

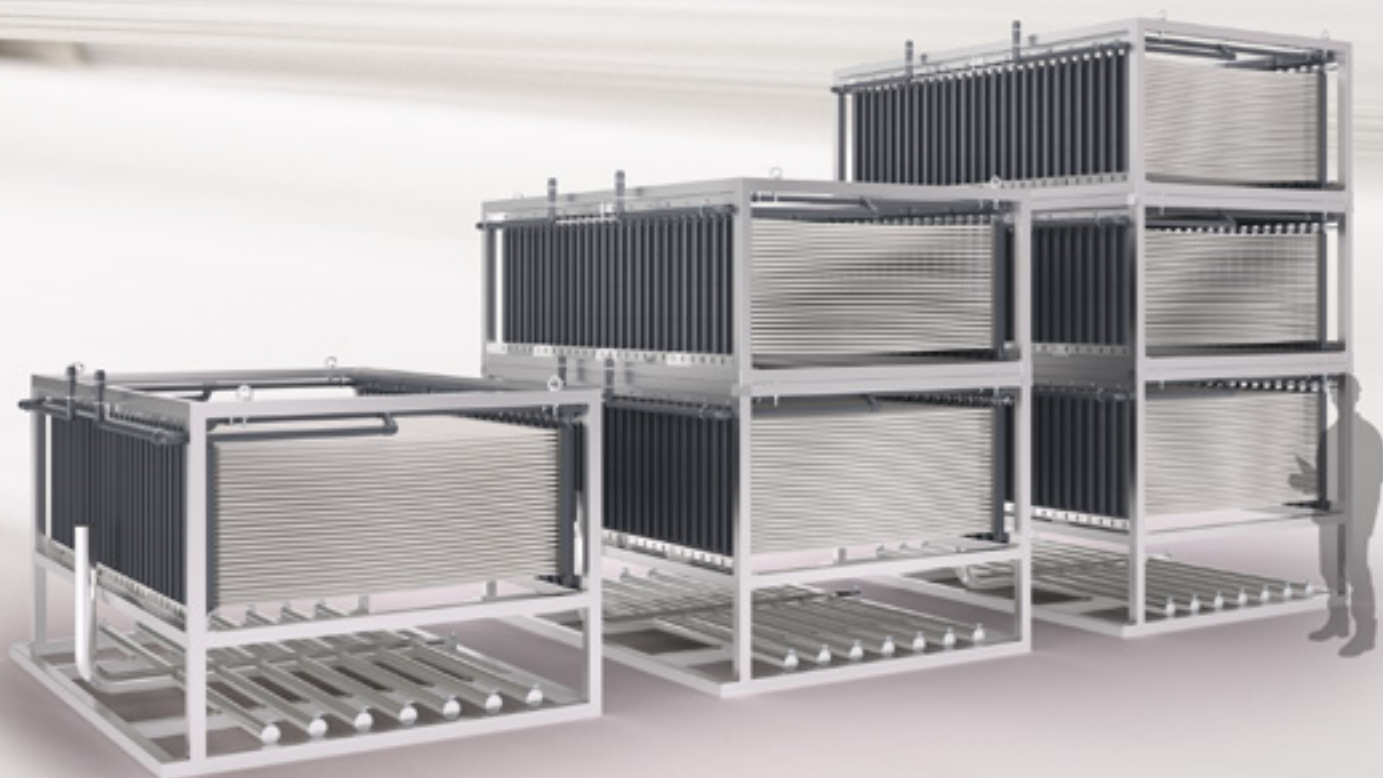




Waste water treatment by ultrafiltration membranes

A new technology brought to its perfection

Correct waste water treatment is mandatory for the health and well-being. Europe Membrane with more than 10 years of experience in the implementation of membrane bioreactors and 30 years in the production of technical polymers, has optimized MBR technology designing and generating best in class technical solutions.



Experience, Quality and Innovation

As a consequence of our know-how obtained from our experience and own developments Europe Membrane provides to its customers membrane Cassettes "MBRable Cassettes" series, prefabricated ultrafiltration units "MBRable Train" and the modular MBR plant "MBRable Plant".

