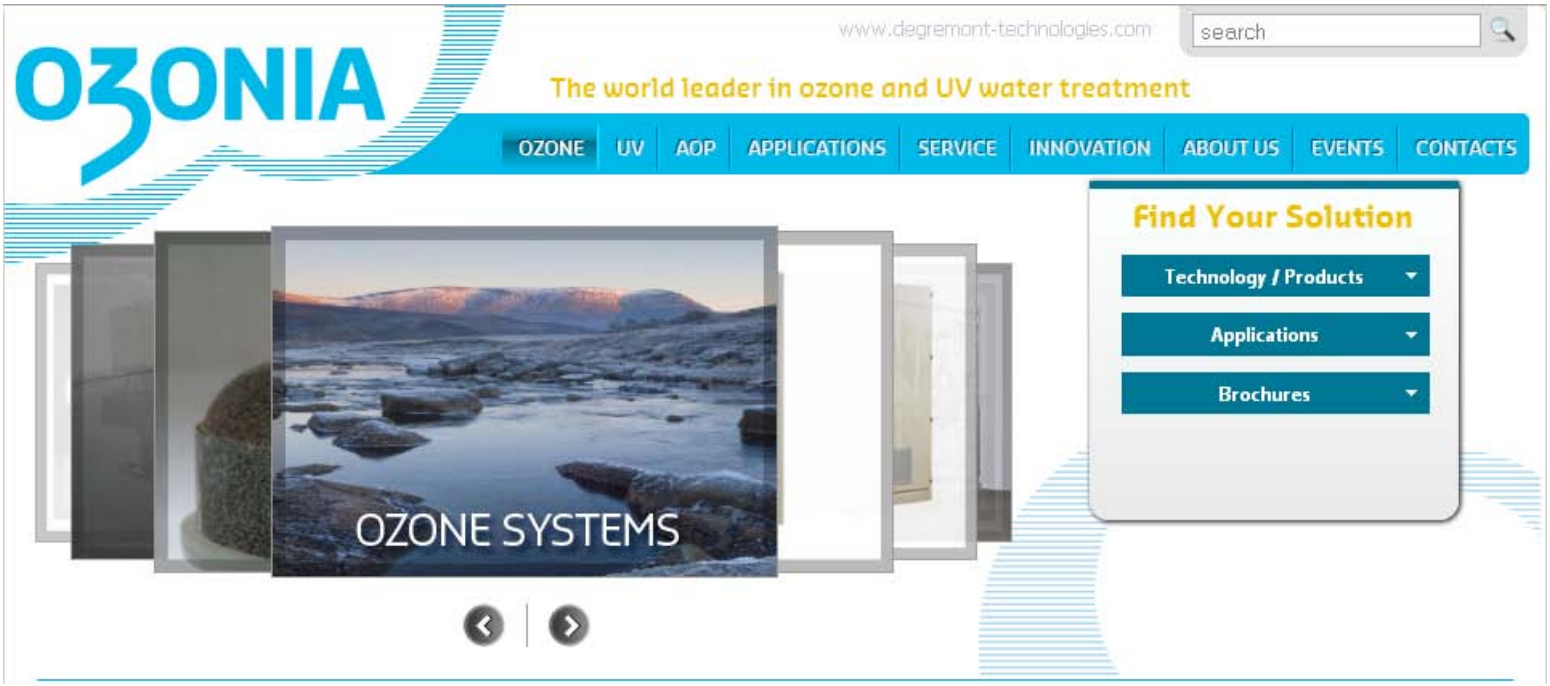


OZONE APPLICATIONS

Micropollutants

Urban waste waters are increasingly contaminated with organic substances such as biocides, endocrine disruptor compounds (EDCs), personal care products (PCPs) and pharmaceutical substances. These contaminants, with their known or potential harmfulness for aquatic ecosystems and human health, have become a major issue for the Water Utilities. Indeed, the actual facilities struggle to eliminate those pollutions, additional treatment processes will therefore be required. Thus, Ozonia developed a large and safe range of application to answer this emergent question.

Drawing on its long experience in the field of municipal waste water treatment using oxidation technologies, Ozonia can offer the most powerful solution available to water process engineers for the elimination of micropollutants in urban waste water. Ozonia became a world leader on that topic thanks to years of researchs and piloting in support of its parent company, Suez Environnement.

Ozone-based treatments demonstrated their effectiveness in all conditions to remove the trace compounds, and provide with them welcome side-effects. Indeed ozonation presents economical and energetical benefits compared to all the others treatment solutions, in addition to consequent water quality improvement. Ozonia has grown in years a know-how allowing to ensure those benefits, thanks to it's state of the art and unique patended technology.

