



# VIRUSKILLER™

THE GLOBAL LEADER IN INDOOR AIR SAFETY

PROUDLY DISTRIBUTED BY



RADIC 8

VIRUSKILLER™

# OUR INDOOR AIR IS IN CRISIS

## The invisible threat inside our spaces

Despite how secure we feel when indoors, the air inside our homes, workplaces and public venues is a major risk to our wellbeing. Just as we wonder how we tolerated tobacco smoking indoors, one day – with the benefit of hindsight – we'll question how we tolerated the sharing of unclean, recirculated air.



We now know about particulate matter as a vehicle for viral transmission but the dental environment has its own unique air contaminants that pose a threat to dentists, hygienists, patients, and staff. Fine particles of dental amalgam used to fill cavities can be released into the air, while fumes from cleaning chemicals can also be hazardous – not to mention exposure to waste anesthetic gases and patient-generated aerosols.

Radic8 recognizes three categories of airborne pollutants:



### IMPURE AIR

...contains irritants and particulate matter, smoke, dust, dander, and pollen.

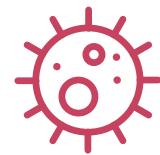
Impure air must be **filtered.**



### TOXIC AIR

...contains pathogenic gases, fumes, or volatile organic compounds.

Toxic air must be **neutralized.**



### INFECTED AIR

...contains airborne viruses, bacteria, mold, and fungal spores.

Infected air must be **decontaminated.**

Radic8 technology has been designed from the ground up to tackle all three of these major indoor air pollutant categories, and to do so with unequalled performance.

# VIRUSKILLER™

VIRUSKILLER™ by Radic8 is more than just air purification. Developed in South Korea in response to the 2003 SARS outbreak and matured over the course of nearly two decades, Radic8's technology is a premium, all-in-one solution to tackle indoor air pollutants of all kinds – and to bring indoor air safety to dental clinics and surgeries around the world.

## All-in-one indoor air safety technology

VIRUSKILLER™ combines world-class air purification with patented active decontamination, and – unlike conventional air purifiers – our Reactor Chamber means the deactivation of infectious bioaerosols and pathogens in a single powerful unit.

- **Plug-and-play** operation means no complex, messy, and disruptive renovation is required – and zero downtime.
- **Energy efficiency** means a clean air investment with minimal impact on electricity consumption and sustainability targets.
- **Clean aesthetics** across the VIRUSKILLER™ range mean devices that integrate into any modern dental surgery.



# 3 STEPS TO INDOOR AIR SAFETY



Each Radic8 VK device features a robust steel chassis housing state-of-the-art clean air technology. We deploy three distinct stages to achieve comprehensive indoor air safety:

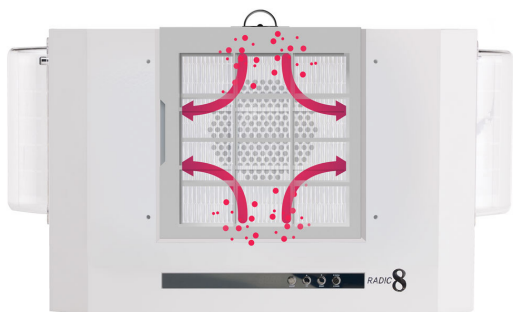
## 1 AIRFLOW CONTROL

First, we make sure to capture the most at-risk air in the room by creating an airflow pattern that continuously draws contaminated air away from the breathing zone.



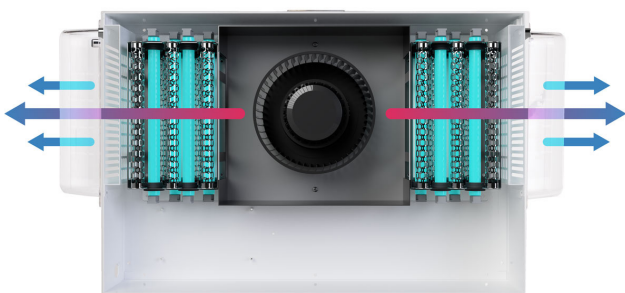
## 2 PURIFICATION

Next, our robust pre-filter, activated carbon filter, and high-grade HEPA filter form the first line of defense against airborne particulates, gases, fumes, pollen, and dust to deliver world-class purification performance.



