

# AQUARIAN<sup>®</sup>

## Commercial



FLOATING

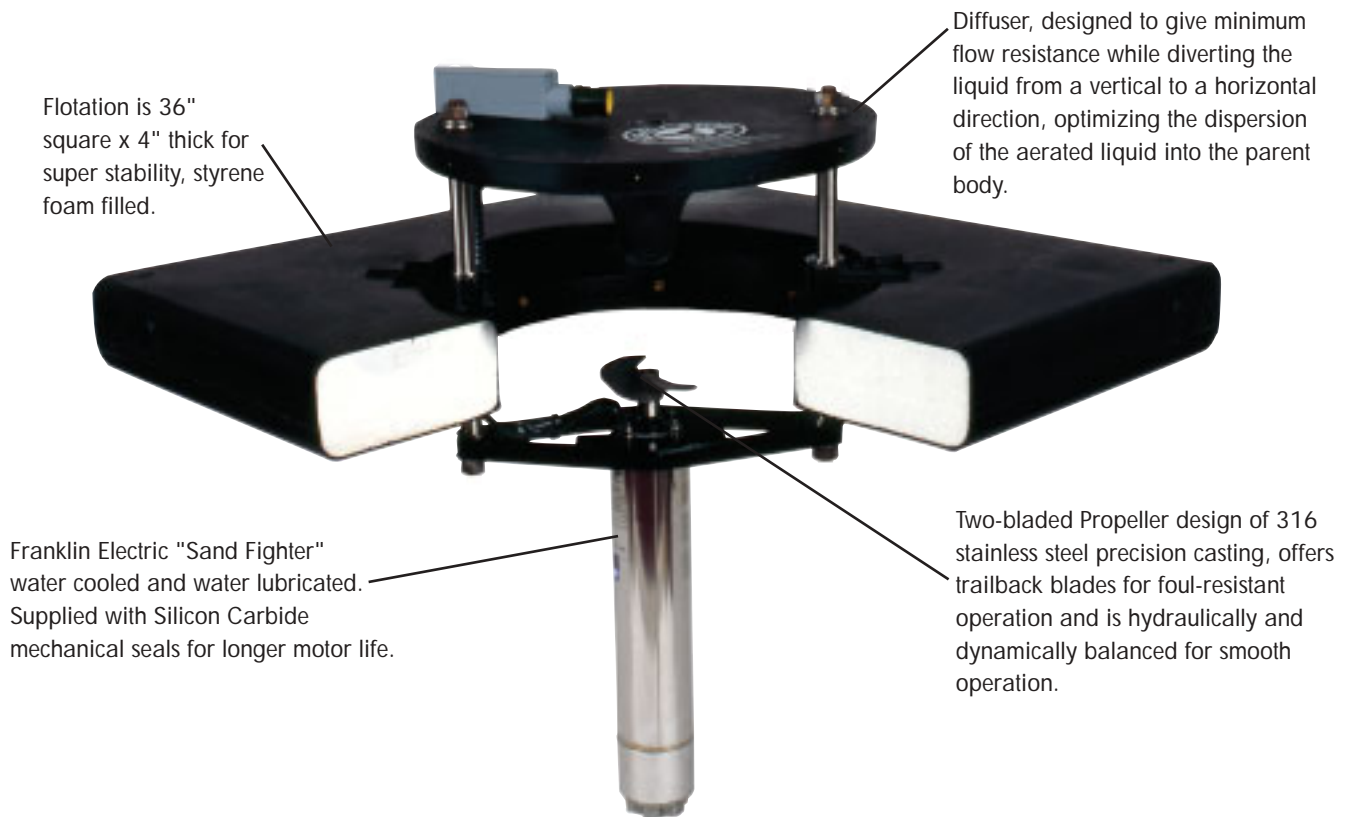
AERATORS

2 and 3HP



"The Water's Edge"

## At a glance. . .



## How it works. . .

**Aquarian Commercial** was originally designed and engineered for the tough wastewater lagoon environment by Air-O-Lator Corporation as a cost saving solution for municipalities both large and small.

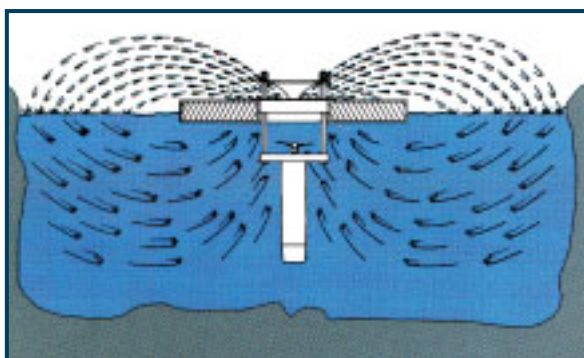
**Aquarian Commercial** is also a formidable solution for industrial point source applications. Additional uses are cattle, hog and chicken, etc. retention applications.

