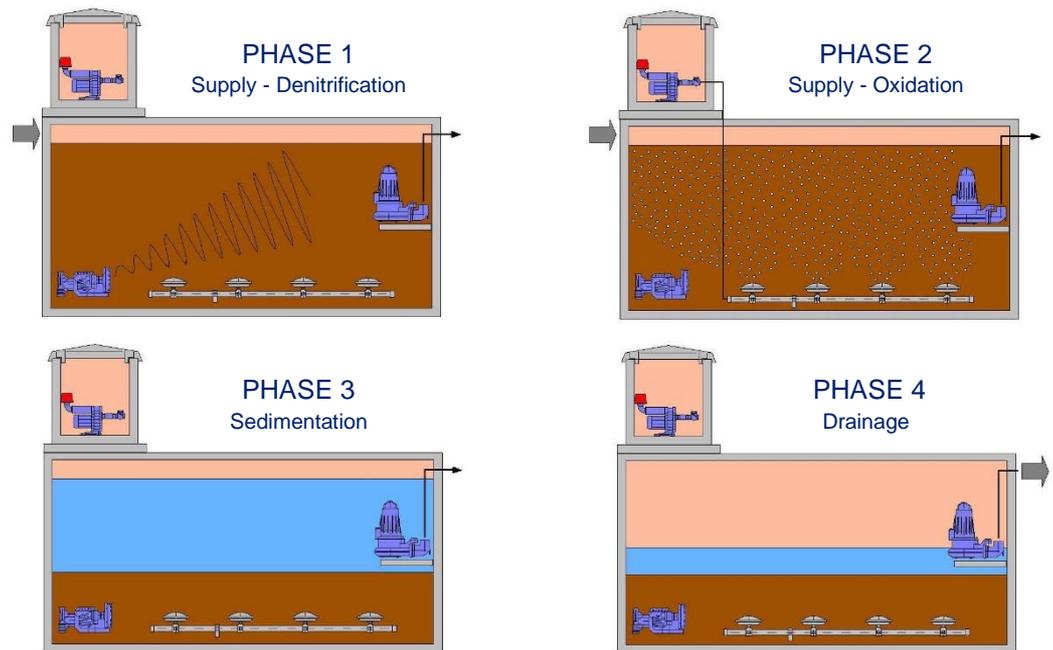




# Idrodepurazione

## SBR 50-200 series sequencing batch reactor biological purification plants

**Reinforced concrete mono-blocks for purification of sewage water of a biological nature with drainage in surface water for settlements up to 200 equivalent inhabitants with the SBR "sequencing batch reactor" process**



SBR series plants were designed in particular for treatment of discontinuous drainage with high nitrogen content such as: homes, hotels, restaurants, tourist resorts, shopping centres, artisan businesses, hospitals, industrial zones. *In particular, SBR biological purifiers were designed to ensure the surface water drainage limits, even for parameters relating to nitrogen, as outlined by legislation in force.*

The SBR (Sequencing Batch Reactor) system is based on sequential implementation of multiple treatment phases within one reactor. In this type of plant, the various purification phases composing the biological process (**denitrification - oxidation and nitrification with air, sedimentation**) are implemented in cycles in temporal succession inside a single reactor, which also acts as the storage tank. The SBR system, compared to a traditional active sludge plant:

- *executes all the treatment phases, in a single tank*
- *adapts to variations, even considerable ones of the pollutant parameters inbound*
- *guarantees very high purification performance*

The SBR system obtains an achievable result by simply varying the duration of the phases, in a traditional system, by increasing the volume of the tanks. It is therefore possible to adapt the plant to any waste water inbound by varying, on the panel, the length of the various periods composing a cycle.

