# Drinking Water Supply





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## WATER PURIFICATION

### Millennium Water Supply and Sanitation Program (PEPAM) Project, Senegal

#### **Objective:**

Promote sustainable integrated water resources management, provide universal access to safe drinking water and ensure the continuity of public services in rural areas.

# **38** Chlorination installations (ou: systems) to deliver safe drinking water to approximately **60,000 people.**

In order to meet the needs of the rural population, the Senegalese government took measures to systematically implement drinking water systems through the installation of chlorination systems within the water towers. upstream of the drinking water networks. With this prescribed configuration, the control of the physico-chemical and bacteriological quality of the water is implemented before storage and transport. The involvement of local authorities as well as SOGES (Société de Gestion des Eaux du Sénégal) in the collection of qualitative data from water will allow the sustainability of these installations. In addition to the equipment, Dosatron supported Sade in this ambitious project with a training program on the use of the selected technologies.



38 water towers - 38 new boreholes Approx. 100 m3 per water tower

> **Chlorination** D8WL3000NIEAF

38 pumps and accessories 50 people trained Benefiting 60,000 people

> Dosage from 0,03% to 0,125%

from 0,35 to 8 Bar

Aflas seals External injection to limit engine calcification

This unique Senegalese development framework (PEPAM) is based on the combined efforts of the State, civil society, local authorities, NGOs, private sector and development partners.



### 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.

### **CHLORINATION** D8WL3000 N IE AF







### Our solution

Our solution allowed the implementation of chlorination downstream of the foreholes, thanks to a partial bypass of the whole **38-water-towers** water supply. We used the driving force of the water distributed by the drilling pump.

The **DOSATRON** technology, based on water-powered hydraulic dosing pumps, made it possible to meet this technological challenge.

Installed as bypasses on the pipe, the proportional dosing pumps the DOSA-TRON operates without electricity; it uses the flow of water as the power source. The water activates the DOSATRON, which takes up the required percentage of disinfection additive and injects it into the water.

Inside the **DOSATRON**, the disinfection additive is mixed with the water, and the water pressure forces the solution downstream. Once adjusted, the dispenser requires no action or external control.

The dose of disinfection additive is directly proportional to the volume of water entering the DOSATRON, regardless of variations in flow and pressure which may occur in the main line.

Implemented upstream of the tanks chlorination effectively protects against the development of bacteria: protozoa, Escherichia Coli, Salmonella, Giardia intestestinalis, Cryptosporidium parvum...

This configuration choice, combined with a suitable tank shape, allows sufficient contact time for the water to be thoroughly disinfected.

Sade, a partner of DOSATRON, has won this contract to design and supply equipment for the construction of 38 drinking water won to be delivered turnkey to the Senegalese authorities.



66 An additional 60,000

people now have access to safe drinking water.



