

BioPAK® SBR

› PACKAGED WASTEWATER TREATMENT SYSTEM

The BioPAK® SBR (Sequential Batch Reactor) system provides an effective and economical solution for the treatment of various types of wastewaters. The fill-and-draw SBR process has been well proven over many years and is now further refined through the use of modern electronic probes and process controls. Consistently high removal rates are obtained allowing regulatory effluent discharge requirements to be reliably met. Our pre-packaged plug-and-play plant control room makes on-site plant deployment a simple and straightforward task. Ideally suited to remote installations where on-site works must be minimized.

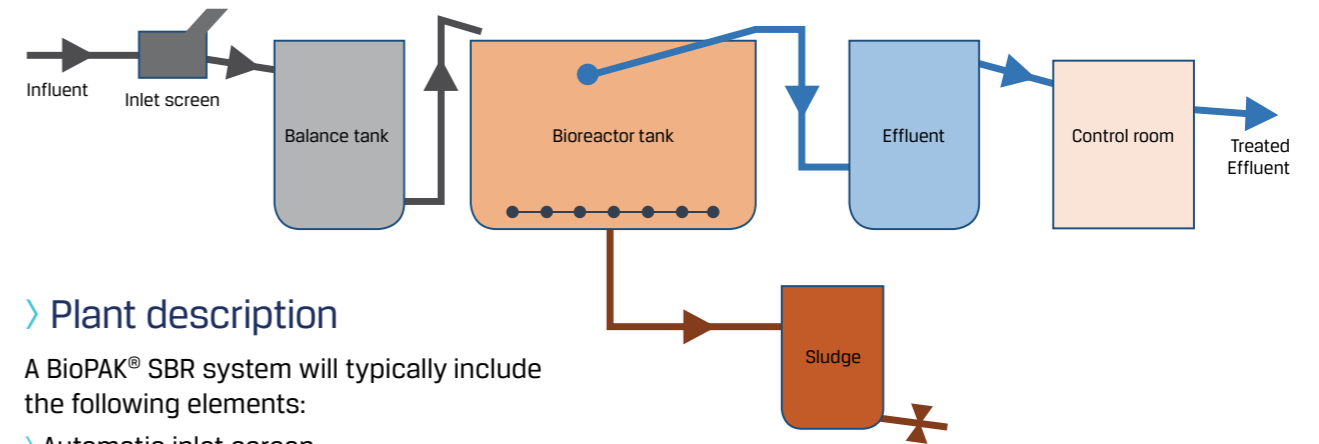
› Key features

- › Plug and play system
- › Factory pre-tested
- › Simple proven design – ideal for remote locations
- › Automatic influent screening
- › Aeration options to suit plant requirements including jet aeration, radial aeration and fine bubble diffusers
- › Optional tertiary treatment including media filtration, UF membranes etc

- › UV and/or Chlorine disinfection
- › Effluent monitoring equipment
- › Pre-programmed PLC system with HMI
- › Remote monitoring and control for minimum operator supervision

MBR Technologies maintains an experienced installation and construction crew dedicated to field-erected SBR projects.

Optional tertiary treatment including media filtration, UF membranes etc.



› Plant description

A BioPAK® SBR system will typically include the following elements:

- › Automatic inlet screen
- › Influent balance tank
- › Bioreactor tank
- › Effluent receiving tank
- › Waste sludge receiving tank
- › Control room with associated pumps, blower and valves.

› Applications

Municipal, Mining, Defence, Food & Beverage, Pulp & Paper, Petrochemical, Landfill/Leachate and Textile industries.

› BioPAK® specifications

MBR Technologies model:	Unit	SBR-50	SBR-100	SBR-200	SBR-300	SBR-500
Rated flow	m ³ /day	50	100	200	300	500
Operating temperature	°C	5°C - 40°C	5°C - 40°C	5°C - 40°C	5°C - 40°C	5°C - 40°C
Power requirements	Phase/ kW	3 phase *	3 phase *	3 phase *	3 phase *	3 phase *
Typical MLSS	mg/L	2,000 - 6,000	2,000 - 6,000	2,000 - 6,000	2,000 - 6,000	2,000 - 6,000
Design influent: BOD5	mg/L	300	300	300	300	300
COD	mg/L	600	600	600	600	600
TKN	mg/L	80	80	80	80	80
TSS	mg/L	450	450	450	450	450
TP	mg/L	15	15	15	15	15
pH		6.5 - 8.5	6.5 - 8.5	6.5 - 8.5	6.5 - 8.5	6.5 - 8.5
Expected effluent: BOD5	mg/L	< 10	< 10	< 10	< 10	< 10
Ntot	mg/L	< 20	< 20	< 20	< 20	< 20
TP	mg/L	< 10	< 10	< 10	< 10	< 10
TSS	mg/L	< 5	< 5	< 5	< 5	< 5
Turbidity	NTU	< 2	< 2	< 2	< 2	< 2
E.Coli	CFU/100mL	< 1	< 1	< 1	< 1	< 1
Inlet screening		YES	YES	YES	YES	YES
Screening aperture	mm	2.00	2.00	2.00	2.00	2.00
pH correction		Optional	Optional	Optional	Optional	Optional
Optional Tertiary treatment		Media/ Carbon	Media/ Carbon	Media/ Carbon	Media/ Carbon	Media/ Carbon
Aeration		Ejector or Diffusers	Ejector or Diffusers	Ejector or Diffusers	Ejector or Diffusers	Ejector or Diffusers
Control room		10' ISO **	20' ISO **	20' ISO **	20' ISO **	20' ISO **
Remote monitoring		YES	YES	YES	YES	YES
Auto waste off/sludge tanks		YES	YES	YES	YES	YES
Sludge filter press		Optional	Optional	Optional	Optional	Optional
Typical footprint	meters	10 x 10 ***	12 x 12 ***	15 x 15 ***	20 x 20 ***	30 x 30 ***

* Power consumption is calculated on application. For example, adding the options of control room airconditioning and post treatment may add an additional 4 kW.

** Separate chemical room may be required, dependant on the site requirements.

*** Dependant on site configuration.

Note that MBR Technologies reserves the right to change the specifications and performance at any time.