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.

About us

Nanokriti is an IIT Ropar–incubated 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.

What are nanobubbles?

Nanobubbles are extremely small bubbles, less than 200 nanometers in diameter. Their extremely small size gives them unique properties such as high gas–liquid mass transfer, excellent stability, neutral buoyancy, surface charge, deep penetration, and strong carrying capacity. These characteristics make nanobubbles highly effective and applicable across diverse domains.

Applications

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

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

Distinct Features

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

NanoAqua N-Series

Oxygen-Based Nanobubble Generator

Technical Specification

	NanoAqua- N10	NanoAqua- N40	NanoAqua- N80
Liquid Flow Capacity			
Flow Rate (m^3/hr)	15-16	27-30	65-67
Electrical Power			
Voltage (V)	415		
Phase	3+N		
HZ	50		
Power Consumption (kW)	3.2	3.2	5
Gas Supply			
Gas Source	Oxygen Concentrator		
Feed Gas Pressure (Bar)	2.5-4		
Gas Flowrate	0-5	0-10	0-10/20
Dimentions and Weights			
Suction (Inch)	2	3	4
Discharge (Inch)	2	3	4
Height, ft	3	4	4
Width, ft	1.5	1.5	1.5
Length, ft	3	4	4
Oxygen Concentrator			
Capacity, (LPM)	5	10	10/20
Oxygen Concentration (%)	93	93	95
Operating Temperature (°C)	10 - 50	10 - 50	10 - 50
Humidity (%)	10 - 90	10 - 90	10 - 90

**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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www.nanokriti.com

NanoAqua C-Series

Oxygen-Based Nanobubble Generator

Technical Specification

	NanoAqua- C10	NanoAqua- C40
Liquid Flow Capacity		
Flow Rate (m^3/hr)	7-8	27-30
Electrical Power		
Voltage (V)	415	
Phase	3+N	
HZ	50	
Power Consumption (kW)	2.6	4.3
Gas Supply		
Gas Source	Oxygen Concentrator	
Gas Flowrate	0-2.5	0-5
Dimentions and Weights		
Suction (Inch)	2	3
Discharge (Inch)	2	3
Height, ft	3	4
Width, ft	1.5	1.5
Length, ft	3	4
Oxygen Concentrator		
Capacity, (LPM)	5	10
Oxygen Concentration (%)	93	93
Operating Temperature (°C)	10 - 50	
Humidity (%)	10 - 90	

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