

## Aspirating Aerator

Lambda aspirating jet aerator is an efficient aerator to be installed in aerating tanks, basins, aerated lagoons and rivers/canals for municipal and industrial wastewater treatment. The hi-grade material air jet is directly mounted at an adjustable angle with the motor portion and air intake above the surface, and the propeller portion below the surface. The motor rotates and turns the hollow shaft along with the propeller and drives the water at a high speed near the propeller blades. Air above the water level is drawn via the air intake port and going into the hollow shaft. Turbulent flow created by the propeller breaks up the air into small bubbles along the water streamline, mixes in the basin and disperses oxygen. Maximum oxygen transfer can be achieved by increasing bubble hang time via horizontal water movement.

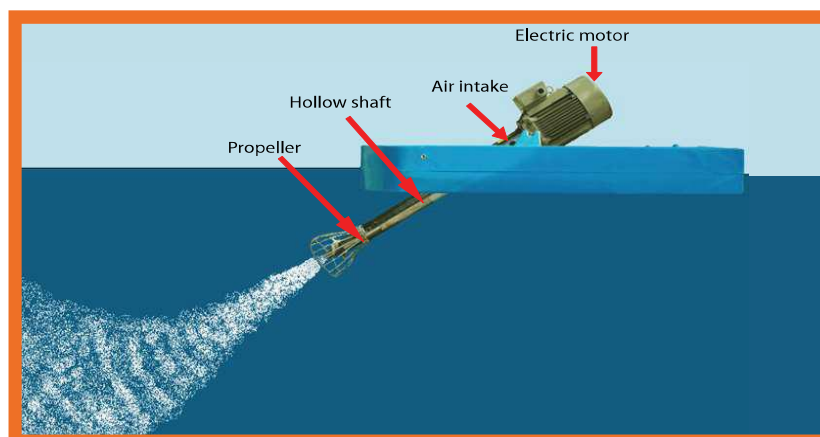


### Features

- The aerator parts are made from stainless steel 304/316 or engineering plastic depending upon water quality.
- Aerator synchronous speeds are 1,500 rpm and 3,000 rpm.
- Ceramic or stainless steel sleeve is installed at the shaft end bearing, when uses in common water.
- There is no end bearing model for the high-strength cantilever hollow shaft, which means no bearing problem when used in abrasive water.
- Installation is available both in fix and float types.

### Benefits

- Creates effective horizontal water movement to limit algae growth and distribute oxygen over a wide area.
- Operates quietly without spraying or splashing for year-round performance.
- Reduce odors by injecting oxygen and providing water movement.
- Directs circulation into most areas as the aerator angle adjust to control the amount of circulation and depth of bubble stream. Easy to move and install by one person (we recommend a registered electrician to do all the wiring).



## Application

### Sewage

Aeration, re-suspension and circulation of oxidation ditches, aerobic treatment of sewage effluent, mixing, consolidation and treatment of sludge, improved digestion resulting in the ditch returning to original handling capacity.

### Fish Farms

The total flexibility in depth and position gives the high volume of entrained air which is the perfect choice for fish rearing tanks, growing cages and fishing lakes.

### Environmental Use

Oil spillage recovery, ranging from slight oil contaminated cooling water to heavy pollution after oil spillage and to the removal of water bound larvae e.g. mosquitoes.



### Process Waste

The floatation aerator is ideal for use on large bodies of water, such as lagoons and reservoirs, where stratification is to be avoided. The unit will also deal with polluted water in situ, rejuvenating depleted oxygen levels. This method of aerating has been proved, in large ditches (e.g. paper manufacturing), to improve the consistency of effluent prior to discharge.





