

## **COMPACT-RM®**

# Wastewater treatment solution with membrane bioreactor

The COMPACT-RM® plant is an innovative wastewater treatment concept for small communities, industrial plants or neighborhoods not connected to the sewage network.



Based on the **AQUA-RM®** process, which combines biological treatment by activated sludge and filtration by submerged flat sheet membranes, **COMPACT-RM®** is a complete, modular, upgradeable and standardized plant.

The high-performance biological treatment provided by the membrane bioreactor produces water of superior quality compared to conventional systems, both chemically and bacteriologically.

This water, which meets "bathing water" quality standards, can be reused, in particular for watering and irrigation, thus preserving drinking water resources.

The technology used here stands out from other membrane bioreactors by its robustness and simplicity of operation thanks to the use of flat sheet membranes.

### FIELDS OF APPLICATION

- Treatment of urban and industrial wastewater from 800 p.e. to 3,300 p.e.
- High-level treatment requirements: sensitive areas, reuse of treated wastewater (REUT), bathing quality
- Space, foundation or earthwork constraints
- Environmental constraints: odors, noise

## **COMPACT-RM®**

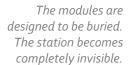
## Membrane bioreactor treatment

The AQUA-RM® membrane bioreactor process is particularly well suited to small and medium-sized communities or industrial effluents.

By eliminating the clarification stage, operational and treatment reliability problems associated with fluctuating sludge settleability are eliminated. Active biomass concentration is increased, saving space and enabling the use of prefabricated tanks.



The COMPACT-RM® station consists of fully integrated and completely autonomous treatment modules.





## On-site activities are limited to the strict minimum, thus minimizing nuisance:

- Earthworks, concrete support slabs, installation of modules and prefabricated building, hydraulic and electrical connections, backfilling and commissioning.
- Completion in 6 to 8 months

The entire system is fully automated: instrumentation, automation and supervision ensure full control of operating parameters.



Exceptional durability and robustness. Easy, low-maintenance operation.

### **PERFORMANCE**

- **Sturdiness** provided by the flat sheet membrane specially designed for wastewater more then 10 years of experience.
- **Simplicity of continuous** operation without backwashing.
- **Membranes are cleaned** in situ only 2 times a year and without manual handling.
- Low pressure for low-maintenance, and lowenergy gravitational operation. Adaptability and tolerance to load and concentration variations.
  The process tolerates high concentrations in tank

### **FEATURES**

- Flat sheet membrane : Kubota exclusive contract
- Unit surface of the flat sheet: 0,8 m2
- Number of sheets per standard module: 400 / 800
- Number of standard modules per station: 2 to 4
- Usual operating concentration (g/l): 12 (8 to 20)

### **REFERENCE**

Telgruc-sur-mer, Vitré, Flamanville, Hôtel de Fort Royal (Antilles)

