NanoCloud

Air-Based Nanobubble Generator

NanoKriti
NANOBUBBLE TECHNOLOGY

NanoCloud is an air-based nanobubble generator designed to infuse atmospheric air into water as stable nanobubbles. It enhances dissolved oxygen levels naturally, promoting healthier water ecosystems while reducing dependence on external gas sources. With its plug-and-play design and robust SS304 construction, NanoCloud ensures seamless operation, energy efficiency, and long-lasting performance.

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.

Distinct Features

- Air- Based nanobubble generator
- ~80 nm mean nanobubble diameter
- 75–80% Transfer Efficiency
- >1×10^8 Nanobubbles/ml
- Plug-and-play installation
- Easy operation & low maintenance
- Proven results across multiple sectors

Benefits

- Increases Dissolved Oxygen (DO) Efficiently
- Enhances Water Quality Naturally
- Reduces Sludge, Odor & Anoxic Zones
- Prevents Biofilm & Pipe Clogging
- Energy Efficient & Cost-Effective
- Easy operation & low maintenance
- Versatile Across Multiple Sectors

Applications

- Wastewater Treatment (STP/ETP)
- Lakes & pond rejuvenation
- Hydroponics, Aeroponics & Irrigation Water
- Agriculture & Soil Oxygenation
- Aquaculture & Fisheries
- Ornamental Ponds & Water Features

NanoCloud N Series

Air-Based Nanobubble Generator

Technical Specification

	NanoCloud 10	NanoCloud 40	NanoCloud 80
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)	2.7	2.7	4.5
Gas Supply			
Gas Source	Air Compressor		
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

**Specifications may change due to constant improvements

Technical Specification

	NanoCloud- C10	NanoCloud- 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)	2.1	3.9
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

**Specifications may change due to constant improvements