

CYCLAFLUX®

Sequential Biological Reactor (SBR) wastewater treatment

Belonging to the Sequential Biological Reactor type, **CYCLAFLUX®** is a biological process used to treat activated sludge.



Unlike conventional activated sludge processes, biological treatment and sludge settling are carried out alternately in the same structure. Therefore, this cyclic process uses 2 to 4 treatment tanks, with or without a buffer tank depending on the version.

As the various operations are no longer carried out in separate physical zones, but successively over time, greater flexibility of adjustment and optimization is now possible through automation.

FIELDS OF APPLICATION

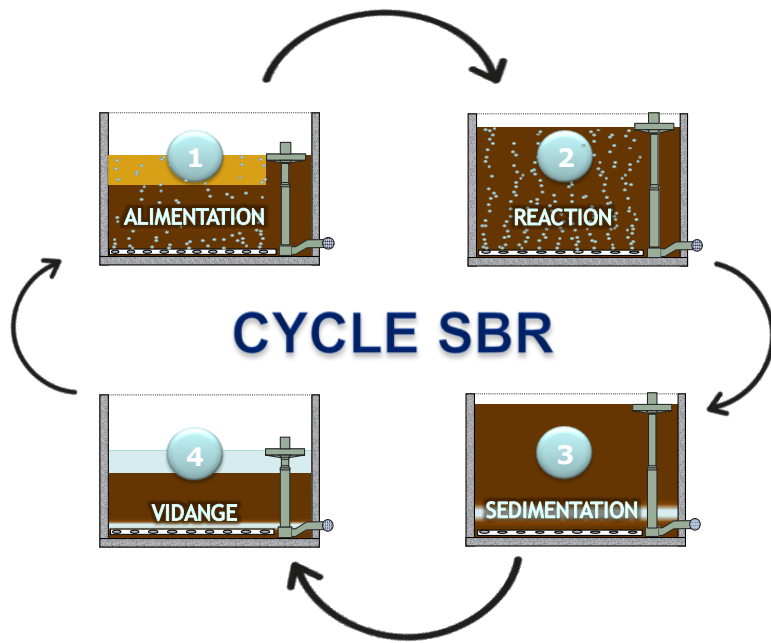
- Urban or industrial wastewater
- Restricted spaces
- Strong environmental constraints with extensive landscape or architectural integration
- Unfavorable soil conditions
- Treatment of carbonaceous pollution
- Complete treatment of nitrogen and phosphorus nutrients

PERFORMANCE

- Compact and easy to blend into building architecture.
- High treatment reliability thanks to sludge index control and operating conditions, high performance on suspended solids.

CYCLAFLUX®

SEQUENTIAL BIOLOGICAL REACTOR (SBR)



By integrating the clarification process into the biological treatment cells, **CYCLAFLUX®**:

- Saves space and makes it easier to integrate the plant on site;
- Facilitates the covering of biological treatment or its integration into a building with architectural treatment;
- Modularity makes it possible to manage maintenance periods and future extensions by adding cells
- Insensitive to hydraulic load "jolts"

In addition to the quality of the mechanical moving parts, performance reliability is enhanced by :

- **The control of sludge settleability** ; to this end, an "anti-bulking" bacteria selection device is integrated into the **CYCLAFLUX®** process. The selector improves the sludge index and helps maintain optimum dewatering performance.
- **Process control**, made possible by advanced instrumentation including measurements of dissolved O₂, ammonia, nitrates and sludge concentration.

In the case of biological phosphorus treatment, an anaerobic basin coupled with the contact zone and shared/mutualized is planned upstream of the treatment cells.

CARACTÉRISTIQUES

- **CYCLAFLUX® 2C and 4C**: 2 and 4 cells
- **CYCLAFLUX® 2CT**: 2 cells with buffer tank
- Anti-bulking device using selector switch
- Mobile weir for collecting treated water
- Floating design with exclusively vertical movement and therefore no mechanical stress
- Integrated siphonic partition
- Integrated motorized locking system to prevent sludge from contaminating the inside of the scoop, eliminating the need for downstream motorized valves and a first-water evacuation system.
- Constant discharge flow
- Rigid, vertical, stress-free discharge pipe.



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