



The
Defend 400
Advanced Air Cleaning Solution



Reduce Exposure to Airborne Pathogens

The Defend 400 (NV400) is an FDA cleared medical device that inactivates aerosolized viruses, bacteria, and fungi, and purifies the air of particulate matter (PM), volatile organic compounds (VOCs), gases and odours.

The device is designed for airborne infection control in medium to small sized rooms where risk of exposure to airborne pathogens is elevated.

The Defend 400 device combines NanoStrike™ technology with a triple-stage filtration system from Camfil® to deliver healthy indoor air.

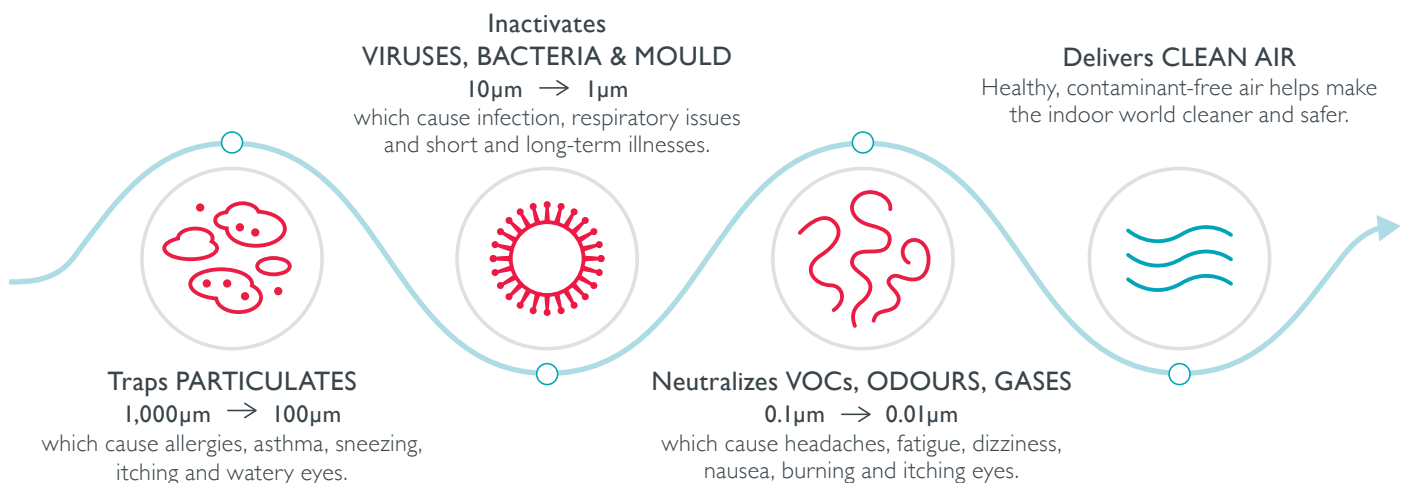


Protected by

NanoStrike™

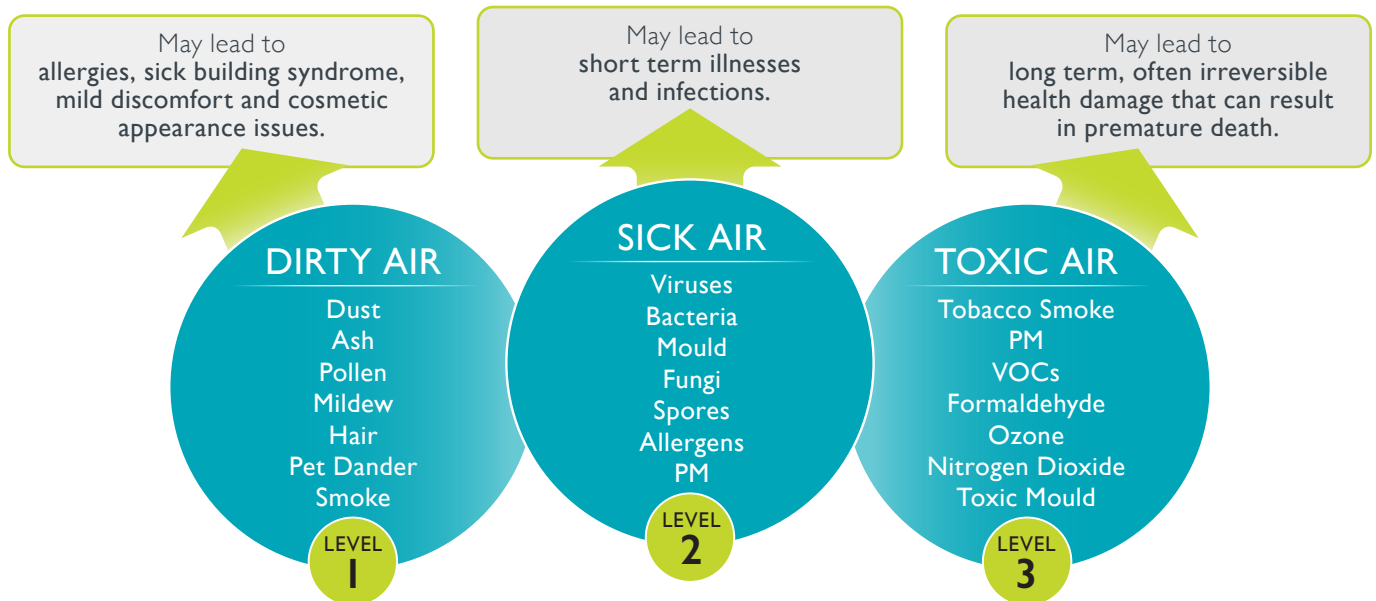


