REACT-AIR EVO

Commercial CO2 Monitor and Air & Surface Steriliser

Reaction Group

T. 0203 885 2299

www.reaction-grp.com

Poundbury House | Poundbury West Industrial Estate | Dorchester | Dorset | DT1 2PG

React-Air Evo

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Commercial Air and Surface Steriliser

The React-Air Evo is a portable air and surface steriliser designed for use in commercial environments. Using a UVC technology, the powerful fans drive the airflow through the decontamination chamber, neutralising bacteria, viruses, pollen and odours, delivering clean and sterile air to a room.

The Evo is also a powerful ozone generator, which can be set to activate when a room is unoccupied, filling the environment with ozone gas. When the ozone comes in to contact with items and surfaces, it eradicates viruses and bacteria, sterilising everything it touches

Multiple Evos are connected via WiFi or 4g, to allow you to manage the settings on all devices through a single unit or through our desktop and mobile app. Real-time and historic data on airflow, air quality, and ozone sterilisation can also be viewed on our desktop and mobile applications.

Ozone Release, UVC times can be set using the UVC touch screen. The Evo also contains a powerful sensor array that monitors Air Exchanges, Air Quality and UVC Dose. This information is displayed on the screen to give users extra peace of mind.

What is UV-C?

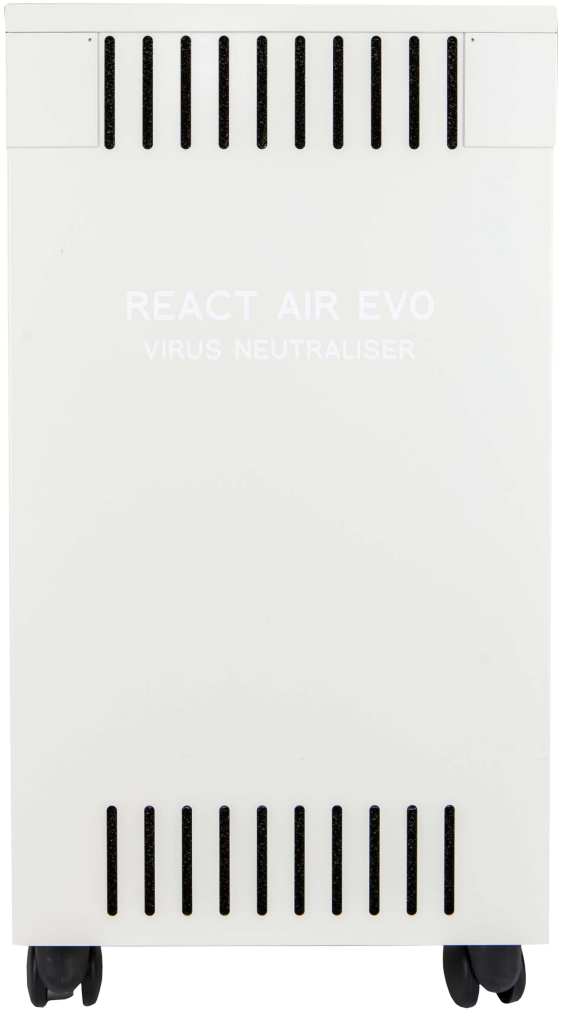
The Technology Explained

What is UVC?

How does the React-Air Evo neutralise viruses in the air?

UVC light is highly effective at decontamination because it destroys the molecular bonds that hold together the DNA of viruses and bacteria. UVC light has been regularly used to decontaminate surgical tools and hospital rooms.

The Evo draws air into its extraction vents which are specifically designed to capture as many virus particles as possible. The air then passes through a medical-grade HEPA 13 filter, trapping any larger contaminants, and finally through a high intensity UVC chamber, capable of delivering a dose of over 240J/M3 - enough to neutralise even the most resilient coronaviruses studied. The high power, variable fan can circulate up to 1504 metres cubed of air per hour - enough to give 9 air cycles per hour in an average 50 person office space.



How does Ozone Work?

Advanced Surface Sterilisation

How Does Ozone Work?

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Advanced Surface Sterilisation

Viruses and bacteria can be neutralised with alcohol and hydrogen peroxide, however, these substances cannot be used on some surfaces, and will only be effective on items and surfaces which can be reached. Ozone gas will penetrate hard to reach areas, fabrics and rough or uneven surfaces. This makes ozone gas a valuable addition to standard cleaning and disinfection practices.

The Evo contains 2 high powered ozone discharge plates which operate as a separate function from the air cleaning UVC technology. Ozone can be harmful if inhaled so the Impact can be set, by an authorised user with a password, to be released when the room is empty. This can be set on a timer function and an audible and visual warning is given before ozone is dispersed, with an emergency shut-off feature, should anyone still be in the room.

Once the ozone cycle is complete, the Impact switches back to UVC mode to eliminate any trace ozone, faster than it's natural half-life conversion back to oxygen.

