



OXYNITY

MICRO - NANO BUBBLE GENERATORS

Oxygen that **stays** in your pond.

Micro-nano bubble generators for aquaculture, agriculture and water treatment. Oxygen dissolves as sub-micron bubbles that hang in the water instead of escaping to the surface.

300+

systems installed

< 1 μ m

bubble size

2

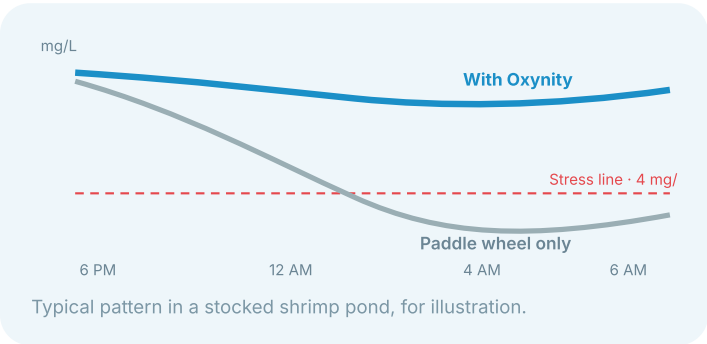
countries, India & Belize

1 year

warranty on every unit

Ponds don't fail in the afternoon. They fail before sunrise.

After dark, algae stop making oxygen and start consuming it. With paddle wheels alone, dissolved oxygen keeps sliding until dawn, the hours when shrimp crowd the edges, stop feeding and die. Oxyenity holds the line through the night.



Fewer night losses

Oxygen stays above stress levels when paddle wheels can't keep up.

Better feed conversion

Shrimp with enough oxygen keep eating, so less feed is wasted on the pond floor.

Cleaner pond bottom

Oxygen reaches the sludge layer and helps break down waste and harmful gases.

TECHNOLOGY

Bubble size decides everything.

LARGE · 5 MM AND UP

Paddle wheel

Splashes surface water. Bubbles burst in seconds and most of the oxygen goes back to the air.

FINE · 1-3 MM

Air diffuser

Better than splashing, but bubbles still rise and break at the surface within moments.

NANO · UNDER 1 MM

Oxyenity micro-nano

Too small to float up. They drift through the whole water column and keep releasing oxygen for hours.

Feature	Oxyenity nano bubble	Paddle aerator	Bubble aerator	Oxygen cone	Air diffuser
Bubble size	< 1 µm	Large	1-3 mm	Medium	< 3 mm
Mixing	Very high	Surface only	Moderate	Moderate	Moderate
Energy use	Low	Moderate	High	Moderate	High
Maintenance	Low	Low	Moderate	Moderate	Moderate

01

Water intake

The pump draws pond water into the compact generator.

02

Oxygen infusion

Oxygen from the concentrator enters at the pump suction under pressure.

03

Nano bubbles

Pressure and shear in the stainless steel mixer form sub-micron bubbles.

04

Back to the pond

Bubbles stay suspended and keep raising dissolved oxygen.

MODELS

Choose your generator.

Three sizes, matched to your pond area. Built in India for sun, dust, salt air and long night shifts.



1.5 HP

For nurseries and small ponds, up to about 1 acre.

Motor	1.5 HP · 1.1 kW
Oxygen mixing	1.5–2 LPM
Body	Powder-coated steel
Weight	40 kg



4 HP

For shrimp and fish grow-out, up to about 2.5 acres.

Motor	4 HP · 3 kW
Oxygen mixing	3–4 LPM
Body	Powder-coated steel
Weight	45 kg



MOST POWERFUL

5.5 HP

For large grow-out ponds, up to about 3 acres.

Motor	5.5 HP · 4 kW
Oxygen mixing	6–7 LPM
Body	Stainless steel
Weight	60 kg

Compare models	1.5 HP	4 HP	5.5 HP
Pond coverage	~1 acre	~2.5 acres	~3 acres
Motor	1.5 HP · 1.1 kW	4 HP · 3 kW	5.5 HP · 4 kW
Body	Powder-coated steel	Powder-coated steel	Stainless steel
Oxygen mixing	1.5–2 LPM	3–4 LPM	6–7 LPM
Water flow	On request	9–10 m ³ /h	15 m ³ /h
Suction / delivery	1.5 / 1.25 in	1.5 / 1.5 in	2 / 2 in
Pump & mixer	SS 304	SS 304	SS 304
Weight	40 kg	45 kg	60 kg
Best for	Nurseries, small ponds	Shrimp & fish grow-out	Large grow-out ponds
Warranty	1 year	1 year	1 year

Oxygen concentrator purchased separately. Each generator runs with an oxygen concentrator, which is not included in the generator price (10 LPM recommended for the 5.5 HP). We recommend the right capacity for your model and can supply it with your order. Delivery in 3–4 weeks from Bhimavaram; transport charged at actual cost.

One technology, many waters.

Wherever water quality matters, dissolved oxygen is the lever. These are the sectors where micro–nano bubbles are used, with a headline finding from published research or field case studies.