FDA Cleared
Class II Medical Device

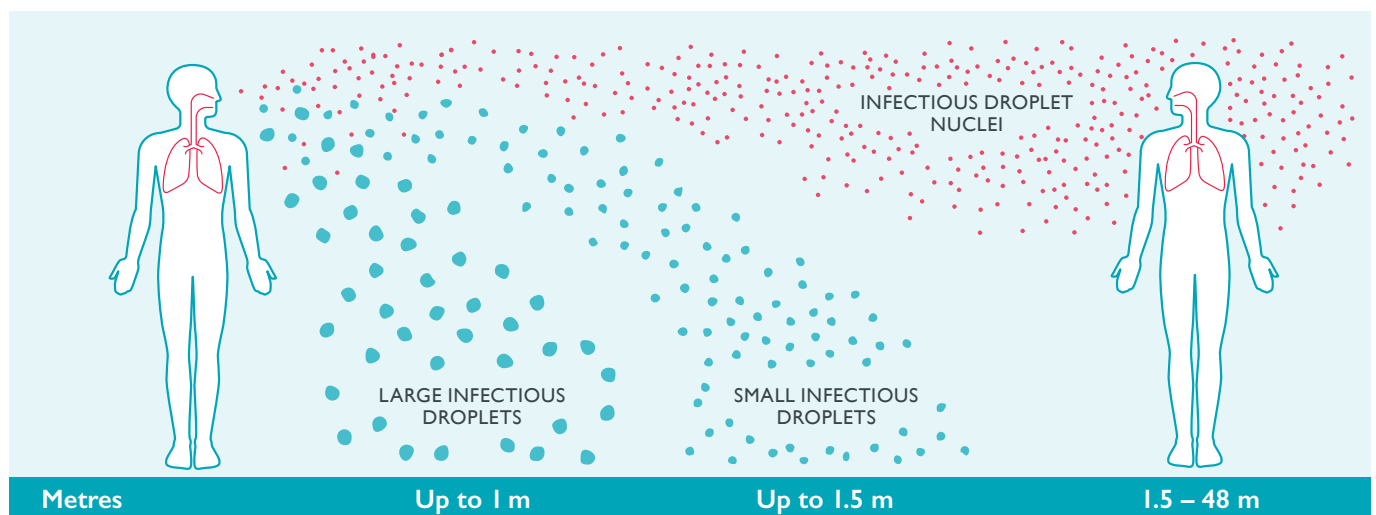


Threats associated with dirty, sick and toxic air

Indoor air can be up to 5 times more polluted than outside air – teeming with viruses, bacteria, fungal spores, volatile organic compounds, particulate and allergens. Exposure to these pollutants can lead to many virus-based illnesses, bacterial infections, asthma, allergies and a host of long-term health issues.



Infectious aerosols can be extremely small (<5 µm) and remain suspended and viable in the air stream over long periods of time, resulting in a high risk of airborne infection. Larger infectious particles may drop from the air to contaminate surfaces and hands.