Innovation for our customers

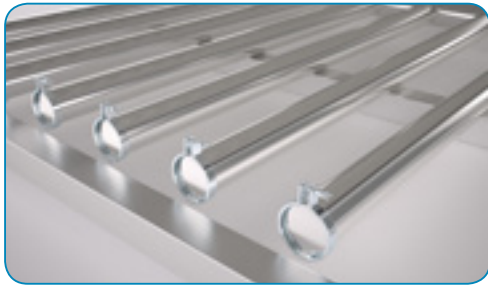
- A: Membrane's horizontal layout.**
Allowing the air bubbles maintain constant volume passing through the membrane. As a consequence, a flux increase is obtained.



- B.- Inducted vibration system.**
Unique and exclusive system making the fibers vibrate at a controlled frequency, preventing from solids settlement at the membrane surface, avoiding the premature fouling and minimizing energy consumption.



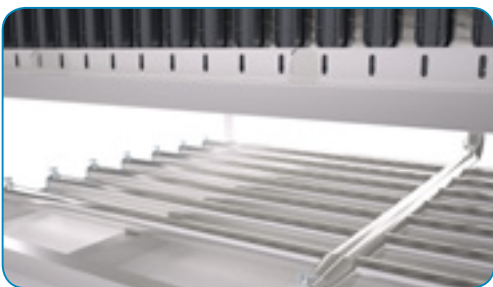
- C.- Clamp Unions.**
Allows for an easy cleaning and maintenance of the aeration system.



- D.- Degasser, control and isolation valves.**
Automatic collection and purge of air before arriving to the pump creating a very stable flux. The valves allow to separate and work independently with each single membrane set.



- E.- Air Diffusion system.**
Generates different sizes of bubbles. Small ones increase the impact probability (with membrane) and big ones separate the solid bonded to the membranes. Thanks to the design and configuration there are no dead zones at the membranes.



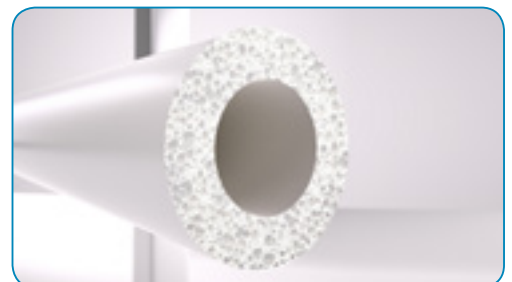
- F.- Auxiliary bar.**
Stainless Steel bar to hang the modules during maintenance operations



- G.- Membrane bundles widely spaced.**
Enhances fouling prevention and allows easy cleaning and maintenance of the membrane capillaries.



- H.- Membrane pore size.**
Pore size of 0,02 µm. high physical and chemical resistance and special fiber braiding.



Generation of high quality treated water never was so easy, reliable and cost-effective

The MBRable cassettes are specially designed for aerobic membrane bioreactor applications, both industrial and municipal wastewater treatment plants.

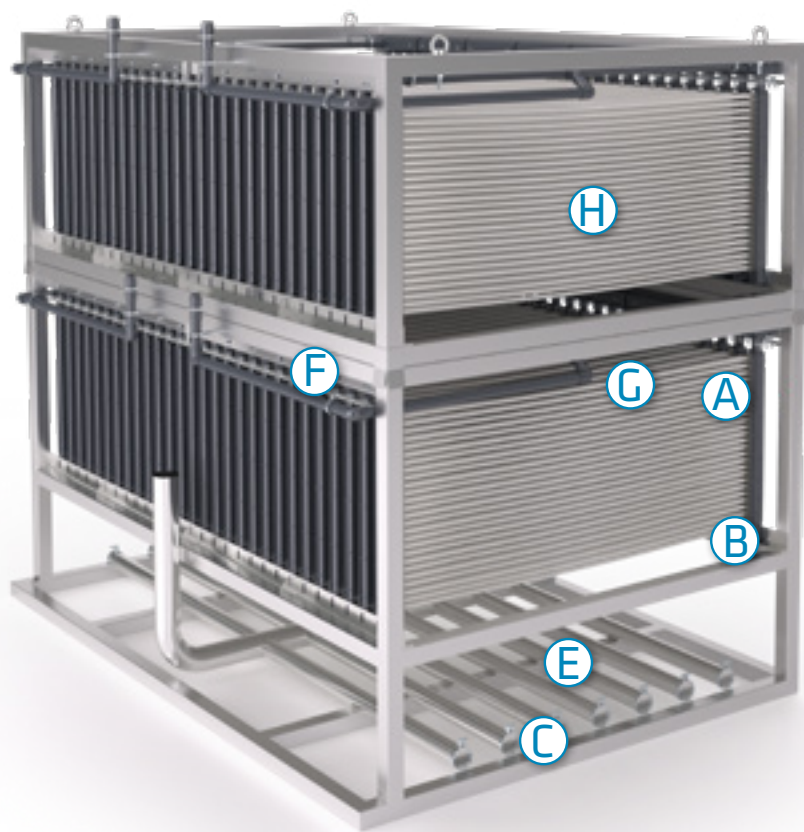
Easily mounted in existing bioreactors, increases up to four times its sewage treatment capacity obtaining high quality treated water, ready to be used for many applications.