Shrimp & fish aquaculture

+95%

shrimp survival with nanobubbles in an East Java raceway trial



Hatcheries & biofloc

+18.8%

tilapia weight in biofloc tanks with pure-oxygen nanobubbles



Agriculture

+14%

strawberry yield with oxygen nanobubble irrigation in the Netherlands



Hydroponics

+11%

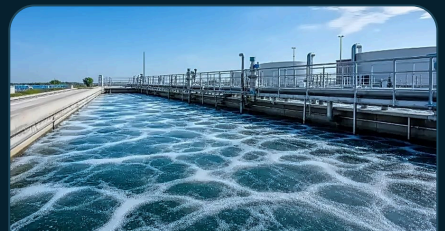
lettuce head weight with nanobubbles in a Belgian trial



Poultry

~4×

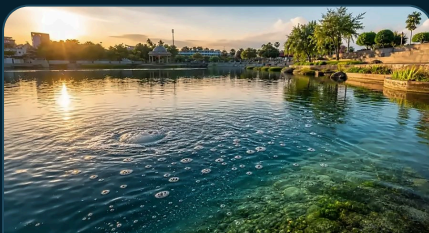
dissolved oxygen in drinking water with a nanobubble system



Water treatment

+60%

oxygen transfer reported at a California treatment plant



Lakes & temple ponds

80–90%

BOD reduction in Indian ponds treated with ozone nanobubbles



Swimming pools

0.5–1 ppm

chlorine at a 3-million-gallon surf park using nanobubbles



Tank cleaning

~2×

ceramic membrane flux recovered after ozone-nanobubble cleaning

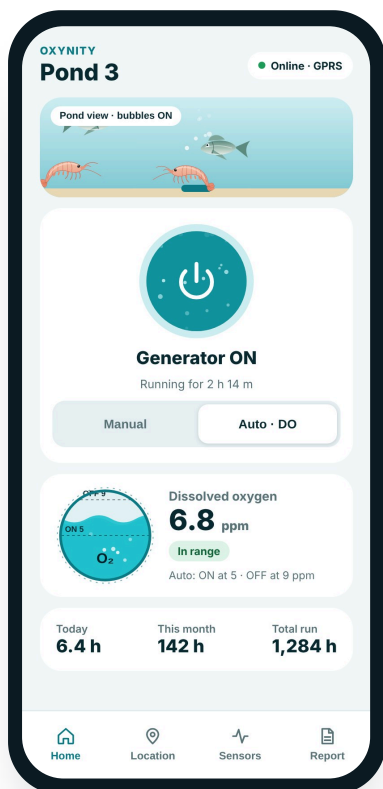
Figures are from third-party studies and case studies listed on the Oxynity website, under their own test conditions. Results on your site depend on water, load and setup; we recommend a trial first.

• COMING SOON

OXYNITY SMART APP

Your generator, in your pocket.

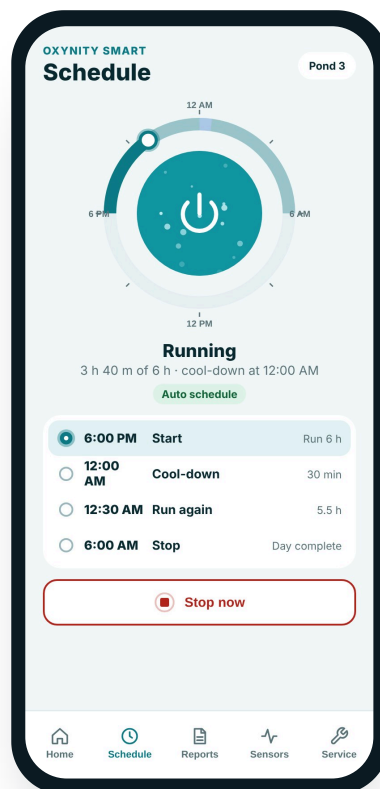
Oxynity Smart connects to each generator over the mobile network. Farmers see their pond's oxygen, switch the generator on or off, and let it run on a schedule, even when they are away from the farm.



Home · generator ON



Water quality sensors



Schedule

Remote ON / OFF

Start or stop the generator from anywhere, any time.

DO auto mode

With the DO sensor, switches ON at 5 ppm and OFF at 9 ppm by itself.

Smart schedule

Runs on its own, with a 30-minute rest after every 6 hours.

Water quality sensors

DO, pH, ORP, temperature and salinity on one live screen.

Reports & GPS

Run hours, DO trends and each unit's location and status.

Service requests

Raise a request from the app and track the technician.



Real ponds. Bigger harvests.

+30%

shrimp yield

Low oxygen, murky water and stressed shrimp were constant problems. After installing Oxynity, the water cleared, the shrimp got healthier, and losses dropped.

Gangiseti Chittibabu

Shrimp farmer · Uppuluru, Ganapavaram Mandal, AP

+25%

shrimp yield

Night-time oxygen drops and sludge on the pond floor came down. The shrimp fed actively, grew faster, and mortality fell.

Chaitanya

Shrimp farmer · Eluru, AP

OXYNITY
MICRO - NANO BUBBLE GENERATORS

300

projects launched

250

farmers and clients

12

locations, India & Belize

24 h

stable oxygen

Where we work: Andhra Pradesh (Bhimavaram HQ, Kakinada, Visakhapatnam, Vijayawada, Nellore, Kurnool) · Odisha · Kerala · Tamil Nadu · Karnataka · Madhya Pradesh · and Belize, our first export installation. Distributor and export enquiries welcome.

Tell us about your pond.

Share your pond size and species. We'll recommend a model and send a price on WhatsApp.

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FOLLOW

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Bhimavaram branch

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Service

Our own technicians attend to service requests from the Bhimavaram branch.