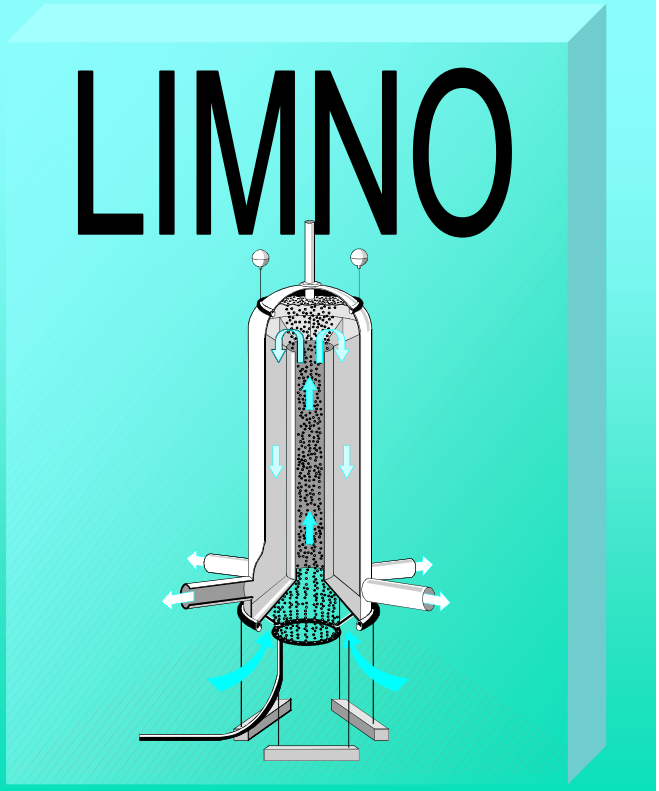
souple Limno

Rigid Limno



Basic principle

The LIMNO hypolimnetic aerator oxygenates the deep layers of the water body, maintaining oxygen levels above 3 g/l without destratifying the water column.
By avoiding mixing of the colder deepers layers and warmer upper layers of the lake the device ensures against any disruption of the surrounding ecosystem.

Benefits of hypolimnetic aeration

By preventing the release of sediment-trapped phosphorus, hypolimnetic aeration prevents from eutrophication in lakes and reservoirs of depths above 25m. In this way it checks the production of nuisance algae and facilitates the treatment of the raw water supply source by:

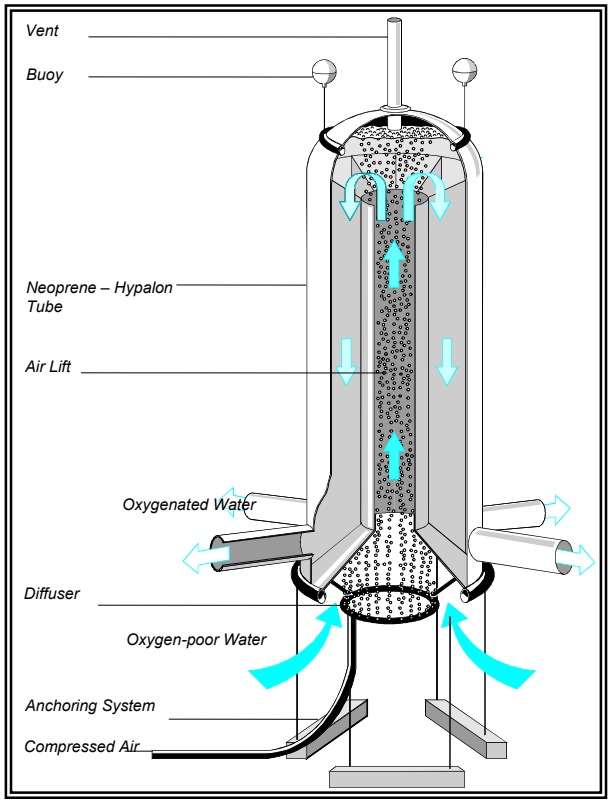
- Ensuring constant quality of the supply source throughout the year.
- Reducing iron, manganese and ammonia concentrations.
- Reducing the frequency of filters washing.

How it works

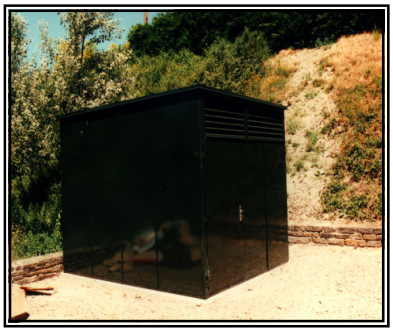
Compressed air is delivered to a diffuser at the bottom of the LIMNO. The rising bubbles produced entrain the oxygen-poor water upwards by an air lift effect. The entrained water is oxygenated on contact with the bubbles then returned to the bottom where it discharges horizontally. The excess air is released via an air vent.

The LIMNO is used between April and October during the period of thermal stratification.

The souple LIMNO is 10m high and 3 to 5m in diameter.



Schematic of LIMNO



Soundproof compressor hut

Installation

Air supply

This is via an electrical compressor installed in a soundproof pre-erected technical building. The air delivered is oil-free. The oxygen content of the oxygenated water is increased by means of a second air inlet located in the double wall of the LIMNO. This inlet can also be used to inject pure oxygen if necessary.

Maintenance

Once-yearly draining of the compressor and changing of the compressor filters.

No servicing requirement for the neoprene-hypalon limno's body except checking of air flow in the vent.

Parc de l'Ile – 15/27 Rue du Port – 92022 NANTERRE Cedex – France
Tél : 01 46 14 71 73 – Fax : 01 46 14 71 69 – Email : info@aqua-technique.fr
www.aqua-technique.fr