O²ctopus®

Floating Fine Bubble Aeration System

O²ctopus® is a floating, surface-maintainable aeration system. The system offers all the advantages of fine or coarse bubble diffusion and is constructed from high-strength stainless steel. Each O²ctopus® system is specially designed for easy maintenance, heat retention in cold months, and reduced electrical consumption. The units do not require any electrical connections to be made in or over the water — they are fed air via robust hose and stainless fittings by an on-shore blower.

Once the air is delivered to each unit, the custom manufactured legs are designed to reach the lowest point in the aeration vessel and maximise bubble contact and subsequent oxygen transfer efficiency. Tubular diffusers are used on the bottom of each leg to disperse the air into microfine bubbles that allow dissolved oxygen to be readily consumed in the aerobic treatment process.

Each O²ctopus is secured with stainless cable and clamps to keep it in place, whilst allowing easy disconnection if servicing is required. The system's diffusers are easily maintained. Simply use the quick connect cam-lock fitting to disconnect the air supply and plug the hose. The whole O²ctopus unit can be lifted from the treatment vessel for service without affecting operation of remaining units.

- **All stainless steel construction for long service life**
- **High efficiency diffuser design with excellent Oxygen Transfer Efficiency**
- **4, 8 or 16 diffuser design creates thorough mixing zones**
- **Wet installation into existing treatment systems**
- **Individual units serviceable without interrupting treatment**
- **Ideal for upgrading activated sludge systems, extended aeration, SBR's, tanks or lagoons**

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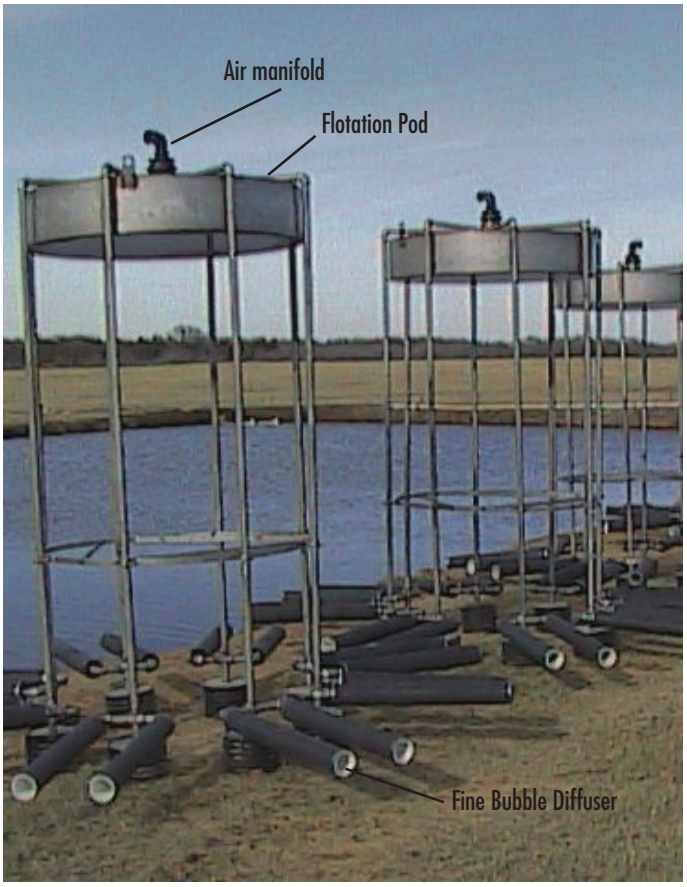

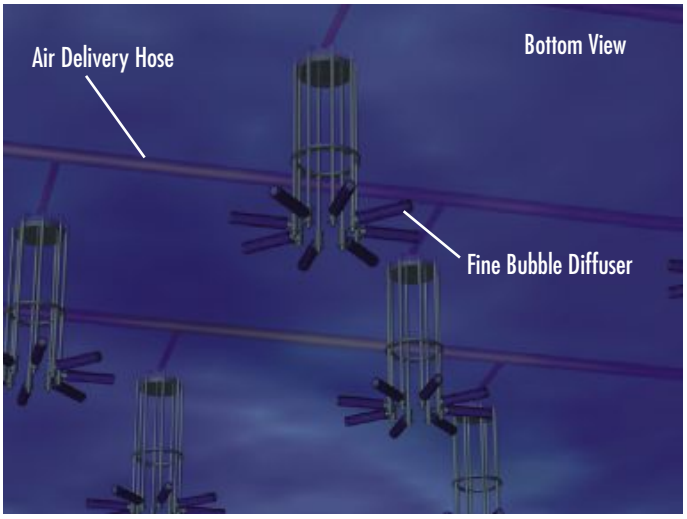

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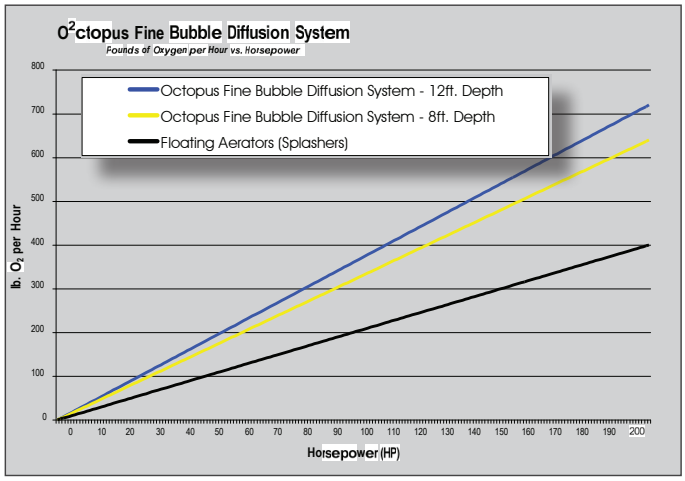

SYSTEM OXYGEN TRANSFER EFFICIENCY

Oxygen Transfer Efficiencies (OTEs) are determined by the size of bubble diffused into wastewater, and the amount of time the bubble remains in the water, allowing transfer of oxygen through the bubble membrane into the water. The lower the depth that these bubbles are generated, the greater the efficiency of transfer. A bubble generated at a depth of 3 metres will have an OTE of approximately 10%. A bubble generated at a depth of 7.5 metres from an O²ctopus will have an OTE of approximately 25%. Whereas a bubble produced by a conventional surface aerator will just pop off into the atmosphere.

SPECIFICATIONS

DIFFUSERS: Fine bubble diffusers are mounted on membrane sleeves, and are screwed into the legs at a 90° angle. Diffusion is from the lowest possible depth to enhance oxygen transfer.

BLOWER: Positive Displacement (PD) blowers are the most popular choice, although systems can be operated with centrifugal fan type blowers.

MANIFOLD: A balanced heavy-duty hose system is custom designed to deliver system pressure based on the depth of the diffusers and the system head loss.

CONSTRUCTION MATERIALS: Stainless Steel, Type 304

AVERAGE DRY WEIGHT: 200 Kg per unit. (@ 2.5m operating depth)

OVERALL LENGTH: To suit operating depth

FLOTATION WIDTH: 1.2 m

FLOTATION THICKNESS: 23 cm

FLOTATION POD CHAMBER: Filled with foam

Due to ongoing engineering and improvements, all specifications are subject to change without notice.