Supertech Surgical Company

(An ISO 9001:2015 Certified company)

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Plasma NTP Air sterilizer

The Plasma Air Sterilisers are used to reduce air borne infections, provides germ free sterilised air in the health care environment. These are installed to reduce the cross infection in the sensitive areas such as OT, ICU, Laboratories, Mortuary and Surgery rooms, NICU, PICU, Gyanae wards etc.

Plasma Air Sterilizer & Air Purifier		
		
Surface	Ceiling Mount	Wall Mount

Air Quality Engineering

- Manufacturing air filtration systems since 2000
- Complete product line including residential, commercial,heavy industrial and medical
- Practical, cost effective designs to provide maximum value and functionality
- High Quality /Reliability
- Easy Installation
- User Friendly

CDC Guidelines for Isolation Rooms

- Air Filtration flow rates to attain 12 air changes per hour (ACH)
- Negative Pressure to be greater than .01 inches w.g.
- Monitoring to validate negative pressure
- Air Filtration efficiency to be 99.97% or higher as measured against 0.3 micron particle size All air from the isolation room shall be exhausted directly to the outdoors, except for isolation rooms that are retrofitted from standard patient room from which it is impractical to exhaust directly outdoors may be provided with recirculate air from the rooms exhaust on the condition that the air must first pass through a MERV filter.
- Reference ASHRAE 170-2017

Attaining 12 Air Changes Per Hour

Formula for required airflow is:

Q= L x W x H x 12 ACH/ 60 Minutes

Q= CFM delivered by filtration unit

Air Sterilizer can yield 12 ACH for room size up to 0000 cubic feet

Example room size: 20’ x 15’ x 10’

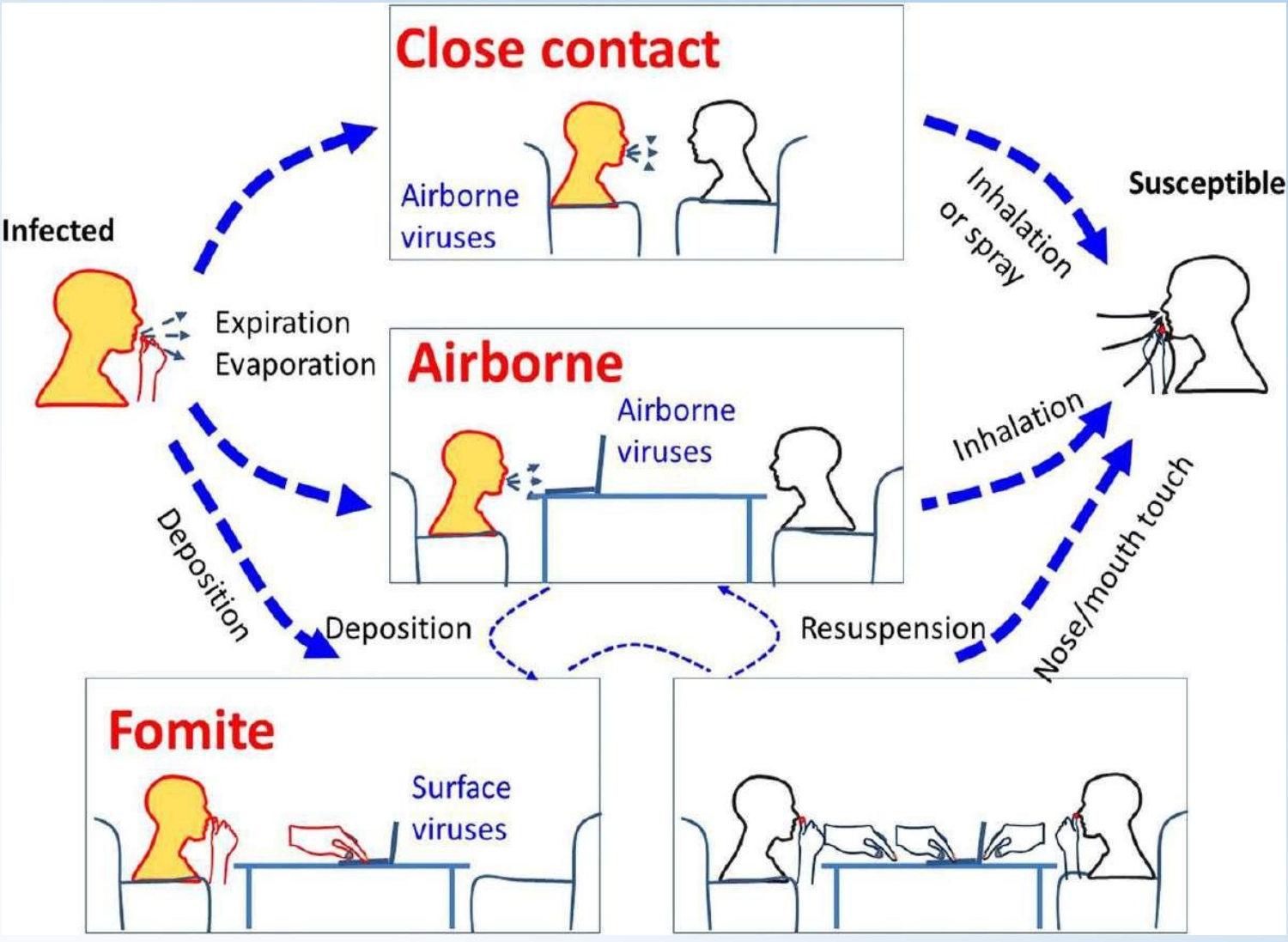
NTP Plazma Sterilization technology for reducing Airborne infections.

