

High Speed Surface Aerator

The **LAMBDA** high speed floating aerator and high efficiency floating surface aerator are designed to maximize the two most common functions – to produce oxygen and mixing wastewater.

The wastewater (Liquid) is pumped to the surface of water through high speed impeller which would create perfect liquid spray to improve the speed of oxygen into the wastewater tank (pond), which ensures the mixing of waste water and dispersion of oxygen.

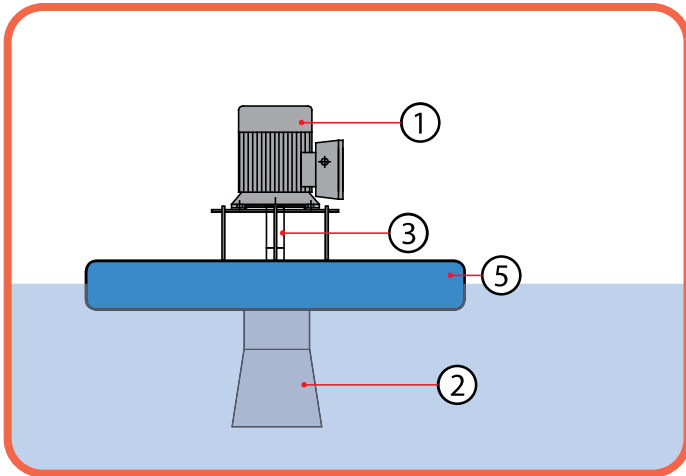
The **LAMBDA** high speed floating surface aerator is the most economic and reliable aeration and mixing equipment using reliable motor to drive the blade directly, pumps the wastewater from tank (pond) through pipe with very high speed and create high speed flow. The pumped-out water will be sprayed out through guide cone panel and then will form sheet type falls. The water will form countless tiny bubbles with oxygen after flying and contacting the air and then the water will form turbulence and bubbles when falling down and hitting the water surface which help the water fully oxygenated and make the wastewater mixed.



Features and Advantages

- Proven oxygen and mixing performance
- Easy and flexible installation
- Units are retrievable for easy access
- Lower cost
- The electric motor is very safe, reliable and maintenance free
- Short lead time
- Easy to incorporate with existing plants
- Various mooring arrangement available
- Very simple product structure

Construction and Material



No.	Name	Material
1	Motor	Cast iron
2	Guide cone panel	Steel / PE
3	Shaft	SUS
4	Water inlet pipe	PE
5	Float	PE+PU foam
6	Impeller	SUS

High Speed Floating Surface Aerator									
Product No.	Motor (50Hz)			Aerator					
	kW	HP	RPM (4 pole)	Flow (m ³ /min)	Oxygen Transfer (kg O ₂ /hr)	Service Dia. (m)	Max. Ser Dia. (m)	Service Depth (m)	Max. Serv. D. (m)
HFA-0104	0.75	1	1450	3	1.6	3.5	6.5	1.5-2.5	4.5
HFA-0204	1.5	2	1450	5	3.2	5.5	10	2-3	5.5
HFA-0224	2.2	3	1450	7	4.6	8	15	3-4	6
HFA-0304	3	4	1450	8.5	6.5	9	16.5	3-4	6
HFA-0504	4	5	1450	10	8.2	12	22	3-4	7
HFA-0754	5.5	7.5	1450	12	11.5	15	27.5	3-4	7
HFA-1004	7.5	10	1450	20	16.5	18	32.5	3-4	7
HFA-1504	11	15	1450	26	22.5	27.5	50	4-5	8
HFA-2004	15	20	1450	30	31	34	60	4-5	8
HFA-2504	18.5	25	1450	34	38	38	67.5	4-5	8
HFA-3004	22	30	1450	38	46	42	75	4-5	9
HFA-4004	30	40	1450	48	60	45	80	5-6	9

Remark : Approximate test result with ambient temperature, low suspended solids wastewater.

Typical Applications :

- Extended aeration
- Equalization
- Oxidation ditches
- Municipal-industrial
- Batch Reactor
- Aerobic digestion
- Aerated lagoons
- Sludge holding

Widely used wastewater treatment process such as sequenced batch reactors (SRB), activated sludge reactors, moving bed biofilm reactor (MBBR), submerge aerated filter (SAF), aerobic sludge stabilization, digesters, lagoons, ponds, mixing or buffer tank etc.

The information contained herein relative to data, dimensions and recommendations as to the size, power and assembly is for the purpose of estimation only. These value should not be assumed universally applicable to specific design problems on particular designs. Installation and plants may call for specific requirements, consult Pakco International Co., Ltd. for recommendations on specific needs.