

NEOTM
NANOBUBBLE GENERATOR



APPLICATIONS

- Deep Water Culture
- NFT
- Drip Irrigation
- Water Tank Oxygenation
- Reservoir Oxygenation
- Algae Control
- Biofilm Control*

The patented Moleaer NeoTM Nanobubble Generator is a highly efficient gas-to-liquid injection technology that converts bulk oxygen into nanobubbles and supersaturates water with high levels of dissolved oxygen (DO). Negatively charged, neutrally buoyant nanobubbles remain suspended in water for long periods of time, acting like an oxygen battery that delivers oxygen to the entire body of water. As oxygen is consumed, the nanobubbles continue to diffuse more oxygen into solution to maintain optimal levels of DO. The nanobubbles produce a natural oxidant capable of reducing biofilm growth* and suppressing harmful pathogens, even in warm water. Moleaer's Neo is an economical and highly effective tool that improves water quality, suppresses root disease and promotes the growth of healthy, resilient plants.

The Neo comes with an energy efficient industrial-grade Gould pump with an open impeller and a PLC controller that enables automation and control of the Neo when not used in continuous operation. The system is quiet and corrosion-resistant with stainless steel components. The Neo comes standard with an integrated low maintenance, optical DO sensor for real time monitoring. Available in 34 and 57 m³/hr flow rates, the Neo is designed for durable operation and easy installation into existing irrigation or water treatment system.

Features & Benefits:

- ~100 nm-sized bubbles
- Improved water quality
- Oxygenation of any tank and any depth of water
- Enhanced nutrient absorption in plants
- Promotion of beneficial bacteria, suppression of pathogens
- Easy integration with fertigation systems and climate control systems
- Auto gas shut off if loss of prime feed
- Low feed gas pressure sensor and alarm
- Integrated real-time DO monitoring
- Corrosion resistant stainless-steel frame and components

*Organic, bio-based nutrients may impact biofilm accumulation rates.

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NEO EU Series

MODELS	NEO 50 Standard	Neo 50 Standard	Neo 150 Standard	Neo 250 Standard
LIQUID FLOW CAPACITY (WATER)				
Flow Rate, m ³ /hr	11.3	11.3	34	57
Maximum Liquid Pressure, Bar	1.5			
OPERATING PARAMETERS				
Temperature Tolerance, °C	50 - 60			
Solids, mm	< 9.5			
GAS FEED				
Maximum Gas Pressure, Bar	8.5			
Indicated Gas Flow Range, L/min	0 - 2.5	0 - 2.5	0 - 10	0 - 15
ELECTRICAL POWER				
Voltage	230	400	400	400
Phase	3			
Hz	50			
Pump Motor Power (kW)	1.1	1.1	2.2	4
Total Amp Draw	7.8	5.3	6.2	9.4
PUMP				
Pump Type	TEFC			
Wetted Parts Materials	Buna-N/316 SS			
CONTROL				
Power (Light)	On/Off DP			
Motor Starter	400V IN to 24V DC OUT w/OL protection			
Start Switch	On/Off (24V DC)			
Dissolved Oxygen (DO) Sensor ²	Optical, 0-40 ppm (+/- 1.5 ppm) 0-5mV			
CONNECTIONS				
Customer pipe connection, mm	63	63	90	90
Inlet (Flanged), mm	63	63	90	90
Discharge (Flanged), mm	63	63	90	90
Gas Fitting for External O ₂	1/4" BSPTF			
DIMENSIONS AND WEIGHT				
Height, cm	107			
Width, cm	68			
Length, cm	102			
Weight, kg	83	83	100	163

Note 1: When using oxygen, Moleaer recommends CGA inlet 540, outlet 9/16" - 18RH pressure regulator with delivery range of 5-150 PSI (0.34-10.3 bar).

Note 2: Indicated gas flow range represented under pressure and not represented under standard conditions

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