

## Neo Nanobubble Generator with On-board Oxygen



### APPLICATIONS

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

The patented Moleaer Neo™ Nanobubble Generator is a highly efficient gas-to-liquid injection technology that produces high purity oxygen 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 sustaining saturated levels of DO and providing 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 concentration system capable of producing oxygen with 93% purity, for reliable and convenient on-site oxygen generation. The system comes with either a flooded suction industrial-grade stainless-steel pump or an optional, positive suction pump. A PLC controller 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 150 and 250 GPM 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
- On-board oxygen generator for simple on-site oxygen generation (93% O<sub>2</sub>)
- 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.

[www.moleaer.com](http://www.moleaer.com)

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US NEO 60 Hz		
Models	NEO 150 Oxygen Generation	NEO 250 Oxygen Generation
<b>Liquid Flow Capacity (water)</b>		
Flow Rate, GMP	150	250
Maximum Liquid Pressure, PSIG		22
<b>Operating Parameters</b>		
Temperature Tolerance, °F		40-140
Solids, in		<3/8
<b>Gas Feed</b>		
Maximum Gas Pressure, PSIG		120
Indicated Gas Flow Range, CFH	0-8.5	0-15
<b>Electrical Power</b>		
Voltage	460	460
Phase	3	3
Hz	60	60
Total HP	4	6
Total Amp Draw	6.5	9.8
<b>Pump</b>		
Pump Type	TEFC	TEFC
Wetted Parts Materials	Buna-N/316 SS	Buna-N/316 SS
<b>Oxygen Generator</b>		
Models	Airsep Topaz Ultra	Airsep Topaz Ultra
<b>Controls</b>		
Power (Light)	On/Off DP	On/Off DP
Motor Starter	230v IN to 24 VDC OUT w/OL protection	230v IN to 24 VDC OUT w/OL protection
Start Switch	On/Off (24V DC)	On/Off (24V DC)
Dissolved Oxygen (DO) Sensor	Optical, 0-50ppm (+/- 1.5ppm) 0-5mv	Optical, 0-50ppm (+/- 1.5ppm) 0-5mv
<b>Connections</b>		
Customer Pipe Connection, in*	3	4
Inlet, in	2.5	3
Discharge, in	3	3
<b>Dimensions and Weight</b>		
Height, in	42	42
Width, in	27	27
Length, in	42	42
Weight, lbs	311	366

\* 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.