

SURFACE AERATION

50 HZ

Water in AIR / AIR in Water



SURFACE AERATION

SURFACE AERATION is required and highly recommended in all situations where degassing is fundamental. In many applications the removal of harmful gases, which are very dangerous for aquatic animals and for the health of the water basin, is far more important than mere water oxygenation. Every fish and shrimp farmer will need a surface aerator to avoid high concentrations of ammonia and CO₂ and to create a perfect environment for the species they breed. The aerator is mainly used to push water in the air so that the two elements come into contact and to finally transfer oxygen from air to water.

The two most important features to select a surface aerator are the following:

- › water flow (m³/h) - this is a must to be considered in all aerators
- › water suction depth

In the area of influence of a surface aerator, there will be well oxygenated and mixed water, no stratification, and, finally, a better water environment.

Aeration efficiency is an important consideration when selecting an aerator; it can be calculated by measuring the oxygen transfer in relation to the energy used per nominal horse power. Energy costs are very important and they have to be evaluated in practical conditions. The aesthetical appearance of a surface aerator is produced using energy to push limited volumes of water as high as possible, where the same energy may be used to push larger volumes, yet at lower heights. This reduces the practical performances and the aeration efficiency of the aerator.

The energy dedicated to lift water higher is lost to capacity; capacity is essential to increase aeration efficiency. Generally, the oxygen transfer rate of a water capacity aerator (splashing surface aerator) is 100% higher than a water pressure aerator (fountain).

WATER IN AIR



