



# NOVAERUS



# YOU CAN'T DISINFECT THE AIR... WE CAN.

The global pandemic and its resulting social and economic effects on us all have been unprecedented. Returning to “normal” life will demand more than just distancing and hand washing.

We each breathe around 11,000 litres of air per day, and in our places of work, education and recreation, this is shared air. Contagious and easily transmitted pathogens need to be eradicated to help keep us healthy and safe.

Our solution at Grafton Optical is the Novaerus air disinfection system. Patented, non-chemical, ultra-low energy plasma technology is powerful enough to eradicate pathogens on contact, yet gentle enough to use around even the most vulnerable.





## NV200

Designed to continuously disinfect air in small spaces, the NV200 has a patented decontamination system based on very low energy plasma combined with a single fan speed. Mobile and low noise this equipment can be fixed to the wall or placed on a piece of furniture and plugs into any electrical outlet using less power than a light bulb.

Receptions  
Staff rooms  
Bathrooms  
Waiting rooms  
Small meeting rooms

## NV800

Designed for continuous air dis-infection and odour control in medium indoor spaces, the Protect 800 uses patented filter-free ultra-low energy plasma technology with a 2-speed fan. The unit can be wall-mounted or placed on a stand and plugs into any outlet.



Meeting rooms  
Offices  
Classrooms  
Public transport  
Fitness centres

\*Tower and desk stands sold separately.

# Ultra-low energy patented plasma technology.

Novaerus plasma has been tested and proven to deactivate airborne bacteria and viruses, neutralize VOCs, (Volatile Organic Compounds) and reduce particulate such as mould spores, dust mites, pollen, and dander.

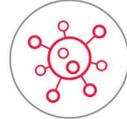


## Novaerus Plasma Efficacy



### Influenza

Protect 800 shown to reduce Influenza A Virus by 99.99% in five hours.



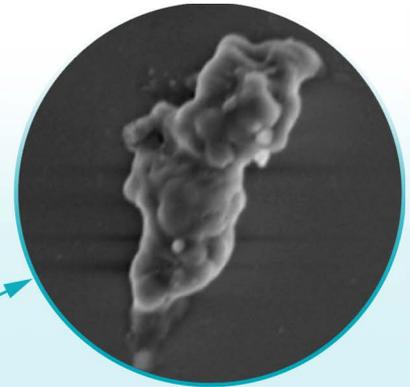
### Aspergillus niger

Protect 800 shown to reduce Aspergillus niger spores by 99.10% in four hours.



### MRSA

Protect 800 shown to reduce Staphylococcus aureus bacteria by 99.99% in four hours.



*E. coli* bacteria after .002 seconds of exposure to Novaerus plasma<sup>1</sup>



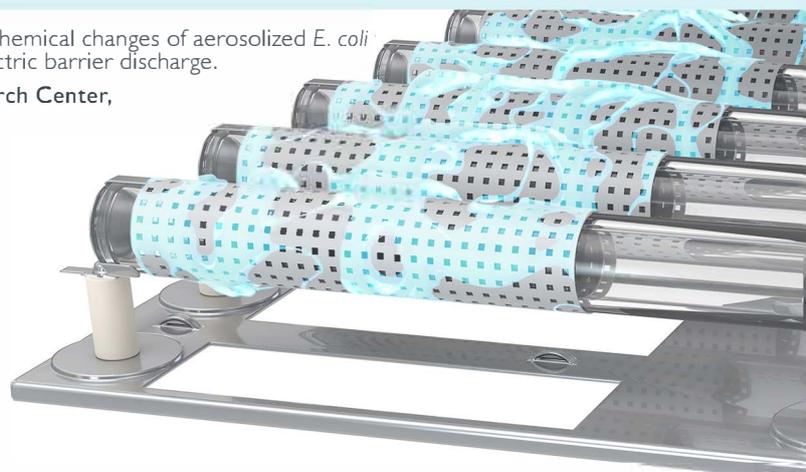
Healthy *E. coli* Bacteria prior to exposure