## 3 DECONTAMINATION

Finally, our patented Reactor Chamber uses UV-C emitters and custom designed titanium dioxide filters to facilitate photocatalytic oxidation (PCO), a powerful, safe photochemical process that deactivates airborne microorganisms and bacteria.





# 1 AIRFLOW CONTROL

## Targeting the air most at risk

Airborne pathogens that linger in the air need to be captured and safely deactivated before being replaced with clean air where it matters most – which requires technology that takes airflow dynamics into account.

Radic8 VK units feature quiet but powerful fans and form factors designed to draw exhaled air towards the intake of the unit – a particularly crucial feature for dental facilities where dentists and hygienists treat unmasked patients and are exposed to waste anesthetic gases and pathogenic microorganisms released during aerosol-generating procedures (AGPs).

By targeting potentially contaminated air in the most crucial areas and returning clean air directly to the breathing zone, Radic8 devices can provide real-time protection against indoor air contaminants without the delay required for an entire room's air to be exchanged.

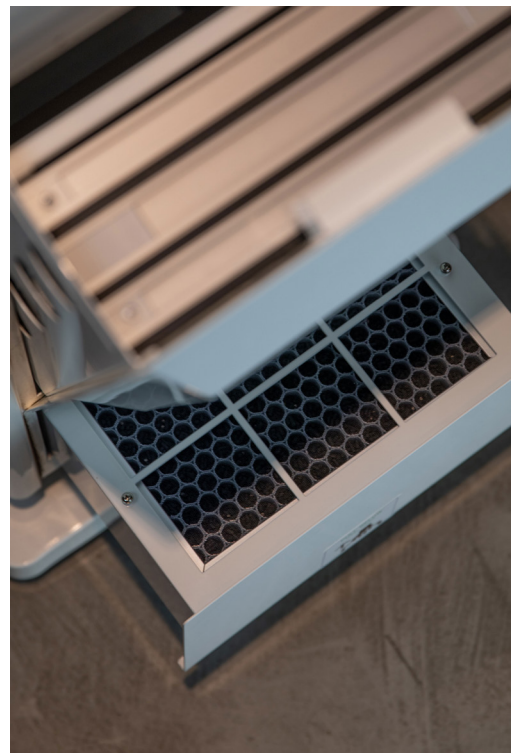
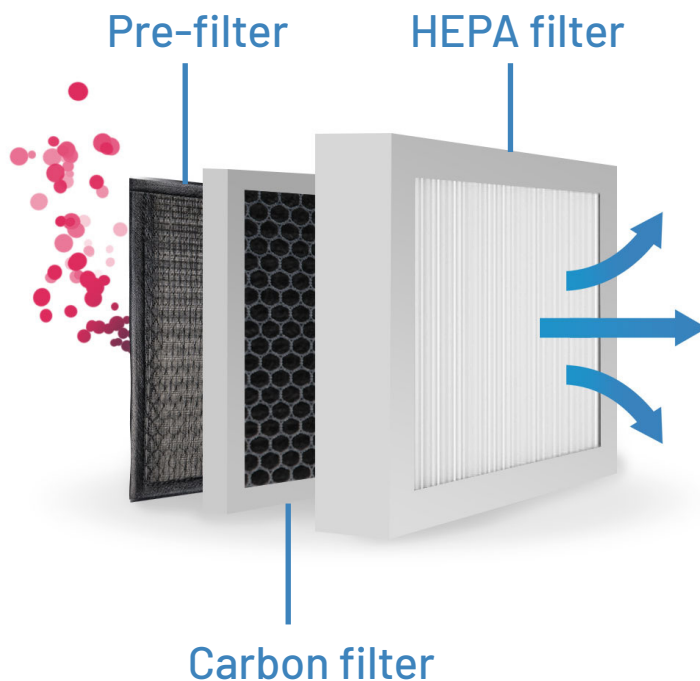


## 2 PURIFICATION

Where conventional air purifiers end

Radic8 spares no expense when it comes to the quality and efficacy of its filters. The trio of filter types in our VK range trap coarse, fine, and ultrafine particulates with great efficiency, while also providing excellent adsorption of toxic gases and VOCs. Each device features:

