

## The 'Big Macs' from Don Whitley Scientific

**Don Whitley Scientific's** innovative anaerobic workstation allows two people simultaneous access and provides a significantly increased capacity. With the increasing recognition of the importance of anaerobic micro-organisms in all areas of microbiology, the demand for workstations which maintain strict anaerobic conditions is accelerating. Don Whitley Scientific have responded to this need by introducing the MACS range. The new model **MG-1000** is effectively an extended version of the highly successful MACS station which sets new standards for design, efficiency and economy.

MACS workstations use the portholes both as a means of sample transfer and as the armholes, which has a significant benefit in terms of workflow, running costs and performance. Dishes can be transferred at the same time as the arms are inserted or withdrawn, saving time, minimising purge cycles and improving anaerobiosis. The new **MG-1000** version features two sets of independent portholes, allowing two people to work within the station at the same time.

A shared foot switch provides simple and convenient control and the size, shape, viewing panel, control layout, internal illumination and porthole detail have all been optimised to ensure easy and economical operation.

For maximum manoeuvrability and convenience, the company recommends a plate capacity of 540 x 90mm plates during routine operation. However, the **MG-1000** will accommodate 1080 plates and still provide an adequate working area.

With superior performance and low running and maintenance costs, the MACS **MG-1000** represents excellent value.

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## **Millenium awards for three of Don Whitley Scientific products**

**Don Whitley Scientific's** reputation for quality and innovation has been duly acknowledged with the award of Millennium Product status for three of its products. One of the UK's leading manufacturers of microbiology laboratory equipment, **Don Whitley Scientific** becomes one of only 26 companies with more than one product selected – out of a total of around 1,800 submissions.

The latest product to receive the Millennium Product award is the Protocol colony counter. This follows in the footsteps of the Modular Atmosphere Controlled System (MACS), one of the first 200 Millennium Products to be selected, and the WASP automatic spiral plater. Developed in response to customer demands, all three products have made a significant impact in microbiology laboratories in both clinical and industrial environments, improving performance and workflow.

Millennium Products is a national initiative, launched by Tony Blair in September 1997, that aims to promote and encourage innovation by identifying, encouraging and promoting up to 2,000 new products and services created in the UK as the millennium approaches. The Millennium Products selected will be showcased in trade shows at home and overseas, and will be developed into case studies for educational and business purposes. A selection of the products will also appear in the Millennium Dome.

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## **New homogeniser bags with filters for improved sample handling**

**Don Whitley Scientific** has introduced an innovative range of homogenisation bags which incorporate Teflon filters to remove sample residue whilst allowing bacteria to pass through. The clever design improvement simplifies sample handling and is ideal for customers wanting to distribute the homogenate using a spiral plater.

Two new designs of Filter Bag have been introduced: Type S which has been specifically designed for spiral plate customers, and Type P for general usage. Both versions include a '40 mesh' Teflon bag which prevents particles passing into the strip from where sample is drawn.

Using the Type P bag, customers simply withdraw 'particle-free' diluted sample from the sampling strip above the filter. Extremely easy to handle and convenient for every day use, they eliminate the problems of plating out 'lumpy' samples, without any additional steps. Widely used throughout Europe, they are particularly valuable for obtaining 'clean' samples from difficult to mix products.

Using homogenate from the new filter bags prevents residue blockages in the stylus on spiral platers, and the Type S design has the added benefit of a heat-sealed stopper which act as a 'pouring spout' allowing homogenate to be poured directly into small cups for semi-automated handling.

All Don Whitley filter bags are supplied pre-sterilised in packs of 500 and free trial packs are currently available from the company - simply call 01274 595728 and speak to the sales department.

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## Unrivalled accuracy for improved colony counting

Microbiology specialists **Don Whitley Scientific** have launched **ProtoCOL XR**, an advanced new system for automated colony counting and inhibition zone sizing. With high resolution optics for unrivalled accuracy and precision, and sophisticated software, the system introduces the highest levels of flexibility and performance.

