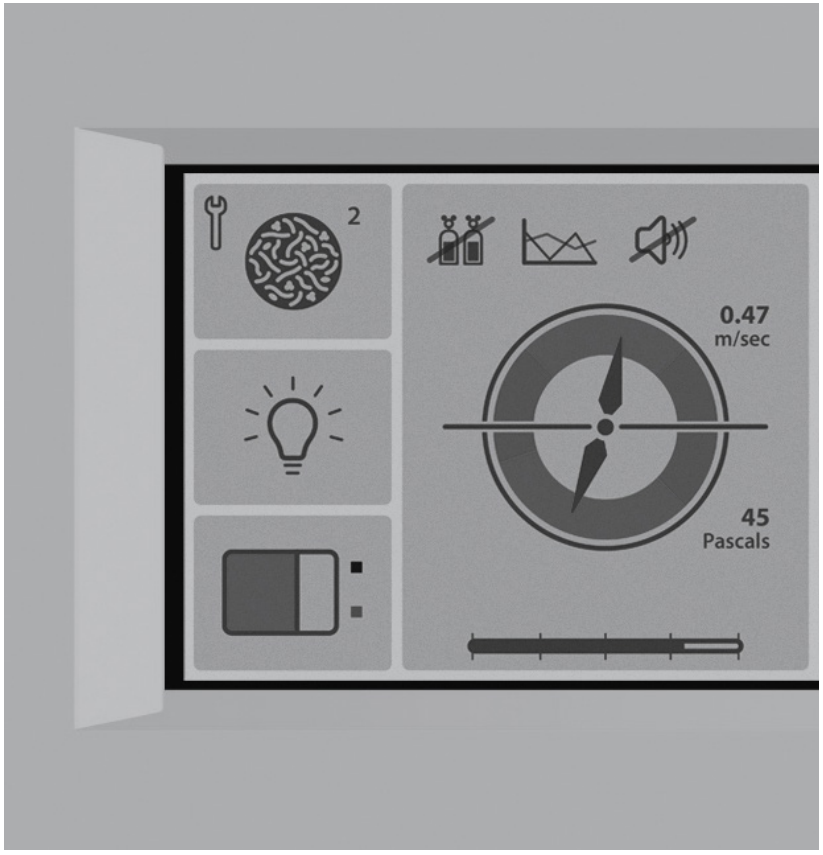
don whitley scientific

Whitley GMP Anaerobic Workstations



01 Our Credentials

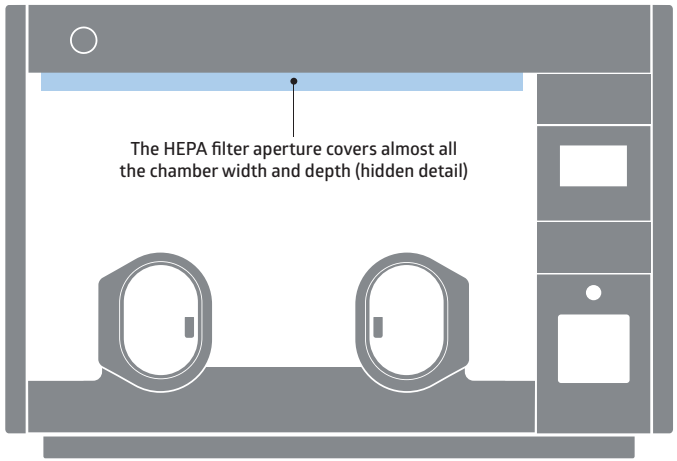
Because his early career had been as a 'working-at-the-bench' microbiologist, Don Whitley set out to improve the microbiologist's working life by removing as much tedium as he could and by seeking to reduce the risk of tests being compromised by human error.