**Aquarian Commercial** produces a large volume of water as a column from 1700 gpm for a Two (2) horsepower aerator up to 2700 gpm for a Three (3) horsepower aerator. The column of water continues to the **Commercial's** exclusive diffuser which permits a deflection of the water column in an omni-directional pattern at right angles to the water surface and outward from the unit.

As the redirected water flow from the diffuser is propelled through the air at a tremendous velocity, oxygen is being added at a substantial rate providing Standard Oxygen Transfer Rates from 5 to 6 pounds per horsepower hour depending on the horsepower selected.

At the same time the water is being propelled through the atmosphere, evaporative cooling is occurring which allows the water being pumped into the atmosphere to cool therefore permitting the water to retain oxygen for a greater period of time.

**Aquarian Commercial** at the same time permits sizeable induced flow to be created therefore permitting maximum directional flow as well as maximum dispersion of aerated water within the basin being treated.



**Aquarian Commercial** floating aerators are designed to perform two (2) basic functions:

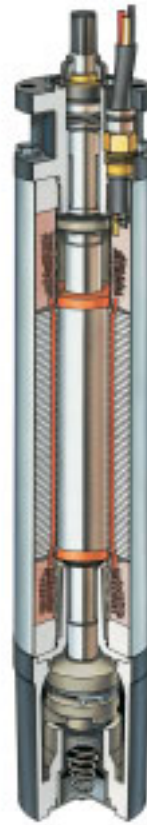
- 1) Create a large continuous air/water interface to transfer atmospheric oxygen to the liquid being aerated.
- 2) Mix the liquid contents and keep degradable solids in suspension.

## Advantages...

- Rugged, stainless steel Franklin Electric submersible motor, UL 778 recognized, water-cooled, water-lubricated.
- No oil to contaminate or rob energy.
- No long shafts to bend or become out of balance. Motor has a 5/8" diameter, 1-1/2" long motor shaft.
- Low trajectory spray pattern permits minimal ice build up.
- Single phase and three phase equipment available.
- High speed, foul resistant propeller. High shear water spraying action. No lazy spray or bubbles.
- Computer designed diffuser, engineered to break up the water column for the maximum oxygen transfer rate.
- 100 ft. water-tight removable power cord standard. Longer power cord available in 50' increments.
- Propeller guard supplied with unit. (not shown)
- Single phase provided with start/run control box. Three phase provided with contactor and overload relay in a 3R enclosure.



## Look Inside...



- Silicone carbide seal for longevity.
- Motor Leads are flexible, for easy handling.
- Removable Water-Block Lead Connector for easy replacement of damaged leads prevents fluid seepage into motor windings if lead insulation is cut.
- Up-Thrust Bearing
- Hermetically Sealed Stators with welded stainless steel liners and outer shell prevent fluid contact with windings.
- Grooved Radial Carbon Bearings with material specifications selected for prefilled water lubrication.
- Kingsbury Type Thrust Bearing is self-aligning and carries thrust and rotor weight.

### AQUARIAN COMMERCIAL

The SUBMERSIBLE  
ADVANTAGE

► **All-Season Performance.** With over 95% of the weight of the aerator beneath the liquid surface, the AQUARIAN COMMERCIAL is unconditionally guaranteed not to capsize due to ice or turbulence.

## Performance Data...

PART #	HP	VOLTS	PH	MX AMPS*	GPM	SOTR**
985AQ22301	2	230	1	13.2	1700	5.5#
985AQ32301	3	230	1	17.0	2700	6.0#
985AQ32303	3	230	3	10.9	2700	6.0#
985AQ34603	3	460	3	5.5	2700	6.0#

Minimum Operating Depth: 36"

\* Max Amps: Maximum allowable service factor amperage

\*\* SOTR: Standard oxygen transfer rate

# Based on tests performed by GSEE Environmental Consultants, Lavergne, TN

## Cable Selection Guide

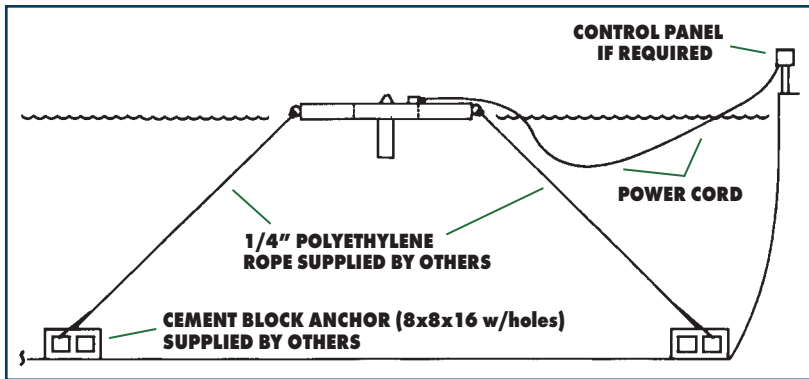
SINGLE PHASE, THREE WIRE W/GROUND CABLE, 60 HZ  
(MAXIMUM LENGTH IN FEET - SERVICE ENTRANCE TO MOTOR)

