

“Water treatment technology for sustainable development.”

- 💧 Teams of engineers motivated by the innovative integration of technologies
- 💧 **Extensive experience** in the field and rural areas around the world
- 💧 **A real focus** on the needs of the population
- 💧 A 700 m² production and R&D centre is set up along a river in Belgium to enable the team of engineers and technicians to conduct tests under realistic conditions.



Sotrad Water was created by Jean-Charles De Muylder more than 10 years ago. With a career spanning more than 25 years in Africa combined with his education as a bio engineer, it seemed important to him to provide solutions to enable rural populations in emerging countries to gain easy access to drinking water. The solution of **water pumping, treatment, storage and distribution units** integrates best the realities on the ground in such decentralized areas. Since then, Sotrad Water has already installed pumping, treatment and storage equipment in more than 15 countries in Africa, Asia and Central America.

MISSION

Actively participate in facilitating access to water for rural populations and enhancing the beneficial presence of local production on the national and international market by implementing innovative and sustainable solutions.

Sotrad Water solutions are **robust and sustainable**. They work using **solar energy** and create added value for the communities and industries in decentralized areas.



Water treatment unit



Water storage solutions



Solar pumping

pump and drink

Created 10 years ago by Sotrad Water, the range of **Pump&Drink** units is geared to providing sustainable, turnkey solutions for drinking water in rural communities. These stations come equipped with new boreholes, wells or in replacement of obsolete manual pumps.

5 principal components:

- 💧 **Raw water pumping thanks to the solar panels and a PSOL pump.**
- 💧 **Complete water treatment line** to provide drinking water in accordance with the WHO regulations.
- 💧 Drinking water storage tank raised 8 m³ from the ground and ramps with 5 taps for the distribution of this water;
- 💧 Remote data management. Each station is equipped with a box for transferring data to a centralized office.
- 💧 Solar lighting of the distribution site.



INDUSTRIAL SOLUTIONS

The water treatment units of the Sotrad Water industrial range provide a flowrate of 1,000l/h to 20,000l/h for many industrial applications such as hospitals, base camps, farms, food industries, armies ...

Automatic and simple to use and maintain, they can be used to provide drinking water for the staff or for the processes of industrial sites.

Advantages:

- 💧 Autonomous
- 💧 Easily transportable
- 💧 Tailored
- 💧 Turnkey solutions



URBAN SOLUTIONS

Sotrad Water makes water treatment units for intermediate and peri-urban areas, in standard 20' or 40' fully equipped containers. These units are designed to meet the needs of **small cities** and base camps. Powered by solar energy or connected to the electricity grid, the water treatment plant units operate automatically, ecologically and efficiently to produce up to 200m³/h.

Advantages:

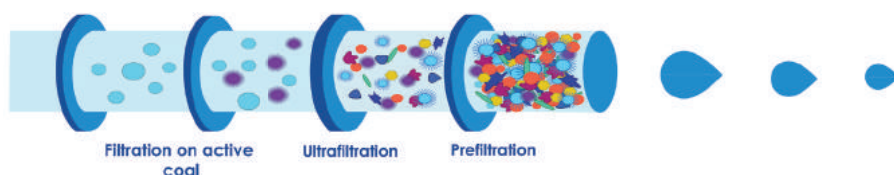
- 💧 Turnkey
- 💧 Autonomous
- 💧 Remote management
- 💧 Low operational costs



TECHNOLOGY: ULTRAFILTRATION

Sotrad Water units use a set of processes to remove suspended particles, tastes, odours and all micro-organisms that cause infections.

Sotrad Water has developed an innovative integration of advanced filtration technologies: filter media, UV, Ultra-filtration and the use of enzymes to maintain the membranes.





The **Sotrad Water solar pumping solutions (P-SOL)** are designed to replace manual pumps in rural communities and equip an emerging agricultural sector. The PSOL range features 7 different pumps, controllers and solar panels. Depending on the use it can provide between 5,000 and 60,000 litres of water a day.

Its distinctive characteristics include being easy to use by all thanks to its schematic and effective interface.

