

### FIXED and FLOATING TYPE SURFACE AERATORS WITH FAN



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# **FIXED and FLOATING TYPE** SURFACE AERATORS WITH FAN

## General Description and Intended Use

In high performance wastewater treatment plants, it is preferred because it cools the wastewater temperature with splashing method and it also provide high amount of oxygen from single equipment. It provides the oxygen required for the activated sludge in domestic or industrial wastewater in the aeration pools and it also prevents it to settle. Generally, the floating type surface aerators with fan are preferred in lagoons. It also consumes low energy in domestic or industrial wastewater in the balancing pools and it mixes the water by moving it and performs the pre-oxygenation treatment.

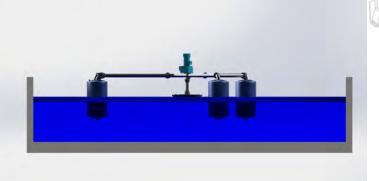
#### Working Principle Of Equipment

The surface aerators with fan are called fixed type or floating type surface aerators with fan according to the mounting type. The fixed type surface aerators with fan consist of a drive group, a shaft, a fan and a mounting frame; the floating type surface aerators with fan consist of a drive group, a shaft, a fan, a floating system and ropes fixing the float. The surface aerators with fan spray the wastewater that it takes from the surface of the wastewater with the rotation effect of the fan in the air as fine particles. Thus, the water particles contact the air. The water particles, which fall into the wastewater again, provide oxygen for the wastewater and it cools down the water. It both mixes the pool thoroughly and transfers oxygen to the pool.



# TECHNICAL SPECIFICATIONS

- It is manufactured between 7,5 kW and 55 kW according to its capacity and it can be designed in different capacities if necessary.
- It is mounted at the wastewater level with the vertical angle of 90° from the mounting frame that is positioned without sinking in the wastewater.
- The oxygen efficiency coefficient that it transfers to the clean Water is 1,8 Kg.O2/ kW.hr.
- The floating type surface aerators with fan can be easily maintained by pulling right-left from the ropes that the float is tied without discharging the pool.
- The floating type surface aerators with fan allow operating in accordance with the wastewater level in the pool which may change.
- The floating type surface aerators with fan are prevented the fan tip over and fall into the ground thanks to its floating system.



# ADVANTAGES

- Design Suitable for Capacity According to Pool Volume and Oxygen Requirement,
- Easy Transportation,
- Easy Assembling / Disassembling Without Requiring Mounting in the Water,
- Easy Maintenance and Low Maintenance Costs,
- Minimum Maintenance Requirement without Discharging Pool,
- Long Operation Life,
- Possibility to Tracking and Check the System Operation over SCADA,
- Start-Stop Operation in Oxygenation Control,
- Suitable for Outdoor Operation.

### **Material Details**

- Shaft: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Fan: They can be manufactured as DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).
- Motor / Reducer Mounting Frame or Floating System: They can be manufactured as S235JR + Hot Dipping Galvanized Coating, S235JR + Epoxy Paint, DIN 1.4301 (AISI 304) or DIN 1.4401 (AISI 316).

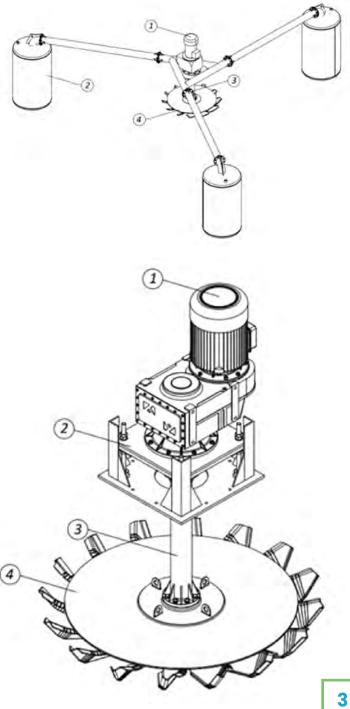
"Different materials can be preferred in accordance with the request of the customer."

# **ACCESSORIES**

- Motor / Reducer Mounting Frame\*
- Floating System\* •
- Rope Fixing Float\* •
- Oxygen meter\*
- Frequency Inverter\*
- Emergency Button\* •
- Local Power and Control • Panel\*
- \* Optional accessories are defined.

No	Part Name
1	Motor / Reducer
2	Motor / Reducer Mounting Frame or Floating System
3	Shaft
4	Fan





# **DALAD Mühendislik**

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