



**Ecodisk® range :
Ecological wastewater treatment
plants for 100 to 10,000 inhabitants**

WATER TECHNOLOGIES

Ecodisk® locations

Since 1998, more than 1,000 installations have been set up in the following countries :

- Australia • Belgium • Bolivia • Bulgaria • Chile • Estonia • Fiji Islands • France • French Polynesia • Germany • Ghana • Guadeloupe • Hungary • India • Israel • Ivory Coast • Jordan • Latvia • Lebanon • Libya • Luxembourg • Macedonia • Maldives Islands • Martinique • Mayotte • Mauritius • Morocco • New Caledonia • New Zealand • Portugal • Qatar • Réunion Island • Romania • Saint Martin • Saudi Arabia • Serbia • Singapore • Spain • Sri Lanka • Switzerland • Tunisia ...





Ecodisk®

Ecodisk® is a treatment plant for domestic wastewater, designed for small and medium-sized rural or semi-urban communities, with between 100 and 10,000 people equivalent (PE)* including :

- **Campgrounds, hotels, restaurants, mountain huts, base camps, etc...**
- **Expansion and rehabilitation of existing plants.**

Easy to operate and extremely reliable, with harmonious integration into protected areas, Ecodisk® complies with European treatment requirements - possibility to treat the nitrogen and phosphorous - and fully corresponds to the current demands of numerous bodies and local authorities.

Operating principle

Ecodisk® is a biological effluent treatment system that adapts automatically to load and hydraulic variations. Bacteria develop naturally on the biodisks placed in rotation to form a "biological turf". While emerged these bacteria become saturated with oxygen, and while immersed they feed on the dissolved organic material.

