

Nanobubble generator for large scale

Nanokriti's Virat Nanobubble Generator is a robust, high-capacity nanobubble system tailored for large-scale industrial, environmental, and agricultural deployments. Designed to operate with oxygen or air, it delivers consistent nanobubble saturation for efficient oxygenation, enhanced water quality, and advanced gas-liquid processes, without the need for chemical additives.

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.

About us

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

- ✓ Built for high-capacity deployments
- ✓ ~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

Applications

- ✓ Wastewater Treatment (STP/ETP)
- ✓ Industrial Water Treatment
- ✓ Agriculture & Irrigation Networks
- ✓ River & Canal Restoration Projects
- ✓ Water Parks, Resorts & Recreational Lakes
- ✓ Food & Beverage Processing



	Virat- N100	Virat- N500	Virat- N1000
ELECTRIC POWER			
Voltage	415 V	415 V	415 V
Phase	3+N	3+N	3+N
HZ	50	50	50
Pump Motor (hp)	5 - 10	30 - 40	100 - 120
Current Per Phase (Amps)	17.4 (Max.)	69.5 (Max.)	208 (Max.)
PUMP			
Pump Type	Centrifugal Pump		
Material Of Construction	SS 304 / Cast Iron		
UNIT CONNECTIONS			
Suction (Inch)	4	10	12
Discharge (Inch)	4	8	12
DIMENSIONS AND WEIGHT			
Height, ft	4	5.5	5.5
Width, ft	1.5	2.5	2.5
Length, ft	4	4.5	4.5
Weight, kg	100 - 130	600 - 800	800 - 1000
GAS INPUT CAPACITY			
Capacity, (LPM)	40 - 100	100 - 200	250 - 300
Pressure (bar)	2 - 4	4 - 5	4 - 8
CAPACITY			
Flow Rate, m3/hr	80 - 100	300 - 500	700 - 1000
Head	10 - 20	10 - 15	10 - 15

**Specifications may change due to constant improvements

CONTACT US

Nanokriti Nanobubble Technology Pvt. Ltd. IIT Ropar

✉ nanokriti@gmail.com

📍 310, Top Floor, M. Visvesvaraya Block, TBIF, IIT Ropar, Rupnagar, Punjab, 140001

☎ +91 82647-33672/ +91 73473-95907

🌐 LinkedIn: Nanokriti Nanobubble Technologies, IIT Ropar



www.nanokriti.com