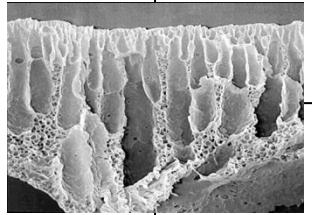


Membranes and Modules



Pleiade® : Worldwide reference in organic ultrafiltration

Pleiade® modules incorporating ultrafiltration membranes provide high performance, reliability, longevity and a low operating cost. The most cost effective organic membrane for demanding applications.

Membranes and Cut-off

| | PVDF | PAN | PES |
|------------------------|------|-----|-----|
| Microfiltration | | | |
| 0,25 µm | v | | |
| 0,20 µm | v | | |
| 0,15 µm | v | v | |
| 0,10 µm | v | v | v |
| Ultrafiltration | | | |
| 50 nm | v | | v |
| 10 nm | v | | v |
| 10 kD | | | v |
| 5 kD | | | v |

PVDF: Polyvinylidene fluoride - PAN: Polyacrylonitrile
PES: Polyethersulfone



EXCLUSIVE RANGE

- Fabric supported
- 3038 (-) grafted PAN 40 kD
- 3042 (+) grafted PAN 40 kD
- 3050 (-) grafted PAN 50 kD

Module type

| Type | UFP10 | P2030 | P2060 | P2085 |
|------------------|-------------------------|--------------------------|-----------------------------|---------------------------|
| Membrane area | 0.1 -> 7 m ² | 7 -> 27.3 m ² | 30.8 -> 58.8 m ² | 60.9 -> 88 m ² |
| Number of plates | 1 -> 64 | 20 -> 78 | 88 -> 168 | 174 -> 252 |
| Area/plate | 0.11 m ² | | 0.35 m ² | |

NEW MODULE FOR MEMBRANE BIOREACTOR

| Type | P2100 |
|------------------|---------------------|
| Membrane area | 88 m ² |
| Number of plates | 250 |
| Area/plate | 0.35 m ² |

Recycling

PLEIADE® Polymeric membranes

Our job: design, produce and sell organic and ceramic membranes, Pleiade®, Kleansep™, Klearsep™, Flosep and Persep™ range, plan type, Spiral, Tubular Multichannel, and hollow fiber.

Innovative in the fields of purification and recycling of effluent, Orelis Environnement is an expert company in membrane separation technology, in the service of your processes.

We are working with installers and OEMs to implement our solutions membranes.

Our teams are at your disposal to find the solution to your needs.

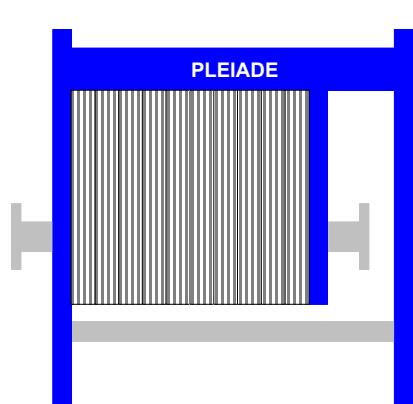
Membrane Bioreactor Wastewater

Versus conventional process

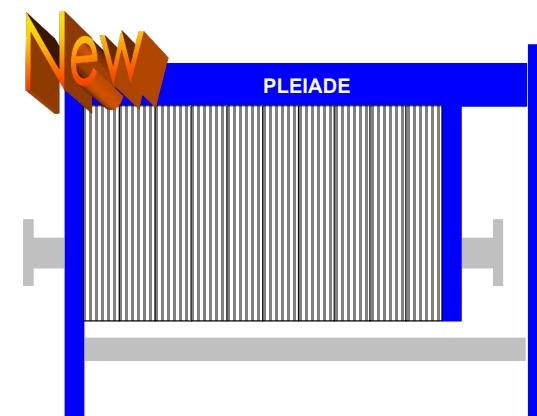
- ⦿ Proven performances at high MLSS concentration (20 000 mg/l)
- ⦿ Lower sludge yield (less than 0.1 kg MLSS/ kg BOD5)
- ⦿ Smaller footprint with compact design
- ⦿ Superior water quality including effluent disinfection
- ⦿ Modular expansion capacity within existing buildings

Versus submerged membrane

- ⦿ Over 30 years of experience with more than 1000 industrial references
- ⦿ Easy to operate and less maintenance
- ⦿ Higher peaking capabilities
- ⦿ Dry mount UF membrane (external loop)
- ⦿ Cleaning is easier for operator