1 Breil sur Roya (06) - 3,000 PE

- 2 Interior and exterior of the plant installed along a steep mountain road

3 Rohrbach (Germany) - 75 PE

Ecodisk® installed right next to homes

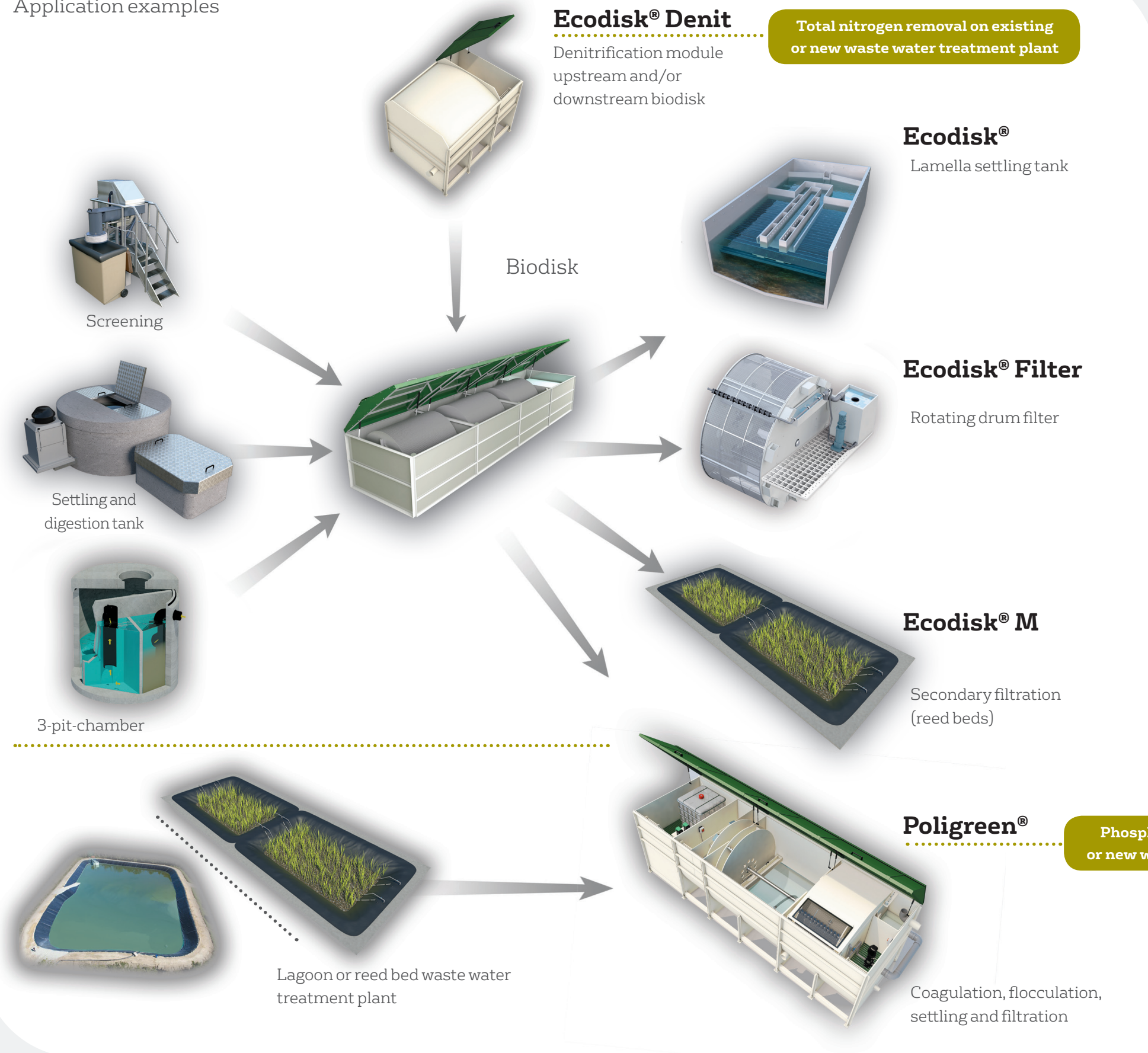
4 Oyster Pond (Saint Martin) - 1,000 PE

Ecodisk® Filter solution

* PE : People Equivalent : Sanitation measurement unit representing the quantity of pollution produced by a person using between 150 and 200 litres of water per day

The Ecodisk® range

Application examples



Ecodisk® offers a complete treatment process, depending on:

- the type of pretreatment used (settling-digestion tank, rotating filtration drum, etc.),
- the type of secondary treatment (drum filter, lamella settling tank, reed beds ...).

