INTRODUCING VARACORP'S NEW AERATION TECHNOLOGY FOR INDUSTRIAL WASTEWATER

A Self-Aspirating Turbine Aerator

VaraCorp's self-aspirating aerator was introduced into the world market in 2010 following nearly ten years of research and development. 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 turbine aerator 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 several times the horsepower to achieve the same results.

The appeal of the turbine aerator is its utter simplicity combined with its durability, making it ideal for industrial wastewater aeration. 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 roil 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. A typical 5-horsepower VaraCorp aerator can discharge 34 liters of air per second (72 ft^3/minute) into water.

Due to its design, efficiency, portability, and performance, the turbine aerator is equally at home in industrial waste ponds as it is in aquaculture settings, horticulture irrigation lagoons, golf course ponds, municipal waste treatment plants, stock ponds, winery and brewery ponds, confined animal feedlot waste lagoons, and frac water pits, to name a few.

VaraCorp's aerator boasts a dissolved oxygen transfer efficiency of up to 4.7 $lbsO_2$/hphr. With most models weighing less than 250 pounds, a typical floating turbine aerator can out-perform and outlast virtually every aerator in its class.

www.varacorp.com 1.800.801.6685 info@varacorp.com