**ProtoCOL XR** detects colonies smaller than 100 microns and measures inhibition zones with a resolution of 50 microns making it ideal for all applications which involve counting microcolonies and/or large numbers of colonies per plate. All types of plate can be measured, including spiral plates, and users can select from a wide range of counting and reporting options. New counting modes include histogram size distribution and colour coded sizing of colony types.

With a typical measurement time of less than one second per plate, the new system is extremely fast and convenient to use. Images are clearly displayed on a large 17" colour screen and **ProtoCOL XR** has the facility to store over 5000 images of 1300 x 1026 pixels for retrospective analysis.

Developed in response to the increasing demand for high resolution image processing in a diverse range of microbiology applications, **ProtoCOL XR** is particularly suited to laboratories in the water and dairy industries, and for toxicological testing in the pharmaceutical sector.

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## **New mixing version of APS 300 for pour-plate preparation**

**Don Whitley Scientific** has expanded its media preparation range with the introduction of a pourer/stacker unit which automatically mixes sample and agar for streamlined preparation of pour plates. The new 'mixing version' of the popular **APS 300** eliminates the need for manual mixing, saving time and labour in the busy laboratory.

Traditionally a labour intensive and tedious task, pour-plate preparation involves several manual steps. Utilising the new **APS 300**, most of these steps are automated, improving efficiency and control. Sample need only be added to empty Petri-dishes which are then loaded onto the plate carousel. The unit then automatically adds molten agar and automatic rotation of the dish ensures thorough mixing before stacking. The unit is therefore ideal for any laboratory preparing a large number of pour plates.

The compact **APS 300** Pourer/Stacker offers high performance plate preparation at an extremely competitive price. With a single carousel, it has a capacity of 300 Petri dishes (90mm), a rapid pouring rate of 600 agar plates per hour and automatic stacking, providing efficient 'hands-free' plate preparation.

The addition of a mixer below the carousel allows the automatic rotation of the dishes in a standardised sequence to ensure even distribution of sample throughout the medium. If the agar is supplied from an APS preparator, the dispensing temperature can also be specified to ensure optimal conditions for bacterial growth. If required, the plates can then go through the **APS 300** a second time to have an overlay added.

The **APS 300** can store up to 40 programs and an optional printer allows the generation of reports. Operation and programming is easy and with sophisticated features, a low purchase price and minimal maintenance costs, the new 'mixing version' represents excellent value.

## Quality assurance for spiral platers

To ensure optimum quality control in all areas of microbiology, **Don Whitley Scientific** operate a dedicated quality assurance scheme for the UK users of their Spiral Plater.

The "Quality Counts" scheme is simple to administer and has been specifically designed to provide a regular assessment of Spiral Plater performance. Participating laboratories each receive a control sample on a monthly basis, which is plated according to a standard protocol. Results are simply recorded on the supplied report form and returned to **Don Whitley Scientific**.

The company's Technical Centre then compares the results to an assigned value for that distribution, using an AOAC/ISO and IUPAC approved International Harmonised Protocol for Proficiency Testing. By using an accepted statistical technique, any results which fall outside an acceptable range can be highlighted.

Participating laboratories are then informed whether or not their instrument is performing within specification. Any customers whose results are shown to be unacceptable are offered technical support and advice, training or service facilities, as appropriate.

A unique calibration service is also available for Spiral Platers. Instruments can be serviced by specialists at **Don Whitley Scientific**, on either a "one-off" or contract basis. After each service, a Calibration Certificate is issued, ensuring that laboratories comply with today's Quality Standards such as BS 5750, which demand that all equipment used in the quality process is certified to confirm calibration.

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## Efficient and reliable sample dilution assured with the Dilumat 3®

The microprocessor-controlled **Dilumat 3®** from **Don Whitley Scientific** offers the busy laboratory fast and accurate sample dilution, saving valuable time and ensuring reliable performance.

Efficient and easy to operate, it brings a high level of automation and flexibility to sample dilution, preparing accurate dilutions of both liquid and solid samples. Samples weighing between 5g and 1.5kg can be diluted in the range 1:2 to 1:50.

