



## Sander Aquaculture Systems

**FOX**

**Foaming Oxidation — To Make it Clear!**



**FOX**  
FOAMING  
OXIDATION

# FOX (Foaming Oxidation) is the Key Solution to Achieve Clear Water and Improve RAS Management

## Why foaming?

Through the induced production of foam, fine organic matter (micro-organisms and fine suspended solids) sticks to fine air bubbles. The foam is then transported out of the water and flushed separately. This natural process allows the farmer to have a clear water condition in the system. This clear water improves the overall performance of all water treatment components in the system, enhancing fish welfare and quality.



## Why oxidation?

RAS designs and operations with water exchange rates below 10% per day are under constraint to use an oxidative agent to cope with organic and inorganic matter that is produced in the system and accumulates over time. The oxidation will inactivate bacteria, viruses and fungi, and reduce off-flavour significantly. In addition, long chain organic compounds are transformed into shorter ones, making them more biodegradable.



## Why a skimmer?

A protein skimmer is the most suitable device to induce the formation of foam through the injection of air into the water. It allows the use of fine air bubbles as a filtering media, transporting and discharging dirty foam in a gentle manner.

## Why ozone?

Ozone is an oxidative agent that can easily be produced and injected into the water. Once soluble, it will cause oxidative chain reactions. This will favour the overall system performance and management.

### Ozone will oxidize:

- Organic content
- Nitrite
- Discoloration
- Off-flavour
- COD

# FOX Systems

## Protein Skimmer + Ozone Generator



FOX System	Ozone Generator	Protein Skimmer	
	Capacity g/h	Diameter × Height mm	Water flow rate m <sup>3</sup> /h
<b>FOX 5</b>	5	300 × 2000	3
<b>FOX 20</b>	20	500 × 2000	10
<b>FOX 30</b>	30	600 × 2500	20
<b>FOX 50</b>	50	700 × 2500	35
<b>FOX 100</b>	100	850 × 4000	70
<b>FOX 180</b>	180	1200 × 3500	100
<b>FOX 250</b>	250	1500 × 3500	150
<b>FOX 300</b>	300	1750 × 3000	200
<b>FOX 500</b>	500	2000 × 3500	300
<b>FOX 700</b>	700	2500 × 3500	450
<b>FOX 1000</b>	1000	3000 × 3500	700
<b>FOX 1300</b>	1300	3000 × 4000	850
<b>FOX 1500</b>	1500	3000 × 4500	950

Fox system configurations are subject to changes without prior notice.

**FOX Systems** use a **Helgoland** series protein skimmer and **Multizon** series ozone generator. We can provide custom setups.



**Helgoland** series protein skimmer



**Multizon** series ozone generator



For more information, expert advice and orders, please contact us at:

**+49 (51 73) 97 10**  
**aqua-sander.de**

**Erwin Sander Elektroapparatebau GmbH**  
**Am Osterberg 22**  
**31311 Uetze-Eltze**  
**Germany**

Phone **+49 (51 73) 9 71-0**  
Fax **+49 (51 73) 9 71-197**  
E-Mail **info@aqua-sander.de**  
Web **www.aqua-sander.de**