O2solutions NANOBUBBLE SYSTEMS for oxygen-rich water and a healthy root zone

Water quality plays a crucial role in stable cultivation. In silos, water basins, and irrigation systems, oxygen levels can be compromised by temperature, stagnation, organic loading, or biofilm formation. This negatively impacts water quality and root zone conditions.

The O2Solutions nanobubble systems from Van der Ende Group efficiently add oxygen to water. The systems use patented VPOD nanobubble technology, which introduces oxygen into a water flow under controlled conditions. This creates oxygen-rich water with a stable dissolved oxygen level and a high concentration of suspended nanobubbles.

Nanobubbles remain in the water for an extended period and contribute to an even distribution of oxygen. This supports a healthy root zone, helps keep water quality more manageable, and contributes to a cleaner water system.

Oxygen-rich water with nanobubbles

A stable oxygen level in water contributes to:

- a healthier root zone
- better conditions for nutrient uptake
- improved water quality in silos and water basins
- a cleaner irrigation system
- better management of organic loading
- improved crop resilience

VPOD nanobubble technology

VPOD stands for Vacuum Pressure Oxygen Dissolving Nano. This patented technology adds oxygen to water in a controlled manner. The oxygen is mixed with a pressurized water flow, creating water with a stable dissolved oxygen level and suspended nanobubbles.

The O2Solutions systems combine low-maintenance operation with continuous performance and are officially approved according to European and North American quality standards. They are available in two versions: Triton for silos and water basins, and Artemis for larger water systems and integration into existing irrigation systems.

Two versions for different water systems

O2Solutions Triton nanobubble system

for oxygen enrichment of silos and water basins

The Triton is the compact version for silos and water basins. The system is installed directly on the outer wall of a water silo or near a water basin and continuously circulates water. The water is drawn in, passed through the VPOD reactor, and returned as oxygen-rich water.

Thanks to the special mixing technique, the treated water is quickly and evenly distributed throughout the entire water volume. The Triton is suitable for, among other applications, drainwater silos, daily supply silos, rainwater silos, underground silos, DFT water basins, and rainwater basins.

Advantages of the Triton

- Compact system for silos and water basins
- Direct installation on or near the water storage
- Even distribution thanks to special mixing technology
- Suitable for existing water storage
- Control via timer, external signal, or dissolved oxygen measurement

Which model is right for your situation?

The choice between Triton and Artemis depends on the application, capacity, and desired integration into the water system. The Triton is suitable for targeted water treatment in silos and water basins. The Artemis is the right choice for larger water systems or when integration into an existing irrigation process is desired.

Van der Ende Group works with you to determine the right application, capacity, and system integration for your water system.

O2Solutions Artemis nanobubble system

for oxygen enrichment of larger water systems

The Artemis was developed for larger water systems and applications where a stand-alone installation in the technical room is desired. The system can be connected to silos, water basins, irrigation systems, or bypass circuits of existing water systems.

The Artemis passes water under pressure through the VPOD reactor and returns the oxygen-enriched water to the water system. Via a pressure diffuser plate, the treated water is optimally mixed with the untreated water. The Artemis comes standard with an integrated oxygen concentrator featuring a built-in oil-free compressor.

Want to know more?

For more information, visit our website www.vanderendegroup.nl or contact us at sales@vanderendegroup.com.

Advantages of the Artemis

- Suitable for larger water systems
- Stand-alone installation in the technical room
- Integration into existing irrigation systems possible
- Optimal mixing via pressure diffuser plate
- Integrated oxygen concentrator
- Suitable for hydroponics, DFT systems, and irrigation applications

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