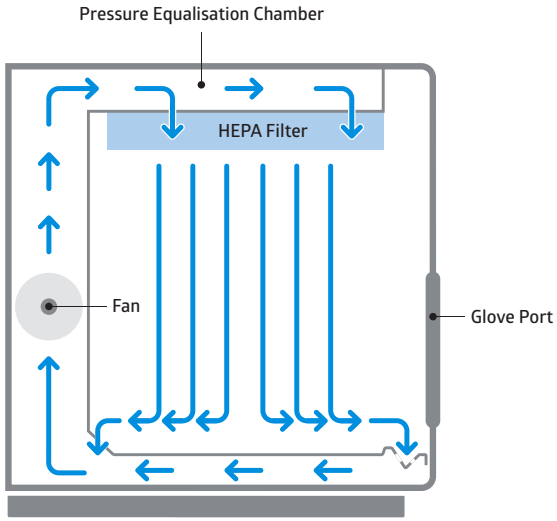
Don's laboratory experience helped him to develop novel ideas through the use of labour-saving equipment and automated solutions, leading to the formation of Don Whitley Scientific Limited in 1976. Don's first product was an improved anaerobic jar. His work resulted in a stream of innovations in the early years – and a number of products incorporating his inventions are still in production today.

We have now sold thousands of anaerobic and hypoxic workstations in over 50 countries and have a worldwide network of distributors.

In 2013, in response to the changing needs of our clinical and research customers, Don Whitley Scientific developed the Whitley Internal HEPA Filtration System for applications that require control of airborne particulate. After a number of requests from customers wishing to use our workstations in GMP compliant processes, the next logical step was to develop innovative laminar flow technology, which we have now done. We have successfully added this feature to two models in our anaerobic workstation range to create a unique product offering: laminar airflow workstations that allow users to process samples under strict anaerobic conditions.

HEPA Filtration 02





HEPA FILTRATION AND LAMINAR FLOW TECHNOLOGY

Development of the GMP Anaerobic Workstation has seen a complete re-design of the standard Whitley Internal HEPA Filtration System.

The HEPA filtration system uses an H14 filter housed in the roof of the workstation to achieve 99.9997% dispersed oil particulate removal in a single pass. This high filter efficiency, combined with laminar airflow, ensures the maintenance of an EU GMP Grade A working environment in the workstation chamber. In addition, the Whitley Intelligent Monitoring system continually measures atmospheric down flow to ensure optimised filter performance, automatically increasing fan speed to compensate if any pressure drop is detected across the filter.

Each workstation undergoes HEPA filter face velocity/uniformity of laminar airflow and Dispersed Oil Particulate (DOP) tests, performed by an independent organisation, to ensure compliance with the relevant portions of ISO 14644-3. Further to this, tests carried out in our own in-house laboratories confirm the integral HEPA filtered laminar flow system meets the requirements set out in BS EN 12469:2000 with regard to protection of the working area from particulate and microbial contamination. Test reports and relevant certifications are available as technical notes upon request.

The workstation is a closed, re-circulating system, but exhaust vents can also be attached to external ventilation systems if desired.

03 Whitley A135 GMP Anaerobic Workstation

The A135 GMP Anaerobic Workstation combines sterile laminar airflow, positive operating pressure, and physical isolation, to provide highly effective product protection. The fact that it is a Whitley Workstation guarantees strict control of anaerobic conditions.

With over 40 years of experience, Don Whitley Scientific is well known for the design and manufacture of anaerobic cabinets and more recently developed the market leading Whitley Internal HEPA Filtration System. This latest product was designed for customers running GMP certified facilities, to allow manipulation of samples under strict anaerobic conditions whilst maintaining GMP compliance.