Infectious pathogens like SARS-CoV-2¹, Influenza², TB³, and MRSA⁴ are scientifically proven to be transmitted via indoor air currents.

1. CDC (2021). Scientific Brief: SARS-CoV-2 Transmission. Available at https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/sars-cov-2-transmission.html#anchor_1619805184733
2. Bischoff, W., Swett, K., Leng, I. and Peters, T. (2013). Exposure to Influenza Virus Aerosols During Routine Patient Care. *The Journal of Infectious Diseases*, 207(7), pp.1037-1046.
3. CDC (2016). How TB Spreads. Available at www.cdc.gov/tb/topic/basics/howtbspreads.htm
4. Shiomori, T., Miyamoto, H. and Makishima, K. (2001). Significance of Airborne Transmission of Methicillin-Resistant Staphylococcus aureus in an Otolaryngology–Head and Neck Surgery Unit. *Archives of Otolaryngology–Head & Neck Surgery*, 127(6), p.644.

Defend 400

Best in Class Air Disinfection and Purification Device



NANOSTRIKE
TECHNOLOGY

NanoStrike™ Technology rapidly inactivates airborne contaminants to ensure they are no longer a threat of infection.



TRIPLE STAGE
FILTER

Medical-grade filters from Camfil® capture bacterial debris, fine and large particles, VOCs, gases, odours, and impurities.



ANTIMICROBIAL
FINISHES

Antimicrobial paintwork offers 24/7 protection for the surface of the device, reducing the need for regular cleaning.



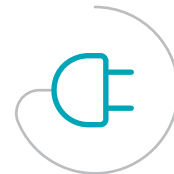
FDA CLEARED
CLASS II MEDICAL DEVICE

Intended as a room recirculating air cleaner for filtering out and inactivating airborne particles from the air for medical purposes.



24/7
CONTINUOUS USE

Suitable for 24/7 continuous use at the point of care.



PLUG AND
PLAY

Requires no installation – just plug in and switch on. Easily transported to point of need.

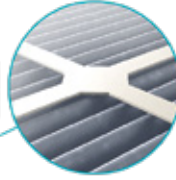
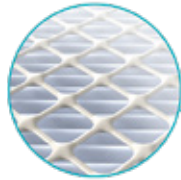


How the Defend 400 Works

Cleans the air via a four stage pathogen inactivation and filtration process

Stage 3

A Camfil® HEPA H13 filter traps bacterial debris and particles as fine as 0.12µm.

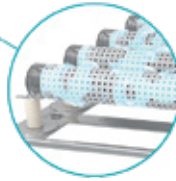


Stage 4

A Camfil® G4 carbon/molecular filter neutralizes VOCs, gases, odours, and impurities.

Stage 2

Four NanoStrike™ coils provide a powerful strike, made up of multiple concurrent inactivation processes, that work to burst airborne pathogen cells, rapidly inactivating them, ensuring they are no longer a threat of infection.



Stage 1

Powerful multi-speed fan pulls indoor air through a Camfil® pre-filter, capturing large particles, protecting the internal NanoStrike™ coils and extending the life of the HEPA filter.



