

# DO<sub>2</sub>E

WASTEWATER TREATMENT LLC

Floating Aerator / Mixer



“ SOLVING THE WORLD’S WATER  
PROBLEMS WITH INNOVATIVE  
GREEN TECHNOLOGIES ”

REVOLUTIONARY CHANGES IN AERATION & MIXING

VISIT US ON THE WEB AT [WWW.DO2E.COM](http://WWW.DO2E.COM)



DO<sub>2</sub>E Waste Water Treatment LLC has designed and patented some of the most technologically advanced wastewater treatment equipment on the market today. DO<sub>2</sub>E is proud to offer products that are environmentally friendly, air driven, and most importantly have no moving parts. This is a new paradigm in wastewater treatment equipment for both municipal and industrial applications. DO<sub>2</sub>E continues to be on the cutting edge in the design, development, and production of environmentally friendly and energy efficient technology. Our approach to **Green Technology** continues to set new industry standards when it comes to "Solving the World's Wastewater Problems."



**Green Technology** refers to technology whose use is intended to mitigate or reverse the effects of human activity on the environment.

**DO<sub>2</sub>E: The Solution To Pollution!**



## DO2E's Water Aeration Technology



Approved

Deployed During The 2010 Deepwater Horizon Oil Spill

# DO<sub>2</sub>E'S HIGH VOLUME Floating Aerator / Mixer

For  
Heavy Duty Industrial & Municipal  
Aeration & Mixing

## Benefits of the DO<sub>2</sub>E Floating Aerator / Mixer

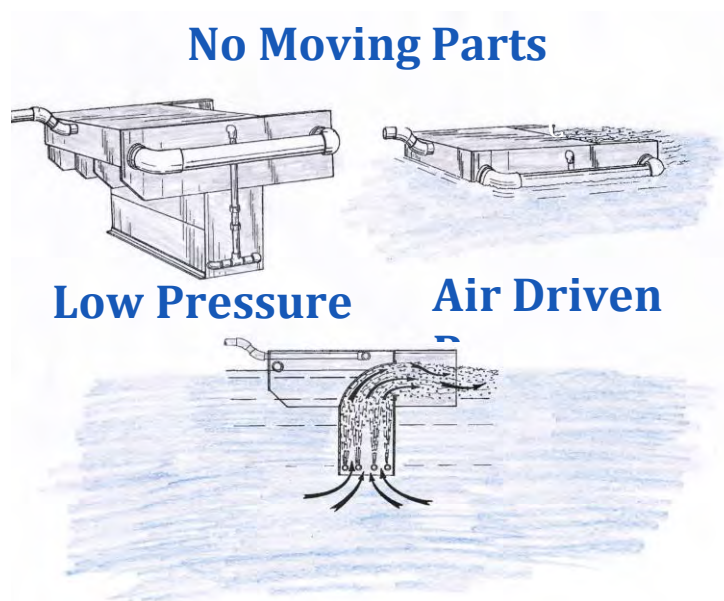
- Removes Blue Green Algae
- Increases Dissolved Oxygen
- High Volume Water Flow
- Reduces BOD & COD
- Reduces H<sub>2</sub>S Gas
- Reduces Ammonia Levels
- Oxidizes Hydro-Carbons
- De-stratifies the Water Column
- Reduces Energy Usage By Up to 80%
- Reduces Maintenance Costs By Up to 85%
- Replaces Outdated Commercial Mixers & Aerators
- Reduces Sludge Build Up By Up to 80%

The DO<sub>2</sub>E High Volume State of the Art “Patented Aerator/Mixer System” injects High volume low-pressure air through a specially designed multi chambered air manifold located at the bottom of the unit. This unit creates a surface current up to 4 knots for a distance up to 100 ft. Using a unique combination of coarse air and fine air bubble aeration, we are able to maximize oxygen transfer throughout the water column. The fine air bubbles maximize the oxygen transfer while the coarse air bubbles provide the waters velocity.