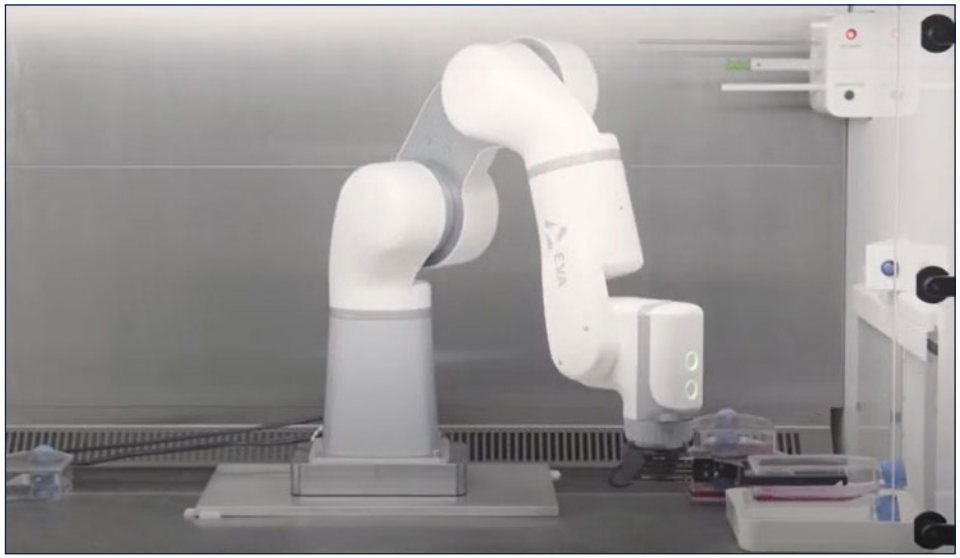
Developing a GMP compliant workstation involved the creation of innovative laminar airflow technology and it is this feature that ensures maintenance of EU GMP Grade A particulate counts in the processing chamber. Further, the closed, re-circulating atmosphere and positive pressure operation allow the new workstation to act as an isolator and be housed in a Grade D cleanroom during GMP compliant use.

Anaerobic conditions are strictly maintained and can be further supported by the use of our unique Anaerobic Conditions Monitoring and Catalyst Monitoring Systems. Used together these ensure users are pre-warned if anaerobic conditions begin to vary.

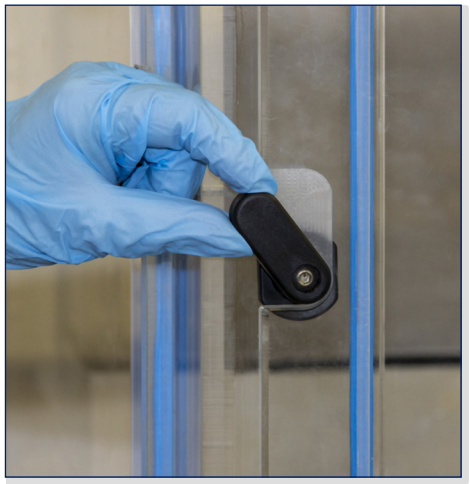
The 17.5 litre airlock provides effective transfer for up to 10 x 500ml Duran bottles (or items of a similar size) to and from the workstation in just 2 minutes. The patented oval gloveports provide maximum comfort when used over extended periods.

With a huge 900 litre capacity, there is a generous amount of space inside the workstation to house equipment such as centrifuges and homogenisers.

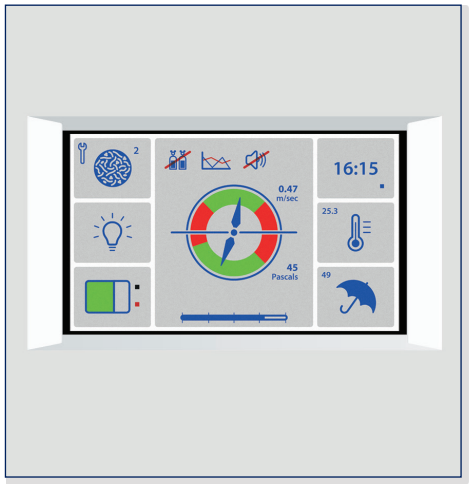
For more details call **+44(0)1274 595728** or email **sales@dwscientific.co.uk**



