



# Aquaculture Oxygen & Ozone solutions



We look closely and take care

## Oxygen in Aquaculture

Nowadays, aquaculture is a critical element of seafood production. Its importance increases year by year to support the world's growing population with high quality and affordable proteins. The complexity of modern aquaculture is driven by both, provision of best possible living conditions and production in an economically feasible yet sustainable way. Aside from a balanced oxygen saturation to improve growth rate as well as feed conversion ratio, sufficient oxygen levels have a positive impact on biological filtration and treatment steps, assuring good water quality.

## Ozone in Aquaculture

Not only oxygen but also ozone, a tri-atomic oxygen molecule, is playing an important role in aquaculture. One of the main advantages of ozone is its biocidal effect. Pathogens, not removed or coped with properly can cause challenges by being spread evenly throughout the whole system. Aside from eliminating pathogens, ozone has also proven to be very effective in taste and odor control, preventing off-flavours. This helps to reduce the time span before harvesting can start. Due to its nature, ozone offers a number of benefits for RAS systems, such as disinfection as well as improvement of water quality.





# ROTURI®

## The new normal in gas-mass-transfer

### up2e! - the better choice

Our Roturi is a uniquely designed inline gas dissolution device. One of its most beneficial attributes is the operation at ambient pressure. Based on the Roturi's® specific technical key features, no pressure increase occurs.

It can be used for both, ozone and oxygen without the need of modification or adjustments. One piece of equipment fits all dissolution jobs.

The implementation of our Roturi® is easy and time efficient. Retrofit integration for existing production facilities as well as newly designed aquaculture sites are just as easily equipped with the Roturi®. Comfortable SCADA integration or simple „ON/OFF“ settings can be tailored.

### O<sub>2</sub> / O<sub>3</sub> + Roturi = Efficiency

The efficiency of the dissolution is key to successful and cost saving plant operations. This is true for both, ozone and oxygen. Increased gas-mass-transfer at ambient pressure is naturally associated with minimum gas loss on the water surface. Fine bubbles created in such operating conditions stay longer in solution. As a result, less energy, less gas and less footprint is needed.

### Efficiency means saving



Energy



Space/Footprint



Oxygen





## High quality means reliability

Our Roturi® is manufactured for long term operation. The conscious choice of high quality materials and the smart design, both assure long product lifetime and durability of the equipment, thus supporting productivity and profitability.

## High degree of availability

The Mean Time Between Failures (MTBF) is increased as much as possible. However, in the unusual event of a failure, replacement can be done within a maximum of 30 minutes. The whole system is designed to be plug and play!

## Modularity & Flexibility

By nature, the Roturi® is modular. Individual Roturis® can be added quickly to adjust to the changing conditions caused by growth of the farmed fish species. Variations in flow rate or changes in gas demand can be addressed instantly with respect to supplementary oxygenation and ozonation.



# Your water in good hands. Call us!

## About up2e!

up2e! was founded by a team of passionate and experienced wastewater specialists together with our partner EnviroChemie. Hard work, an innovative approach and great teamwork results in the chance to offer our clients the best available solutions for their applications. Our joined focus rests on industrial and municipal wastewater treatment, water reuse as well as water treatment.