This unique combination of coarse and fine air bubbles released at a specific water depth within a confined space allows for a highly efficient aeration system.

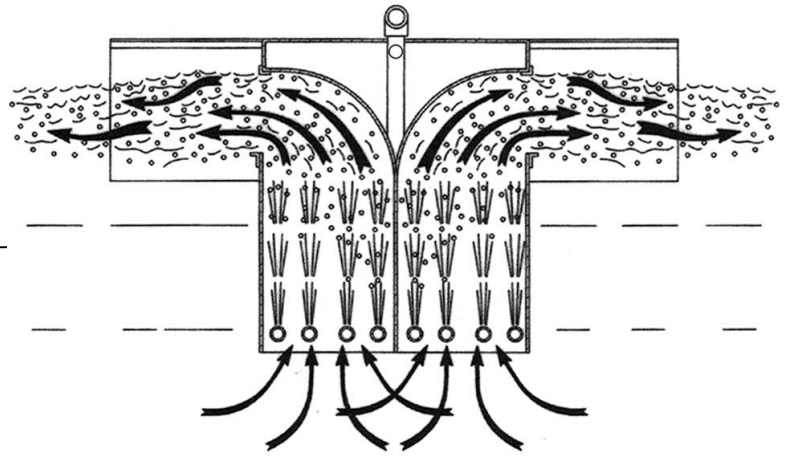
DO<sub>2</sub>E's Floating Aerator/Mixer can operate in as little as 4 ft. of water, and can draw from depths of up to 16 ft. of water

DO<sub>2</sub>E's High Volume Floating Aerator/Mixer is the ultimate delivery system for our new Advanced Oxidation Processing System (A.O.P.), a hybrid generator that combines Ozone with Hydroxyl Radicals.



## Features of the DO<sub>2</sub>E Floating Aerator/mixer

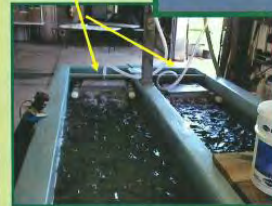
- Produces high flow surface currents
- Oxidizes Hydrocarbons
- SOTR 1.75 - 5.10 lbs. of oxygen
- Moves up to 24.1 million gallons per day
- No Moving Parts
- Portable
- Reduces energy costs by up 80%
- Increases dissolved oxygen
- Removes most VOC's and heavy metals
- Reduces BOD & COD
- Low noise level (60dB)
- All green construction
- Fully self-contained
- Draws from a water depth of up to 16'
- Operates in as shallow as 4' of water
- Constructed of heavy duty, fully welded, marine grade PVC
- UV protected
- Uses no lubricants
- Designed to run 24/7
- Reduces sludge build up by up to 80%
- Total destratification of water bodies



