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agrigalf

Discover how the agriGaLF ultrafine nanobubble generator revolutionizes irrigation by optimizing dissolved oxygen levels, accelerating root growth, and activating beneficial microorganisms in the root zone. Explore versatile installation options, energy-efficient operation, and seamless integration with greenhouse climate systems. See how agriGaLF can transform your irrigation approach and boost crop performance on your farm.



agrigalf

ultrafine agrigalf nanobubble generator

- ✓ Hybrid design increases both dissolved oxygen levels and generates ultrafine bubbles.
- ✓ Optimized control suppresses the rise in temperature and reducing power consumption.
- ✓ Improve performance of plant factories, urban farming or city farming operations.
- ✓ Larger units available for horticulture greenhouse companies.
- ✓ Suitable for aeration of RAS and fish-tanks (Recirculating aquaculture system).
- ✓ agriGaLF requires a compressor or for better results an oxygen concentrator.

The agriGaLF uses a hybrid technology for optimization of dissolved oxygen and ultrafine bubble production. High dissolved oxygen levels in irrigation water accelerates the growth of plant roots and activates micro-organisms in the rootzone.

The agriGaLF is available in various sizes, the smallest unit is 1.5 m³/h, 6 m³/h and the largest is 12 m³/h. There is an option to buy the agriGaLF pumpless, in this case the user needs to add the pump locally. The best way to operate the agriGaLF is to recirculate the water in the day storage tank, it's not recommended to use the agriGaLF inline with the dosing unit. The agriGaLF is equipped with a PLC for standalone operation but the PLC can be easily connected to any climate computer in a greenhouse.

The agriGaLF works best in combination with an oxygen concentrator. Alternatively, a compressor can be used to provide gas to the unit. A compressor supplies a little less than 20% oxygen while an oxygen concentrator supplies 95% oxygen. This makes the unit 5 times more efficient. From an electricity usage point of view its more economical to run the unit on an oxygen concentrator. The smaller agriGaLF units have a compressor on board the larger units need to have the compressor added locally when opting for a compressor instead of an oxygen concentrator.

agrigalf 15 specs

Description			Metric	Imperial
1 Model name			agriGaLF 15	agriGaLF 15
2 Model number			FZ1G-15	FZ1G-15
Liquid			Metric	Imperial
3 Flow / minute			25 Liter	6.6 Gallon
4 Flow / hour			1.5 M3	53.0 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			40 °C	104 °F
11 Relative humidity minimum			45 %	45 %
12 Relative humidity maximum			85 %	85 %
Gas			Metric	Imperial
13 Flow / minute			1.0 Liter	0.3 Gallon
14 Flow / hour			60 Liter	16 Gallon
15 Pressure			130 kPa	19 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	Gas intake time 3 seconds / 2 minutes.	Gas intake time 3 seconds / 2 minutes.
Electrical	Metric	Imperial
18 Unit phase Ø voltage	1 Ø 110 ~ 120 VAC	1 Ø 110 ~ 120 VAC
19 Unit power consumption	1000 watts	1000 watts
20 Wetted parts	PP	PP
21 Pump model		
22 Pump phase Ø voltage	1 Ø 100 VAC / 1 Ø 200 VAC	1 Ø 100 VAC / 1 Ø 200 VAC
23 Pump motor 50Hz	170 Watt	0.2 hp
24 Pump motor 60Hz	265 Watt	0.4 hp
25 Pump head 50Hz	15 Meter	49 ft
26 Pump head 60Hz	21 Meter	69 ft
27 Pump phase Ø voltage 60Hz	1 Ø 100 VAC / 1 Ø 200 VAC	1 Ø 100 VAC / 1 Ø 200 VAC
28 Pump suction method	Spiral magnetic drive pump	Spiral magnetic drive pump
29 Pump pressure setting	Manual via valve	Manual via valve
30 Control	PLC-control	PLC-control
Connections	Metric	Imperial
31 Water inlet		
32 Water outlet		
33 Gas inlet		
Dimensions & weight	Metric	Imperial
34 Dim. (w) x (d) x (h)	550 x 420 x 610 mm	21.7 x 16.5 x 24.0 inch