- A robust, washable pre-filter that provides a first line of defense against larger particulates such as dust, dirt and hair
- A premium carbon filter to neutralizes toxic gases, VOCs, and odors
- A high-grade HEPA filter to trap ultrafine particulates and bioaerosols



# 3

## DECONTAMINATION

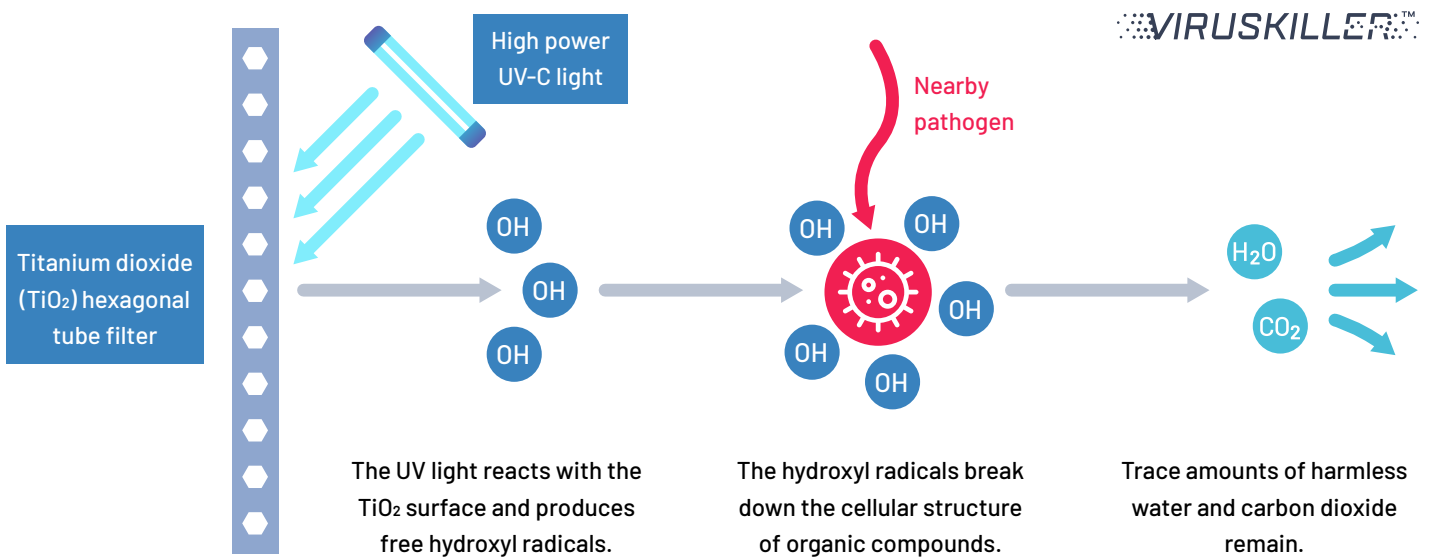
### The heart of Radic8 technology

The Reactor Chamber is the heart of VIRUSKILLER™ and is the technology that turns a powerful air purifier into an uncompromising indoor air safety device. Its performance against airborne viruses and bacteria can deliver peace of mind to those health professionals who need to work in close proximity to unmasked patients.

The Reactor Chamber comprises a series of high-power UV-C emitters, as well as a network of custom developed titanium dioxide-coated filter tubes. When exposed to the emitted UV light, a photochemical reaction occurs on the surface of the filter tubes – a process called photocatalytic oxidation.



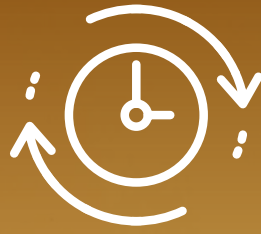
This process produces compounds known as hydroxyl radicals, which act as a powerful disinfectant against microorganisms, breaking them down into trace amounts of harmless carbon dioxide and water.





## Extra Protection

Radic8 UV-C PCO technology safely decontaminates air and provides additional circulation before, during, and after aerosol-generating procedures.



## Reducing Downtime

Clean air delivery can help reduce downtime between patients\*, allowing dentists, hygienists, and assistants to treat patients more efficiently.



