

Xylem Future-proofs Water Supply with First Ozone Treatment Plant in Vietnam

As part of the Vietnam Development Goals set in 2010, the government aims to provide 90 percent of the urban population with access to safe drinking water and at collecting and treating 100 percent of the urban wastewater by 2020.

The Water Challenge

In Ho Chi Minh City, roughly 12 million people depend on the Dong Nai and Saigon rivers for a steady supply of clean water for domestic and industrial uses. Yet, the southern Vietnam city's main sources of water are often polluted by discharges from residential areas, hospitals, factories, waterway transport vessels, farms, and even garbage dumps.

In order to meet the increasing demand for clean water, Saigon Water Corporation, the government organization responsible for domestic and business water supply services in Ho Chi Minh City, brought Xylem in to work on an expansion of the Tan Hiep Water Treatment Plant. The expanded plant draws water from the Saigon river and plays a crucial role in ensuring the residents of Ho Chi Minh City have access to clean water supply. It is set to increase the plant's productivity, enabling it to produce 300,000 m³ of drinking water per day, benefitting 1.5 million Ho Chi Minh City inhabitants or 15 percent of the city's population.

Xylem's Solution

Xylem's Wedeco SMOevo ozone system with Effizon® evo 2G electrode technology was chosen as a reliable, cost-effective, and sustainable treatment method to reduce the reliance of the Tan Hiep Water Treatment Plant 2 on chlorine technology and traditional filtration. Pollutants, coloured substances, odours and microorganisms are directly destroyed by oxidation, without creating harmful chlorinated by-products or significant residues which may have an adverse effect on health in the long run.

Another advantage of the Wedeco system is that it is highly customisable – Xylem ensured that the installed application fitted the exact needs and requirements of Tan Hiep plant. Furthermore, the on-site installation footprint was reduced by up to 20% as a result of its space-saving design and optimum arrangement of the generator vessel, pipework and electrical cabinets.



Xylem Wedeco SMOevo ozone system, Vietnam's first ozone system



Leopold Type S Underdrain gravity media filtration system

CUSTOMER: Saigon Water Corporation

LOCATION:
Tan Hiep Water Treatment Plant Expansion, Vietnam

XYLEM SCOPE:
Xylem designed, installed and commissioned the treatment process unit to include the first ozone treatment application in Vietnam.

RESULTS:
Xylem installed the Wedeco SMOevo ozone system and Leopold Type S Underdrain, enabling it to produce 300,000 cubic metres (m³) of drinking water per day, benefitting 1.5 million Ho Chi Minh City inhabitants.

Said Patrick Baker, Commercial General Manager, Xylem Hong Kong Sales Hub

“We see Tan Hiep as a major milestone for Vietnam, for Saigon Water Corporation, and for us. Ozone treatment is the technology of the future, and this first-of-its-kind system here will be a good reference for people to come and see and learn about it.”

The Leopold Type S Underdrain gravity media filtration system with I.M.S® 200 media retainers also plays an important role in the operation of the Tan Hiep Water Treatment Plant 2. It helps ensure uniform and continuous backwash throughout filters, making for longer filter runs and higher backwash efficiency, more product water, and less waste, ultimately lowering operating costs per gallon or liter of filtered water.

With new technologies come a need for education and an upgrading of skills. Said Truong Khac Hoanh, CEO of Saigon Water Corporation,

“It’s very important for customers to choose the right products and the right expertise. We need an efficient and cost-effective solution, as well as a reliable and trusted partner. Xylem has a longstanding relationship with Saigon Water Corporation, and has exactly what we need to carry this forward.”

As part of an ongoing, robust relationship with Saigon Water Corporation, Xylem is providing continuous support through regular on-the-ground training sessions for service engineers and staff. Mr. Baker remarked, “We’re not just selling them the technology, but also providing them the support that they need everyday”.

For more information, please visit <http://asia.xylem.com>

Wedeco SMOevo Ozone System



Key Features:

- Ozone production of 20 to 1,30 lbs/day or 400g/hr to 25kg/hr
- Low energy consumption and low capital and operating costs
- Completely mounted and instrumented “plug and play” system
- Robust design for operation under rough ambient conditions
- Easy installation and operation
- Virtually maintenance-free electrode technology
- Minimum 10-year replacement warranty on Effizon® evo 2G electrodes

Effizon® evo 2G Electrode Technology



Effizon® evo 2G electrode technology is the core element of the Wedeco SMOevo ozone system. Featuring a glass core, which consists only of high strength borosilicate glass and stainless steel mesh, the Effizon® evo 2G helps the ozone system achieve a level of reliability and energy efficiency unattainable with most other electrode technologies.