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high-concentration galf

Discover the ultrafine GaLF, a cutting-edge generator delivering the highest concentration of nanobubbles in the Finebubble industry. Designed for researchers, universities, and labs, it's perfect for fundamental research and product development. With advanced PLC controls and flexible gas options, this compact and robust unit ensures peak performance and easy operation. Read more to see how nanobubbles can boost cleaning, plant growth, and fish health.

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ultrafine galf high-concentration nanobubble generator

- Two models available "standard" and "high concentration"
- The ultrafine GaLF high concentration model, is equipped with IDEC latest bubble generator technology generating the highest concentration of ultrafine bubbles in the industry.
- The unit can run on all kinds of gases such as oxygen, carbon dioxide and nitrogen.
- Suitable for universities and research stations that require high concentrations of ultrafine bubbles.
- Scale up production easily with the blenderGaLF 100 or 200
- Standard GaLF: Superior features in compact size - can fit under a desk in a laboratory

The high-concentration GaLF is an ultrafine bubbles or nanobubbles generator that is producing the highest concentration of bubbles in the Finebubble industry. This flexible unit can be used with Oxygen, Air, CO2 and Nitrogen gas. The unit can be used by researchers, universities and laboratories that need a high concentration of nanobubbles for fundamental research. The high-concentration GaLF has an on-board PLC which controls pressure settings and flow, resulting in the maximum performance in the generation of ultrafine bubbles. The start and stop times can be set on the PLC also it has the option to connect an external sensor, such as a DO sensor or the ALT-9F17 Ultrafine Bubble Monitoring. That regulates the starts and stops depending on the bubble concentration.

The high-concentration GaLF can be used for general product development and for fundamental research with liquids and gas. The unit is easy to operate, has a compact design and is built from top quality components in a steel cabinet. This robust unit has a flow of 17 liters per minute, around 4.4 gallons. After development, when there is a desire to upgrade to larger volumes for production or large-scale application, acniti supplies the blenderGaLF. The blenderGaLF is available in 3 different sizes 17, 100 and 200 liter per minute.

GaLF stands for Gas Liquid Foam, it’s a pressurized mixing technology, to create ultrafine bubbles. The technology is invented and patented by IDEC. The IDEC GaLF technology succeeds in generating over one billion stable bubbles per milliliter in water that are as tiny as 100 nm or less than 1 micron in diameter. Using this ultrafine bubble water can help biological processes in plants and fish. The fine bubbles are negatively charged, which strengthen water's ability to better clean and remove contaminants.

Contact us for your project, to have nanobubbles implemented

high-concentrationgalf specs

	Description	Metric	Imperial
1	Model name	high-concentrationGaLF	high-concentrationGaLF
2	Model number	FZ1N-10	FZ1N-10
	Liquid	**Metric**	**Imperial**
3	Flow / minute	17 Liter	4.4 Gallon
4	Flow / hour	1.0 M3	35.4 CF
5	water temperature minimum	0 °C	32 °F
6	water temperature maximum	50 °C	122 °F
7	Strainer availability and size	Yes 400 µm	Yes 400 µm
8	Recommended inlet filter(s)	Small pump inlet filter series	Small pump inlet filter series
	Ambient	**Metric**	**Imperial**
9	Ambient temperature minimum	0 °C	32 °F
10	Ambient temperature maximum	45 °C	113 °F
11	Relative humidity minimum	45 %	45 %
12	Relative humidity maximum	85 %	85 %
	Gas	**Metric**	**Imperial**
13	Flow / minute	0.8 Liter	0.2 Gallon
14	Flow / hour	51 Liter	13 Gallon
15	Pressure	0.001 kPa	0 PSI