Guided by a straightforward question and answer sequence on the display, the operator simply programmes the dilution factor required. The **Dilumat 3®** then weighs the bottle, flask or homogeniser bag containing the sample and automatically calculates and dispenses the exact volume of diluent required. No additional programming is required for serial dilutions.

The homogeniser bag holder has been designed to prevent accidental spillages and is readily removable for easy cleaning. For added flexibility, **Dilumat 3®** has two pump heads which can be independently programmed for different dilutions, and operators can switch easily between the two.

The optional printer generates a report which records sample information and this can also include date, time and operator identification. In providing traceable data, the dilutor helps laboratories meet the need for compliance with regulatory authorities.

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## **Microlog identifies widest range of organisms**

The **Microlog** microbial identification system from **Don Whitley Scientific** now offers the most comprehensive database available. The only system to identify an extensive range of animal, human and plant pathogens, the versatile **Microlog** has been upgraded to ensure even easier and more accurate identification.

The new database currently includes more than 1400 species, covering Gram Positives, Gram negatives, Anaerobes and yeasts. A new and unique panel for Filamentous Fungi will be added in May 1999, confirming Microlog's commitment to supporting all areas of microbiology.

Responding to customer feedback, the system has been upgraded to offer significant benefits in terms of flexibility and performance. With enhanced software and improved chemistries, **Microlog** provides rapid and accurate identification, streamlining laboratory workflow and improving efficiency.

New Windows based software makes programme navigation easier and more intuitive for simple operation. It also allows users to track the kinetics of reactions which may provide an early indication of identification.

The upgrade is now standard on all new models and existing systems can be easily updated to the new version.

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## Simple, rapid testing for food pathogens

Microbiology specialists **Don Whitley Scientific** have signed an exclusive agreement with Sanofi Pasteur to market the new PROBELIA™ **PCR System** in the UK. Developed specifically for food testing, Probelia introduces the first rapid methods for the detection of the major food pathogens, Salmonella, and Listeria monocytogenes.

Offering highly sensitive and specific 'next day' results, the system offers significant benefits over conventional isolation and identification techniques. Combining the speed and accuracy of Polymerase Chain Reaction (PCR) with the convenience and familiarity of microplate methodology, the tests are simple to perform in the laboratory.

PCR is used to amplify highly specific, patented sequences of genetic material which are then detected using a single step microplate assay. All of the tests follow the same straightforward protocol and can be performed on any food product including meat, eggs, dairy, fish, vegetable and animal feeds.

Extremely low levels of bacteria can be detected directly in prepared samples, eliminating the need for lengthy culture techniques. Following initial enrichment, results are available in just a few hours as compared to days for traditional methods. Only one pipetting step is required to perform PCR as the Probelia buffer includes all of the components required for optimal results. Possible sources of cross contamination are enzymatically inactivated and an internal control alerts users to inhibitory factors.

The Probelia **PCR System** complements **Don Whitley Scientific's** extensive range of products for the food laboratory which includes the AES homogeniser, Dilumat diluter, WASP spiral plater, Protocol counter and the RABIT automated impedance system.

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## **Don Whitley introduce first PCR salmonella tests**

The first PCR test for the rapid detection of Salmonella in food samples is now available from microbiology specialists **Don Whitley Scientific**. The PROBELIA™ **PCR system** from Sanofi Pasteur offers the food industry and quality control laboratories a powerful tool for routine and reliable testing of food pathogens, including Salmonella sp.

Highly accurate results are available within 24 hours, offering a significant benefit over conventional 'rapid' isolation and identification techniques which are dependent on bacteria growing to a minimum detectable limit. Combining the speed and accuracy of Polymerase Chain Reaction (PCR) with the convenience and familiarity of microplate methodology, the tests are simple to perform in the laboratory.

PCR is used to amplify highly specific, patented sequences of genetic material which are then easily detected using a single step microplate assay – a familiar and proven format which provides an objective numerical read out without the need for special equipment..

All of the tests follow the same straightforward protocol and can be performed on any food product including meat, eggs, dairy, fish, vegetable and animal feeds. Extremely low levels of bacteria can be detected directly in prepared samples, eliminating the need for lengthy culture techniques. Only one pipetting step is required to perform PCR as the PROBELIA™ buffer includes all of the components required for optimal results. Possible sources of cross contamination are enzymatically inactivated and an internal control alerts users to inhibitory factors.