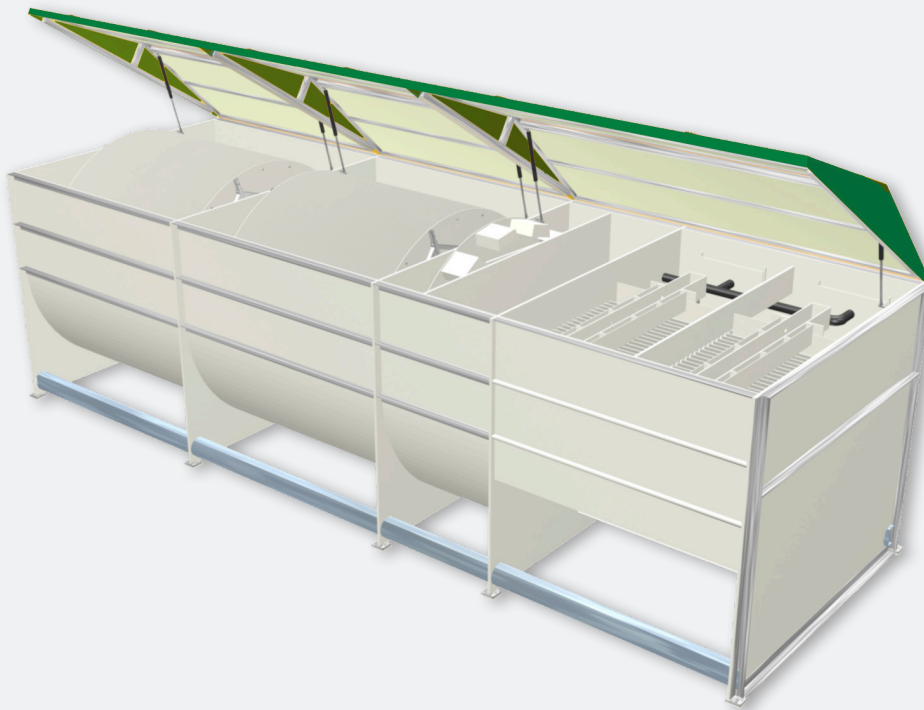
Ecodisk® advantages

- Complete treatment of the water,
- A high-end solution with an excellent quality-price ratio,
- A reliable, durable process,
- Reliability of the set culture, process adaptable to load and hydraulic variations,
- No risk of clogging,
- Robust, high-quality stainless steel and polypropylene guarantee a long lifetime,
- Low energy consumption,
- Simple, minimal operation (a few hours per week),
- No noise, visual or odour nuisances,
- Modular, upgradeable process, integrated into the environment from a sustainable development standpoint



Ecodisk®

The compact and ideal solution for small and medium-sized wastewater treatment plants



- 1 **Sainte Marie Kerque (62) - 800 PE**
Ecodisk® solution - semi-buried version
- 2 **Saint Céneri (61) - 300 PE**
Ecodisk® solution - building version
- 3 **Montségur sur Lauzon (26) - 1,000 PE**
Ecodisk® M solution

TECHNICAL CHARACTERISTICS

- Full disks in polypropylene: Ø 2.0 m or Ø 2.7 m
- Full shaft in stainless steel: Ø 90 mm or Ø 120 mm
- Spherical roller bearings installed in Oilamid inserts
- Distance between two bearings: max. 2 m
- Speed rotation: 3.6 rpm or 2.3 rpm
- Tanks in polypropylene and stainless steel
- Polyester cover

POSSIBLE COMBINATIONS WITH

- Lamella settling tank to allow separation of the treated water and the sludge
- Reed beds, Ecodisk® M

The Ecodisk® M solution is the green answer for small communities to guarantee high quality water treatment and the storage of the sludge produced for at least 5 years.

