear panel
- Analogue pressure gauge (displays pressure difference between the inner chamber and ambient pressure)
- Electro polished inner chamber, suction and ventilation tubes, pressure container, expansion racks, and ball valve are made of stainless steel
- Door gasket made of tempered silicone
- 2 x 24 V DC (max 0.4 A) switching outputs, switched via 2 control contacts in the program editor
- RS 422 interface for communication software APT-COM™ Data Control System
- 2 patented, flexible aluminium expansion racks
- Also available as complete system with module and vacuum pump. Features:
  - Reduced noise level
  - Practical working height
  - Coordinated system
- BINDER test confirmation
- Powered by 230V 13 Amp socket
- Available with an extensive range of optional accessories to customise the Ovens to the users exact requirements
- Delivered from stock within 3-4 weeks

These Vacuum Drying Ovens are supplied in a range of sizes as follows:-

23 litres 285 x 285 x 285mm (Internal WxDxH) 400 x 330 x 400mm (Internal WxDxH) 53 litres 115 litres 506 x 450 x 506mm (Internal WxDxH)







3 Bamfords Fold, Bretherton, Leyland, Lancashire, PR26 9AL

#### **NAE AGREE Vibration Chambers**

TeslaTest Systems can provide a range of NAE AGREE Vibration test chambers which are bespoke designed to each customer's specification requirements. They can be designed around a specific vibration system or we can supply a suitable vibration system to meet the requirements specified.

These can be supplied with any combination of test conditions that will meet all types of test specifications in common use including MIL Standards, DEF standards plus IEC and EN standards.

They are supplied with a comprehensive programmable controller that can be programmed to any cycle and includes connection to the shaker system for shaker ON/OFF control as required. All the chambers are supplied with suitable sealing for the



chamber/shaker interface plus they are fitted with thermal heated trace heating to prevent frost forming in the shaker system.

#### **NAE Richter Thermal Shock Test Chambers**

Included in our range of test chambers we can offer a full range NAE Richter Thermal Shock chambers for the thermal shock testing of components or assemblies. These chambers are fitted with a DIGITOUCH fully programmable PID controller that is used to set all the programs required plus they fitted with Ethernet & RS 232 communications ports for remote programming and data logging on a PC. All these chambers comply with the standard requirements of MIL STD 750, 810, 883 plus IEC 68-2-14 specifications plus the usual range of automotive specifications.

The chambers have a temperature range of:-

Hot Zone +60°C to +200°C
 Cold Zone +0°C to -75°C



The chambers are supplied with water-cooled condensers as standard or an optional air-cooled condenser, plus they are fitted with an electro-pneumatic cylinder basket moving system for efficient and reliable operation.

They can be fitted with a range of options to enable good flexibility of use and to ensure that the chambers meet all customers' requirements.

The Thermal Shock Chambers are supplied in a range of sizes as follows:-

25 litres 250 x 250 x 400mm (Internal WxDxH)
 64 litres 400 x 400 x 400mm (Internal WxDxH)
 120 litres 550 x 550 x 400mm (Internal WxDxH)

#### **NAE Everest Altitude/Vacuum Chambers**



At TeslaTest Systems we are able to supply the NAE Everest range of Altitude/Vacuum chambers covering vacuum ranges to 1mBar (150,000Feet) at temperatures between -70°C to +180°C, including humidity test options. These chambers are constructed using high quality Stainless Steel liners reinforced to take the pressures concerned, they use both direct air circulation during ambient pressures plus radiated temperature during vacuum. The chambers are designed to comply with the requirements of specifications such as IEC 60068, MIL STD 202, 810,883 plus DEF STAN 133.

They can be supplied in our standard chamber sizes or can be supplied to your own dimensions; they are fitted with the DIGITOUCH fully programmable controllers that also control the vacuum levels automatically. They are supplied complete with vacuum pump and associated equipment plus air-cooled or water cooled condensers as required. The vacuum chambers can be combined with any other performance requirements to provide a comprehensive test solution to your requirements.