	Gas	Metric	Imperial
16	Gas quality	Do not use corrosive gases. Use of Oxygen, Carbon Dioxide, Nitrogen or Ambient Air is allowed.	Do not use corrosive gases. Use of Oxygen, Carbon Dioxide, Nitrogen or Ambient Air is allowed.
17	Gas remark		
	Electrical	**Metric**	**Imperial**
18	Unit phase Ø voltage	1 Ø 100 ~ 120 VAC	1 Ø 100 ~ 120 VAC
19	Unit power consumption	2000 watts	2000 watts
20	Wetted parts	SUS304, SUS303, SUS316, SCS13, SCS14, SUS630, PP Nylon, PFE, EPDM, SiC, PTFE, NBR	SUS304, SUS303, SUS316, SCS13, SCS14, SUS630, PP Nylon, PFE, EPDM, SiC, PTFE, NBR
21	Pump model	Grundfos CRN1-15-A-FGJ-G-V-HQQV	Grundfos CRN1-15-A-FGJ-G-V-HQQV
22	Pump phase Ø voltage	3 Ø 200-240 D/380-415 Y V	3 Ø 200-240 D/380-415 Y V
23	Pump motor 50Hz	750 Watt	1.0 hp
24	Pump head 50Hz	69.6 Meter	228 ft
25	Pump phase Ø voltage 60Hz		
26	Pump suction method	Vertical multistage centrifugal pump	Vertical multistage centrifugal pump
27	Pump pressure setting	Automatic	Automatic
28	Control	PLC-control	PLC-control
	Connections	**Metric**	**Imperial**
29	Water inlet	25A hose connector ~ 1"	25A hose connector ~ 1"
30	Water outlet	20A hose connector ~ 3/4"	20A hose connector ~ 3/4"
31	Gas inlet	10 mm push to connect fitting or 3/8" on request	10 mm push to connect fitting or 3/8" on request

	Dimensions & weight	Metric	Imperial
32	Dim. (w) x (d) x (h)	600 x 600 x 1100 mm	23.6 x 23.6 x 43.3 inch
33	weight	100 Kg	220.5 lbs.
34	Shipping dim. (w)x(d)x(h)	80 x 80 x 130 cm	31 x 31 x 51 inch
35	Shipping weight	120 Kg	265 lbs.

	Remarks
36	Other remarks

- Unit has 3 drain connections
- Indoor use only

ultrafinegalf standard specs

	Description	Metric	Imperial
1	Model name	ultrafineGaLF standard	ultrafineGaLF standard
2	Model number	FZ1N-05S	FZ1N-05S
	Liquid	**Metric**	**Imperial**
3	Flow / minute 50 Hz	8.0 Liter	2.1 Gallon
4	Flow / minute 60 Hz	9.0 Liter	2.4 Gallon
5	Flow / hour 50 Hz	480 Liter	127 Gallon
6	Flow / hour 60 Hz	540 Liter	143 Gallon
7	water temperature minimum	0 °C	32 °F
8	water temperature maximum	50 °C	122 °F
9	Strainer availability and size	Yes 400 µm	Yes 400 µm
10	Recommended inlet filter(s)	Small pump inlet filter series	Small pump inlet filter series
	Ambient	**Metric**	**Imperial**
11	Ambient temperature minimum	0 °C	32 °F
12	Ambient temperature maximum	40 °C	104 °F
13	Relative humidity minimum	45 %	45 %
14	Relative humidity maximum	85 %	85 %
	Gas	**Metric**	**Imperial**
15	Flow / minute	0.5 Liter	0.1 Gallon
16	Flow / minute	0.6 Liter	0.2 Gallon
17	Flow / hour	30 Liter	7.9 Gallon

	Gas	Metric	Imperial
18	Flow / hour	36 Liter	9.5 Gallon
19	Pressure 50 Hz	0.001 kPa	0 PSI
20	Pressure 60 Hz	0.001 kPa	0 PSI
21	Gas quality	Do not use corrosive gases. Use of Oxygen, Carbon Dioxide, Nitrogen or Ambient Air is allowed.	Do not use corrosive gases. Use of Oxygen, Carbon Dioxide, Nitrogen or Ambient Air is allowed.
22	Gas remark		
	Electrical	**Metric**	**Imperial**
23	Unit phase Ø voltage	1Ø 100 VAC	1Ø 100 VAC
24	Unit power consumption	1000 watts	1000 watts
25	Wetted parts	Stainless steel SUS304	Stainless steel SUS304
26	Pump model	Asahi Kogyo APH-31-CA	Asahi Kogyo APH-31-CA
27	Pump phase Ø voltage	1 Ø 100 VAC 50/60Hz	1 Ø 100 VAC 50/60Hz
28	Pump phase Ø voltage 60Hz		
29	Pump pressure setting		
30	Control	PLC-control	PLC-control
	Connections	**Metric**	**Imperial**
31	Water inlet	1/2 inch, 15A	1/2 inch, 15A
32	Water outlet	1/2 inch, 15A	1/2 inch, 15A
33	Gas inlet		
	Dimensions & weight	**Metric**	**Imperial**
34	Dim. (w) x (d) x (h)	300 x 360 x 543 mm	11.8 x 14.2 x 21.4 inch
35	weight	30 Kg	66.1 lbs.