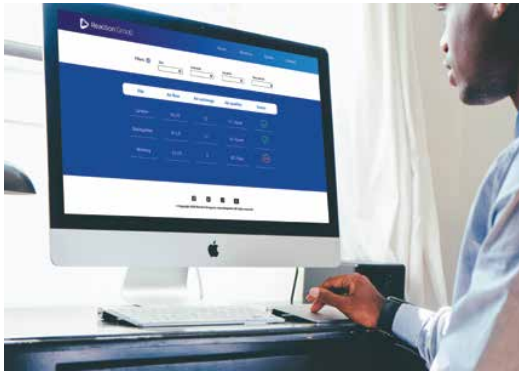
Advanced Monitoring

Peace of Mind for Staff and Users

Advanced Monitoring

Peace of Mind for Your Staff and Building Users

The Evo monitors and reports on Carbon Dioxide (Co2) levels within your building. With access to our online cloud portal, you can view live and historical air quality data. The touchscreen control can be used to set fan speed, UVC dose and adjusted to neutralise different types of bacteria and viruses from the air.



The Evo also contains a complex sensor array which actively monitors Air Quality (AQI) and air exchanges within the room it is placed. This information is synced wirelessly with our cloud platform so that information is always available to building managers, across multiple units and multiple sites.

The touchscreen can also be set to display this data. This is highly effective for creating peace of mind for building occupants, delivering air cleaning that can actually be seen in real time, on each Evo unit.

The data is available through our React-Air mobile app and on our online web-based app, delivering confidence that you are meeting your duty of care.

Destroyer Array

The 3 Stage Process for Eliminating Covid-19

Destroyer Array

The 3 Stage Process for Eliminating Covid-19

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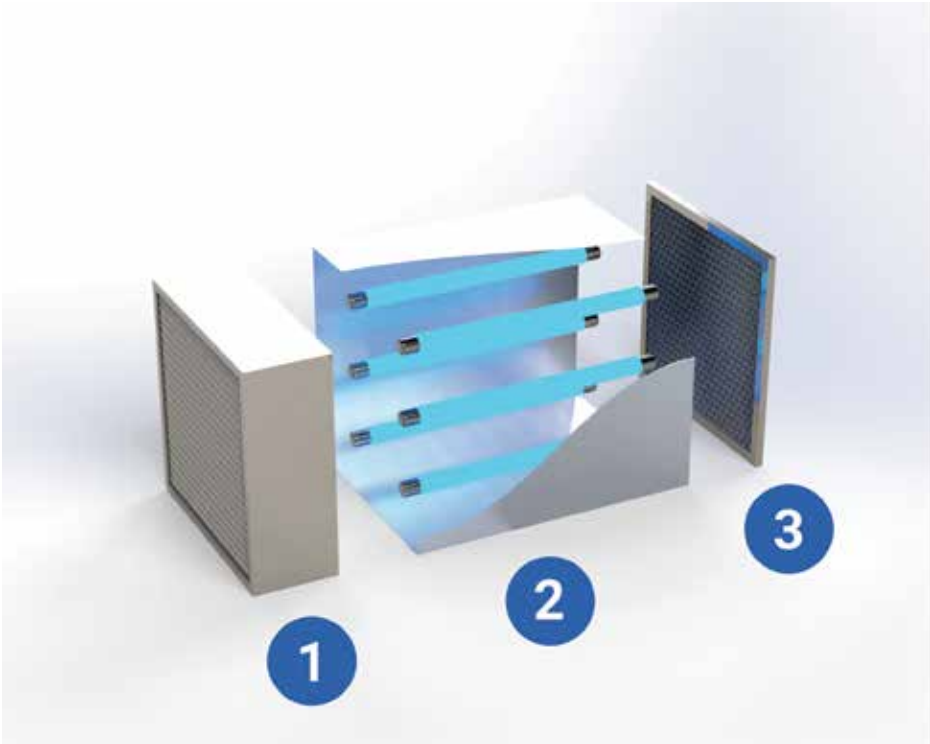
1. HEPA 13 Filtration
Using the React-Air's high-pressure fan, air is passed through a HEPA **13** filter to remove 80% of particles 0.3-1 microns. This process removes pollens, bacteria and viruses bonded to larger particles such as water droplets (the primary way Covid-19 spreads through airborne transmission).

2. Powerful UVC Array
The filtered air is then passed through a UVC array, which delivers a dose of 250J/M3 – enough to neutralise Covid-19 (67J/M3 for one second of exposure according to studies). The effect of the UVC Array is intensified by it's polished aluminium interior. UVC renders virus particles inert (sterile) by changing the molecular structure of the virus DNA.

3. Activated Carbon Filter
Finally, the air is passed through an activated carbon filter to remove any remaining odours. As well as removing any natural odours in the environment, he reaction between UVC and dust particles creates a mild, but for many people, unpleasant smell – all are removed with Activated Carbon.



Technical Specifications

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React-Air Evo

Supply Voltage	230V A/C
Fan Dimension	355 mm
Minimum Power Consumption	440 W
Maximum Power Consumption	521 W
Average Power Consumption	460 W
Average Air Flow (with HEPA filter)	1155 M3 Per Hour
Dimensions (H / D / W)	650 mm x 360 mm x 360 mm
Weight	35 Kg
Noise Level (min / max)	20db
Dominant Wavelength	253.7 nm
Radiated Power (UVC) Per Lamp	6.9W (110.4W Total)
Total BC Flux	94.94 W
Volume Bacterial Dose at Average	273.44 J/M3
Lamp Lifetime (Average)	6000 - 9000 hours
HEPA 13 Filter Lifetime (Average)	12 Months

For more information call 0203 885 2299

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