NanoE

Oxygen-Based Nanobubble Generator

NanoKriti
NANOBUBBLE TECHNOLOGY

NanoE is an ozone and oxygen-based nanobubble generator designed for superior disinfection and oxygenation. With its built-in ozone generator and oxygen concentrator, NanoE delivers powerful water treatment while reducing chemical use, ensuring cleaner, healthier ecosystems. With its plug-and-play design and robust SS304 construction, NanoE ensures powerful disinfection, operational efficiency, and long-term reliability.

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

- Ozone & Oxygen-based
- ~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

- Powerful Disinfection Without Chemicals
- Effective Algae & Biofilm Control
- Deep Penetration & Long-Lasting Action
- Improves Water Clarity & Quality
- Enhances System Performance



Applications

- Aquaculture & fisheries
- Lakes & pond rejuvenation
- Wastewater Treatment (STP/ETP)
- Agriculture & irrigation water
- Industrial Cleaning & Surface Sanitation
- Swimming Pools & Water Features
- Hydroponics & Controlled Environment Farming

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	NanoE - N10	NanoE - N40	NanoE- N80
Flow Rate (m3/hr)	10–15	27–30	65–67
Power (kW)	2.1	3.8	5.6
Voltage / Phase / Frequency	415 V / 3+N / 50 Hz	415 V / 3+N / 50 Hz	415 V / 3+N / 50 Hz
Gas Source	Oxygen + Ozone Concentrator	Oxygen + Ozone Concentrator	Oxygen + Ozone 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	95
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	NanoE - C10	NanoE - C40
Flow Rate (m3/hr)	7–8	27–30
Power (kW)	3.1	4.8
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	0–5
Suction / Discharge (inch)	2 / 2	3 / 3
Oxygen concentration (%)	93	93
Dimensions (H × W × L, ft)	4 × 1.5 × 4	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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