

<image>

Medical Grade Air Protection For Businesses and Homes

DELIVERED BY: NOVAERUS CICOCIDO DEVELOPED BY MMA DEVELOPED BY MMA

Allowing you to work, live and thrive indoors.











NOVAERUS

PORTABLE AIR DISINFECTION

Powered by NanoStrike® Technology providing protection against airborne viruses and bacteria.



How Novaerus Portable Units Work

Independently tested and proven effective. Supported by case studies and clinical studies.



- Contaminated indoor air is pulled into the unit by an internal fan.
- Contaminants are rapidly and safely destroyed at the DNA level by an ultra-low energy patented plasma field emitted by internal plasma coils.
- 3 Healthy, contaminant-free air is returned to the room.





PROTECT 200

Designed for continuous air disinfection and odor control in smaller indoor spaces, the Novaerus Protect 200 (NV200) uses patented ultra-low energy plasma technology with a single speed fan. Can be wall-mounted or placed on any surface and plugs into any outlet.



Specifications

- 5.2''w x 11.1''h x 4.3''d
- 7.6 lbs.
- 120VAC, 60Hz
- 20 watts



PROTECT 900

Designed for continuous air disinfection and odor control in indoor spaces, the Novaerus Protect 900 (NV900) uses patented ultra-low energy plasma technology with a 2-speed fan. Can be wall-mounted or placed on a stand and plugs into any outlet.



LOW ENERGY FAN SPEED PLASMA CONTROL



Specifications

- 14.4''w x 14.4''h x 4.5''d
- 10.4 lbs.
- 120 VAC, 60 Hz
- 20 watts maximum
- 2-speed fan



DEFEND 1050

Designed for rapid remediation in large spaces and situations with high risk of infection, the Novaerus Defend 1050 (NV1050) uses patented ultra-low energy plasma technology combined with a triple-stage Camfil[®] filter system to provide a combined solution for air disinfection and particle removal. Free-standing unit can be wheeled easily to point of care and plugs into any outlet





CONTROL



Specifications

- 19.9''w x 39.4''h x 18.3''d
- 112.4 lbs.
- 120VAC, 60Hz
- 137-331 watts
- 5-speed fan

LOW ENERGY PLASMA



👫 NOVAERUS



ABOUT NOVAERUS

Novaerus is the first plasma system for airborne infection control. It uses a low energy patented plasma that is stable, reproducable, containable, and higly destructive to the microorganisms entering its field.

The plasma requires no maintenance and works 24 hours a day to eradicate airborne viruses, bacteria, mold, allergens and odors, essentially cleaning the air and creating a healthier environment.

The patented plasma technology is effective against even the most harmful bacteria and pathogens including MRSA, C.Diff, Norovirus and Influenza. By reducing the presence of these contaminants in the air, a healthcare facility can stand to significantly lower the risk of infectious outbreaks.

In-vitro results and field studies

Along with the continued testing within our own laboratories the Novaerus plasma technology has been independently trialled and proven to effectively destroy airborne bacteria, viruses, pathogens odours and VOC's at an extremely high kill rate in a matter of milliseconds. The technology has been tested by a number of third party laboratories, including the NASA Ames Research laboratory in the US and Microsearch Laboratories in the UK.

The effects of the NanoStrike® technology have also been monitored in many healthcare facilities across Europe and the US, showing major reductions in infectious outbreaks and bacteria surface counts.

LABORATORY TESTED & PROVEN

Independent Study done by Ames Research Laboratory June 2014

Ames Research Center, one of ten NASA field centres conducting world-class research and development in aeronautics, exploration technology and science, are carrying out ongoing testing of Novaerus as most effective available air sterilisation technology.

Novaerus plasma technology was found to be uniquely destructive to ALL Genetic Material. These results were further verified using the Synchrotron particle accelerator at Stanford University, which confirmed the total destruction of the microorganisms, and their constituent DNA material, after only a single pass through the Plasma Field.

Novaerus NanoStrike® Technology

Pathogen destruction in 2 milliseconds. Species are broken down into small, safe molecules.



Destruction of the cell wall of the bacteria. Fluorescence has entered the inside of the cell.



