

NanoCloud

NANOBUBBLE GENERATOR

Applications

- Lake & Pond Aeration
- Wastewater Treatment
- Aeroponics & Hydroponics
- Biofilm Removal

Distinct Features

- Air-based nanobubble generator
- ~80 nm mean size nanobubble diameter
- 75-80% Oxygen Transfer Efficiency (OTE)
- $>1\times10^8$ Nanobubbles / ml
- Plug-and-play installation
- Easy maintenance

Benefits:

- Increases dissolved oxygen (DO) for a healthier ecosystem
- Enhances root health, plant vigor, and nutrient uptake
- Suppresses algae, pathogens, and biofilm formation
- Improves irrigation efficiency
- Minimizes the buildup of toxic gases



Nanokriti's NanoCloud Nanobubble Generator Series is an advanced air-to-liquid nanobubble generation technology engineered to create ultra-fine nanobubbles using ambient air. These nanobubbles are delivered through a fine mist or spray, enriching environments with elevated oxygen levels without the need for chemicals or external oxygen sources.

The NanoCloud system is especially suited for enclosed and semi-enclosed environments where air and water quality are critical. Its energy-efficient, chemical-free operation makes it an environmentally sustainable solution for modern agriculture, indoor farming, and biosecure spaces.

The NanoCloud series offers the following key benefits:

- Enhances air and water interaction by delivering oxygen-rich mist to crops and surroundings
- Promotes foliar oxygenation and supports stomatal function, improving overall plant health
- Suppresses airborne pathogens and minimizes disease spread in protected cultivation
- Reduces biofilm and microbial growth in humid environments
- Improves plant growth and vigor, especially in hydroponic, aeroponic, and vertical farming systems

With its mist-based delivery and air-powered nanobubble generation, the NanoCloud series is an ideal solution for greenhouses, polyhouses, vertical farms, hydroponics, aquaculture hatcheries, controlled-environment agriculture and surface-level aeration for decentralized or shallow wastewater systems.

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NANOBUBBLE GENERATOR

	NANOCLOUD 20	NANOCLOUD 50	NANOCLOUD 100
ELECTRIC POWER			
Voltage	220 V	415 V	415 V
Phase	Single	3+N	3+N
Hz	50	50	50
Pump Motor (hp)	2	2 - 3	5 - 10
Compressor Power (hp)	1	1	1 - 2
Concentrator Current (Amps)	3.5	3.5	3.5
Total Current (Amps)	19.1	13.9, 5.2, 5.2 (Max.)	31.3, 17.4, 17.4 (Max.)
PUMP			
Pump Type	Centrifugal Pump		
Material Of Construction	SS 304 / Cast Iron		
UNIT CONNECTIONS			
Suction (Inch)	2	3	4
Discharge (Inch)	1.5	3	4
DIMENSIONS AND WEIGHT			
Height, ft	4	4	4
Width, ft	1.5	1.5	1.5
Length, ft	4	4	4
Weight, kg	40 - 60	60 - 80	100 - 130
AIR COMPRESSOR			
Capacity, (LPM)	5 - 15	10 - 30	40 - 100
Voltage	220	220	220
Pressure (bar)	2 - 4	4 - 5	4 - 8
Power (Watts)	550	550	550
RPM	1440	1440	1440
CAPACITY			
Flow Rate, m3/hr	15 - 20	40 - 50	80 - 100
Head	10	10	10 - 20

**Specifications may change due to constant improvements