MOTOR RATING		COPPER WIRE SIZE		
VOLTS	HP	12	10	8
230	2	250	400	*
230	3	200	300	400

THREE PHASE, THREE WIRE W/GROUND CABLE, 60 HZ  
(MAXIMUM LENGTH IN FEET - SERVICE ENTRANCE TO MOTOR)

MOTOR RATING		COPPER WIRE SIZE		
VOLTS	HP	12	10	8
230	3	400	*	*
460	3	*	*	*

Lengths meet National Electric Code.  
\*Lengths over 400 ft., consult factory.



### Suggested Mooring

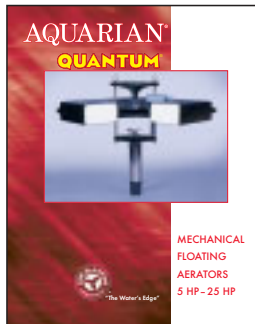
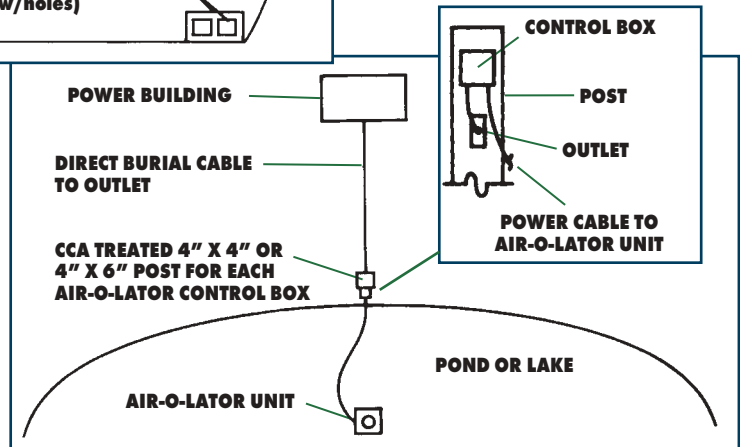
Use approximately three feet of mooring rope per foot of water depth to allow for water level fluctuation. Tying unit to the shore is also acceptable if visible mooring ropes are not objectionable.

Recommended Electrical Power Supply Layout for easy installation and removal of equipment

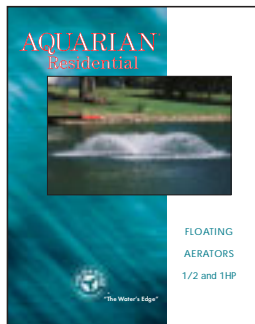
### Suggested Electrical

Air-O-Lator equipment is manufactured either to UL, CSA or NEMA standards.

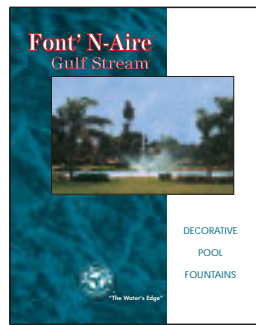
All wiring shall be per NEC CEC or local electric codes.



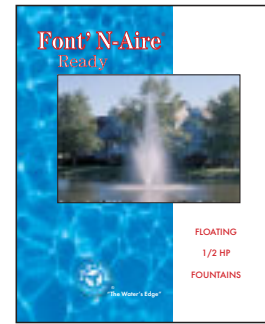
Quantum Floating Aerator  
5 through 25hp



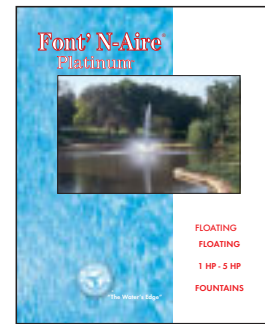
Aquarian Residential units,  
available in 1/2 and 1 hp



Font'N Aire Gulf Stream  
decorative pool fountains  
available in 1 through 3 hp



Font'N Aire Ready fountain,  
available in 1/2-hp.  
Designed for easy installation  
and low maintenance



Font'N-Aire Platinum Floating  
Decorative Fountain improves  
water quality with aesthetics

The specifications as stated herein are the most current at the time of publication. However, consistent with AIR-O-LATOR Corporation's standard policy of continual product improvement, we reserve the right to change the design without notice or obligation on our part to modify any equipment previously sold or delivered.

# AIR-O-LATOR®

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Manufactured under one or more of the following US and Foreign patents:  
No. 1,043,770 No. 1,206,954  
No. 1,206,955 No. 1,257,018  
No. 4,014,526 No. 4,431,597  
No. 4,464,259 No. 4,514,343  
No. 4,581,182 No. 4,671,872  
No. 4,710,325  
Other US and Foreign patents pending.