

# Aquaculture Intelligence

A RAS based solution for sustainable and smart seafood production



## What is Aquaculture Intelligence?

It's in our nature

A UN report has predicted that by the year 2050, the world's population will reach over 9 billion people. Gaining worldwide popularity along with healthier living, seafood is considered an efficient source of proteins, and are expected to become our most reliable nutritional ingredient. However, as the demand for seafood and fish rises, their natural supply gradually dwindles – which puts both aquatic habitat and human nutrition at stake. Addressing this challenge, AquaMaof has been developing solutions to enable the super-intensive

production of seafood in ways that are nature friendly and financially beneficial. We are a unique player in the field of aquaculture: our team of technology and aquaculture experts are fish farmers, born and raised, who possess deep understanding of the aquaculture world. With a vast background in the seafood industry and ample experience in all aquaculture disciplines, we have been researching and developing, designing and producing operational solutions for aqua farming in over 50 locations around the world.

## AquaMaof: The New Nature of Aquaculture

We think outside the pond

Aquamaof works with nature, applying our know-how and vision to create smart, sustainable, and efficient RAS-based fish and seafood production. Our self-developed technology saves time and expenses; spares the oceans; and ensures fresh,

healthy, clean and fast produce of different fish and seafood species. Smart fish farming is a natural evolution of a responsible, sustainable nutrition. Nature is a masterpiece – We only utilize its given advantages.

## A Smart RAS Based Ecosystem: Fostering both nature and business

Groundbreaking technology cultivating a healthy environment

The benefits of our complete Recirculating Aquaculture System (RAS) are all encompassing:



**Smart and to the point.** By leveraging cutting-edge technologies and tailoring them to the needs of the industry, we ensure that aquaculture installations of the future will be more sustainable, deliver improved efficiency and productivity, reduce costs while enhancing fish quality.



**Naturally healthy.** We use land-based closed containment systems to keep a secure environment and allow full control of the facility. This reduces risks for disease and contamination, and produces healthier fish without using chemicals.



**Close to market.** Unconstrained by location and climate, our operational installations are adaptive and can be set up close to markets, substantially reducing transportation costs and quickly connecting between water and plate.



**Environmentally conscious.** We're keeping the environment clean by optimally filtering the water so we can use it again and again. We have also developed technologies that allow us to dramatically reduce power consumption, offering a much more sustainable alternative.



**Harvest planning.** Full parameters monitoring and control allow for enhanced efficiency and productivity. Resulting in a higher-quality fish and all year-round harvest that you can plan ahead.

## Aquaculture 4.0:

A comprehensive RAS-based seafood production solution



### Bio-Security Control

The facility is designed in accordance with strict bio-security protocols

- Quarantine
- Disinfection
- Staff movement control
- Safety procedures for entering and exiting the facility
- SOP's



### Industrial Fish Production Tanks

- Robust tanks for lifetime usage
- Unique shape with integral side door and in-tank waste collector



### Monitoring & Control

- 24/7 monitoring of all critical system components and water parameters
- Automatic activation of all emergency backup systems



### Scalable Design

Easy adaptation of design to accommodate different species and annual production capacities from 1000 to 20,000 tons



### Minimal Maintenance

Smart selection and allocation of system components result in a robust facility



### Optimal Filtering

100% water filtering on each cycle achieving optimal water parameters



### Energy Saving Solution

Consumes as low as 1/3 of the power required by other RAS systems design



### Minimum Liquid Discharge (MLD)

Achieved through implementation of proprietary water reuse technologies



### Proprietary Oxygen Dissolving System

- More Oxygen with less energy
- Oxygen generated on site
- Waste heat recovered
- Oxygen level regulated in each tank



