



Product Name:

Gaia Ultra-Fine Bubble (UFB) Generator

Model Number:

UFB 50, UFB 100, UFB 150, UFB 200, UFB 250, UFB 300, UFB 400

**units available for ozone use*

Description:

Unique patented and patent pending technology capable of producing Ultrafine Bubbles (UFB's) ~100nm in size; minimum volume of 100 million UFB's/mL with oxygen injection, 683 million UFB's/mL with carbon dioxide injection, 780 million UFB's/mL with nitrogen injection: 300-400 million UFB's/mL with ozone injection. Transfer gas efficiency rates ranging from 80-95% depending on gas, thereby enhancing liquids with dissolved gas and bubbles to remain in solution for up to weeks.

Typical Applications and Industry Use:

Aquaponics, Aquaculture, Agriculture, Bioremediation, Car Washing, Clean Tech, Hydroponics, Lake & Pond Remediation, Oil & Gas, Medical Therapeutics, Swimming Pools, Waste Water Treatment

Typical Gas Sources Injected:

Ambient Air, Oxygen, Ozone, Carbon Dioxide, Hydrogen, Nitrogen

FEATURES AND BENEFITS

- Ultra-fine Bubble (UFB) Generation (~100 nm in size)
- UFB's stay in solution after reaching saturation up to several weeks
- Enhanced capacity to hold gas in solution
- Gas transfer rates > 80% or higher (*depending on gas*)
- Low pressure gas requirements
- Low power requirements
- Easily integrated to user systems
- Ozone compatible units available
- Biofouling coating available

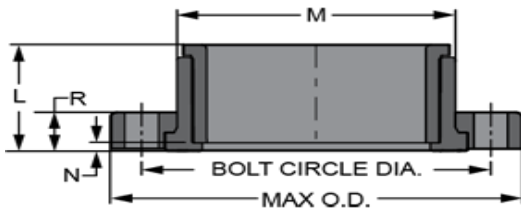


Technical Specifications:

	UFB 50	UFB 100	UFB 150	UFB 200	UFB 250	UFB 300	UFB 400
Liquid Flow Rate							
min-max: <i>gal(per min)</i> <i>m³(per min)</i>	5-26 0.02-0.10	20-45 0.08-0.17	40-126 0.15-0.48	60-150 0.23-0.57	180-350 0.68-1.32	300-500 1.1-1.9	600-1000 2.3-3.8
Gas Volume Injection							
per minute: (L) per hour: (L) per day: (L)	1 60 1,440	4 240 5,760	6 360 8,640	10 600 14,400	20 1,200 28,800	25 1,500 36,000	50 3,000 72,000
Gas Pressure Injection							
in (psi) in (bar)	2-16 0.13-1.1	3-11 0.20-0.76	1.5-9 0.10-0.62	2-8 0.14-0.55	1.5-11 0.10-0.76	30 2.1	32 2.2
Dissolved Gas Weight							
O ₂ : (SOTE 80%) per day: (L) per day: lb. (kg)	1,152 3.63(1.65)	4,608 14.52(6.58)	6,912 21.78(9.88)	11,520 36.29(16.46)	23,040 72.59(32.92)	28,800 90.73(41.16)	57,600 181.46(82.31)
CO ₂ : (TE 94%) per day: (L) per day: lb. (kg)	1,362 5.51(2.5)	4,904 19.85(9)	8,173 33.08(15.01)	13,622 55.14(25.01)	27,245 110.28(50.02)	34,056 137.85(62.53)	68,112 275.70(125.05)
Connections							
Inlet/Outlet: (in)FNPT Gas Hose Fitting: (in)	0.75 3/8	1.0 3/8	1.5 3/8	2 3/8	2.5 3/8	Flange Fitting 3/8	Flange Fitting 3/8
Dimensions							
Width: in (mm) Height: in (mm) Length: in (mm) Weight: lb. (kg)	1.77(45.02) 2.26(57.53) 9.76(247.8) 0.47(0.21)	1.77(45.02) 2.26(57.53) 9.76(247.8) 0.32(0.15)	2.35(59.74) 2.82(71.51) 12.0(304.81) 0.65(0.29)	2.77(70.26) 3.07(77.95) 13.6(345.44) 1.0(0.45)	3.60(91.44) 3.83(97.28) 17(431.8) 1.65(0.75)	8 (203.2) 9 (228.6) 22.25 (565.2) 8.75 (4.0)	9 (228.6) 10 (254) 26.5 (673.1) 15.55 (7.05)

*Materials rated for temperatures of 40 F° to 500 F° (- 40 C° to 260 C°)

Flange Fitting Details



	UFB 300	UFB 400
L: in (mm)	2 1/8(53.98)	2 1/2 (63.5)
N: in (mm)	1/4 (6.35)	1/4 (6.35)
R: in (mm)	1 1/16 (26.99)	1 1/8 (28.58)
Bolt Circle Diameter: in (mm)	6 (152.4)	7 1/2 (190.5)
M: in (mm)	4 1/4 (107.95)	5 1/4 (133.35)
Max O.D. : in (mm)	7 1/2 (190.5)	9 (228.6)
No of Bolts: in (mm)	4	8
Bolt Size: in (mm)	5/8 (15.88)	5/8 (15.88)

Product Image:



Gaia UFB 50



Gaia UFB 100



Gaia UFB 200



Gaia UFB 200 (ozone rated)



Gaia UFB 300 (ozone rated)



Gaia UFB 400 (ozone rated)

(Pictures of Gaia UFB 150 & 250 Coming Soon)