### Specifications

**Supply of the pre-assembled purification plant with total oxidation and biological denitrification, type SBR 50-200, manufactured using a pre-fabricated mono-block in high strength, vibrated, reinforced concrete.**

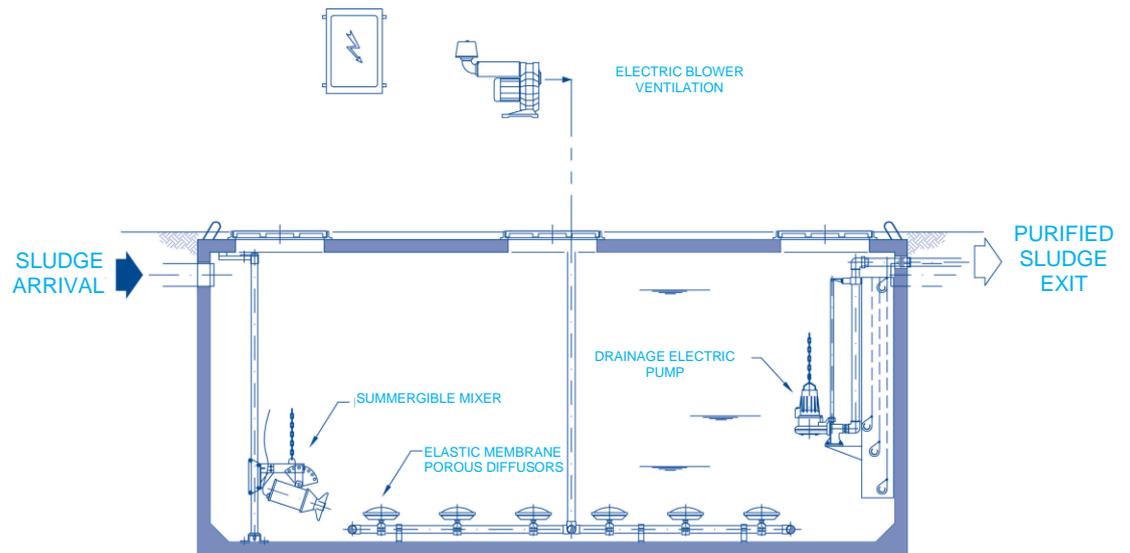
### The supply includes

Mono-block, parallelepiped-shaped tank, with sludge inlets and outlets and an inbound diverter partition. The supply comes complete with electromechanical equipment - side channel blower, diffusers, piping and fittings for air distribution, purified waste water drainage pump, mixer, electrical panel for command and safety, equipped with a remote motor protection switch and timer - and everything else necessary for correct operation of the plant.



# Idrodepurazione

## SBR 50-200 series sequencing batch reactor plants



Description	Unit of measurement	SBR series model							
		SBR 50	SBR 70	SBR 80	SBR 100	SBR 125	SBR 150	SBR 175	SBR 200
Inhabitants	no.	50	70	80	100	125	150	175	200
Daily flow rate	m <sup>3</sup> /g	7.5	10.5	12	15	18.8	22.5	26.3	30
Organic load BOD <sub>5</sub>	Kg/g	3	4.2	4.8	6	7.5	9	10.5	12
Nitrogen load	Kg/g	0.6	0.84	0.96	1.2	1.5	1.8	2.1	2.4
Length	cm.	325	325	408	408	560	720	720	860
Width	cm.	200	240	230	230	230	230	230	230
Height	cm.	250	250	250	280	250	250	280	280
No. tanks	no.	1	1	1	1	1	1	1	1
Tank weight	Kg	10,000	12,000	14,000	15,000	18,000	22,000	24,000	27,000
Tank volume	m <sup>3</sup>	11	13.7	16.7	19	23.2	30	34.5	41
No. blowers	no.	1	1	1	1	1	1	1	1
Blower air flow rate	Nm <sup>3</sup> /h	30	40	50	55	70	90	95	100
Power installed	kW	2.45	2.45	2.85	3.15	3.45	4.15	4.15	5.35

The values given are approximate. Idrodepurazione reserves the right to make changes at any time and without prior notification.

The data refer to measurements outside the tanks.

**On request, plants are available dimensioned for water flow rates and organic loads different to the standard ones of 150 l/l.E. per day and 60 gBOD<sub>5</sub> /l.E. per day.**

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