SURCIS S.L.
Encarnación, 125 – Barcelona
Tel. +34 932 194 595 Fax. +34 932 104 30
E-mail: surcis@surcis.com URL: www.surcis.com
VAT number: ESB63183248

Surcis is a Spanish company specialized in the design, manufacture and marketing of a line of respirometry systems.

For marketing reasons, Surcis has designated the name "BM Respirometry" for the technology used in the systems it currently manufactures.

BM Respirometry is based on already known technological lines of laboratory respirometry used in other respirometry systems already present in the market. However, these lines have been subjected to a process of improvement and development in Surcis which have given rise to special features that make it unique in the market.

Surcis is currently manufacturing the following BM Respirometry Systems: BM-T+, BM-EVO, BM-EVO2, BM-Advance, BM-Advance2, BM-Advance Pro. All these systems consist of analyser, computer and software (loaded on the computer)

Surcis is the only one company in the world manufacturing the BM Respirometry Systems and currently has well over one hundred systems sold worldwide.

Technical specifications to consider the technology used in BM Respirometry as Unicity

The main reasons that give BM Respirometry the "unicity" are the state of the art design of the reactor assembly and the inclusion of the R mode of operation as one of the three operation modes included in the measurement system:

1. Reactor assembly

   The reactor is divided into two chambers (aeration chamber and measurement chamber) connected by a recirculation flow throughout one-way membrane. This exclusive design allows the biological reaction it to be protected from atmospheric air interferences and to operate in LSS (Liquid-Liquid-Static) and LFS Liquid-Flow-Static) respirometry modes.

2. R mode of operation

   The main features of the R mode are the following:
   - Ability to directly measure a continuous chain of the exogenous respiration rate (Rs) exclusively linked to the substrate removal, disregarding the endogenous respiration.
   - The uninterrupted series of Rs results, are automatically calculated as the biological reaction of the substrate with the activated sludge (or any other biomass or microorganisms culture) is carrying out.
   - From Rs measurements, the software linked to the R mode automatically calculate the following parameters in a single test: exogenous respiration rate (Rs), specific exogenous respiration rate (Rsp), total or partial consumed oxygen (CO), biodegradable COD (bCOD) or readily biodegradable COD (rbCOD - when making use of soluble sample -), COD utilization rate (U) and specific COD utilization rate (q)

Other important specifications of the BM Respirometry

- Three different operation modes on the same software: OUR, Cyclic OUR and R.
- Automatic software updated versions from internet.
- Ability for different test conditions on temperature, recirculation flow, aeration, oxygen (in Cyclic mode), sample/sludge volumes ratio (in R mode) and pH (only in BM-Advance models)
- Software ability to set some conditions and modify them throughout the test run.
- Last, minimum, maximum and moving average results display at any moment during the test run.
- Automatic results and measurements display in graphic mode (respirogram), tabular, details, and punctual (by clicking on the graphic)
- Option to open several respirograms from the saved tests and overlay them for comparison purposes. - This option can also be extended to the current test. –
- Option to install a special reactor assembly (designed by Surcis) for BM Respirometry applications to moving beds bio-films (MBBR) and granular biomass.