

ELOXIRAS

Electrochemical Oxidation in the Recirculating
Aquaculture Systems Industry



eloxiras.com



Advantages compared to conventional treatments:



High Efficacy

Contributing to increase RAS capacity and productivity in a cost-effective way.



Safe Process

High safety for the farmed species, ideal for isolated applications as quarantine and bio-security.



Easy to Operate

Allowing to reach 100% of performance without start-up and adapting periods, typical of the biological systems.



Compact Design

Allowing to save investment costs and to maximize the integration possibilities (logistic applications in trucks and wellboats).



Low Environmental Impact

The impact of the RAS is minimized due to lower water exchange requirements with the surrounding media.



Removal of Pollutants and Disinfection in One Step

Ensuring the elimination of high concern pollutants, such as TAN, nitrite and organic matter, while simultaneously providing in-situ disinfection in one single stage.



Easy Automatization

Possibility of including a control system with remote alert procedures and supervision of the system condition and operation.



Efficient Energy Process

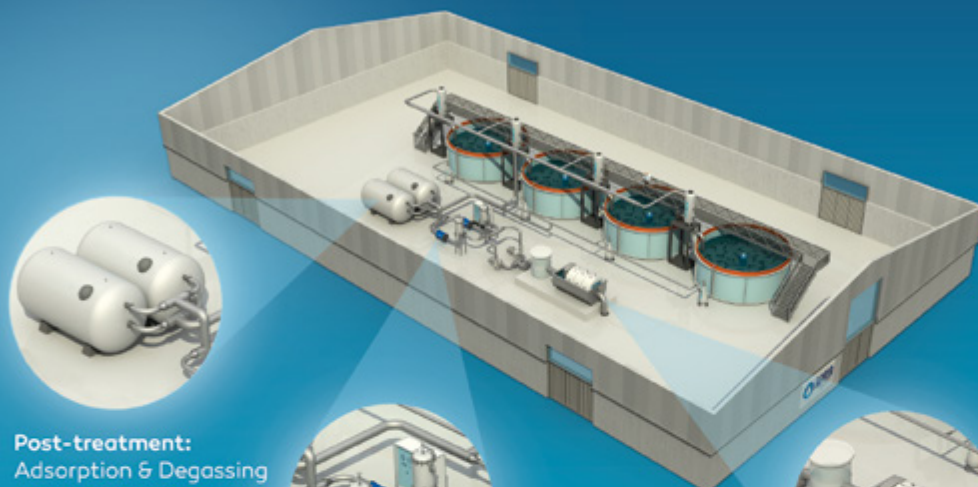
Adaptable to optimize energy through a fine adjustment of the treatment intensity to the daily change of the pollutant production rate.



Modular and Easy to Scale-Up

Allowing to increase the treatment capacity with maximum simplicity and minimum investment cost.

Increase the productivity of your recirculating aquaculture system with ELOXIRAS® water treatment technology.



Post-treatment:
Adsorption & Degassing



Main Treatment:
Electrochemical Oxidation



Pre-treatment:
Filtration

ELOXIRAS® is an innovative process for the treatment and reuse of marine and brackish water, developed to enhance the productivity and to reduce the environmental impact of recirculating aquaculture systems (RAS).

Considering its market application, ELOXIRAS® is commercialized in three Series (MINI, HYBRID and LOGISTIC), thus, offering the clients the possibility of making up a customized product adapted to the specific needs of their RAS.



Disinfection



3 log CFU/mL per pass

Nitrogen pollutants removal

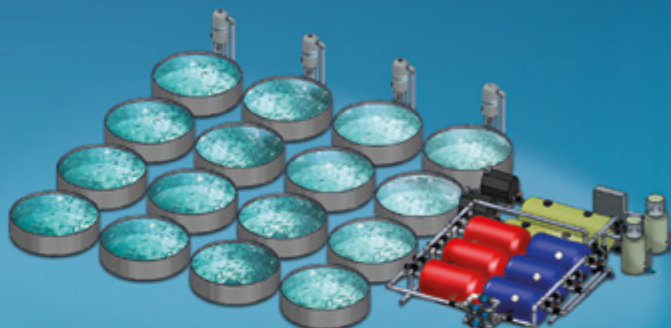


90% per pass

Based on the electrochemical oxidation technology, it only requires an electrical potential between two electrodes in water (Power).

MINI Series & HYBRID Series

It contributes to increase the current production capacity and decrease the water use.



ELOXIRAS® MINI

For **small scale** RAS operations.

ELOXIRAS® HYBRID

Ideal for **full scale** RAS facilities.

	Concept	Basic	Comfort	4.0
Pre-treatment	-	●	●	●
Feed pump	-	●	●	●
Reactor	●	●	●	●
Rectifier	●	●	●	●
Reactor cleaning system	●	●	●	●
Post-treatment	●	●	●	●
Electrical control cabinet	●	●	●	●
PLC	-	-	●	●
Manual valves	●	●	●	●
Automatic valves	-	-	●	●
Compressed air system	-	-	●	●
ORP continuous monitoring	-	Optional	Optional	●
pH continuous monitoring	-	Optional	Optional	●
TAN continuous monitoring	-	Optional	Optional	Optional
Total chlorine continuous monitoring	-	Optional	Optional	●
Temperature control system	-	Optional	Optional	Optional
Oxygenation system	-	Optional	Optional	Optional
Consumption analysis	-	-	-	●
Remote monitoring & operation	-	-	-	●
Protection against moisture and splash	Optional	Optional	Optional	Optional

LOGISTIC Series

Our technology boosts a secure and longer transport of living aquatic species.



Truck Version

Compact solution for Truck transport.



Wellboat Version

Ideal alternative for Wellboat transport.



	LOGISTIC-T	LOGISTIC-W
Pre-treatment	●	●
Feed pump	●	Optional
Reactor	●	●
Rectifier	●	●
Reactor cleaning system	●	●
Post-treatment	●	●
Electrical control cabinet	●	●
PLC	●	●
Manual valves	●	●
Automatic valves	-	●
Compressed air system	-	●
ORP continuous monitoring	Optional	Optional
pH continuous monitoring	Optional	Optional
TAN continuous monitoring	Optional	Optional
Total chlorine continuous monitoring	Optional	●
Temperature control system	Optional	Optional
Oxygenation system	Optional	Optional
Consumption analysis	-	Optional
Remote monitoring & operation	●	●
Protection against moisture and splash	Optional	Optional

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