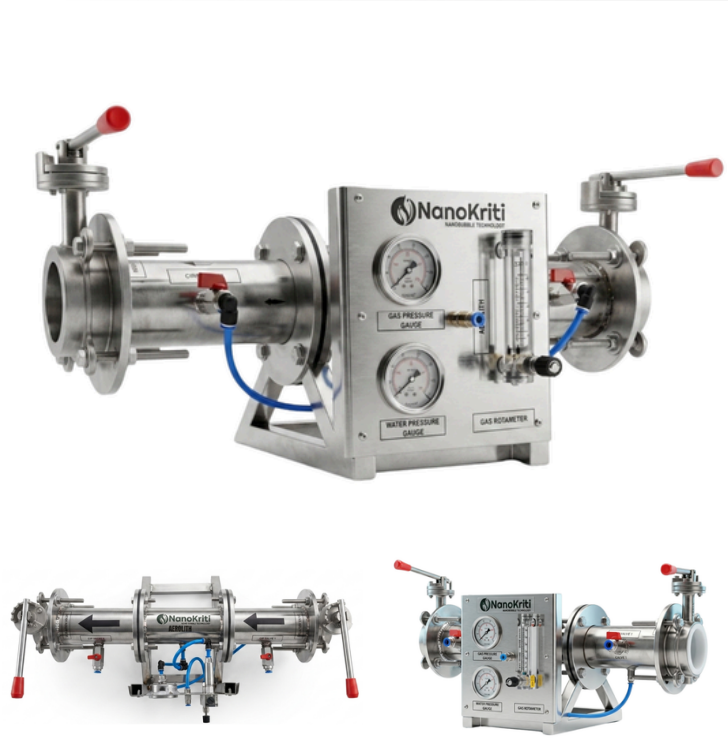
Aerolith

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. Aerolith 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.



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 properties include prolonged stability in water, efficient gas transfer, neutral buoyancy, surface charge interactions, deep penetration, and enhanced carrying capacity.
As a result, nanobubbles provide a highly effective way to improve oxygen availability, optimize water conditions, and enhance process performance across multiple industries.

Why Aerolith

Aerolith is designed to make nanobubble technology simple, reliable, and easy to integrate into real-world systems.
Its inline design generates nanobubbles directly within flowing water lines, enabling continuous operation without storage tanks, chemical additives, or complex infrastructure.

Available Models

- Aerolith 3
- Aerolith 3A
- Aerolith 4
- Aerolith 5

About us

Nanokriti is an IIT Ropar-incubated company founded in 2022. Built by a team of professors, researchers, and engineers with over eight years of experience in nanobubble technology, Nanokriti develops water treatment and oxygenation solutions for industrial, environmental, and agricultural applications.
Our focus is to translate scientific innovation into practical systems that solve real sustainability challenges.

Distinct Features

- Customizable gas input (Oxygen, Air, Ozone)
- ~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
- Compact & Modular Design

Applications

- Agriculture & Hydroponics
- Industrial Processes
- Lakes & pond rejuvenation
- Aquaculture & fisheries
- Food & beverage processing
- Reservoir oxygenation

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Technical Specification

Parameter	Aerolith 3	Aerolith 3A	Aerolith 4	Aerolith 5
Recommended Water Flow Rate (m3/hr)	5-20	20-50	50-80	80-120
Gas Input Flowrate (lpm)	5	10-15	15-20	20-40
Gas Pressure Range (Bar)	3 - 8	3 - 8	3 - 8	3 - 8
Inlet/Outlet Size (Inch)	3"	3"	4"	5"
Material of Construction	SS304 / SS316 / PVC / HDPE	SS304 / SS316 / PVC / HDPE	SS304 / SS316 / PVC / HDPE	SS304 / SS316 / PVC / HDPE
Nanobubble Size (nm)	~ 80-120 nm	~ 80-120 nm	~ 80-120 nm	~ 80-120 nm
Nanobubble Concentration (bubbles/ml)	3x10^8	3x10^8	3x10^8	3x10^8
Height, (ft)	1.125	1.125	1.5	1.5
Width, (ft)	1.25	1.25	1.5	1.5
Length, (ft)	2.4	2.4	3	3.25
Monitoring system	Rotameter, Gas Pressure gauge, Water Pressure Gauge	Rotameter, Gas Pressure gauge, Water Pressure Gauge	Rotameter, Gas Pressure gauge, Water Pressure Gauge	Rotameter, Gas Pressure gauge, Water Pressure Gauge

**Specifications may change due to constant improvements

CONTACT US

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