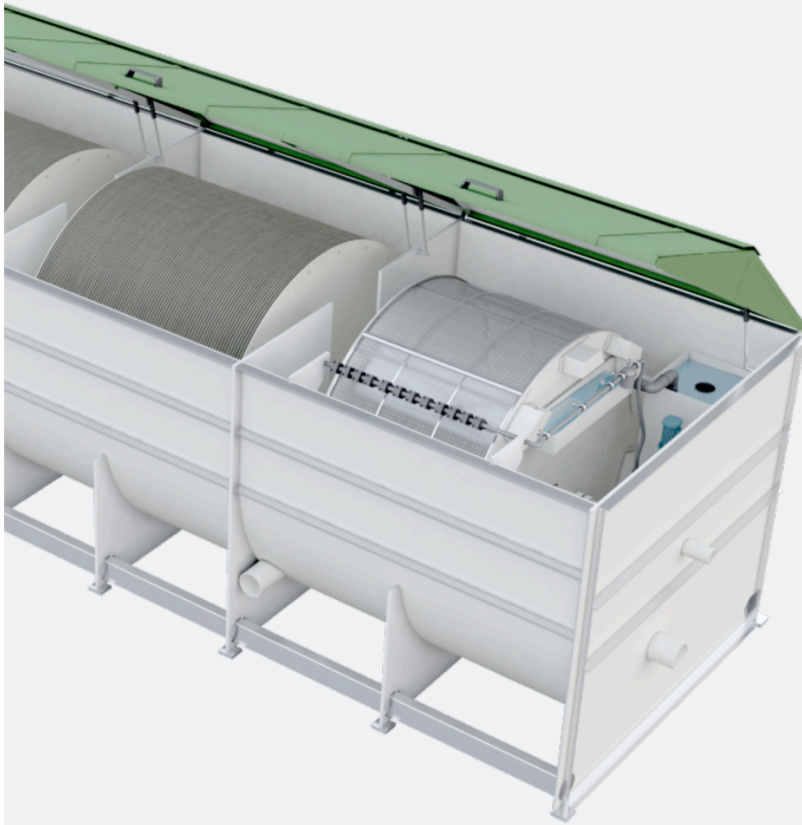
INSTALLATION

- Compact and modular design
- Fully assembled and ready to install module
- Fast and economical installation

SEVERAL DIFFERENT VERSIONS

- Semi-buried version: for perfect integration into the site
- Building version: installed in an existing structure or custom-made

Ecodisk® Filter



The Ecodisk® Filter process complies with even stricter effluent quality standards, thanks to its secondary mechanical filtration treatment

The combination of the Ecodisk® process with a drum filter allows separation of the treated water and the sludge. The achievement of water of very high quality, beyond the European thresholds required today, makes it possible to preserve water by re-using it, via reintroduction into the ground, watering green spaces, agricultural irrigation or through a simple bacteriological treatment to be planned downstream.

TECHNICAL CHARACTERISTICS

- Full disks and drum filter: Ø 2.0 m or Ø 2.7 m
- Full shaft in stainless steel: Ø 90 mm or Ø 120 mm
- Distance between two bearings: max. 2 m
- Speed rotation: 3.6 rpm or 2.3 rpm
- Tanks in polypropylene and stainless steel
- Polyester cover

OPERATING

- Silent and odorless
- Backwashing of the filtering panels done by spraying system fed by treated water (water pressure from 4 to 6 bars)
- Equipped with a washing dry pump
- Sludge discharge through gravity

AVANTAGES

- Low investment costs
- Suitable for continuous operation
- Constant quality of the treated water
- Energy saving: drum filter is driven by the same geared motor than biodisk
- Industrial water reserve available for washing other equipment of the plant
- Filtering mesh: 40 µm, 20 µm or 10 µm

INSTALLATION

- Compact and modular design
- Fully assembled and ready to install module
- Fast and economical installation

SEVERAL DIFFERENT VERSIONS

- Semi-buried version: for perfect integration into the site
- Building version: installed in an existing structure or custom-made



Disk solutions to integrate into concrete tanks

TECHNICAL CHARACTERISTICS

- Full disks composed of two half-disks: from Ø 2.7 m to Ø 4.0 m
- Solution available in Ø 2.0 m disks
- Patented combination of half-disks and spacers to ensure the stability of disk blocks
- Full shaft in stainless steel: Ø 120 mm or Ø 150 mm
- Distance between two bearings: max. 2.8 m according to the disk Ø
- Installation in building or outdoor installation with cover

