NanoAqua

Oxygen-Based Nanobubble Generator

NanoKriti
NANOBUBBLE TECHNOLOGY

NanoAqua is an oxygen-based nanobubble generator with an in-built oxygen concentrator. Available in different models designed to suit various capacities, operational scales, and user needs. With its plug-and-play design and robust SS304 construction, NanoAqua ensures durability, efficiency, and ease of use.

What are nanobubbles?

Nanobubbles are extremely small gas bubbles, typically less than 200 nanometers in diameter. Their small size provides a high gas–liquid interfacial area, supporting efficient gas transfer and unique stability characteristics. These properties make nanobubble technology useful in water treatment and other applications where effective gas–liquid interaction is important.

Distinct Features

- Built-in Oxygen concentrator
- ~80 nm mean nanobubble diameter
- 75–80% Oxygen Transfer Efficiency (OTE)
- Nanobubble concentration of over 1 × 10^8 bubbles/ml
- Plug-and-play installation
- Easy operation & low maintenance
- SS304 robust construction
- Proven results across multiple sectors

Benefits

- Increases dissolved oxygen levels (DO)
- Long-Lasting & Stable Oxygenation
- Enhances Water Quality
- Suppresses and prevents algae, pathogens, and biofilm formation
- Enhances root health, plant vigour, and Increases nutrient absorption
- Improves Growth & Feed Conversion Ratio (FCR)
- Energy Efficient, Compact, Portable & Easy to Use







Applications

- Aquaculture & fisheries
- Lakes & pond rejuvenation
- Wastewater Treatment
- Agriculture & irrigation water
- Food & beverage processing
- Industrial processes

About us

Nanokriti is an IIT Ropar deep-tech company founded in 2022. Our team of professors, researchers, and engineers brings over 8 years of expertise in nanobubble technology, supported by 30+ research publications.

We design and manufacture advanced nanobubble generators using our patented, cost-efficient technology, delivering high-performance solutions across aquaculture, agriculture, water treatment, and environmental restoration.

Technical Specifications: N Series Nanobubble Generator

Parameter	NanoAqua N10	NanoAqua N40	NanoAqua N80
Flow Rate (m3/hr)	10–15	27–30	70–80
Power (kW)	1.8	3.2	4.6
Voltage / Phase / Frequency	415 V / 3+N / 50 Hz	415 V / 3+N / 50 Hz	415 V / 3+N / 50 Hz
Gas Source	Oxygen Concentrator	Oxygen Concentrator	Oxygen Concentrator
Gas flow (LPM)	0–5	0–10	0–10/20
Gas pressure (bar)	2.5–4	2.5–4	2.5–4
Oxygen concentration (%)	93	93	93
Suction / Discharge (inch)	2 / 2	3 / 3	4 / 4
Dimensions (H × W × L, ft)	3 × 1.5 × 3	4 × 1.5 × 4	4 × 1.5 × 4

Technical Specifications: C Series Nanobubble Generator

Parameter	NanoAqua C10	NanoAqua C40
Flow Rate (m^3/hr)	7-8	25-30
Power (kW)	2.6	4.3
Voltage / Phase / Frequency	415 V / 3+N / 50 Hz	415 V / 3+N / 50 Hz
Gas Source	Oxygen Concentrator	Oxygen Concentrator
Gas flow (LPM)	0-2.5	0-4
Oxygen concentration (%)	93	93
Suction / Discharge (inch)	2 / 2	3 / 3
Dimensions (H × W × L, ft)	3 × 1.5 × 3	4 × 1.5 × 4

***Specifications may change due to constant improvements*
***System size and capacity are customizable based on project requirements and scale of operation.*

CONTACT US

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