Diachrom
BIOTECHNOLOGY

MBR / SBR
REACTORS

Diachrom
BIOTECHNOLOGY

Rathaustrasse, 7
6340 Baar, ZG,
Switzerland
T/+41 (0) 41 768 91 19
F/+41 (0) 41 768 91 10
www.diachrom-biotech.com sales@diachrom-biotech.com

DIACHROM BIOTECHNOLOGY **MBR / SBR REACTORS**

Diachrom Biotechnology configure special systems for MBR/SBR processing.

SBR sequential batch reactors are industrial processes for the treatment of wastewater. SBR reactors treat waste water such as sewage or output from anaerobic digesters or mechanical biological treatment facilities in batches. Oxygen is bubbled through the waste water to reduce biochemical oxygen demand (BOD) and chemical oxygen demand (COD) to make suitable for discharge into sewers or for use on land.
While there are several configurations of SBRs the basic process is similar. The installation consists of at least one or two identically equipped reactors with a common inlet, which can be switched between them. The tanks have a “flow through” system, with raw wastewater (influent) coming in at one end and treated water (effluent) flowing out the other. While one tank is in settle/decant mode the other is aerating and filling. At the inlet is a section of the tank known as the bio-selector. This consists of a series of walls or baffles which direct the flow either from side to side of the tank or under and over consecutive baffles. This helps to mix the incoming Influent and the returned activated sludge, beginning the biological digestion process before the liquid enters the main part of the tank.

SPECIFICATIONS

- Pre-configured our custom made packages available
- Culture vessel 3L, 5L, 7L, 10L, 15L total volume.
- Projects over 20L scale
- Double jacketed or single wall vessels available
- LED light sources with adjustable intensity available
- DIA-BENCH with HMI (human interface touch screen) allow full control of pH, DO, temperature, foam, level, redox, up to 8 autoclavable peristaltic pumps variable or fix speed, gas mixing and gas flow rate with up to 8 MFC’s or rotameters.
- LED light sources with adjustable intensity available
- Advanced control functionalities include extra inputs like pressure, balances, online biomass, gas analyzer and others.
- Our parallel bioreactors concept allow up to 12 MBR-SBR reactors to be controlled simultaneously
- HMI human interface touch screen, choose between One Touch interface for multiple reactors or an independent HMI interface for each reactor.
- DIA-NET SCADA software is a power full supervisory and data acquisition software engineered by Diachrom Biotechnology to fully manage and control up to 18 reactors online.