WATER TREATMENT

Drinking Water - Potabilization - Industrial Water
Membrane Treatment Solutions
Desalination (Brackish and Sea Water)

At Fluence, "Water Treatment" means reusing and treating water to solve our clients' water challenges while minimizing environmental impact.

Fluence provides both pre-engineered and custom-designed water treatment solutions, which reliably deliver high-quality, safe water for any application and from almost any water source.

Our Most Prominent Water treatment Applications Include:

- Drinking water
- Desalination
- Arsenic removal
- Golden mussel removal
- Process water for industries
- Ultrapure Water (UPW) for power plants and NOx reduction
- Process water for irrigation

Potable Water

We are committed to ensuring safe, dependable, and affordable drinking water, backed by decades of hands-on experience at hundreds of water treatment facilities around the world. We also pay particular attention to capital and operating cost-effectiveness, while minimizing environmental impact.

Water from wells, rivers, lakes, and many industrial sources require a variety of treatment processes and services, which can include the following:

- Clarification and filtration
- Softening and hardness treatment
- Specific treatments - removal of arsenic, metals, nitrates, endocrine disruptors, total organic carbon, etc.
- Disinfection
- Desalination
- Sludge treatment
- Physico-chemical treatments
- Mobile water treatment
- Operation and maintenance

All project solutions proposed by Fluence are fully automated and can be controlled by local and/or remote control systems.

Potabilization

We specialize in implementing biological treatments for potabilization, a natural water treatment technology. The process consists of the combined abatement of methane, ammonia, iron, and manganese in the water by particular families of non-pathogenic microorganisms that use oxygen instead of chlorine or other chemical oxidizing reagents. Biological processes have zero environmental impact, low operating costs, and do not produce harmful by-products such as Trihalomethanes (THMs). Fluence has provided this solution to hundreds of customers around the world.

Fluence is also a leader in the use of selective, reusable resin processes for the removal of specific pollutants, such as arsenic, boron, chlorides, and metals. Our value proposition delivers the most cost-effective, environmentally-sound solutions.

Membrane Treatment Solutions

Fluence technologies include membrane treatment solutions for any type of water applications. We have decades of experience working with membrane manufacturers to provide Ultrafiltration (UF), nanofiltration, and reverse osmosis solutions to clients around the world.

Brackish Water Reverse Osmosis (BWRO)

BWRO systems can treat water from a wide variety of water sources, including surface water and wells, and deal with a wide range of contaminants, including turbidity, salinity, arsenic, nitrates, and more.

We specialize in advanced membrane-based technologies that allow the removal of a wide variety of dissolved materials from water and effluent.

Process Water for Industries

RWL Water has more than thirty years of experience in developing solutions to produce highly dependable, fit-for-purpose industrial water, including resin demineralization solutions for industrial applications: softening, desmineralization, decarbonation, adsorption and nitrates removal.

To remove suspended solids, Fluence offers multimedia and activated carbon filters systems. They can be used in both industrial and municipal wastewater treatment plants, as well as for potable and process water.

We can produce ultrapure or demineralized water, suitable for industrial applications such as boiler feeds or cooling towers, or any use specific to the client's production process.

Case Studies

Project: Borgo Valsugana, Italy

Fluence supplied a two-stage, fully automatic arsenic removal plant to the Borgo Valsugana municipality in Trento, Italy. In the treatment process, the resins are filled with iron hydroxide that absorbs the oxidized arsenic.

The absorption capacity of the resins depends on the arsenic concentration in the polluted water and the presence of some interfering ions, like phosphates and silica.

The inlet of arsenic, in this case, is 50 µg/L. The output is less than 2 µg/L and the treatment plant and process successfully produce 75 m^3/h of drinking water for Trento.

Project: Termosierra Power Station, Colombia

EPM is one of the largest energy suppliers in Colombia. When changing their source from gas to fuel oil at their Termosierra Power Station, environmental regulations required the reduction of NOx emissions. Based on its wide experience with UPW, EPM hired RWL Water to design, build, and install a plant for the production of demineralized water.

The principal benefits of this project include access to excellent quality demineralized water and availability of required flow in the gas turbines during the energy generation process. Before passing through media filters and UF systems, water is taken from the Magdalena River and enters the lamella clarifier, reducing suspended solids. The plant features cutting-edge technologies for treating the water required for energy generation. The main technologies involved in this process are UF, reverse osmosis, and electrodeionization.

About Fluence

Named 2018 Global Company of the Year for Decentralized Water & Wastewater Treatment by Frost & Sullivan, Fluence has experience operating in over 70 countries worldwide and employs more than 300 highly trained water professionals around the globe. The Company specializes in design, manufacturing and implementation of local, sustainable water sourcing, wastewater treatment and water reuse solutions, while empowering businesses and communities worldwide to make the most of their water resources.

Fluence offers an integrated range of products and services across the complete water cycle, from early stage evaluation, through design and delivery to ongoing support and optimization of water related assets. With established operations in North America, South America, the Middle East and Europe, Fluence is also expanding into China's rural wastewater treatment market.

Fluence is a public company traded on the Australian Securities Exchange (FLC).

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