

PRODUCT DATA SHEET

Lagoon Master Aerator (LMA)

water | wastewater | sewage



OVERVIEW

The Lagoon Master Aerator is ideally suited to provide aeration and mixing in shallow pond/lagoon wastewater treatment systems. The Lagoon Master Aerator has two (2) independently operating regenerative blowers, each feeding air to a bubble-forming diffuser grid. The 1st blower runs continuously feeding the rear most coarse-bubble diffuser grid, which creates motive action resulting in horizontal and vertical mixing. The 2nd blower supplies air to fine-bubble diffusers that increases the dissolved oxygen in the water column, and through the motive mechanism created by the coarse bubbles, also provides an oxygenated plume that brings dissolved oxygen into the sludge layer at the bottom. These processes allow for gentle sludge turnover and continual sludge digestion.



Lagoon Master Aerator V1 with onboard blowers

The Lagoon Master Aerator is available in 2 versions: Version 1 (V1) has the blowers mounted on top of the unit, and Version 2 (V2) has the blowers mounted on the pond/lagoon embankment. The only maintenance required on the Lagoon Master Aerator involves cleaning the stainless steel air intake filter on each blower. These filters will last for years but occasional cleaning is required.

ADVANTAGES:

- Aeration & mixing with low power input
- Destratification of water column
- Odour elimination
- Reducing algal growth
- Organic breakdown of settled sludge
- Reduces/eliminates sludge build-up
- Easy to install
- Simple to operate
- Low maintenance, no moving parts
- Low power consumption

STANDARD SPECIFICATIONS

Parameter	Units	V1	V2
Blower mounting location		On top of unit	Onshore
Installed power	kW	3.0	4.4
Regenerative blowers (see note 1)	Qty x kW	2x 1.5	2x 2.2
Water moving capacity	ha	0.4 to 1.6	
Dissolved oxygen input	kg O ₂ /h	up to 6.8	
Mixing rate	m ³ /d	Up to 34,100	
Minimum required water depth	m	1.23	
Overall dimensions, L x W x H	m	2.26 x 2.44 x 1.60	2.26 x 2.44 x 1.22
Weight (see note 2)	kg	360	230

Notes:

1. Both single phase and three phase blowers available
2. Including blowers for V1, without blowers for V2

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STANDARD INCLUSIONS + OPTIONS

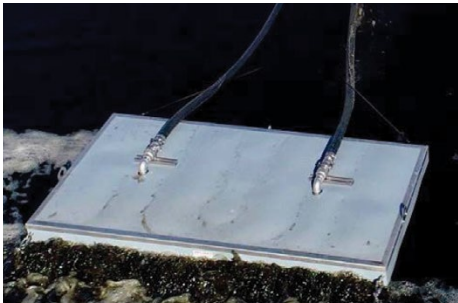
Equipment		V1	V2
Aerator frame and body in 316SS and HDPE, coarse diffuser bubble grid in 316SS and fine bubble diffuser diffuser grids in HDPE		S	S
Blowers with 316SS hose connection hardware and HDPE hoods (blowers mounted on aerator for V1 & located onshore for V2)		S	S
Air hoses EPDM, 2-inch ID, 3-ply, one per blower, standard length 15m each		NA	S
Stand for onshore mounted blowers in 316SS		NA	S
Mooring:	Struts in 316SS, standard length 6.4 m, for fixing to embankment	S	S
	Cables (6 mm) and fittings in 316SS, fixed 2 x concrete blocks on the floor of the pond/lagoon, standard length 20m	O	O
Base skids in 316SS (see note 1)		O	O
Power cable (see note 2), standard length 15m		S	NA

Instrumentation & Controls		V1	V2
Junction box, polycarbonate (see note 2)		S	NA
Control Box in 316SS enclosure		O	O

- Notes:
- 1. Required where the aerator is used in ponds/lagoons with a synthetic liner.
 - 2. For V1 only, connection between Junction Box and Control Box



Lagoon Master Aerator V1 with onboard blowers



Lagoon Master Aerator V2 with shore mounted blowers



MODEL SELECTION

V1

V2

Version 1 Lagoon Master Aerator

Version 2 Lagoon Master Aerator

X

M

X

S

X

C

X

C

Mooring, standard, with struts (standard)

Mooring, with cables

Aerator base skids, without (standard)

Aerator base skids

Control Box, without (standard)

Control Box

Specification - standard

Specification - custom

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LMA-

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