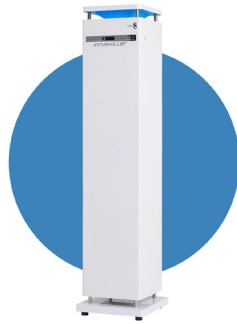
## Duty of Care

Investing in indoor air hygiene is a powerful addition to a practice's commitment to duty of care, providing reassurance to patients, their families, and staff.



\*Fallow and downtime regulations vary by region. Consult relevant authorities to determine downtime obligations with the use of Radic8 technology.





## VK 401

A versatile, all-in-one clean air device ideal for dental surgeries, the VK 401 provides additional protection before, during, and after AGPs.

**AIRFLOW**  
70-141 CFM

**COVERAGE**  
60m<sup>2</sup>

**APPLICATIONS**  
Dental surgeries,  
private offices,  
restrooms

## VK 103

The VK 103 is the go-anywhere workhorse of the range, providing breathing-zone protection to waiting rooms and other common areas.

**AIRFLOW**  
200-358 CFM

**COVERAGE**  
150m<sup>2</sup>

**APPLICATIONS**  
Waiting rooms, break  
rooms, retail stores,  
restaurants

## Hextio

Hextio is your personal clean air companion, designed to deliver a direct flow of clean air to an individual from reception desks and countertops.

**AIRFLOW**  
12-20 CFM

**COVERAGE**  
Personal

**APPLICATIONS**  
Desks, reception  
counters

## VK 102

The VK 102 is ideal for mission-critical environments as well as large public and open-plan spaces of all kinds.

**AIRFLOW**  
200-388 CFM

**COVERAGE**  
165m<sup>2</sup>

**APPLICATIONS**  
General wards, nursing  
homes, cafeterias,  
auditoriums, gyms

## VK Medi

The VK Medi is built for highly sensitive medical environments, where keeping the air clean is simply non-negotiable.

**AIRFLOW**  
300-635 CFM

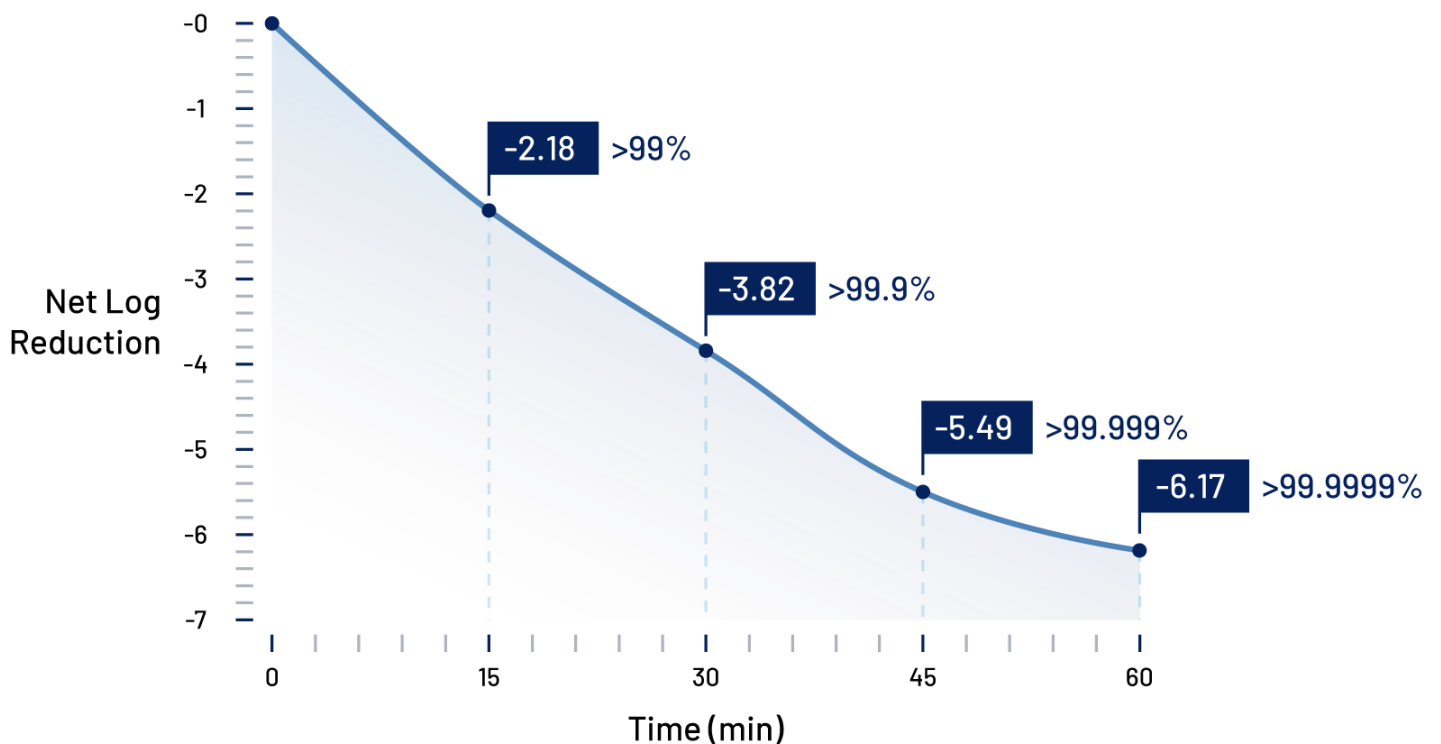
**COVERAGE**  
165m<sup>2</sup>, Laminar

