

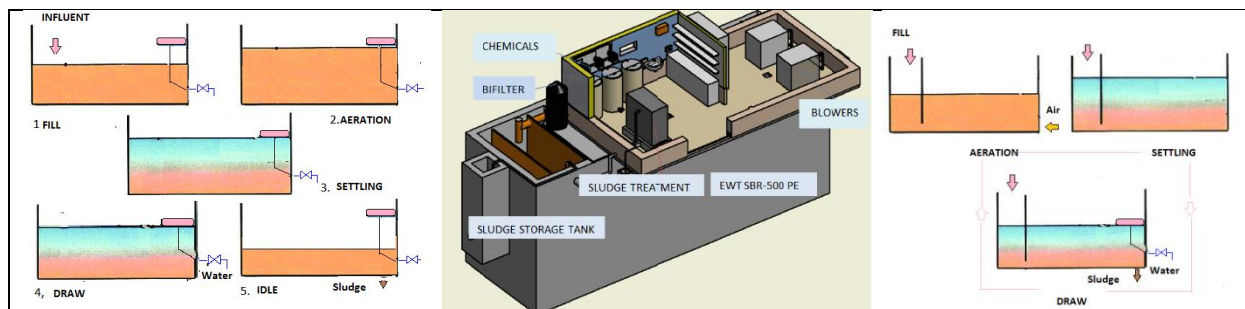
EWT - SEQUENCING BATCH REACTOR TECHNOLOGY

APPLICATION

Sequencing batch reactor technology is applicable for any municipal or industrial waste where conventional or extended aeration activated sludge treatment is appropriate, "the SBR is no more than an activated sludge system which operates in time rather than in space. SBR technology has the advantage of being much more flexible than conventional activated sludge processes in terms of matching reaction times to the concentration and degree of treatment required for a particular wastewater. For example, the SBR process allows for the following adjustments to be made in addition to those (such as sludge age and operating mixed liquor solids concentration) that can be made in an equivalent conventional process:

- total cycle duration
- duration of each phase within the process cycle
- pattern of inflow
- dissolved oxygen profile during aeration
- operating top water level
- operating bottom water level

Hence changes in wastewater characteristics over time may be readily accommodated in the SBR process.



The various phases in a typical SBR process cycle usually comprise the following:

1. Fill - Wastewater enters the SBR tank and mixes with activated sludge mixed liquor solids within the tank.
2. Mixed Fill - Influent wastewater and activated sludge are mixed together to produce anaerobic / anoxic conditions in biological nutrient removal (BNR) systems.
3. React - Aeration of the tank contents. Biological reactions occur until the desired degree of treatment has been achieved.
4. Settle - Aeration is stopped and the activated sludge solids settle to form a blanket on the base of the reactor vessel, leaving an over-layer of treated effluent.
5. Decant - Clarified treated effluent (supernatant) is removed (decanted) from the tank without disturbing the sludge blanket.
6. Idle - Unexpired time between cycles. Wasting of excess activated sludge occurs.

Completion of these phases constitutes a cycle, which is then repeated.

PREIS

SBR-p.e. population equivalent	Preis (Euro)	SBR-p.e. population equivalent	Preis (Euro)
SBR 3-5	2.200	SBR 26-30	6.200
SBR 6-10	2.800	SBR 31-40	8.700
SBR-11-15	3.900	SBR 41-50	9.900
SBR16-20	4.900	SBR 51-500	Preis on request
SBR 21-25	5.900		

Pricing : Preises Base Year 2015, The prices are net , ex works , unpacked, without charge , without installation , without commissioning , excl .of the time of delivery applicable VAT

Scope of supply: Control panel, Air Blower, transport system for clarified water and inlet water and containers.

Price Validity : The prices apply only to facilities for the treatment of domestic waste water and effluent values of small wastewater treatment plants (for a Standard case CSB 150 mg / l , BOD5 40 mg / l , for a nitrification case COD 90 mg / l ,BOD 5 20 mg / l , 10 mg NH4-N / l) prices for other types of waste (restaurant sewage , industrial waste water or the like) are available on request