

**Product Name:**

Gaia Ultra-Fine Bubble (UFB) Generator

Model Number:

UFB 75, 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

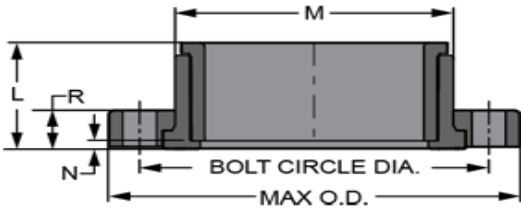


Technical Specifications:

	UFB 75	UFB 100	UFB 150	UFB 200	UFB 250	UFB 300	UFB 400
Liquid Flow Rate							
<u>min-max: gal(per min)</u> <u>m³(per min)</u>	10-26 0.02-0.10	20-45 0.08-0.17	40-126 0.15-0.48	80-150 0.23-0.57	260-400 1.14-1.32	300-500 1.1-1.9	600-1000 2.3-3.8
Gas Volume Injection							
<u>per minute: (L)</u> <u>per hour: (L)</u> <u>per day: (L)</u>	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							
<u>in (psi)</u> <u>in (bar)</u>	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%) <u>per day: (L)</u> <u>per day: lb. (kg)</u>	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%) <u>per day: (L)</u> <u>per day: lb. (kg)</u>	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							
<u>Inlet/Outlet: (in)FNPT</u> <u>Gas Hose Fitting: (in)</u>	0.75 3/8 or 1/4	1.0 3/8 or 1/4	1.5 3/8 or 1/4	2 3/8 or 1/4	2.5 3/8 or 1/4	Flange Fitting 3/8 or 1/4	Flange Fitting 3/8 or 1/4
Dimensions							
<u>Width: in (mm)</u> <u>Height: in (mm)</u> <u>Length: in (mm)</u> <u>Weight: lb. (kg)</u>	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 ½ (63.5)
N: in (mm)	¼ (6.35)	¼ (6.35)
R: in (mm)	1 1/16 (26.99)	1 1/8 (28.58)
Bolt Circle Diameter: in (mm)	6 (152.4)	7 ½ (190.5)
M: in (mm)	4 ¼ (107.95)	5 ¼ (133.35)
Max O.D. : in (mm)	7 ½ (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



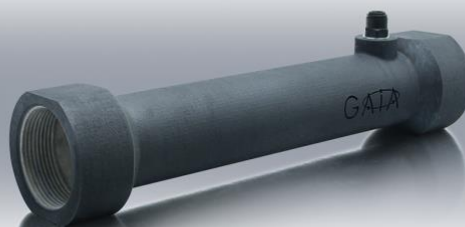
Gaia UFB 100 (ozone rated)



Gaia UFB 200



Gaia UFB 200 (ozone rated)



Gaia UFB 250



Gaia UFB 300 (ozone rated)



Gaia UFB 400 (ozone rated)

