



Latest Automated Bio-Disinfection Treatment Mechanism for 360° Aerosol & Surface Infection control with the use of high speed diffusion technology of H_2O_2

99.99% Guaranteed Risk Free & effective disinfection against bacterias, viruses, moulds, yeast, fungus, spores etc.

APPLICATIONS & USES :

Icu's, Ambulances, Emergency, Wards, Operation Theaters, Transplants Rooms, Hemodialysis Rooms
Bio Chemistry Labs, Dental Labs & All Kind of Labs, Pharmaceutical Factory, Food Processing Labs, Various Industries, etc.



New Technology of Infection Control

Disinfection principle of ultra-micro dry fog space

Disinfection mechanism of ultra-micro dry mist with hydrogen

We excite low-concentration liquid hydrogen peroxide (3-8%) into "ultra-micro particle dry mist" and quickly release it into the whole space. After hydrogen peroxide molecules capture microorganisms, they form a surrounding on the surface, releasing strong oxidation free radicals to penetrate the envelope and completely kill it, thus achieving the sterilization and disinfection effect without dead ends in the whole space.



- **Mechanism of action on cytoplasm**
Damage to cytoplasmic chemical components such as ribosomes and enzymes, resulting in cytoplasmic coagulation and inhibition of metabolism
- **Mechanism of action on capsule**
Damage to the components of the capsule, such as lipids (such as phospholipids) and protein (such as porin, permease, efflux pump, etc.), resulting in reduced substances and damage to metabolism

Introduction and comparison of traditional disinfection methods

	Clean	Hand spray	Ultraviolet radiation	Ozone	Formaldehyde fumigation	Motor operated units	Plasma	Hydrogen peroxide dry fogger
Disinfection object	Table only	Table only	Material table atmosphere	Material table atmosphere	Material table atmosphere	Air Only	Air Only	Material table atmosphere
Principle of disinfection	Chemistry	Chemistry	Physics	Chemistry	Physics	Physics wet and dry mix	Physics	Chemistry
Disinfection effect	According to different disinfectants (such as alcohol, 84 disinfectant)	Due to the large size of atomized particles. It will rapidly settle to the surface.	Disinfection <log3	Disinfection <log3	sterilization log6	The space of action is small and the disinfection capacity is very limited	Disinfection 99.9%	sterilization log6 99.9999%
Contrast	Residual corrosion toxicity	The disinfection affect is limited Residual corrosion toxicity	Unmanned Environment. Equipment aging There are dead ends	High toxicity Serious corrosion	The sterilization effect is good carcinogenic High toxicity The residue is serious	The effect is limited Small effective circulation space	Slow disinfection The cycle principle is not suitable for polluting space. and it is easy to accelerate the diffusion of harmful aerosols	Good sterilization and disinfection effect, non-toxic and harmless easy to discharge residues no corrosion, no secondary pollutants.

Product introduction

■ Fast, accurate, and without dead angle



Cold evaporation dry fog technology

The ultra-high-speed fan forms a high-speed cyclone through a specially designed air duct. Under the action of Venturi principle, the droplets are crushed and thrown into the air.

Under the effect of the technologies, disinfection particles can quickly fill the space and accurately capture all kinds of microorganisms in 360 degrees.

Aerosol disinfectant (with low concentration hydrogen peroxide)

The compound disinfectant with catalyzing hydrogen peroxide as the main component kills pathogenic microorganisms by attacking membrane lipids, DNA and other important cell structures by free hydroxyl groups. Hydroxyl radicals only generate safe and nontoxic water and oxygen molecules in the process of plasma exchange.

The killing rate of thermophilic fatty spores was 99.9999% with logarithmic level > 6 . The aerosol disinfectant has absolute advantages in terms of sterilization effect, chemical toxicity, residue and work efficiency, which can replace the traditional backward ozone disinfection and formaldehyde fumigation disinfection.



Parameter	Aerosol Sterilizer	Typical application scope	Fever clinic infection ward operating room ICU imaging room Hemodialysis Room Laboratory Laboratory biochemistry room
Spray quantity	10 20ml/min		Emergency vehicle CDC biological laboratory pharmaceutical factory
Applicable area	$\leq 1000\text{m}^2$		CT imaging room, hemodialysis room, laboratory, laboratory. biochemical laboratory, rehabilitation room
Particle size	$\leq 15\ \mu\text{m}$		
Killing rate	99.9999%		
Volume	1L (or 2L)		
Sterilization range	Air+ surface		

PRODUCT ADVANTAGES :

- Requirement of very small amount of H_2O_2 for large area.
- Automatic setting of required disinfection treatment just by feeding area.
- Easy setting/adjustment for the volume of the room to be treated.
- Fast Treatment with no preparation requirement.
- 100% assured disinfection treatment with clinical testing.
- Bio-degradable disinfectants used for aerosol & surface treatments.
- Less than 3 μ particles for clear dry fragmentation of H_2O_2 .
- Auto start and auto shut function for safe use.
- Very low operating cost
- Reduces the pathogen count to minimum.



Latest Innovative Technology of Infection Control by RadMed

- ▶ No use of motors for wet chemistry disinfection but use of high quality heating and ionizing turbine with temperature and speed combo effect so that the emitted particles gets ionized and H_2O_2 gets degradable to create absolutely non oxidising radicals having short life.
- ▶ Fast treatment time to give the usable area fast with in 30-60 minutes.
- ▶ Create dry defragmented micro/minute particles which are harmless for environment & humans.
- ▶ Touch screen setting console and treatment display for effectiveness to the user.
- ▶ Insures full safety and accuracy through bio-degradable treatment with no residue & corrosion.

About RadMed Healthcare

RadMed based in Lucknow (U.P.), India, is a cutting-edge technology company focused on R & D, manufacturing, sales, and servicing of infection control and emergency medical equipment in the domains of infectious illnesses, critical illness, and public health situations. We have a fantastic team that includes medical professionals and highly experienced R & D personals. Through the development of innovative solutions, the company is dedicated to limiting the spread of infection and achieving infection control.



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