Protected by

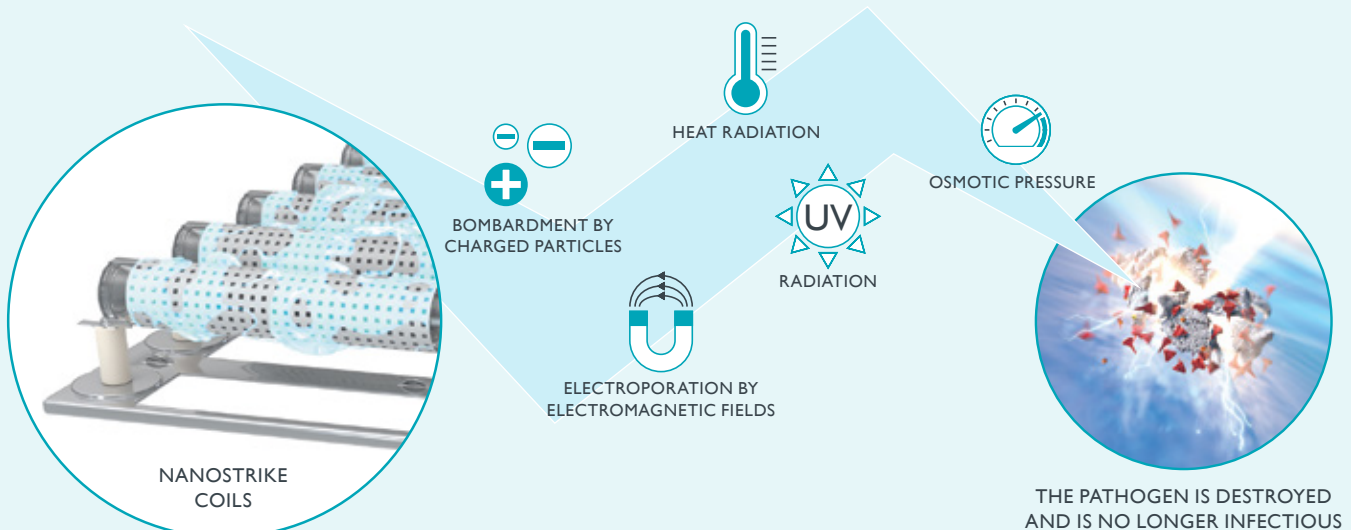
NanoStrike™

The First Line of Protection Against Airborne Viruses and Bacteria

Developed by the WellAir team of scientists and engineers, NanoStrike technology harnesses a range of physical concurrent pathogen inactivation processes to safely clean the air.

NanoStrike coils provide a powerful strike that works to burst airborne pathogen cells, rapidly inactivating them, ensuring they are no longer a threat of infection.

Unlike other technologies, NanoStrike's effectiveness lies within its ability to inactivate nanosized pathogens on contact.



Designed for Healthcare Environments

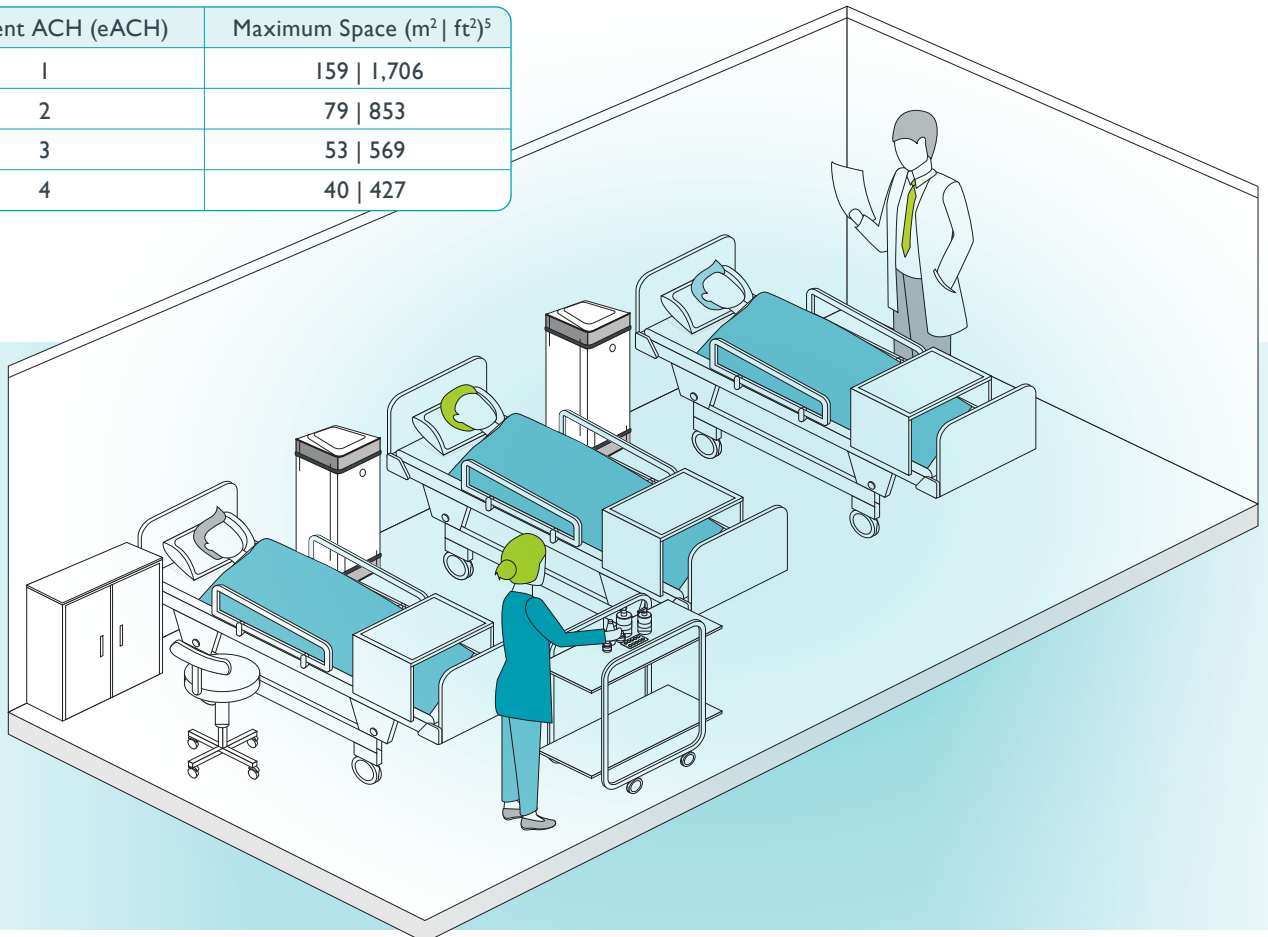
The Defend 400 is targeted for use in medium to small sized rooms where the risk of exposure to pathogens is elevated.

