

HORIZONTAL SHAFT AERATOR

Horizontal shaft aerator is an alternative equipment for providing aeration and mixing in biological treatment process.

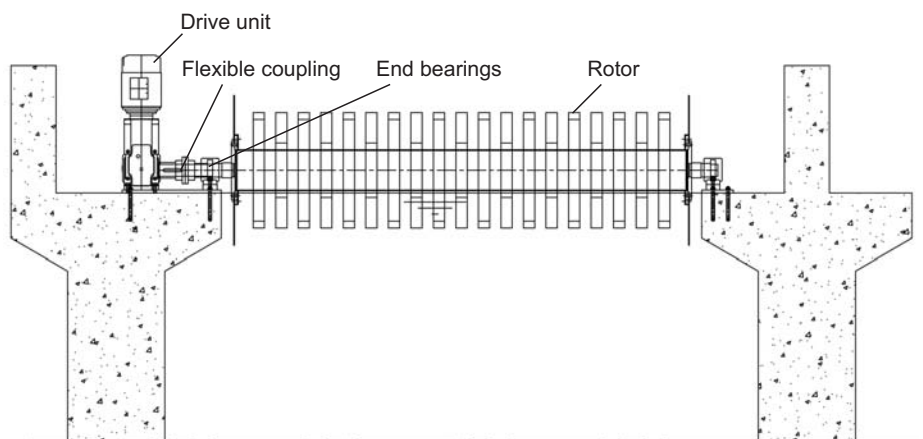
They are especially preferred in ditch type aeration basins, due to their effective mixing and high oxygen transfer efficiency in shallow, wide channels.

As the rotor turns, a vertical movement of water is created and water is aerated. According to requirements of the plant, a number of single rotor with one drive unit, or a multiple rotor unit with one drive unit can be applied. Client is recommended to consult our company for the selection of rotor type and power.

Horizontal shaft aerator should be installed on top of a concrete bridge with sufficient width. A side beam which is extending 10 cm below water level would help prevent water splash and noise. It is recommended to put concrete blocks to open areas under bridge, after the installation of aerator is completed. Since coupling and bearings need maintenance, these areas should be covered by light concrete to enable easy removal.

Optional accessories:

- Oil pump for automatic lubrication of gearbox
- Baffle for aerosol control
- Special noise prevention cover for drive unit
- Pallets to increase oxygen transfer
- Dual speed motor
- Floating system



Model	Rotor length mm	Rotor speed rpm	Motor power kW	Max. immersion depth mm
700-1	1000	85	2.20	240
700-2	1500	85	3.00	240
700-3	2000	85	4.00	240
700-4	2500	85	5.50	240
700-5	3000	85	7.50	240
700-6	4500	85	11.0	240
1000-1	2000	72	11.0	300
1000-2	3000	72	15.0	300
1000-3	4500	72	22.0	300
1000-4	6000	72	30.0	300
1000-5	7500	72	37.0	300
1000-6	9000	72	45.0	300

Horizontal shaft aerator consists of following main parts;

Drive unit

The most important part of the horizontal shaft aerator consists of electric motor, gearbox (bevel/spur gear) and a flexible coupling which connects these two units. Air ventilation unit located on gearbox is provided with a moisture trap.

Rotor

Rotor designed as tube shaft, is made of stainless steel. Pallets provide aeration and mixing and end discs are located on the rotor. Pallets are placed as off-set position to the rotor, therefore they can receive the movement continuously to the water.

Flexible coupling

It is placed between gearbox outlet and rotor shaft. It adsorbs the excess loads generated during start and any additional force due to misalignments of the rotor during operation.

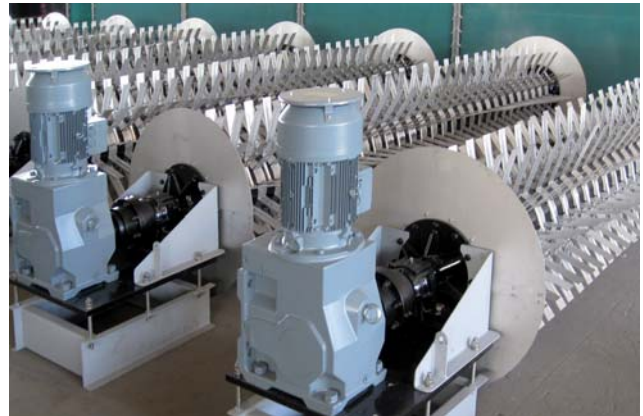
End bearings

They are designed to compensate linear expansion and minor rotor misalignments. Special seal used before bearings prevent spray water leakage into bearings and gearbox.

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