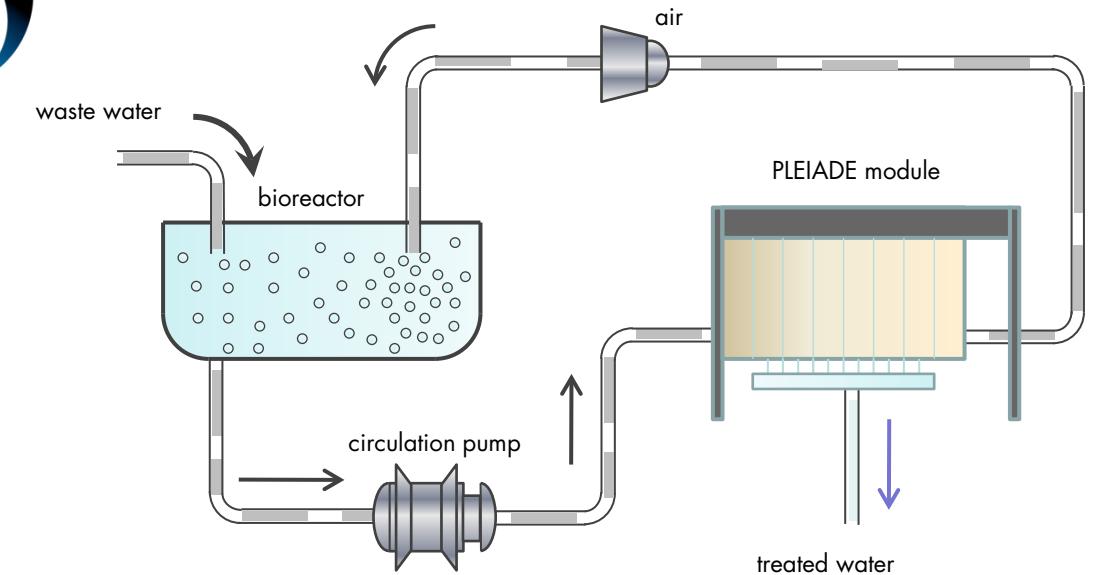


P2085 module

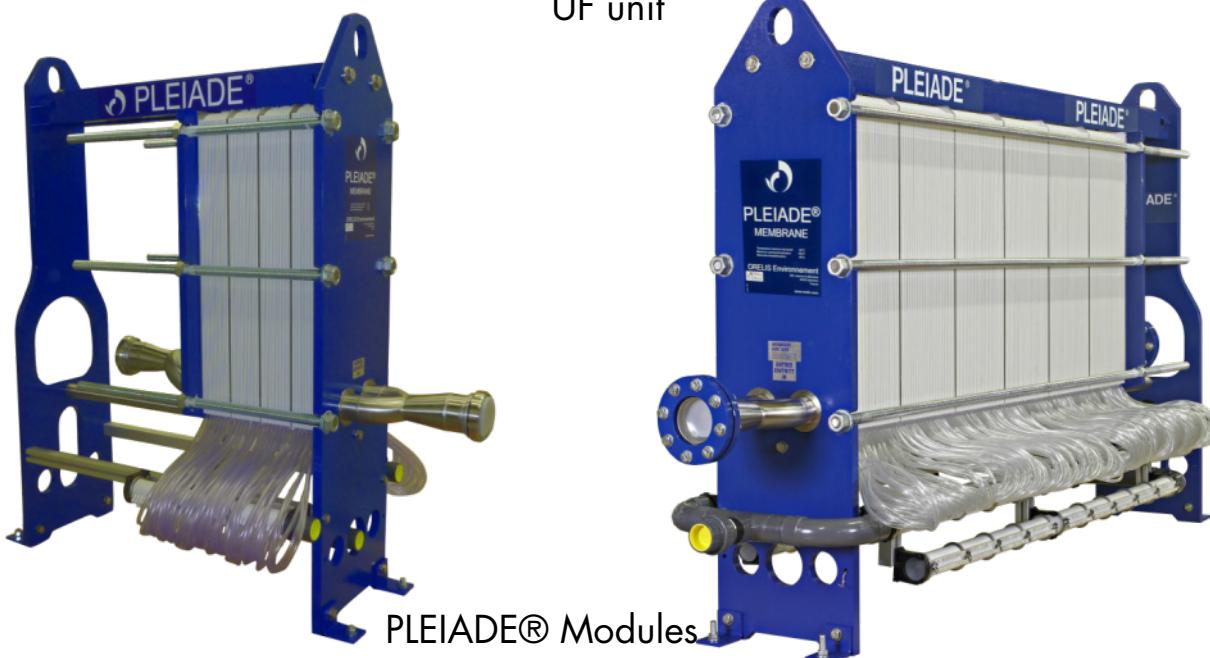


P2100 module
for membrane bioreactor

Bioreactor: External loop



UF unit



PLEIADE® Modules