Essential for providing germ free sterilized air in

Health care environment.

- Spectacular Filter Performance, Better that other Air Sterilizers
- Extensive range of Floor, wall and ceiling models (Built in and mounted)
- Splendid design that fits in any interior
- User Friendly remote control
- Low Noise Level

NEED OF ISOLATION ROOM AGAINST VIRUSES



We have supplied these for use in OT, ICU, ENT, Eye & Blood Bank Department and sensitive areas in various Institutions. We have also successfully demonstrated in MEDANTA, FORTIS & high volume orders are in pipeline. We are also into Central Govt. Rate Contract for two years through Dr. RML Hospital, New Delhi.

AIR STERILIZER

With Latest NTP Plasma Sterilization Technology

- Reduces Airborne Infections
- Proves Germs Free Sterilized Air in the Health Care Environment

KVQA
ISO - 9001 : 2008
ISO - 13485 : 2003
GMP - 13004
CE-13020

PMS

Something in the Air

AIRBORNE CONTAMINATION

Increasing air pollution combined with the rising number of patients with **immune system deficiencies has become a serious problem.**

There is a huge price to pay for airborne infections, both in terms of human life and financial costs.

Consequently there is a general need to ensure that the air in the hospital environment-in all parts of the facility is of the highest possible quality.

Medically controlled air is the only reliable solutions as this eliminates the airborne contamination.

THE INCREASING PROBLEM

The consequences and the development of air borne infections are considerable. The number of Airborne infections have increased significantly. The reasons are.

Frequent and increased environmental contamination that is transported by air from the outside into the hospital.

Frequent and increasing movement inside the hospital.

AIRBORNE HOSPITAL INFECTIONS

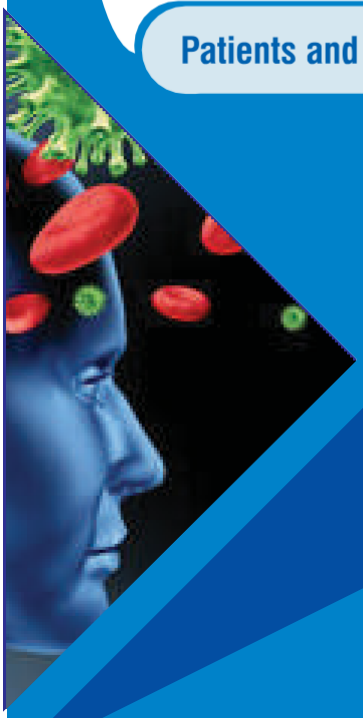
Airborne infections are an increasingly important factor in the growing problem of Hospital acquired infections.

