Revolutionary air disinfection system protects dentists against COVID-19

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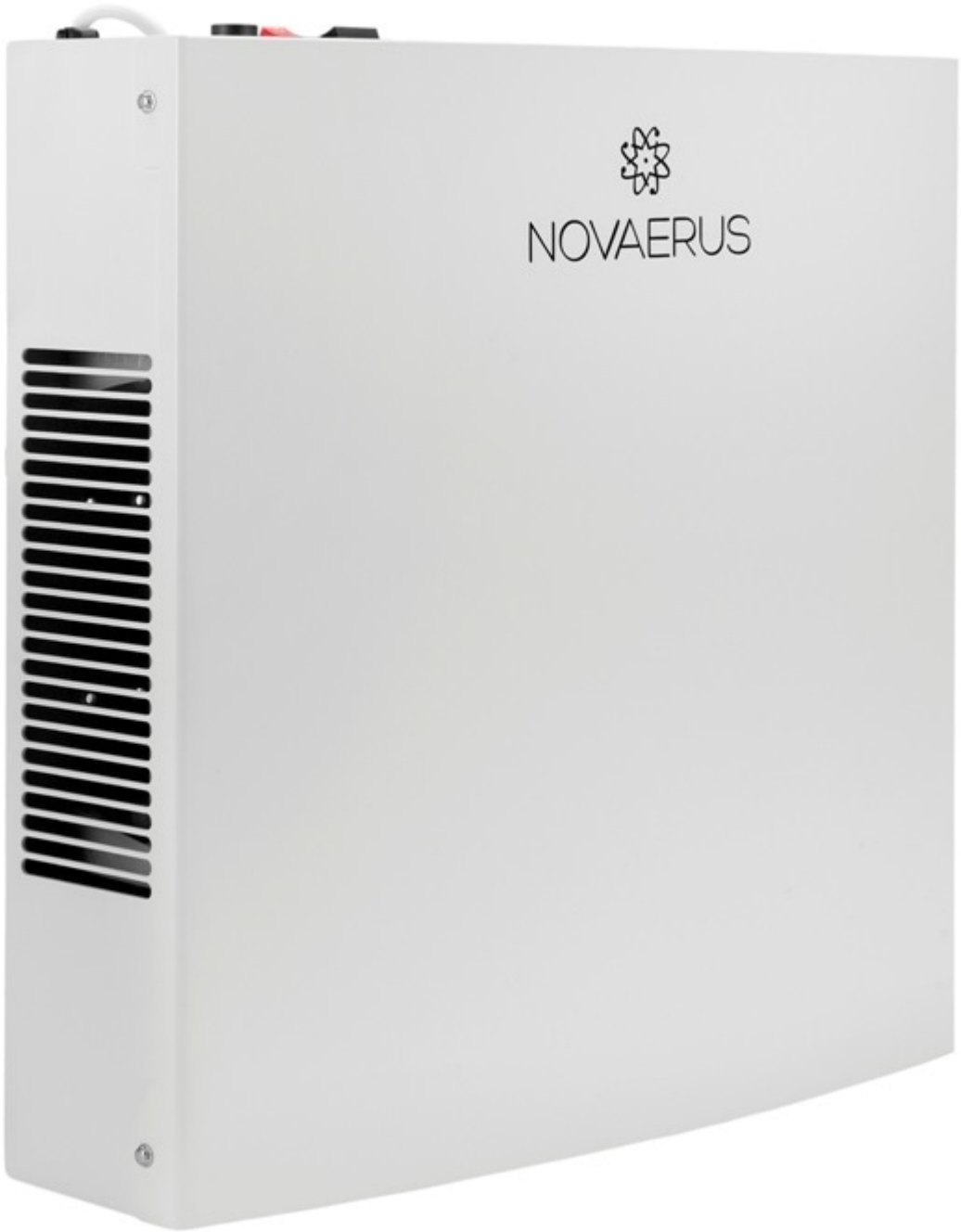
Eschmann Technologies has launched a revolutionary air disinfection system developed by Novaerus to help protect dentists against the spread of airborne viruses such as COVID-19.



The portable air disinfection units, which could help thousands of UK dentists

go back to work following the Government's social distancing measures, use patented plasma technology to eradicate pathogens.

Novaerus reduces the amount of bioburden in the air, in turn reducing surface bacteria, infections and odors, making dental working environments much safer for clinicians and patients.

Air is drawn into the units by the internal fan, where contaminants are rapidly and safely destroyed at DNA level by an ultra-low energy plasma field generated by an internal coil. Healthy air, free of all contaminants, is then returned to the room.

The technology has been independently tested to reduce MS2 Bacteriophage, a surrogate for SARS-CoV-2 (COVID-19), by 99.99%. It is also proven to reduce other pathogens and airborne bacteria, including measles, influenza, C-diff, mold spores, dust mites, and pollen.

Although hand hygiene and surface disinfection are seen as the international gold standard for infection control in healthcare environments, the quality of the air that circulates within these places has long been overlooked.

This is especially relevant in dental practices, which were ranked the most damaging work environment to a person's health by the Business Insider. Using data from the US Department of Labor's database of occupational health risks, 6 of the top 7 spots were occupied by dental professions, including dentist, dental hygienist and dental lab technician.

> *"Cleaning the air is a fundamental component of managing infectious outbreaks especially in dental practices, where the air circulating within the surgery will be heavily contaminated – a result of the aerosols created by the high-speed instruments used in routine treatment. COVID-19 has highlighted to the world that measures are urgently needed to minimize cross-infection and Novaerus provides this missing element."*
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> *Sean Brennan, UK Business Director at Eschmann Technologies*

Developed and manufactured in Ireland by Irish based Novaerus, the air

disinfection units are compliant with EU regulations.

The technology is available in three configurations – the largest takes in 900 cubic metres of air in an hour, the smallest 80 cubic metres. The units can be free-standing, or in the case of the two smaller units, wall-mounted or placed on any surface, and can be used in clinics, reception areas, bathrooms, and staff rooms to provide healthier, cleaner air.

Dental environments are frequently exposed to high levels of contaminated indoor air from aerosol generating procedures that are conducted daily. Ultrasonic scaling, tooth extractions, implant surgery, and root canals all generate pathogenic fusions of saliva, blood, plaque, tooth debris, and gum secretions, which all carry risks of contamination and infection. An increase in a variety of bacteria, viruses and fungi has been detected on surfaces and in the air following these procedures. Dental professionals are also at risk of infections transmitted from patients who may be carriers of viruses.

While personal protective equipment (PPE) is used for staff safety, less emphasis has been

placed on improving and managing the ongoing air quality. Evidence suggests that proactive management of indoor air quality in dental workspaces should be a vital component of minimizing airborne bioburden and infection risk.

> *“The risk to human life as a result of this global pandemic has never been so stark. Novaerus employs a non-selective, rapid killing technology, offering a unique and safe solution to kill airborne viruses 24/7. We want to keep dentists and their patients safe and help them get back to work as quickly as possible.”*
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> *Sean Brennan*

Source:

Eschmann Technologies