PHOCATOX™
TECHNOLOGIES

BIOSWEEP™
700 Series

High Performance Air and Surface Decontamination

OUR TECHNOLOGY

Our equipment's unique, five-stage process, called *PHOCATOX*, combines the latest in airborne and surface contamination destruction technology. Unlike any other equipment available on the market today, the BioSweep creates a hydroxyl radical plasma gas inside of the unit's intense sterilizing chamber, producing and exporting very high levels of vaporized hydrogen peroxide and purified ozone out into treatment areas for effective surface decontamination. These agents work together in oxidizing against airborne and surface contaminants before rapidly returning back to natural elements, posing no environmental hazards and allowing for immediate re-entry of treatment areas. Unlike simple, weak ozone generators and other inferior technologies in use, our equipment rapidly produces permanent results!

front back

APPLICATIONS

- Fire/smoke odor removal
- Mold/mildew abatement
- Chemical/fuel spill cleanup
- Bacteria/virus mitigation
- ANY odor eradication
- Vehicle recovery
- Contents remediation on-site
- Whole building bio-sanitation

BENEFITS

- Permanent results
- Environmentally safe
- Proven technology
- Non-corrosive like simple ozone generators used elsewhere
- Will not blanch or harm fabrics
- Allows for quicker recovery and re-entry of insured's property

POWERFUL • FAST • EFFECTIVE
SAFE • ENVIRONMENTALLY FRIENDLY

High Intensity *PHOCATOX* Technology

Eradicates airborne and surface organic molecules and micro-organisms including pathogens and bacteria. Our unique process, based on the established and accepted science of photocatalytic oxidation (PCO), uses a highly advanced form of PCO to produce simultaneous, interrelated forms of oxidation. This multi-phase process utilizes **HEPA filtration**, **Hydroxyl Radicals Production**, **Purified O3** and **H202 Production**, **Singlet Oxygen** and **Oxyradical Plasma Production**, and **Sterilizing Germicidal UVC Radiation**, all generated internally in one portable unit to produce unparalleled decontamination capabilities on site.

PHASE 1 – UV Radiation
Air comes into the bottom rear of the unit. High intensity germicidal irradiation is lethal to incoming airborne microorganisms, creating peptide bonds within their DNA, preventing them from further replicating. Additional bands of the UV spectrum are also used.

PHASE 2 – Powerful Singlet Oxygen and Oxyradical Plasma
A dense cloud of powerful molecular oxidizers attack bio-particles and rapidly begin breaking the carbon bonds that form their cellular matter. Approximately 70% of the system's energy goes into creating this powerful sterilizing plasma gas, which includes singlet oxygen, superoxide, hydrogen peroxide and three oxyradicals: hydroxyl radicals, the atomic oxygen radical, and hydroperoxide radicals. These agents remain in the chamber.

PHASE 3 – Concentrated O3, H2 O2
Purified trivalent oxygen, called ozone, is produced which contributes to oxidization within the chamber and production of more oxyradicals. Bulk ozone and hydrogen peroxide molecules leave the top of the unit to continue their work outside the chamber for another 30-45 minutes before decaying harmlessly back to the natural elements from which they were made.

PHASE 4 – Photocatalytic Production of Hydroxyl Radicals
Special nanoparticles coated on the entire inner chamber wall undergo a photocatalytic reaction driven by the UV energy field. They convert water vapor in the air or feed gas into more hydroxyl radicals projecting from the entire inner surface. The new oxyradicals break up passing organic matter and generate more oxyradicals from the O3 concentration present.

PHASE 5 – HEPA Filtration, Optional Supplemental Feed Gas

BIOSWEEP™
700 Series

• 47 lbs. • 52" (ht.)
• 10" (diam.) • Lift handle
• Lightweight • Portable

PHOCATOX™
TECHNOLOGIES

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