Air is major "Transporter" of Hospital Acquired Infections such as Measles, Chickenpox, Aspergillus and Tuberculosis. Airborne infections are not limited to 'the sources' of contamination.

This contamination is spread by the air from one 'source/area' to other areas causing cross contaminated department with the result that sometimes entire hospital floors have to be closed. **Aspergillus (for instance) travel long distances.**

ELIMINATES THE 'RISK' FOR PATIENTS AND HOSPITAL STAFF

- More and more patients are immuno-compromised.
- Multi resistant species develop rapidly.
- Patients and hospital staff encounter new varieties.



THESE ARE THE MOST DANGEROUS ASPECTS OF AIRBONE INFECTIONS

- They are invisible, colourless and odourless (no warning)
- Easy to acquire through inhalation.
- Survives for longer period of time (as research shows)

THE CONSEQUENCES OF THESE DEVELOPMENTS ARE OBVIOUS

- A high mortality through airborne infections.
- High costs caused by airborne infections.

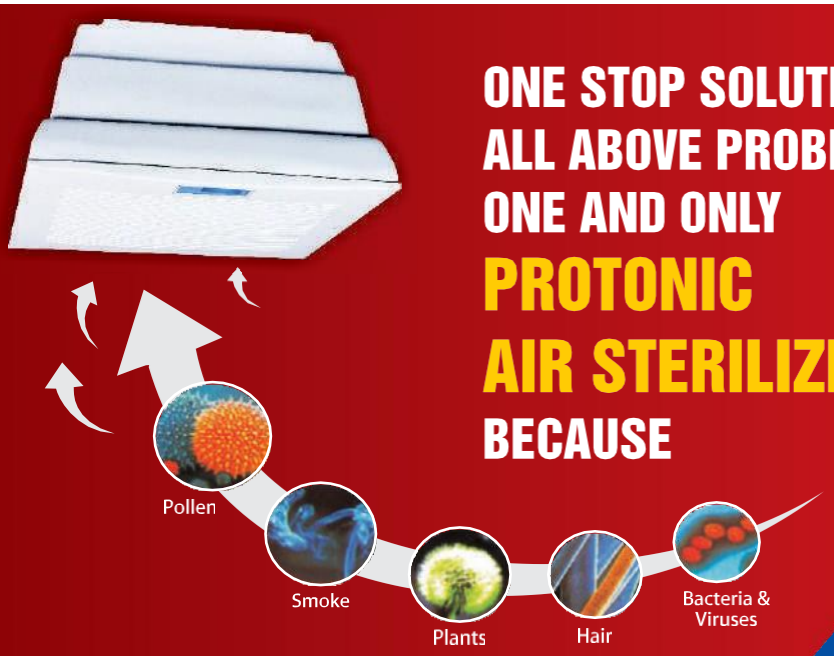
APART FROM THE ABOVE THERE ARE OTHER ASPECTS THAT SHOULD BE CONSIDERED SUCH AS

- Excessive occupation of hospital beds-25% of all ICU patients are affected.
- Increased extra workload for hospital staff.
- The social impact for individuals and the financial impact on society.

THE 2 TYPE OF AIRBORNE CONTAMINATION

2 TYPE
- Gasses and Chemical Compounds
- Particles

To achieve effective air-cleaning a considerable number of requirements have to be met. The most important being an effective filter-cartridge and optimum airflow, a total device of highest standard.



ONE STOP SOLUTION FOR ALL ABOVE PROBLEM IS ONE AND ONLY PROTONIC AIR STERILIZER BECAUSE

UNPARALLELED PERFORMANCE

Protonic Air Sterilizer has built a worldwide reputation with their electrostatic Air Sterilizers through continued, research and innovative ideas. The Air Sterilizer has an indegenious filter system, which was developed in house.

