

## Flowrox Corona™

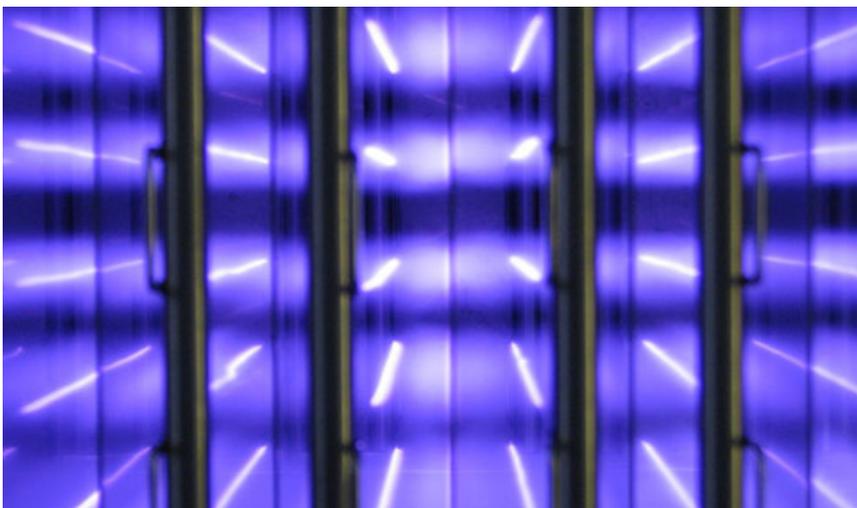
Flowrox Corona™ is a completely new approach to efficient water purification and disinfection. The treated water is contacted with non-thermal plasma, which generates strong oxidants from ambient air and the water itself. As a result, harmful pollutants are effectively degraded into natural constituents. Flowrox Corona™ can completely replace the use of oxidation and disinfection chemicals or costly ozonation systems in water and wastewater treatment.

### ➤ Flowrox Corona™ is Suitable for:

- Color and odor removal, disinfection of potable water
- Micropollutant destruction from biologically treated wastewaters
- Plant cooling water purification and microbial control
- Destruction of residual cyanates from mineral leaching processes
- Destruction of phenolic and other dissolved, refractory and toxic compounds
- Membrane fouling prevention

### ➤ Environmentally Friendly Solution

Flowrox Corona™ is an environmentally friendly solution that avoids safety risks connected to chemical use, storage and logistics. The system is both powerful and energy efficient, setting the new standard for modern oxidative water treatment.



Flowrox Corona™ is a much safer alternative to purifying water with chemicals.



### YOUR BENEFITS

Low energy consumption



Chemical free and low-cost operations



Robust design, care-free maintenance



Ambient temperature and pressure



Large-scale advanced oxidation process



*In a plasma contact, the water actually treats itself.* ”

### ➤ **Flowrox Corona™ Replaces Chemicals With Plasma**

Water treatment with large amounts of chemicals bears certain obvious drawbacks. Recognizing this inconvenience, Flowrox has been working on a solution and is about to release a completely new approach to oxidative water treatment: using non-thermal plasma, toxic organic pollutants are degraded by oxidants formed in situ. Therefore, there is no need for chemical transportation, storage and handling.

### ➤ **The Fourth State of Matter in Action**

Plasma, often considered as the fourth state of matter, is formed in electric discharges. So a non-thermal plasma system forms discharges that do not essentially generate heat. It can initiate the desired reactions and not spend energy on heating the medium. As a bonus, more difficult pollutants can be destroyed with the abundant hydroxyl radicals than have previously been feasible with traditional systems operating in ambient conditions.

### ➤ **Plasma Generates Oxidants to Purify Water**

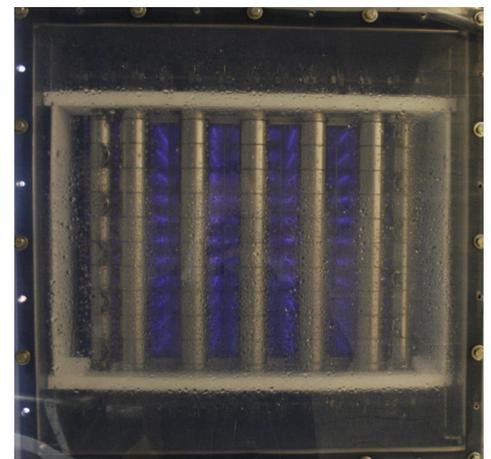
For water treatment, the desired reactions mean the formation of very strong oxidants:

- Treated water is contacted with the plasma, which generates the oxidants from ambient air and the water itself.
- Oxygen present in air is converted into ozone: a widely used oxidant for water purification.
- Direct plasma-water contact generates even stronger oxidants from water molecules: hydroxyl radicals.

In a plasma contact, the water actually treats itself by turning harmful pollutants effectively into natural constituents like carboxylic acids and carbon dioxide.



*Water treatment with Flowrox Corona™ is environmentally friendlier and safer.*



*Flowrox Corona™ can replace the use of chemicals or costly ozonation systems.*



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