MOLEAER

ADVANCING NANOBUBBLE TECHNOLOGY

Neo Nanobubble Generator with Oxygen Enriched Air

APPLICATIONS

- Water Tank Aeration
- Reservoir Aeration
- Iron Oxidation
- H2S / Odor Control
- Algae Control
- Biofilm Control*

The patented Moleaer Neo Nanobubble Generator with oxygen enriched air is a highly efficient gas-to-liquid injection technology that converts enriched oxygen air at 40% purity 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 integrated oxygen enrichment system capable of producing oxygen with 40% purity. The system comes with either a flooded suction industrial-grade stainless steel pump or an optional, positive suction pump; 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 to allow real time monitoring. Available in 34 and 57 m^3/ hr flow rates, the Neo is designed for durable operation and easy installation into any existing irrigation or water treatment system.

FEATURES & BENEFITS

- <200 nm-sized bubbles produced in excess of 1 billion nanobubbles / mL
- Improved water quality
- Onboard oxygen enrichment system (up to 40% O_2)
- 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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Euro NEO 50 Hz		
Models	**NEO 150 Enriched**	**NEO 250 Enriched**
Liquid Flow Capacity		
Flow Rate, m^3/h	34	57
Maximum Liquid Pressure, Bar	1.5	
Operating Parameters		
Temperature Tolerance, °C	5 - 60	
Solids, mm	<9.5	
Gas Feed		
Maximum Gas Pressure, Bar	8.5	
Indicated Gas Flow Range, L/min.	0 - 10	0 - 14
Electrical Power		
Voltage	400	400
Phase	3	3
Hz	50	50
Total KW	2.5	4.3
Total Amp Draw	6.25	10.75
Pump		
Pump Type	TEFC	TEFC
Wetted Parts Materials	Buna-N/316 SS	Buna-N/316 SS
Controls		
Power (Light)	On/Off DP	On/Off DP
Motor Starter	400v IN to 24dc OUT w/OL protection	400v IN to 24dc OUT w/OL protection
Start Switch	On/Off (24V DC)	On/Off (24V DC)
Dissolved Oxygen (DO) Sensor	Optical, 0 - 50 ppm (+/- 1.5 ppm), 0-5 mVB44	Optical, 0 - 50 ppm (+/- 1.5 ppm), 0-5 mV
Connections		
Customer Pipe Connection, mm*	75	90
Inlet, mm	75	90
Discharge, mm	90	90
Dimensions and Weight		
Height, cm	107	107
Width, cm	68	68
Length, cm	107	107
Weight, kg	68	68

*Customer to adapt pipe connection to the unit inlet/discharge. Only use the suggested customer pipe connection.

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

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