

ADVANCED OXIDATION PROCESSING (A.O.P.)

A.O.P. WILL SUPER CHARGE YOUR SYSTEM!

HOW IT WORKS

Combined ozone and hydroxyl radicals, also known as A.O.P., is one of the most powerful and effective oxidation agents known to man. When hydroxyl radicals are combined with ozone, pre-treatment reaction times are 300 - 500 times faster, 200-300% more effective, and has a half-life of 2 to 5 seconds.

TECHNICAL INFORMATION

A.O.P. is the conversion of ozone by ultraviolet radiation on the UVC wavelength in the presence of water and forms high-energy hydroxyl radicals. Hydroxyls function in a manner similar to hydrogen peroxide (which is increasingly common for use as another form of oxidation shock).

Ozone, a form of oxygen, acts as an oxidizer and disinfectant (sanitizer) and kills bacteria and viruses by rupturing their cell wall and destroying their protective layer (similar to popping a balloon). The ozone depletes its half-life and renders itself harmless by the time it reaches the surface.

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.

Our equipment, specifically designed, provides both oxidation and disinfection and produces a result known as aqueous ozone or ozone-enriched water.

A.O.P. IS COMPATIBLE WITH ALL D₀₂E PRODUCTS AND IS OPTIONALLY AVAILABLE



A.O.P. PROCESSING TUBE

ADVANTAGES OF A.O.P.

01

One of the most powerful disinfectant + oxidant readily available

02

Helps oxidize F.O.G. (Fats, Oils & Greases)

03

Increases dissolved oxygen (DO) levels

04

Oxidizes H_2S gas + certain other Mercaptans

05

Kills most bacteria + viruses (including Hepatitis)

06

Oxidizes most pharmaceuticals in waste water

07

Does not produce any harmful by-products

08

Reduces many contaminants to inert compounds

09

Oxidizes many heavy metals

10

Reduces the use of other chemicals

11

Provides a cleaner, more sanitary environment

PUT IT TO USE:

DO₂E LITTLE JOHN DIGESTER WITH A.O.P

The A.O.P. option for the Little John Digester is an excellent choice where reduction in odors, sewer gases such as H_2S , and disinfection is desired. Hybrid ozone kills most bacteria on contact and derogates dissolved sulfides in the wastewater which create the sewer gases. The hybrid ozone is delivered to, and depleted in the water column thus eliminating corrosion, and common respiratory issues. Delivery of the A.O.P. in the wet well before the force main eliminates air locking challenges. A.O.P. is an excellent choice for pre-treatment in Storm Water pump stations as well.



A.O.P. GENERATOR