- Minor surgery operating rooms
- Outpatient surgery
- Small to medium ICUs
- General patient wards
- Dental practices
- Doctor practices
- Veterinarians
- Care homes
- Clinics
- Procedure rooms
- Treatment rooms
- Clean rooms
- Laser eye
- Isolation
- Oncology
- Burns
- Neonatal
- Trauma
- Cardiology
- Organ transplant
- Bone marrow
- Orthopedic



Targets rooms up to 159m²




Equivalent ACH (eACH)	Maximum Space (m ² ft ²) ⁵
1	159 1,706
2	79 853
3	53 569
4	40 427



5. The above spaces are calculated from the equivalent CADR of Defend 400 (387 m³/h) on *Staphylococcus epidermidis*.

Independently Tested

In independent laboratory tests the Defend 400 device has been proven effective at inactivating a range of airborne pathogens, including viruses, bacteria and particulate matter.⁶

TYPE	NAME	REDUCTION	TIME	SPACE	MODEL
VIRUSES 	SARS-CoV-2 ¹	99.999%	45 min	16m ³ 565 ft ³	Defend 400
BACTERIA 	MRSA ²	99.99%	45 min	30m ³ 1,059 ft ³	Defend 400
	<i>Bacillus Globigii</i> endospores	99.99%	45 min	16m ³ 565 ft ³	Defend 400
PARTICULATE 	PM 2.5	99.99%	25.9 min	16m ³ 565 ft ³	Defend 400
	PM 1	99.99%	26.0 min	16m ³ 565 ft ³	Defend 400

1. Tested on MS2 Bacteriophage virus, a surrogate for SARS-CoV-2.
 2. Tested on *Staphylococcus epidermidis*, a surrogate for MRSA.

Research & Development

The Defend 400 device was developed in WellAir's onsite state-of-the-art R&D electronics and microbiology laboratories and environmental test chambers. Our team of scientists and microbiologists ensure our solutions deliver maximum destruction of pathogens before being launched into the market.

Regulatory Certifications

- FDA K200321.510(k) Class II Medical Device
- CE
- IEC 60601
- IEC60335



6. Data on file

Making the Indoor World Cleaner and Safer

Novaerus, part of WellAir – a health technology company and a trusted authority in medical-grade solutions for indoor air and surface disinfection. For over a decade, WellAir has been providing solutions that address a global problem, unhealthy indoor air. Indoor air is the culprit for many virus-based illnesses, bacterial infections, asthma, allergies, and a host of long-term health issues.

Led by a dedicated and highly skilled team of scientists and engineers, we took a fundamentally different approach to air disinfection, which led to the transformational discovery of NanoStrike™ — the unique, patented technology at the core of all WellAir portable air cleaning devices. This nanotechnology inactivates all airborne microorganisms on contact providing the first line of protection against viruses and bacteria.

Our expanding platform of medical-grade solutions includes FDA-cleared products that help protect indoor environments in more than 60 countries. Utilizing NanoStrike technology, WellAir devices help prevent the spread of infection in thousands of hospitals, medical and long-term care facilities, IVF clinics, dental practices, schools, and commercial spaces.