The Altitude/Vacuum Chambers are supplied in a range of sizes as follows:-

540 litres 750 x 800 x 900mm (Internal WxDxH)
 1000 litres 1000 x 1000mm (Internal WxDxH)
 1500 litres 1000 x 1500 x 1000mm (Internal WxDxH)

#### **TeslaTest Systems Support Services**

The employees at TeslaTest Systems have in excess of 25 years of experience gained in the field of Environmental Testing in both the areas of product testing and the supplying of products to our customers requirements. Add to this the 30+ years of experience in the design, manufacture and supply of test chambers of our supplying companies, means that TeslaTest Systems can provide our customers with a high quality response to their testing requirements. This high level of experience and knowledge enables TeslaTest Systems to provide a complete and extensive range of services and products for our customers.

All of our services are offered from our UK base using either our own engineers or our teams of subcontract service engineers and design engineers, these are able to offer extensive experience in equipment design and manufacture and equipment repair and servicing. Our sub-contractors hold F-Gas certification and waste disposal certification as well as holding comprehensive insurance policies to protect our customers.

The following range of support services can be offered to fulfil and match all our customers' needs.

#### **Consultation Services**

With the above range of experience TeslaTest Systems can supply a full range of consultation services, including consultation on the type and style of test chambers and equipment required to carry out the testing of your products to meet your particular requirements. We can also provide the required knowledge to ensure that the equipment purchased will comply with the specifications that are demanded by the users of your products and the test specifications your equipment needs to meet to comply with your customers specifications.

We also offer a complete telephone and e-mail helpline service to offer our equipment users a full support line to ensure they get the best use from the chamber, including a visit after installation to instruct the users in the best way to operate and use the equipment.

We can also offer consultation on the specifications that you should be using to qualify your products to meet the requirements of your customers so that your products comply with a broad range of industry standards. This can include training for your staff to ensure they understand the specifications fully and appreciate the importance of carrying out the testing to the highest and correct technical methods and standards.

#### **Equipment Service & Maintenance**

With our extensive team of experienced engineers and our sub-contractors we are able to offer our customers a full service and maintenance service, including the repair of faulty chambers and annual maintenance servicing to ensure that your equipment is operating at its optimum level. This ensures that your test chambers are always operating correctly and efficiently ensuring that the equipment is available for use when required and that it functions to the correct specification as required.

This service can be offered on any manufacture of chamber and can cover all types and styles of test chambers including temperature, humidity, vacuum, salt spray or any other type of equipment.

#### **Equipment Calibration**

TeslaTest Systems supplies a full calibration service to ensure that your test chambers are operating within their specified limits. The calibration is carried out using our UKAS calibrated standards with a full calibration result sheet and certificate supplied; the calibration can be carried out over the full operating range of the chamber or can be done at specific test points in the chamber.

We are able to calibrate test chambers and laboratory ovens over the following ranges and conditions:-

• Temperature between -70°C to +400°C

Humidity between 10% to 98% RH over the temperature range of +23°C to +95°C

#### **Equipment Refurbishment**

TESLA TEST SYSTEMS

We can provide a complete test chamber refurbishment service to upgrade any existing equipment you may have and bring it up to current equipment standards. The services provided include Controller replacement/upgrade, electrical system refurbishment, refrigerant plant refurbish/replacement, heating system refurbish or a complete chamber refurbish including metalwork. This service can be carried out on your site or alternatively the equipment can be delivered to our factory for a complete refurbishment service, we can carry out refurbishment on any make type or style of test chamber as required.



#### The complete supplier of Environmental & Climatic Test Chambers and Equipment

## "The Unique Independent Solutions Provider for All Your Temperature & Humidity Test Chamber and Equipment Requirements"

Please contact us for all your test chamber requirements and needs, we provide a fully experienced friendly service for all your test chamber requirements.

Please contact us as follows or fax back the enquiry form below:

Tel/Fax: 01772 600771 E-Mail: andy@teslatest.co.uk

Website: www.teslatest.co.uk

#### FAX BACK FORM TO FAX Number: 01772 600771

| Company Namo              |  |
|---------------------------|--|
| Company Name              |  |
| Address                   |  |
|                           |  |
| Post Code                 |  |
| Contact Name              |  |
| <b>Equipment Required</b> |  |
| Chamber Dimensions        |  |
| Temperature Range         |  |
| Humidity Range            |  |
| Features Required         |  |
| Comments                  |  |
|                           |  |
|                           |  |