

Drinking Water Supply



WATER PURIFICATION

Tanks > 600 m³ et 1,500 m³

Great Lakes Population Drinking Water Supply Project

(Democratic Republic of the CONGO)

This drinking water supply project, in a non-electrified territory of the DRC, involved the installation of solar chlorination systems at each collection site. These chlorine injection points were to be located downstream of two storage tanks of **1,500m³** et **600m³**.

Drinking water supply with **2,100m³** of storage

The sizing of such equipment leads to large systems. For each site, there would be about **30 solar panels** of **1,7m²** and a **1200kg** battery park, long cables and control cabinets to work in tropical areas. The harsh climate and operating conditions often lead to many water supply disruptions.

The **DOSATRON** solution is based on the supply of non-electric and self-regulating dosing pumps

	Carbonation D20WL2AF	Chlorination D8WL3000NIEAF
QUANTITY	3 pumps 33,4mg/m³ of NA2CO3 at 95%	5 pumps + 1 standby 3g/m³ CaClO at 60%
SETTINGS	from 0.2% to 2%	from 0.03% to 0.125%
PRESSION	from 0.12 to 10 Bar	from 0.35 to 8 Bar
OPTIONS	Aflas seals	Aflas seals External injection to limit engine calcification



In such a project, the continuity of service of water supply must remain **the priority**

Founded in **1974** DOSATRON INTERNATIONAL has been recognized on the **African** continent for more than **20 years** and has many references in the field of chlorine, carbonate, sodium, alumina sulphate and polymer dosage.

CARBONATION - PH regulation

D20WL 2 AF



CHLORINATION

D8WL3000 N IE AF



The Graviwater Solution

The chosen solution allows carbonation and chlorination thanks to the gravitational arrangement of the sources. This solution uses the pressure of water as a driving force. The technology proposed by **DOSATRON** best meets this challenge: a pump with a hydraulic motor activated only by the power of the water.

Installed directly on the pipe, the proportional dosing pumps **DOSATRON** operate by using the water flow rate as energy source. Pressure and flow drive the engine piston which drives the engine piston which is itself connected to a metering piston.

Disinfection additives are dosed **proportionally** and continuously injected with water at the chosen dosage. A carbonation is performed to regulate the Ph and make the water more sensitive to the subsequent chlorination. The dose of **concentrated product** is directly proportional to the volume of water passing through the pump and this independently variations in the pressure flow rate of the catchment.

Located upstream of the reservoirs, chlorination effectively protects against the development of bacteria: **protozoa, Escherichia Coli, Salmonella, Giardia intestinalis, Cryptosporidium parvum....**

This positioning upstream of chlorination, combined with a form of adapted tank, allows to respect the contact time essential to the water disinfection.

In less than a year, Graviwater, Dosatron's partner, obtained the contract to design and supply the equipment for a successfully completed project at the end of 2018.

“ The population of the **Great Lakes** region can now consume water in accordance with **WHO** standards. ”

Kévin Ghédini

 **Graviwater**
www.graviwater.com

www.dosatron.com