1 THE PRE-FILTER traps the coarser dust and other pollutants such as human & animal hairs and skin flakes.

2 THE ELECTROSTATIC main filter then catches the other smaller pollutants down to a **0.1 micron size**

3 THE ACTIVATED CARBON FILTER absorbs the unpleasant smell.

Protonic has recently developed a better, **FOURTH GENERATION** of electrostatic Air Sterilizers that give unparalleled performance.

This makes the Air Sterilizers simply the best in the world.*

EXPERIENCE THE DIFFERENCE
WITH TRADITIONAL AIR STERILIZERS

- Extensive range of floor, wall and ceiling models (built in and mounted)
- Spectacular Filter Performance, better than all other Air Sterilizers
- Splendid design that fits in any interior
- User Friendly remote control
- Low noise level

STERILIZED AIR

- **UV-Light kills micro-organisms, such as bacteria, viruses and fungi.**
- The air as sterilized, **this considerably reduces the number of indoor air problems.** Areas of application include medical Research Institution, Hospitals to reduce the harmful influence of micro organisms on human beings.
- Most of the renowned Institution / Hospitals have tested Air Sterilizers fitted with UV-Lighting.
- Air Sterilizer is very useful in **OT's, ICU, ICCU, PICU, Micro Lab, Mortuaries** where indoor air quality plays a vital role on the effect of human life

AIR MONITOR

The Air Monitor automatically ensures on optimum condition of the air. When you switch it on, the Air Sterilizer operates without a further need for manual control. The air monitor **measures the pollution continuously** and adjusts the fan speed accordingly, so that you do not have to bother with controlling the Air Sterilizer.