References :

Dübendorf

Sophia - Antipolis

Additional Reading

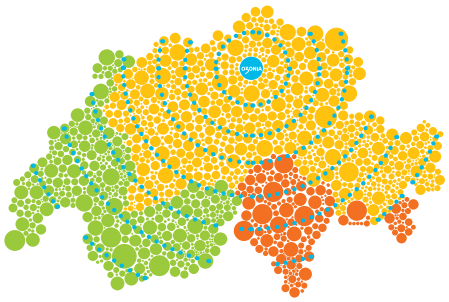
AMPERES Research

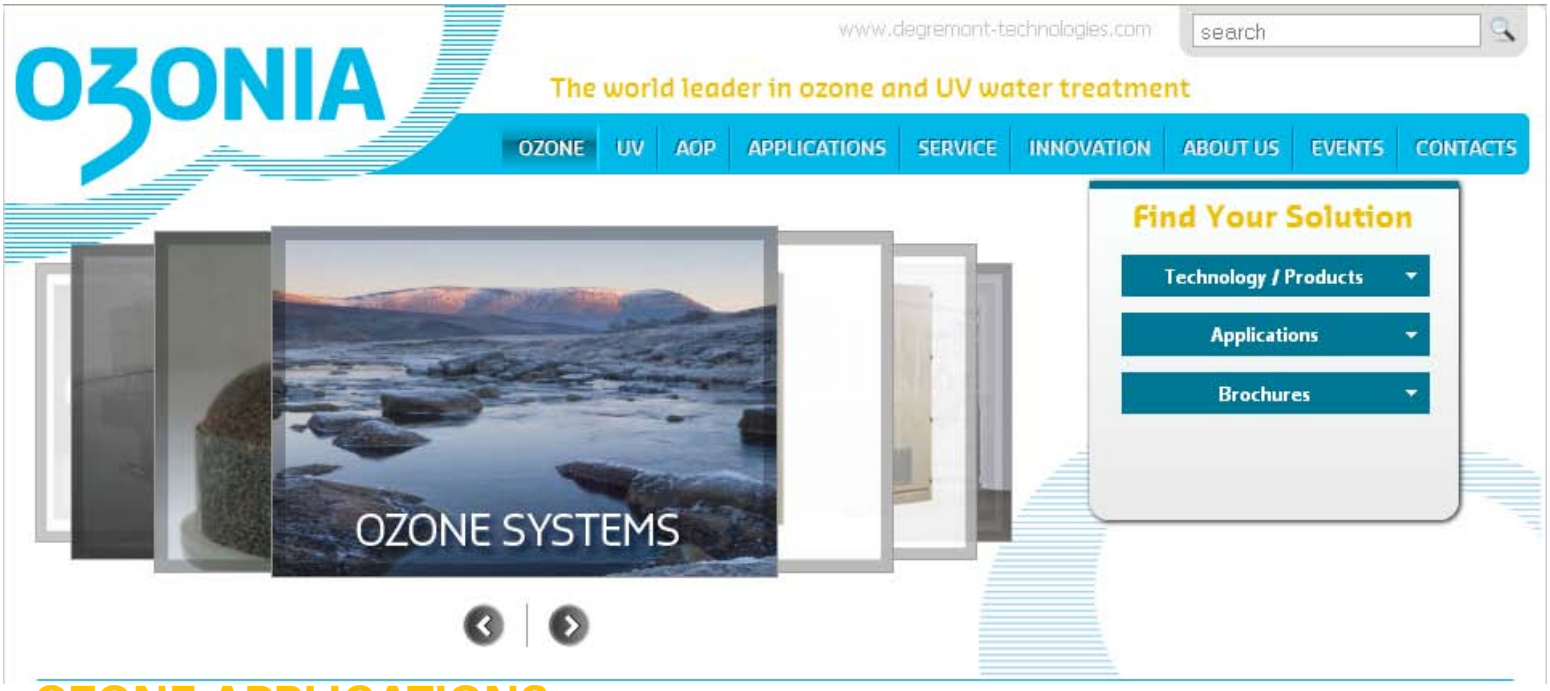
POSEIDON Research

Strategy Micropoll (Switzerland)

Swiss legislation

Local Service





OZONE APPLICATIONS

Micropollutants

WWTP NEUGUT - DÜBENDORF, SWITZERLAND

The water treatment plant "Neugut" in Dübendorf (Zürich) was one of the first swiss pilot plants for micropollutant elimination.

After reviewing the results, they decided to choose OZONIA as the supplier for the full-scale plant that will be build for spring 2013. This sewage plant will be the first one complying with the new swiss legislation on trace compounds treatment.

Those facilities will be able to treat up to 1'455 m^3/h, and will be fully supplied by OZONIA as a turnkey treatment stage including ozone generators, dome diffusion system, vent ozone destruction and instrumentation. With this innovative and forward-looking building willing to protect the receiving environment, a key cleaning-compound will be added to the "Neugut" Water Treatment Plant.

