

WELCOME TO THE WORLD OF
MICRO AND ULTRA-FINE
BUBBLES (MB/UFB)

ULTRA-OXYGEN

OPTIMIZE YOUR WATER QUALITY

"THE ULTIMATE SUSTAINABLE GLOBAL DISSOLVED OXYGEN SOLUTION FOR WATER"

RESULTS WITH MB/UFB TECHNOLOGY **CHEMICAL-FREE**

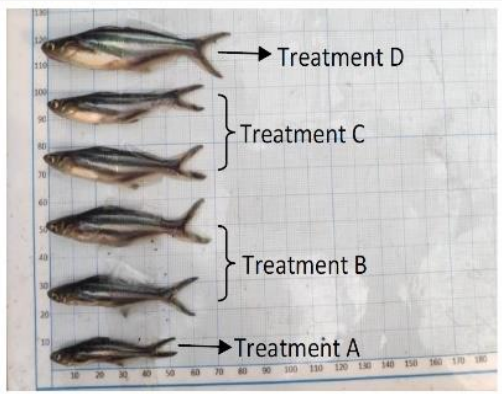
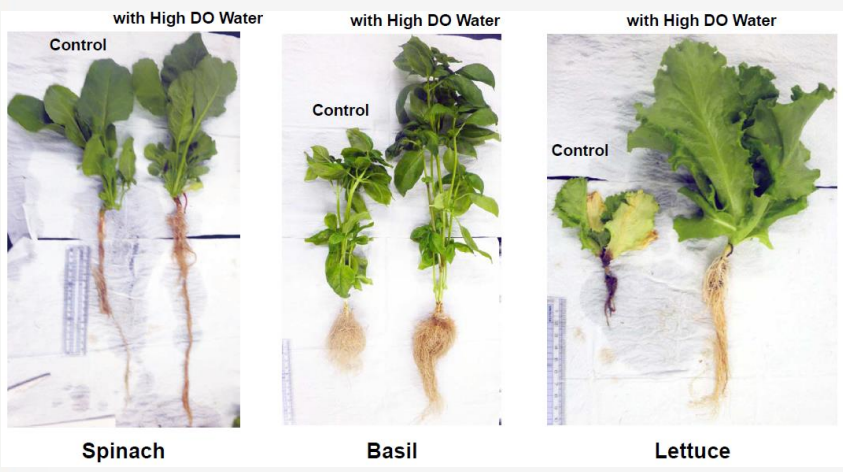


Fig. 1. Fish growth at the end of the study



NEW CLASSIFICATION OF BUBBLES ISO/TC 281 – Fine bubble technology

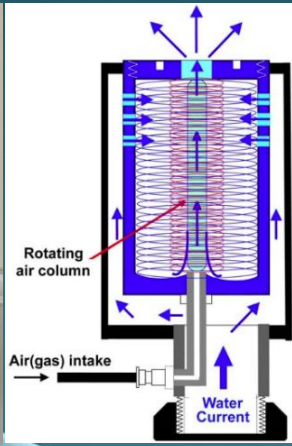
- **EXTREMELY small gas bubbles** that have several unique physical properties that make them very different from normal bubbles
- **MB/UFB generator creates bubble sizes of under 50 microns.**
- The **bubbles shrink down by surface-tension** from 50 to 300 nano mm.
- The Micro and Ultrafine bubbles are very high in density and will therefore **rise very slowly** with some not rising to the surface.
- The net effect is that UFB will **remain suspended in water for months until they dissolve**, traveling randomly throughout the body of water and efficiently aerating the entire water column.

