The system that transforms air into water

SEAS has made sustainability its mission, developing a revolutionary method that responds to one of the most pressing problems of our century: the global water crisis.

SEAS' goal has always been to guarantee, in any part of the world, access to a fundamental good such as water for human, agricultural and industrial use.

"An increasingly important mission: nowadays in fact," specifies Rinaldo Bravo, general manager of SEAS, Societé de l'eau aérienne Suisse, "over 2 billion people live in areas with high water stress, 4 billion experience serious water shortages and 1.8 billion use contaminated drinking water sources, with serious consequences for health. At the same time, with the increase in the world population (in 2050 the forecast is 9.7 billion inhabitants on Earth) the need and global use of water is constantly increasing. It is therefore becoming increasingly urgent to identify alternative sources to respond to the growing demand."

What technology is behind the new AWA Modula systems?

"Our systems are able to produce high quality water from the air, capturing and transforming the humidity present in the atmosphere. We have developed and installed systems for capturing and purifying water from the air with integrated thermal tri-generation and energy saving. With our technology, at the same cost as water, you get free thermal contributions such as dry cooled air and heating for sanitary water use, with a significant economic return that allows you to amortize the costs and pay for the system itself. The technology used although based on traditional dehumidification principles, it has been enhanced to produce significant quantities of water at reduced energy costs. Our machines are capable of producing from 30 litres up to 10,000 litres of water per day, with energy consumption ranging between 0.26 and 0.28 kWh per litre,

SEAS TECHNOLOGY PROVIDES AN EFFECTIVE AND FAST CONTRIBUTION TO THE GLOBAL WATER CRISIS, OFFERING ENERGY EFFICIENT, SUSTAINABLE AND EASY TO IMPLEMENT SOLUTIONS





Rinaldo Bravo, SEAS CEO

at temperatures of 30°C and with 70 percent humidity. The machines do not just produce water: the air used in the dehumidification process is released at a lower temperature and humidity than the incoming air, thus reducing costs. In the case of our 2,500 litre per day machines, we release 8,000 cubic metres of fresh, dry air and heat over 2,000 litres/h of sanitary water to 45°C which can be used to reduce the costs of air conditioning systems, with energy savings of up to 30-40 percent. Our methodology differs from other more energy-intensive solutions and allows us to operate effectively in extreme conditions, such as in deserts, constantly a production guaranteed even at low humidity levels or high temperatures".

What are the latest projects completed?

"AWA Modula solutions have been placed in Hawaii, in collaboration with the US NAVY, to ensure the supply of drinking water for the community of Maui (with modules capable of producing up to 50 liters per day of high quality drinking water with a max. 700 Watt/h of network connection). In California, our company has installed 250-liter and 500-liter SEAS machines on vehicles such as pick-ups that allow the supply of drinking water in areas where it is scarce, absent or unusable because it is polluted. Furthermore, more and more accommodation facilities want to be plastic free: thanks to the Awa Modula system they have drinking water for guests and staff. An example is the Asaree Goalhi in the Maldives and the Hotel Levante in Formentera, where the Awa Modula system, installed outside and connected to the kitchen, provides quality water to visitors, reducing the use of bottles.

In Granada, the installation of an air-to-water system allows the staff and guests of the municipality to drink quality water while also preserving the environment."

What economic return can companies have?

"By integrating these machines into building or manufacturing systems, you can produce drinking water and/or distilled water at zero cost. We make a machine that we call 'horizontal', which consumes electricity, but which also produces water, gives fresh air and heats water."

What is the water created by SEAS System like?

"SEAS Systems take in ambient air, passing it through filtration devices that eliminate pollutants and other impurities. The air is filtered and treated to obtain the desired water: drinking water for human consumption or industrial water for multiple applications. The systems can be equipped with sensors for remote monitoring in real time, ensuring the quality of the water, the correct duration of the filters and the information and alarms necessary for perfect and safe operation. The water produced by our systems has been tested in numerous countries by independent testing agencies that have certified its high quality."

What is your approach to sustainability?

We firmly believe in sustainable and environmentally friendly development. Our solutions are ecological, they protect the environment and improve it by reducing CO_2. They safeguard underground water, river and lake water and allow the sea to be protected from aggressive desalination plants and infrastructures. Our technology provides an effective and rapid contribution to the global water crisis, offering energy-efficient, sustainable and easy-to-implement solutions. We also collaborate with a partner specialized in the management of tokens relating to water and environmental saving, which are traded on the main international stock exchanges, expanding sustainable investment opportunities. Finally, we are part of the international association Green Building Council Italia and are in line with the Leed standards, confirming our role in promoting the construction of sustainable buildings

Cristiana Golfarelli