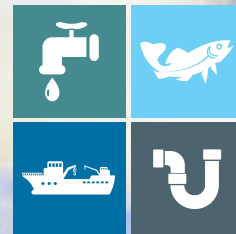


TECHNOLOGY FOR **CLEAN WATER**
www.sterneas.no



OXYTECH

NANOBUBBLE TECHNOLOGY FROM STERNER

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DOCUMENTED **OXYGENATION TECHNOLOGY**

Sterner has produced OxyTech oxygenators for over 30 years.

OxyTech delivers hybrid oxygenation, where dissolved oxygen is combined with the transport of nanobubbles for efficient and controlled oxygen supply.

HOW **OXYTECH** WORKS

OxyTech generates nanobubbles of oxygen that follow the water flow through the system. The nanobubbles remain suspended in the water, and follow the hydraulics in the tank towards the centre drain. This increases the availability of oxygen over time, including in areas where traditional oxygenation has limited effect.

WHY **NANOBUBBLES**

Reduces oxygen consumption - lower operating costs without compromising fish welfare

Extends the residence time of oxygen in the water - the oxygen is used better throughout the tank

Improves growing conditions for the biomass - contributes to healthier fish

Improves RedOx conditions - creates a more stable environment for the fish and the biofilter

Reduces the risk of H₂S incidents

OXYGENATION IN 2 WAYS

Chemical oxygenation

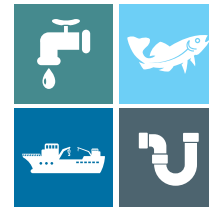
Oxygen dissolves directly into the water until equilibrium is reached.

Physical oxygenation (nanobubbles)

Oxygen is held in the water as nanobubbles and moves with the hydraulics through the system. Oxygen is released across all parts of the system and the process equipment.

OxyTech combines both methods to secure both immediate and sustained oxygen availability in the facility.





TECHNICAL DATA

OxyTech model	3000 PE	4000 PE	6000 PE	8000 PE
Capacity kg O ₂ /h*	1-3	2-4	4-6	9-15
Max. water flow l/min	500	550	850	2000
Pump power kW	5,5	7,5	11	18,5
Pump operation %**	80 - 100	80 - 100	80 - 100	80 - 100
Material	PE-plast	PE-plast	PE-plast	PE-plast
Working pressure barg***	1,6-3	1,6-3,0	1,6-3,0	1,6-3,0
Δp (barg)***	0,8-1,4	0,8-1,4	0,8-1,4	0,8-1,4
Max. pressure barg	5	5	5	5
Pipe dim. in	DN50	DN80	DN80	DN80
Pipe dim. out	DN65	DN65	DN100	DN100
Dry weight kg	60	266	387	554
Operating weight kg	130	428	802	1430
Height mm	1733	2100	2500	3080
Width mm	800	1000	1300	1450
Depth mm	600	700	1200	1350

* Full capacity is achieved under optimal conditions

** Pump capacity for optimal oxygenation

*** Pressure range for optimal nanobubble production



PERFORMANCE DATA

Growth data from customers and mass balance tests show excellent OxyTech performance in land-based fish farming. The nanobubbles release oxygen as they circulate through the facility, in addition to the new oxygen entering the system.

TAILORED SOLUTION

Sterner works with you on project solutions to ensure that OxyTech is installed seamlessly into existing infrastructure and delivers stable and reliable performance in daily operation.

We provide full technical support for all OxyTech installations.

CONTACT OUR TEAM TO DISCUSS
A SOLUTION TAILORED TO YOUR FACILITY

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