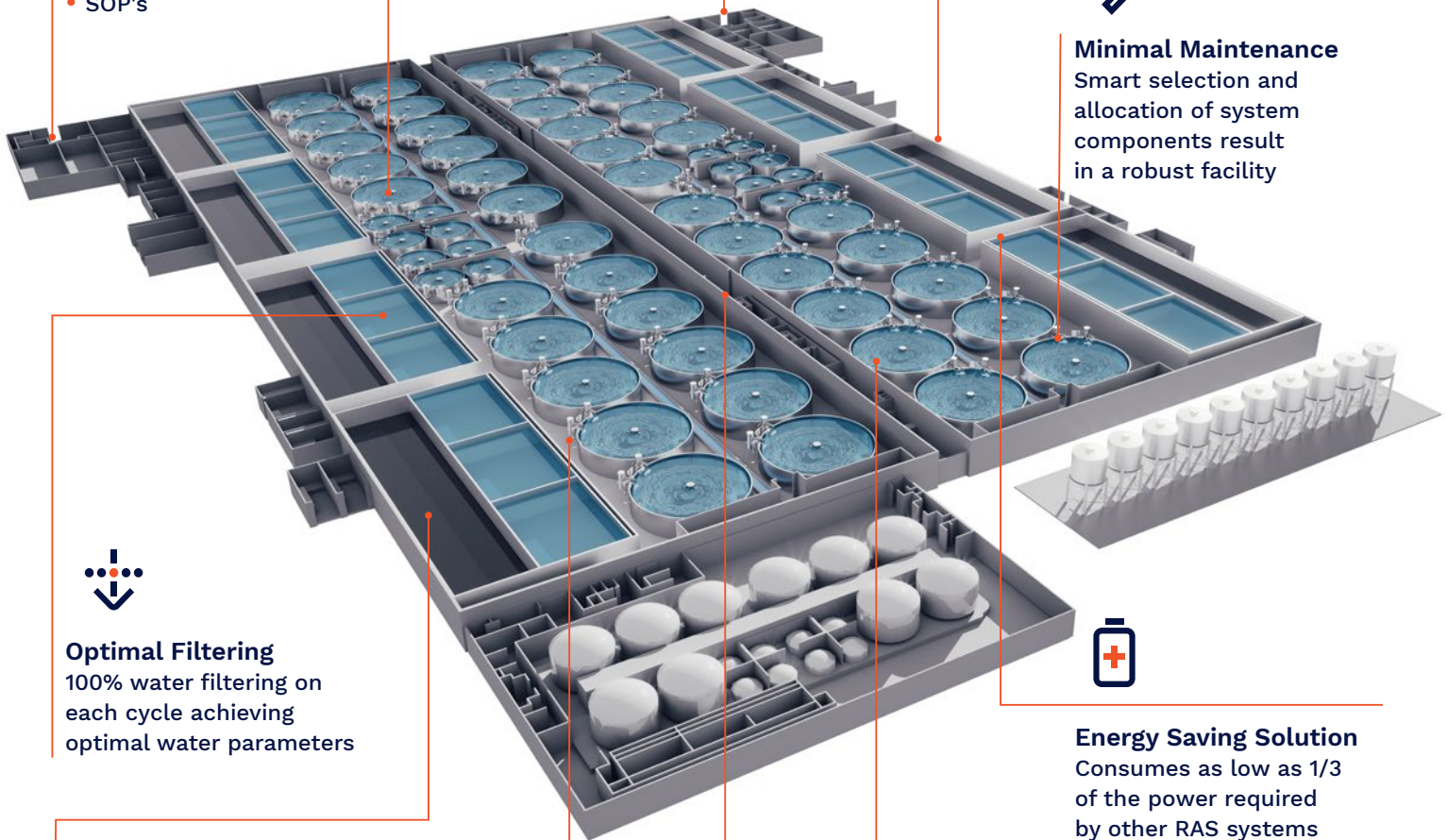
### Fish Channel – Fish Transfer Through Water

Economical, simple and safe way to move fish through the production chain (stocking, grading, marketing)



### Low Feed Conversion Ratio (FCR)

Achieved through optimized feeding modes, advanced feeding management system and optimal water conditions





## Turn-key RAS Facility: Set and Go

Nurturing our partnership all the way

As partners of AquaMaof, you get full guidance and expert assistance, from day one and in every step of the way, including:

- A business plan and feasibility study upon request.
- Close cooperation throughout all stages of design, planning and construction.
- Full counseling regarding facility stock and feeding.
- Training the staff and familiarizing them with the particularities of the facility and processes.
- Continuous service ensuring customer success.

We are flexible on construction responsibilities, with varying levels of involvement:

- In case of turn-key projects, we fully manage the operation, purchasing all components and working with the construction company.
- In case of minimal involvement, we will deliver the full design, including proprietary equipment. The customer will oversee the rest.

## Our projects around the world



AquaMaof Group:

