

Speedy Breedy: the world's most versatile portable microbial respirometer



www.speedybreedy.com

Speedy Breedy is an easy to use compact portable research and development instrument for microbiologists in industry and academia who are interested in investigating, measuring and observing microbial behaviour in liquid or macerated solids.

Speedy Breedy assists researchers to develop products and techniques where the presence or absence of microbes needs to be understood, prevented or encouraged.

Speedy Breedy is a single (test versus control or aerobic plus anaerobic), or dual sample, two chamber instrument. Speedy Breedy maintains culture conditions within purpose designed, disposable culture vessels. Samples are inoculated into the culture vessel and Speedy Breedy closely controls growth conditions to a pre-determined protocol in order to facilitate rapid replication of cells or microbes.

Speedy Breedy's robust, disposable 50ml culture vessel eliminates the need for cleaning of potentially hazardous

bottles. A range of media can be used in Speedy Breedy including known or proprietary formulations.

Speedy Breedy's design reflects the need for safety and effective containment with advanced pressure sensing using a non-invasive process. This isolates the sensors but more importantly forms a barrier to protect both the biological culture and the operator.

Speedy Breedy can be used to rapidly test potentially detrimental contaminants, growth and metabolic promoters or inhibitors in a near real time controlled environment.

Speedy Breedy can be used independently or connected to a PC. Using the PC researchers can design and download pre-determined protocols to Speedy Breedy and upload experimental results for analysis. Speedy Breedy also has a removable SD card for field research. Connecting Speedy Breedy to a PC enables data visualization so that researchers can monitor experiments in near real time.

Speedy Breedy is extremely compact, weighing just 2.75 kilos it's portable and operates on 12V dc and mains adapters.

Culture vessels are supplied sterile (gamma irradiated) in protective packaging.

Features

- Two temperature controlled incubation chambers
- Purpose designed culture vessels with advanced mixing and temperature control for optimised growth and detection of microbial activity
- Sealed, easy to populate culture vessels
- Suitable for use with a wide range of sample types
- Temperature controlled 14 to 44 degrees
- A highly sensitive, non-invasive detection system that delivers rapid results
- Barrier protected sensors for reliability and safety
- PC (Windows compatible) software front-end that enables near real time visualisation of experiments when connected to Speedy Breedy
- Self monitoring and calibration
- Customised protocols designed off-line and downloaded to Speedy Breedy
- On board 2GB SD card for experimental results storage
- USB connection.

Speedy Breedy unit: 31 cm





Benefits

- Can be used independently for field research or in the lab connected to a PC
- Enables visualisation of microbial activity in near real time
- Enables researchers to use a wide variety of culture media
- Does not require a large capital investment
- Configurable to allow for comparative testing using a test vs. control protocol or two experiments
- Speedy Breedy's robust, disposable culture vessels eliminate the need for cleaning of potentially hazardous bottles.

Specification

Weight of unit: 2.75kg

Height: 13.3cm Width: 31cm Depth: 11.2cm

The technology behind Speedy Breedy

Speedy Breedy is a sensitive, precision respirometer and detector of microbial activity. Detection of metabolic activity is determined by pressure transients relating to gaseous exchanges within a 50 ml closed culture vessel as a result of microbial respiration.

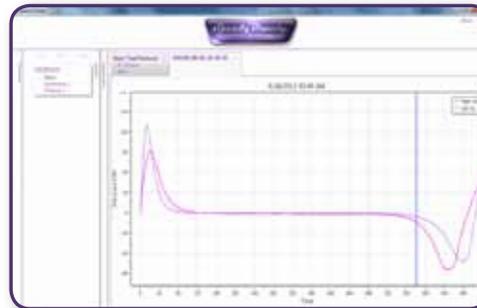
Speedy Breedy has advanced mixing technology that efficiently homogenises culture conditions and rapidly converts gaseous exchange due to metabolic processes into detectable pressure transients.

Speedy Breedy measures both positive and negative pressure meaning that monitoring can be performed on a range of microbial processes reacting to differing conditions within the culture chamber.

Screenshot of software front end on PC



Example curves produced by Speedy Breedy software



Culture vessel

Culture vessels in incubation chambers



Control panel and display

You should buy Speedy Breedy if you:

- Work in microbiological research in industry or academia
- Are interested in microbial activity or contamination testing
- Are interested in how metabolic enhancers or inhibitors behave
- Are interested in growth and surveillance of starter cultures, yeasts or bacteria
- Work with high cell density research scenarios such as cell cultures, wastewater research, or fermentation
- Work with low cell density situations such as research into contamination in health and beauty, food and beverage or pharmaceutical products
- Are interested in developing sterilisation products.

BACTEST: turning biological activity into data

BACTEST designs develops and markets microbial respirometry products based on its proprietary patent pending technology platform. BACTEST's products are proudly manufactured in England.

Speedy Breedy is a registered trademark of BACTEST Limited, St. John's Innovation Centre, Cowley Road, Cambridge, CB4 0WS, UK

Distributor: Protecnica Solutions Ltd, Colchester, CO6 1JS, UK
Tel: +44(0)1206 211921 Email: info@protecnica.co.uk
Web: www.protecnica.co.uk