1 Rathewalde (Germany) - 1,000 PE
Rehabilitation - Ø 3.9 m disk solution to install in existing concrete tanks

2 Königswalde (Germany) - 2,200 PE
Assembly of Ø 3.8 m disk solution

3 Duffel (Belgium) - 300 PE
Covered Ø 3.0 m disk solution

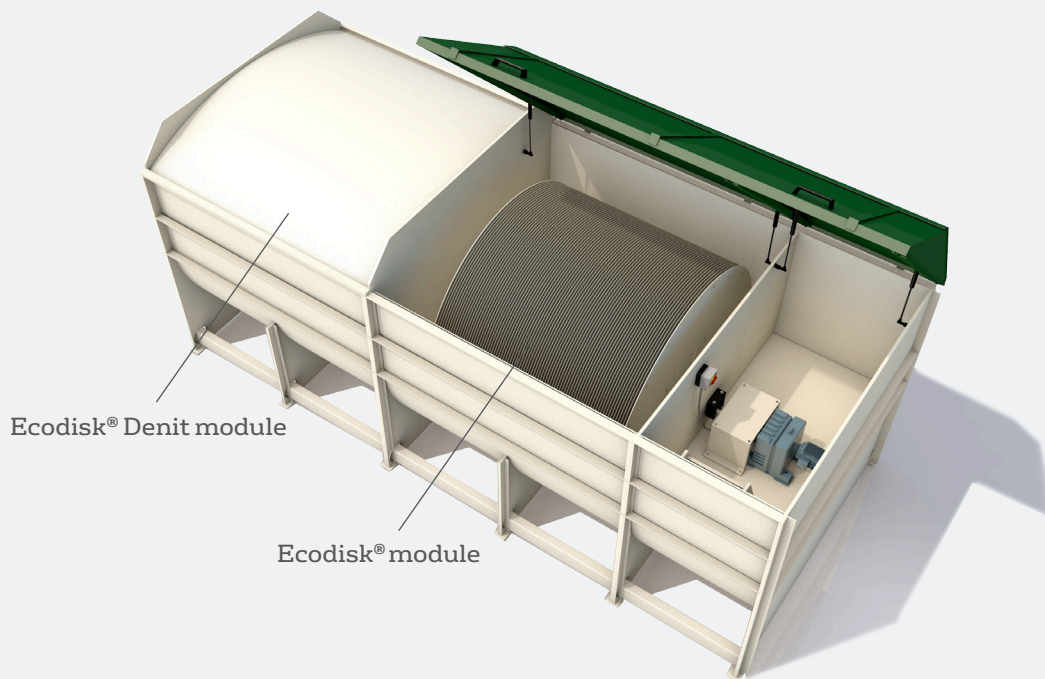
4 Bellevaux (74) - 2,500 PE / 5,000 PE
Ø 3.8 m disk solution - Indoor installation

Ecodisk® Denit

The latest generation, Ecodisk® Denit is an answer to the highest quality effluent demand in total nitrogen.

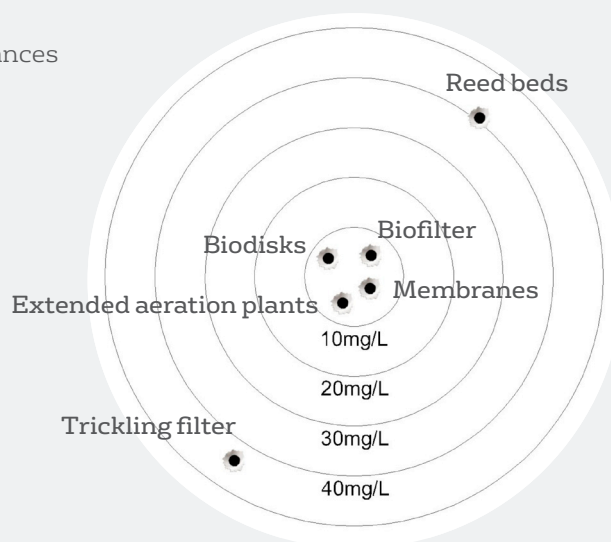
The biodisks enable to reach high treatment levels on BOD₅, COD, Kjeldhal nitrogen and phosphorus. The process being aerobic, there is no denitrification; therefore, it wasn't possible to have an advanced treatment on total nitrogen. Yet, the discharge standards are becoming more and more restrictive and the total nitrogen treatment is commonly requested.

The Ecodisk® Denit process uses totally waterproof biological disks that warrant anoxic conditions in order to favor the effluents denitrification. Different possibilities are available: pre-denitrification, post-denitrification or a combined solution.



Performances comparison of different processes for the nitrogen treatment.

This process enables to reach the same performances than more advanced and restrictive processes in operation.

