INTRODUCING VARACORP SELF-ASPIRATING AERATOR

State-of-the-Art in Aeration Technology

This self-aspirating aerator was introduced into the world market in 2010 following nearly ten years of research and development in Europe. Already, it is the subject of physics forums in which professionals and laymen alike are trying to understand how it performs its amazing feat of aeration.

Simply stated, the VaraCorp’s Turbine Technology combines the physics principles of precession (as applied to the rotation of fluids) and centrifugal force. Using precession, the rotating sub-surface disc creates a low pressure zone within its internal chamber. This zone is then filled with air forced down an air tube by surface air pressure. As this air is gathered within the disc, it is immediately expelled by centrifugal force into the surrounding water.

The result is an immediate, continuous, unbelievable barrage of dissolved oxygen that saturates the water. While other self-aspirating aerators exist, they require much more horsepower to achieve the same results.

The appeal of the turbine is its utter simplicity combined with its durability. It overcomes many of the challenges which plague other aerators. It has no internal moving parts. It has no diffusers which can clog. It requires no loud, costly compressor. It does not roll or stir up the bottom of the treatment lagoon. It does not thrash the surface of the water. It creates a mild current within the body of water. It creates extremely small air bubbles making it appear as if an underwater cloud is being formed. It can operate at greater depths than similar aerators. And, finally, it entrains dissolved oxygen by forcing air into water, and not water into air.

Some models can discharge 16 liters of air per second into water. This volume of air is generated with two and three horsepower motors, not seven to ten horsepower motors.

Due to its design, efficiency, portability, and performance, is equally at home in aquaculture settings, horticulture irrigation lagoons, golf course ponds, municipal waste treatment plants, stock ponds, lake ways and coves, confined animal feedlot waste lagoons, and black water pits, to name a few.

The oxygen transfer efficiency in some models can exceed 7.5 kgO₂/kWhr or about 12 lbsO₂/hphr. Weighing less than 200 pounds, a typical floating Turbine aerator can out-perform and outlast virtually every aerator in its class.