



Cleargreen™

biological treatment of effluents with high concentrations of ammonia

● **urban wastewater**



eliminate nitrogen caused by anaerobic digestion of sludge

● **performance and savings**

economic and effective treatment of returns with loads of ammonia

innovation

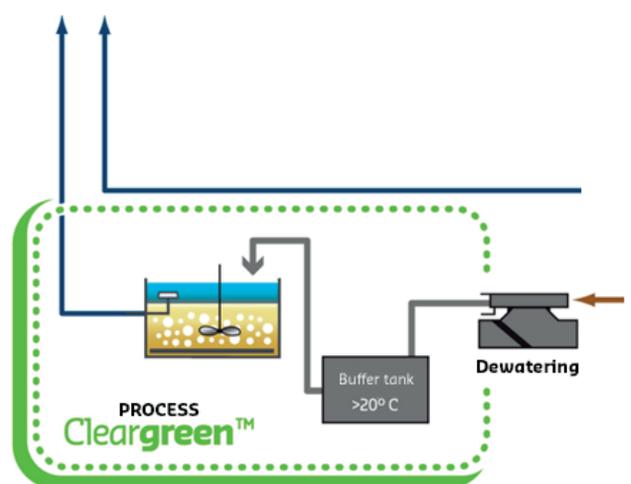
deammonification allows the treatment of concentrated ammonia caused by anaerobic digestion of sludge at the head of the station – limiting the impact of digestion on the water treatment line

Cleargreen™ (for Cyclic Low Energy Ammonia Removal) augments anaerobic treatment of sludge (biological, primary, co-digestion) to remove the nitrogen overload.

key figure

60%

less air needed compared to classic activated sludge treatment



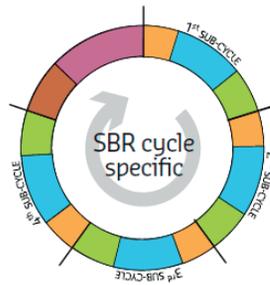
Cleargreen™ technology . . .

Cleargreen™ is designed to work within a biological sequencing batch reactor (SBR) such as Cyclor™, a SUEZ reactor that allows the successive completion of all treatment phases in the same tank.

Feed, aeration and deammonification phases are divided into sub-cycles and adapt in duration and intensity according to the characteristics of the effluent to be treated. The deammonification process uses bacteria known as Anammox, naturally present in environment. Cleargreen™ does not require the addition of a biomass to function.

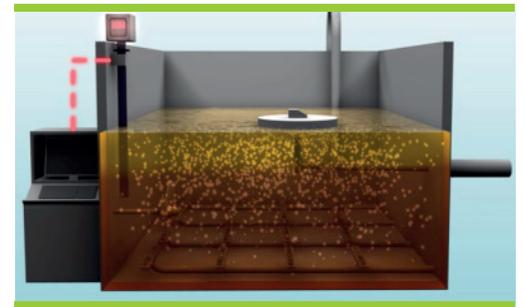
A specific treatment after anaerobic sludge digestion: with Cleargreen™, the flow of nitrates does not return to the head of the water treatment line, but is treated in an effective manner.

The reactor is equipped with captors, continually monitoring the system to limit human intervention



Cleargreen™
CYCLIC LOW ENERGY AMMONIUM REMOVAL

- Feeding
- Aeration
- Anoxia
- Settling
- Discharge



. . . what it can do for you

flexibility of us



- process adapts depending on the quality of effluent to be treated
- automation of process controls
- robust adaptability to variations in load and effluent composition
- process that is very beneficial for plant rehabilitations



performance

- new solution for treating return flows from digestion
- spontaneous installation of the biomass
- internally patented process

sustainable development



- no reactive agents needed
- contributes to the preservation of energy resources
- automatic regulation of air supply = control of consumption

among our references

Richmond, USA
14-month prototype

Creil-Montataire (60), France
17-month prototype

Ourense, Spain
capacity: 300,000 PE