MBRable cassettes incorporate all technology and innovation needed to yield high and stable fluxes at lowest operation costs.

High quality of used materials together with a strict quality control allow to obtain a unique product, resistant, durables and reliable at best possible price. The design and innovations included are specially focused to prevent fouling and clogging of the membranes so a reliable performance with a low maintenance demand is fully achieved.

MBRable® Cassette

Hollow Fiber Ultrafiltration membrane cassettes for MBR applications.



Goals accomplished

Membranes

Pore size 0.02 µm
Material PVDF
Hollow Fiber
Horizontal layout
Orderly Layout
Special fiber braiding

Chassis

Stainless steel
Integrated aeration system
Vibration
Protective cage
Easy fiber replacement
Inspection window

Ancillary

Physical cleaning
Double collector
Control and isolation valves
Degasser

Ultrafiltered water quality
Durability
Fouling resistance
Stable fluxes
Low maintenance
Energy efficiency

Higher water quality
Increased water production
Lower operating costs



MBRable
Advantages

TECHNICAL DATA MBRable Cassettes			
Model	MBRable 500	MBRable 1000	MBRable 1500
Dimensions (mm)	2605x1835x1370	2605x1835x2280	2605x1835x3190
Production (m³/d)*	Up to 200	Up to 400	Up to 600
Membrane surface (m²)	Up to 504	Up to 1008	Up to 1512
Materials	Hollow fiber membranes of PVDF Colector PVC / Chassis AISI 304		
Pore size (µm)	0,02		

*Municipal wastewater

Minimized equipment size.

Optimized design.

Energy efficiency.

Continuous flow.

No civil works needed.

Tested at production site.

Online operating control.

Savings on installation and setup times.

Movable and expandable.

Reduced implementation costs.



MBRable Train consists in MBR Ultrafiltration Prefabricated Units ready to use at MBR applications. Specially designed to be energy efficient and safe, including all the ancillary instrumental equipment, automatism as well as the management software MBRable Pack needed to operate in automatic mode.



Small footprint.

Low sludge production.

Effluent quality suitable for reuse.

Delivered in containers already mounted and checked.

Simple installation and operation.

Remote monitoring.

Minimum need for operator checks and adjustments.

MBRable Plant

Compact MBR plant for domestic / commercial sewage

MBRable Plant is a fully integrated and compact MBR wastewater treatment plant ready to treat domestic / commercial waste waters.

MBRable Plant is a reliable solution for small municipalities, hotels and resorts, Sport Centers, Campsites, Commercial sites, Petrol Stations, ships, etc, to reach a high quality effluent ready for reuse.

MBRable Train

Compact, easy to install
and expandable

MBRable Train consists of:

Membranes tank.

MBRable Cassettes.

Instrumentation (pumps, blower,
flowmeters, valves, pressure
gauge, etc.)

CIP (clean in place) system.