*The bacteria underwent physical distortion to varying degrees, resulting in deformation of the bacterial structure. The bacterial reculture experiments confirm inactivation of airborne E. coli upon treating with DBD.*

– NASA Ames Research Center

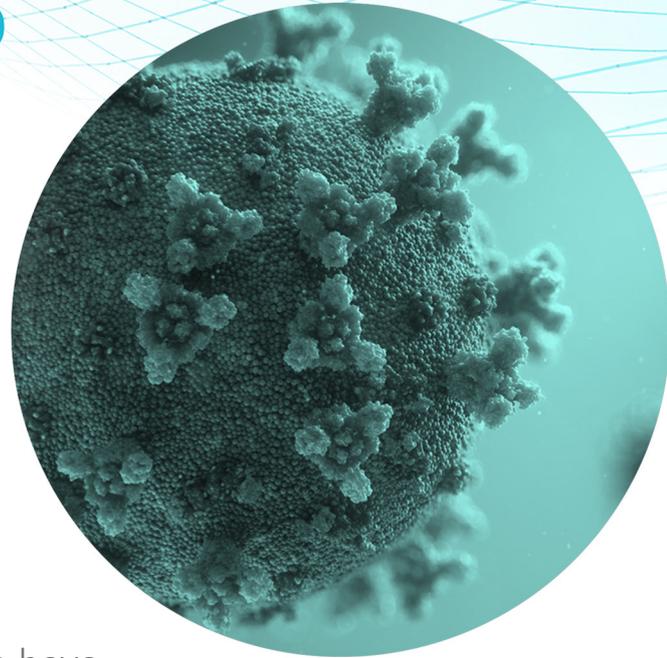
<sup>1</sup> Morphological and chemical changes of aerosolized *E. coli* treated with a dielectric barrier discharge.  
NASA Ames Research Center,



The non-chemical ultra-low energy plasma technology is powerful enough to destroy pathogens on contact, yet gentle enough for continued use around vulnerable populations.

# TESTED AND VALIDATED TO FIGHT CORONAVIRUS

The Novaerus technology has been tested against the bacteriophage MS2, a substitute for SARS-CoV (Coronavirus). The Aerosol Research and Engineering laboratory has shown that Novaerus reduces the airborne viral load by 99.99%. A COVID-19 prevention and treatment manual has been written by Chinese medical experts based on their clinical experience. These healthcare professionals who have experienced coronavirus recommend the use of plasma air treatments to continuously disinfect the air.



## Independently Tested

TYPE	NAME	REDUCTION	TIME	SPACE
<b>VIRUSES</b> 	SARS-CoV-2 <sup>1</sup>	99.99%	15 min	16 m <sup>3</sup>
	Measles <sup>2</sup>	99.87%	20-30 min	28.5 m <sup>3</sup>
	Influenza A	99.9%	10-20 min	28.5 m <sup>3</sup>
	Phi X 174	98.8%	30 min	60 m <sup>3</sup>
	SARS-CoV-2 <sup>3</sup>	99.99%	5 hours	16 m <sup>3</sup>
	Norovirus <sup>4</sup>	99.99%	5 hours	16 m <sup>3</sup>
	Influenza A <sup>5</sup>	99.99%	5 hours	16 m <sup>3</sup>
<b>BACTERIA</b> 	Tuberculosis <sup>6</sup>	97%	30 min	30 m <sup>3</sup>
	MRSA <sup>7</sup>	99.94%	15 min	30 m <sup>3</sup>
	<i>Clostridium difficile</i> spores	99.9%	40 min	28.5 m <sup>3</sup>
	<i>Staphylococcus epidermidis</i>	99.9%	60 min	60 m <sup>3</sup>
	MRSA	99.99%	4 hours	1 m <sup>3</sup>
	<i>Bacillus subtilis</i>	86.63%	6 hours	16 m <sup>3</sup>
	<i>Escherichia coli</i>	71.80%	5 min	2.3 m <sup>3</sup>
<b>MOULD SPORES</b> 	<i>Aspergillus niger</i>	99.99%	30 min	16 m <sup>3</sup>
	<i>Aspergillus niger</i>	99.10%	4 hours	16 m <sup>3</sup>
<b>VOCs</b> 	Nitrogen Dioxide	99.49%	7.2 min	16 m <sup>3</sup>
	Formaldehyde	99.68%	1.1 min	16 m <sup>3</sup>
	Toluene	99%	9.1 min	19.72 m <sup>3</sup>
<b>PARTICULATE</b> 	PM 1	99%	6.33 min	19.72 m <sup>3</sup>
	PM 2.5	99%	6.26 min	19.72 m <sup>3</sup>

