

In-Line Nanobubble generator

Aerolith is an in-line nanobubble generator engineered to produce nanobubbles directly within flowing water lines using ambient air or any gas source. Designed for seamless integration into existing pipelines, it delivers gas-rich water in real-time, without the need for storage tanks, holding systems, or chemical additives.

Its energy-efficient, chemical-free operation makes Aerolith ideal for decentralized systems, modern irrigation networks, and continuous-flow applications across agriculture, aquaculture, wastewater treatment, and environmental restoration.



Applications

- ✓ Aquaculture & fisheries
- ✓ Lakes & pond rejuvenation
- ✓ Industrial ETP / STP Systems
- ✓ Agriculture & Hydroponics
- ✓ Food & beverage processing

***System size, capacity, and gas input are customizable based on project requirements and scale of operation.*

About us

Nanokriti is an IIT Ropar-incubated company founded in 2022. We are a team of professors, researchers, and engineers with 8+ years of experience in nanobubble technology.

We design and manufacture nanobubble generators for a wide range of applications, bringing science to real-world sustainability challenges.

What are nanobubbles?

Nanobubbles are extremely small bubbles, and 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

- ✓ Customizable gas input (Oxygen, Air, Ozone)
- ✓ ~80 nm mean nanobubble diameter
- ✓ 75–80% Transfer Efficiency
- ✓ $>1 \times 10^8$ Nanobubbles / ml
- ✓ Plug-and-play installation
- ✓ Easy operation & low maintenance
- ✓ Proven results across multiple sectors
- ✓ Compact & Modular Design

Parameter	Value
Flow Rate	50 – 1000 m ³ /hr (model-specific)
Inlet/Outlet Size	2" / 3" / 4" (custom options)
Nanobubble Size	~ 80nm
Gas Input	Built-in / External (10–500 LPM)
Gas Pressure (Bar)	3 - 8
Material of Construction	SS304 / SS316 / PVC / HDPE
Heigh, ft	1
Width, ft	1
Length, ft	1.75
Monitoring system	Rotameter, Pressure gauge

**Specifications may change due to constant improvements

CONTACT US

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