The PROBELIA™ **PCR System** complements **Don Whitley Scientific's** extensive range of products for the food laboratory which includes the AES homogeniser, Dilumat diluter, WASP spiral plater, Protocol counter and the RABIT automated impedance system. Each PROBELIA™ kit includes all the reagents necessary for 96 tests.

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## Automated zone sizing from Don Whitley Scientific

**Don Whitley Scientific** has launched **ProtoZONE**, a brand new system for the automated measurement of antibiotic susceptibility in clinical microbiology laboratories. Accurate, reliable and reproducible, it introduces new levels of efficiency and performance at a highly competitive price.

Responding to growing concern over antibiotic resistance **ProtoZONE** has been developed by imaging specialists Symbiosis in conjunction with leading UK laboratories. Specifically addressing the need for more accurate monitoring, the new system overcomes the problems commonly associated with zone measurement such as incomplete bacterial lawns and merged or incomplete zones.

Combining a standardised method of sample analysis with sophisticated zone measurement technology and advanced data analysis, **ProtoZONE** automatically reads over 95% of zones and rapidly stores results in a collated database for trend analysis.

At least 10 times faster than manual methods, **ProtoZONE** increases laboratory efficiency while providing the consistently accurate results which are essential for collaborative studies. Easy to use and maintain with a proven successful design, the system has optional CD storage for images and data plus first class technical support and free software upgrades.

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## Evaluation confirms sampler performance

An independent evaluation of air samplers by the Biosafety Investigation Unit at CAMR has shown the **AES Sampl'Air** to be a highly efficient device for sampling micro-organisms in air. Available in the UK only from exclusive agents **Don Whitley Scientific**, the unit provides accurate air quality determination in any situation.

Measurement of microbial loading is essential in many sites including pharmaceutical and medical device manufacture, operating theatres and food processing facilities. These environments would expect to have low numbers of organisms making quantitative assessment difficult.

**Sampl'Air** offers a convenient and effective solution, utilising a high performance suction device to draw in and impact organisms onto standard 90mm agar plates. After the sampling, plates are incubated and the colonies counted.

With the option to control flow rate and sampling time, the convenient to use **Sampl'Air** has the flexibility to accommodate different microbial loadings, a 'high speed' sampling mode allowing the greatest number of particles to be collected.

When compared with membrane filtration and Casella slit-to-agar samplers during the CAMR evaluation, **Sampl'Air** demonstrated the highest efficiency in collecting micro-organisms.

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## **Advanced new spiral plater from Don Whitley Scientific**

The **WASP** ( **Whitley Automatic Spiral Plater** ) from **Don Whitley Scientific** have developed in response to the changing needs of their customers. It represents a radical new approach to plater design, introducing several unique features for enhanced flexibility and ease of operation.

WASP set up is minimal, with the option to select and 'lock' user defined parameters of sample volume, variable or uniform deposition, fill mode and plate size. A single keystroke then initiates the complete cycle, including loading of sample, plating out and cleaning.

The microprocessor-controlled sample syringe has a capacity of 250 µl which offers many possibilities for total volume dispensed and a consequent increase in the machine's sensitivity range. Micro-processor control has the added benefits that multiple plates can be inoculated without the need to refill the syringe, and the choice of uniform or variable deposition modes is available for all possible sample volumes.

WASP will inoculate a plate at the fastest speed possible for any particular volume, carefully optimising the centrifugal force to ensure that sample is not pushed to the edge of the plate. After inoculation is complete, the cleaning cycle is automatically initiated, drawing upon fresh sterile water and 5% hypochlorite to guarantee effective sterilisation of the tip. Users can be removing one plate and preparing the next whilst cleaning is underway, so streamlining operation.

All parameters of syringe, carriage and turntable travel are continually monitored by WASP's CPU and can be accessed by DWS service engineers. The results are then compared to factory settings, generating valuable calibration data essential for today's quality standards.

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