

## SEQUENCING BATCH REACTOR (SBR)

### ***DESCRIPTION***

The Sequencing Batch Reactor (SBR) is like an activated sludge treatment system whose operation is based on sequences of filling and emptying cycles. The processes for the elimination of the pollution are like in a conventional activated sludge process, both systems have aeration and sedimentation – clarification processes. The difference is that while in conventional active sludge, the processes are developed in two different stages (aeration in the biological reactor and decantation / clarification in the secondary decanter), in the SBR all processes take place at the same stage / tank.



***The SBR has the following advantages:***

- ✚ High quality of the effluent and less amount of suspended solids
- ✚ Higher endurance against sudden temperature variations
- ✚ Flexibility when the sewage flow is unsettled, allowing the adjustment in the conditions of the treatment cycles
- ✚ Low space requirement, only a single tank is needed to make the whole process
- ✚ High efficiency removing organic matter (BOD5 and COD) and nutrients (nitrogen and phosphorous)
- ✚ Great control over the growth of filamentous microorganisms and decanting problems.
- ✚ Lower investment costs. It doesn't need secondary decanters
- ✚ Compact design. Ideal solution for industries with few space

***Additional Benefits:***

- ✚ **Easy to transport** by its container structure.
- ✚ **Minimum civil works:** only small ditches and foundations.
- ✚ **Easy and quick** assembly, all its elements are inside the containerised structure.
- ✚ **Easy commissioning:** preassembled plant.
- ✚ **Easy operation:** reliable technologies and easy operation.
- ✚ **Centralized operation:** Electric control cabinet in the container structure.
- ✚ **Robust maintenance:** High quality equipment.
- ✚ **Mobile:** possibility of relocating the packaged plant

## CAPACITY/VOLUME

Flow (m3/d)	Number of containers
5	1 de 20 ft
25	1 de 20 ft
50	1 de 40 ft
100	1 de 40 ft + 1 de 20 ft
200	2 de 40 ft + 1 de 20 ft
300	4 de 40 ft
500	5 de 40 ft
1000	12 de 40 ft

