

BLOOM Nanobubble Generator



TYPICAL APPLICATIONS

- Hydroponics
- Algae Control

FEATURES

- Plug & Play
- Self-Cleaning

The patent-pending Moleaer Bloom is the most effective technology for unlocking the full potential of oxygen for increased crop production. The Bloom produces trillions of charged nanobubbles, less than 200 nm in size, that dissolve oxygen in water at transfer efficiencies greater than 85%. Moleaer's nanobubbles remain in suspension after saturation, creating a reserve of available oxygen throughout the water column. The high oxygen transfer rate combined with the stability of the nanobubbles maximizes oxygen available for optimum nutrient absorption, prevents disease, and increases crop yields.

The Bloom comes with an enclosed impeller pump for maximum energy efficiency and can be upgraded to monitor dissolved oxygen content in real time. Available in 25, 50, and 150 gpm flow rates, the Bloom was designed for durable operation, easy installation, and straightforward control.

FEATURES & BENEFITS

- Increased total available oxygen content in water
- Highest concentration of nanobubbles per mL (>1 billion nanobubbles / mL)
- Nanobubbles less than 200 nm in diameter
- Transfers oxygen at any depth
- Low turbulence gas diffusion
- Increased nutrient absorption
- Promotes beneficial bacteria and proven to reduce Pythium
- Increased nanobubble longevity in water
- Optional: dissolved oxygen monitoring

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MODELS	Bloom 25	Bloom 50	Bloom 150
LIQUID FLOW CAPACITY			
Flow Rate, GPM (m ³ /hr)	25 (6)	50 (11)	150 (134)
Indicated Gas Flow Range Maximum, CFH (m ³ /hr)	2.5 (0.07)	5 (0.14)	15 (0.424)
Indicated Gas Flow Range Recommended, CFH (m ³ /hr)	0.25 (0.011)	0.5 (0.01)	1.5 (0.042)
OPERATING PARAMETERS			
Temperature Tolerance, PVC, °F (°C)		41 - 140 (5 - 60)	
Standard Oxygen Transfer Efficiency		> 90%	
Solids, inches (mm)		Up to 3/8 (10), strainer recommended	
GAS FEED¹			
Feed Gas Pressure Range Minimum, PSIG (bar)		120 (8.27)	
Feed Gas Pressure Range Maximum, PSIG (bar)		140 (9.65)	
PUMP			
Pump Model		Pentair Sparus 160	
Wetted Parts Materials		Polypropylene/316 SS/Buna	
Pump Motor, hp (kW)	0.5 (0.37)		3 (2.2)
Voltage	115/208-230		208-230/480
Phase	1		3
Frequency, Hz		60	
CONNECTIONS - FNTP			
Inlet, inches		2	
Discharge, inches	1	1.5	2
Air Fitting for External Compressor, inches		1/4 Industrial	
DIMENSIONS & WEIGHT			
Height, inches (cm)		28 (71.12)	
Width, Inches (cm)		14 (35.56)	
Length, inches (cm)		32 (81.28)	
Weight, lb (kg)		130 (59)	

Option: Bloom IQ

Integrated Dissolved Oxygen Sensor Probe

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).

