



Especialistas en mecánica de fluidos

Depurblock ND SIDECA SYSTEM (New Product)



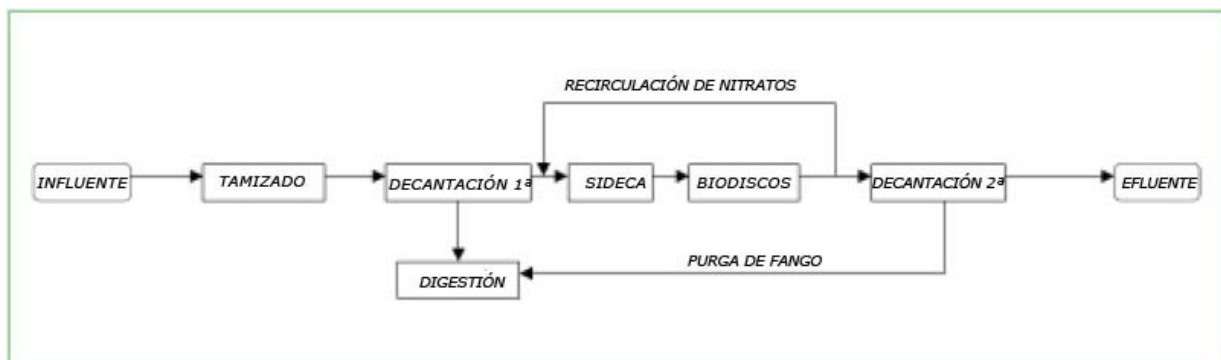
INTRODUCTION:

The ND model **biodiscs** WWTP is a compact unit designed to achieve the elimination of BOD5, S.S. and nitrogen.

The plant has sieving, primary decantation, SIDECA chamber, biological treatment using biodiscs, secondary decanter and cold digestion chamber.

The WWTP can be buried and the entry can be made by gravity. In this case, the inlet rotary sieve can be replaced by another model (e.g. screw sieve).

DESCRIPCIÓN:



- First, the discharge is sieved and decanted, eliminating part of the total solids and a fraction of the BOD5. The sludge produced is transported to the digestion area.
- The influent is then treated together with a recirculation of water containing nitrates in an anoxic chamber containing a suspended plastic filler with a high specific surface area (a process patented as SIDECA - System of De-Nitrification by Bonded Culture).



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In this part of the treatment, a fraction of the nitrates recirculated from the exit of the biodisc is released as nitrogen gas into the atmosphere by biological denitrification, in an oxygen-free environment, with the presence of bacteria fixed to the carriers or filler.

- The next step in the process is the biodisc: an equipment for the aerobic biological purification of biodegradable waste. It is installed partially submerged in a concrete or metal pitcher, in which a constant water level is available, and in which it turns slowly. In this step the residual BOD5 is refined and the effluent is nitrified.
- The next step is the recirculation: A sufficient quantity of nitrogen content in nitrates must be sent to the headwater so that when eliminated, we can guarantee the required values in the final effluent.
- Finally, the effluent from the **biodisc**, which contains a certain concentration of suspended sludge flocs, must be decanted or filtered. A secondary decantation is chosen because of its lower maintenance requirements.
- The system also contains a sludge store located in the lower part of the **biodisc**, where the sludge is cold digested, and a system to purge the secondary decanter floats.

GENERAL DIMENSIONS:

