

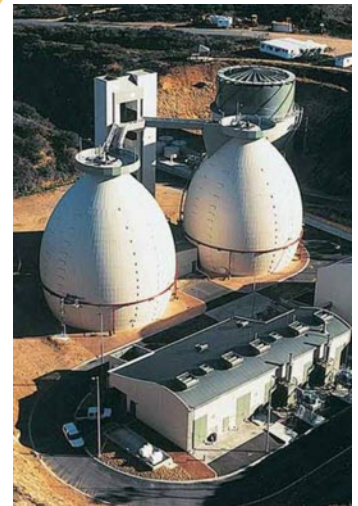


## ANOROBI RESPIROMETRY

# RespSys: MPA-208



8 cell liquid system



### Features:

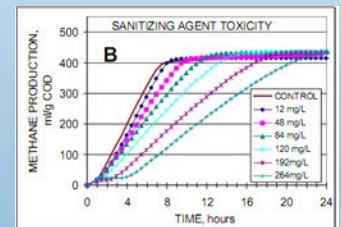
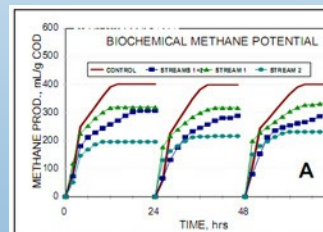
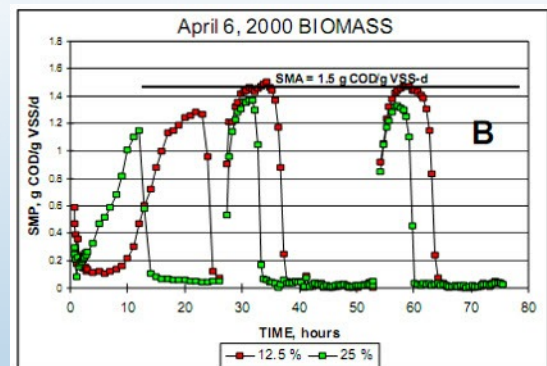
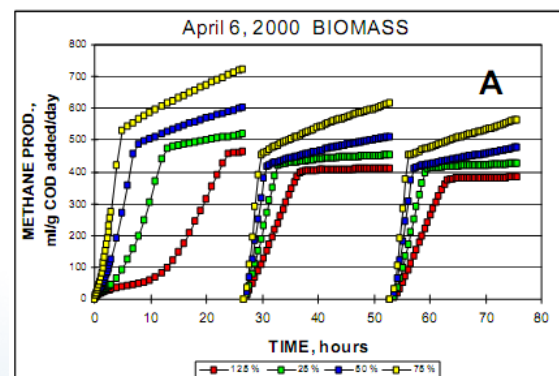
- 8 bottle modules
- Magnetic stirrer bases & bars
- Up to 2 modules run on one interface module.
- Optional thermostatically controlled heater/cooler units
- Interfaces to supplied computer
- Preloaded software

### Benefits:

- Measures health of existing sludge cultures
- Assesses toxic affect of single & sequential discharges
- Predicts gas/energy production
- High Resolution & accuracy

### Applications:

- Tanker discharge monitoring
- Digester management control
- Digested or lagoon sludge stability testing
- Toxicity testing



**RespSys: MPA 208** is a multi-bottle dedicated anaerobic respirometer for the laboratory measurement of gas production rate or methane production rate in anaerobic environments. The principal of operation is very simple, i.e. counting numbers of gas bubbles, the volume of which has already been calibrated under standard conditions. Bubble counting is achieved by detecting the interruption of an IR light beam by a photosensitive cell. Each respirometer system comprises four elements:

reactor vessels +stirrers and temperature control, Bubble counting module, interface module, and computer. 3 bottle sizes and two flow cell sizes are available, and either heating only or heating+cooling systems may be provided. Windows Software is supplied preloaded on the supplied computer, and data files may be manipulated in excel if required. Graphs, tables & reports may be printed out directly. The gas production & rate of production may be viewed in real time on screen. Up to two 8 bottle bases may be deployed at the same time with just one interface.



## System Specification

AER – 200:

**Operational Principle:** Gas production measurement using gas bubble counting techniques.

**Equipment items:** 8 cell flow measuring module  
Interface module  
Computer/keyboard/monitor  
MS8-300 Magnetic stirring base  
Water Bath + Cover (optional)  
Temperature control module (optional)  
Reaction vessel size: 125ml – 1l  
Electrical requirement: 110-240VAC 50-60 Hz  
Temperature of operation: 5-70 °C  
Read out interval: 1-720 mins

**Computer System:** 500Mb hard disc drive minimum  
SVGA colour monitor  
USB sockets

**Data Format:** Cumulative gas flow in ml  
Gas flow rate in ml/hr or mg/hr  
Real time charts and tables  
User selectable channels for display in one chart/table.  
ASCII format (filename.csv) for direct import into excel and equivalent.

## System Performance

### Anaerobic Cell

Min flow detection	Normal cell	0.06ml
	Hi Flow cell	0.12 ml
Max flow capacity	Normal cell	650ml/hr
	Hi Flow Cell	1250ml/hr
Calibration precision		< 2% Cv
Measurement precision		<3% Cv

## Ordering Information

When placing an order it is important to indicate the following requirements to our sales staff:

1. Is the application for aerobic, anaerobic or solid phase application?
2. What reactor sizes are required (std. 500ml), 125ml, 250ml, 1l, also available
3. Is a water bath required?
4. Is heating only or heating and cooling required?
5. Is the standard flow cell or anaerobic flow cell required (540 and 1500 ml/hr max respectively)
6. How many base units are required?
7. What distance is required between flow cells and interface box?

**Supplied by:** Envitech Ltd. Unit S7, Capital Business Park, Parkway, Cardiff, CF3 2PU  
Tel: 02920 364252, Fax 02920 369876, E-mail: sales@envitech.co.uk

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