END RESULT: Total destruction of organism and genetic material.

"The Novaerus Plasma technology is rapid and the inactivation occurs immediately. Concrete evidence of the effect of plasma on airborne bacteria; strong chemical and structural changes are observed." **Dr Ram Prasad Gandhiraman**, Research Scientist, NASA



Microsearch Laboratories: UK

BACTERIA TESTING

- Tested array of gram positive bacteria, gram negative bacteria, gram positive spores, yeasts and mold spores
- Results: >Log 5 kill rate for all classes

VIRAL TESTING

- Single / Double Strand DNA & RNA
- Results: >Log 5 single pass 'kill rate' Total annihilation over 1 hour



University of Huddersfield, UK

- The Novaerus system removed 95% of all contamination in the air in only 30 miutes which represents a rate of removal of >3700 CFU/ m3/sec
- The levels of contamination used to challenge the system in this case are much higher than would be experienced in healthcare setting
- "Novaerus is likely to make a significant impact on airborne contamination."



CLINICAL TRIALS

NHS Royal Free Hospital Clinical Trial, UK

Novaerus wins prestigious Smart Solutions for HAI's award from the NHS in 2010. This trial was conducted in the Royal Free Hospital in London, by the UK Government Department of Health.

- Royal Free Hospital in London has 900 beds and treats 700,000 patients per year
- 16 week clinical trial 8,500 air and surface samples 21 locations around the hospital

Key Results:

- 97% reduction in MRSA
- 75% reduction in surface bacteria counts

Fresenius Dialysis Trial, Portugal

Novaerus units installed in Fresenius 30 station dialysis centre over 6 weeks period.

Results:

- 87% reduction in airborne bacteria
- 93% reduction in VOCs
- Up to 67% reduction in molds

These changes were achieved within 2 days after the start of the trial and subsequently maintained.

Manchester Manor, Florida, USA

The study analysed the impact of Novaerus technology on the rates of Clostridium Difficile and respiratory infections in the 120 bed skilled nursing facility over an 11 month period.

Results:

- C. Diff Infections Down 50%
- Respiratory Infections Down 42.86%

Uzsoki Hospital, Budapest, Hungary

Trial carried out in an 870 bed leading teaching hospital in Budapest with accredited air sampling and analysis done by Wessling Laboratories Hungary.

Results:

- Significant reduction in all classes of airborne bacteria and fungi/moulds count was measured over the period of the test and subsequently maintained.
- 82% drop in CFU rates (T0 / T4 average)
- Average reduction bacteria count: 52%
- Average reduction fungi count: 93%
- The air quality now meets the Swiss Class III standard (500 CFU/m3 for general wards)

Rigshospitalet, Copenhagen, Denmark

A nine month study carried out at Rigshospitalet, a highly specialized hospital with 1100 beds. Testing by the Laboratory of Infection Hygiene and the Department of Clinical Microbiology. **Results:**

- Significant reduction in bacterial loads on high surfaces and windows sills.
- In control section with no units, the number of infections of all kinds increased by 35% from 2013 to 2014.
 - The number of overall infections fell 23% in the section with Novaerus units.
 - 58% point swing.

NOVAERUS LABORATORY RESULTS -CLINICAL TRIALS

A NOVAERUS



How Novaerus Compares

Compare Novaerus with other air purification technologies. (1 = Not Effective 5 = Very Effective)

	Novaerus	Photocatalytic Oxidation	UVGI Cleaner	Sanitization Misting	HEPA Filtration	Ozone	Laminar Air Flow	Carbon Filtration
Harmful byproducts	NO	YESI	YES ²	YES	NO	YES ³	NO	NO
Prevents filter colonization	5	3	4	1	(1)	1	1	1
24/7 bacteria load reduction	5	3	3	1	5	1	1	5
24/7 viral load reduction	5	3	4	1	1	1	1	1
24/7 fungal & bacterial spores reduction	5	3	4	(1)	5	1	1	5
24/7 odor & VOC neutralization ⁴	5	3	1	1	1	1	1	5
Operating costs for maintenance	LOW	HIGH	HIGH	HIGH	MEDIUM	HIGH	LOW	MEDIUM
Removal of ultra/fine particulates ⁴	5	1	1	1	5	1	1	3

