



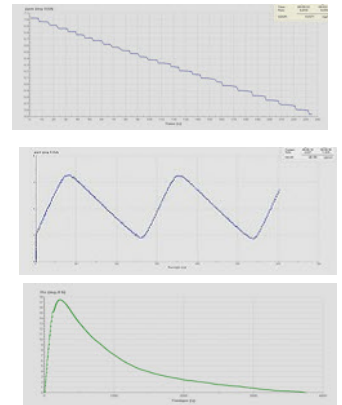
WASTE WATER RESPIROMETRY

RespSys: BMT



Thermostatic control bath

Reactor vessel



Static Mode: Single D.O. decay curve
Cyclic Mode: Repeated decay curves
Dynamic Mode: Substrate respiration rate curve

Features:

- Internal Air compressor
- Maintenance free DO probe
- Small with carry case
- Separate thermostatic control system
- "Open" system
- Three operational modes

Benefits:

- Not O₂ limiting enabling long term measurement
- Easily transportable
- Easy to use
- Low maintenance
- No gas cylinders required
- Automatic Respirogram generation
- Test substances may be added at any time
- Total oxygen uptake and respiration rate at any time may be viewed

Applications:

- Municipal & Industrial ASP monitoring for sludge activity
- Toxicity testing
- Influent treatability testing
- Determination of Kinetic constants for modelling
- Nitrification assessment
- Determination of easily degradable fractions
- Oxygen requirement determination



Typical Application: ASP process control

RespSys: BMT is a single bottle aerobic respirometer for the laboratory measurement of oxygen consumption rate and derived parameters in aerobic cultures. It is an open system, allowing additions of test substances or nutrients throughout the testing period, unlike those respirometers based on pressure reduction techniques. It also supplies air to the culture, hence never being oxygen limiting like some simpler barometric systems. The measurement principal is that of DO concentration measurement over time. Temperature stability is achieved by circulating water from an external thermostatic bath through a cooling/heating jacket round the reactor.

Three modes of operation are available: a. Static - this just measures a single oxygen decay of a pre-aerated sample, giving the OUR or SOUR for that sample. Very useful for rapid checks on ASP functionality. b. Cyclic – This measures multiple oxygen decay curves between fixed DO set points, allowing construction of a long term respirogram. c. Dynamic – This measures the variation in respiration rate through the treatment of a sample. Max respiration rates are determined as are total oxygen demands. It is particularly useful for rapid comparative tests, cumulative oxygen requirement tests, relative bioactivity tests, Kinetic parameter determinations.



System Specification

BMT:	Batch, closed circulation circuit, laboratory respirometer
Operational Principle:	Measurement of DO consumption with time using an electrochemical DO probe.
Range:	0-600mg/l.h
Repeatability:	+/- 0.5% (under identical conditions)
Respiration rate accuracy:	1-2%
Oxygen uptake accuracy:	2-5%
Min response time for Rs:	1 sec
Equipment items:	1 jacketed Reactor vessel Optional external thermostatic bath and circulator PC + operating software (provided) Interface for PC Circulating pump DO sensor and transmitter (built in) Electrical requirement: 230VAC 50 Hz, 3A (excluding water bath) Analyser dimensions – 340x330x460mm (wxdxh)
Thermostatic water bath:	dimensionslxbxd: 70x40x45mm Weight: 25Kg Capacity 13l Circulation rate: 12l/min max Power: 230V/50Hz, 1.5kW Temp range: 0-60 deg C – stability 1 deg C
Computer System:	Program environment: - Windows 2000, XT, NT, Vista File Types: rsn (BM-T) & CSV (Excel) Windows compatible Security file generation – Automatic Personal file generation – BM-T program storing mode Data entry – via PC keyboard

System Features

<ul style="list-style-type: none">Individual assay configurationsOpen assay system – allowing substance addition during assayGraphic and tabular data displayZoom capability on graphicsRespirogram overlay capability – for easy comparisonsManual input of VSS – to permit SOUR calculationUser programmable data collection rateAuto temperature control and displayData export in excel format – for easy manipulation and reporting
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Ordering Information

<p>When placing an order it is important to indicate the following requirements to our sales staff:</p> <ol style="list-style-type: none">1. Is the application for aerobic, anaerobic or solid phase application?2. Is a water bath required?3. Is heating only or heating and cooling required?4. Is a transportation case required?

<p>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</p> <p>Note To End Users : These specifications are subject to change at any time without notice. Envitech Ltd takes no responsibility for the use of these figures. Please consult Envitech Ltd for the latest specifications before using them in tender submissions or third party quotes... Envitech Ltd reserves the right to change specifications without prior warning. All quoted figures are based on test conditions and are subject to variation due to site conditions.</p> <p style="text-align: center;">www.envitech.co.uk</p>