## Application Guide

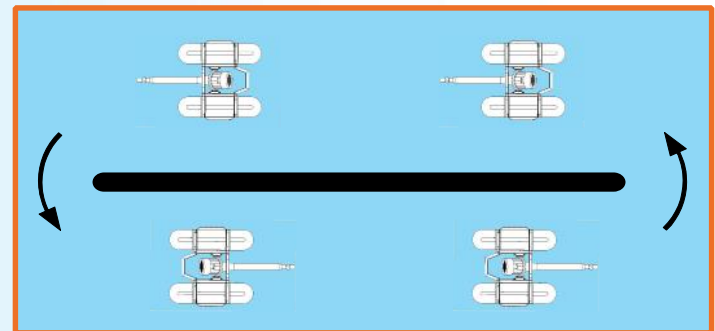
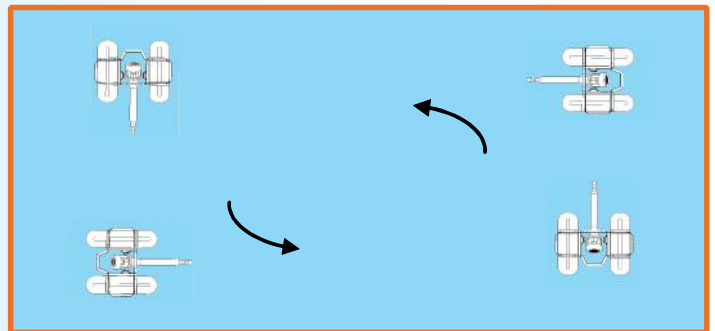
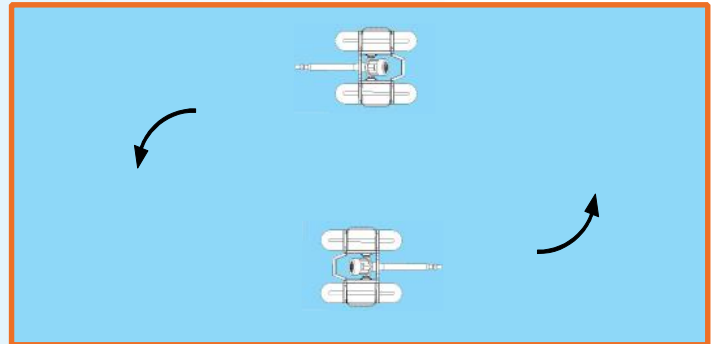
This guide is written to assist the user of Lambda aspirating jet aerators in the effective and efficient sizing and application of this product. When making a recommendation for Lambda aerators you must carefully consider mixing and oxygen requirements, as well as the configuration of the process system.

### How is it applied?

Lambda aerators can be mounted on floats, basin walls or bridge. They are fully adjustable with several mooring options available to fit specific basin geometries. Multiple aerators can be used depending upon the basin size. These aerators can be used in different shaped tanks, lagoons and oxidation ditches. Typical positioning is presented in the left.

### Design and process advantages:

Oxygen transfer rates are maximized by the extremely efficient mixing capabilities of the Lambda aerator and by the horizontal bubble hang time generated. This makes the Lambda aerator the ideal choice for large lagoons or for any application that requires complete mixing because mixing zones can be linked to maximize energy efficiency. The versatility of the mounting options reduced capital costs.



**Type : S, for Common Water  
380V, 3 Phase, 50 Hz, IP55, 3,000 rpm.**



### 2 -5.5 Hp

Model	Hp	Quantity				Approx. Total Weight (kg)
		Aerator	Motor Cover	Frame	Float	
STT020A-PA080	2	✓	✓	-	✓	42
STT030A-PA080	3	✓	✓	-	✓	44
STT055A-PA100	5.5	✓	✓	-	✓	60



### 7.5 -10 Hp

Model	Hp	Quantity				Approx. Total Weight (kg)
		Aerator	Motor Cover	Frame	Float	
STH075A-PI200	7.5	✓	✓	✓	✓	172
STH100A-PI200	10	✓	✓	✓	✓	207



### 15 -25 Hp

Model	Hp	Quantity				Approx. Total Weight (kg)
		Aerator	Motor Cover	Frame	Float	
STH150A-PI200	15	✓	✓	✓	✓	285
STH200A-PI200	20	✓	✓	✓	✓	306
STH250A-PI200	25	✓	✓	✓	✓	325



### 30 Hp

Model	Hp	Quantity				Approx. Total Weight (kg)
		Aerator	Motor Cover	Frame	Float	
STH300A-PI200	30	✓	✓	✓	✓	402