**APPLICATIONS**  
Operating rooms,  
laboratories, ICUs,  
neonatal wards

# RESEARCH & ACCREDITATION

With almost two decades of research and development, Radic8 is at the forefront of indoor air safety and remains firmly committed to frequent testing to ensure that any and all claims are backed by experimental and real-world data. Radic8 actively engages with leading laboratories, universities, and bioaerosol experts to bolster its research.

MS2 Viral Trials: Net LOG Reduction  
VK 103, chamber size: 16m<sup>3</sup>



ARE Laboratories, USA

CHAMBER 16m <sup>2</sup> , 35min	Challenge	Result
VIRUS	MS2	<ul style="list-style-type: none"> <li>4.0 net log or 99.99% reduction within 35 minutes or less</li> <li>6.17 net log (greater than 99.9999%) reduction within 60 minutes</li> </ul>

Radic8 is committed to continuous scientific testing and VIRUSKILLER™ devices undergo regular testing to ensure compliance with global health and safety standards.

CREM Co Laboratories, Canada

CHAMBER  
26m<sup>2</sup>, 28min  
VIRUSES

Challenge	Result
<b>Airborne:</b> Cystovirus Phi6	<ul style="list-style-type: none"> <li>99.997% reduction</li> <li>Radic8 technology exceeds the minimum level of 99.9% reduction as dictated by US EPA guidelines (OCSP 810.2500)</li> <li>Radic8 technology reduces pathogen levels by up to 4 times faster than natural decay.</li> </ul>
<b>Surface:</b> Cystovirus Phi6	<ul style="list-style-type: none"> <li>99.81% surface contamination prevention</li> </ul>

KCL Labs, South Korea

CHAMBER  
4m<sup>2</sup>, 120min  
GASES

Challenge	Reduction
Ammonia	63-79%
Acetic Acid	100%
Toluene	100%
Formaldehyde	71-95%

KCL Labs, South Korea

CHAMBER  
4m<sup>2</sup>, 120min  
GASES

Challenge	Reduction
NO <sub>2</sub>	99.5%

VIMTA Labs, India

SINGLE AIR PASS  
VIRUSES

Challenge	Result
SARS-Cov-2 Influenza A Strain H1 Influenza A Strain H3 Influenza B Respiratory Syncytial A Respiratory Syncytial B	Qualitative: No pathogen detected

SINGLE AIR PASS  
BACTERIA

C. pneumoniae M. pneumoniae L. pneumophila B. pertussis B. parapertussis S. pneumoniae H. Influenzae	Qualitative: No pathogen detected
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# JOIN THE CLEAN AIR COMMUNITY

## A VIRUSKILLER™ for every space

With installations in dental surgeries, medical practices, hospitals, nursing homes, pharmacies, schools, hotels, and restaurants, Radic8 – together with its trusted global network of distributors – is solving the problems associated with poor indoor air quality one space at a time.