SUPERIOR AERATION TECHNOLOGY

UO2-MB/UFB



UO2-SS-1N



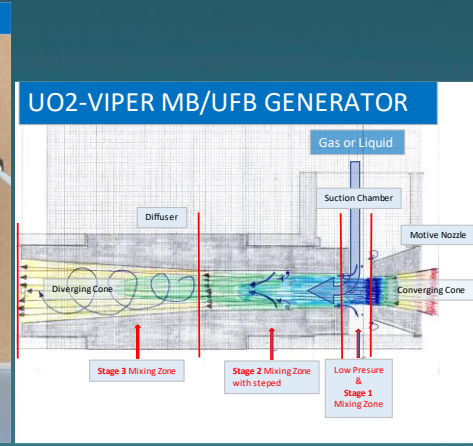
How it works



UO2-PVC-1N



UO2-VIPER



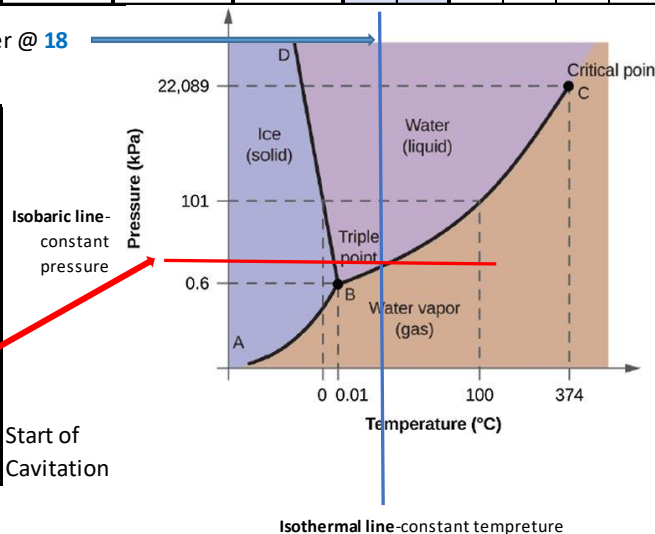
How it works

UO2 MB/UFB GENERATORS TECHNICAL DETAILS									
	SS/PVC-1N	VIPER	Uses	SS/PVC-1N Gas Injection	SS/PVC-1N Liquid Injection	VIPER Gas Injection	VIPER Liquid Injection	VIPER Disinfection	VIPER Mixing
Volume of water used	46 L/min	60 L/min							
Gas	3.5 L/min	14 L/min	Option 1	x		x			
Liquid	1.3 L/min	1.8 L/min	Option 2		x		x		
DO - Ambient air (21% O ₂)	9.21 mg/L	8.57 mg/L	Option 3	x			x		
DO - Oxygen Concentrator (90% O ₂)	38 mg/L	28 mg/L	Option 4		x	x			
Minimum requirements for pumps				Option 5	x			x	
Type	(kW)	(m)	(L/min)	Option 6	x				x
Submersible	0.4	9.3	80	Option 7		x		x	
Land-Base	0.37	10	183	Option 8	x				x

Water - clean freshwater @ 18 degrees Celsius

Vacuum Chamber Airflow Data	
Pressure (kPa)	Gas Flow (L/min)
0	14
-15	12
-34	10
-63	6
-85	4
-90	0.5

Pressure adjustable by turning down gas flow



UO2 - BENEFITS



Yield is affected by multiple variables that affect plant growth. One of the most important variables is water quality and dissolved oxygen levels. Ultra-Oxygen MB/UFB technology consistently increase yields across a variety of crops and cultivation methods.



Leverage one of the most cost-effective solutions to improve irrigation water quality and crop health. Reduce your reliance on chemical treatments or enhance their impact by supplementing with UO2-Micro and Ultrafine bubbles.



Reduce your risk of crop loss. Improve root health, suppress pathogens, increase nutrient uptake efficiency, and enable crops to better withstand environmental stresses with UO2 oxygen-rich water.

Super oxygen saturation table		
Pure % Oxygen	mg/L	% Saturation
normally in air = 21%	8,90	100%
42%	17,80	200%
63%	26,70	300%
84%	35,60	400%
90%	38,00	427%
100%	41,83	470%

% Saturation subject to water temperature and TDS in water

air-saturated oxygen-saturated

Ultra-OXYGEN can increase oxygen saturation in water

470%

Ultra-Oxygen believes that MB/UFB and hydrodynamic cavitation is the most energy efficient technique in the world in any AOP or water treatment process.

"IT IS ABSOLUTELY CRUCIAL FOR HUMANS TO MANAGE OXYGEN IN WATER TO ENSURE WE AS HUMANS CAN LIVE IN HARMONY WITH NATURE."

HEINDRÉ RADEMAN

ULTRA-OXYGEN

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Heindr  Rademan

CEO-Founder

M: +27 60 70 33 865

E: heindre@ultra-oxygen.com