Robot in a Whitley Workstation



A Removable Front



A135 GMP Touchscreen

FEATURES

- This workstation maintains strict anaerobic conditions and operates from two gas supplies (anaerobic mixed gas and a separate cylinder of nitrogen) for the most effective and efficient running costs.
- The large workstation chamber is perfect for accommodating a variety of items of equipment, which can be installed and removed via the removable front (fitted as standard).
- A password protected full colour touch screen interface allows easy monitoring of all parameters simultaneously. Alarms and status notices are also displayed.
- This workstation is Ethernet-enabled for remote access review and control.
- Data logging system records all monitored parameters and event log lists events showing the date and time they occurred.
- A fully automated de-humidification system is included as standard. It does not require any operator intervention.
- The optional HEPA Filtered Airlock includes the incorporation of a H14 HEPA filter to ensure 100% reduction in airborne particulate in the airlock over the course of a 2 minute cycle. This ensures Grade A particulate counts in the main chamber are not compromised.
- A bespoke trolley with heavy-duty castors is provided as standard. A trolley not only saves bench space but is also useful for ease of mobility for service and maintenance.
- ‘Standby’ feature automatically decreases fan speed when the chamber is at rest to maximise energy efficiency.
- Workstation can also be run aerobically if desired, providing further flexibility in use.
- Decontamination is possible through a range of protocols, including the use of vaporised hydrogen peroxide.
- IQOQ documentation is available, as well as PQ, URS, FAT, CD and RQ.
- Other optional features are available to tailor the system to your requirements.

05 Whitley A155 GMP Anaerobic Workstation

The A155 GMP Anaerobic Workstation is specifically designed to be used as a clean-air isolator in processes following Good Manufacturing Practice (GMP). Two people can work side-by-side in this workstation as it has four oval, sleeved ports and two airlocks..

The A155 GMP Workstation provides strict anaerobic conditions, Grade A air cleanliness (EU GMP) and combines sterile laminar airflow, positive operating pressure and physical isolation to provide highly effective product protection. Due to being a completely closed, re-circulating, isolator system, this workstation can be housed in a grade D cleanroom during GMP compliant use.

Each workstation is tested to ensure compliance with ISO 14644-3 and that the integral HEPA filtered lamimar flow system meets the requirements set out in BS EN 12469:2000 regarding protection of the working area from particulate and microbial contamination.

Anaerobic conditions are strictly maintained and can be further supported by the use of our unique Anaerobic Conditions Monitoring and Catalyst Monitoring Systems. Used together these ensure users are pre-warned if anaerobic conditions begin to vary.

The 2 x 17.5 litre airlocks provide effective transfer for up to 10 x 500ml Duran bottles (or items of a similar size) to and from the workstation in just 2 minutes. The patented oval gloveports provide maximum comfort when used over extended periods.

With a huge 1,800 litre capacity, there is a generous amount of space inside the workstation to house equipment such as centrifuges and homogenisers.

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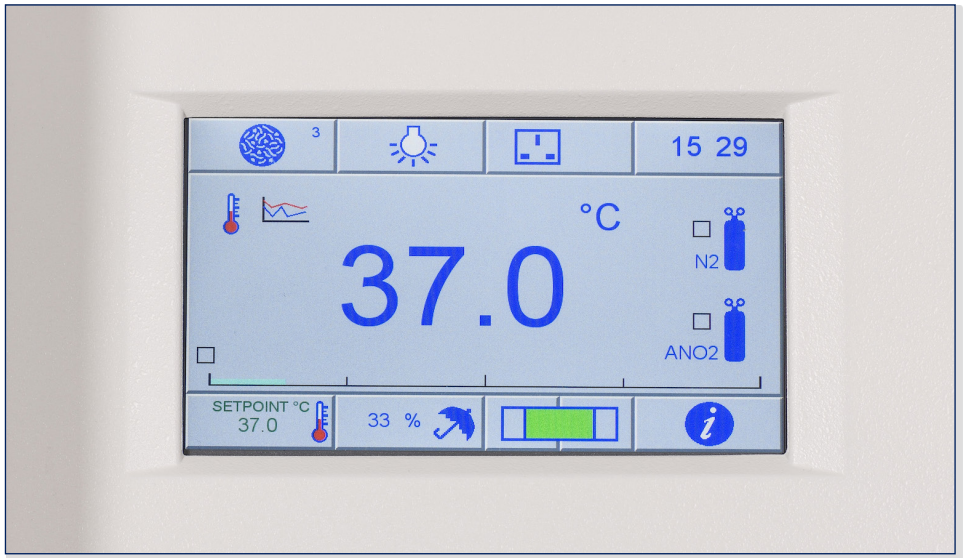