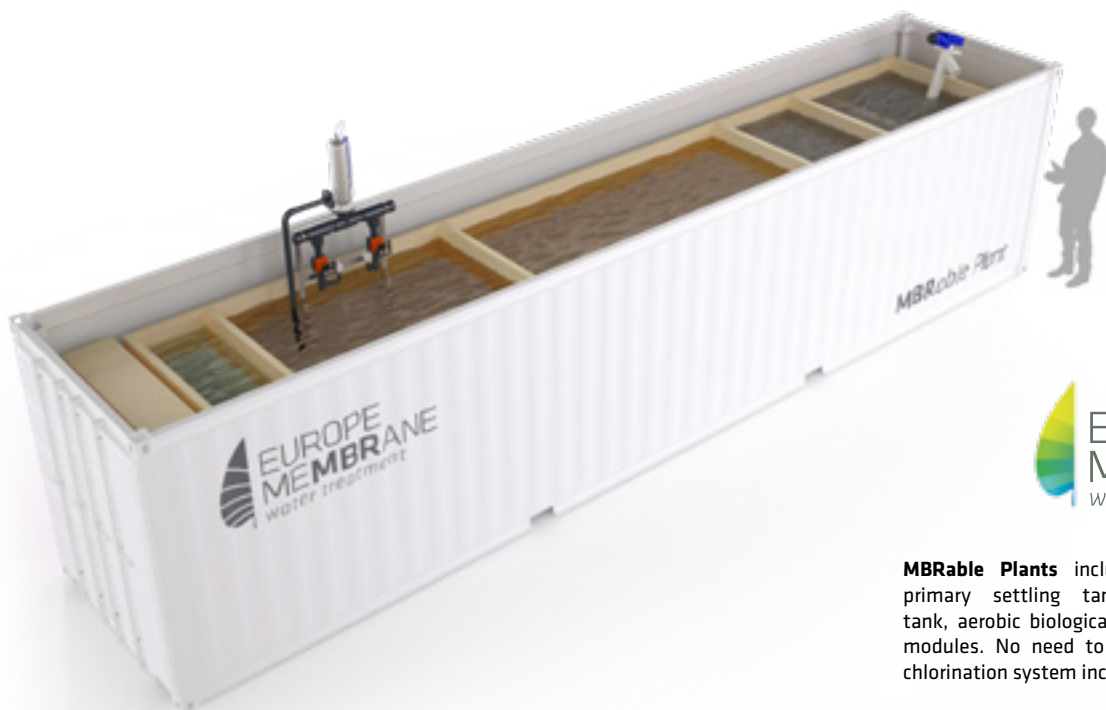
PLC control.

MBRable Pack Software.



The MBRable Train makes the integration of the UF unit with the biological reactor easy, fast, reliable and cost effective. MBRable train includes SMART operation. The system takes its own decisions of operation considering values monitored in-line.

Ultrafiltration cassettes are independent, allowing maintenance and CIP operation by unit whilst the rest of units are on continuous operation. No operation stops required.

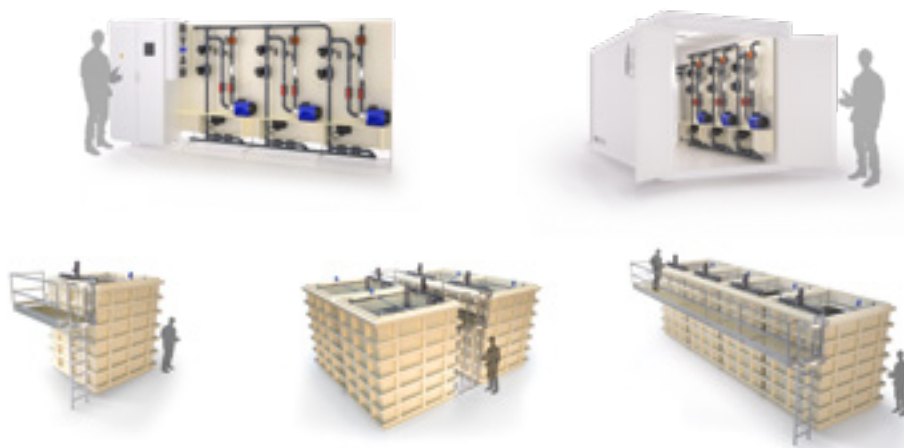


MBRable Plants include influent screening, primary settling tank, degreasing, anoxic tank, aerobic biological reactor and membrane modules. No need to store chemicals. Saline chlorination system included.

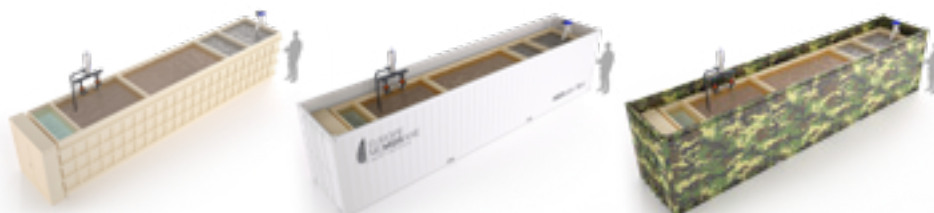
MBRable Cassette



MBRable Train



MBRable Plant



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