The Dübendorf municipality awarded this project to OZONIA based on the extensive know-how, experience and reliability that OZONIA aquired around the world. This sewage plant will be considered as a foundation stone for future projects to be built in Switzerland.

Additional Reading

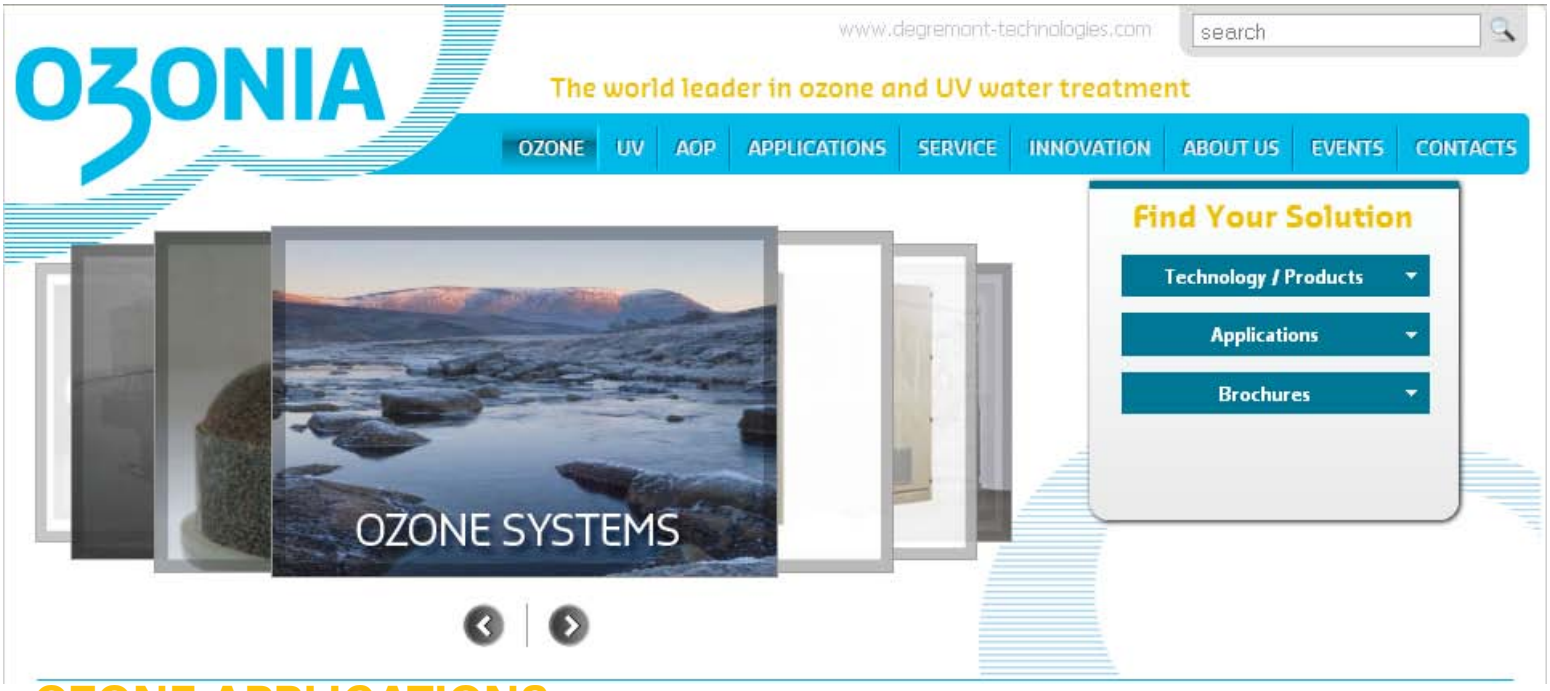
CFV Series

Dome diffusers

Ozone Destruct

Strategy Micropoll (Switzerland)

Swiss legislation



OZONE APPLICATIONS

Micropollutants

WWTP SOPHIA ANTIPOLIS - FRANCE

In summer 2012, the Sophia Antipolis wastewater treatment plant became the first french sewage plant treating micropollutants. This plant not only preserves its direct environment, but also protects, upstream, the Antibes' drinking water resource.

When the municipality resolved to enlarge and improve its sewage plant, they came to the conclusion to upgrade the treatment line by setting up an ozone stage. Using an ozone generator, the plant benefits now of a high-performance device combining flexibility and ease-of-use. Located between the biological treatment and the biofiltration, the ozonation ideally fits in an existing processing line.

Drawing on its know-how OZONIA offered a solution including a CFV-10 generator, allowing the sewage plant to adapt the ozone amount to every requirement, from today to 2030, where 50'000 population equivalent are expected (7'500 m^3/day).

With this first reference in France equiped by OZONIA, the municipality does a forward-looking investment perfectly framing its sustainable development objectives.

Additional Reading

CFV Series

Dome diffusers

Ozone Destruct

Water Framework Directive