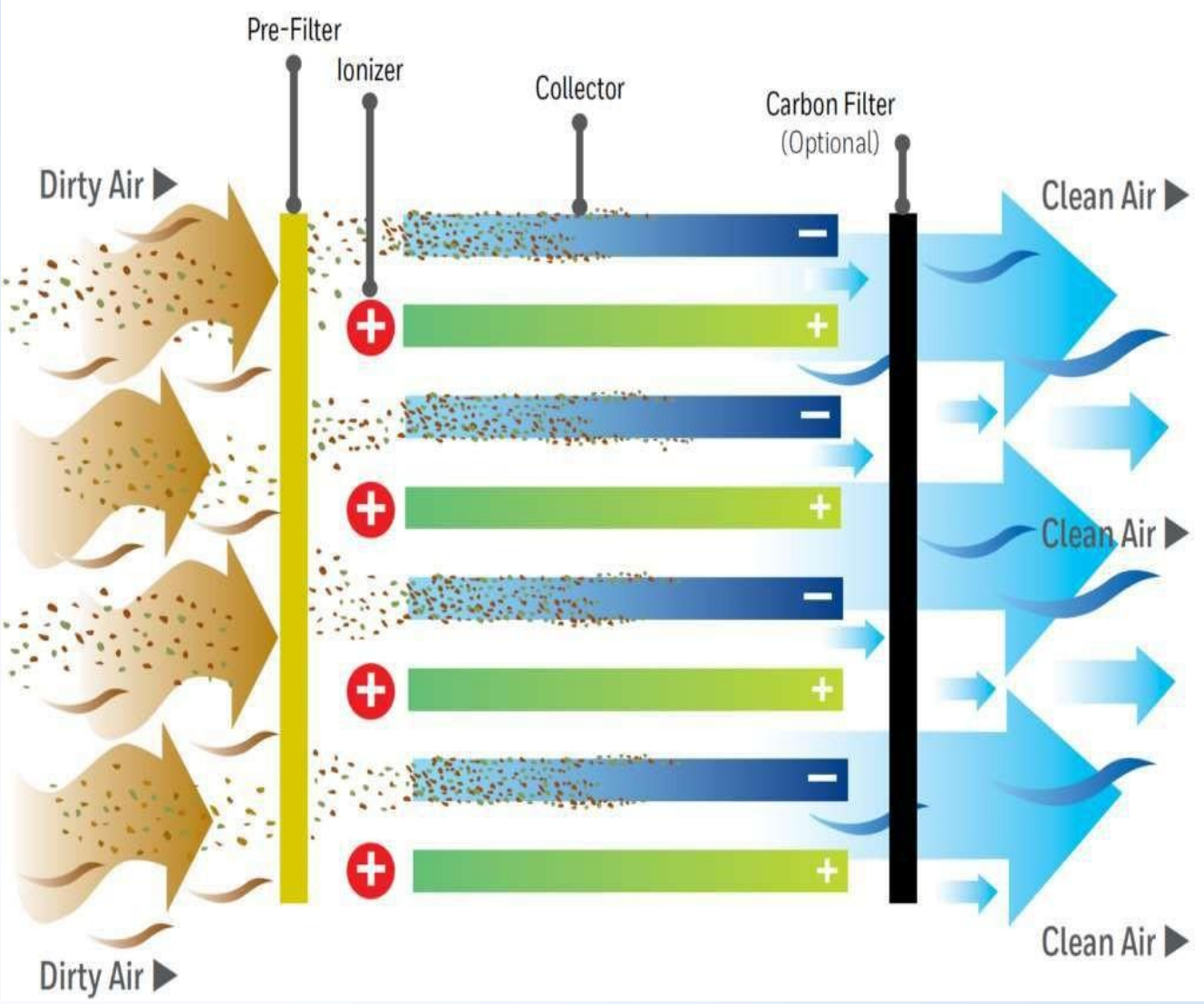
ODOUR FREE

When smells that are more pervasive need to be taken out, then one can equip the proto Air with an Odour Free filter.

Expendable to your wishes

Due to the indigenous construction of Proto Air the following Options can be fitted in

FILTRATION MECHANISM



TECHNICAL SPECIFICATION

PLASMA STERILIZER

Functional Technique	Electrostatic with Plasma NTP
Display	Display on Graphic LCD-Motor Speed, Electrostatic On/Off, and Plasma On/Off, Service Menu of Automatic indication of change of Filters, Pre-filter Ioniser, Electrostatic, Plasma (NTP), and UV Lamp etc.
Volume of the room	Up to 300m^3
Airflow	950 m^3/h
PRR	695 m^3/h
Fan speeds	4 to 6 steps
Type of Filters	Pre Filter, Electrostatic Filter, Activated Carbon Filter, Multilevel Gas Filter Plasma (NTP) module
Control	IR Remote Control
Mounting options	Ceiling Mounting/ Wall Mounting
Available colors	Off White
Added Feature	Photo Catalytic Sterilization
Dimensions	24" x 24"
Electrostatic Filter	18" x 14" x 4"
Max. built-in height	210 mm (8:)
Weight	16.5 kg
Power Supply	230V, 50-60Hz
Power Consumption Air sterilizer unit	175W ± 15W
Power consumption UV lighting	18 W
Warrantee period	12 Months from the date of installation.

OUR REPUTED CLIENTS

- **AIIMS, New Delhi**
- **Directorate of Health Services, Delhi Government**
- **Central Hospital (Defense Ministry)**
- **St. Stephen Hospital, Delhi**
- **Lal Bahadur Shashtri Hospital, Delhi**
- **Sanjay Gandhi Memorial Hospital, Delhi**
- **Deen Dayal Upadhyay Hospital, Delhi**
- **SKIMS, Medical College/ Hospital, Bemina, Srinagar**
- **Shri Dada Dev Matri Avum Shishu Chikitsalay, Delhi**
- **Maharshi Balmiki Hospital, Delhi**

Negative Pressure Applications*

- Mycobacterium Tuberculosis
- SARS
- Bird Flu
- Measles and Smallpox
- COVID-19**

***Can be used in Positive Pressure applications including Infusion Pharmacies, Acute Patient Care Areas and Laboratories**
****COVID-19 is a new disease and we are still learning how it spreads. Check CDC for new information regarding environmental controls**

THANK YOU