Land-based Atlantic Salmon Production Solution
The future of Salmon farming
A window of opportunity for RAS facilities

Appreciated for its great taste, texture, and health benefits, Atlantic salmon has rapidly become one of the most popular fish in the world.

Global demand constantly rising by up to 5% a year, presenting an incredible window of opportunity for inland, RAS-based production of Atlantic salmon to fill the widening gap between supply and demand.

Land-based production of Atlantic Salmon offers several significant advantages:

• Growing Salmon in a land-based, closed and controlled environment reduces the risk of disease contamination.
• No antibiotics or disease treatments are involved in the process.
• Unconstrained by location and climate, installations can be set up close to markets, substantially reducing transportation costs and resulting in a shorter time from water to plate.
• RAS technology enables continuous harvest all year round, and fish grow to commercial size faster with lower conversion of feed to fish mass and cost of production.

AquaMaof’s Atlantic Salmon RAS R&D and Training Center
Optimizing production through continuous research

In 2017, AquaMaof began operating a commercial Atlantic Salmon RAS R&D Center, allowing our team of technologists to test different parameters and technologies to consistently improve fish performance and welfare.

The results have been very good, achieving high-density production, high survival rates and low Feed Conversion Ratio (FCR) batches of 4-6 Kg harvest-size salmon.

The data generated in the facility is being continuously utilized to advance and optimize salmon production for current and future AquaMaof partners around the world.

The facility also serves as a location for training customers’ staff from around the world.

AquaMaof Atlantic Salmon R&D Center

KPI’s

<table>
<thead>
<tr>
<th>Goal</th>
<th>Achieved</th>
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<tbody>
<tr>
<td>Land based 5Kg market-size Atlantic salmon produced</td>
<td>✔</td>
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<tr>
<td>Fresh water &amp; low salinity production</td>
<td>✔</td>
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<tr>
<td>No pesticides / antibiotics</td>
<td>✔</td>
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<tr>
<td>Zero presence of obligate pathogens</td>
<td>✔</td>
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<tr>
<td>Survival rate of above 95%</td>
<td>✔</td>
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<tr>
<td>FCR: 1.1 (24 months)</td>
<td>✔</td>
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<tr>
<td>Optimum water quality</td>
<td>✔</td>
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<tr>
<td>Fish fillet color tests</td>
<td>✔</td>
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<tr>
<td>Tasting panels</td>
<td>✔</td>
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<tr>
<td>Commercialization (selling Salmon to distributor)</td>
<td>✔</td>
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</tbody>
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Research results

Smoltification (0.25-281gr)
From 0.25gr to 281gr in 9 Months

Post Smolt Grow Out (281gr – 4.7kg)
From 281gr to 4.75 kg in 14 Months

From 0.25gr to market size in 23 months

Integrated data

www.aquamaof.com
RAS-based Atlantic Salmon Production Platform

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

Optimal Filtering
100% water filtering on each cycle achieving optimal water parameters

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

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

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

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

Minimum Liquid Discharge (MLD)
Achieved through implementation of proprietary water reuse technologies
Turn-Key Salmon Production
RAS project:
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.

About AquaMaof
Aquaculture Technologies Ltd.

AquaMaof Aquaculture Technologies Ltd. is a privately-owned company, specializing in the field of indoor aquaculture technology and turn-key projects.

With over 30 years of experience, AquaMaof’s team of technology and aquaculture experts has been providing research and development, as well as comprehensive design, production, operations and support solutions for aqua farming in over 50 locations around the world.

The Company’s unique indoor fish production capabilities offer advanced, sustainable, and cost-effective solutions for today’s fish-growing needs.

From concept to operational fish production facilities, the company’s cutting-edge RAS solutions have been proven worldwide.