A155 GMP Touchscreen

Sleeved Port with gauntlet

17.5 Litre Airlock

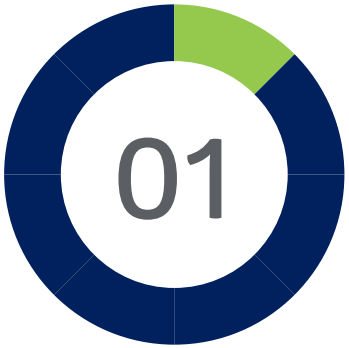
FEATURES

- Two 17.5 litre airlocks provide an ideal layout for a ‘production line‘ style of working.
- Operates from two gas supplies for the most efficient and effective running costs.
- The large workstation chamber is perfect for accommodating a variety of items of equipment.
- Removable front fitted as standard.
- Whitley Intelligent Monitoring continually measures atmospheric down flow to ensure optimised filter performance.
- Standby feature decreases fan speed when chamber is not in use.
- Full colour, PIN code protected, touchscreen display.
- Ethernet-enabled for remote access.
- Data logging system records parameters every 60 seconds.
- Bespoke trolley provided as standard.
- The optional HEPA Filtered Airlock includes the incorporation of a H14 HEPA filter to ensure 100% reduction in airborne particulate in the airlock over the course of a 2 minute cycle. This ensures Grade A particulate counts in the main chamber are not compromised.
- Air sampling ports can be fitted to allow particulate monitoring systems to be connected to the workstation for continuous particulate monitoring.
- IQOQ documentation is available, as well as PQ, URS, FAT, CD and RQ.
- Other optional features are available to tailor the system to your requirements.
- Range of possible decontamination protocols, including the use of vaporised hydrogen peroxide.

07 Specifications

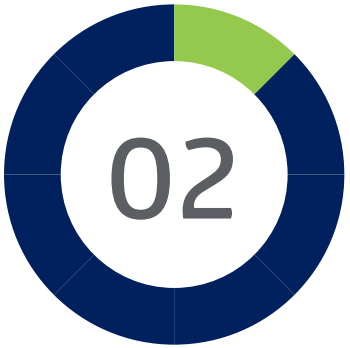
Features	Whitley A135 GMP Anaerobic Workstation	Whitley A155 GMP Anaerobic Workstation
Chamber Capacity	900 Litres	1.800 Litres
Port / Airlock Capacity	17.5 Litres / 10 x 500ml Duran bottles	17.5 Litres / 10 x 500ml Duran bottles
Porthole System	Manual Ports	Manual Ports
Gas Supplies	ANO_2 / N_2	ANO_2 / N_2
Footswitch	Wireless	Wireless
Auto Sleeve Gassing	●	●
Internal Mains Socket	●	●
HEPA Filtered Airlock	○	○
Lighting	●	●
Inspection Lamp	○	○
ANO2 Conditions Monitor	○	○
Catalyst Monitoring System	○	○
Data Logging	○	○
Airlock Cycle Time	120 seconds	120 seconds
Extra Cable Glands	○	○
HEPA Filtration	●	●
Automatic Humidifier	–	–
Removable Front	●	●
Workstation Trolley	●	●
Remote Access	●	●
ULPA Filter Option	○	○
VHP Decontamination	○	○
Dimensions w/d/h (mm)	1470 / 1100 / 1080	2940 / 1100 / 1080
Weight (lbs/kg)	649 / 295	1298 / 590
KEY:	● Fitted as standard	○ Option available	- Not applicable

Unique Innovations 08



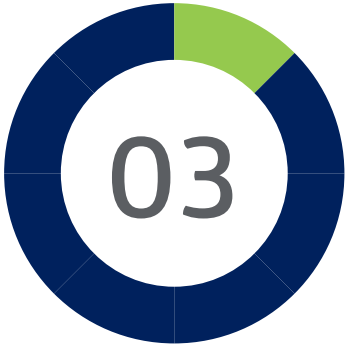
Anaerobic Conditions Monitor

With this option, an animated green icon confirms that suitable anaerobic conditions exist in the workstation. Yellow and red icons provide an early indication if conditions begin to vary. Combining the use of this facility with the Catalyst Monitoring System is the most reliable way of confirming that suitable anaerobic conditions exist within a Whitley Workstation.