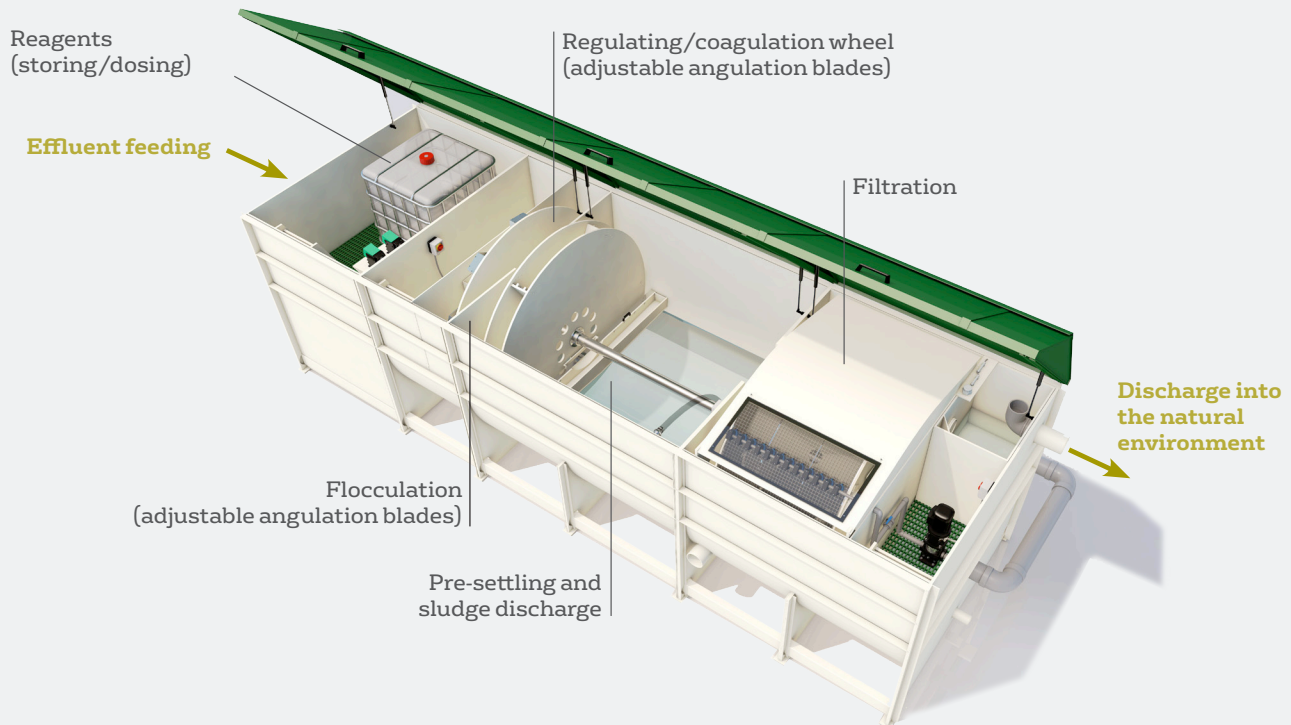


Poligreen®

Ultra-compact solution to eliminate phosphorus and refine treatment

Poligreen® is a packaged solution to refine treated water. Extensive pollutant removal, in particular phosphorus, is ensured by a simple physico-chemical treatment easy to set up and to operate. Therefore, Poligreen® enables to refine the treatment or to renew your plant at a lower cost.

Ultra-compact, the Poligreen® solution can be set up in three different ways. It is fed by gravity or by pumping at the outlet of waste water plant, of reed bed plant or lagoon plant. It can be used as a primary treatment to treat some industrial effluents.



MAIN AVANTAGES

- Compliance with the European regulations (especially phosphorus norms)
- Refining of settings (TSS, COD, P_T...)
- Discharge standards advancement
- Plankton and coloring removal
- Integration of an advanced disinfection (integrated UV available as an option)
- Easy to install and set up
- Minimal operation
- Reagent storage in an insulated compartment

Two potential installations



Buried version



Semi-buried version

Resourcing the world

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