Advantages:

- 💧 Inexhaustible, clean and free energy,
- 💧 Rapid and turnkey installation
- 💧 Long lifecycle of solar panels
- 💧 Low maintenance
- 💧 Secure and reliable technology

WATER STORAGE SOLUTIONS:

1. MODULAR TANKS

The modular tanks of Sotrad Water are designed for the storage of raw or drinking water in all fields, with a capacity ranging from 4 to 6,000 m³. Modular tanks are made of 1m² panels to be bolted at the construction site. Compliant with the international standards and certified by the Food and Drug Administration, these tanks are installed on the ground or in concrete or metal structures.



Advantages:

- 💧 High mechanical resistance and tightness
- 💧 High degree of modularity Long lifecycles of solar panels
- 💧 Drinking water certificate
- 💧 Low maintenance

2. FLEXIBLE TANKS

Also known simply as tank or flexible tarpaulin, the flexible tank meets perfectly the storage and transport requirements of liquids, including drinking water. Thanks to the high resistance of the material used, the water is protected from all external contaminations. It is a simple and economical solution that does not require civil engineering.

Advantages:

- 💧 Easily to deploy
- 💧 Small footprint when empty
- 💧 Food and drink certification
- 💧 Custom manufacturing
- 💧 No evaporation



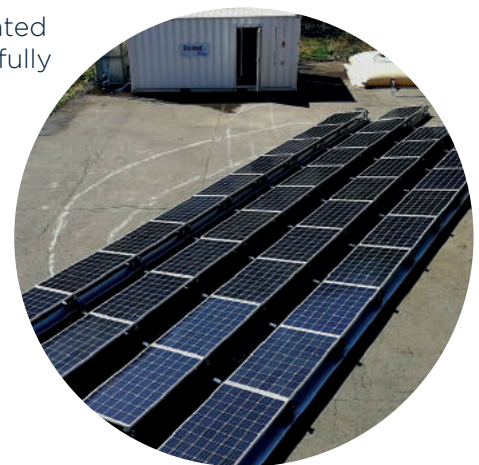
A CONTINUOUS DEVELOPMENT POLICY

This search for innovation has enabled the development of agricultural kits around our PSOL solutions, remote management tools, and solar suppressors to replace water towers. The integration of all these developments is reflected in the range of UFS solar stations.

UFS is a fully autonomous water treatment station integrated into a standard 20 'container. The solar installation generates the necessary energy and salt electrolysis generates the necessary chlorine for the residual disinfection. It is the perfect solution for fast and sustainable water distribution in isolated sites, reconstructed areas or emergency situations. The production unit is fully automatic and can produce up to **10 m³ / h of drinking water**.

Advantages:

- 💧 **Solar energy.**
- 💧 Drinking water for more than **10,000 people**.
- 💧 Very versatile turnkey solutions
- 💧 Easy to deploy (**2 hours and 4 people**)



CENTRE OF EXCELLENCE TO PARTICIPATE IN THE DEVELOPMENT OF THE COUNTRY

Sotrad Water designs autonomous units that are made to be quickly «appropriated» by local users. Different centres of excellence are set up in partnership with local operators as soon as possible to create employment through adapted training and technology transfer.

A Centre of Excellence in its full version is composed of:

- 💧 A laboratory for quick water analyses
- 💧 Educational material supports for training purposes
- 💧 A maintenance hub for the solar pumps and stations
- 💧 A stock of spare parts
- 💧 A control centre for remote management

Centres of this type have already been deployed in Togo, Ivory Coast and Sierra Leone.



South Africa

Water treatment plants installed in 50 schools in the Free State region



Ivory Coast

Water supply of 150 rural communities (100000 inhabitants)



Burkina Faso

Drinking water supply in refugee camps for the Monaco Red Cross



Haiti

Drinking water supply of the MSF hospital



Costa Rica

Flexible storage solutions for the Central American region



Gabon

Drinking water supply in Maboumine mining camp



Ghana

Drinking water supply of an agro-industrial camp



Marocco

solar pumping for agriculture



DR Congo

Water treatment station on a barge on the Congo River



Mali

water supply to a pasta and semolina plant



Sierra Leone

Water treatment plants for the cities of Blama & Lunsar



Guinea

drinking water treatment plant for a luxury hotel



Togo

Drinking water supply of UN operations in Chad



Sri Lanka

Water storage for the Sri Lankan armed forces

