



OxyTech

Nanobubble Technology from Sterner



Sterner has produced OxyTech oxygen mixers for more than 30 years.

OxyTech delivers hybrid oxygenation by combining dissolved oxygen with nanobubble transport for efficient and controlled oxygen delivery.

How OxyTech Works

OxyTech generates clouds of nanobubbles that follow the natural water flow through tanks and technical equipment.

These nanobubbles remain suspended in the water and move with the tank hydraulics toward the centre drain, continually dissolving oxygen into the water.

Benefits

- Reduces overall oxygen consumption meaning lower running costs without compromising fish health.
- Extends oxygen residence time in the water
- Improves growth conditions for biomass to promote healthier stock.
- Improves RedOx conditions creating a more stable environment for fish and biofilters.
- Reduces the risk of H₂S formation

Two Methods of Oxygenation

Chemical oxygenation

Oxygen dissolves directly into the water until equilibrium is reached.

Physical oxygenation (nanobubbles)

Oxygen remains in the water flow as nanobubbles.

The OxyTech system employs both methods

The transport of nanobubbles allows the continued dissolution of oxygen into the water through the entire system.

Technical Specifications

OxyTech model	3000 PE	4000 PE	6000 PE	8000 PE
Capacity kg O ₂ /h	3,0	4,0	6	15
Max flow l/min	500	550	850	2000
Power use pump kW	5,5	7,5	11	18,5
Optimal operation %*	80-100	80-100	80-100	80-100
Material	PE-plast	PE-plast	PE-plast	PE-plast
Operating pressure barg	1,6-3,0	1,6-3	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
Inlet flange	DN50	DN80	DN80	DN80
Outlet flange	DN65	DN65	DN100	DN100
Dry weight kg	60	266	387	554
Operational weight kg	130	428	802	1430
Height mm	1733	2100	2500	3080
Width mm	800	1000	1300	1450
Depth mm	600	700	1200	1350

* Operation of pump capacity giving optimal oxygenation
 ** Pressure envelope for optimal nanobubble production



Performance Data

Mass balance and growth information from clients illustrate an extremely good performance of the OxyTech. The circulation. The circulation of the nanobubbles continue to release oxygen chemically into the water adding to the new oxygen entering the system.

Tailored Solutions

Sterner works through project-based solutions to ensure the OxyTech installation integrates seamlessly with existing infrastructure and delivers stable, reliable performance in daily operation.

We provide full technical support for every OxyTech installation.

Get in touch with our team to discuss this system for your operation.



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