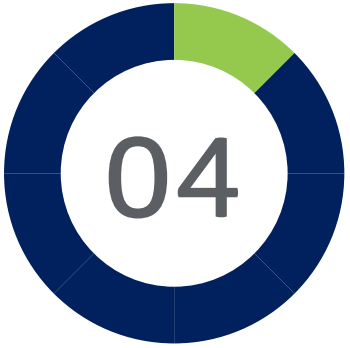
Colour Touchscreen

Operating requirements are configured and maintained by an intelligent, programmable logic controller in conjunction with an intuitive touchscreen interface. The touchscreen interface displays the status conditions of all controlled parameters and also allows the user to change operating parameters to suit specific test conditions. Alarm conditions are clearly displayed and pin code controlled user access levels protect user adjustable parameters.



ULPA Filter

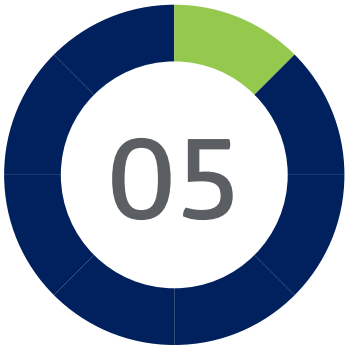
The ULPA filter upgrade option replaces the standard H14 filter with a higher specification U15 ULPA (ultra-Low Particulate Air) filter. The standard H14 HEPA filter is better than 99.995% efficient at the most penetrating particle size (MPPS) and the upgraded U15 ULPA filter is better than 99.99995% efficient at the MPPS.



Data Download / Traceability

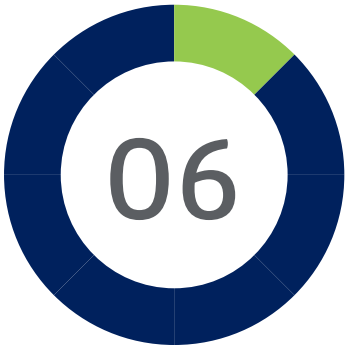
This feature allows recorded workstation temperature, humidity and chamber pressure to be downloaded for traceability or reference. The information is displayed on the screen in graphical format. Bespoke DWS software allows* workstation data to be viewed on a PC for further analysis.

*non-editable



Remote Access

Whitley Workstations are Ethernet-enabled for remote access to the touchscreen panel. This allows you to log into your workstation when you are away from the lab and check current operating parameters, making changes if desirable. This feature also allows DWS engineers to log into your workstation remotely to assess the situation should a fault occur. Whitley Workstations also offer an email alert option that sends emails to designated recipients alerting users to workstation alarm conditions.



IQOQPQ

The Installation Qualification and Operational Qualification (IQ/OQ) is based on a dynamic document that is tailored to meet the needs of each specific customer. The Performance Qualification (PQ) document is prepared through close collaboration with the customer to ensure it is suitable for the particular application.

These complementary services support the design, manufacture and supply of Whitley Workstations.

MICROBIOLOGY LABORATORY

In-house laboratory services

Not every manufacturer of laboratory equipment has its own in-house microbiology laboratory. Ours has been operating since 1989, has been GLP compliant since 1994, and has extensive experience in industrial, pharmaceutical and clinical fields.

One major area of expertise is antimicrobial drug development, including human food safety of antibiotic residues. We are experienced in both traditional and novel techniques, and pride ourselves in adhering to agreed deadlines and budgets. Reflecting the DWS product range, we have the skills and equipment to work with diverse aerobic, anaerobic and microaerophilic bacteria. We routinely culture fastidious organisms such as *Mycoplasma* and *Brachyspira* species and conduct antimicrobial susceptibility tests with such organisms.

More recently, we have developed procedures for enumeration and susceptibility testing of bacterial strains originating from the normal healthy human microbiota, which are being developed as live biotherapeutic products to treat a range of diseases. Some of these strains have demanding growth requirements.