Dual Flow Aerator / Mixer



Fisheries  
Research & Development  
Center



Mini DO<sub>2</sub>E Aerator

6' DO<sub>2</sub>E Aerator



Double Flow Unit

DO<sub>2</sub>E/Mixer



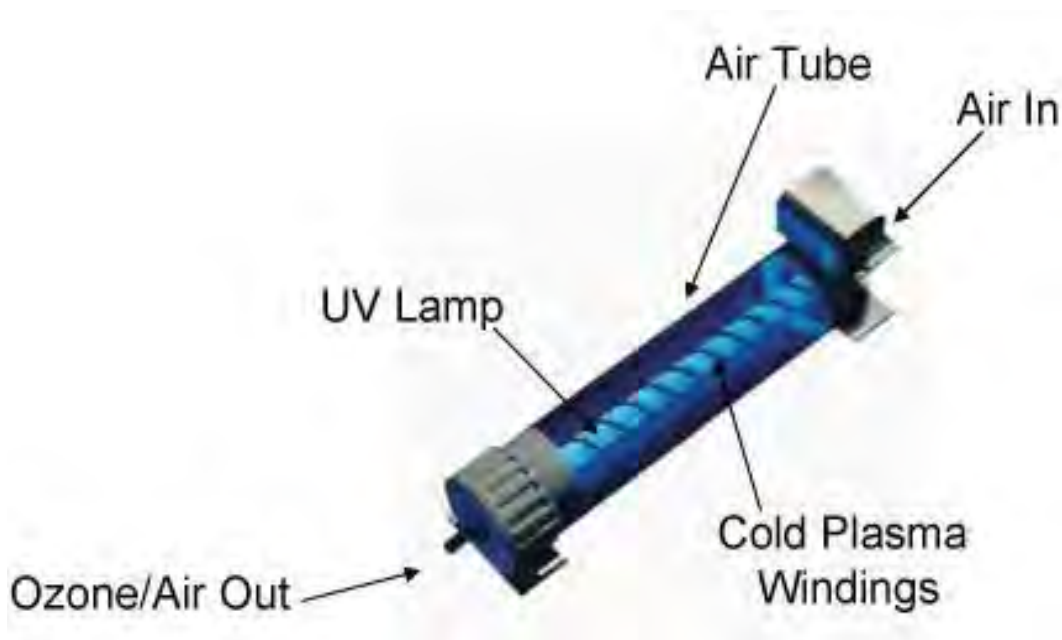
# Advanced Oxidation Processing Technical Information

A.O.P. is the conversion of ozone, by ultraviolet radiation on the UVC wavelength, in the presence of water, to form high-energy hydroxyl radicals. Hydroxyls function in a manner similar to Hydrogen Peroxide, which is increasingly used as an additional oxidation shock.

Ozone is the most powerful oxidant and disinfectant readily available. Ozone is a form of oxygen that contains three atoms ( $O_3$ ) rather than the normal two ( $O_2$ ). Ozone acts as an oxidizer and disinfectant (sanitizer). Our equipment is designed primarily to provide oxidation and disinfection of the water, this water is known as **aqueous ozone** or ozone-enriched water. Ozone kills bacteria by rupturing the cell wall (similar to popping a balloon) and by destroying the virus' protective layer. Unlike most chemical disinfectants, microorganisms cannot develop a resistance to Ozone.

A.O.P. is an ideal solution for wastewater problems that must deal with high contaminant concerns, particularly in the areas where state or municipal laws require quick and effective treatment of these major issues.

## A.O.P. Processing Tube



**Ozone is Approved  
For Use By:**



# Advanced Oxidation Processing (A.O.P.)

## Advantages of A.O.P.

- Most powerful disinfectant & oxidant readily available
- Does not produce any harmful by-products
- Reduces many contaminants to inert compounds
- Oxidizes many heavy metals
- Kills most bacteria & viruses including Hepatitis
- Oxidizes pharmaceuticals in waste water
- Oxidizes H<sub>2</sub>S gas and certain other Mercaptans
- Increases dissolved oxygen (DO levels)
- Eliminates F.O.G. (Fats, Oils & Grease)
- Reduces the use of other chemicals
- Provides a cleaner, more sanitary environment



**A.O.P. Generator**

Known as A.O.P., Ozone and hydroxyl radicals are combined to form one of the most powerful and effective oxidation agents known to man. Hydroxyl radicals are much more potent than ozone. When hydroxyl radicals are combined with ozone, reaction times are 300 - 500 times faster, 200-300% more effective and they have a half-life of 2 to 5 minutes.

**A.O.P. Is Compatible with All DO<sub>2</sub>E Products and  
Is Optionally Available.**

**All G.O.A.T. Models Come Equipped With A.O.P.**



***DO<sub>2</sub>E***

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***For More Information On DO<sub>2</sub>E's Proprietary  
Aeration & Mixing Products Please Visit Us On The Web  
At  
[WWW.DO2E.COM](http://WWW.DO2E.COM)***