



NANO BUBBLE GENERATOR

Nanobubble technology is a technology that applies the shear resistance between the interface of an object and the adjacent area. The gas (e.g., oxygen) is split in a nano-sized bubbles by shear forces at the interface of the object which loses buoyancy of the bubbles that will rise to the surface, thereby keeping the dissolved gas concentration high in water.

CHARACTERISTICS OF NANO BUBBLE GENERATOR:

1

Easy configuration for installation and maintenance

2

Self-absorbing pump that is advantageous in generating microbubbles because of its high - pressure extraction.

3

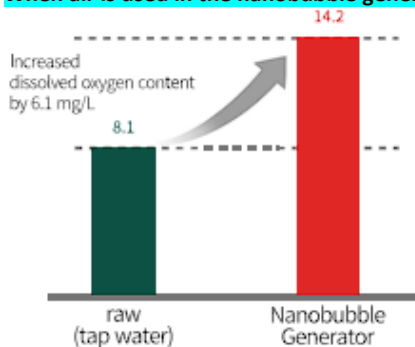
Capacity can be increased more than 1000m³/day by installing parallel structures.

Performance of Nanobubble Generator

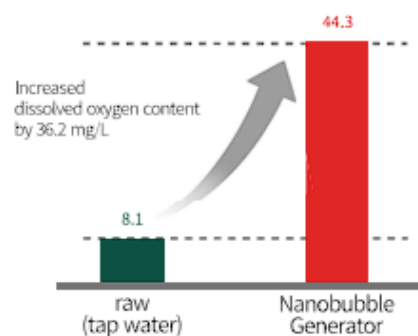
- With in the nanobubble generator, the dissolved oxygen concentration increases by 6 mg/L compared to the raw water, and the dissolved oxygen solubility is more than 180%.
- When used in water temperature of 28°C, dissolved oxygen can be maintained more than 14 mg/L with only air.
- Using oxygen in the nanobubble generator increases dissolved oxygen concentration to more than 44 mg/L.
- The sealed nano-bubble remains intact after 30 days, and the nano-bubble has frozen water It exists even after melting.



When air is used in the nanobubble generator



When oxygen is used in the nanobubble generator



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Technical Specifications:

		Lab-Scale	003	005	010
Water Flow Rate		5~10L/min	3.0m ³ /hr	5m ³ /hr	10m ³ /hr
Nano Bubble Size		Avg. 160nm			
Nano Bubble Ratio		> 99%			
Nano Bubble Duration	Atmospheric Pressure State	> 18hr			
	Sealed State	> 30days			
Usage Gas		Air, Oxygen, Ozone, etc.			
Oxygen Flow Rate		0.2~0.4L/min	1~2L/min	3~4L/min	4~6L/min
Oxygen Transfer Efficiency		65 ~ 85%			
Dissolved Oxygen Con.	Gas : Air	> 13mg/L (at 28 °C)			
	Gas : Oxygen	> 40mg/L (at 28 °C)			
Required Pump Pressure		> 4.0 kgf/cm ²			
Dimensions(Incl. Gas Gen)		-	W600mm x L1000mm x H1400mm		
Supply Voltage		110V~400V / 50, 60Hz			
Power	Pump	0.5~1.0kW	1.0~1.5kW	1.5~2.0kW	2.0~2.5kW
	Oxygen Generator	-	0.5kW	0.5kW	0.5kW
Materials	Pump	STS304 / STS316L (seawater)			
	Bubble Generator	STS304 / STS316 (seawater)			
	Housing	Al	STS304		
Pipe Connections Inlet, Outlet		Φ20	Φ25 ~ 32mm		

※ Specifications are subject to change without notice.

Field Applications:

