

CARBOFLUX®

The treatment of micropollutants and organic matter

CARBOFLUX® is a patented process that meets the constraints of operating water that is difficult to treat. For instance, it can be used to treat water from lakes or highly eutrophied reservoirs and chronically polluted with pesticides.



The patented **CARBOFLUX®** water-refining process permanently absorbs all peaks of pesticides (NH₄⁺, biodegradable dissolved organic carbon, or other soluble adsorbable pollutants) without any operational intervention.

CARBOFLUX® performance is the result of bringing water into contact with a large quantity of powdered activated carbon, which is suspended and continuously renewed to guarantee permanent effectiveness.

The amount of activated charcoal powder that is used ensures very low consumption with high performance. The adsorption properties of activated carbon are optimized because it is continuously brought into contact with the water to be treated.

The carbon is then separated from the water by **EQUIFLUX®** or **DELREB®** flocculation-settling process. In order to be reused by recirculating it to the contact reactor.

FIELDS OF APPLICATION

Drinking water

Water from rivers, lakes or reservoirs, whether or not eutrophied and/or chronically polluted with organic matter and micropollutants (pesticides, drug residues). Upstream of sand filtration, filtration or membrane ultrafiltration.

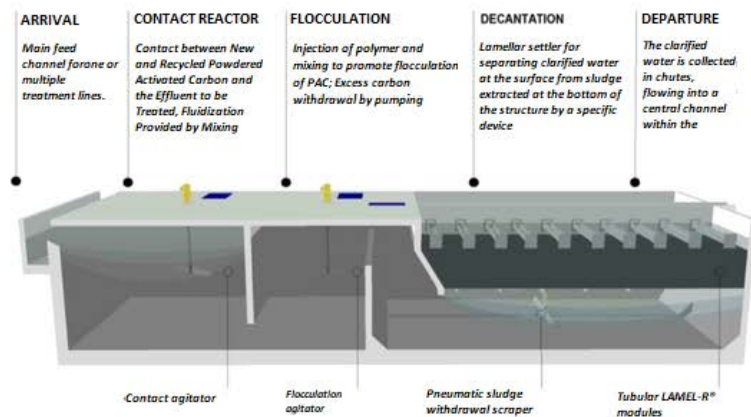
Wastewater: Search and reduction of hazardous substances discharged into water

Refining treatment for micropollutants: pesticides, drug residues, endocrine disruptors.

CARBOFLUX®

THE REFERENCE FOR THE TREATMENT OF ORGANIC MATTER AND MICROPOLLUTANTS

Suitable for waters that are difficult to treat, the **CARBOFLUX®** process provides a solution with a treatment efficiency unattainable with Active Grain Charcoal filtration or simple contact reactors.



The **CARBOFLUX®** process includes coagulation, which contributes to treatment quality. For water that is difficult to treat, the **CARBOFLUX®** process acts as a 2nd coagulation stage after upstream clarification.

The large mass of fluidized carbon in contact with the water and its constant renewal provide:

ADSORPTION: an advanced and constant performance on natural micropollutants such as microcystins (algal toxins) and micropollutants linked to human activity (pesticides, drug residues, hormones, etc.) unlike Active Coal Grain Filtration. In contrast to the contact reactor, this method does not require the operator to adjust treatment rates.

COAGULATION: advanced elimination of molecules such as glyphosate, AMPA and hydrophilic pesticides that are resistant to adsorption on activated carbon.

By BIODEGRADATION: a complementary elimination of Biodegradable Dissolved Organic Matter (CBDC), ammonia and flavouring products. In addition, thanks to biological activity, coupled with the extended residence time of activated carbon.

An excellent response to water resource degradation.

All peak levels of micropollutants and other soluble pollutants are trapped.

PERFORMANCE

- Highly reactive to pesticides, colors, odors, tastes and biodegradable organic matter
- Biological elimination of ammonia
- Reduces THM disinfection by-products (reduced chlorine doses) Low operating costs

Cost-effective operational expenses.

- Low ACP consumption.
- Choice of ACP and suppliers allowing economic and technical optimization to the characteristics of the water to be treated.
- Low energy consumption, slow stirring...

CHARACTERISTICS

Process constituents

- Preparation and determination of ACP mould
- Stirred contact reactor and flocculator
- DELREB® Lamellar Decanter or EQUIFLUX®
- ACP Recirculation

REFERENCES

Ploërmel, Le Jaunay, Traon-long, Hennebont, Radicatel Le Havre, Confolens, Bringall, St Sauveur Lendelin, Rochereau, Chenac, La Sienne, Arguenon, Bois Joli, Poitiers, Quimperlé...