1. PCO can produce formaldehyde. 2. At high levels, UV can create noxious gases and is mutagenic. 3. High levels of ozone is unsafe to humans. 4. Defend 1050 only





DEVELOPED BY NASA

BRING SPACETECH HOME

NASA began planning manned missions to MARS in the nineties. They knew how to grow fresh fruit and vegetable products on board the ship. But, when such products are harvested they begin emitting a VOC called Ethylene. If the Ethylene concentration grows too high it can cause pre-mature ripening and rot of a finite food supply. So, NASA had a problem. The elegant solution was Airocide. It was able to completely eliminate VOCs from the air supply, and was completely safe.



How Airocide Works

Every Airocide product has a precision fan which draws the air from the room into what we call the reaction chamber. This space is filled with the Airocide Catalyst which can be seen in the image to the right. The catalyst tubule is about 1 mm in diameter. So, we are able to fit at least five square meters of catalyst into any of our products.





Airocide Benefits:

- Eliminates anything organic (carbon based) using the Hydroxyl Radicals.
- Airocide is completely safe. Nothing toxic (like Ozone) is exhausted into the air.
- Airocide is cleared by the FDA as a Class 2 Medical Device.



For Individual Rooms:



APS 200 PM 2.5



APS 300



APS 1000

For Larger Spaces:

Cirocide Attriver to water	alrocide	airocide
GCS 25	GCS 50	GCS 100

GCS INDUSTRIAL SERIES





GETTING BACK TO BUSINESS WITH STERAMIST®



WILL YOU BE READY TO REOPEN?

Treating your facility before opening your doors to the public offers you a wealth of benefits - from providing a high-log kill on many spores and the inactivation of viruses such as SARS-CoV-2 Coronavirus to mitigating the risk of infection and contamination from facility surfaces within only seconds.

INDUSTRY-LEADING SPEED

Help keep your scheduled reopening on track with the power of SteraMist technology, which is EPA-registered and Organic Materials Review Institue (OMRI) listed.

EXPANSIVE EPA REGISTRATION

Includes Lists G (Norovirus), H (MRSA), K (C. difficile), L (Ebola), M (Influenza), and List N for Emerging Pathogens, such as the SARS-CoV-2 Coronavirus.

HIGH MATERIAL COMPATIBILITY

Ensure that your facility surfaces remain undamaged after treatment with ionized Hydrogen Peroxide (iHP[™]). Powered by a sole active ingredient of 7.8% hydrogen peroxide, iHP[™] provides a versatile disinfection.



With many thousands of confirmed cases and hundreds of deaths of the respiratory infection, health officials have confirmed more cases of the novel coronavirus-Wuhan on U.S. soil.

Practicing preventative measures and employing effective disinfection and decontamination methods are essential to helping control the spread of the growing pandemic risk.

CONTACT US TO SCHEDULE A STERAMIST[®] TREATMENT

EFFICACY AGAINST CORONAVIRUS?

Similar to Influenza A, coronavirus is an enveloped virus. While this would often serve to protect the virus from possible threats, SteraMist® features efficacy against Influenza A and similar, enveloped viral threats including coronavirus. TOMI has EPA accepted studies on the current label to meet the standard to respond to emerging pathogens in the enveloped and non-enveloped categories, which include, SARS, MERS and 2019-nCoV, the current coronavirus outbreak*.



Suite of Air Purification Solutions

VB Enviro Care is on a mission to improve indoor air quality creating living, learning, working, and healing spaces that foster rather than detract from human health, productivity, and wellbeing. The brands we represent are used in hospitals, senior living facilities, schools, casinos, airports, railway stations, residences, and industrial facilities in more than 30 countries around the world.





www.VBEnviroCare.com



Contact Us: Address: **505 Park Avenue, 14th Floor New York, NY 10022** Call: **877.345.7541** Email: info@VBEnviroCare.com www.VBEnviroCare.com





UL 867 & UL 1995 Intertek-Certified Classified as plenum rated per UL 2043 ©Novaerus US, Inc. WA-AAA-US-007