Our scientific team also has a key role in the development and optimization of new products and is always available to guide our customers in the most efficient and productive ways of using DWS equipment.

SERVICE AND MAINTENANCE

Comprehensive service plans

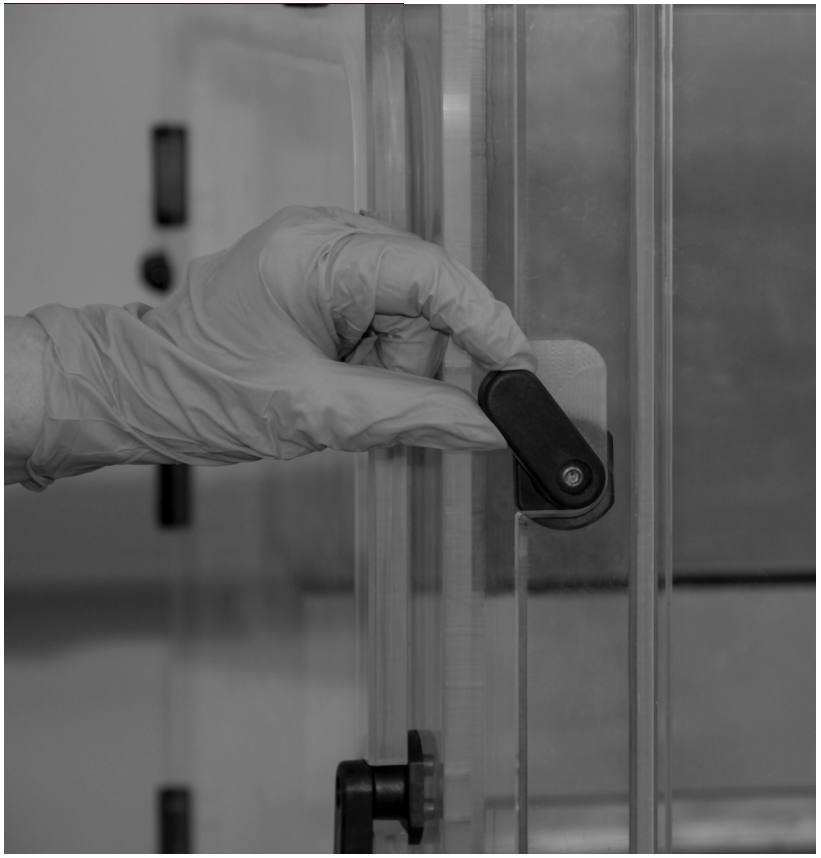
We offer UK customers comprehensive maintenance and repair contracts on a variety of laboratory equipment from many different manufacturers.

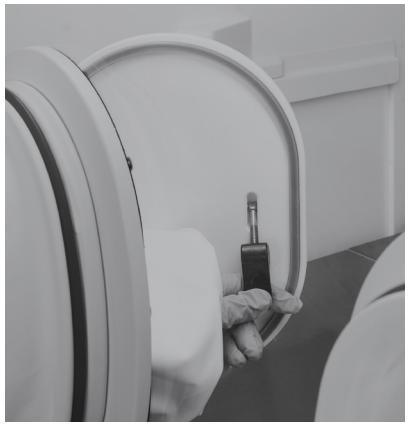
We are the only company able to take advantage of training from our in-house colleagues who design and manufacture Whitley products – and, of course, have their day-to-day support.

DWS is UKAS accreditated (BS EN ISO/IEC 17025:2017) to undertake time and temperature calibration and validation services on a range of laboratory, including workstations.

We also ensure all our engineers have been trained by the manufacturers of any non-DWS equipment they service.

- **Engineer coverage across the UK**
- **All our overseas distributors are factory trained and fully supported**
- **Fast response time**
- **Extensive stocks of parts carried to ensure a first time fix**





ISO 9001 Quality Management Systems CERTIFIED

ISO 9001 Quality Management Systems CERTIFIED

ISO 14001 Environmental Management CERTIFIED

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