Dimensions & weight	Metric	Imperial
35 weight	69 Kg	152.1 lbs.
36 Shipping dim. (w)x(d)x(h)	104 x 96 x 104 cm	41 x 38 x 41 inch
37 Shipping weight	107 Kg	236 lbs.

agrigalf 60 specs

Description			Metric	Imperial
1 Model name			agriGaLF 60	agriGaLF 60
2 Model number			FZ1G-60	FZ1G-60
Liquid			Metric	Imperial
3 Flow / minute			100 Liter	26 Gallon
4 Flow / hour			6.0 M3	211.9 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)			Medium pump inlet filter series	Medium pump inlet filter series
Ambient			Metric	Imperial
9 Ambient temperature minimum			0 °C	32 °F
10 Ambient temperature maximum			40 °C	104 °F
11 Relative humidity minimum			45 %	45 %
12 Relative humidity maximum			85 %	85 %
Gas			Metric	Imperial
13 Flow / minute			4.0 Liter	1.1 Gallon
14 Flow / hour			240 Liter	63 Gallon
15 Pressure			130 kPa	19 PSI
16 Gas quality				
17 Gas remark			Gas intake time 3 seconds / 2 minutes.	Gas intake time 3 seconds / 2 minutes.

	Electrical	Metric	Imperial
18	Unit phase Ø voltage	3 Ø 200 ~ 240 VAC	3 Ø 200 ~ 240 VAC
19	Unit power consumption	2000 watts	2000 watts
20	Wetted parts		
21	Pump model	No corrosive gases. Can use Oxygen, Carbon Dioxide, Nitrogen or Ambient Air	No corrosive gases. Can use Oxygen, Carbon Dioxide, Nitrogen or Ambient Air
22	Pump phase Ø voltage		
23	Pump phase Ø voltage 60Hz		
24	Pump pressure setting		
25	Control		
	Connections	Metric	Imperial
26	Water inlet		
27	Water outlet		
28	Gas inlet		

agrigalf 120 specs

Description			Metric	Imperial
1 Model name			agriGaLF 120	agriGaLF 120
2 Model number			FZ1G-120	FZ1G-120
Liquid			Metric	Imperial
3 Flow / minute			200 Liter	53 Gallon
4 Flow / hour			12 M3	424 CF
5 water temperature minimum			0 °C	32 °F
6 water temperature maximum			45 °C	113 °F
7 Strainer availability and size			Yes 400 µm	Yes 400 µm
8 Recommended inlet filter(s)			Medium pump inlet filter series	Medium pump inlet filter series
Ambient			Metric	Imperial
9 Ambient temperature minimum			0 °C	32 °F
10 Ambient temperature maximum			40 °C	104 °F
11 Relative humidity minimum			45 %	45 %
12 Relative humidity maximum			85 %	85 %
Gas			Metric	Imperial
13 Flow / minute			8.0 Liter	2.1 Gallon
14 Flow / hour			480 Liter	127 Gallon
15 Pressure			130 kPa	19 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	Gas intake time 3 seconds / 2 minutes.	Gas intake time 3 seconds / 2 minutes.
Electrical	Metric	Imperial
18 Unit phase Ø voltage	3 Ø 200 ~ 240 VAC	3 Ø 200 ~ 240 VAC
19 Unit power consumption	3000 watts	3000 watts
20 Wetted parts		
21 Pump model		
22 Pump phase Ø voltage		
23 Pump phase Ø voltage 60Hz		
24 Pump pressure setting		
25 Control		
Connections	Metric	Imperial
26 Water inlet		
27 Water outlet		
28 Gas inlet		
Dimensions & weight	Metric	Imperial
29 Dim. (w) x (d) x (h)	1200 x 550 x 1600 mm	47.2 x 21.7 x 63.0 inch
30 weight	210 Kg	463.0 lbs.
31 Shipping dim. (w)x(d)x(h)	160 x 90 x 200 cm	63 x 35 x 79 inch