### Testing Partners

- Aerosol Research & Engineering Laboratories, USA
- Microsearch Laboratories, UK
- Microbac Laboratories, USA
- NASA Ames Research Center, USA
- Airmid Healthgroup, Ireland
- Camfil Laboratories, Sweden
- Indoor Biotechnologies, UK
- Avomeen Analytical Services, USA
- University of Huddersfield, UK
- Qualilife Diagnostics, India



## NV800 TABLE STAND

We understand that our NV 800 unit cannot be mounted on the wall in all circumstances.

Our engineering team have come up with a specially designed solution which allows flexibility for temporary installations as well as the best possible placement, to maximise efficiency and performance.

The stylish table stand offers safe and secure table top placement for one NV800 unit, allowing quick and easy installation of the device.



# OVERVIEW

# SPECIFICATIONS

## NV200 CE

### MODEL

NOVAERUS NV200 Air Purifier  
Wall mountable, countertop or stand-alone unit supplied with 2m power cord

### ELECTRICAL RATING

230 VAC, 50 Hz Single Phase, 20 W  
Fuse rated at 250 VAC, 3 Amps, Listed  
Power consumption 20 Watts

### CONSTRUCTION + COLOR

Precision cut fabricated metal casing in a white anti-bacterial powder coat finish.

### DIMENSIONS+ WEIGHT

28.3 (h) x 13.2 (w) x 10.8 (d) cm 3.4kg

### ELECTRICAL CONNECTION

Switched and fused with a grounded, moulded power cord.

### FAN AIR FLOW VOLUME

80 m<sup>3</sup>/hr

### NOISE LEVEL

35 dB

### OPERATING CONDITIONS

10-35° C, 10-75% Relative Humidity, 2000m

### SHIPPING/ STORAGE CONDITIONS

5° C-50° C, Maximum 95% Relative Humidity

### QUALITY + SAFETY

Manufactured under ISO 9001, ISO 14001 & OHSAS 18001

## NV800 CE

### MODEL

NOVAERUS NV800  
Stand or Wall mounted supplied with 2m power cord

### ELECTRICAL RATING

230 VAC, 50 Hz, 20 W  
Fuse Rated at 250 VAC, 3 Amps, Listed  
Power consumption maximum 20 Watts

### CONSTRUCTION + COLOR

Precision-cut fabricated metal casing in a white anti-bacterial powder coat finish

### DIMENSIONS+ WEIGHT

36.5 cm(h) x 36.5 cm(w) x 11.5 cm(d) 4.5kg

### ELECTRICAL CONNECTION

Switched and fused with a grounded, moulded power cord

### FAN AIR FLOW VOLUME

Speed I= 220 m<sup>3</sup>/hr. Speed II= 260 m<sup>3</sup>/hr

### NOISE LEVEL

Speed I= 40 dB. Speed II = 45 dB

### OPERATING CONDITIONS

10-35° C, 10-75% Relative Humidity, 2000m

### SHIPPING/ STORAGE CONDITIONS

5°C-50° C, Maximum 95% Relative Humidity

### QUALITY+ SAFETY

Manufactured under ISO 9001, ISO 14001 & OHSAS 18001.

CONFORMS to the Medical Device Directive



To find out more or to make an enquiry visit [www.graftonoptical.com](http://www.graftonoptical.com)

Phone: 01923 233 980. Email: [sales@graftonoptical.com](mailto:sales@graftonoptical.com)

Grafton Optical, Unit 7 River Park Industrial Estate, Billet Lane, Berkhamsted, Hertfordshire, HP4 1HL